Monroe Park Campus On-Street Parking Plan

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Appendix
Executive Summary

Virginia Commonwealth University’s Monroe Park Campus is an 88-acre urban college campus found just a few blocks west of the downtown business district of Richmond, Virginia. It is one of two main campuses serving this large university of approximately 32,000 students. Over 4,000 students live in campus residences nearby and many more live in the surrounding residential areas. As the campus has grown over the past 40 years from a commuter-based professional school to a tier-1 public research university, demands on surround land and infrastructure have increased. As VCU’s footprint has spread, so has demand for parking on and around campus.

The VCU Parking and Transportation Office manages a large supply off-street parking on campus in lots and decks. However, in this urban area, on-street parking remains an important asset to VCU students, staff, and visitors. On-street parking is managed by the City of Richmond and VCU has little power to manage these spaces.

The purpose of this plan is to address several issues that the University is facing related to campus parking:

- To increase the efficiency of a valuable parking resource in a high-demand urban area,
- To address the equity issues for all stakeholders, including non-VCU parties such as area residents, and
- To address the negative environmental consequences of the current parking system.

There are over 1,800 on-street spaces on campus and over 1,000 more in nearby areas in which VCU students and staff regularly park. There is a haphazard management system of meters, time restrictions, parking permits, and other restrictions that makes the supply confusing to use, especially for infrequent visitors. Added to this is a high (and still increasing) demand for the free on-street parking in the area.

The Monroe Park Campus falls within the boundaries of plans that have already been created for the University and downtown Richmond, namely the Richmond Downtown Master Plan and the recently-completed VCU Climate Action Plan. It is notable that on-street parking needs in the area have until now been overlooked.
The main implementation goals and objectives of this plan are to move to a more market-based demand management strategy, and by doing so improve the parking system efficiency, equity, and environment. Work should be done to make the supply more accessible to a variety of users, and to reduce the time and energy spent on parking on campus.

Stakeholders from surrounding neighborhoods within the Monroe Park Campus Parking Shed should work to establish a mutually beneficial parking enforcement strategy on their streets. And VCU should incorporate on-street parking in its environmental and sustainability awareness projects.

This plan is very implementable and should result in greater transparency and collaboration between VCU, the City of Richmond, nearby residents and businesses, and VCU users. The end result will be an urban campus with less traffic congestion, better air quality, and a better quality of life for all visitors.
Introduction

What is On-Street Parking?

On-street parking, also known as parallel parking, has been around for as long as automobiles have been running on city streets. Parallel parking spaces are found mostly in urban areas along commercial and residential streets. This type of parking system is efficient for a finer grain of use than a parking lot would serve, and is more common in areas that were developed before World War II. In the City of Richmond, Virginia, on-street parking is a common parking choice. On-street parking spaces can be striped or unstriped, metered or free. There are often restrictions associated with on-street parking to keep cars from creating blind corners, to allow for loading and unloading zones, and to prevent parking along narrow streets. In areas with significant traffic or parking congestion, time limits and parking meters are also used. The average on-street parking spot is about 10 feet by 20 feet, or about 200 square feet.

Why does On-Street Parking need to be Managed?

On-street parking is a finite resource and should be used to the best of its potential. It is a public good, like the road of which it is a piece. However, when demand exceeds supply, it can lead to problems such as street congestion, increased time and energy spent looking for a parking space, and an increase in parking in illegal parking areas.

Figure 1: Image of Downtown Richmond, circa 1920’s.
The Monroe Park Campus

The Monroe Park Campus needs an on-street parking plan because it is not currently being used to the best of its potential.

The 88-acre Monroe Park Campus is an urban area with a rich history. It is one of two main campuses of Virginia Commonwealth University, a large tier-1 public research university in Richmond, Virginia, which serves over 32,000 students and employs almost 19,000 people. The Monroe Park Campus is unlike many major university campuses because it has grown entirely within the context of an urban neighborhood, after starting out as a commuter-based professional school, The Richmond Professional Institute. Today, over 4,000 students live on-campus in residence halls and many more live within a few miles of campus. The push of the growing university on the surrounding neighborhoods has been felt in different ways, some positive, some negative. Property values and population have increased, but along with that, so has the demand for parking.

Today, many areas of campus experience traffic congestion at peak hours (especially weekday evenings) as well as on-street parking occupancy reaching 1000% in areas near the library and student commons. The VCU on-street parking shed now reaches into nearby residential neighborhoods, which has caused residents some annoyance. The Fan and Carver have instituted a residential parking permit program to counter the higher demand, and other areas have considered other strategies.
The Client

The Client for this plan is the VCU parking and Transportation office. The purpose of this organization is to “effectively manage VCU’s parking inventory and transportation program to support the teaching, research, and public service mission of Virginia Commonwealth University” through a “combination of surface lots and structured parking decks”. It oversees travel demand management programs, contracts out the campus connector bus service between Monroe Park Campus and MCV Campus, and enforces off-street parking regulations. As a division of VCU it must act with the needs of the University in mind.

While the Parking and Transportation Office does what is can to help manage parking, an important part of the parking supply is not within its power. VCU does not enforce on-street parking on campus because it is under the regulation of the City of Richmond. The hope is to come up with a way to better communicate or work together to manage an important public resource.
Off-Street Parking at VCU

VCU Parking and Transportation manages the off-street parking options for the University community. There are about 5,500 off-street spaces on campus (4,000 in decks and 1,000 in lots) and about 1,000 more are currently under construction. VCU only enforces parking in these off-street parking areas.

Users must pay for VCU-managed off-street parking. Permits are sold at variable rates depending on location, commonly $170 per semester for students and about $60 per month for faculty and staff. Daily rates also apply in decks, at $3.50 for students and $5.00 for all others. Most decks close at night and are only accessible to permit holders on weekends.

Currently, VCU restricts class capacities to 11,000 students at a time to help manage parking demand.
On-Street Parking at VCU

The on-street parking system is managed by the City of Richmond, in a combination of restrictive signage, paid staff enforcement, parking meters, and residential permits. The City currently contracts enforcement to Lanier Parking Systems, a private company. Richmond Police also have enforcement power.

There are several axes of restrictions in the study area: length of time, time of day, fee, user, or complete restrictions (no parking anytime). As examples, there are some metered spaces with a 30-minute time limit, some metered spaces with a two hour limit (except during weekday morning hours no parking is allowed), and on certain hours on certain days other spaces are restricted due to street cleaning.

Lanier Parking enforcement staff patrol the areas in highest demand and within the Fan residential parking zone. Lanier is paid by the City for all expenses and earns 3% of all citations and meter fees.iii
The Study Area

The study area for this plan includes the Monroe Park campus of VCU, just west of the Downtown Central Business District, as well as areas surrounding campus that typically serve as parking areas for VCU students and staff. The boundaries were determined through observation and through suggestions of VCU Transportation and Parking.
Surrounding Neighborhoods

The Fan

The Fan is a historic neighborhood immediately to the West of the Monroe Park Campus. It is made up mostly of homes built from the turn-of-the century to the 1930’s, along with apartment buildings and some small shops and restaurants. Many VCU students and staff live within the neighborhood. It is a fairly dense neighborhood and until recently was a popular place for VCU visitors to park. However, the demand for parking became an issue to many of the residents of the area and a parking permit program through the City of Richmond was instituted in recent years. The provisions of the parking permit allow residents to place a decal on their automobiles for a fee. There are three zones of permits, in order to better manage differences in demand as the distance from campus increases. For example, residents of Zone 2 may not park in Zone 1 (nearest to campus). All visitors restrict their parking to one hour unless they have a guest permit.

Carver

Carver is the neighborhood north of the VCU campus. It also recently instituted a parking permit program with much of the same provisions as the Fan’s, except there is only one Zone.

Figure 8.
Oregon Hill

Oregon Hill is directly south of the University and is bordered by Belvidere to the east and Hollywood Cemetery to the west. As the VCU campus has been expanding to the south and east in recent years, parking in Oregon Hill has become more popular for VCU campus visitors. Oregon Hill does not have a parking permit program, but its neighborhood association has discussed it as an option recently.

A short survey was conducted with the Oregon Hill Neighborhood Association to see what the general mood was of the residents towards the University parkers. Out of 14 respondents, 11 said they would be in favor of a permit system, but only 8 were in favor of a fee-based permit system.iv

Monroe Ward

Monroe Ward is found east of Monroe Park, and is the site of recent VCU expansion. The engineering and business schools, as well as two parking decks, have been built recently or are still in construction. This area is commercial in nature with some residences and hotels. Parking in this area is restricted to two hours unless otherwise noted and there are also several private parking lots. This area may see more change in the coming years. On busier roads limits end at 6:00pm and on less busy roads two-hour parking ends at 4:00pm.

Randolph

Randolph is the large neighborhood southwest of campus. Harrison Street is the main connector road from this area to campus. Only part of the neighborhood has been included within the study area. Currently there are some parking restrictions in the area, most notably a 1-hour parking limit on Grayland Avenue. However, a neighbor commented that he has never seen any type of enforcement in the area and many cars are parked for several hours at a time.v
A discussion with a Randolph resident active in parking issues has said that the one-hour parking restriction on Grayland was a result of a request made by residents. He also mentioned that a permit program had not been widely discussed for the area.

**Jackson Ward**

The final neighborhood near the Monroe Park Campus is Jackson Ward. Currently this area is not a popular parking destination for students, but as the University expands it could begin to be more attractive as an accessible neighborhood to the newer campus additions in Monroe Ward.

*Figure 9: Vehicles parked on Grayland Avenue in Randolph*
Current On-Street Parking Enforcement

Lanier Parking Systems is the independent contractor that enforces on-street parking in the City of Richmond.

Duties include checking and maintaining parking meters and patrolling restricted parking areas. On campus, Lanier focuses on the campus center as well as the Fan and Carver Districts, but may patrol any public parking area.

There were approximately 15,000 parking citations issued on campus that were paid last calendar year, which averages to almost 60 citations per day. Each citation is $50. The total revenue from citations was almost $400,000. During the data compilation, it became quite clear that the various actors in on-street parking management were not accustomed to providing detailed information about their practices. Some on-street enforcement staff were open about their tasks, and offered their views on the parking situation. However, no official discussion with Lanier Parking Systems took place over the topic of this plan.
VCU Travel Characteristics

VCU students and staff were polled by the national Household Travel Survey last year. According to this document, about 95% of VCU students have driver’s licenses, about 85% had regular access to a car, and about 59% of students held a job. About 40% of students listed that they drove alone to campus from home, and about 70% reported driving alone to work. After driving alone, carpooling/shared rides and walking were the next most common transportation modes to campus.

The survey also asked students to rate their campus parking experience. About 48% responded “disagree” or “strongly disagree” to the statement, “I can usually find a parking space when I need one at VCU”. About 60% responded “agree” or “strongly agree” to, “It takes me longer than five minutes to find a parking space at VCU”. And 61% responded “agree” or “strongly agree” with the statement, “There is too much traffic from cars on campus”. These findings support the need for a closer look at the on-street parking system.

Existing plans in the Study Area

Richmond Downtown Master Plan

The VCU study area falls within the area of the recently completed Downtown Richmond Master Plan, and so the plan should be taken into account when making any recommendations for the area. In regards to on-street parking, the Downtown Master Plan recommends that paid parking schemes go into effect in areas with greater than 85% occupancy. The plan also recommends instituting residential parking permit programs for residential areas near large parking generators. The example given in the plan is the Oregon Hill neighborhood near VCU.
VCU Climate Action Plan

The VCU Climate Action Plan technical basis was completed in May of 2010. The main purpose of this plan is to reduce the number of greenhouse gas emissions released during University-related functions. In regards to transportation, the climate action plan has made recommendations to reduce the number of single-occupancy commuters to campus.

Some major findings of the survey sent out as part of the plan discussed transportation, such as, “The majority of the student population lives within a 3 mile distance from campus, [and] 61% drive to campus adding over 18 million commute miles to VCU’s carbon footprint”, and, “VCU faculty and staff burden its carbon footprint by approximately 26 million commute miles.”

The following strategies have been recommended in the plan to reduce this carbon footprint:

<table>
<thead>
<tr>
<th>Future Strategies for Reducing Single Occupant Vehicles:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce staff SOV by a minimum of 6% annually by a combination of converting 3% to transit ridership and another 3% to carpool.</td>
</tr>
<tr>
<td>Reduce commuting population to no greater than 50% of student body</td>
</tr>
<tr>
<td>Reduce faculty SOV by a minimum of 6% annually by a combination of converting 3% to transit ridership and another 3% to carpool.</td>
</tr>
<tr>
<td>Carefully analyze SOV costs to ensure that transit options maintain a price advantage.</td>
</tr>
<tr>
<td>Purchase offsets for air travel for 50-100% of all air travel miles.</td>
</tr>
<tr>
<td>Introduce car-sharing organizations like Zipcar to operate on campus.</td>
</tr>
<tr>
<td>Complement SOV restrictions with a guaranteed ride home program.</td>
</tr>
</tbody>
</table>

Source: VCU Climate Action Plan

In order to reach these goals, the on-street parking supply will have to be taken into account. However, this supply was not mentioned in the plan.
Street Characteristics

The Monroe Park Campus is served by a modified grid-style street system.

The main roads that serve campus in the north-south direction are Belvidere Street and Harrison Street. Broad Street and the one-way couplet of Main Street and Cary Street are the main east-west routes through campus. These can be considered the main gateways to campus.

In general, on-street parking serves to narrow the lane width of a road, which tends to slow down traffic. In areas with many pedestrians and crosswalks, slower traffic can make the street safer. However, on streets that are meant to take many people in and out an area as quickly as possible, on-street parking can lower the efficiency of a street. Currently, there is no parking allowed on Belvidere Street, presumably for this reason, but parking is allowed on most other streets.

The main gateways to campus are a good place for potential way-finding signage.
One important factor related to parking is to make sure that it is accessible to those with mobility impairments. Handicapped spaces are recommended by the Americans with Disabilities Act to help those with mobility issues reach their destinations in a convenient manner. These spaces require extra room to navigate wheelchairs, crutches, and sometimes van ramps.

In general, ADA recommends one or two accessible spaces for every 100 total spaces and 2% of all parking areas of more than 1,000 spaces. In off-street parking decks within the campus area, there are about 113 designated ADA parking spaces. There are over 1,200 on-street spaces in the campus area, but only seven on-street ADA spaces. There should be more on-street accessible spaces.

<p>| Table 1: On-Campus Parking Accessibility |</p>
<table>
<thead>
<tr>
<th>Number of spaces</th>
<th>ADA spaces</th>
<th>% ADA</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-street</td>
<td>7</td>
<td>1018</td>
</tr>
<tr>
<td>Off-street</td>
<td>113</td>
<td>5473</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>6491</td>
</tr>
</tbody>
</table>

Figure 13.
On-Street Parking Restrictions

The following map shows the type of on-street parking restrictions found within the study area. One can see that the northern, older area of campus has more parking restrictions than the southern part of campus. Perhaps parking regulations have not been updated since this southern campus area has been developed.

<table>
<thead>
<tr>
<th>Table 2: On Campus Parking Restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restriction Type</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>Metered:</td>
</tr>
<tr>
<td>2 Hour</td>
</tr>
<tr>
<td>30 minutes</td>
</tr>
<tr>
<td>Unmetered:</td>
</tr>
<tr>
<td>No Time Limit</td>
</tr>
<tr>
<td>2 hour</td>
</tr>
<tr>
<td>1 hour</td>
</tr>
<tr>
<td>30 minute or less</td>
</tr>
</tbody>
</table>
| Total:           | 1259             | Spaces
Parking System Summary

The above map is especially illustrative when considering the state of on-street parking enforcement on the Monroe Park Campus. The more highly restricted areas (either metered or time restricted or requiring permits) are in the northern, more established area of campus. The southern campus area, near the Cary Street Gym, Engineering and Business Schools, has less parking restrictions. However, as the University continues to grow into a large research university, these areas will encounter more parking demand. While VCU Parking and Transportation has a stake in the on-street parking system, they are powerless to change the enforcement patterns or to coordinate on- and off-street parking options for greatest efficiency. The VCU Sustainability office also faces challenges in being able to use on-street parking as a tool to further Climate Action Plan goals.
SWOT Analysis

After compiling introductory data about on-street parking in the Monroe Park Campus study area, a few highlights have been found that help explain how the current system is not meeting the needs of all users. The following analysis will condense the findings into Strengths, Weaknesses, Opportunities, and Threats. Thus, it will be simpler to see where improvement is needed and what parts of the system are working well and should be expanded. Some of these factors are directly related to the on-street parking system in particular, and some are indirect effects on other campus-related issues that could arise as a result of changing the current system.

Strengths

- Many parking options and locations: metered and unmetered, time restricted and unrestricted, etc.
- Fairly large parking supply in study area (almost 3000 spaces used by students)
- Dedicated enforcement agencies in area at present (Lanier Parking and VCU Parking and transportation)
- Availability for people to park close to their destination at a variety of locations
Weaknesses:

- Supply is not going to increase by much because there are no new streets being built
- Demand is very high in some areas close to major campus destinations
- Parking policies and enforcement not very transparent
- Lack of planning or communication between VCU, the City, and Lanier Parking
- Large number of parking tickets given on campus (numbers in the thousands)
- Confusing Restrictions (day/time varies across campus)
- Street cleaning schedules are inconveniently timed
Opportunities:

- New technologies for metering and parking information diffusion are being developed every year
- Increasing awareness of need to reduce carbon emissions at VCU leadership level and for users in general (“VCU Goes Green”)
- Organized stakeholders: students, staff, businesses, neighborhood associations, etc.
- Plenty of existing plans for the area (Downtown Master Plan, VCU Master Site Plan) to get a good idea of future of campus
- Parking is a revenue-generating program for the City
- Reduced demand would potentially save the University from building additional parking decks
Monroe Park Campus On-Street Parking Plan

Threats:

- Campus is expanding into Monroe Ward which could increase parking demand in this area and compete with downtown parkers.
- Effects of student/staff parking in neighboring communities could increase as VCU populations increases.
- Vehicle congestion around campus leads to compromised air quality.
- Threat of lost time due to gridlock on campus.
- Current free parking supply discourages use of paid parking decks.
- Building additional parking structures will cost millions of dollars.
- More students living close to campus could push out older residents who cannot afford higher property taxes.

Figure 15: Parking on Laurel Street at 100% capacity (around 11:00am on a Thursday)
The Plan

The following goals and objectives seek to develop an organized plan of action on a relatively short time scale that will introduce new parking management techniques for the VCU Monroe Park Campus. After gaining an understanding of the needs of the community, several techniques for improving the efficiency, equity and environmental responsibility of the on-street parking system are offered using regulations, market-based strategies, and awareness-building approaches.
Goal 1: Improve the Parking Efficiency on Campus

The current on-street parking system is not working to its full potential. The objectives for this goal aim to reduce demand for the system and make open spaces easier to find. The aim is to reduce “cruising” for parking (circling around looking for parking once drivers have “arrived” at their destination but no free spaces are available, which leads to congestion), reduce the time needed to find an open space, and to help parkers find the most convenient parking space for their needs. The tradeoff in this increased efficiency is a higher price for parking. xi

Objective 1.1 Encourage Off-Street Parking for Long-Term Parking

In general, off-street spaces are better suited to long-term parkers than short-term parkers. This is because it takes more time to drive into and walk out of lots and decks and they are usually farther from major destinations than a potential on-street space. Currently at VCU, off-street spaces are priced higher than on-street. In fact, students need to park for more than five hours at current parking deck rates to find the hourly rates match meter pricing. In addition, decks are often full to capacity or restricted to parkers with long-term parking permits, discouraging use by occasional drivers.

This situation should be changed. Parking decks should be priced lower than on-street spaces to free up on-street spaces for those that are in a hurry or are only parking for an hour or two.

Figure 16: Example of Off-Street parking signage from Seattle, Washington
Objective 1.2 Phase Out All Free Public Parking in Campus Parking Shed

Meters should be installed throughout the entire campus area. This will reduce demand and also work to distribute demand more evenly on the many campus streets.

Choosing to install meters on campus and leaving surrounding areas unmetered would lead to an increase in parking in the unmetered areas. To avoid this, no totally unrestricted parking should be left in the campus parking shed. This does not mean that parking meters should necessarily be installed in residential areas, but some sort of effective but straightforward demand management system needs to be in place to discourage over use of the parking in these areas.

Figure 17: VCU’s current parking meters allow coins, pay-by-phone, and parking cards
Objective 1.3 Price and market meters to allow for maximum 85% occupancy rate

When parking space occupancy is greater than 85-90%, some drivers must circle a block looking for an open parking spot. This increases the time and energy spent looking for parking, and increasing traffic congestion on local streets, inhibiting flow and leading to an increase in localized air pollutants from the increased presence of vehicles.

There are many new parking demand management technologies that should be used to find the right price to maintain a maximum 85% occupancy rate. Smart parking meters can vary fees by time of day, day of the week, even demand patterns. If all the meters are in use in a given area, for instance, the fee automatically increases by a set amount (such as by 50 cents an hour).

Currently, the City of San Francisco is embarking on a market-based parking strategy that will be a good case study for new parking demand management technologies. Set to launch in Spring, 2011, SF Park will share many similar objectives to this plan. xii
Objective 1.4 Reduce the Types of Parking Restrictions

Currently on campus there are areas of unrestricted parking, two-hour limited free parking, two-hour limited metered parking, one-hour free parking or permit parking, 30-minute parking, fifteen-minute parking, loading zones Monday-Friday, no parking during certain hours on certain days, and it goes on. As many as possible of these restrictions should be eliminated. Time restraints can be abandoned when parking is appropriately priced, because people have an alternative reason to not want their vehicle to linger. Street cleaning schedules can be changed to night-time or low demand times to reduce confusion. Loading zones can be re-evaluated and updated. The morning rush-hour restrictions on Franklin Street should be abandoned for the sake of simplicity and continuity. Any other unexpected restrictions should be researched for the possibility of removal.

Objective 1.5 Create Clear and Understandable Way-finding and Restriction signage and to help visitors find the right type of parking

Visitors to campus might not recognize parking decks or available parking places. By placing way-finding signage at campus gateways showing both short-term and long-term parking options and prices, people will be able to make more informed decisions about the best parking choice.

Another type of signage that may be useful is to have a current price digital display at campus gateways or parking deck vacancy status. If rates are variable, parkers may want to check real-time rates before they leave home. New parking technology and web-based information can help reduce surprises in parking availability or price.
Goal 2: Address the Parking Equity Issues on Campus

The current on-street parking system rewards those who park and inconveniences those who do not park on campus. When people choose to drive to campus, it results in positive consequences for themselves (convenient spot close to destination) and several negative consequences that affect all campus users (increased traffic, one less open parking spot for others, carbon emissions, noise, and pollution). A more fair system is based on the “benefits-received” principle, that those who reap benefits should also be the ones to pay.

Objective 2.1 Create more ADA accessible on-street spaces

While there are currently many off-street ADA criteria spaces on campus, there are too few to make up for the fact that there are only seven ADA designated on-street spaces. The University and the City of Richmond should work together to provide ADA accessible on-street spaces. Meeting the requirements would necessitate retrofitting some spaces, preferably in areas with wide sidewalk easements and relatively little through traffic. The spaces should also be as close as possible to major destinations like Cabell Library.

Figure 20: Example of a fully ADA accessible on-street parking space

Figure 20: Linden Street is a good potential place for retrofitted ADA spaces
Objective 2.2 Promote alternatives for low-income users

According to the results of VCU’s 2009 National Household Travel Survey, most VCU students have an income of less than $10,000 a year. Therefore transportation costs take up a larger percentage of their income than those with higher incomes. Paying $500 for parking over the course of a year (paying $5 a day over 100 days) would equate to 5% of yearly income. Some students may be priced out of using on-street parking when all spaces become metered. But during the transition phase to a market-rate parking system, there is the possibility of instituting a subsidy program in the initial stages of plan implementation that would help users ease into the new system. Allowing for one waived parking ticket per car, for instance, or providing all students with a pre-paid parking card for emergencies, which would be refunded if it isn’t used, are some examples. Vouchers for free transit service for students should be continued.

Objective 2.3 Reduce parking burden on surrounding residential communities

Those living in nearby residential neighborhoods such as Carver and the Fan have had enough of a parking problem due to VCU parking overflow that they have worked with the City to implement a residential parking program. They did the right thing by seeking to gain some control over how parking is managed in their neighborhood.

Neighborhoods should have more freedom in deciding how to address neighborhood parking shortages, since they are the ones most affected by them. Residents may choose to charge for parking, but put the revenue towards community projects, like street beautification or scholarship programs. They could decide that the permits are free for residents, but take applications for non-residents to buy yearly permits. Residents of Oregon Hill expressed a desire to do something about the amount of VCU parking in their neighborhood, but as a whole are not interested in a paid parking permit program. Perhaps they can be the first neighborhood to experiment with a personalized parking management system.
Objective 2.4 Work to create a more transparent on-street parking enforcement system

There are two parking enforcement agencies working in the VCU Campus: VCU parking and transportation for off-street spaces and Lanier Parking Services for on-street spaces. However, there is little communication between these two groups. Allied demand management strategies that would be mutually beneficial cannot occur without open communication between these groups.

There is also little opportunity for the people that park on campus to give feedback about the on-street parking system, because those that enforce are a privately contracted company working for the City of Richmond and have little contact with the public. This is an institutional barrier that should be examined. Perhaps a City staff member could serve as liaison between the public as well as VCU parking management and Lanier Parking management.
Goal 3: Raise Awareness of Need to Consider the Environment

Americans in general are becoming more aware of the impacts of using fossil fuels. VCU should take an active role in building awareness amongst its community about how personal actions can have consequences at the local and global level. Taking the lead in addressing parking issues may serve as a catalyst for future projects related to sustainability.

Objective 3.1 Promote environmentally-friendly commuting patterns

The University and the City of Richmond can do much to provide incentives for those who choose to come to campus in a more environmentally friendly way. Current options for those who commute by means other than single-occupancy vehicles, such as Zipcar, Zimride, transit vouchers, and bike and scooter parking, should be continued. New projects, such as more appealing transit stops, covered bike parking, wider sidewalks, more car-free areas, should be encouraged. Carpooling programs should be expanded. Incentives should be given to those who pledge to drive less or carpool, such as voucher programs, entries into drawings for every day an alternative transportation choice is made, and other fun programs to get people thinking about driving less.
Objective 3.2 Reduce the Amount of Greenhouse Gas Emissions and Pollution Caused by Commuting to Campus

The VCU Climate Action Plan’s technical basis describes a need to reduce the amount of CO2 and other emissions by the university community. One of their suggestions is to reduce SOV commuting by 6%. The on-street parking system is an important tool to include in actively managing this process, but it was not mentioned in the CAP document. This objective will be fulfilled as parking demand is lessened through the projects mentioned about, but there are other ways that the VCU community can reduce pollution. One example is by encouraging proper vehicle maintenance. The University should work to encourage convenient incentives, such as free automobile tire air stations, coupons for air filters or oil changes. It should also consider future transportation needs when updating its development plans.
Implementation Timetable

The following table shows more specific strategies for meeting the above goals and objectives. It also notes important actors in the completion of the goals. The actions vary from immediately achievable tasks, to projects that will take a few years to complete.
# Monroe Park Campus On-Street Parking Plan

## Goal 1: Improve the Efficiency of On-Street Parking in the Study Area

<table>
<thead>
<tr>
<th>Objective</th>
<th>Strategy</th>
<th>Partner</th>
<th>Role</th>
<th>When?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective 1.1 Encourage Off-Street Parking for Long-Term Parking</strong></td>
<td>price VCU off-street parking less than on-street parking</td>
<td>VCU Parking and Transportation Office</td>
<td>work with city to price deck parking with on-street parking prices in mind</td>
<td>Year 1</td>
</tr>
<tr>
<td></td>
<td>define other incentives for off-street parking</td>
<td>VCU Parking and Transportation/VCU Office of Sustainability</td>
<td>security, more convenient &quot;open&quot; (non-decal-holder) hours, better lighting</td>
<td>Year 1</td>
</tr>
<tr>
<td><strong>Objective 1.2 Price Meters Effectively to Allow for Maximum 85% Occupancy Rate</strong></td>
<td>use smart meters to allow for peak/non-peak pricing</td>
<td>City of Richmond Parking Office</td>
<td>research and purchase smart meters such as those used by SFPark</td>
<td>immediate</td>
</tr>
<tr>
<td></td>
<td>allow for live feedback for adjusted fees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Objective 1.3 Phase Out All Free Public Parking in Campus Parking Shed</strong></td>
<td>place city of Richmond parking meters in entire campus area</td>
<td>City of Richmond Parking Office</td>
<td>place parking meters in all feasible areas</td>
<td>years 1-3</td>
</tr>
</tbody>
</table>
## Goal 1: Improve the Efficiency of On-Street Parking in the Study Area (continued)

<table>
<thead>
<tr>
<th>Objective</th>
<th>Strategy</th>
<th>Partner</th>
<th>Role</th>
<th>When?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective 1.4 Reduce types of Parking Restrictions</strong></td>
<td>reduce areas with time restrictions</td>
<td>City of Richmond Parking Office</td>
<td>eliminate all unnecessary restricted areas and paint curbs of no parking areas near corners instead of signage</td>
<td>within 6 months</td>
</tr>
<tr>
<td></td>
<td>reduce time-of-day restrictions, for example street cleaning schedules and on Franklin Street</td>
<td>City of Richmond Parking Office/Public Works</td>
<td>switch to a night street cleaning scheme in area</td>
<td>Year 1</td>
</tr>
<tr>
<td><strong>Objective 1.5 Create Clear and Understandable Way-finding and Restriction Signage and to Help Visitors Find the Right Type of Parking</strong></td>
<td>develop a cohesive signage system letting visitors know that they are within the campus parking area</td>
<td>VCU Parking and Transportation/VCU Office of Sustainability/Marketing or Art Dept</td>
<td>signs should have VCU colors and give parking rates</td>
<td>Year 1</td>
</tr>
<tr>
<td></td>
<td>post way-finding signage to off-street parking areas and major campus destinations</td>
<td>VCU Parking and Transportation/City of Richmond</td>
<td>simple signage to point out nearest parking deck</td>
<td>Year 1</td>
</tr>
<tr>
<td></td>
<td>create a visitors’ area near the student commons and provide parking and destination guides</td>
<td>VCU Office of Sustainability/Parking and Transportation</td>
<td>assign 2-3 spaces and provide literature</td>
<td>Year 1</td>
</tr>
</tbody>
</table>
### Objective 2: Address the Parking Equity Issues in the Study Area

<table>
<thead>
<tr>
<th>Objective 2.1 Create more ADA-Accessible On-Street Spaces</th>
<th>Strategy</th>
<th>Partner</th>
<th>Role</th>
<th>When?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consider expanding ADA spaces near major destinations, such as N Linden Street near Cabell Library (left-side spaces) and on Floyd and Main Street</td>
<td>City of Richmond Public Works/VCU facilities management/Parking and transportation</td>
<td>Work to designate at least 14 spaces for ADA reserved and make them as accessible as possible</td>
<td>Years 1-3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Objective 2.2 Promote Alternatives for Low-Income Users</th>
<th>Strategy</th>
<th>Partner</th>
<th>Role</th>
<th>When?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow for subsidized parking payment cards or other type of payment for those with demonstrated need</td>
<td>VCU Parking and transportation office</td>
<td>Consider giving low-income students who apply a parking card that would offset some parking costs (perhaps $20-30 a semester)</td>
<td>Years 2 and Ongoing</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Objective 2.3 Reduce Parking Burden on Surrounding Residential Communities</th>
<th>Strategy</th>
<th>Partner</th>
<th>Role</th>
<th>When?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow communities to decide how to address parking needs</td>
<td>City of Richmond/Neighborhood Associations/Business Associations</td>
<td>Let residents decide as a group what would be best for their community</td>
<td>Immediately and Ongoing</td>
<td></td>
</tr>
<tr>
<td>Allow communities to keep revenue generated from parking within the neighborhood</td>
<td>City of Richmond</td>
<td>Allow residential associations to spend money on approved neighborhood projects</td>
<td>Ongoing</td>
<td></td>
</tr>
</tbody>
</table>
### Objective 2.4 Work to Create a More Transparent Parking Enforcement System

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>build connections between VCU and City of Richmond parking authorities</td>
<td>VCU parking and transportation/City of Richmond Parking Office</td>
<td>meet to discuss mutually beneficial parking enforcement strategies (right pricing, etc)</td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td>allow for more organization and transparency in how parking is managed</td>
<td>City of Richmond Parking Office/Lanier Parking Systems</td>
<td>allow public and VCU to discuss issues with parking enforcement</td>
<td>Immediate</td>
<td></td>
</tr>
</tbody>
</table>

### Goal 3: Raise Awareness of Need to Consider the Environment

#### Objective 3.1 Promote Environmentally friendly commuting patterns
- work with student groups to provide guides and host events
- provide incentives for other commuting modes: carpooling, transit, biking and walking to campus

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>work with student groups to provide guides and host events</td>
<td>VCU Green Unity/other student groups</td>
<td>provide resources or funding for events, flyers, etc</td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td>provide incentives for other commuting modes: carpooling, transit, biking and walking to campus</td>
<td>VCU Student Commons/Office of Sustainability</td>
<td>maintain transit card program, install more and better bike racks, etc)</td>
<td>Immediate and Ongoing</td>
<td></td>
</tr>
</tbody>
</table>

#### Objective 3.2 Reduce the Amount of Greenhouse Gas Emissions and Pollution Caused by Commuting to Campus
- encourage vehicle drivers to keep cars well-maintained and monitor emissions

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>encourage vehicle drivers to keep cars well-maintained and monitor emissions</td>
<td>VCU Office of Sustainability/Area Vendors</td>
<td>offer oil-change or air filter coupons, on-campus tire air stations, etc</td>
<td>Immediate and Ongoing</td>
<td></td>
</tr>
</tbody>
</table>
Conclusion

In all, this is a very implementable plan that could be done over a few (up to five) years. The major issues with the on-street parking system is that those who use the system get a benefit, at the cost of traffic congestion, vehicle emissions on a busy campus, and to the detriment of nearby residential communities. By pricing on-street parking in a market-driven format, those that actually use the on-street parking must pay for it (money going to the City or to a to-be-determined public fund). It will also have the added affects of lowering demand, which will lessen greenhouse gas emissions and encourage students and staff to use more active and environmentally friendly forms of transportation. Finally, it will be a good opportunity to update policies and make infrastructural changes to streamline and simplify the VCU parking system, including making parking spaces more accessible for visitors or those with special needs.

Those that are worried about losing the ability to park on campus should remember that the supply of parking will remain the same as it was before plan implementation. On-street parking prices will increase, but this will result in money generated for public use.

While on-street parking may seem like a trivial or unimportant topic to focus on, it will be an easy way to influence personal behaviors to help promote a sustainable lifestyle for University users. Since it is such a wide-reaching topic and involves many types of stakeholders, it will be a good example to set for the surrounding City at large. If it is a success, perhaps similar programs can be instituted elsewhere.
Monroe Park Campus On-Street Parking Plan

Figures:

<table>
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<th>Figure</th>
<th>Description</th>
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<td>Image of Downtown Richmond, circa 1920’s (Source: Library of Virginia)</td>
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<td>Map of Richmond in Atlantic Region</td>
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<td>VCU's Broad Street Deck (Source: VCU)</td>
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<td>Map of VCU Parking Decks and Capacities (Source: VCU)</td>
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<td>Parking on Cary Street at 100% capacity</td>
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<td>Map of Monroe Park Campus Study Area</td>
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<td>Map of VCU area neighborhoods</td>
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<td>Vehicles parked on Grayland Avenue</td>
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<td>Map of VCU Monroe Park Campus Street Hierarchy</td>
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<td>Parking on Laurel Street at 100% capacity (around 11:00am on a Thursday)</td>
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<td>Example of Off-Street parking signage from Seattle, Washington (Source: Seattle, WA)</td>
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<td>Open metered Parking space on Floyd Avenue</td>
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<td>Example of New Technology that can aid in Parking wayfinding (Source: Seattle, WA)</td>
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<tr>
<td>20</td>
<td>Linden Street is a good potential place for retrofitted ADA spaces</td>
</tr>
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<td>21</td>
<td>Fan Parking Permit (Source: City of Richmond)</td>
</tr>
</tbody>
</table>
Monroe Park Campus On-Street Parking Plan

Endnotes

iii Email Correspondence with Steve Bergin, City of Richmond Parking Office, March 11, 2011.
vi Conversation with Randolph homeowner on Grayland Avenue, February 19, 2011.
vi Email Correspondence with Steve Bergin, City of Richmond Parking Office, March 11, 2011.