

PBOT

PORTLAND BUREAU OF TRANSPORTATION

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Centers and Corridors Parking Project Stakeholder Advisory Committee

Thursday, October 29th 2015 | 6:00 - 8:00 p.m.

Multnomah County Building | 501 SE Hawthorne Blvd | Third Floor, Room 315

Meeting Goals

1. Review Draft Parking Management Toolkit

Agenda

Schedule	Topic	Presenter
6:00	Welcome & introductions Approval of past meeting notes Other housekeeping items	Jeanne Lawson, JLA Public Involvement
6:05	Project Updates	Grant Morehead, PBOT
6:15	Review Draft Parking Management Toolkit and Discussion	Consultant team, all
7:45	Public Comment	
7:55	Next steps	
8:00	Adjourn	

Upcoming meetings

SAC #10: Date TBD, Multnomah County office building



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Centers and Corridors Parking Project

Stakeholder Advisory Committee

Meeting #8 – Notes

September 24, 2015
6:00 – 8:00 P.M.

SAC members in attendance: Josh Capps, Alex Cooley, Allen Field, Gail Hoffnagle, James Kautz, Kay Newell, Tony Jordan, Gary Davenport, William Gregg, Sue Pearce, Kirk Paulsen, Mike Westling, Sean Green, Steve Russell, Tamara Deridder, Chris Smith, Rod Merrick, Ian Stude (BAC Alternate), Don Wood

SAC members not in attendance: Carol Gossett, Carson Gorecki, Rebecca Kennedy, James Kautz, Ted Labbe, Rick Michaelson, Mary McCurdy, Pablo Bravo, Oreatha Johnson, Gerik Kransky

Staff in attendance: Mauricio Leclerc, Grant Morehead, Kathryn Doherty-Chapman, Judith Gray, Matt-Ferris Smith, Jay Rogers, Francesca Patricolo (Bureau of Transportation), Eric Engstrom, Marty Stockton (Bureau of Planning & Sustainability), Lidwien Rahman (ODOT), Jeanne Lawson- Facilitator (Consultant team)

Meeting was brought to order at 6:05pm

1. **Welcome and introductions**
 2. **Meeting notes**
-

Meeting notes from meeting #6 were passed out, reviewed and approved.

Action: Meeting notes were approved as is.

Question: What happens after this committee process-wise?

Staff Response: This committee's recommendation will inform the City's Staff's recommendation to City Council.

Grant updated the committee on the other parking projects. The mixed use zoning changes draft will be released next week, and the first Comp Plan hearing will be at City Council on Nov. 19th. On October 8th staff will be doing a Council work session on parking.

Comment: I have heard that showing up to City Council is worth it to make comments to make change.

Question: Can we include a minority report in this since I suspect we will not have consensus in this group?

Staff Response: Yes, minority reports are not uncommon for projects like this.

Question: The biggest branch, the residential permit only and that's a big issue for us here, is that something that Council can remove from the proposal?

Staff Response: City Council can make any changes to the proposal that they deem appropriate. We will find out at the October 8th Council work session whether there is opposition to the proposal.

Jeanne Lawson (JL): to recap, does PBOT commit to taking forward this committee's ideas, concerns, etc. to City Council, when they bring these recommendations?

Staff Response: Yes.

Comment: The 2035 comp plan has not included parking and I think it's too early for us to come to a decision. I am very frustrated with the decoupling of parking from the rest of the comp. plan.

Transportation Demand Management (TDM) requirement presentation

A presentation for proposed requirements for new developments was given by Scott Cohen from the Active Transportation division at PBOT. TDM includes incentives for Non-SOV travel like discounted transit passes, and education programs such as the Smart Trips program at PBOT with workshops, passing out bike maps, etc.

Other cities that have TDM requirements for new developments so this is not a new strategy. He shared data on Smart Trips programs impact on drive alone trips by each year, the data shows this program is effective on helping people try and use other travel modes.

Why TDM?

- Reduce parking demand and auto ownership
- Reduce congestion

TDM Proposal

Under the proposed Mixed Use Zoning code, new buildings of 21 or more residential units will be required to have a building-wide TDM plan that stays with the deed of the building. The city would work with the developer to create plan and ensure compliance. There could be a private operator or the building manager could provide transportation information like transit passes, conduct annual surveys, and provide other services to meet the mode split target.

Question: Has there been any discussion on requiring this for nonresidential buildings, like commercial buildings, maybe tied to the size of the building, to include this proposal?

Staff Response: Yes we have discussed other uses like offices, etc. but if that occurs it will be in a later phase. The first step is to address TDM in commercial mixed use zones.

Question: Will the number of units have the same loophole that the number of units is dependent on the number of kitchens, so micro apartments can get out of having to build parking?

Staff Response: We will look into that issue.

Comment: People do drive, people need cars sometimes, and I would like to see a loading zone for tenants to drop off groceries, to move etc. or to have requirements for car share spaces. That would allow for people to live car-free. Even bike riders sometimes need to drive.

Comment: It seems that this should be called Mixed Use buildings, not zones, what about residential multifamily buildings going in on residential neighborhoods? Would they be subjected to these requirements?

Staff Response: No. This would only apply to the proposed Commercial Mixed Use Zones (identified in the Discussion Draft as CM1, CM2, CM3, and CE). It would not apply in other zones where apartment buildings are allowed (such as multi-family R zones and EX). PBOT may consider expanding the scope of

the program in the future, once the institutional capacity to administer and enforce it has been established.

Question: How will this be enforced and who will enforce this?

Staff Response: The city would be enforcing these but we are grappling with the enforcement question ourselves now. The plans will include a performance target for the 20 year future, so the surveys will be done not on the people but on the TDM plans to make sure they are meeting their targets. The elements of the TDM plans will include parking demand management, financial incentives, transportation information, a site transportation coordinator to execute the plans, marketing to car-light/car-free people to live there, and enforcement.

We have a lot more outreach and plan refinement to do in the next few months.

Discussion questions:

1. Who will be the service delivery provider for these plans?
2. What's the right size of development?
3. Should TDM be based on the amount of parking spaces provided?
4. Who should provide TDM services?

Comment: 21 seems appropriate, re: the developer role, one of them is to pay the developer fee, one of the goals is to reduce the cost of housing, I worry that this fee will be passed on to the tenant and seems it may be in conflict with the goals of the program, I don't imagine it will be very costly, but I want to make sure you are considering that.

Staff response: Yes we are looking at that issue, however the cost to build parking is so much more than these running these programs.

Comment: Unbundling parking with the cost of rent, it's so easy to get out of this as a developer if we want to. We could charge whatever we want, I think if you want to unbundle the parking issue, I think that's hard to enforce.

Comment: I am not comfortable with the amount of research done on the size of building, I think we are allowing a loop hole for smaller buildings, and I think there needs to be more research on this issue. A performance target should also be the impact on neighborhood parking, because that is a big concern.

Comment: Unbundling parking is critically important because we should hold people accountable for their choices and enjoy the benefits of their choices. I think we should make a plan to get the developers to unbundle the parking. Re: who delivers service, we have several local examples of success like Lloyd TMA, that's a strong model to build on.

Comment: This was linked to the amount of parking spaces the developer builds, linked to the TDM, what's the thought about this.

Staff response: Yes, that's something to look at.

Comment: TDM requirements should be tied to parking. If they want to build less parking, could the mode share goals be tied to mode share deficiency SDCs? I don't want to be punitive but maybe there's not the infrastructure there yet to meet those mode split goals, so if we seriously want to meet the goals, we create a fund through this to build better infrastructure.

Comment: This is fantastic, this coupling TDM with developments is a great idea. Look at a cost structure, affordable housing should not be exempt but have different TDM requirements. I want to second what Tony and Chris said, if there is a building that builds 50 units that meets the mode goals, that's great, don't make them build parking. History lesson, I remember a development in the Pearl who provided bikes, which ended up flooding the market because people didn't want those bikes sold them.

Comment: If the goal is to reduce drive alone trips, this is great but this doesn't address parking. This does nothing to address the parking issue hitting neighborhoods. Micro apartments are a big issue and will become a bigger issue. R5 lots can have micro apartments and those are void of any parking requirements; this code has to change.

Staff response: Part of the plan is to reduce auto ownership so that would help reduce parking demand.

Question: How did you get to the 21 units? Is that what's being built now? Especially mixed use.

Staff response: Last year there were 29 buildings with 21 or more units.

Comment: Somebody pays for everything. For each of these programs, look at who benefits and who pays. Needs to be fair, that analysis needs to be done to see the true value.

Staff response: Re: the 21 units, we don't want to put everything on the 30 unit threshold, so it could be smaller, but we also don't know if we have the capacity to handle a lot of new buildings with TDM plans.

Revised Residential Parking Permit Program Proposal Discussion

Grant provided a recap from last meeting's proposal for permits- zoning, cap, pricing, etc.

Themes we heard

- Businesses/visitor permits, how are those handled?
- How do we administer this program?
- Equity concerns

Current permit zones have a customized plan for that district, so as we move forward, new permit districts would have the same process. There would be a committee and a plan for that area made specifically to meet their unique needs and can include custom provisions. For example, in Goose Hollow, 30 permits are sold via a lottery to Lincoln High School. In Lair Hill, the number of permits someone is eligible for is reduced by the number of off-street parking spaces available on the property (residential and commercial).

Changes to permit proposal

1. We reduced the size to 12 continuous block face minimum. It will be easier to implement and easier to get passed. There would still be a voting process, then a neighborhood committee would be formed to work with city to make permit plan.
2. Equity: equity means different things to different people. We like to use the Portland Plan definition of equity. We recognize that people will continue to drive, when we think about equity for this we are primarily concerned with equity impacts to low income households.
 - a. Proposal: for each permit area, there would have to be an equity impact analysis to identify any populations, such a low income or senior housing, that may suffer a disproportionate burden as a result of the permit program. Permits would be extended

to those residents with the first priority. There would also be a low income discount to anyone who could demonstrate a defined financial hardship. Enforcement hours, the zoning basis split, and the way caps will be implemented will be decided by each neighborhood permit planning committee.

Question: Re: equity issues, assessing low income populations nearby, how close is nearby? With a minimum of 12 block faces, how far do we assess and what's the income thresholds? How would show that you are low income?

Staff Response: Certainly within the area and maybe 500 feet outside. You could use variety of metrics, we have not determined them yet, that's something we will have to figure out in the future.

Question: Could blocks be added to a district?

Staff Response: Yes, but they would have to be contiguous. Expanding an area is subject to the same voting procedure as establishing a new district.

Question: above cost recovery, how much above that are you thinking?

Staff Response: We are not sure, it's more a policy question to the committee. Is this policy something that the committee wants the city to be able to do?

Comment: I want to return to this issue of equity, I am hung up on the use of zoning as the basis. I am also hung up on protecting the incumbents. I think it's valid to protect those existing residents now, but not in perpetuity. I want to figure out how to address equity with provisions that change over time.

Comment/question: Rose city Park NA feedback is that we don't have enough information to support this at this time. Some questions I have, the idea of a hunting permit, if you have high density apartments in the residential zone, and they would be allowed to have permits, then they can spill out and park in the residential areas. There should be a cap on the number of permits for high density apartments in R zones; they only get so many permits. Overnight start of enforcement, the time needs to be 10pm or later, employees or visitors will need to be able to park there. We don't want to discourage business visitors. Re: the 12 block faces voting in, is that 60% of the owners or the land mass? Are the block faces contiguous or a strip?

Staff response: The TDM proposal that Scott presented is so far only allowed in mixed use commercial zones. We could consider allowing this in residential areas in a later phase.

Comment: Charging more for people with access to off-street parking is an issue. There are a lot of people that have driveways that can't be used, and will there be a way to appeal this?

Staff response: Yes. In Lair Hill, for example, the availability of off-street parking is jointly determined by PBOT and the Area Parking Committee.

Question: Will these permits be transferrable?

Staff response: No.

Comment: What about the cap on number of permits per HH? That discourages large families and shared housing.

Staff response: That's something that the district supplemental plan can decide by the committee.

Comment: Re: Funds, I think it's important to keep the funds from the permit zones in the zone.

Question: What about meters?

Staff response: It takes a long time for the city to get meters installed. If neighborhood came to us and asked for them, we would be happy to look into if they are appropriate and how to install them with the neighborhood.

Question: Consider if we are creating a situation where parking on corridors becomes more valuable, that we don't make it harder to make changes to the street for other uses, i.e. bike lanes, etc.

Staff response: We have to drive down parking demand for the long term. The status quo is leading to a vastly oversubscribed on-street parking system.

Comment: If we are excluding the commercial zones, adding additional revenue above cost recovery is really important. I have a question about the make up on the parking permit committees, would be made up of residents in the mixed use buildings?

Staff response: We could modify the proposal to include more required representation on each committee.

Comment: I think there needs to be a provision to adequately represent all residents, esp. low income households, and what about a joint district like between Hawthorne and Belmont?

Staff response: We would need both neighborhoods to agree.

Comment: Who is on this committee?

Staff response: The formal name is the Area Parking Committee. The current code says that there must be representatives from both the Neighborhood Association and Business Association.

Question: Can employees get permits, so it's really who the neighborhood wants to help out?

Staff response: Yes, or whatever the neighborhood needs are.

Comment: Are permits assigned to people or cars?

Staff response: They are assigned to cars, not people.

Comment: How can someone sell their permit?

Staff response: You can't.

Comment: Setting up the zones, is there a provision to join even if they aren't invited?

Staff response: You are not restricted from asking to join a permit district but it is based on zoning.

Comment: Concerned on the total cap on permits, what that creates on a tension. Enforcement is an equity issue, it is often the greatest burden for low income people.

Comment: I think these are great adjustments from the last meeting, this is a good direction. I am totally fine with charging over cost recovery, I share concerns about using zoning as the basis. I see an issue with a building abutting a mixed use zoning, I would prefer to see all the people able to buy a permit.

Comment: I worry about the cap on permits, we have so many renters, on how many permits per household. I worry about the renters.

Comment: I think it's critical that we look at commercial and residential at the same time. This toolbox that we are creating, the toolbox should address all of these questions that we have been asking. Please email out the toolbox that shows how it addresses everyone's issues and question, show the cause and effect. Send it out to us, so we can take it out our neighborhood.

Comment: I think this is great, I worry about setting the base price above cost recovery, and I worry that neighborhoods won't know where the money will go to. People need to know where the money goes.

Public Comment

Comment: I think this is a good proposal, I like the differentiation between the zones. I live off Stark Street and I have a concern with these new apartment buildings and soon there won't be room for families anymore that maybe need a car. As far as low income housing, St Francis Park has been torn down to build 105 units with no parking.

Comment: I like the TDM discussion but I don't see them addressing the storage of cars in the neighborhoods. This is an issue, also an equity issue. I am not convinced that a building providing no parking is more affordable than one with parking. I think that's a myth. These new developments are building apartments with no parking, and the rent is sky high. Not everyone can ride a bike or feels safe to wait for the bus. We need to allow for all kinds of people. I support the TDM proposal.

Comment: What about ADUs ? What about air bnb? What about overnight guests? What about people that have two cars. Who is going to pay the TDM bill? There is a lot of money towards bicycle infrastructure in the TSP, who is going pay for this? It's an equity issue.

Comment: The proposal I am worried about is the emphasis on equity, it depends on where you are when you think of equity. Developers put cars in the neighborhood, the developers never need to play the equity game and I think we need to be careful to connect poverty and parking. I think we should be much better dealing with poverty outside of parking. I think that's a bad policy. I think TDM is a good idea, Tacoma did something innovative, and they disconnected some of their programs from government. I think Portland has a developer/city relationship problem. I think the TDM should be run by a non-profit so every year we scores the buildings on how the TDM plan is performing. So that way bicycle people can choose where to live based on the performance, so it's not hidden.

Comment: I am representing a business association and I have not heard from a business perspective tonight. Parking is important for businesses and customers. Even as infrastructure improves people will still drive. The block face size, if it requires business to be involved in developing these permit plans, that's critical. There should be some employee permits, time limits need enough time limits to visit businesses, 2 hour limit is not going to cut it and will hurt businesses. 4 hour time should be considered.

Comment: I heard that 2 months ago there was a Supreme Court order requiring that cost recovery be used in pricing permits.

Staff response: No, that's a California state law, not a federal law.

Comment: Uncoupling parking with rent, that doesn't work because people just pay for a parking permit instead of paying for the on-street parking.

Action:

Temperature check on new permit proposal

1. Zoning

Vote: 6 Yesses, 8 Yesses with concerns, 1 no.

2. Enforcement

Vote: All Yesses.

3. Permit cap

Vote: 17 Yesses, 2 yesses with concerns.

4. Charging above cost recovery

Vote: 7 Yesses, 7 Yesses with concerns, 1 no.

5. Equity scan requirement

Vote: All yesses

6. Block face minimum

Vote: 15 yesses, 1 yes with concern

Grant: Number 1 and number 4 are the topics we need to refine further. We will bring this input to City Council in October and refine the proposal based on what we hear. Thank you.

Meeting Adjourned at 8:10pm

**Parking Policy Update Public Comments via Pdxparking email
Centers & Corridors Bundle # 1
Comments between June 2015- October 20, 2015**

The public has been given an email address to submit comments, ideas, and to express concerns and ask questions to the City regarding the parking policy updates. This document is a record of those email comments with their contact information, including email address, removed. A summary of the main themes is below.

Summary

While the ideas of parking solutions vary from requiring developers to build off-street parking to pricing on-street parking based on fair market value, the main take away is that Portlanders understand that parking is a key player in managing the whole transportation system, and that getting the parking policies right today is important for how we grow in the future.

Residential Parking Permit Program

Most people are in favor of a new residential parking permit program. They see this as a good step in encouraging developers to either market their units to car-free people, or to build some parking if they need it because the adjacent streets won't be a free for all. Some people are concerned that currently many residents use garages and driveways for storage and not for parking their cars. Maybe the permit program is a way to encourage them to use their existing off-street parking facilities more efficiently.

Concerns

- Equity
 - There are worries that this permit program could be used to exclude people including renters and workers, etc. based on the zoning. Some people want a provision to sell some permits to renters in mixed used zones and workers in the area.
 - Progressive pricing scheme-Some are worried that the price would be too high for low income people. Others worry the price may be too low for the program to work as intended.
- District size
 - Some worry about the size of the district being too big or too small to be effective.

Ideas

- People like the idea of adding on to the permit or for a portion of the permit revenue to be spent in the neighborhood on improvements such as safer crosswalks, enhanced enforcement, or for transportation demand management programs.

Transportation Demand Management Programs

People are generally in favor of implementing programs to help residents of new apartment buildings learn about and try transportation options. They are in favor of requiring developers to help subsidize transit passes and other mobility options for new residents.

People also would like the new developments to advertise to car-free tenants and make agreements with the city to offer on-site car sharing parking spaces. Generally, people really like the ideas of increasing

car-sharing services and pricing parking as at least the same price or more as other options such as transit.

Parking Minimums/Maximums for Development

Many people are concerned that we allow developments to go in without parking. Some want us to reverse that decision and require all developments to include some off-street parking. Others would prefer stricter and tighter parking maximums on new development. While people are divided on how to solve the issue, people generally agree that something must be done to change current conditions.

Performance Based Parking Management

Several people specifically mentioned wanting the city to adopt performance based parking management using performance targets and variable priced meters (different prices for different districts or times of day based on demand). Many people like the idea of installing meters on busy neighborhood commercial streets to encourage turnover of visitors. They recognize that installing meters may not be politically feasible.

Other Ideas or Concerns

- Price the public good (on-street parking) appropriately to incentivize other modes.
- Truck Loading/unloading for business districts is important to get right, possibly offer reservation permits in neighborhood districts for a fee, and have a centralized loading zone for neighborhood districts.
- Plan for better motorcycle parking.
- Some people will continue to need to drive, so while we want to encourage other modes, don't forget about those who can't bicycle, walk, or take transit.
- Political will- we need it, worry we don't have it to get this right.

Comments

Note: These public comments are unedited and pasted as they were sent to pdxparking@portlandoregon.gov.

1. Mon 6/29/2015 9:46 PM

From: Patrick Vinograd

To: PDX Parking

Re: Don't listen to the cranks

I was unable to attend today's parking symposium due to work commitments, but I want to urge the city to aggressively adopt the kind of parking management strategies described by Mr. Tumlin. Attaching a direct market-based cost to parking across a wide swath of Portland would cure many of the city's ills - reducing congestion (and corresponding air pollution), incentivizing bicycle and transit use, and creating a more compact and livable urban form.

I live in inner SE near Division and would welcome a parking benefit district as described in Shoup's *The High Cost of Free Parking*. I think the only error the city has made in places where it is charging for parking is that the cost is too low. This public real estate is valuable and should be priced accordingly. I think the annual cost for residential permit districts should also be re-evaluated and increased.

Getting a handle on parking could be a transformation for Portland on the same order as the choice to build light rail instead of the Mt. Hood Freeway. Sadly, I don't think the parking choice will come from the bottom up since too many neighborhood associations are dominated by car-dependent residents. Instead I think an elected official needs to flex their political will to lead the city to the transportation choices that we need to make.

Thank you,
Patrick Vinograd

2. 8/8/2015 1:37 PM

From: Colorafi, Mary

To: PDXparking@portlandoregon.gov

RE: Parking strategy comments

Hello. I missed the survey monkey but offer an important item to consider in any parking strategy.

I was informed by City of Portland Parking Violations that it is not illegal for cars to park on graveled walkways adjacent to roads when I called in multiple cars parked on the walkways between homes and these streets. It necessitates walking in the streets or squeezing around cars and fences, twisting around at best. I don't see why the homeowners should get free parking spaces to park their trucks, SUVs, and other vehicles likely because their garages and driveways are filled with the owner's possessions while pedestrians are forced to walk around them in the streets, sometimes with oncoming traffic. It's bad enough that no sidewalks have been installed but now I find that I and my walking neighbors can't even have the space to walk on the gravel. Shameful. It is bad in the summer when these homeowners likely have visitors with the vehicles too but certainly not good when having to walk in the mud produced by the tire tracks wearing down the gravel and dirt.

You guessed it, I've witnessed this on SE Ellis Street between SE 92nd Avenue and SE Foster/83rd, but I'm sure it is occurring in other parts of the city as well. At a minimum these parkers need at least to be ticketed. Please take this seriously. Thank you.

Rose Mary Colorafi

3. Wed 7/15/2015 4:32 PM

Kay Newell

Re: The magic wand that could create better community parking

This is long, but it has been 20 years in planning

Kay Newell

Sunlan Lighting, Inc

Kay L Newell

The Magic Wand Parking Plan

If I could wave a wand and create a parking plan for Mississippi Avenue, this would be the plan. I have tried for years to get ahead of the parking problems that I believed would impact this community. There are fewer issues and complaints if people feel their needs are met. The best plans involve all forms of traffic, all commuters, those who live in the community and visitors.

Let me introduce myself. I own Sunlan Lighting in the center of the Mississippi Business District. Some of my employees bike or ride the bus, and I walk to work with the help of my walker. I own a home with a garage across the street from my business. Any where I go, I must drive. When I wander down Mississippi I use my electric scooter, but there are many places I cannot visit because of barriers. I have mobility issues.

I own rentals, and when I rented to my current tenants, they did not own cars. One developed a business that requires an auto to conduct his business. He parks on the street. One of my renters walked to work, and his wife drove her car to Camas for her job. They parked on the street. My son owns a house with a parking slab that he uses. He walks or bikes to work. I have a company truck that we need to conduct our business parked on our company parking pad.

I am one person but all forms of transportation affect me. I need big trucks to deliver my goods. Very few of my neighbors buy enough of my light bulbs to keep me in business. I depend on the contractors, building engineers, businesses, and customers from everywhere to keep my doors open. The customers need a place to park. Very few arrive by bus because of the long time required to get to Mississippi Avenue. People on time cards need to park close, as a 15 minute walk to buy needed parts can be very costly.

In short, my parking plan is that every mode of transportation be given equal weight. Trucks, cars, bikes, and pedestrians all need to be included in any plan for parking. Home owners, renters, and businesses are all important. For our twenty minute community to be successful, we need to respects the needs of all members of our community equally.

To create and implement my plan some city codes would need to be rewritten

THE PLAN

Trucks: Businesses depend on the delivery of goods. Trucks will either park in the street to deliver, which is never a good option, or in protected loading zones. I would require loading zones to be located only on side streets. With strict enforcement, and the following modifications, truck loading zones would work very well. The current 15 minute requirement for loading and unloading works, but problems can arise, especially when a delivery truck needs to make deliveries to several businesses. They require a much longer time to serve business needs. Some trucks will park in my loading zone for an hour while the driver delivers food to restaurants and stores up and down Mississippi Ave. The man moves as fast as he can, but he has a lot of deliveries.

The first modification would be to give companies the ability to buy a tag to display on the front and back of the truck, giving that truck the right to use a loading zone for longer periods. Misuse of the tags for personal use would result in a year's suspension of the tags. It would be cheaper for the truckers than the current fines, and allow time to make deliveries.

The next modification would be a 15 minute customer loading parking space next to the loading zone for customers. This zone would also be available for extra long trucks without danger of a violation.

The last modification would allow businesses to reserve loading zones for evening use. Many venues have trucks that bring equipment to use for one evening. Using a loading zone to park the trucks for the evening would free up customer parking and allow venues to reserve the space from 6 PM to 12 AM for an evening to load and unload equipment. Usage could be identified by a placard placed in the visitor's window. A reserve cover for that business would be placed over the loading zone sign the day of the reservation. The card would be for the business use only during evening hours, and cost a reasonable fee.

Enforcement is the key to make it work. Currently, Parking Enforcement checks parking, then comes back to recheck before ticketing. This process could be expedited. If a person sees a vehicle parked illegally, they could take a picture of the car or truck, the building or space it is located, and email the information to Parking Enforcement. The time-stamped pictures can then be used to write the ticket, reducing the time taken to identify illegally parked vehicles to one trip.

The loading zones should be placed in the center of a business district, then on alternating side streets, depending on the needs of the neighborhood. Where there are fewer deliveries, one loading zone would work.

Bikes:

Bike staples in front of stores are great ways store up to 2 bikes where people shop. Placed correctly, bike corrals can become not only an attractive way to park a bike, but a wonderful way to help pedestrians cross the roadway, and help drivers see traffic. Corrals should be placed on side streets at curb, on the side of the street cars turn into, as close to the side walk crossing as can be built. This placement opens up the view of traffic to everyone. At the end of the corral, put one or two spaces for

motorcycles. The space could also be used for bike trailers. Bike parking creates a safe place to park, and the corrals help keep the bikes off the sidewalks.

Bike should be allowed on sidewalks ONLY when the bike is walked in ALL business districts. The only exceptions are children who go slowly, at walking speed.

A bike Corral at each block on a side street would provide access to stores, improve safety, and make a statement about using the bike as an important form of transportation.

Buses:

Public busses and Max Lines are well placed in most communities. More cross busses, maybe smaller busses would help people travel between centers more efficiently.

Cars in the business districts:

I prefer timed parking for my business. I personally avoid going to shop where I need to feed a meter. The time it takes to get a ticket and return to my car, takes up a hunk of the paid time. Then I need to shop quickly. In a hour or two hour zone, I do not have time to buy what I need and drop by the cute shop I just saw. My dream parking would allow for shopping. Each block would have customer parking in front of the stores, and wrap commercial parking around the side street at least half a block or more. The side streets would also have bike parking and truck loading. For placement, see truck and bike parking. I would put 15 minute parking and handicap parking on all side streets at all intersections where bike parking was not created. I would have NO sidewalk bump out on two lane streets. I would treat each block as a unit with the sidewalk on each side of the street making up the block. I would group parking in 1, 2 or 3 hours for each block according to the kinds of businesses on each block. Each block of businesses could modify the arrangements. On the main street, some businesses have faster in and out traffic. If more 15 minute zones are needed they could be located at the ends of the blocks, close to the crosswalk. With good parking turnover, customers will not be parking as deep in the neighborhood.

I feel that there should not be any parking stalls in the street used for mini parks if there are other public areas offered by businesses. Business should not be able to use public right-of-way for personal gain. When a restaurant used a 40 X 10 foot space [400Sq feet} and other businesses pay rent at from \$20 to \$25 dollars a square foot, it is not fair to the community in general. The city should not provide unfair advantage to anyone business. It may feel 'cool and hip' but it removes valuable parking from the community, increases parking problems, increases traffic circling, and it pushes the displaced cars into the neighboring streets. The Interstate Urban Renewal Steering Committee told us in 2000 that each parking space was worth \$10,000 to the business community. When the parking space is used to accommodate customer turnover, businesses thrive. When customers cannot find reasonable parking, they do not return. A business district has businesses that serve locals and other businesses. It brings in customers from all over. Parking needs to be provided for both kinds of customers. Bike parking and timed vehicular parking serve the needs.

Many businesses feel that metered parking drives customers to other areas. Feeding the meters add to the cost of product. Timed parking, whether metered or non-metered, needs to be enforced. Enforcement of parking regulations in the business districts is the only way to make any plan work. Allowing reporting parking violations with time-stamped pictures would help with enforcement.

Cars in residential areas:

People want to park in front of their homes. Some people NEED to park close to their home. They have mobility issues, and walking two blocks is physically impossible. How do mothers with babies and small children keep them safe while unloading groceries? My plan would allow these needs to be met, and still require open permit parking. It would also help with the problem of claiming the space in front of a house as owned by right.

As part of the business timed parking program, I would have parking by permit only up to two or three blocks on either side of a business district. Each block would have 24 hour permit parking for people who live and work in the area. During the business hours of 8 AM to 11 PM, any unpermitted car or truck would be able to park from 2 to 4 hours, allowing business customers to use the spaces left open by local residents that work or shop in other areas. If there are no evening businesses, the hours of open parking would be restricted.

Cars would be required to be moved every 24 hours on weekdays. With only business customers allowed to park during the day along the business streets, fewer business customers would need parking in the neighborhood. With the requirement to move residential vehicles every day during the week, people who mostly store cars on the street would be encouraged to use auto-sharing and other forms of transportation. A "fill in the date" vacation sticker/card would be provided for permit holders as part of their yearly permit. This card would allow for two weeks of vacation or visitor overnight parking. A second vacation permit could be purchased if needed. Use of an undated sticker/card would result in a fine.

To help residents have better access to load and unload their autos, these parking changes need to be made. Parking should be on alternating sides of the street, unless the street is one way. One parking stall per block shall be placed next to the cross walk and marked as a 30 minutes Permit Loading Zone Only. Each block MAY have one handicap parking and one shared car parking stall if requested by the block residents.

To increase parking stalls, any street wide enough will allow nose in parking on one side of the street and standard parallel parking on the other side. For safety in pulling out of the stalls, these streets should become one way streets. Here are few streets this wide.

Common tow lane streets with current parking on both sides would change to one way streets with nose in parking on one side. The angle of the stall would be at 45 to 50 degrees to allow for easier parking than parallel parking, better view of traffic in the rearview mirror, less street space used for the stall, and more cars parked on the block.

To encourage residents to use alley accessible parking, the city will allow parking pads to be built with a permit cost less than \$100.00, or for free if they do not hold a parking permit. Reduced permit fees for covered parking or garages will be available for households without a parking permit.

Permits

The number of available parking stalls in the residential areas would be counted. To count needed parking permits, we need a formula. I suggest that we count the number of houses, and add a percentage of the number of apartments in buildings without on-site parking. Maybe 10% to 30% of the units to

count for parking stall use per building. Add one parking stall per business. Subtract any on-site residential or business parking. I hope the two sets of numbers are close. Allow shared parking in business lots. This will require code changes.

Each Permit would be for one year, and would allow 24 hour parking in the residential area. It would come with one guest/vacation permit for 14 days of either storage of a car on the street to allow for vacation time, overnight visitors, or any unforeseeable reason, such as mechanical failure. This 2 week permit would be free with the year permit. Additional permits would cost extra.

Each stand alone residential building or joined family housing may apply for one permit, using addresses to ID the permit. Second permits per address needs to cost more.

Restricted business parking permits should be issued for business use. These restricted permits would allow all day parking, up to 9 hours in the residential areas for business employees. There would be one permit per business in the first count to obtain a permit. There would be a lottery drawing for extra permits.

I would allow an open period each year to buy or renew area permits. All addresses would be able to buy one permit. Seconded permit request would be by lottery. Up to 125% of available parking would have permit tickets. Because permits are by address, the permit would remain at the address when a home was sold. New homes or businesses would need to apply for any unused permits or wait for the following year's open enrollment month.

Because of limited street parking, the city needs to change the laws for driveway parking, parking on home lots, and shared parking in lots.

There is a cost to provide parking when housing is built, streets are paved or parking is provided. Taxes paid for our streets and we expect to be able to use the street for free as part of the benefit of our taxes. Going to a permit system will allow street parking cost to be shared by the city and those who use the space. Some code changes will be required. The permits need to be priced to cover the cost of the permit, plus 50% of any additional cost to be applied to neighborhood maintenances, such as repairing pot holes, signage, and other street improvements as might be requested by the current Neighborhood Association. Then, 50 % of the cost over the direct administration cost would go exclusively to broader community transportation repairs.

However, during the first year of a permit program, 100% of the difference between collected fees and the administrating costs would be used for permit signage, and any changes required for identifying roadways at the start the permit program.

Apartment Buildings

People who live in standalone houses complain that apartment dwellers take up the street parking. But, people in apartments often need a car to drive to work. Permits can discourage storing cars for people who use a bike most of the time, or take the bus. Car sharing provides a car for both home owners and renters at a savings.

All apartments building which do not provide any parking should be required to provide a car sharing program and a loading zone for their residents. This stall should be large enough to handle a small U-Haul

truck. Apartments have more turnovers, and people need to be able to move into their units without carrying furniture for a block. Developers and the city bureaus

Like home owners, apartment dwellers need to carry groceries and children into their units. A loading zone would provide for this livability issue. The number of permits for street parking available to each building would be a percentage of the units. Apartments without parking would be expected to market to non auto owners. They also need to be required to provide car sharing or extra bike parking. Every building should include a loading zone to help with moving in and out of the building and loading/unloading purchases.

Senior permit discount

One complaint is the permit cost for older long time low income home owners. Create a senior discount program. To use it, a home owner must live in the house, have a current driver's license, and own a licensed and insured car with no on-site parking, as well as proof of qualifying income.

Summary

Not everyone will be happy with this program. I designed it to address the need the community has to use our public streets for the public good. We need bus stops and bike corrals. We need auto parking and truck loading zones. We need a safe way to cross our streets, and we need a way in and out of our business districts. This plan makes most people unhappy and provides for everyone a safer community.

Parking is a need in Portland. We are not New York with everyone taking the subway. We are a western city where the most of us feel we need a car and many who bike or take a bus also have a car. Good parking is a requirement of a healthy business area. Downtown has parking garages. Small business streets cannot support one. The increase of apartments along these commercial zones has drastically increased shared street parking on close residential streets. These cars, along with the increased volumes of business and customer traffic, create issues and tensions with new and long time residents as well as businesses and visiting customers. The decrease of livability in our neighborhoods take away the feelings of community.

Each parking stall is important. The street should only be used for community transportation for cars, loading zones, bikes, buses, and short term storage of residential or business transportation modes. The cost of a lost parking stall is born by the community at large. The parking stalls should never be used for the personal gain of any company or group. Most developments are required to provide public amenities and allowing a business or group to use public parking space for personal gain is not fair nor is a good use of our public parking stalls.

The report I copied below gives a reason for not including parking for apartments. Someone needs to pay for our common infrastructure. We need to look at the whole, with the needed uses of our street, to create best use practices. Someone needs to pay for parking of autos on or off the street. If the space is not included in the rent, to whom and how is the cost to store/park a car assigned?

A Report about New Development and Parking

Every dollar invested in creating an apartment translates to a higher minimum rent required just to break even. If a developer does not expect a new unit will command this target rent, that potential project will

not be built. If the amount of parking can be reduced or eliminated, the money saved on construction will lower the required rent to break even and make some projects viable that were not viable before. More viable projects translate to more units getting built resulting in greater competition and thus lower local rents if demand holds constant. From <http://www.reinventingparking.org/2015/06/how-much-does-one-parking-spot-add-to.html>

Parking. From Kay Newell at Sunlan [503-281-0453](tel:503-281-0453)

Each Parking space is worth \$10,000 to the local businesses each year. Businesses who serve neighborhood needs benefit from bike traffic and walk-able sidewalks. Businesses who serve the larger community have customers who often drive to the area. Without parking, these businesses do not thrive. Bus service and biking parking serve some customers but like malls, streets with destination businesses need turn over auto parking

Some of the elements I want to include are: Using the main street shopping areas for parking including Bike Corrals, these should be close to cross walks to allow for a greater visual area and safety for pedestrians and the bikers. Each auto space used for bike parking allows for several bikes to be parked.

Where store sell items that attract bikes with trailers, they should be encouraged provide an area for these bikes.

All street parking in commercial zones use either timed parking or metered parking with areas for 15 minutes to 3 hours to increase turn over and to prevent all day parking in areas. Cars parked all day in a commercial area limit turn over parking and sends more traffic into neighborhoods.

Owners and employees of businesses should park 2 to 3 blocks away to allow customers to park close to shop.

Part 2: Traffic Flow to Help the “Magic Wand Parking Plan”

Parking is the end result of driving someplace you want to be. If you find yourself driving around to find an empty space to park, and then are required to walk forever to get there, and then back to your car, you are halfway to becoming mad at someone.

The main street of a business district should have good two-way traffic flow. It should allow through traffic at a speed that allows drivers to see people, bicycles, notice where they are on the street, and still feel that they are moving smoothly. Frustrated drivers are more apt to cause accidents.

People who can park close to their destination buy more. That is good for business. When people perceive there is parking available, they will circle to find a spot. Store front stalls that are used for purposes other than transportation increase frustration, create more driving around to find parking, and increase parking in residential neighborhoods. For a business, those who find parking spaces buy goods. Without available parking, a business loses money. A business that does not make money is going out of business. Using parking space for vehicular use on streets reduces business customers parking in residential areas.

People who live in a neighborhood want to drive home and park in front of their house. They dislike it when business customers repeatedly drive around the block looking for a spot, then park in “their space”.

A common feeling among people who own a house or are renting one is that they also own the sidewalk and street parking in front of their home.

My plan may only increase parking a little, but it will decrease the circling. Many people will dislike the change, even as it makes the flow better for bicycles and cars. The parking plan will also help remove the ownership of a parking space by mixing up the parking arrangements. I will require some changes in city policies and an investment in educating communities of the changes. Much like the changes on Williams bike lanes, the change will make the traffic a safer experience for everyone..

The main street traffic would be two way. The traffic on the parallel streets would be one way. Both bicycles and cars would go one way. With parking on both sides of the side street, or my preferred nose-in parking, a driver would have twice the chance of parking close to the house they live in and/or close to the block they wish to visit.

Many of our streets are too narrow for standard nose-in parking. If we use a 48 degree angle to park nose-in to the curb we can use narrow streets. The streets would need to have the stalls marked to maximize the number of stalls. The triangle created by the angled parking could be used to provide a loading space or a small bicycle parking area. Streets would have one residential by permit loading zone for each block, and may have a car-sharing reserved stall if requested by the neighbors.

The one way streets would involve the streets with permit parking on one to two streets to either side of the main street.

Bicycles would be encouraged to use the side streets, park in the side street corrals, and then walk to the businesses. The staples in front of stores would be used by those who walk their bicycles. No bicycle riding on the sidewalk would encourage use of the side street corrals. A safer ride for cyclists and safer walk for pedestrians would be the result.

Customers in automobiles would drive down the main street looking for parking. If they did not find any in the area they wished to stop, they could turn on one of the side streets and go to the next parallel street. They would only be allowed to turn one way on the side streets. The main street and all the side streets without lights that cross the main street would be two way streets. At traffic signals the traffic could turn either direction. All other turns from the main street on to the side street would be right turns only.

Bicycles would follow the same rules as vehicles unless crossing the main streets as pedestrians.

People who were using the street as a pass thru would travel smoother because automobiles would only take right turns, speeding up traffic without increasing speed. Watching for people in the cross walks would be easier resulting in safer foot traffic. Cyclists would cross the main streets as pedestrians.

This traffic flow pattern would be safer for pedestrians, as traffic will flow up and down the street and turn only to the right. With bicycle corrals and short term parking at the corner, visibility will be better without taking away parking stalls. For cars entering the main street with right turns only except for intersections with lights, everyone would have better visuals and traffic would move smoother.

Cars would only turn right onto or off of the main street. Cyclists would use the crosswalks, and walk the bicycles across the main street. There would need to be signage as the right of way is only in the crosswalk, not in the center of the street.

To help people understand that they do not own the spot in front of their home, a new stall plan would be implemented. The one way streets would have nose-in parking, unless that created a street too narrow to be safe. By parking at a nose-in angle, all vehicles would park on one side of a one way street. One lane would remain for vehicles and bicycles, and one lane and both parking areas would convert to nose-in parking. As a result, the street would have about the same number of stalls, or a few more. No one would have the parking in front of their house. A permitted loading stall would be the first or last space on the street, depending on the traffic flow. Some streets are wide enough for both nose-in parking and parallel parking.

To be clear, use of parking stalls along business main streets should be limited to bus loading/unloading areas and car sized parking stalls. Bicycle corrals and truck loading space should be on side streets.

To pay for signage and needed striping, 100% of permit fees collected over administration costs during the first year would be used. After the first year, 50% of collected fees would be used for neighborhood transportation maintenance, and 50% would be dedicated to city wide street repair.

City Commissioners could put this plan in place for two reasons. It would improve road safety, and it would raise funds for road repair and transportation needs. While a 'right turn only' zone can be a pain, they are safer. Preserving parking in a business district improves businesses. Our 20 minute neighborhoods are not stand-a-lone communities. All businesses need customers to thrive, and very few can thrive on walk-in customers only. Even downtown businesses require places for visiting customers and employees to park. Smaller neighborhoods with thriving businesses are better places to live.

I know that public transportation and bicycles are very important transportation modes. However, trucks are needed to deliver goods to our community business centers. Many people require a vehicle to go to work, or for a quality life.

I live and work in a 20 minute community. I cannot walk to the stores, and my scooter cannot climb the steps to many of the stores. I cannot park and walk two blocks to my house. To stay in business, I depend on good customer flow from all transportation modes, delivery of goods to sell, and a healthy community.

Mon 8/10/2015 8:09 PM

From: [zavid1](#)

RE: Parking solutions

If there was an actual incentive to park a motorcycle and motorcycle parking was cheaper than car parking, a motorcycle can be parked in a much smaller space, even on the sidewalk near bike racks if need be.

The current situation is motorcyclist have to pay the same amount as a 3 ton diesel truck which is ridiculous considering you can park about six motorcycles in the same spot one small compact car takes up.

Tue 8/11/2015 5:38 AM
From: kathy buss
Re: suggestions for parking

stop building condos and apartments which do not have parking! the problem is compounded over and over and over every time new housing goes up!

I work downtown for a non profit utilizing volunteers. however, they cannot find parking in order to help with our agency.....

kathy buss

Tue 8/11/2015 6:24 AM
Miller, Rick
here are some ideas that will be ignored!

Lets quit building huge apartment complexes without parking. Lets quit giving up street space to food cart and restaurant seating. Quit taking up a quarter of the block with those open runoff sewers that look like hell because the city doesn't take care of them. The city government is totally out of touch. They keep taking away driving lanes and parking and then wonder why there is a problem. Total idiots running the city. Wake up. By the way I am moving next year. I have been driven out by all the poor decisions that are ruining this once wonderful city.

Tue 8/11/2015 7:28 AM
Megan Mautemps
Parking

I have lived in Portland my whole life. I park here and visit businesses, parking problems started for example, on Mississippi there are many new apartment complexes without dedicated parking for those apartments. This pushes people out onto the streets to park just to go to there homes. Start requiring builders to add dedicated parking for their big apartment complexes they are putting up on areas that did not have apartments before. More parking is REQUIRED when building residential complexes.

Thanks,
Megan Mautemps.

Tue 8/11/2015 8:22 AM
Larry Bilodeau
parking in Portland

You want to solve your parking problems then cease this ridiculous policy of not requiring multi-family developments to provide off-street parking now!.

Tue 8/11/2015 8:29 AM
Robert Rubenstein
inadequate street parking

My solution to the parking problem is simple. Change the city code so that it requires new multi-family residential buildings to provide a minimum of one off street parking place for every residential unit. This will help reduce the demand for street parking.

Robert Rubenstein

From: Alan Kessler
Sent: Thursday, August 06, 2015 4:02 PM
To: Morehead, Grant <Grant.Morehead@portlandoregon.gov>
Subject: Centers, Corridors, Parking Toolkit

Dear Grant,

I live at SE 36th and Clinton in the Richmond Neighborhood. I happen to be a member of the board of the Richmond Neighborhood Association; however, this email is on my own behalf not on that of the board.

I attended the 7th SAC meeting yesterday evening, and I wanted to provide my written comments for your consideration.

I am very much in favor of the proposal you have set out. Although any solution raises equity issues, I think that the current proposal strikes a fair balance. A point that I think was missing from the discussion is that the mixed-use commercial properties are intended to be rented to residents without cars. As we have seen, however, free parking is too good to pass up, so many of the people moving into these complexes are car owners. The free neighborhood parking these residents get, are increasing the value of their rentals. In the current market, landlords are undoubtedly capturing that surplus.

By moving to the proposed permit system, we would enforce the intent of the City's earlier decision to eliminate parking requirements in transit corridors, and we would likely see that housing become more affordable as prospective tenants who intended to keep a car would opt away from those properties. Allowing the tenants of low-parking buildings participate in the permit program, as was suggested as an equitable solution by some SAC members, actually works to increase the value (and thus rent) of those units and is counterproductive.

The proposed plan would help increase political will for additional low/no parking developments, that would allow for higher residential density and decreased rents. Having more feet on the pavement will bolster support for transit, and we will enter a virtuous cycle.

Although I understand that the political will may not yet be here, the obvious next step is to allow neighborhoods to meter all parking. The residential parking passes could provide immunity from the meters, then dynamic pricing could ensure that commercial parking is distributed more evenly throughout the neighborhood, increasing the likelihood of quickly finding parking within a block or two of each resident's home.

These dynamic meters should not have time limits, and should be enforced 24/7, so that inebriated restaurant and bar patrons would be able to (for a price) leave their cars overnight and take a taxi home. This is a less harsh alternative to ticketing or towing occasional overnight parkers who make the correct decision not to drive drunk.

The meters would also incentivize better allocation of parking. Store employees might choose to park 5 or 6 blocks away from their work in order to enjoy cheaper (or free) parking. Short-term shoppers may be willing to pay several dollars an hour in order to park in front of their restaurant or store of choice.

As for affordability, the \$60 figure floated around the room last night is ridiculously low. No other aspect of car ownership is that cheap. Insurance, gas, registration, and maintenance are all much greater expenses. A goal of this program is to increase transit and active mode share. A \$60 bill will miff a few people, but it will do little to change people's behavior. Parking downtown can cost \$200/month; \$200/year is certainly within the realm of reason for neighborhood parking spaces.

Finally, I think it is important that revenue from the overnight enforcement and from the meters I'm proposing is partially channeled into a parking benefit district pool. This will help get the support of the neighborhoods, and provide needed maintenance and services. I know Richmond residents would absolutely love some street trash cans, for example.

Alan Kessler

From: Brian Cefola

Sent: Wednesday, August 05, 2015 6:49 AM

To: Morehead, Grant <Grant.Morehead@portlandoregon.gov>

Subject: [User Approved] Comment on Residential Permit Parking Concept

Grant, below are comments intended for the Centers and Corridors Parking Project Stakeholders Advisory Committee. Could you forward to them, or advise how I might do so?

Thanks,
Brian

Stakeholder Advisory Committee members, I'm writing to provide comment on the Residential Permit Parking Concept.

I think the concept is vulnerable to the accusation that it puts Portland in the business of enforcing class distinctions. Residential neighborhoods could enact a permit district not as a means of solving a parking problem, but as a means of excluding those unable to afford a home in the neighborhood. Such a use establishes "insiders" and "outsiders", with the latter required to leave at night. That reminds me of sundown laws.

I think the way to avoid that outcome is to avoid districts where permits are held exclusively by district residents, there ought to be some external permit holders in every district. In that case there is no insider/outsider split, there's just parking permits.

In looking at the concept, I urge the committee to consider these methods of avoiding exclusive districts:

- It's crucial that the concept retain the provision that residents with off-street parking pay the "second permit" price for their first permit. Furthermore, that price should be high enough that district residents don't buy them frivolously. As a benchmark, PBOT estimated the cost of minimum parking rules to residents of new multi-family construction at \$50/month or \$600/year.
- Districts should be big. Bigger districts are more likely to include housing with off-street parking, and more likely to have slack capacity.
- Consider adding a requirement that a minimum percentage of spaces be available to external users as part of the district approval process.

Thanks for your consideration,
Brian Cefola

From: Stephen Gomez

Sent: Friday, July 31, 2015 5:06 PM

To: Morehead, Grant <Grant.Morehead@portlandoregon.gov>

Cc: Kay

Subject: Re: Centers and Corridors Parking Project - Stakeholder Advisory Committee meeting #7

Hello Grant

I've circulated your meeting announcement and link to the new residential permit parking program to our Land Use & Transportation Committee and also to the Boise NA board. I've asked for comment so that Kay will have a some sense of these stakeholders at next week's meeting. I wish I could attend but I'm leaving Sunday on a two week road trip.

I'd like to share with you the thoughts I just expressed (in blue) to these two Boise groups along with your email:

Personally I do not support this plan as designed. It is unreasonable to put the burden of allocating the public right of way onto one group of residents--in this case apartment renters, many of whom don't even live here yet (and therefor can't vote on the plan). This plan just perpetuates the belief some have that the curbside in front of and/or near their home is "theirs." The density coming to the neighborhood brings some positive and some challenging changes to the community--having one class of residents absorb those challenges is patently unfair. The proposal allows our elected officials to avoid taking potentially unpopular positions.

Clearly some sort of parking allocation system will need to go in place as the Boise neighborhood (and nearby neighborhoods) nears capacity of the on-street curbside parking. No doubt the large apartment buildings are contributing to the demand for on-street parking with no parking provided developments (there's only a few in Boise) or low parking developments (most new buildings will have one parking spot for every three or two units). But don't forget home dwellers create a similar impact with their primary or second or third car on the street, dilapidated and unused garages and/or new ADU unit where off-street parking once was available.

I could support economic disincentives for apartment dwellers to induce them to use available on-site parking. For example, if a residential parking permit cost X, apartment dwellers in commercial zones could be charged 2X, 3X or even 4X to use the parking inventory available in their buildings.

However you feel about this topic one thing is clear--this is a subject most everyone is going to have a strong opinion about. Figuring this out will require openness to ideas, compromise and most importantly collaboration between residents, business owners and the increasing number of employers coming to our community.

Grant: I'm aware this is going to be a long slog for everyone involved and as mentioned above lots of compromise by all will be necessary. For whatever it's worth, I had coffee with Commissioner Novick a few weeks ago--he brought this idea up and I expressed the same perspective as above. We have a rapidly densifying neighborhood and city--we need leadership to make decisions that will support the dense city we are soon becoming, not solutions that deal with only the here and now.

I'm aware you'll be meeting with the Mississippi business association next month (I'll also be gone then). It will be interesting to hear their perspective on this concept. I'm also interested in how this plan will anticipate the large amount of employment coming to our neighborhood. The One North project at Fremont and Williams/Vancouver will bring 300+ workers to the area. Jim Winkler has a large site at Fremont and Mississippi which is variously being planned either as dense mixed use (200+ apartments) or office.

Let's keep in touch.

Thanks
Stephen Gomez
Boise NA LUTC Chair

Tue 8/11/2015 11:03 AM
Bobby Driggs b
ideas to help with the parking problem

To whom it may concern,

After reading an article that KOIN 6 published. It has come to my attention the city is looking for additional ideas on how to solve the parking problem.

I want to start by saying, as a native of the city, I strongly feel that the city is coming up with the wrong ideas. Forcing people to buy permits to park outside their own home is a terrible idea! You essentially telling people who have lived here for a long time that you don't care about them - and being a native, I have to take that personally.

In the article Pearce is quoted with saying that living in a growing city is a challenge. I think that is where the city should start. Start not with punishing people who have cars and who have lived here for years, 'punish' the people moving here. Mississippi never used to have so many apartment complexes, etc, but most of them were built in the passed 10 years, even along streets like Vancouver and Williams, a better solution could have been to force developers to build enough parking spaces for AT LEAST 1/3 of the building occupancy. That would keep home owners happy, businesses happy, and occupants of those new building happy. The only person who would be upset would be the developers - which as a native, I am totally OK with.

The city needs to learn that not every one bikes around town, people can't afford 2.5k monthly rent, and are forced to live miles from where they work.

Don't punish the people currently living here, punish the people who WANT to make Portland their home. The city is growing at a pace that is unsustainable, and if a developer backs out, because they are forced by the city to build a parking garage underground, then so be it - it retains the character of the city.

Thank you,
Robert Driggs

Thu 8/13/2015 10:10 AM
Greg Andrews
[User Approved] Parking in PDX

Good Day;

In the past several years, I have noticed that Portland city government has been removing on-street parking while encouraging higher occupancy dwelling construction. Property development should be required to have on-site parking for at least one car per dwelling unit. Period. No "Grandfather" clauses should be issued because it gives even more privilege to the privileged. Not doing this increases parking congestion everywhere. To help reduce on street parking congestion, houses with garages and carports should be required to park their motor vehicles in those garages and not use them for "storage units". This would make more on-street available to residents, guests and business customers.

It is not realistic to expect that all present and future residents will walk, ride mass transit or bike to work, to visit the doctor, to shop for food, to visit family and friends or to attend public/private events.

The City of Portland knows that it can get more tax dollars from multi-unit dwellings on existing lots than it can from single family homes and that appears to be the real reasons for this exercise in social engineering. Enough! As single family home dwellers, we have given up much to PBOT and BTA with nothing in return.

Very Sincerely,
Greg Andrews

Tue 8/25/2015 3:23 PM
Jim Panos
You can not force people to take city transit.

I am a 75yo male who has lived the majority of the time in Portland, but am very familiar with cities like New York, San, Francisco, Seattle and Washington DC and they all have parking problems, because they do not build a parking space for each apartment., which the puts more cars out on the streets making it harder for people who are in residential areas to have space for visitors.

I find that the city council thinks very small and does not plan for 25 to 50 years down the road. Our infrastructure is so behind the times due to poor planning. Highway 26 should have been planned as 6 lanes in the beginning all the way out to the Tillamook cut off, not 4 lanes. We have poor city planners who can't think outside the box.

Jim P.

From: Gary Davenport
Sent: Wednesday, August 26, 2015 1:24 PM
To: Patricolo, Francesca <Francesca.Patricolo@portlandoregon.gov>
Subject: In case you didn't receive it

Hi Francesca,

In case you weren't provided with a copy of the document that a few of us wrote, I thought you might find this an interesting read. We tried to put aside the finger pointing to see if there might be a better way for the city to move forward as density increases. Though it's been sent to everyone up the PBOT chain command above Grant, to Susan Anderson and Barry Manning, no one even acknowledged receipt of the document. Good news is that Grant did circulate to the SAC committee.
<gary>

Gary Davenport
owner, pdxvtours

UNIFYING THE COMMUNITY TO ABSORB GROWTH

Gary Davenport, Tom Morris, Kevin Campbell, Adrian Baker-Campbell
6/19/2015

OVERVIEW

- Portland is increasing urban density by building transit-oriented apartment buildings with little or no parking
- Approximately 72% of these apartment tenants own at least one car
- Do we expect tenants of these buildings to own fewer cars?
- Do we ask them to do so?
- Do we tell them to do so?
- Do we help them to do so?
- If so, how do we help them as a community?

This document explores ways in which city stakeholders can work together as a community to absorb the growth reducing car ownership and growing low-car and car-free populations.

THE CITY

- Give us a compelling vision of how car-free living will benefit our community and clearly explain what is expected of developers, renters, neighbors and the cycling/walking community if we are to realize this vision.

- Actively support, educate and promote public awareness that transit oriented-buildings are being built to promote car-free populations. Promote pride in establishing true car-free communities. What if transit-oriented buildings were really car-free?
- Create and enforce parking permit programs that protect neighborhoods from being overrun by cars.
- Create parking permit programs that respect and preserve existing parking ecosystems formed by businesses and adjacent neighborhoods.
- Change existing zoning code to require developers and property management companies to contractually rent to car-sharing and car-free populations.
- Provide incentives to developers who rent to tenants who are car-free.
- Change zoning code to give developers a permit to build a transit-oriented building with no parking provided that all rental agreements include the provision that all tenants must remain car-free (i.e. to not own a car nor enter into a long-term lease agreement for a car) for the duration of their tenancy.
- Work with taxis, car-sharing and other transit businesses to create programs that reduce fares for those who don't own cars. Provide free advertising describing how these specific businesses are helping Portland to grow car-free populations. Consider mandating their participation in these programs as part of the licensing process.
- Approach automobile manufacturers and local car dealerships to explore ways to provide usage of cars for car sharing in transit buildings in exchange for reduced group rates or free advertising that describes how they are helping Portland by providing car-sharing solutions.
- Require developers of car-free buildings to include language in their rental agreements and advertising that clearly explains why the city has permitted apartments to be built without parking and to explain that the people who choose to live in these building should strive to live car-free, as this ideal helps build better communities.
- Provide free or discounted public transit tickets to car-free tenants in transit-oriented buildings.
- Develop a "Live Car-Free" logo and require that transit-oriented buildings prominently display this logo on all buildings, contracts and advertising. Additionally, provide free decals and bumper stickers to stakeholders to actively promote the concept.
- Develop a "Support Car-Free" logo and provide free decals and bumper stickers of the logo to stakeholders who wish to actively endorse and promote the concept.

- Develop city-owned, low-cost park and ride lots as an alternative to parking in the neighborhoods and develop strong enforcement procedures in order to prevent people from warehousing cars in the neighborhood and using neighborhood parking as a cheap way to commute downtown.
- Provide incentives to businesses with unused parking spaces to provide free or low-cost parking to car-owning tenants in transit-oriented buildings.
- Increase on-street parking inventories by allowing homeowners to park on the street (parallel to the curb), blocking their driveways.
- Work with Portland's neighborhood associations and other neighborhood groups to develop low-cost, community-driven survey tools that can be used to collect data on parking supplies both before and after the construction of high-density, transit-oriented buildings. Homeowners, businesses and apartment tenants should all be surveyed over time so that the city and residents have the information they need to make informed decisions concerning zoning, parking regulations and parking enforcement.
- Develop a simple, effective program, possibly using smart phones, that empowers neighborhood residents to police and report parking infractions in neighborhoods including long-term storage, commuter parking and illegal parking.
- Create a donation plan where developers, neighbors, businesses, NGOs serving the aging and disabled community can contribute to a fund that's available for car-free tenants to use to purchase car-sharing and taxi services. This might be a way to integrate Uber, Lyft and other ride-sharing services into our community.

NEIGHBORHOOD ASSOCIATIONS AND VOLUNTEER GROUPS

- Participate in the "new sharing economy" by creating a neighborhood-specific, web-based ridesharing service for car-free/car-share apartment tenants who are in need of a car ride to run errands.
- Contribute money to a neighborhood fund that car-free tenants can use to purchase car-sharing and taxi services that provide low-cost transportation.
- Use the low cost, community-driven survey tools that the city develops to collect data on parking supplies both before and after the construction of high-density transit-oriented buildings. These studies will provide feedback to urban planners and City officials of the effectiveness of permitting programs and enforcement.
- Find positive ways for neighborhoods to work with people who move into the new high-density, transit-oriented apartments to make sure they feel they are part of the community. Share "best-practices" among neighborhoods.

DEVELOPERS

- Prominently display the “Live Car-Free” logo on all transit-oriented building and put the logo on contracts and advertising.
- Include language in all transit-oriented apartment rental agreements that clearly explains why the city has permitted apartments to be built without parking and ask the people who choose to live in these buildings to live as car-free as possible. Living up to this ideal will build better communities.
- Give rental preference and reduced rental rates to car-free tenants.
- Provide free parking spaces to those tenants who choose a low-car car sharing lifestyle. Put minimums in place (perhaps 3-4 apartments sharing one car) to qualify.
- Contribute money to the city wide fund that car-free tenants can use to purchase car sharing and taxi services that provide low-cost transportation.
- Purchase monthly transit passes for tenants without raising the rents.
- Sign good neighbor agreements with the neighborhood association and participate in neighborhood surveys.
- Locate and make available adjacent shared-parking resources as low-cost alternatives to parking in the neighborhoods or expensive onsite parking.

THE BIKING COMMUNITY

- Actively support, educate and promote public awareness that transit oriented-buildings are being built to promote car-free populations. Promote pride in establishing true car-free communities.
- Distribute and display ‘Live Car-Free’ logo on all marketing and advertising materials.
- In solidarity, encourage the biking community to place ‘Live Car-Free’ decals on their bicycles.
- Advocate for lower rents in transit oriented buildings.
- Advocate for developers to rent to car free/car share populations.

THE ENVIRONMENTAL COMMUNITY

- Actively support, educate and promote public awareness that transit oriented-buildings are being built to promote car-free populations. Promote pride in establishing true car-free communities.
 - Distribute and display ‘Live Car-Free’ logo on all marketing and advertising materials.
 - Advocate for developers to rent to car free/car share populations.
-

Tue 8/11/2015 8:14 AM

Alex

Allow free motorcycle parking everywhere in Portland at all times! Free zone passes too!

This will get people out of cars and on motor bikes. Traffic will be cut in half and five or more motor bikes can park in one car's space. This will incentivize switching to motor bikes rather than figuring out how to punish cars. Pollution and traffic is reduced and parking is maximized.

Sent from my iPad

Tue 8/11/2015 8:21 AM
Kevin Clark
Portland's Parking Problem

Hello,

I am currently a Masters Student at Portland State. I recently wrote a paper about how Portland can fix the way that it approached parking. The approach proposed in the Paper would be a social, economically, and environmentally optimal regulation of parking in the City. Please take a few minutes to read it, if you have a chance.

Kevin Clark

Free Parking and Housing Cost in the City of Portland
By: Kevin Clark

“Block Busters: The urban density Charlie Hales championed has arrived on Division Street. Why isn’t he celebrating?” headlined Willamette Week’s September 19, 2012 cover story. The article detailed community opposition to seven developments along Division without parking. Believing these would restrict parking and cause congestion, community members pressured the City of Portland to change decades-old zoning that eliminated required parking for developments with good transit access.¹

In November 2012, the city published several related reports. One analyzed onsite parking’s effect on housing affordability, finding that parking requirements increase production cost per unit, reduce density of units, and result in higher rents.² Another examined eight new developments with and without parking, finding peak parking utilization in surrounding areas was still below 85 percent of capacity, indicating adequate supply. Furthermore, despite a reluctance to give up personal vehicles, the top features found to attract people to developments were neighborhood character and amenities, not parking availability.³ These reports did little, however, to calm the pressure to add parking requirements for development.

Responding to this pressure, Dr. Donald Shoup, the UCLA economist and parking expert, implored the city to take alternative action such as overnight permitting in neighborhoods.⁴ In March 2013, Portland Bureau of Transportation’s Parking Policy Coordinator Sara Schooley dismissed Dr. Shoup’s idea and failed to adequately explore his other concepts for managing curb parking.⁵

Spurred by Mayor Charlie Hales, on April 10, 2013 the City Council added minimum parking requirements for multifamily buildings over 30 units sited within 500 feet of a transit stop. The Council argued that “large multi-dwelling projects without parking pose a risk of overtaking the supply of local on-

¹ Mesh, Aaron, “Block Busters,” *Willamette Week*.

² City of Portland, Bureau of Planning and Sustainability, *Cost Comparison*.

³ City of Portland, Bureau of Planning and Sustainability, *Parking Impacts for New TOD*.

⁴ Editorial, *The Oregonian*, January 5, 2013.

⁵ City of Portland, Bureau of Transportation, *PBOT Staff Response*.

street parking.”⁶ Although this action was intended to mitigate negative public opinion, many have continued to decry the state of parking in Portland. Indeed, a collection of editorials in the *The Oregonian* brought such opinions as: “Portland should fix parking mess city created” by Frank Saldonis,⁷ “Parking wars, Southeast Portland style” by Helen Jung,⁸ and “Portland has created parking problems through bad planning” by David Krogh.⁹ While these editorials had different levels of sophistication, a common theme was that curb parking in southeast Portland is not as available as it should be because of added density, and that the city should take further action.

More recently, a new concern over increasing housing costs has joined the perception of insufficient parking at the center of community consciousness. Several studies have demonstrated that housing prices in Portland are rapidly rising, and construction and wages are not keeping up.¹⁰ The inaugural *State of Housing in Portland* report found that 2014 production was still below pre-recession levels; lowered production and demand from a growing population classically combine to drive up housing prices. Such rising costs, persistent wage stagnation, and wealth inequality are increasingly affecting working families. Portland also lacks the resources to align its affordable housing goals with programming and production.¹¹ At the neighborhood level, these challenges are blamed on Portland’s increasing density, yet they are actually closely tied to free parking provided across more than 95 percent of the city. Portland attempted to address a parking congestion problem by shifting its cost to the housing market through minimum parking requirements—the classic way cities have treated the negative externalities of automobile ownership. However, it is time to attack the root of the problem: free curb parking.

Free curb parking is a classic “economic commons” problem. To reverse its damaging consequences, Portland should unbundle parking from development and allow the market to set a price for curb parking. This approach would drive increased parking production, greater overall density, lower costs, and less conflict over development.

Free Parking as a Problem of the Commons

The commons problem is exemplified by the pastoral village land freely available to all for herd grazing. At first this arrangement works well and the community flourishes, then the community grows. With such growth, animals are added to the grazing commons. All villagers grazing animals are acting rationally and in their own self-interest by using wealth generated from the activity to add more income-producing animals. Over time, the land becomes overrun and overgrazed, and can support no animals. Villagers want to use the commons forever, but it is a scarce resource and personal restraint on a communal asset yields no individual economic reward. As a shared common resource, free curb parking is the urban commons of today; it has no economically derived price and is scarce.¹²

Common parking encourages waste as drivers cruise looking for their share of the commons, providing little incentive for them to limit consumption of the resource once parked. Parking overconsumption results, and a degraded urban form. We have chosen to try to meet the demand for “free” parking through minimum parking requirements in real estate development, lower-density zoning, and offset fees. However, when the price of a commodity in a market is zero, demand can never be satisfied. As Donald Shoup states:

⁶City of Portland, Bureau of Planning and Sustainability, *New Apartments and Parking Zoning Code Amendments*.

⁷ Editorial, April 24, 2014.

⁸ Editorial, March 14, 2015.

⁹ Editorial, March 24, 2015.

¹⁰ Portland Business Alliance, *Middle Income Jobs*.

¹¹ City of Portland, Portland Housing Bureau, *State of Housing in Portland, Phase 1*.

¹² Shoup, Donald, *The High Cost of Free Parking*.

*Most markets depend on prices to allocate resources—so much so that it’s hard to imagine they could operate in any other way. Nevertheless, cities have tried to manage parking almost entirely without prices. To see the absurdity of this policy, look at it from a new perspective. Cities require off-street parking because the market supposedly fails to provide enough of it. But the market fails to provide many things at a price everyone can afford.*¹³

We continue to build more parking, because there is not “enough” parking. There is not enough parking because we do not charge a price at all for most of it. Instead of making a market to regulate this commodity, we have chosen to shift the cost of total automobile capacity over time (i.e. parking) to other aspects of the economy, primarily real estate. Cities across the U.S. treat parking as unilaterally a supply problem, employing models and systems that inevitably conclude demand for this non-priced, “free” good perpetually exceeds supply.

Minimum Parking Requirements and Planning for Free Parking

The predominant model is problematic because real estate development planning during the automobile age has historically assumed free parking as inextricably linked to land improvements, by right. Assuming that all parking will be free to users and costless to developers distorts transportation choices and land use regulation, and creates a cyclical system that demands ever more parking. Cities have planned for the amount of parking required in absence of market pricing, leading to trip generation models that reinforce increased demand predictions and minimum parking requirements that shift parking’s myriad costs to real estate development.

Planning parking without prices actually creates an illusion of parking demand. In cities like Portland, drivers will not have to pay for parking in more than 99 percent of trips. Without prices to systematize demand, cities inevitably require new developments to satisfy peak demand for free spaces on a project-by-project basis. This means cities require free parking to be provided at peak capacities, no matter the direct or implied economic costs. Thus an endless cycle of municipal governments mandating provision of a costly yet unpriced commodity ensues, meaning this ideologically induced economic shortage is only ever addressed in mandates on the built environment.¹⁴

Reliance on unpriced parking has pervaded planning and transportation departments across the U.S., and has led directly to more expensive lower density development that induces more automobile trips. Planning without a price on parking leads to the six-step cycle of endless free parking planning. Step one: traffic engineers with the Institute of Transportation Engineers (ITE) survey peak demand for parking at suburban sites with ample free parking and little-to-no public transit. This data is summarized in the annual *Parking Generation* publication which delineates parking rates for each type of land use. Step two: urban planners use *Parking Generation* to assign minimum parking requirements to various land uses. In most departments, the *peak* parking demand is determined to be the *minimum* acceptable standard. Step three: the required parking spaces are built at such oversupply their market price is driven to zero. People drive more because free parking is available on almost all trips. Step four: ITE transportation engineers survey trips to and from the same suburban sites with ample free parking, publishing these results in the annual *Trip Generation* publication. Step five: transportation planners consult *Trip Generation* to design transportation systems and attendant upgrades necessary for continued development. Such design provides enough capacity for the trips generated by a suburban site with ample free parking. Step six: urban planners plan for density that simultaneously provides ample free parking and does not congest roads. This causes lower density which spreads activities spatially, thus increasing vehicle travel and parking demand—driving up peak parking observations. This system can never satisfy demand for parking over time because the free parking reflexively creates insatiable demand for itself.

¹³ Ibid.

¹⁴ Shoup, Donald, *The High Cost of Free Parking*.

The planning orthodoxy's main tool for spreading free parking is the minimum parking requirement in development, a status quo that has not always been at play. Of 73 cities in 1946, only 17 percent had parking requirements, but by 1951 the proportion had swelled to 71 percent. (These measures were not imposed by an uncaring bureaucracy, but rather were often demanded by residents.¹⁵) Thus by 1951, America had effectively bundled parking to real estate development. Under such regimes, new developments were mandated to provide a certain number of spaces without a required parking surcharge to end users, implicitly assuming the developments would provide economic mitigation. This bundled parking damages cities by inducing automobile ownership and trips, increasing real estate prices, and weakening the economy.¹⁶ Specifically, bundled parking and free curbside parking negatively affect urban housing markets.

Free Parking and Housing

Free parking and impact fees affect housing prices because they transfer the cost of automobile storage into the real estate market. Owning a home, renting an apartment, working in an office, or opening a restaurant do not necessarily require automobile ownership. However, we treat free parking as a forgone conclusion of real estate development through minimum parking requirements and impact fees. These measures are at their most draconian in housing market regulations—increasing cost, lowering density, and slowing investment. Although this practice makes owning a car more affordable, it makes housing more expensive. Case studies from San Francisco¹⁷, Los Angeles¹⁸, and New York¹⁹ all established a direct link between providing parking and increased consumer housing prices. Another study of affordable housing developments found that the provision of a single space per unit raised the price by 12.5 percent, and two spaces per unit caused a 25 percent increase. The same study found current parking minimums result in a 10 percent tax on development nationwide.²⁰

Besides increasing costs on a capital basis, these regulations detract from highest and best use of urban land. Illustrating the resulting inefficient density, a study of housing development in Oakland, California found that before the institution of a parking requirement in 1961, the city enjoyed housing development that produced 30 percent more units per acre, investment of \$92,000 per acre, and land value of \$72,000 more per acre. These results stemmed from just one required space per unit—mild by many of today's existing regulations.²¹ The study further determined the requirement did not produce more total parking, rather it induced developers to build bigger units commanding higher rents. Free parking therefore functions as an additional building massing restriction akin to floor area ratio limits.

Cities also charge parking and traffic impact fees on new development—a de facto free-parking tax regime. The fees are largely generated by a complex equation factoring in the ITE's *Trip Generation* and *Parking Generation* survey data. However, because the parking and trip figures are inflated by existing free parking, the resulting impact fees are proportionally inflated, causing new developments to subsidize free parking and suffer diminished residual value from reduced density.

Free Parking and Housing in Portland

Portland prides itself on progressive politics and quality land use planning, billing itself as "The City That Works." Yet free parking remains the norm, paid for by Transportation System Development Charges (TSDCs) accompanying all development and promulgated by minimum parking requirements. TSDCs are determined based on each development's projected impact on the transportation system,

¹⁵ Shoup, Donald, *The High Cost of Free Parking*.

¹⁶ Ibid.

¹⁷ Jia, Wenyu, and Martin Wachs. "Parking and affordable housing."

¹⁸ Manville, Michael, and Donald C. Shoup. "Parking requirements as a barrier to housing development."

¹⁹ McDonnell, Simon, Josiah Madar, and Vicki Been. "Minimum parking requirements and housing affordability in New York City."

²⁰ Litman, Todd, "Parking requirement impacts on housing affordability."

²¹ Shoup, Donald, *The High Cost of Free Parking*.

constituting a tax born inside of, and thus perpetuating, the free parking model. Minimum parking requirements apply to all development outside the Central City, creating the same externalities observed in other studies: higher costs, lower density, and less investment.

TSDCs are based on the estimated motorized, transit, and pedestrian trips each project is projected to induce over a ten year period. These fees fund qualified projects of a motorized, transit, and non-motorized nature on a like-kind basis (i.e. motorized fees pay for motorized improvements). As of 2015, the fee for a single-family dwelling unit is \$1,883, \$140,816 for a 104-unit apartment, and \$382,044 for a supermarket.²² From October 1997 to October 2006, the city collected \$43 million, and would have collected \$61 million had affordable and transit-oriented developments not received waivers.²³ Since the fees use estimated trips generated in the free parking environment, the motorized component is needlessly inflated, implicitly subsidizing free parking and ultimately car ownership.

Despite the praise Portland receives for ostensibly progressive urban planning, the city still bundles parking, and recently increased minimum parking requirements. This reality does not support the General Plan's vision for an urban, multimodal city of twenty-minute neighborhoods. Admittedly, one caveat is the Central City exemption from all minimum parking requirements, and a similar exemption for developments along transit streets prior to the Division Street controversy. The response to the outcry over the unparked Division Street developments is a classic case of a city trying to treat parking as a supply problem. This time though, the jurisdiction knew parking minimums would increase cost, lower density, and not fix the parking "problem".

The new parking requirements are not harsh in relative terms, and do provide for a sliding scale: developments of 51 units or more must provide .33 parking stalls per unit, 41 to 50 units must supply .25 stalls per unit, and 31 to 40 units shall provide .20 stalls per unit.²⁴ By the City of Portland's own admission, this will cost upcoming developments between \$3,000 and \$45,000 per newly required stall. The city's own analysis demonstrated this policy would result in less dense buildings delivered at a higher cost. Before the change, a 50-unit building on a typical southeast site would charge monthly rents of \$800 to \$1,150 per unit. Now, the same site will only produce 45 units at \$850 to \$1,200/month/unit.²⁵ Unsurprisingly, when surveying proposed developments in the Belmont-Hawthorne-Division area, the change seems to be shifting problems to developments of 30 units or less. The new parking minimum has increased housing prices and reduced development density. Unbelievably, the parking controversy has not gone away, yet Portland housing prices continue rising amidst newly restricted production. The free parking orthodoxy has only gained strength after the Portland City Council's response to parking controversies. However, the city still has the opportunity to contain rising housing costs, reduce conflict, and increase density by reforming its approach to parking.

Reforming Parking Policy in Portland

Portland is currently planning for free parking, hiding its costs in other civic functions, particularly real estate development. Trying to "solve" parking through supply only causes severe negative externalities; in the housing market this results in higher prices, lower density, and controversy. Also, the approach effectively charges everybody for free parking whether they use it or not. Market prices for parking make its costs apparent to its users and allow a parking equilibrium to be reached. Housing will cost less, be produced at higher density in more locations, and result in less controversy.

The city should pursue three reforms: charge market prices for curb parking throughout its jurisdiction; use Parking Benefit Districts to return the revenue to local communities for discretionary expenditure; and remove minimum parking requirements. Donald Shoup summarizes it best: "If cities

²² City of Portland, Office of Transportation, *Update of Transportation System Development Charges*.

²³ Ibid.

²⁴ City of Portland, Bureau of Planning and Sustainability, *New Apartments and Parking Zoning Code Amendments*.

²⁵ City of Portland, Bureau of Planning and Sustainability, *Cost Comparison*.

deregulate off-street parking and charge the right price for curb parking, market forces will improve transportation, land-use, the environment, and urban life. You will not pay for my parking, and I will not pay for yours. Instead of planning without prices, we can let prices do the planning.”²⁶

²⁶ Shoup, Donald, *The High Cost of Free Parking*.

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Tue 8/11/2015 10:09 AM
MELISSA CRENSHAW
Portland's Parking Problem

Why re-create the wheel?

Look to cities that have systems already in place and glean from them a system that would work well for Portland.

Note: Nobody 'wants' to pay for things they have gotten for free but this city has grown up very fast and the current systems do not suffice for the current population. The population is just going to have to find ways of dealing with it.

Very few people who live IN San Francisco actually drive in town. They use public transportation or taxi services. Parking is also VERY expensive, so that deters people from driving in town. Let the visitors and those with the expendable cash pay the high prices.

From: Rebecca Kennedy
Sent: Thursday, September 24, 2015 1:20 PM
To: Morehead, Grant <Grant.Morehead@portlandoregon.gov>
Cc: Mary Kyle McCurdy
Subject: Comments on proposed neighborhood parking districts concept

Hi Grant,

We appreciate the thought and analysis that went into creating the proposal, as well as the tool-kit approach that provides flexibility for both the City and neighborhoods as they work to address parking challenges. Thanks to you and your team for this thoughtful approach.

We have more detailed comments on the neighborhood parking districts proposal. Generally, HLA is in support of a neighborhood permit system along commercial corridors, and support many aspects of the current proposal, including the opt-in option, the neighborhood ballot process, and minimum district size. Our primary concern is that it limits on-street permits to people who live in residential zones. The current proposal leaves residents of mixed-use buildings along adjacent commercial corridors without access to a permit. We believe this will place an unfair burden on renters, and will add to their overall housing costs.

Housing cost burdens are now understood as encompassing both the actual cost of housing as well as the cost of transportation. In recognition of this, and in order to address the concern raised above, we suggest that the concept include all residents of the district, including those living in both residential and mixed-use zones. While we support efforts to reduce vehicle ownership rates, particularly in corridors with frequent transit service, any parking district program should also recognize that some renters in mixed-use buildings will still need to own a vehicle.

At the last meeting, you asked us to stay in the trees and avoid getting down into the weeds, which I appreciated. I would like to take this opportunity to make a couple comments about the weeds though, since the HLA board raised these issues and I won't be in the meeting tonight. First, we are concerned that the proof of residency requirement for obtaining a permit could be a barrier to low-income families, particularly those that may need to move around frequently. Second, we have some questions about how the cap on total number of permits within a district will impact renters. Renters tend to move more frequently, and I can imagine a scenario where a new renter is not able to get a permit because some are held by, but not used, by folks who previously lived in the neighborhood but have since moved. The

design and implementation of the program can address both potential issues, but we think its important to raise them now.

Finally, we want to make a general observation about a tension between affordability and policies that were designed to reduce vehicle ownership along frequent transit corridors. Many committee members are understandably upset about the proliferation of mixed use buildings in their neighborhoods with no on-site parking and the resulting impact on neighborhood livability. They will likely make the argument that the public should not subsidize the developers twice- through zero parking minimums followed by the provision of on-street parking to building residents. Our concern is that renters who live in these buildings will pay the cost for this issue in the form of increased parking costs, when they received none of the benefits. Access to the public ROW for all residents of a neighborhood is an issue of equity, and renters should not be left out.

Thank you,

Rebecca

--

Rebecca Kennedy



KITTELSON & ASSOCIATES, INC.

TRANSPORTATION ENGINEERING / PLANNING

610 SW Alder Street, Suite 700, Portland, OR 97205 P 503.228.5230 F 503.273.8169

MEMORANDUM

Date: October 20, 2015

Project #: 17818.0

To: Grant Morehead, City of Portland
Lidwien Rahman, Oregon Department of Transportation

From: Matthew Bell and Phill Worth, Kittelson & Associates, Inc.
Rick Williams and Owen Ronchelli, Rick Williams Consulting

Project: Portland Parking Analysis and Toolkit for Neighborhood Centers and Civic Corridors

Subject: Draft Toolkit

INTRODUCTION

This document serves as a desk reference for the city staff responsible for managing city parking facilities and addressing parking issues that arise in neighborhood centers and civic corridors. Business owners and operators and residents of neighborhoods within a center or corridor also may find this document useful when working with city staff to understand and address local parking issues and/or public parking management practices. For the purposes of this document, *centers and corridors* are defined as areas with mixed use zoning (commercial and employment), generally well served by transit, that are surrounded by areas zoned exclusively for residential use.

Document Purpose

Generally speaking, parking management defines the appropriate uses of parking facilities in a specific area and at a specific time. The level of management required in a specific area is most often dictated by how well the overall parking supply (public and private, on-street and off-street) accommodates demands for parking in that area. When demand for parking regularly approaches or exceeds the available supply, it often becomes necessary to manage or more actively manage the supply.

Because this document is prepared primarily for city staff to reference, it provides parking management strategies for public and private supplies, in on-street and off-street locations within neighborhood centers and corridors. This is in recognition that:

- the city has ownership authority over the supply of parking within the city's right-of-way and on city-owned land and a fiduciary responsibility to achieve the highest and best use of that asset and

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- the city has regulatory authority over the provision of private, off-street parking facilities.

HOW TO USE THE TOOLKIT

When should I manage parking?

Parking management could be undertaken at almost any time, particularly to inform users on the proper use of the parking resource (Shelf 1 in the Toolkit). However, city staff time and financial resources are limited and, therefore, it is prudent to exert parking management efforts where they are needed most. Parking management should be considered:

- at the request of a neighborhood association or business association in a neighborhood center or corridor that is experiencing parking issues or deficiencies;
- as new development occurs that may meaningfully upset the balance of parking supply and demand;
- as new plans are developed (e.g. corridor plans, neighborhood plans, comprehensive plans); or,
- when parking demand regularly exceeds approximately 85% of the available on-street parking supply in the neighborhood center or corridor.

What information is needed to get started?

Some level of investigation is always worthwhile, particularly if a neighborhood association or business association has raised a concern or requested assistance. Much can be learned by simple observations during the timeframe that is of particular concern to those that request assistance. The goal of the observation should be to understand the relative scale of the issue and to determine whether or not fairly quick and low-cost parking management tools can be deployed to resolve the issue. Should the issues appear to be too complex to address in this manner, the following types of information may be necessary or valuable in developing an effective parking management strategy or plan.

- A basic understanding of current parking issues and who they affect (e.g. high parking demand, unbalanced parking demand, underutilized parking facilities)
- The composition of land uses within the area (e.g. residential, retail/commercial, institutional)
- The development or redevelopment potential of the area (e.g. vacant properties, underdeveloped properties, market trends)
- The location and type of existing parking facilities (e.g. on-street, off-street, public, private, residential, retail/commercial)
- Current parking management strategies (e.g. regulated time stays, user restrictions, parking permit programs)

- Current enforcement practices (e.g. frequent, random, non-existent)
- Alternative access opportunities (e.g. transit service, bike and ped infrastructure, car share)
- Other considerations:
 - demographics (e.g. population, age, income) and
 - proximity to the Central City (e.g. inner, outer, northeast, northwest)

What level analysis is required?

Parking supply and demand studies can provide important information on how the current parking supply is being used, when peak parking demand occurs, and what, if any, impacts peak parking demand has on access to local businesses (e.g. low turnover), adjacent residential neighborhoods (e.g. spillover), and the transportation system (e.g. congestion). The level of analysis required depends on the issue that needs to be addressed, how well it is understood, and if there is agreement among stakeholders on what the issue is and how to address it.

If it is a minor issue that is well understood and there is general agreement among stakeholders on how it should be addressed, then it can likely be resolved quickly with minimal analysis and implementation of any number of low-cost strategies. However, if it is a major issue (or many issues) that is not well understood and there is disagreement among stakeholders on what the issue is or how to address it, data will be needed to fully understand the issue and to reach agreement on what it is and how to address it. The type of data needed to support a detailed analysis on parking conditions includes:

- **Parking supply** data typically includes the total number of parking stalls located within an area by location (on-street, off-street, etc.), type (public, private, etc.) and restriction (time restricted, user restricted, etc.). Additional information related to the total number of no-parking stalls within an area also can be helpful to improve the efficiency of the parking supply.
- **Parking demand** data typically includes the total number of vehicles parked within an area over a period of time. In general, parking demand data should capture peak parking demand for all uses within an area. For example peak parking demand for residential use typically occurs between 6:00 p.m. and 6:00 a.m. Monday through Friday, while peak parking demand for retail/commercial use typically occurs between 8:00 a.m. and 10:00 p.m. Monday through Friday. Parking demand data is typically described in terms of occupancy, duration of stay, and turnover.
 - **Occupancy** refers to the total number of occupied parking stalls within an area and is most commonly shown as a percentage of the overall system. A parking system is generally considered to be full or at its effective capacity when occupancies reach or exceed 85% in the peak hour.
 - **Duration of stay** refers to the average length of time a vehicle remains in a parking stall. Duration of stay information can be used to determine the time stay needs of patron to local businesses within an area, to identify the total number of vehicles, or

percent of vehicles, that violate the posted time stays, and to determine the rate of vehicle turnover within an area (see below).

- **Turnover** reflects the total number of vehicles that can or will use a parking stall over the study periods. Turnover can be used to determine how efficient or inefficient the parking system is operating and serving its intended user groups.
- **Future parking demand** estimates can be used to determine if/when an area will require a higher level of parking management.

What are some of the common parking issues addressed by the Toolkit?

Parking management is often issue-driven, generating the need for a timely, coordinated, and cost-effective response. The list of potential issues to be addressed could fill a small book, particularly due to the uniqueness of each center and corridor. However, it is possible to categorize issues to a manageable, yet representative range. The following provides a summary of the common parking issues identified throughout the development of the toolkit.

Parking demand

- **High parking demand** is the most common parking issue and can occur in any area and under any land use, transportation or parking context. In general, high parking demand refers to a lot of cars parked within an area. It can also refer to a general lack of available parking within an area or in a specific location. High parking demand can also be an indicator of a number of other issues, including a lack of information on where to park, a lack of alternative travel options (e.g. walk, bike, transit), a lack of parking management strategies or enforcement of parking management strategies, etc.
- **Unbalanced parking demand** is an issue in areas where there is high demand for parking in one corner of a center or at one end of a corridor, but not the other, or in one parking facility or along one block face, but not the next. Unbalanced parking demand can reflect demand for parking adjacent to specific land uses or imbalances in parking regulation or pricing strategies.
- **Underutilized parking facilities** is similar to unbalanced parking demand; however, it primarily refers to off-street parking facilities (e.g. surface parking lots, parking garage) that are not being effectively used.

Parking impacts

- **Spillover** is an issue in most residential areas located adjacent to a center or corridor that regulates parking, particularly centers or corridors that have parking meters.
- **Traffic circulation and congestion** is an issue in many centers and corridors and refers to vehicles circulating while attempting to locate a parking stall and causing congestion along the roadways and at intersections.

- **Safety** concerns are prevalent in many centers and corridors and can impact how people choose to access an area, where they choose to park, and how safe they feel in the environment.

Provision of Parking

- **Lack of parking facilities** is identified as an issue in many centers and corridors and can refer to an actual lack of parking facilities (on-street or off-street) for specific land uses or a perceived lack of parking facilities due to high or unbalanced parking demand.
- **Effective use of the curb zone** is an issue in areas where the existing use of the curb zone no longer reflects the needs of the adjacent land use (e.g. unused curb cuts, loading zones, taxi zones, parking stalls with short time stays adjacent to retail/commercial businesses).
- **Supporting commercial activity** is an issue when commercial parking demands are greater than the supply that is readily available on the corridor or in the center, with employees and/or customers regularly relying on side streets and streets in the adjacent neighborhoods to satisfy the demand.
- **Accommodating new development** is an issue in many areas throughout the city, particularly in areas that do not require new development to provide off-street parking.
- **Accommodating special events** is an issue in any area that has special events, such as neighborhood farmers markets, that draw in a lot of people from within and outside the center or corridor that may not be familiar with where or how to park.

Use of parking

- **Low turnover** is an issue in many centers and corridors that currently do not regulate time-stays or the existing time stays do not reflect the needs of the adjacent land use.
- **Time stay violations** can be an issue in areas where the time stay needs of patrons exceeds the time stay regulation of the parking supply. This is most common in areas where 1-hour time stays are used and the needs of patrons are 90-minutes to 2-hours. They can also occur in areas where enforcement is low.
- **Lack of enforcement** is generally considered to be an issue in most areas, particularly centers and corridors with low turnover and high time stay violations. However, it can also be an issue along neighborhood streets where people store cars, boats, or other objects in the right-of-way for several days or weeks at a time.

Other

- **Limited transportation options** refers to a lack of adequate pedestrian, bicycle, or transit facilities and services, a lack of information on how to walk, bike, or take transit to access an area, or the proximity of an origin and destination that make walking, biking, or taking transit difficult.

- **Vehicle ownership** refers to the number of people that own vehicles within or adjacent to the centers and corridors and the impact vehicle ownership has on parking conditions.
- **Policy and Code** issues refers to any existing or potential future policies and codes that determine how parking is supplied and how it is used.
- **Lack of information/education** refers to a lack of information on how and where to park and a lack of education on parking rights.

Developing a clear understanding of what the issues are and then gaining consensus on those issues is an important step toward parking management. Each section of the toolkit includes a table that summarizes the common issues identified throughout the development of the Toolkit. These issues serve as the gateway into the toolkit and the selection of a tool or tools.

How do I select a tool from the Toolkit?

At this stage you should have (1) developed a clear understanding of the issues among the stakeholders and (2) determined the extent of parking management that is needed, whether through discussions with neighborhood or local business associations, through field observations and a basic investigation of parking conditions, or through a detailed analysis of parking conditions. The next step is to select one or more tools from the toolkit that are suited to the agreed upon issues to address.

Organization of the Toolkit

The tools and strategies identified in the toolkit have been screened for their applicability to neighborhood centers and civic corridors in Portland. The screening process considered the scale and mix of uses in these places, the type and range of parking demands that may occur, the quality of multimodal access, the growth and evolution potential of the area, and the city's Comprehensive Plan, code, and goals for sustainability.

The tools and strategies have been organized by "shelves" in the toolkit, ordered to generally reflect the logical progression from simple solutions to complete and, sometimes costly, parking management plans. Users should expect to frequently find effective strategies for many parking issues in the higher shelves of the toolkit, but delve more deeply as the issues grow in number and/or complexity. Therefore, the user is encouraged to scan the top shelves first, with each new circumstance that comes to light.

The shelves are labelled and organized as follows:

- **Shelf 1: User Information** – The tools and strategies included on this shelf are intended to improve the dissemination of user information. User information is vitally important to ensure an understanding of the local parking system and the appropriate ways to use it. Many parking issues can be improved or resolved with more effective communications about the location, purpose, and availability of parking, as well as about other methods of accessing a neighborhood center or corridor (e.g., walking, biking, transit).

- **Shelf 2: Transportation Demand Management** – The tools and strategies included on this shelf are intended reduce parking demand by promoting active modes of transportation for commute and non-commute trips. These tools and strategies are particularly effective in reducing parking demand generated by employees of local businesses and supporting car-free lifestyles of local residents.
- **Shelf 3: Manage Existing Parking Supply** – The tools and strategies included on this shelf are intended to encourage more efficient use of the existing parking supply and improve the quality of service provided to parking facility users. When parking demand regularly exceeds the effective capacity of the parking supply (85% occupied), these tools and strategies can be used to help manage parking.
- **Shelf 4: Enforcement** – The tools and strategies included on this shelf are intended to improve enforcement of parking management strategies. Almost all parking management strategies require regular enforcement to be effective. In general, parking enforcement should be frequent, fair, and friendly and designed to encourage proper parking behavior, not to discourage users from accessing an area.
- **Shelf 5: Implement and Manage an Area Parking Permit Program** – The tools and strategies included on this shelf are intended to help implement and manage an Area Parking Permit Program. Area parking permit programs help manage parking in residential areas where non-resident parking is impacting the ability of residents to park. Programs protect and improve the quality of life and character in the neighborhood by reducing overflow parking, discouraging cut-through traffic, and ensuring adequate parking spaces for citizens who live in the neighborhood.
- **Shelf 6: Implement and Manage Paid Parking** – The tools and strategies included on this shelf are intended to help implement and manage a paid parking program. Paid parking programs charge users for their use of parking facilities and services. They provide revenue and cost recovery for parking facilities, encourage more efficient use of parking facilities, reduce vehicle traffic, and encourage use of alternative travel modes.
- **Shelf 7: Create New Parking Supply** – The tools and strategies included in this section are intended to help create new parking supply. Given the high cost (money, land, area character) associated with creating a new parking supply, these tools and strategies should generally be considered as a last resort.

Selection Process

Two matrices have been created to aid the selection of tools and strategies that address specific issues (Table 1) or achieve particular objectives (Table 2). A third matrix (Table 3) provides information about potential roles key stakeholders may play in implementing a particular parking management strategy and identifies code-related challenges to implementation. The following provides a summary of each matrix and how they aid in the selection of an appropriate tool from the toolkit.

Table 1 summarizes the common issues identified throughout the development of the toolkit. As previously indicated, these issues serve as the gateway into the toolkit and the selection of a tool or tools.

Table 1: Issues Matrix

Strategies	High Parking Demand	Unbalanced Parking Demand	Underutilized Parking Facilities	Lack of Parking Facilities	Limited Transportation Options	Supporting Commercial Activity	Accommodating New Development	Accommodating Special Events	Spillover into Residential Areas	Low Turnover	Time Stay Violations	Effective Use of the Curb Zone	Lack of Enforcement	Vehicle Ownership	Traffic Circulation and Congestion	Safety Concerns	Parking Policy and Code Issues	Lack of Information/Education
1. User Information	•	•	•	•		•	•	•	•		•	•		•	•	•		•
2. Transportation Demand Management (TDM)	•			•	•	•	•	•				•		•		•		
3. Manage the Existing Parking Supply	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
4. Enforcement	•	•	•	•		•	•	•	•	•	•	•	•	•	•			
5. Implement and Manage a Parking Permit Program	•	•	•	•					•			•		•				
6. Implement and Manage Paid Parking	•	•	•	•	•	•	•	•	•	•	•	•		•	•			
7. Create a New Parking Supply	•	•	•	•	•	•	•	•	•			•			•			

As shown in Table 1, all seven shelves include tools that will address high parking demand. Therefore, if **high parking demand** is the issue, consider tools from Shelf 1 before proceeding to lower shelves and more difficult and/or costly tools to use. If **low turnover** is the issue, then the first tool that specifically addresses this issue is found on Shelf 3, Manage the Existing Parking Supply.

Use of Table 1 will be a common method of scanning the toolkit for potentially effective parking management strategies to address the issues associated with a specific neighborhood center or corridor. Most tools are additive in effect on an issue and many are complementary to the point of having a compounding effect. Users of the toolkit that are not familiar with this concept are encouraged to read current parking management periodicals to gain a deeper understanding.

Table 2 summarizes the evaluation matrix used throughout the development of the toolkit to ensure that the tools and strategies reflect the key objectives of the city.

Table 2: Key Objectives to Accomplish

Strategies	Supports economic development by improving access to mixed use centers and corridors for one or more travel modes	Reduces negative impacts of parking spillover into surrounding neighborhoods	Supports the City's mode split and climate goals by encouraging non-auto trips	Supports use of the curb zone by the priority user (1)	Has broad base of support among neighborhood stakeholders	Encourages lower rates of car ownership	Cost and feasibility of implementation ²	Impact on Housing and Commercial Affordability	Can be monitored and adjusted over time
1. User Information	1	1	1	0	1	1	-1	0	0
2. Transportation Demand Management (TDM)	1	0	1	0	0	1	-1	0	1
3. Manage the Existing Parking Supply	1	1	1	1	1	1	-1	0	1
4. Enforcement	0	1	0	1	1	0	0	0	1
5. Implement and Manage a Parking Permit Program	0	1	1	1	-1	0	0	0	1
6. Implement and Manage Paid Parking	0	-1	1	0	-1	1	0	0	1
7. Create a New Parking Supply	1	1	-1	0	0	-1	-1	-1	1

-1 - no/negative impact
0 - neutral/no impact
1 - yes/positive impact

Table 3 summarizes the stakeholder roles and code-related challenges associated with tools and strategies included in the toolkit. The information in Table 3 can be used to determine what role different stakeholders play in the implementation process and what policy and code related barriers exist, if any, to the implementation of specific tools and strategies.

Table 3: Stakeholder Roles and Code-related Challenges

Tools and Strategies	Implementation				Policy Readiness			
	NA/BA	LBO/O	City Agency	Code Ready	T16	T17	T33	AR
User Information								
I. Consistent Parking Branding		L	S	Y				
II. Multi-family Branding: "Certified Car Free"		L	S	P				
III. FAQ "How to Park" Resources	S	L		Y				
IV. Neighborhood Parking Maps	S	L		Y				
V. Wayfinding and Signage		S	L	P				
VI. Coordination with Community Destinations	S	L		Y				
VII. Stakeholder Outreach and Education	S	L		Y				
VIII. Public Information Campaign		S	L	Y				
IX. Active Media Outreach		S	L	Y				
X. Web-Based Communication and Social Media				Y				
XI. Real-Time Availability Applications		S	L	P				
XII. Parking Guidance Systems		S	L	P				
Transportation Demand Management								
I. Improve Bicycle and Pedestrian Facilities		S	L	Y				
II. Improve Transit Facilities and Services		S	L	Y				
III. Increase Transit Supportive Programs and Services		S	L	Y				
IV. Improve Safety and Security	S		L	Y				
V. Provide Preferential Parking for Carpool Vehicles		S	L	Y				
VI. Support Car-Share Programs		S	L	Y				
VII. Support Vanpooling Programs		S	L	Y				
VIII. Support Bicycle Share Programs		S	L	Y				
IX. Bicycle Parking		S	L	Y				
X. Establish Neighborhood Rideshare Program	S	L		Y				
XI. Parking Cash-out Program		L		N				
XII. Unbundle parking		S	L	N				
XII. Require Developers to Provide Off-street Space for Carshare		S	L	N				

NA/BA = Neighborhood Association/Business Association
LBO/O = Local Business Owner/Operator
AR=Administrative Rule

L = Lead
S = Support
N = No
P = Possible

Y = Yes

Table 4: Implementation (cont.)

Tools and Strategies	Implementation				Policy Readiness			
	NA/BA	LBO/O	City Agency	Code Ready	T16	T17	T33	AR
Parking Management Tools and Strategies								
I. Good Neighborhood Agreement		L		Y				
II. Shared Parking (Joint Use Parking)		L		P				
III. Public-Private Partnership/Parking Collaborative		S	L	P				
IV. Encourage Valet Operations		S	L	Y				
V. Curb Lane Management Policy		S	L	N				
VI. Implement Time Limit Restrictions		S	L	Y				
VII. Eliminate Parking Minimums		S	L	N				
VIII. Implement Parking Maximums		S	L	N				
IX. Reduce Parking Requirements		S	L	N				
X. Monitor, Measure, Evaluate Performance		L	S	Y				
Enforcement Tools and Strategies								
I. Implement Parking Enforcement		S	L	P				
II. Focused Enforcement		S	L	Y				
III. Issue Warnings		S	L	Y				
IV. Ticket Forgiveness		S	L	N				
V. Extend Grace Period		S	L	P				
VI. Extend Enforcement Hours		S	L	Y				
VII. Graduated Citation Structure		S	L	N				
VIII. Booting and Towing		S	L	N				
IX. Parking Ambassador	S	L		Y				
X. License Plate Recognition Enforcement		S	L	P				
Implement and Manage an Area Parking Permit Program Tools and Strategies								
I. Implement Area Parking Permit Program		S	L	P				
I.A. Exclude New Developments That Build With No Parking from Program Eligibility		S	L	N				
I.B. Limit the Number of Permits per Residential Unit		S	L	N				
I.C. Constrain the Number of Permits Available to Residents with Access to Off-Street Parking		S	L	N				
I.D. Graduated Rates for Multiple Permits		S	L	N				
I.E Demand-Based Pricing for Permits		S	L	N				
I.F. Virtual Permitting		S	L	Y				

NA/BA = Neighborhood Association/Business Association
LBO/O = Local Business Owner/Operator
AR=Administrative Rule

L = Lead
S = Support
N = No
P = Possible

Y = Yes

Table 5: Implementation (cont.)

Tools and Strategies	Implementation				Policy Readiness			
	NA/BA	LBO/O	City Agency	Code Ready	T16	T17	T33	AR
Implement and Manage Paid Parking Tools and Strategies								
I. Implement a Paid Parking Program		S	L	Y				
I.A. First Hour Free Program		S	L	Y				
I.B. Demand-Based Pricing		S	L	N				
I.C. Progressive Parking Pricing		S	L	N				
I.D. Balance On-and Off-Street Parking Rates		S	L	N				
I.E. Extend Paid Hours		S	L	Y				
I.F. Validation Program		S	L	Y				
I.G. Establish Parking Meter District		S	L	Y				
I.I. Improve Payment Technology		S	L	Y				
Create a New Parking Supply Tools and Strategies								
I. Incentivize Construction of Driveways/ Parking pads		S	L	P				
II. Blocked Driveway Permit Program		S	L	N				
III. Support a Driveway Share Program		S	L	N				
IV. Convert No Parking Areas to Parking Areas		S	L	Y				
V. Convert Regular Parking to Carpool Parking		S	L	Y				
VI. Create Motorcycle or Compact Vehicle Parking			L	Y				
VII. Reconfigure Existing Off-street Parking Facilities		L		Y				
VIII. Restripe Parallel Parking to Angled Parking			L	Y				
IX. Convert Travel Lanes to Parking Lanes			L	Y				
X. Stacked Parking		L		Y				
XI. Car Stackers		L		Y				
XII. Establish Remote Parking Areas Served by Transit		L		Y				
XIII. Construct a New Parking Facility		L	L	Y				

NA/BA = Neighborhood Association/Business Association
LBO/O = Local Business Owner/Operator
AR=Administrative Rule

L = Lead
S = Support
N = No
P = Possible

Y = Yes

TOOLKIT

1. USER INFORMATION

Providing information to the public regarding the planning and implementation of various parking management tools and strategies is often critical to the success of a program. Those who should be involved in the planning process may vary depending on who will be most impacted by the program; however, residents, local business owners, jurisdictional representatives, and elected officials should be included at a minimum. Involving these people early on in the planning process is instrumental in garnering support and developing an understanding of the program. Once the program is in place, communicating changes to the public, such as parking locations, rates, and regulations helps to strengthen users understanding of the parking system.

Implementation

Implementation of the tools and strategies within this section should be considered in areas where there is a lack of information on where to park, where a new parking plan or program is being developed, or where changes to an existing parking plan or program will have an impact on parking conditions within an area. In general, these tools and strategies should be considered prior to or in conjunction with the tools and strategies within the remaining sections. This is due, in part, to the ability of these tools and strategies to address many of the common parking issues identified within the City's neighborhood Centers and Civic Corridors. Table 1 identifies the most common issues identified throughout the development of the toolkit along with what tools and strategies identified within this section will address each issue.

Table 6: User Information Tools and Strategies

User Information Tools and Strategies	High Parking Demand	Unbalanced Parking Demand	Underutilized Parking Facilities	Lack of Parking Facilities	Limited Transportation Options	Supporting Commercial Activity	Accommodating New Development	Accommodating Special Events	Spillover into Residential Areas	Low Turnover	Time Stay Violations	Effective Use of the Curb Zone	Lack of Enforcement	Vehicle Ownership	Traffic Circulation and Congestion	Safety Concerns	Parking Policy and Code Issues	Lack of Information/Education
I. Consistent Parking Branding		•	•	•		•									•			•
II. Multi-family Branding: "Certified Car Free"	•						•							•				
III. FAQ "How to Park" Resources		•	•	•		•		•	•			•			•	•		•
IV. Neighborhood Parking Maps		•	•	•		•	•		•						•			•
V. Wayfinding and Signage		•	•	•		•		•							•			
VI. Coordination with Community Destinations		•	•	•		•									•			•
VII. Stakeholder Outreach and Education						•	•											•

VIII. Public Information Campaign	•					•	•		•							•		•
IX. Active Media Outreach	•					•		•								•		•
X. Web-Based Communication and Social Media	•					•		•							•	•		•
XI. Real-Time Availability Applications	•	•	•	•		•				•					•			•
XII. Parking Guidance Systems	•	•	•	•		•									•			

Tools and Strategies

The following presents the tools and strategies for providing user information.

I. Consistent Parking Branding

Off-street parking facilities should be branded to have a common appearance, simplifying the process of finding and accessing parking. Brands can be as simple as a common “P” or include program names, logos, or other marketing elements. Smart Park and City Center Parking currently use consistent parking branding to help identify public parking within the Central City.

- **Special Considerations for Implementation:** The mix of City owned versus private facilities in a given area will influence the feasibility and effectiveness of this strategy. Common branding and marketing among and between separate owners of parking would require negotiation and shared-use agreements. This may be best led by the City and/or a neighborhood business association already in place in an affected area.
- **Benefits:** Customer convenience. Clear direction to available facilities. Less congestion due to recirculation. Integration of on- and off-street facilities to direct longer term stays into off-street stalls.

II. Multi-family Branding: "Certified Car Free"

A city-established “car free” certification process for owners and developers of multi-family housing could be used to provide relief to off-street parking requirements and opportunities for shared-use parking agreements. Branding multi-family housing as “Certified Car Free” would require owners/managers to provide facilities and services, such as bike lockers and carshare vehicles, necessary to attract tenants/owners who lead car free lifestyles.

- **Special Considerations for Implementation:** A certification program would need to be developed and pilot-tested. Once established, the program could be implemented by the City in coordination with the owners/operators of multi-family housing.
- **Benefits:** Reduces demand for parking (particularly long-term parking), increases the use of healthy transportation options, and reduces the likelihood of auto congestion.

III. FAQ "How to Park" Resources

A frequently asked questions (FAQ) resource provides the opportunity to answer typical customer questions before they are asked. Additionally, "how to park" documents can be developed to introduce the proper locations and opportunities for parking in a community. These resources can include the location, rate, and regulation of different parking facilities and a list of common mistakes that could lead to citations. These should be living documents, updated as interactions with customers occur.

- **Benefits:** Customer convenience. Proper and more efficient use of available parking resources.

IV. Neighborhood Parking Maps

Neighborhood parking maps can provide parking locations, rates, availability, nearby destinations, and other useful information to help motorists plan their trip. Neighborhood parking maps can also be linked to the City's website, the neighborhood or business association website, or printed and posted in local businesses or in community centers to promote efficient use of the parking system.

- **Benefits:** Customer convenience. More coordinated and strategic management of available supply.

V. Wayfinding and Signage

Wayfinding and signage communicates parking locations, availability, rates, and other key considerations for motorists. Wayfinding and signage may be temporary to support special events or other temporary changes in parking conditions or they may be permanent, static, or dynamic. The use of dynamic signage provides more flexibility with provision of critical user information.

- **Benefits:** Customer convenience. More coordinated and strategic management of available supply. Reduced congestion and circling for parking.

VI. Coordination with Community Destinations

Parking programs can be coordinated with local businesses and destinations to help match available parking supply with parking demands. This may include providing a link on a business website to the parking program site as a means of defining parking availability or working/liasing directly with business needs.

- **Special Considerations for Implementation:** At a minimum this type of strategy will need to be supported with data identifying available parking resources and a lead entity capable of coordinating with and obtaining consent from property owners with available supply. This strategy is best implemented in areas, corridors or districts with an existing neighborhood business association already in place. The City could assist in identifying regulatory barriers that might be in place that would limit the provision of commercial parking in a specific area (defined by zoning).

- **Benefits:** Customer convenience. More coordinated and strategic management of available supply. More efficient use of parking resources.

VII. Stakeholder Outreach and Education

Stakeholder outreach and education can include soliciting input for new programs, surveying customer experiences, and communicating and educating the public on the implementation of new programs or strategies. Quality stakeholder outreach should be conducted often, especially when changes are made to the program.

- **Benefits:** Customer convenience. More coordinated and strategic management of available supply. Feedback mechanism for program evaluation, refinement, and adaptation.

VIII. Public Information Campaign

Public information campaigns can be used to inform motorists of changes to a parking program, such as the location of parking facilities, availability, rates, and other key considerations for motorists.

- **Benefits:** Customer convenience. Proper and more efficient use of available parking resources.

IX. Active Media Outreach

Media can be used to inform motorists of changes in a parking program, including the implementation of new technology or changes in policy. If media opportunities are not actively sought, media attention will be limited to reactionary pieces, which are often negative.

- **Benefits:** Customer convenience. More coordinated and strategic management of available supply.

X. Web-Based Communication and Social Media

Parking program websites are a one-stop-shop for extensive information on the parking and transportation system, including parking locations, rates, availability, regulations, online mapping, alternatives, and citation payment information. Social media sites provide another outlet for reaching customers, communicating elements of the parking program, and receiving feedback.

- **Benefits:** Customer convenience. More coordinated and strategic management of available supply.

XI. Real-time Availability Applications

Real-time availability applications can include signs, maps, smartphone applications, websites, and electronic devices that provide useful real-time information on parking conditions, availability, rates, and other key information for motorists.

- **Special Considerations for Implementation:** Real-time parking availability applications would require a significant investment in data collection technology, including loop detection or camera systems. However, interest by private app developers could lead to lower cost systems where parking availability information is user based or taps into open source systems that might be developed in the future.
- **Benefits:** Customer convenience. More coordinated and strategic management of available supply. Improved user and parking system efficiency. Reduced congestion and circling for parking.

XII. Parking Guidance Systems

Parking guidance systems, similar to the one at the Portland Airport or at the west side Morrison Bridgehead for SmartPark, typically consist of dynamic wayfinding signage that navigates motorists to available spaces. The systems require a significant investment in data collection technology, including loop detection or camera systems.

- **Special Considerations for Implementation:** Parking-guidance system would require a significant investment in data collection technology, including loop detection or camera systems.
- **Benefits:** High customer convenience and satisfaction, particularly when coupled with real-time communications. More coordinated and strategic management of available supply. Reduced congestion and circling for parking.

2. TRANSPORTATION DEMAND MANAGEMENT

There are many Transportation Demand Management (TDM) tools and strategies that can be used to reduce parking demand by promoting active modes of transportation for commute and non-commute trips. Implementation of these strategies can not only reduce parking demand, but can lead to other benefits, such as a reduction in congestion related to drivers circling the neighborhood looking for parking. The TDM tools and strategies described below include improvements to the non-vehicular networks as well as commuter-based incentives designed to reduce parking demand.

Many TDM investments have the effect of increasing non-auto access capacity. Bicycle parking is an excellent example. Such physical assets invite bicycle travel, provide a safe and secure place to store bicycles, and reduce vehicular activity and auto parking demand.

For the most part, TDM programs and strategies can be delivered at any time in an area and do not have to be tied directly to parking management. For instance, promoting transit, expanding bicycle networks

and trip end facilities and improving the safety and connectivity of pedestrian ways all have community benefits and can actually reduce auto demand (and therefore parking need) in advance of parking constraints that growth could bring if TDM was not actively pursued. Nonetheless, TDM is a more effective tool in situations when parking is constrained and when coupled with programs/strategies that price parking, creating a more realistic choice option for people.

Implementation

Implementation of the tools and strategies within this section should be readily considered in areas where parking is constrained (i.e., 85%+). Bicycling and walking strategies are “first response” programs as some areas do not always have high levels of transit service. In areas where transit is in place, pass incentives are more realistic, especially when coupled with parking time stays and pricing. Increasing transit service and frequencies is best pursued in areas where existing parking management is already aggressive and parking pricing is in place. Also, increasing service and frequencies can be successfully pursued in the context of larger area and corridor transit planning and investment efforts (usually led in partnership with TriMet). Table 2 identifies the most common issues identified throughout the development of the toolkit along with what tools and strategies identified within this section will address each issue.

Table 7: Transportation Demand Management (TDM) Tools and Strategies

Transportation Demand Management (TDM) Tools and Strategies	High Parking Demand	Unbalanced Parking Demand	Underutilized Parking Facilities	Lack of Parking Facilities	Limited Transportation Options	Supporting Commercial Activity	Accommodating New Development	Accommodating Special Events	Spillover into Residential Areas	Low Turnover	Time Stay Violations	Effective Use of the Curb Zone	Lack of Enforcement	Vehicle Ownership	Traffic Circulation and Congestion	Safety Concerns	Parking Policy and Code Issues	Lack of Information/Education
I. Improve Bicycle and Pedestrian Facilities	•				•	•		•						•				
II. Improve Transit Facilities and Services	•				•	•		•						•				
III. Increase Transit Supportive Programs and Services	•				•			•						•				
IV. Improve Safety and Security	•				•	•		•						•		•		
V. Provide Preferential Parking for Carpool Vehicles				•	•			•				•						
VI. Support Car-Share Programs	•				•		•							•				
VII. Support Vanpooling Programs	•				•		•							•				
VIII. Support Bicycle Share Programs	•				•		•							•				
IX. Bicycle Parking	•			•	•	•	•	•				•		•				
X. Establish Neighborhood Rideshare Program	•				•		•							•				
XI. Parking Cash-out Program	•				•									•				
XII. Unbundle parking					•		•							•				

XII. Require Developers to Provide Off-street Space for Carshare	•			•	•		•					•		•				
XIV. Require Developer and/or Property Manager to Provide a Monthly Mobility Subsidy to Tenants	•				•		•							•				

Tools and Strategies

The following summarizes the tools and strategies for implementing TDM.

I. Improve Bicycle and Pedestrian Facilities

Providing enhanced bicycle and pedestrian facilities (e.g. bicycle lanes, bike parking, safe crossings, and sidewalks) along with wayfinding and signage and other infrastructure improvements will enhance the comfort and safety of bicyclists and pedestrians and encourage biking and walking as daily forms of transportation for a variety of trip purposes.

- **Special Considerations for Implementation:** May require changing SDC ordinance and ability to require off-site improvements in lieu of or in addition to frontage improvements
- **Benefits:** Reduces reliance on automobile trips, increases health, and increases transportation options that can be pursued routinely or as weather and other factors support.

II. Improve Transit Facilities and Services

Improving transit facilities and services can encourage drivers to choose transit over vehicular travel. Strategies include improved transit stops amenities, frequency of service, hours of service, accessibility, and marketing.

- **Special Considerations for Implementation:** This tool can be implemented at any time or when concentration of population and employment warrant additional services. However, efforts to bring such facilities and services to a specific area are not likely to be led by the City, but through TriMet. The City and district/area based associations could recommend agreements with TriMet to enhance service on key corridors based on development and or implementation of more “transit friendly” programs in affected areas (e.g., parking pricing, pass subsidies/incentives, etc.).
- **Benefits:** Increases non-auto accessibility, reduces reliance on automobile trips, increases healthy transportation choices, and improves property values.

III. Increase Transit-Supportive Programs and Services (free transit passes, pass sales, trip planning, etc.)

Areas experiencing consistently high and sustained parking demands are likely to benefit from improved transit service and transit-supportive programs. Possibilities for car free lifestyle choices are increased, employees can find viable alternatives to driving and parking in the neighborhood, and

customers/visitors can use transit as a reliable form of access. Work with TriMet to increase transit-supportive programs and services that encourage use of public transit as an alternative to private automobiles.

- **Special Considerations for Implementation:** This tool can be implemented at any time though research indicates that transit programs are increasingly effective when provided in coordination with paid parking. The City is currently working on changing code requirements for new development for TDM and parking management. These changes are intended to augment and synergize area based efforts to implement TDM and parking management strategies.
- **Benefits:** Reduce congestion, demand for parking, reliance on automobiles, and vehicle ownership.

IV. Improve Safety and Security

Real or perceived safety and security concerns can discourage walking, cycling, and transit use. These problems can be addressed through various programs and strategies that increase security, including neighborhood watch and community policing programs, special police patrols (including police on foot and bicycles), improved lighting, pedestrian escorts, and monitoring of pedestrian, bicycle, transit and park & ride facilities.

- **Benefits:** Improves community vitality and increases non-auto travel.

V. Provide Preferential Parking for Carpool Vehicles

Parking spaces can be reserved on- or off-street for vehicles with more than one passenger (particular spaces associated with commuter demand). Placing the stalls in highly desired parking areas (e.g., closest to building entries or elevators) serve to encourage users to “pool” passengers rather than driving alone.

- **Special Considerations for Implementation:** This tool can be implemented at any time, though research indicates that carpool programs are increasingly effective when provided as a contrast to parking costs for drive alone trips (e.g., carpool parking is provided at a cost less than single occupant vehicles). Such programs also need to be supported with at least a basic level of compliance monitoring. Thus, areas and associations would need to work with the City of Portland through its existing carpool program for on-street parking. Preferential carpool programs on private property would need to be coordinated individually with parking owners, which might require participation of a neighborhood/business association. Once established communication of program availability needs to be sustained.
- **Benefits:** Increases auto occupancy, reduces travel and parking demand, and reduces congestion.

VI. Support Car-Share Programs (e.g. Zipcar, car2go)

Carshare services, such as Zipcar and car2go are a substitute for private vehicle ownership. They make the occasional use of a vehicle affordable, even for low-income households. Also, by allowing households to reduce their vehicle ownership it provides an incentive to reduce driving and rely more on alternative modes. Lastly, such services can reduce parking demand.

- **Benefits:** Encourages/supports lower rates of individual vehicle ownership and the resulting parking demand.

VII. Support Vanpooling Programs

Vanpools offer ridershare services for larger groups of people commuting to a common destination. Support for vanpooling can be accomplished by providing priority parking spaces for vanpools at common destinations, ride matching services, and a vanpool subsidy.

- **Special Considerations for Implementation:** This tool can be implemented at any time though research indicates that vanpool programs are increasingly effective when provided as a contrast to parking costs for drive alone trips (e.g., vanpool parking is provided at a cost less than single occupant vehicles). Metro provides vanpool information and entry level assistance for setting up such programs (<http://www.oregonmetro.gov/tools-living/getting-around/share-ride/vanpool>) and CTRAN provides assistance as well (<http://www.c-tran.com/c-tran-services/vanpool>).
- **Benefits:** Increases auto occupancy, reduces travel and parking demand, and reduces congestion.

VIII. Support Bicycle Share Programs

Bicycle share programs, such as Portland Bike Share, provide bicycle rental for short (less than 3 miles), urban trips. A typical bike share program consists of a fleet of bicycles, a network of automated stations where bikes are stored, and bike redistribution and maintenance programs. Bikes may be rented at one station and returned to another. Bike share programs can be used for a variety of purposes. Residents can ride for recreation or to nearby commercial services, employees can ride to meet daily needs while at work, and visitors can “park once” and extend their trip distance.

- **Special Considerations for Implementation:** This tool can be implemented at any time but generally requires significant investment in planning, infrastructure and management. This strategy tool is likely not readily available to most corridors and centers and is best pursued through long-term planning with the City of Portland on future efforts to expand Bike Share outside the urban area.
- **Benefits:** Encourages/supports non-auto trips and lower rates of individual vehicle ownership. Reduces auto parking demand vehicle miles traveled.

IX. Bicycle Parking (bike corrals, staples, other)

Providing enhanced bicycle parking facilities, including on-street (e.g. bike corrals) and off-street (e.g. staples), as well as near business entrances and in any parking structure or lot, will encourage bicycle use as a daily form of transportation.

- **Special Considerations for Implementation:** This tool can be implemented at any time, particularly in areas where existing (or lack of existing) bike parking can be increased. Efforts to do this can be made with area buildings and businesses and the City's existing program for placing bike parking in the public right-of-way. In some cases, current Code requirements for bike parking associated with new development may be inadequate. In other words, current minimum requirements may need to be reevaluated. Consideration should also be given to requiring minimum bike parking standards for remodels/redevelopment, not only for new construction.
- **Benefits:** Increases "parking capacity" as the number of bike stalls that fit within a single vehicle space is at least 4 bikes to 1 car.

X. Establish Neighborhood Rideshare Program

Neighborhood rideshare programs can be used to connect residents from the same neighborhoods who want to ride to work. These programs serve as a low-cost, low-risk invitation to try riding for commute purposes with neighbors that can "lead the way."

- **Special Considerations for Implementation:** This tool can be implemented at any time and rideshare matching programs are already in place through Metro's Drive Less Connect network (www.drivelessconnect.com).
- **Benefits:** Encourages/supports non-auto trips and lower rates of individual vehicle ownership.

XI. Parking Cash-out Program

Employers provide a cash-equivalent to employees in lieu of a subsidized parking space. Such a program exposes employees to the cost of parking and more fully informs the decision of which mode to use for commuting. Employers can go further by using the cash-equivalent value of the parking as a financial incentive for employees to walk, bike, carpool, or take transit. This type of program is dependent on employer action. The city may require such action as a part of a TDM program conditioned with the development. Alternatively, the city may seek a partnership role with one or many businesses in an area as a means of "freeing up" private off-street parking for use by customers and visitors, because the employees are generating lower parking demands.

- **Special Considerations for Implementation:** This tool can be implemented at any time. However, it depends on employer action that is either required by the city through some official action or undertaken voluntarily. If it is to be required in Portland, code changes would be needed.
- **Benefits:** Provides a market incentive to consider alternative modes.

XII. Unbundle Parking

Unbundled parking separates parking spaces from the lease or purchase price of a residence or commercial space and monetizes that space allowing tenants to only pay for the parking they need. The city may require such action through development approval; however, controls must be in place (parking permit zones) that preclude tenants from simply relying on curbside parking as long-term storage of their vehicles.

- **Special Considerations for Implementation:** This tool can be implemented at any time (voluntarily by property managers) or as a requirement on new development, which would require changes to existing City Code. If the City did initiate code changes, they could not retroactively impose this kind of requirement on existing development (necessitating voluntary initiation by property managers). Again, curbside controls and/or pricing must be in place to prevent tenants (now experiencing a parking charge) from misusing on-street public parking.
- **Benefits:** Promotes car free living, reduces parking demand, reduces vehicle miles traveled, and increases healthy travel choices.

XIII. Require Developers to Provide Off-street Space for Carshare

Require developers to provide a space for carshare vehicles on the property. Meeting this requirement could be part of a “Car Free Certification” program the city creates for residential developments.

- **Special Considerations for Implementation:** This tool can be implemented at any time or in conjunction with new development. Necessary changes to existing Portland Code would need to be made to reinforce the ability to make such requirements and/or to establish the Car Free Certification program. The potential need to modify code may initially limit this to “encouraging” the provision.
- **Benefits:** Supports a car free lifestyle, reduces lease or rent costs for those who choose not to park or own a vehicle, reduces parking demand, and may reduce per capita vehicle miles traveled.

XIV. Require Developer and/or Property Manager to Provide a Monthly Mobility Subsidy to Tenants

Requiring property managers to fully or partially subsidize carshare program entry fees for tenants can ensure that a carshare service located within close proximity to the property will be viable for the carshare company and used by tenants.

- **Special Considerations for Implementation:** This tool can be implemented at any time or in conjunction with new development if done voluntarily by developers/property owners. If the City did initiate code changes to make this a requirement of new development, they could not retroactively impose this kind of requirement on existing development. Also, if it is made a

requirement, the City would need to be cognizant of areas where, even if required, carshare service providers may not, because of volume, find providing the service viable.

- **Benefits:** Supports a car free lifestyle, reduces lease or rent costs for those who choose not to park or own a vehicle, reduces parking demand, and may reduce per capita vehicle miles traveled.

3. MANAGE EXISTING PARKING SUPPLY

Parking management includes a variety of strategies that encourage more efficient use of the existing parking supply, improve the quality of service provided to parking facility users, and improve parking facility design. Parking management can help address a wide range of transportation problems and help achieve a variety of transportation, economic, environmental, and land use development objectives. The City is the implementing party for any management program focused on the public parking system, while individual businesses or those businesses and/or residents that form an alliance or improvement district can be the instigators or implementers of private parking management programs. Parking management is far more effective when there is coordination between public and private supplies. Concerns raised by residents and/or businesses over chronic parking issues will often result in parking studies that define and quantify the problem and then develop a parking management plan that is best suited to address the issues under the given set of circumstances.

Implementation

Table 3 lists the most common parking issues identified throughout the toolkit development process, along with parking management tools and strategies that could address each issue. At the local level, parking management is most effective when efforts are made to control the on-street system (through time limits, pricing (as appropriate) and enforcement. Of course, the decision to implement more aggressive on-street parking management needs to be demand driven, thus underscoring the importance of a demand threshold like the 85% Occupancy Standard. Without effective on-street management, the success and (at times) feasibility of strategies in off-street supply and for alternative modes is adversely impacted. In other words, it is difficult to compete with unregulated or free on-street parking when efforts are being initiated to influence users choice of where to park or to use alternative modes.

Table 8: Parking Management Tools and Strategies

Parking Management Tools and Strategies	High Parking Demand	Unbalanced Parking Demand	Underutilized Parking Facilities	Lack of Parking Facilities	Limited Transportation Options	Supporting Commercial Activity	Accommodating New Development	Accommodating Special Events	Spillover into Residential Areas	Low Turnover	Time Stay Violations	Effective Use of the Curb Zone	Lack of Enforcement	Vehicle Ownership	Traffic Circulation and Congestion	Safety Concerns	Parking Policy and Code Issues	Lack of Information/Education
I. Good Neighborhood Agreement	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

II. Shared Parking (Joint Use Parking)	•	•	•	•		•	•	•	•	•		•						
III. Public-Private Partnership/Parking Collaborative	•	•	•	•		•	•	•	•	•		•						
IV. Encourage Valet Operations	•		•	•	•	•	•	•							•			
V. Curb Lane Management Policy		•		•	•	•						•			•			
VI. Implement Time Limit Restrictions	•	•	•	•		•				•		•			•			
VII. Eliminate Parking Minimums			•				•							•				
VIII. Implement Parking Maximums			•				•							•				
IX. Reduce Parking Requirements			•				•							•				
X. Monitor, Measure, Evaluate Performance																		•

Tools and Strategies

The following summarizes the tools and strategies to better manage the existing parking supply.

I. Good Neighborhood Agreement

A Good Neighbor Agreement (GNA) is a written document that contains terms agreed upon by two or more parties, for example a neighborhood association and a business, and defines how to resolve problems that may arise. Neighbors and other stakeholders may pursue this process to express their concerns about how a residential, business, or other facility might impact the livability and safety of their neighborhood or to establish a relationship with a new or existing enterprise. Because a GNA is typically a preventative measure, an enterprise with significant problems may not be a good fit for this kind of agreement. The City can serve in an advisory role to help the two or more parties understand the benefits of a Good Neighbor Agreement.

- **Special Considerations for Implementation:** This tool should be considered for implementation in areas where large businesses, enterprises, or commercial/residential centers have the potential to impact neighborhood livability. City code currently allows for Good Neighborhood Agreements. Additional information is provided on the City's Office of Neighborhood Involvement website at <https://www.portlandoregon.gov/oni/article/413126>.
- **Benefits:** Allows the parties most directly involved to take responsibility for addressing issues before they become problems that the City or others must resolve.

II. Shared Parking (Joint Use Parking)

Shared parking allows for multiple land uses to share a common parking supply because peak demands for the nearby land uses occur at differing times of day (e.g. office and residential uses). Care must be taken to monitor changes in land uses that may minimize or eliminate the ability to share a common parking resource.

- **Special Considerations for Implementation:** This tool should be considered for implementation in areas with mixed-use development, centralized parking facilities, and private parking facilities

with predictable periods of low utilization. The City Code provides for the provision of Joint Use Parking (see 33.266.110.B.2). This section of the code states Joint use of required parking spaces may occur where two or more uses on the same or separate sites are able to share the same parking spaces because their parking demands occur at different times. Joint use of required parking spaces is allowed only if the uses and housing types to which the parking is accessory are allowed in the zone where the parking is located. Joint use of required parking spaces is allowed if specific required information is submitted in writing to BDS as part of a building or zoning permit application or land use review.

- **Benefits:** Promotes a well utilized parking system, allows for denser level of development, reduces the amount of land required for parking.

III. Public-Private Partnership/Parking Collaborative

Public-private partnerships can open access to existing private parking facilities or construct new parking (for instance, through co-financing) to serve both site specific users and the general public. This improves parking and land use efficiency as well as user satisfaction.

Parking collaboratives align public agencies with private operators to promote the perceptions of public supply through rebranding, marketing, wayfinding, and customer service. In this model the private operators maintain control of the parking facilities, but the public agency provides guidelines for signage, branding, marketing, and customer service/education. The public entity also provides assistance with promotion of the collaborative.

Overall, coordinated management of private facilities (by the City or private enterprise) can prove effective if the public agency is allowed to manage available supply to optimize the overall parking system for an area without jeopardizing the private business.

- **Special Considerations for Implementation:** This tool should be considered for implementation in areas where existing private parking facilities have large supplies with predictable periods of low utilization or where the City believes a joint partnership in a new development can bring increased value and efficiency for an area through joint “ownership.”.
- **Benefits:** Improves the efficiency of parking resources, synchronizes public and private management practices and investments, and allows for denser level of development. Improves the efficiency of communicating to parking users, simplifies the user decision-making process, promotes a more efficient parking system, reduces parking impacts on surrounding areas and the amount of land required for parking..

IV. Encourage Valet Operations

Valet services are especially successful in business districts with high demand and a constrained parking system. Patrons can exit their vehicle at or near their destinations and valet staff can move vehicles to available supply in a district and/or double load parking facilities to maximize available parking space.

Valet parking can be subsidized by businesses or provided to drivers for a fee. Special curbside zones may be necessary or beneficial to improve the effectiveness of a valet system. Monitoring also may be necessary to ensure double-parking and other inappropriate activities do not develop.

- **Special Considerations for Implementation:** This tool should be considered for implementation in areas with congested parking conditions and where demand generated by one or more local businesses could support its use. Also, there should be available supplies of underutilized supply in off-street facilities nearby.
- **Benefits:** Supports high demand businesses by effectively increasing parking supply, improves customer service, reduces traffic circulation and congestion, and maximizes efficiency of parking facilities.

V. Curb Lane Management Policy

Comprehensive curb lane management policies help to prioritize use of the curb, optimize local area access across modes and land uses, and promote efficient use of limited resources in a fair and equitable manner. Such policies are best developed in collaboration with the businesses and residents of the area and in coordination with local and citywide plans and policies. The following provides an abbreviated list of potential uses of the curb zone. Additional uses should be considered in all areas consistent with City policy.

V.A. ADA Parking. *ADA on-street parking provides accessible parking to surrounding land uses. Oregon issues the ADA placard for free (up to two), while the City of Portland requires payment at meters and pay stations (but extends the period of stay) for those who legally use an ADA space within a pay-as-you-go system. This tends to discourage the illegal use of ADA placards or plates.*

V.B. Commercial Vehicle Parking. *Permits granted to commercial vehicles for the purpose of loading and unloading goods for area businesses. Permit programs can offer a single, flat rate for a permit or it can be a tiered system, where there are a number of different types of permits offered at different prices to meet the different needs of the vendors and businesses. Pricing can be by location, time of day, number of days per week, duration of stay, among others.*

V.C. Taxi Zones. *Provision of curb space for taxi loading supports surrounding businesses and patrons. Adequately defining loading zones can prevent taxis from occupying valuable on-street spaces. Using transitional spaces (e.g. commercial loading in the morning and taxi at night) can promote a more efficient curb space.*

V.D. Valet Zones. *Valet zones provide needed space for valet services that support surrounding businesses (see V. above). Designated valet areas should be located strategically and consistently along the curb, and supported with well-defined valet policies.*

V.E. Transitional Spaces. *Converting underutilized spaces during certain time periods can help manage curb demands, without minimizing on street parking needs. An example would be*

commercial loading during the day and public use at night. Effective signage and marketing are necessary to reduce public confusion over parking regulations.

- **Special Considerations for Implementation:** This tool, or elements of this tool, should be considered for implementation in areas where these types of parking demands regularly occur and parking utilization rates are above 85% occupied.
- **Benefits:** Provides for and balances the needs of varying users, can reduce congestion due to circulating commercial/taxi vehicles, can facilitate more efficient use of the curb lane.

VI. Implement Time Limit Restrictions

Time limit restrictions effectively limit the amount of time a vehicle can remain in a parking space (e.g. 15-minute, 30-minute, 1-hour, 2-hours, etc.). Time limit restrictions require signage and enforcement to ensure that regulations are met. The shorter time limits (15-minute, 30-minute, and 1-hour) should be used sparingly and only in areas where adjacent land uses require higher levels turnover; otherwise, these time limits do not provide sufficient time for visitors and patrons of local businesses.

***VI.A. Reduce Time Limits.** Parking time limits can be reduced as a means of increasing the effective capacity of the parking system. This should only be done when monitoring has shown that average durations of stay are less than the existing time limits OR there is access (public or private) to other parking facilities that accommodate longer stays.*

***VI.B. Extend Time Limits.** Parking time limits are extended to reflect actual demand and serve priority parkers. This works well in areas with restaurants, shopping, and nightlife activities that promote longer parking stays to enhance the community experience. Monitoring durations of stay and the type and attractiveness of adjacent land uses are important factors in this decision.*

***VI.C. Varied Time Limits.** Varied time limits allow a program to adapt to the changing needs of adjacent land uses throughout the day and night. This requires simple signage and a clear communication strategy by program management.*

- **Special Considerations for Implementation:** These tools should be considered for implementation in areas where average durations of stay are non-compliant or atypical, or vary across land uses such that differing time limits would be beneficial to the area. Supporting occupancy, turnover and duration of stay data may need to be collected to support the best time limit format for a given area, by location and time of day. City code currently allows for time limit restrictions, including reducing, extending, and varying time limits to better meet parking demand.
- **Benefits:** Tailors parking access to user needs, promotes balanced demand by moving long-term parkers to designated facilities, improve access to local businesses.

VII. Eliminate Parking Minimums

The City has an extensive set of minimum parking requirements and methods of reducing the minimums further. Nonetheless, circumstances may arise where eliminating parking minimums would allow an area to “right size” the parking system, based on zoning, prevalent land uses, and market demand. When coupled with parking maximums, these tools can effectively control the amount of private, inaccessible parking within an area.

- **Special Considerations for Implementation:** This tool should be considered for implementation in areas with excess parking capacity, where new development tends to oversupply parking (based on occupancy data), within close proximity to the city center, and where existing pedestrian, bicycle, and transit facilities and service offer a variety of alternative modes of transportation. Supporting occupancy and demand data may need to be collected to support the recalibration or “right sizing” of minimum parking standards for a given area.
- **Benefits:** Promotes the tailoring (or right sizing) of parking capacity to better fit an area and prevailing land uses.

VIII. Implement Parking Maximums

Parking maximums place a ceiling on the number of parking spaces a developer can build in relation to the land use intensity on-site and the availability of transportation alternatives. These maximums discourage parking from being over-built and underutilized as a result of restricted access to private parking supplies. Portland currently uses parking maximums and should continue to monitor and adapt code to achieve appropriate levels of parking access.

- **Special Considerations for Implementation:** This tool should be considered for implementation in areas within close proximity to the city center and where existing pedestrian, bicycle, and transit facilities and service offer a variety of alternative mode of transportation. This tool should also be considered in areas where significant improvements/investments in alternative modes have been made, which might cause existing maximums to be too high. The City is currently engaging such a “recalibration” in the Central City and could look to that process as a template/model for other areas that have benefitted from alternative mode infrastructure improvements.
- **Benefits:** Avoids the potential to over-building parking (particularly private parking) and all of the negative effects that can arise from that circumstance.

IX. Reduce Parking Requirements

Reducing parking requirements for developments reflects a trend toward “right-sized” parking, which allows developers and businesses to build the parking they need rather than the parking required by code. Portland already has this tool available and applies it judiciously, however expanding the current

Central City standard (i.e., no minimum parking required) to areas outside the Central City should be explored.

***IX.A. Reduce Parking Requirements in Special Areas,** such as transit oriented developments and specific plan areas. Too much parking within these areas can incentivize car ownership and single occupancy vehicle trips.*

***IX.B. Reduce Parking Requirements for Development that Participate in TDM Programs.** Developments that participate in TDM programs tend to have lower parking demands; therefore, reducing parking requirements for these types of development will ensure that the parking system is not overbuilt.*

***IX.C. Reduce or Eliminate Parking Requirements for Specific Developments or Uses,** such as smaller developments where the provision of parking might require more land and cost more money than the development itself. This can be used as a means for economic development, but should be monitored to ensure that the reduction or elimination of parking requirements does not have a substantially adverse effect on the parking system.*

- **Special Considerations for Implementation:** This tool should be considered for implementation in areas within close proximity to the city center and where existing pedestrian, bicycle, and transit facilities and service offer a variety of alternative modes of transportation. The City should also explore extending the current Central City standard (no minimums) to areas outside the Central City. This would be based on assessments of (a) level of alternative mode capacity and (b) base standards for curbside parking management (e.g., time stays, pricing and enforcement).
- **Benefits:** Supports the tailoring of a parking supply and system to better suit the existing and planned land uses.

X. Monitor, Measure, Evaluate Performance

Monitoring, measuring, and evaluating the performance of a parking program can ensure that appropriate adjustments are being made in a timely manner to continue meeting the needs of local residents and businesses owners. Good parking management requires a baseline of useful information that tracks performance metrics (e.g., inventory, occupancy, duration of stay, rate of violation, etc.) and a schedule for routinely updating the data base.

***XI.A. Neighborhood Audit.** A neighborhood audit would provide a majority of the information necessary to understand existing parking conditions within a given area. The audit could include a full inventory of the existing parking supply, a survey of hourly parking demand, a survey of neighborhood businesses and local residents on current parking perceptions, and more. The information could be used to support the implementation of a new parking program or make changes to an existing program that no longer serves the needs of the area.*

XI.B. Individual Space Sensor Technology. Parking stalls can be equipped with individual space sensor technology to help manage the parking system, as well as help motorists find available parking. More advanced systems require significant investment in data collection technology, including loop detection systems or camera detection systems, but provide real-time occupancy information that can be delivered electronically to users.

XI.C. Require Private Properties to Allow Access to Parking Facilities for Monitoring. This tool would ensure that public agencies have access to private parking facilities in order to monitor utilization and turnover.

- **Special Considerations for Implementation:** This tool should be considered for implementation in any area that is considering managing parking or is considering changes to an existing parking program. Objective and up-to-date data will help the City and local stakeholders make better informed decisions as unique areas grow and redevelop. The system does not need to be elaborate, but it should be consistent and routine and structured to answer relevant questions about occupancy, seasonality, turnover, duration of stay, patterns of use and enforcement. Parking information can be collected in samples and other measures of success (once developed and approved) can be gathered through either third party data collection and/or volunteer processes. An outline methodology for how to conduct parking inventory and data analyses is provided in the Oregon Transportation & Growth Management's *Parking Made Easy: A Guide to Managing Parking in Your Community*, most specifically Chapter 7. The guide can be found at www.oregon.gov/LCD/TGM/docs/parkingprimerfinal71213.pdf. Data derived from these efforts can be used by the City and area interests to inform decisions, track use and assess success measures. Nonetheless, resources will need to be identified to support such efforts; both to initiate and to sustain.
- **Benefits:** Ensure the current parking system or program meets the needs of local residents and business owners, supports the development of or changes to existing parking programs.

4. ENFORCEMENT

Effective enforcement of parking regulations is essential to reaching compliance and efficiency in a parking system. Enforcement often carries a negative connotation, but when performed properly it can be an invisible component of a program that improves turnover, manages demand, deters habitual or repeat offenders, and improves the efficiency of an entire parking system. ***Proper enforcement should be focused on education and promoting a change in behavior, rather than the generation of additional revenues for the parking program.***

Implementation

Table 4 lists the most common parking issues identified throughout the toolkit development process, along with parking management tools and strategies that could address each issue. It is important to note that parking enforcement as a parking management tool will not address issues related to high

parking demand, unbalanced parking demand, underutilized facilities, etc. unless it is coupled with other parking management tools and strategies that require enforcement to be effective. The following table assumes other parking management strategies are in place to be enforced

Table 9: Enforcement Tools and Strategies

Enforcement Tools and Strategies	High Parking Demand	Unbalanced Parking Demand	Underutilized Parking Facilities	Lack of Parking Facilities	Limited Transportation Options	Supporting Commercial Activity	Accommodating New Development	Accommodating Special Events	Spillover into Residential Areas	Low Turnover	Time Stay Violations	Effective Use of the Curb Zone	Lack of Enforcement	Vehicle Ownership	Traffic Circulation and Congestion	Safety Concerns	Parking Policy and Code Issues	Lack of Information/Education
I. Implement Parking Enforcement	•	•	•	•		•	•	•	•	•	•	•	•	•	•			
II. Focused Enforcement	•	•	•	•		•	•	•	•	•	•	•	•	•	•			
III. Issue Warnings						•	•			•	•	•	•					
IV. Ticket Forgiveness						•	•						•					
V. Extend Grace Period						•	•						•					
VI. Extend Enforcement Hours	•	•	•	•		•	•	•	•	•	•	•	•	•	•			
VII. Graduated Citation Structure	•	•	•	•		•	•	•	•	•	•	•	•	•	•			
VIII. Booting and Towing	•	•	•	•		•	•	•	•	•	•	•	•	•	•			
IX. Parking Ambassador						•	•						•					
X. License Plate Recognition Enforcement	•	•	•	•		•	•	•	•	•	•	•	•	•	•			

Tools and Strategies

The following summarizes the tools and strategies to enforce the intended parking management and regulate the parking supply. Any time active parking management is required, so too is parking enforcement. How to determine the amount of enforcement necessary can be established within occupancy ranges. For instance, any supply that is consistently over the 85% Occupancy Standard would require a high level of enforcement; coupled with strategies that limit time stays and/or engage the need to pursue permit programs. Areas with routine occupancies that range between 66% and 85% would require moderate levels of enforcement, as occupancies within this range likely ensure that parking is generally available to area users. Occupancies at 65% or less would require low levels of enforcement. Strategies dealing with citations (e.g., rates, varying ticketing structures) would be best pursued if it is determined that those violating area “rules” comprise a significant percentage of an affected supply, rather than first pursuing strategies that would better manage time stays. Other strategies can be implemented at any time as indicated below.

I. Implement Parking Enforcement

Implementing parking enforcement is typically in response to parking behaviors that are adversely impacting residents or businesses. Consistently high demands, low turnover, and misuse of curbside parking for long-term storage are several reasons for implementing parking enforcement.

- **Special Considerations for Implementation:** This tool should be considered for implementation when parking demand is at or near the effective capacity of the parking supply (85%) or when parking behaviors are inconsistent with parking regulations and adversely impacting the area.
- **Benefits:** Reinforces appropriate parking behaviors, educates users and abusers, and penalizes inappropriate activities.

II. Focused Enforcement

In situations where illegally parked vehicles are regularly impacting an area's operations, growth, residents or businesses, the program can target the area with strict enforcement to reinforce the parking regulations. Targeted enforcement is not particularly suited to conditions where parking demand is consistently high. Targeted enforcement should only be conducted for a short period of time and (ideally) based in objective data that identifies unique areas of illegal parking activity within an enforcement area. Routine data collection efforts, new revenue control or sensor technology can help provide locations of violators for improving targeted enforcement.

- **Special Considerations for Implementation:** This tool should be considered when excessive parking demand is not the primary issue and specific parking behaviors can be targeted for enforcement.
- **Benefits:** Focused effort to resolve parking issue without more extensive efforts to develop and implement a parking program.

III. Issue Warnings

Warnings are offered to first time or infrequent parking violators. Introductory warnings should educate parking users on appropriate way to access the parking system and on alternative methods of accessing the area. Businesses in the area can partner with the city to have the warning serve the dual purpose of a Changed Behavior coupon on a return trip and appropriate parking or alternative travel option employed. Repeat violators would not be eligible for a warning.

- **Special Considerations for Implementation:** This tool can be implemented at any time but is best initiated at the request of area stakeholders and validated by supportive data.
- **Benefits:** Educated users and improved compliance with parking regulations.

IV. Ticket Forgiveness

A periodic ticket forgiveness program can be used to improve the perception of enforcement also clearing a backlog of unpaid tickets. Forgiveness program effectiveness can be enhanced when the ticket is “traded or redeemed” for evidence of appropriate behavior. This practice should not be implemented regularly as it creates the expectation of forgiveness. Also, such programs that might target a specific “area,” versus a program that would be implemented system wide, may be difficult or unfeasible for reasons of manageability and legality.

- **Special Considerations for Implementation:** This tool could be implemented at any time at the City’s behest or as a result of input/request from area stakeholders. Currently, once a citation is issued its processing and “collection” falls under the jurisdiction of Multnomah Count. As such, any forgiveness program that might be pursued would require working with the County for program development.
- **Benefits:** Enforcement reinforced as equal parts education and penalization.

V. Extend Grace Period

Most programs and parking revenue control equipment components provide a minor grace period (e.g. additional minutes on top of an expired meter). The enforcement program could choose to increase or decrease this value to ensure that turnover is being generated and parking demands are being met.

- **Special Considerations for Implementation:** This tool can be implemented at any time. Also, such programs that might target a specific “area,” versus a program that would be implemented system wide, may be difficult or unfeasible for reasons of manageability and legality.
- **Benefits:** Balanced perception of enforcement as an appropriate tool that is not excessively applied.

VI. Extend Enforcement Hours

Monitoring of parking utilization may reveal that peak demands occur after typical enforcement hours end. Extending enforcement hours can help provide better management of parking assets by supporting turnover and ensuring that spaces are used as designed during more hours of the day. Initial enforcement of “new hours” should take on an educational component for a period of time and then transition to standard enforcement practices.

- **Special Considerations for Implementation:** This tool should be considered for implementation when parking demand is at or near the effective capacity of the parking supply (85%) outside current enforcement hours. As such, the decision to pursue this strategy would need to be informed by objective supporting data.
- **Benefits:** Enforcement is aligned with peak periods of demand to ensure appropriate time stays and related parking behaviors.

VII. Graduated Citation Structure

A graduated fee structure is designed to be more lenient on infrequent or first time violators and more punitive on repeat offenders. The structure deters repeat offenders while allowing for a more gradual learning curve with new users.

- **Special Considerations for Implementation:** This tool can be implemented at any time but would require changes to rates established by ordinance (TRN 3.450) or by the District Court, depending on the violation.
- **Benefits:** Balanced perception of enforcement as an appropriate tool that is not excessively applied.

VIII. Booting and Towing

Booting and/or towing can be used with habitual or repeat offenders or those who have not paid overdue citations. This practice should not be abused, as it promotes a negative perception of the program. However, in certain instances, the practice of booting and/or towing can correct and deter poor parking behaviors.

- **Special Considerations for Implementation:** This tool can be implemented at any time.
- **Benefits:** Reinforces the importance of compliance with parking regulations.

IX. Parking Ambassador

If implemented, ambassadors would supplement parking enforcement efforts. The intent and purpose of an ambassador program is to provide information, and guidance; improving the parking experience through education and customer service.

- **Special Considerations for Implementation:** This tool can be implemented at any time but would likely require additional resources, training and deployment. An example of an ambassador program is in place in downtown Portland, which provides Ambassador and on-street security services funded through an Enhanced Services District.
- **Benefits:** Educated users and improves compliance with parking regulations. More friendly than traditional enforcement.

X. License Plate Recognition Enforcement

Vehicle-mounted license plate recognition (LPR) cameras are used to record license plate information from a moving enforcement vehicle. In locations with pay-by-license plate configurations, these can be used for payment verification and enforcement, removing the need for "stop and go" enforcement. LPR cameras can also be installed in parking structures to aid enforcement practices in off-street parking facilities.

- **Special Considerations for Implementation:** This tool can be implemented at any time but would require new technologies that are not now in place in Portland..
- **Benefits:** Reduces long-term labor costs by automating certain aspects of enforcement. Reduces “visibility” of enforcement, which can be a drawback in high violation areas.

5. IMPLEMENT AND MANAGE AN AREA PARKING PERMIT PROGRAM

Area parking permit programs work to balance or distribute parking access across a variety of users, primarily residential occupants and commercial visitors and employees. These types of programs allow “authorized users” to park on-street and limits non-authorized users to a specific time stay during hours of enforcement.

Residential areas with commercial nodes that become increasingly successful sometimes experience sustained peak demands that exceed the on-street parking supply generally targeted to support commercial activity. Surrounding parking areas, generally used by residential occupants, can see increased demands and spill over from the adjacent commercial activities, resulting in competing demands that occupy or exceed supply within the immediate vicinity. The temporal nature of the peak demand serves as an indicator that a permit program would be an appropriate tool to consider.

The programs generally contain standard elements and are “hunting licenses” that aid, but do not guarantee, finding street parking for residents. In other words, residential permits do not guarantee an on-street space in front of a specific residential address, but the entitlement to park within the permit district boundary. The hours of enforcement necessary to address the “peak hour” constraint need to be calibrated to the actual demand. In some cases, the hours of constraint may occur beyond what are current enforcement hours. This may require reformatting existing enforcement protocols. This is important as the key to the success of area parking permit programs is meaningful enforcement.

Implementation

The City currently has an approved structure and format for area parking permit programs that are, and can be, established in districts throughout the City. As such, the availability of the current program to interested and impacted areas can be considered in areas where parking constraints are creating adverse community impacts. The tools and strategies outlined below will, if implemented, require changes to the code and additional public processes for input and development. Table 5 identifies the most common issues identified throughout the development of the toolkit along with what tools and strategies identified within this section will address each issue.

Table 10: Implement and Manage an Area Parking Permit Program Tools and Strategies

Implement and Manage an Area Parking Permit Program Tools and Strategies	High Parking Demand	Unbalanced Parking Demand	Underutilized Parking Facilities	Lack of Parking Facilities	Limited Transportation Options	Supporting Commercial Activity	Accommodating New Development	Accommodating Special Events	Spillover into Residential Areas	Low Turnover	Time Stay Violations	Effective Use of the Curb Zone	Lack of Enforcement	Vehicle Ownership	Traffic Circulation and Congestion	Safety Concerns	Parking Policy and Code Issues	Lack of Information/Education
I. Implement Area Parking Permit Program	•	•	•	•					•			•		•				
I.A. Exclude New Developments That Build With No Parking from Program Eligibility	•	•	•	•					•			•		•				
I.B. Limit the Number of Permits per Residential Unit	•	•	•	•					•			•		•				
I.C. Constrain the Number of Permits Available to Residents with Access to Off-Street Parking	•	•	•	•					•			•		•				
I.D. Graduated Rates for Multiple Permits	•	•	•	•					•			•		•				
I.E Demand-Based Pricing for Permits	•	•	•	•					•			•		•				
I.F. Virtual Permitting	•	•	•	•					•			•		•				

Tools and Strategies

The following summarizes the tools and strategies to implement and manage an area parking permit program.

I. Implement Area Parking Permit Program

Implementation of an area parking permit program can help to better define allocation of available parking between users. Area parking permit programs are intended to ensure that on-street parking spaces remain available for priority users, e.g. residents within a specific “permit district boundary” and may restrict parking for visitors, employees or “non-residents” during certain or all hours of the day and night.

- **Special Considerations for Implementation:** Implementing elements to consider include (1) excluding new developments that build with no parking from eligibility in the program, (2) limiting the number of permits per residential unit, (3) limiting the number of permits available to residents with access to parking, (4) establishing graduated rates for multiple permits, (5) demand-based pricing for permits, and (6) virtual permitting; (7) pricing. While the City currently allows for area parking permit programs within its existing code, there are many elements that would require additional code changes as indicated below. Additional information on each of these potential tools and strategies is described below.

- **Benefits:** Results in more efficient use of parking facilities by priority users, addresses specific parking problems, such as neighborhood spillover, and ensures that parking is available for intended users.

I.A. Exclude or limit New Developments That Build With No Parking from Program Eligibility

The cost for area parking permits is relatively low, which may entice new development to under-build parking supply based on an assumption that new demand can be accommodated in adjacent on-street parking supply. This element would require new developments that choose not to build a minimum level of parking to waive (through conditional use) the ability for their tenants/residents to participate in an area permit program that is in place or might be established in the future in their “parking district.”

- **Special Considerations for Implementation:** This tool should be considered for implementation in areas where new developments are building with no off-street parking. This element is not currently a part of Portland’s current Area Parking Permit Program format and, therefore, would require significant changes to the code. Consideration would also need to be given to its applicability to existing structures developments that have already been approved by the City.
- **Benefits:** Controls number of permits allowed in a parking district and serves as an incentive for development to “right size” parking.

I.B. Limit the Number of Permits per Residential Unit

Limit permit allocations as a means to control the number of permits sold tied to available supply and to support car-free or lower rates of automobile ownership. Portland’s existing Area Parking Permit Program does not limit the number of permits that can be allocated to a single residential address.

- **Special Considerations for Implementation:** This tool should be considered in areas where the potential demand for parking permits could far exceed the on-street parking supply. This element is not currently a part of Portland’s current Area Parking Permit Program format and, therefore, would require changes to the code.
- **Benefits:** Controls the number of permits allocated and promotes lower rates of automobile ownership.

I.C. Constrain the Number of Permits Available to Residents with Access to Off-Street Parking

This element would either limit or prohibit sales of Area Parking Permits to residents that have either curb cuts to a driveway or garage serving their property. The purpose being to ensure that the permit program is not an incentive to move vehicles to the street in lieu of using parking availability at a specific single family or multifamily site.

- **Special Considerations for Implementation:** This tool should be considered for implementation in all areas. This element is not currently a part of Portland’s current Area Parking Permit Program

format and, therefore, would require changes to the code. If implemented, it would further require development of data bases that catalogue curb cuts and parking facilities necessary to support and validate current access into properties on and area by area basis.

- **Benefits:** Better manages on-street capacity for residents without access to parking and encourages residents to use off-street supplies first for vehicle parking.

I.D. Graduated Rates for Multiple Permits

This element assesses a higher fee for each additional permit allowed (often times up to a cap per residential unit).

- **Special Considerations for Implementation:** This tool should be considered for implementation in all areas, particularly those with high proportions of residences that have access to off-street parking. This element is not currently a part of Portland's current Area Parking Permit Program format and, therefore, would require changes to the code.
- **Benefits:** Encourages reductions in vehicle ownership and use of any available off-street options as a first choice to park.

I.E Demand-Based Pricing for Permits

Pricing of permits is directly correlated to the demand for parking within a defined residential parking district. As such, pricing is incrementally increased until the desired occupancy levels (e.g., 85% peak hour) are achieved in a district.

- **Special Considerations for Implementation:** This tool should be considered for implementation in all areas. Adjustments to pricing to calibrate demand may lead to permits that only last one to three months, rather than the typical 12-month period. Similarly, such a program would need to be supported by a fairly robust schedule of routine occupancy data. This element is not currently a part of Portland's current Area Parking Permit Program format and, therefore, would require changes to the code.
- **Benefits:** Directly "values" the demand for parking to the market price necessary to manage parking availability. Balances on- and off-street parking. Encourages consideration of alternative modes as well as lower vehicle ownership.

I.F. Virtual Permitting

Virtual permitting systems use license plates as the key component in identifying a valid parking transaction. The system requires online registration of license plates and the use of license plate recognition enforcement to virtually check license plates against a database of registered users.

- **Special Considerations for Implementation:** This tool should be considered for implementation in all areas. Establishing license plate recognition enforcement would require investments in infrastructure and technology that is not currently in place in Portland.
- **Benefits:** Reduces administrative costs/effort and increases efficiency of enforcement.

6. IMPLEMENT AND MANAGE PAID PARKING

Implementing and managing paid parking is often the most difficult parking management strategy, because it is perceived negatively by most users. However, when high demands, low turnover, and generally poor parking conditions exist, it is often the best option to change behaviors, manage the available parking supply and support alternative modes. ***Paid parking should only be considered when all other parking management tools and strategies are active and enforced and when parking demand within the area is at or above the effective capacity of the parking supply (85%).*** The City of Portland currently manages paid parking in four “meter districts” within the central city, including downtown, Lloyd District, the Northwest Parking Plan District, and the Central Eastside Industrial District.

Implementation

Implementation of a paid parking will have a significant impact on parking conditions within a given area. In all current meter districts, the decision to move to paid parking was made within the context of exhausting other non-priced based toolkit strategies, demonstrated parking constraints and district planning/visioning for alternative mode growth. Rates and on-street time limit formatting vary within each unique meter district and is based on actual stall occupancy and unique land uses and zoning, which defines priority users (e.g., retail, office, institutional and industrial density).

Table 6 identifies the most common issues identified throughout the development of the toolkit along with what tools and strategies identified within this section will address each issue.

Table 11: Implement and Manage Paid Parking Tools and Strategies

Implement and Manage Paid Parking Tools and Strategies	High Parking Demand	Unbalanced Parking Demand	Underutilized Parking Facilities	Lack of Parking Facilities	Limited Transportation Options	Supporting Commercial Activity	Accommodating New Development	Accommodating Special Events	Spillover into Residential Areas	Low Turnover	Time Stay Violations	Effective Use of the Curb Zone	Lack of Enforcement	Vehicle Ownership	Traffic Circulation and Congestion	Safety Concerns	Parking Policy and Code Issues	Lack of Information/Education
I. Implement a Paid Parking Program	•	•	•			•	•	•		•		•		•	•			
I.A. First Hour Free Program			•			•			•	•		•			•			
I.B. Demand-Based Pricing	•	•	•	•		•	•	•		•		•			•			
I.C. Progressive Parking Pricing	•	•		•		•	•			•		•			•			

I.D. Balance On-and Off-Street Parking Rates		•	•	•		•	•			•		•			•			
I.E. Extend Paid Hours	•			•			•	•		•		•		•	•			
I.F. Validation Program			•		•	•				•		•			•			
I.G. Establish Parking Meter District	•	•				•	•	•	•	•								
I.H. Improve Payment Technology	•	•	•	•		•	•	•		•	•	•			•			

Tools and Strategies

Paid parking is the primary tool in this category. Several supporting tools (or strategies) also are listed that may be implemented to increase the influence or effectiveness of paid parking. Finally, there also are a few complementary tools that are particularly effective in a paid parking environment.

I. Implement a Paid Parking Program

Implement paid parking as a means of managing parking demand and impacting parking behaviors. Pricing can be used to influence turnover, allocate short-term parking, ensure space availability and support TDM as a reasonable “price point” for consideration by users.

- **Special Considerations for Implementation:** This tool should be considered for implementation when parking demands regularly exceed the effective capacity of the parking supply (85%) and time limits are either not practical to implement or have been exhausted as a means of optimizing the effective capacity.
- **Benefits:** This is the most effective means of achieving the multiple objectives of (1) optimizing curb space utilization, (2) targeting spaces to intended users, (3) supporting transportation demand management, and (4) monetizing the cost of providing this type of access to an area. to manage capacity. Pricing improves turnover and (depending on the technology deployed) the efficiency of enforcement.

I.A. First Hour Free Program

First-hour-free programs in off-street parking facilities can incentivize long-term parkers to use off-street facilities, opening more on-street spaces to short-term users. Fears of lost revenue have not been realized. Before and after studies have shown the overall average duration of stay tends to increase by approximately an hour, off-setting lost revenue while leading to more money spent in the community.

- **Special Considerations for Implementation:** This tool can only be implemented in conjunction with a paid parking system. If no public supply of off-street parking is available, then partnerships with private owners will be needed. In some cases, existing on-site revenue collection technology may need to be modified to account for this type of rate structure.
- **Benefits:** Mitigates negative perception of moving to or expanding the paid parking environment and guides users to the appropriate parking supply by trip purpose.

I.B. Demand-Based Pricing

Demand-based pricing programs adjust the price of on-street and off-street parking based on demand (time of day, location, or occupancy). Parking that is in greater demand is priced higher to achieve a desired occupancy rate (e.g., 85-90%). Demand-based pricing principles seek to achieve a balance in the parking and vehicular transportation systems, which results in less congestion, easier location of available parking, and reduction in overall demand.

- **Special Considerations for Implementation:** This tool should be considered when parking demand varies significantly throughout the day or when parking demand is significantly higher in one area than another. Areas of high demand must be defined with boundaries to determine where rates will be higher and lower. To date, systems to monitor demand in real time (e.g., sensors) have proven expensive and require administrative systems that are not currently in place in Portland (e.g., SF Park). Programs in Seattle, WA and Redwood City, CA have moved toward systems that are more “analogue,” which tie performance pricing to annual data collection efforts as a means to reduce costs associated with “real time” systems.
- **Benefits:** Proven tool to manage demand. Encourages high demand to find lower priced stall availability (i.e., “spreading the peak”), reduced congestion and consideration of alternative modes.

I.C. Progressive Parking Pricing

Progressive pricing programs remove time restrictions and use a graduated rate structure to incentivize shorter parking transactions, while allowing those that wish to park longer to do so at a higher rate. As an example, a rate structure could be \$1 per hour for the first two hours, \$2 per hour for the next two hours, and \$3 per hour after that.

- **Special Considerations for Implementation:** This tool should be considered for implementation in areas where adjacent land uses would like to encourage high turnover, while nearby land uses may create parking users with longer time-stay desires. This tool may be more feasible at this time than real time demand based pricing (I.B.) as existing multi-space pay station technology is already in place in existing meter districts (which could be expanded to new areas). Nonetheless, on-going occupancy information will be needed to assist the City and area stakeholder in calibrating rates to ensure that long-term parking is not overly incented and targeted turnover rates are achieved.
- **Benefits:** Proven tool to manage demand. Encourages longer duration stays to find lower priced stall availability (i.e., “spreading the peak”), reduced congestion and consideration of alternative modes.

I.D. Balance On-and Off-Street Parking Rates

Programs should strive to balance on-street and off-street parking rates so that short-term demands can be accommodated on-street, while longer-term parking transactions are accommodated off-street.

Pricing off-street lower than on-street is the traditional approach. In Portland's downtown, this rate philosophy has been in place in the public SmartPark garages since the 1990's. The City is currently in the process of reevaluating on-street/off-street operations of public supply to ensure that this rate balance is still being achieved.

Reduce Parking Rates: *On-street parking rates should be reduced if demand declines for an extended period of time or when there is a lasting loss in parking transactions. Off-street rates should be similarly calibrated.*

Increase Parking Rates: *On-street parking rates should be increased when parking is difficult to find and occupancy routinely exceeds 85-90% of capacity. Off-street rates should ensure a rate incentive to attract on-street users (lower than on-street).*

- **Special Considerations for Implementation:** This tool should be considered for implementation in areas where off-street parking utilization is low compared to on-street parking utilization. Implementation is much easier when publicly owned off-street facilities are available in a district. The ability to influence or negotiate rate balance with private off-street facilities could prove more difficult, possibly requiring partnerships (through joint use agreements) to be established between area stakeholders (through a business association) and the City.
- **Benefits:** Integrates the on-street and off-street supply to operate more as a system than separate and/or competing resources. Preserves on-street parking for priority users.

I.E. Extend Paid Hours

Extending hours of paid parking can help provide better management of the parking system by supporting turnover and ensuring that spaces are used as designed during more hours of the day.

- **Special Considerations for Implementation:** This tool should be considered for implementation in areas where peak parking demand occurs late in the evening. Timing of the final maximum paid period should be favorable to surrounding residential uses, when present. Such programs should also be integrated into area parking permit programs that might be in place.
- **Benefits:** Extends capacity management to meet peak demands, managing access as demand indicates.

I.F. Validation Program

Parking validation programs allow businesses to pre-purchase all or a portion of their customer's parking fees thereby incentivizing the business transaction by offering free parking. Validations can be offered at full price or discounted prices and the requirements for receiving validation can vary depending on the program needs.

- **Special Considerations for Implementation:** This tool should be considered for implementation in areas where local business owners are willing and able to participate in the program. Limited to areas with smart meter technology or payments processed by an attendant.
- **Benefits:** Creates a partnership between businesses and the City (or off-street lot owners) to both manage parking and encourage visitor use of an area.

I.G. Establish Parking Meter District

Transition a defined area from free on-street parking to paid parking. Meter districts are generally established in commercial/industrial areas that currently have time stay limits (free) and still experience high and/or constrained parking peaks. Paid parking allows for greater control of supply, manages peaks, and uses pricing to influence parking and/or alternative mode choices. Areas currently with meter districts include downtown, Lloyd District, the NW Parking Plan District and the Central Eastside Industrial District.

- **Special Considerations for Implementation:** This tool should be considered for implementation when parking demands regularly exceed 85-90% of available capacity. Additional information on establishing a parking meter district is provided in section 16.20.400 of the Portland City Code.
- **Benefits:** Most effective means to manage capacity. Efficiently controls parking supply by type user (i.e., time stays) to prioritize supply for desired users. Improves turnover and improves efficiency of enforcement. Pricing supports user consideration of alternative modes.

I.H. Improve Payment Technology

Motorists generally prefer pricing techniques that are easy to understand, convenient and quick to use, accepts a variety of denominations (coins, bills, credit cards and prepaid vouchers), and allows them to pay for just the amount of vehicle travel or parking they use. There are a number of methods to improve payment technology, including pay-by-phone, in-car meters, and smart parking meters.

Pay-by-phone: these applications minimize transaction time and allow greater payment flexibility for motorists to call, text, or use smartphone applications to pay/extend reservations. This application is currently in place within the Washington Park meter area that serves the Oregon Zoo, World Forestry Center, Hoyt Arboretum and Portland Children's Museum.

E-fare Card Readers: TriMet is in the process of installing new e-fare card readers so riders won't have to rely on paper fares. The e-fare card readers also won't require passengers to swipe or insert anything. All they have to do is tap an e-fare card or cell phone on the reader as they board the bus or train. They will be able to reuse the e-fare card and load money on it by phone, web or at local participating businesses. TriMet is also looking into having potential daily or monthly pricing caps providing free rides and savings to frequent riders. A similar system could be considered to pay for parking.

Install smart parking meters: these meters accept cash and credit card payment and come in the form of either single-space or multi-space payment systems.

- **Special Considerations for Implementation:** This tool should be considered for implementation in conjunction with a paid parking system. Such systems will likely require additional cost, investment and administrative systems that are not currently in place in Portland.
- **Benefits:** Customer/user convenience, more efficient management of supply, and real-time information systems for users.

7. CREATE NEW PARKING SUPPLY

Creating a new parking supply could range from reconfiguring existing parking facilities to the construction of a new parking garage. Generally speaking, constructing relatively large amounts of new parking should be a last resort, as it can be a major investment that has a long life and can significantly alter the character and landscape of an area.

Implementation

Implementation of a majority of these tools and strategies should only be considered when all other parking management tool and strategies (User Information, TDM, etc.) are in place and effective and parking demand within the area is at or above the effective capacity of the parking supply (85%) for sustained periods of time. Table 3 lists the most common parking issues identified throughout the toolkit development process, along with parking management tools and strategies that could address each issue.

Table 12: Create a New Parking Supply Tools and Strategies

Create New Parking Supply Tools and Strategies	High Parking Demand	Unbalanced Parking Demand	Underutilized Parking Facilities	Lack of Parking Facilities	Limited Transportation Options	Supporting Commercial Activity	Accommodating New Development	Accommodating Special Events	Spillover into Residential Areas	Low Turnover	Time Stay Violations	Effective Use of the Curb Zone	Lack of Enforcement	Vehicle Ownership	Traffic Circulation and Congestion	Safety Concerns	Parking Policy and Code Issues	Lack of Information/Education
I. Incentivize Construction of Driveways/ Parking pads	•			•		•	•	•										
II. Blocked Driveway Permit Program	•			•		•	•	•				•						
III. Support a Driveway Share Program	•		•	•		•	•	•	•									
IV. Convert No Parking Areas to Parking Areas	•		•	•		•	•					•			•			
V. Convert Regular Parking to Carpool Parking				•	•	•		•				•						
VI. Create Motorcycle or Compact Vehicle Parking	•		•	•	•	•	•	•				•						

VII. Reconfigure Existing Off-street Parking Facilities	•	•	•	•		•	•	•	•						•			
VIII. Restripe Parallel Parking to Angled Parking	•	•	•	•		•	•	•	•			•			•			
IX. Convert Travel Lanes to Parking Lanes	•	•	•	•		•	•	•	•			•			•			
X. Stacked Parking	•	•	•	•		•	•	•										
XI. Car Stackers	•			•		•	•	•										
XII. Establish Remote Parking Areas Served by Transit	•	•	•	•	•	•	•	•							•			
XIII. Construct a New Parking Facility	•			•		•	•	•	•									

Tools and Strategies

The following summarizes the tools and strategies to create a new parking supply.

I. Incentivize Construction of Driveways/ Parking pads

Many of the existing single family residential homes, apartments, and storefronts located within the City were constructed without off-street parking and therefore, rely on the on-street parking system to store their vehicle(s). By incentivizing construction of new driveways/parking pads for these homes, the City could effectively create a new parking supply for residents and users. Caution should be used with this approach. Ideally, the private property would be accessed from an alley, avoiding a curb cut that reduces curbside parking capacity. If curb cuts are required, the net benefit is only achieved if each new driveway serves more than one vehicle or property.

- **Special Considerations for Implementation:** This tool can be implemented at any time and in any area where a significant number of land uses do not have access to off-street parking. City code currently allows for the construction of new driveways/parking pads; however, providing incentives may require code changes and subsidies.
- **Benefits:** Provides private properties with access to off-street parking, has support from local community members, and may reduce on-street residential parking demand.

II. Blocked Driveway Program

A blocked driveway program would allow residents and business owners to block their own driveway with a parked vehicle. The resident or business owner must show proof of residence or ownership and the community must enforce the streets to ensure no one abuses the parking system.

- **Special Considerations for Implementation:** This tool will be difficult to implement as there is no way administer the blocked driveway program and current city code does not allow residents or business owners to park in front of their curb butts
- **Benefits:** A virtual “no-cost” increase to curbside parking capacity, eases supply constraints, and has support from local community members.

III. Support a Driveway Share Program

Driveway share programs, such as JustPark, Citifyd, and Parkzilla, connect drivers with individuals and businesses that have a parking space or spaces for rent. A driveway share program would allow residents to rent their driveways to others.

- **Special Considerations for Implementation:** Current City code does not allow commercial activity, such as renting a parking stall that is located on private property in a residential area. As such, this tool cannot be implemented until such time as City code would allow.
- **Benefits:** Increases the available parking supply for non-residents (employers, employees), reduces negative impacts of spillover, has support from local community members.

IV. Convert No Parking Areas to Parking Areas

There is a significant number of no parking areas located throughout the city. These areas include curb cuts to driveways and alleys that are no longer in use, loading zones, bus zones, and other zones that could be converted to parking areas.

- **Special Considerations for Implementation:** This tool can be implemented at any time and in any area where a significant number of no parking zones limit the parking supply. Must assess and consider the need for the alternative uses of the curb lane and ensure safety (e.g., circulation and sight distance).
- **Benefits:** Increases the available parking supply for all area users, improves the efficiency of the curb zone, has support from local community members.

V. Convert Regular Parking to Carpool Parking

Established demand for carpool spaces essentially increases the effective parking (access) capacity of the system, particularly for employees of a commercial center or corridor. When properly located to not interfere with customer access or significantly impact neighborhood access, conveniently located carpool spaces (at discounted rates, when controlled with pricing through meters or permits) can increase rates of employee carpooling and reduce employee demand for on-street parking.

- **Special Considerations for Implementation:** This tool can be implemented at any time and in any area where local employers are able to successfully promote carpooling by employees (and cannot provide off-street parking to the employees).
- **Benefits:** Improves the efficiency/productivity of the curb zone and reduces employee demand for curb zone parking.

VI. Create Motorcycle or Compact Vehicle Parking

Spaces located at locations that cannot accommodate a full size vehicle are opportune locations to provide parking for smaller vehicles or motorcycles. Striping and meters can provide a quick and inexpensive solution to motorcycle or scooter parking management.

- **Special Considerations for Implementation:** This tool can be implemented at any time and in any area where there is demand for motorcycle or compact vehicle parking, or where curb space does not allow for a full vehicle parking stall.
- **Benefits:** Increases the available parking supply for residents and business owners and improves the efficiency of the curb zone.

VII. Reconfigure Existing Off-street Parking Facilities

Reconfiguring existing off-street parking facilities can provide incremental improvements to parking capacity. Many times, a designer can find inefficiencies in parking layouts, either in aisle width, turning radii, or landscaping, that can be minimized to create additional supply. Similarly, “stacking” parking using valets can maximize the capacity of existing self-park facilities (see IX below).

Public-private partnerships, particularly with established groups (Neighborhood associations, business associations, Improvement Districts, etc.), provide opportunities for the City to offer the “designer” services as the public contribution to the partnership. Commitments to manage the revised off-street supply for customer-visitor access and in coordination with other public parking management practices could be the private contribution.

- **Special Considerations for Implementation:** This tool can be implemented at any time and in any area where off-street parking facilities have not been designed to their maximum potential; however, it would likely not be implemented unless parking demand within the lot or area is at or above 85-90 percent. City code currently allows for the reconfiguration of existing off-street parking facilities; however, where parking has been built to the maximum allowed, code changes would be required to allow the increase.
- **Benefits:** Increases the available off-street parking supply for and improves the efficiency of off-street parking facilities.

VIII. Restripe Parallel Parking to Angled Parking

Reconfiguring existing on-street parking spaces from parallel to angled parking can help generate additional parking supply. Depending upon the configuration and available right-of-way, restriping could nearly double the curbside parking supply.

- **Special Considerations for Implementation:** This tool should be considered for implementation in areas where space allows, where it is consistent with public policy for the public right-of-way,

where there is support from adjacent residents and business owners, and where current parking demand (on-street and off-street) is balanced and at or above 85-90 percent.

- **Benefits:** Increases the available parking supply for users and relieves parking congestion.

IX. Convert Travel Lanes to Parking Lanes

During off-peak hours, converting travel lanes to on-street parking lanes can significantly increase the parking supply. Similarly, converting travel lanes to permanent on-street parking lanes by implementing circulation changes (removing one travel lane from both directions, converting a street system to one-way, etc.) creates an opportunity to provide additional on-street parking.

- **Special Considerations for Implementation:** This tool should be considered for implementation in areas where City policy would support the action, existing and projected future traffic volumes support a reduction in the number of travel lanes, where there also is support from adjacent residents and business owners, where the parking and driving peak hours do not coincide, and where current parking demand (on-street and off-street) is balanced and at or above 85-90 percent.
- **Benefits:** Increases the available parking supply for users and creates a buffer between the sidewalk and adjacent street traffic.

X. Stacked Parking

Stacked parking refers to maximizing the available space within a parking facility to accommodate as many cars as possible. This is most commonly accomplished through a valet or parking attendant who holds all the keys and can park the cars two or more deep, as she/he can move cars out of the way to free a blocked-in car.

- **Special Considerations for Implementation:** This tool should be considered for implementation in areas where there is a significant demand for short-term parking. City code currently allows for stacked parking in off-street parking facilities; however, where parking has been built to the maximum allowed, code changes would be required to allow the increase.
- **Benefits:** Supports economic activity/development, reduces negative impacts of spillover into surrounding neighborhoods, has broad-based support among neighborhood stakeholders.

XI. Car Stackers

While not common in many parking structures, car stackers significantly increase the supply of an existing parking facility. Many are now robotically operated and have car queuing and clearing times of 30 seconds to two minutes. Car stackers work very well for residential parking needs, as residents' parking demands are typically spread across a large time frame. Car stackers do not work as well in employment or event settings, as the peak ingress and egress can pose challenges related to the clearing times. This

strategy is most likely to be implemented by the private sector, with approval by or in partnership with the City.

- **Special Considerations for Implementation:** This tool can be implemented at any time. Practical application would be where peak demands are routinely sustained at or above 85% of capacity and there is a paid parking environment that is at market rates. Although costs can be lower than new structured parking, they are higher than surface spaces. Private enterprise may be willing to make the investment, with evidence of sufficient parking revenues. The city will need to ensure that parking capacity expansion is allowed for the given set of circumstances. This may lead to a public/private partnership.
- **Benefits:** Supports economic development by improving access to mixed use centers and corridors, relieves parking congestion and related negative impacts, has broad-based support among neighborhood stakeholders.

XII. Establish Remote Off-site Parking Areas Served by Transit/shuttle, pedestrian, and/or bicycle facilities and services

Establishing a remote parking area that is linked by other modes can shift parking demand to the fringe area of a community and still provide essential support. Such parking is more likely to serve employees and residents of an area, rather than customers and visitors. Allowing shared parking of this asset should result greater parking system efficiency. Management of such a facility must align with management practices within the area, which may lead to a public/private partnership.

- **Special Considerations for Implementation:** This tool should be considered for implementation in areas where parking conditions (supply and demand) are constrained by development and there is adequate transit/shuttle service and/or infrastructure for walking and biking to serve the area. Implementation would also be best supported with enhanced wayfinding signage and lighting. City code currently allows for remote parking facilities; however, a specific code interpretation is likely needed, based on circumstances in the area.
- **Benefits:** Promotes a reduction in vehicle trips within the area, reduces traffic circulation and congestion and related impacts, supports economic development by improving access to mixed use centers and corridors.

XIII. Construct a New Parking Facility

If parking demands or deficits exceed the ability of management practices to adequately address, it may be necessary to build a new parking facility. Ownership and management of the new supply is important to consider. Management, regardless of ownership, must be consistent with practices already in existence, as well as supportive of related plans and goals for the area (e.g., sustainability, mode split, livability). If the need for new parking is driven primarily by customer/visitor demand, then a public/private partnership may prove worthwhile.

The average hard cost for a new facility (not including land costs, which vary by location), include:¹

Surface Lot: \$3,000 to \$6,000 per space, depending on aesthetic requirements

Above-grade Parking Structure: \$15,000 to \$25,000 per space, depending on façade requirements

Below-grade Parking Structure: \$30,000 to \$45,000 per space, depending on geology

- **Special Considerations for Implementation:** Should generally be considered an option of last resort, when demands in excess of supply are frequent and over sustained periods most days of the week, and the ability to significantly increase access to the area by other modes has been exhausted or is not likely to occur. No code changes are anticipated with implementation of this tool; however, interpretation of code will likely be needed to ensure appropriate circumstances exist that allow the capacity expansion.
- **Evaluation Criteria:** Supports economic development by improving access to mixed use centers and corridors, reduces circulation and congestion issues and their related negative impacts, has broad base of support among neighborhood stakeholders.

¹ Hard costs are direct costs incurred in relation to a specific construction project. Hard (or direct) costs are directly related to construction and include the “bricks and mortar” of building. Soft (or indirect) costs would be in addition and include costs for design fees, legal fees, permits, engineering, licensing fees, toxic report fees, and plan check fees.