



## **Park & Ride Program Project Approach**

**February 11, 2013**

**Prepared by: Project Study Consultant Team**

**Southeastern Institute of Research, Inc. (Prime)  
Kimley-Horn and Associates  
The Traffic Group  
webbones, LLC**

## Acknowledgement

VDOT's Statewide Park & Ride Study was guided by a team of dedicated Park & Ride professionals who worked together as a Study Advisory Group (SAG) to provide input, expertise and information to VDOT and the consulting team. These members are acknowledged with grateful appreciation:

- Chris Arabia, Virginia Department of Rail & Public Transportation
- Brigitte Carter, RideFinders, GRTC Transit System
- Tammye Davis, Federal Highway Administration Virginia Division
- Michael Gray, Virginia Department of Transportation, Salem District
- Antoinette Haynes, RideFinders, GRTC Transit System
- Mark Hodges, Virginia Department of Transportation, Central Office
- Ron Hodges, TRAFIX, Hampton Roads Transit
- Jeremy Holmes, RIDE Solutions
- Sue Hromyak, Rappahannock Rapidan Regional Commission Commuter Services
- Carl Jackson, Virginia Department of Transportation, Hampton Roads District
- Donny Necessary, Virginia Department of Transportation, Bristol District
- Karen Payne, Fairfax County RideSources
- Terry Snead, Rappahannock Rapidan Regional Commission Commuter Services
- Von Tisdale, RideFinders, GRTC Transit System
- Rahul Trivedi, Virginia Department of Transportation, Northern Virginia District
- Diana Utz, GWRideConnect
- Joe Williams, Virginia Department of Transportation, Central Office

## Project Overview

The Statewide Park & Ride Study was initiated by the Virginia Department of Transportation (VDOT), Transportation and Mobility Planning Division (TMPD). The project was completed over an 18-month schedule starting in March 2011 and finishing in December 2012.

The consultant study team consisted of the following organizations:

- Southeastern Institute of Research, Inc. (SIR)
- Kimley-Horn & Associates, Inc. (KHA)
- The Traffic Group, Inc. (TTG)
- webbones

As outlined in VDOT's Request for Proposals, the project was divided into the following six tasks:

1. Conduct a statewide inventory of existing Park & Ride lots
2. Identify recommendations for new, expanded or closed lots
3. Update/reconstruct the VDOT Park & Ride website
4. Enhance VDOT's Statewide Park & Ride Program
5. Assist VDOT in coordination with the Department of Rail and Public Transportation (DRPT)
6. Assist VDOT with public outreach and awareness

In addition to the consultant team, a Study Advisory Group (SAG) was selected to provide input and help guide the study efforts. Members of this group were selected on the basis of their knowledge, current work assignment and interest in Park & Ride in Virginia. SAG members provided input and guidance for VDOT and the consultant team, reviewed all documents and deliverables for the project, provided input for successful completion of each task and provided key and important information based on their district/area and responsibilities. Six workshops with VDOT, the consultant team and the SAG were conducted throughout the duration of the project.

VDOT, the consultant team and SAG members agreed during the project kickoff meeting conducted on April 29, 2011, that the goals of the study were to:

- Update the inventory of Park & Ride lots
- Develop a more formal Park & Ride program
- Evaluate and establish key Park & Ride program procedures
- Evaluate and clarify roles and responsibilities
- Increase public access to information through design of a program website
- Improve collaboration and coordination with multi-modal partners

Completion of each of the six tasks for this project required some revision and modification of the initial six tasks to better meet these objectives. The following sections of this document briefly summarize the tasks completed and their key deliverables for this project.

## Methodology

### Inventory of Existing Park & Ride Lots

*Purpose: To provide an up-to-date database of existing Park & Ride lots to be used for the following:*

- *Management of current program*
- *Serve as a basis for future Park & Ride lot planning and prioritization exercises*
- *Provide lot information for use by the public and Park & Ride professionals via VDOT's Park & Ride website*

The Traffic Group (TTG) conducted a survey of all known Park & Ride lots throughout Virginia in the fall of 2011 to verify lot locations, determine lot occupancy and record other pertinent information. A list of approximately 300 lots in the form of an Access Database was provided by VDOT. This list guided the survey work conducted by TTG.

Using the GPS and location descriptions provided by VDOT, TTG plotted all the lots on Microsoft's "Streets and Trips" mapping program. Once the lots were plotted, they were easily grouped based on geocode. These groupings were then used to make survey and schedule assignments.

The audits began in September, after Labor Day, and were completed by the first week in November, 2011. Six crews of two were assigned weekly audits of lots. Lots were assigned by VDOT Construction Districts and an effort was placed on completing westerly audits prior to bad weather. Crews surveyed lots from 9:00 am – 2:00 pm (Tuesday, Wednesday, and Thursday) and recorded information for each specific lot. 64,472 spaces were counted. Of those, 51,344 were occupied, making for an approximate 80% occupancy rate. Photos were taken of all lots. Audit information recorded included:

- Number of spaces
- Lighting
- Bike racks and lockers
- Nearest intersection
- Ownership of lot (if it could be determined by the field team)
- Signage
- Handicap spaces
- Capacity issues
- GPS coordinates
- Pavement type
- Transit
- Facilities

Crews turned in their spreadsheets weekly, and the information was uploaded to the database. The input of data was reviewed for consistency; and, any locations not meeting quality assurance/quality control procedures were recounted for accuracy. All comments provided by

the field technicians were also uploaded to the database for future reference. Technicians provided detailed information about lot transit, problems or other findings. Some information had not been requested but technicians felt it important to provide comments and feedback. Hard copies of the technician surveys as well as the pictures were labeled as to the lot number and name described in the database. The updated database was provided to VDOT, SIR, KH and webbones.

Of the list of lots provided by VDOT, 31 could not be located. Some of these lots no longer existed, due primarily to development in the area. Some lots were joint developments with businesses/retailers and no longer offered Park & Ride privileges. Some lots simply could not be located based on the coordinates or descriptions provided.

TTG identified and audited 11 new lots not on the initial list provided by VDOT. Some of these "new" lots were adjacent to other lots (and seemed to be expansions of those lots). Seven of the lots were new and appeared to be maintained by VDOT. In the data provided, the four adjacent lots are identified as "Alt," and the new lots are identified as "UN" (un-named).

### **Inventory of Proposed Park & Ride Lot Recommendations**

*Purpose: To provide comprehensive summaries of the existing Park & Ride lot inventory and current planning efforts throughout the state in order to identify Park & Ride lot needs.*

A literature review of recent existing local, regional, and statewide Park & Ride recommendations was conducted in the fall of 2011. Sources for this research include:

- VDOT's 2035 Surface Transportation Plan
- Metropolitan Planning Organization (MPO) Comprehensive Long-Range Plans (CLRPs)
- Planning District Commission (PDC) Long-Range Transportation Plans
- Local comprehensive plans
- Regional transit plans

A summary table of various recommendations from the literature review was developed and given to the Stakeholder Advisory Group (SAG) for review and comment. Additional Park & Ride lot recommendations were identified by consulting with rideshare agencies throughout the state, VDOT district planners, and other Park & Ride stakeholders within the state of Virginia.

Planning maps for each of the nine VDOT construction districts were created using the compiled Park & Ride lot recommendations to graphically display recommended new lots and enhancements of existing lots, where possible. General lot recommendations, without specific locations, were shown on the maps in tabular format.

## Development of the Park & Ride Program Website

*Purpose: To develop an improved VDOT Park & Ride website that will serve as a primary form of communication with current and potential Park & Ride users, provide relevant information about Park & Ride, in general, as well as specific Park & Ride lots, provide rideshare agency contact information and provide information about alternate modes of transportation, such as carpooling, vanpooling, commuter rail, commuter bus, bike and so forth.*

A key objective of this website will be to provide information about non-SOV modes of transportation. Thus, it will be important that the information is accessible from the websites of Virginia's rideshare agencies. The website will also serve as a resource for local Park & Ride programs, transit agencies, rideshare agencies, and other travel demand agencies to reference on their respective websites.

Development of the website began with a "discovery process" through which webbones researched similar sites and programs, looking for trends and best practices; met with principals involved; and reviewed available material. From this research webbones wrote a creative brief, a technical brief, and an information architecture for the site. These documents were reviewed by both SIR and VDOT and were then fine-tuned in reaction to comments.

Working from the above documentation, webbones created draft designs for the site's home and level 2 pages. The designs followed the direction of VDOT's information office to adhere to VDOT's web design and the agency's design standards, in everything from typeface to color. The final approved designs were then created in HTML text using cascading style sheets (CSS), with graphics optimized for the web.

At the same time, webbones worked with VDOT and SIR to create an interface that pulled the Park & Ride lot data (collected in this project's statewide lot inventory) into a lotfinder slider for Virginia commuters/travelers. The slider was designed to be easy and intuitive to use, and to offer several options. The slider design and programming also went through several iterations of both design and functionality before reaching final format. The slider includes a functioning custom Google map showing Park & Ride lots as droplets; a search-by-region section that takes users to the appropriate section of the Google map; and a search-by-ZIP section, with customizable search radius, that takes users to the appropriate section of the Google map. Each droplet yields a popup window with carefully chosen lot information, sizeable photo (if available), and the ability to get directions.

webbones also worked with SIR and VDOT to edit and place text and photographs for the website; several rounds of edits and review were required before copy reached final approved status.

Once site design, slider design, and copy had been approved, webbones integrated all into a finished fully functioning website designed to be handed over to VDOT and dropped into the VDOT site, per VDOT's request.

### **Park & Ride Program User Survey**

*Purpose: To provide insight and information from actual Park & Ride users to guide the development of the website, the marketing plan and the program recommendations.*

Specific research objectives included:

- Develop a better understanding of Park & Ride lot users, including demographics and commute behavior
- Detail trip characteristics of Park & Ride lot users across Virginia
- Understand how a specific Park & Ride lot is selected
- Better understand how to increase usage of and support for Park & Ride through marketing of alternate modes
- Understand internet search behavior by Park & Ride lot users to help design a statewide Park & Ride website

In order to meet the objectives of this research, an online survey was conducted among current Park & Ride lot users across Virginia. Survey invitation cards were distributed at 75 lots from among the nearly 300 lots in Virginia. The sample of lots was selected specifically to develop a representative sample based on size, location and anticipated usage. Interceptors handed out survey invitation cards to commuters during morning peak travel times. The message on the cards included a brief description of the survey and listed a link that took respondents directly to the online questionnaire. The survey required about 15 minutes to complete. A \$5 gourmet coffee gift card was provided to the first 1,000 respondents who completed the survey. The survey was conducted during October and November of 2011. In total, 2,051 Park & Ride lot users completed the online survey.

The questionnaire was designed and implemented by SIR. Both VDOT and the SAG reviewed and provided input for the questionnaire. Research professionals at SIR programmed and tested the questionnaire. At the close of the data collection period, SIR cleaned, processed, tabulated and analyzed the data. A thorough and complete report was provided to VDOT. Findings were presented to the SAG.

## **Park & Ride Program Marketing Plan**

*Purpose: Provide guidance and recommendations to VDOT for short-term, low-cost marketing of Park & Ride. This document provides assistance for VDOT for public outreach and awareness as requested in the RFP.*

Specific marketing recommendations for Park & Ride were provided to VDOT in the form of a marketing plan. To develop this plan, SIR reviewed all material prepared by Kimley-Horn and Associates for Tasks 2 and 4 of this project, reviewed all SAG and Work Group meeting notes and discussion, and conducted a marketing brainstorming session with VDOT, KH, and members of the SAG. Based on these findings, SIR developed a marketing plan that included twelve specific marketing tactics. The plan describes each tactic and has specific recommendations regarding execution of the tactic.

The marketing plan for Virginia's Park & Ride Lots leverages the existing TDM and transit marketing infrastructure and takes advantage of the commuter assistance programs and transit agencies to the extent possible. These programs and agencies are already promoting Park & Ride facilities as part of their ongoing marketing activities. The plan can best be used by VDOT to leverage these activities to take advantage of a successful system already in place and engage others in the transportation sector in Virginia, such as VDOT District Offices and DRPT, to work to promote and advance Park & Ride in Virginia. The plan details how these efforts can be reinforced by the use of certain low cost communications, such as social media.

## **Park & Ride Program Vision Document**

*Purpose: To provide VDOT with a vision for the statewide Park & Ride program and identify some key strategy areas for focus.*

The study team used three methods to determine best practices for statewide Park & Ride programs, including internet searches, phone interviews with select organizations outside of Virginia, and responses to a questionnaire that targeted VDOT staff in various departments. Internet searches focused on Park & Ride programs in other states and local programs within Virginia. The results of this research and input from the study Work Group were incorporated into a *VDOT Park & Ride Program Vision Document*, which is organized into three main categories. These categories are:

- Program Organization
- Program Policies
- Program Strategies

## **Park & Ride Program Procedures Manual**

*Purpose: To provide VDOT with a guiding document that the Park & Ride program coordinator can use as a tool to prioritize future activities as the Park & Ride program continues to evolve over the next several years.*

The study team used input from the SAG to develop the Park & Ride Program Procedures Manual. The intent of this policy and procedures manual is to provide a framework for key functions of the VDOT Park & Ride program. The topics covered in this procedures manual include:

- Policy: VDOT Park & Ride Program Roles and Responsibilities
- Policy: VDOT Park & Ride Program Organizational Chart
- Policy: VDOT Park & Ride Program Communication Protocols
- Procedures: Park & Ride Lot Inventory
- Procedures: Maintaining the Recommended Park & Ride Lots Database
- Procedures: Updating the VDOT Park & Ride Program Website
- Procedures: Park & Ride Lot Signs
- Procedures: Locating Park & Ride Lots
- Procedures: Determining Park & Ride Lot Demand
- Procedures: Arranging Park & Ride Lot Lease Agreements