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Healthy Eating and Active Living in North Portland: Asset Mapping with G.I.S.

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Healthy Eating and Active Living in North Portland
Summer 2007 Capstone
Portland State University





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Project Introduction

This North Portland Asset Mapping Capstone is the third in a series of Capstones that were done as a joint effort between Portland State's senior classes and the partners to provide an opportunity for students to research and identify incentives and barriers to healthy eating and active living in the North Portland area. Specifically, through the use of a visual preference survey an individual will make binary choices or rate a sequence of images that will determine their preferences in regard to the three overarching categories of food, physical activity, and transportation.

The Partners

The partners are a collaboration of individuals working through various health, education and community involvement organizations in Portland. Their interest in the Capstone project stems from the resources available to students to research and assemble such a project. The members of the partners are as follows:

- Tom Griffin-Valade: Tom is the director of the North Portland Neighborhood Services Office of Neighborhood Involvement for the City of Portland.
- Sonia Manhas, MSW: Sonia is the manager of the Chronic Disease Prevention Program, and works in the Health Department of the Multnomah County offices.
- Suzanne Briggs: Suzanne, a consultant to Kaiser Permanente's healthy eating initiative, is the main collaborator between the Capstone class and the partners.
- Shawna A. Care: Shawna is the Community Project Coordinator and works with the Health Education Services at Kaiser Permanente.
- Nancy Stevens, PhD: Nancy is involved with the Community Health Initiatives at Kaiser Permanente.
- Heather Hartley, PhD: Heather works at Portland State University, and is an Associate Professor of Sociology.

Visual Preference Surveys: Tools for Community Planning

Introduction

Making community development as democratic as possible has long been a challenge for urban planners and municipalities alike. A number of obstacles stand in the way of greater community participation in the planning process and consequently communities who are best served by their design. Visual Preference Surveys (VPS) are a tool planners can use to increase participation in the design process within the communities they serve. This can result in community plans that more accurately reflect the wants or needs of its members. Relying heavily on image driven content, VPS offers communities a straightforward methodology that asks participants to rate paired images of development options. This document is a review of some of the literature focused on the uses of VPS. Included is an explanation of VPS, the advantages and challenges it offers, general case studies, and the potential for using VPS to specifically address issues related to Healthy Eating/Active Living.

Visual Preference Survey Defined

A Visual Preference Survey (VPS) is a land use tool trademarked by A. Nelessen Associates to assist communities with planning, designing, and redesigning geographic areas of interest. While each VPS may assume a relatively unique form, the fundamental concept is to create a graphically based survey that asks users to rate paired images on a given scale. The pairings make take the form of “before” and “after” photographs, or merely present two possible outcomes for a given area. Community goals will drive the design and content of the VPS. To that end, survey administrators should meet with community members to discuss these goals and work to identify incentives and barriers to achieving them. The survey may be administered in a number of ways. It may take the form of a written ballot with a set of self-administered questions, a moderated discussion using slides and ballots, a focus group format, an open semi-structured forum, or used as part of another preference collection approach, e.g., handheld/instant voting techniques (U.S. Department of Transportation 2007). An optional written questionnaire focusing on demographics and policy may be used to supplement the VPS. After the survey is administered, the results are collected and each image given a score. Next, statistical information and scores are compiled and the data is analyzed to interpret negative or positive scores (Nelessen 2007).

Advantages

By using photographs and other graphic images to represent possible solutions, VPS facilitates greater community involvement by reducing frustration related to language barriers, time constraints, and unclear community goals. Additionally, professional jargon is all but eliminated from the process, making the survey easy to understand and more inclusive. The format of the survey also allows administrators to provide the public with a broad and relatively inexpensive range of options for depicting community features for a proposed plan. They have been used most effectively when major design feature decisions need to be made (U.S. Department of Transportation 2007).

Challenges

There are some challenges associated with administering and utilizing a VPS to meet community goals. If one of the goals of a VPS is to encourage high participation within the community, administering the survey may be time consuming, as will collecting images and analyzing data. The U.S. Department of Transportation also notes that high public expectations regarding the visual quality of the survey may lead users to dismiss the VPS if it does not adequately meet those expectations. To ensure credibility it is critical that the graphic images chosen for the survey accurately represent what is ultimately chosen. It is also important to ensure community members with disabilities, such as the visually or hearing impaired, are not excluded from the planning process (U.S. Department of Transportation 2007).

At least one critical study (Crisman 2006) of “urban image surveys” (the generic form of VPS) highlighted several issues, including the effects of cropping of photographs and viewpoint, the tension between reality and formality, acts of translation, text and image, meaning, and representation and identity. The thrust of this study was to emphasize the importance of context and “bodily experience” that may be difficult to capture with photographs. To address this, it is recommended that when at all possible explanatory text should accompany the survey images (Crisman 2006).

VPS Case Studies and Methodologies

Visual Preference Surveys have been initiated worldwide to address a diverse range of development concerns. On January 14, 2006, Carroll County, Maryland, working with A. Nelessen Associates, administered a VPS to community members with the goal of “making recommendations for future land use” (Carroll County 2007). An alternate, online version of the VPS was created and posted for two weeks, allowing community members unavailable on the fourteenth to participate. Accompanying the VPS was a demographic, market, and policy survey that served to “help further identify participants’ preferences for the future” and “identify whether there were any correlations in demographic characteristics to visual preferences” (Carroll County 2007). In total, 620 residents took the survey. Of those, 550 were online responders. In this instance, the VPS is one instrument in a larger comprehensive plan that identifies “pathways,” or key issues and topics to Carroll County residents. The results of the VPS and a written analysis of the process and the data were published online. A final comprehensive plan incorporating information from the VPS as well as other online instruments such as a “Special Places Survey”, “Pathways, Concepts & Directions Feedback Form” will be published in Fall 2007 (Carroll County 2007).

In 1999, the City of Milwaukee, WI also hired A. Nelessen Associates to administer a VPS to facilitate the visioning process for the design of the downtown area (Crisman 2006). Participants were shown over 230 photographs of sites local, national, and international and asked to rate the images on a scale of -10 to +10. The survey, conducted over a period of three and a half months, attracted 1,600 responders. In a supplemental workshop, the responders were reconvened to locate sites to apply the positive VPS images (Crisman 2006). Crisman’s critical study of this particular survey identified weaknesses in the methodology that are worth considering when designing future surveys. Chiefly, a lack of context with regard to the photographs limited participants’ understanding of “broader socioeconomic, historical, racial, cultural or

political conditions beneath the images' surface – especially those scenes from places other than Milwaukee. Another problem concerned the nature of photography itself as an interpretation or construction of a given object or area. Crisman concludes that the photographs chosen for the survey were manipulative in that they were framed to convey a particular meaning rather than to represent reality. To minimize the effects of these biases, Crisman proposes the following:

1. Limit cropping of survey images and center the camera within the frame when taking photos. This will allow the viewer a more complete picture of the area of concern and result in a more meaningful response.
2. Better represent the physical environment by pairing eye-level photographs with a plan or a bird's eye view that clarifies connections between spaces. Ideally, participants would be given the opportunity to visit the proposed sites.
3. Before the rating process, show survey participants all of the images so that a context may be established.
4. Use captions with survey images to anchor the images more specifically to place (Crisman 2006).

In April 2006, The City of Chesapeake, Virginia, administered a VPS to collect information from residents that would aid in the creation of a "Design Guidelines Manual". The survey addressed a number of issues including "options for development, infrastructure, streetscape and open space, light standards, screening, and landscape features." In total, 460 surveys were completed. Three hundred forty-seven of the surveys were completed online. Participants answered a total of 23 questions. The questions followed the VPS format of paired images and asked participants to rate them on a scale of -3 to +3. The final two questions, however, asked residents to identify in which neighborhood they lived and provided space for comments. The completed draft of the Design Guidelines Manual was submitted to the Planning Commission on April 11th, 2007 (City of Chesapeake 2007).

In October 2004, La Crosse County, Wisconsin, administered a VPS to residents of the cities of Shelby and La Crosse, Wisconsin. Seventy-nine residents participated in the survey. Twenty-seven slides were presented, representing 11 categories. These included development scenarios, residential density, cul-de-sac design, house placement, residential streetscapes, open space, garage placement, commercial development, street design, multi-family housing, and commercial signage. The slides relating to development scenarios showed a series of three images - the current land use, plus two alternatives. Participants were asked to choose the option which best represented their preference for future development. The remaining slides followed a similar format, asking participants to indicate a preference among design options in a particular category. In the case of "no preference" participants were instructed to leave the question blank. Each scoring sheet provided space for comments to allow participants to explain their choice if desired. The results of the VPS were used by planning officials to update the comprehensive plans of Lacrosse and Shelby, WI (La Crosse County 2007).

VPS and Healthy Eating Active Living

While very little literature is available that specifically documents the use of VPS to promote Healthy Eating Active Living (H.E.A.L.) initiatives, a review of previous applications (as above) suggests it may be an effective tool for doing so. Designing communities that integrate principles of H.E.A.L. will involve asking and answering a myriad of questions related to land use, safety, consumer food preferences, and transportation to a potentially large and diverse group of stakeholders. The VPS model is one that can accommodate a high level of participation while meeting the needs of a diverse population as long as careful consideration is given to certain limitations. Specifically, VPS results alone may not always accurately reflect community preferences because of cultural differences, the composition, or interpretation of the survey images.

A VPS relating to H.E.A.L. might include categories such as food choices, parks, gardens, safety on residential and commercial streets, schools and churches, and transportation.

The ethnic or cultural composition of a community should be given consideration when designing the VPS. Images presenting different food choices, for example, may have cultural implications beyond the intended context. To avoid the risk of alienating entire segments of the community, images must be chosen carefully to portray a variety of options that will accurately reflect the diversity of the community. Language is also an issue that must be considered when designing the VPS. Culturally diverse communities often contain many individuals and families for whom English is either a second language or not spoken at all. While the VPS is image driven, accompanying text or captions is common. To accommodate these communities the VPS may need to be translated into several languages. An alternate strategy would be to design a VPS that uses virtually no text. The instructions would have to be in multiple languages, but the format of the survey would be uniform so further explanation would not be necessary.

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Methodology

The development of the VPS was accomplished by developing a set of indicators that relate to healthy eating and active living and collecting photographs in the neighborhoods of North Portland that illustrate these indicators. It was also determined that the VPS could be enhanced by developing an ArcReader project that could be used by community members that identify the locations of the photographs used in the VPS as well as other attributes of North Portland that relate to healthy eating and active living. ArcGIS, GPS, and other methods (see the Technical Appendix) were used to geocode those photos for the creation of a layered map of assets in the North Portland area. Some of the information used for the layers was taken from the previous term's Capstone data as well as geospatial data from Metro and the City of Portland (see the Technical Appendix). The map has layers that can be turned on and off showing various items, ranging from bike routes, public restrooms, water fountains, to restaurants and other retail businesses.

The survey itself is administered in the form of a PowerPoint presentation with an accompanying answer / scoring sheet. The questions consist of either binary choices where an individual will simply pick one image over another based on their preference, or rated sequences, where a series of images are ranked with one of five ratings, ranging from -2 to 2. The questions asked may change between the slides, and relevant captions are provided wherever necessary. The survey itself has been edited for clarity of purpose and relevance, with the questions being grouped into categories of a similar overarching theme. The questions regarding food, physical activity, and transportation are broken up into five categories, as follows:

Section 1 - Food

- Where you get your snacks
- Where you prefer to shop for produce
- How often do you eat at a specific fast food restaurant
- Which fast food restaurant do you prefer
- Where do you prefer to shop when preparing a meal
- Where do you prefer to shop for produce

Section 2 - Transportation

- Ranked sequences of images regarding the accessibility of, frequency of use, and minimum distance necessitating the use of various modes of transportation
- Preference for walking paths, bike paths, crosswalks, road style, vegetation surrounding roads, and safety of paths for walking and biking

Section 3 – Recreation

- Binary image choices about playground location (such as park vs. school) and style (wood, plastic, fenced in or open)
- Safety questions, including tree canopy and lighting
- Indoor activities vs. outdoor activities
- Pets in parks leashed vs. un-leashed

Section 4 – Park Features

- Features preferred in parks: fountain types, play equipment, activities offered, drinking fountains, sports areas, public art, gardens, walking paths, sheltered picnic benches, etc.

Section 5 – Community activities

- Ranks various community activities such as movie theatres, bowling alleys, community centers, skate parks, sports areas

The scoring sheet results are to be compiled in a spreadsheet for possible analysis and comparison.

Demographic Information

To further clarify the results of the VPS, several demographic questions are included at the end of the survey. It asks the individual's age, gender, whether they have any children under 18 living at home, if they own their place of residence, how long they've lived in their neighborhood, if they work in North Portland, and if they attend high school (and if so which one).

Evaluation

The purpose of this evaluation is to help inform the Project Partners and stakeholders of the most effective techniques for implementing projects similar to this one in the future. It is also for our own benefit, to use as a tool for reflection. We would like to identify how certain techniques could be modified or improved upon in order to better achieve the intended objectives. This report could potentially be utilized by the Project Partners toward the development of future Visual Preference Surveys that are specific to their objectives.

Goals: Desired Impact

- An increased sense of spatial ownership within the North Portland community.
- Empowerment of North Portland community to recognize and access opportunities to improve their quality of life in a community context.

Objective & Outcomes

- **Objective I:** Create a VPS that used imagery from North Portland that best described incentives and barriers of indicators for healthy eating and active living.

→ **Outcomes:** Identified incentives and barriers to healthy eating active living in North Portland with the creation of an Indicator Matrix. Collected over 200 photographs from North Portland based on the Indicator Matrix. 90 photographs were selected as the primary imagery used in the VPS. The VPS was tested through a Focus Group that involved Project Partners and Community Members. The VPS stimulated Community Members into a thoughtful conversation by revealing personal preferences towards the built environment and social behaviors towards food preference.

- **Objective II:** Create an Arc Reader that packaged a combination of regional data, data collected by students in previous Capstone projects, and a geocoded data layers based on the photographs collected by current Capstone and used in the VPS.

→ **Outcomes:** An ArcReader project bundled with 30 data layers of proprietary data

from Metro and Portland Office of Transportation. Over 90 photographs have been geocoded to the location of where the picture was taken. ArcReader project was design with identifiable symbology, zooming extents, and simple instructions with the intent of accommodate all levels of computer experience. This tool is essential for framing conversations that are placed based within the North Portland Community.

Key Outputs

- Educate Project Partners and stakeholders with a literature review of the applications of VPS.
- VPS that initially begins to identify social behavior preferences toward food and the built environment.
- VPS demonstrated as a tool that can frame and stimulate community members into a conversation about social behavior preferences towards food and the built environment.
- Methodology to replicate the VPS for future use by Project Partners and stakeholders.
- Documented Geospatial location methodology for future application
- Project report and resource index for our Project Partners and Stakeholders.

Lessons Learned

The summer Capstone team organized and facilitated a focus group to test the VPS and ArcReader. Project Partners and community members attended the focus group. We have learned many lessons from our experience with VPS and ArcReader. The ArcReader project should be used first because it contextualizes the imagery to North Portland. Combining screenshots of ArcReader photograph locations and embedding them into the VPS would provide the location of the picture shown. Another approach is to have a dual screen, where one projection is the ArcReader and the other would be the VPS.

Creating an effective VPS is time consuming but worth the effort when considering the benefits that this method offers. The VPS should have a specific mission, topic or theme such as food options, transportation, and recreation. Before starting another VPS, community concerns should be identified through implementing a survey or engaging in informal community discussion. We have learned that because community members know their neighborhood the best, community based discussions would be beneficial in developing the Indicator Matrix. Work sessions should occur with partners to determine the specific indicators or issues within the community. This will help define the photograph collection trips and save time during the project. Coordinating the collection of photographs can be problematic, but by using our Geospatial Location Methodology this process can be manageable. Communication with Project Partners and stakeholders is important, because understanding people's food behavior and using imagery as a tool to capture it is complex. There needs to be more exploration and testing in understanding the variables involved in healthy eating.

Involving community participation is key for improving and revising a VPS. Having several more focus group sessions will add a diversity of eyes that could lead to identifying new indicators, refining questions, or reducing repetitiveness. In order to do this, a project team will need more time than a compressed eight week summer term. Careful attention towards slide design is critical. The slides should all be standardized font, font size, and image size. Create VPS to be a fair neutral document. Using captions to describe text is misleading. More tests have to be done with the right combinations of

photos and captions. Use a simple binary rating system and offer option for people to not state an opinion. Overall the main mantra for VPS is less is more, meaning, the less text to frame the context of the photo the better, the less slides used to capture your purposes, the better. Having limited text on the VPS will allow for easy translation into other languages. Mixing up slides could be a method to attain attention and reduce fatigue. Limiting your VPS to 12-20 questions is ideal. When implementing the survey, allow ample time for community members to analyze the photographs and mark answers. Using VPS in the community will produce quantitative results. Packaging ArcReader, VPS followed by community-based discussion will produce qualitative results.

Recommendations

Begin the VPS by showing the ArcReader first. This will frame the discussion to a place that community members can identify with. ArcReader can provide context and location of pictures used in the VPS. Ideally, having dual screens is best. Showing ArcReader and VPS together will further identify locations of photographs used in the survey. Explore mixing categories of slides and show variety of incentives and barriers for each indicator. Limit the number of slides, so that the VPS should take 10 – 15 minutes to implement. Collage photographs together with photo imaging software to illustrate general and specific indicators.

Involving as many people as possible into the creation of VPS will ensure the creation of a good VPS. More frequent meetings with Partners will help understand the complexity of people's food behavior using imagery as a tool. Having several focus groups is the most effective method to revise the VPS. A good representation of the community and Predominant Community Members should be involved in focus groups. VPS is also flexible as a method to stimulate community based discussions. Community identity and community building can be accomplished with using drafts of the VPS in discussion groups that include members of the community. Results of the discussion will help define better the use of the VPS.

**Appendix A:
Healthy Eating & Active Living in North Portland
Visual Preference Survey**

Introduction

Thank you for taking this survey. Your answers will be helpful to us. Please remember that there are no right or wrong answers to the questions. We are only asking for your opinion.

Instructions

Throughout the survey, you will be answering questions in one of three ways:

- 1) Choose a picture that you prefer.
- 2) Rate an individual picture.
- 3) Rank a set of pictures on a slide.

Instructions

During the survey, the moderator will advise you on which method to use when answering the question.

You will mark your answer on the scoring sheet that has been provided.

Please be sure you are answering the correct question. Let's begin!

Food Options

Please give us your opinions about the following food options.

Select a picture that you most prefer from the slides.

1. Where would you prefer to shop

A



B



C



2. Preparing a meal -which do you prefer?



A. Small Market



B. Community Garden



C. Supermarket Produce



D. Farmer's Market

3. Preparing a meal -which do you prefer?



A. Supermarket



B. Regional large market



C. Community Garden



D. Farmer's Market

4. When preparing a meal which do you prefer?



A. Farmer's Market



B. Supermarket Deli

5. When preparing a meal which do you prefer?



A. Supermarket



B. Small Ethnic Market

6. When preparing a meal which do you prefer?



A. Supermarket



B. Small Ethnic Market

Food Options

Please give us your opinions about the following food options.

Rate each picture by:

- 2 not important at all
- 1 low importance
- 0 no opinion
- 1 somewhat important
- 2 very important

7. Rate the Quality



A. Mexican Food

-2 -1 0 1 2



B. Chinese Food

-2 -1 0 1 2



C. Fast Food

-2 -1 0 1 2



D. Family Restaurant

-2 -1 0 1 2

8. Healthy Menu Items



A. Mexican Food
-2 -1 0 1 2



B. Chinese Food
-2 -1 0 1 2



C. Fast Food
-2 -1 0 1 2



D. Family Restaurant
-2 -1 0 1 2

Food Options

Please give us your opinions about the following food options.

For each picture on the slide, circle how often per week you use the following food options for a meal.

0 1 2 3 4 5+

9. How often per week do you eat here?



A. Mexican Food
0 1 2 3 4 5+



B. Chinese Food
0 1 2 3 4 5+



C. Fast Food
0 1 2 3 4 5+



D. Family Restaurant
0 1 2 3 4 5+

10. How often per week do you eat here?



0 1 2 3 4 5+



0 1 2 3 4 5+



0 1 2 3 4 5+



0 1 2 3 4 5+

11. How often per week do you eat here?



0 1 2 3 4 5+



B

0 1 2 3 4 5+



0 1 2 3 4 5+



D

0 1 2 3 4 5+

Food Options

Please give us your opinions about the following food options.

Select a picture from each slide.

12. Which do you prefer?

A



B



C



D



13. Which do you prefer?



A. Chinese Food Chain



B. Local Chinese Food

14. Which do you prefer?



A. Local Mexican Food



B. Mexican Food Chain

15. Which do you prefer?



A. Family Restaurant



B. Fast Food

16. Which do you prefer?



A. Regular Fast Food



B. Sandwich Shop

17. Which do you prefer?



A. Super Market Deli



B. Sandwich Shop

18. Which do you prefer?



A. Fast Food



B. Supermarket Deli

19. Which do you prefer?



A. Farmer's Market



B. Fast Food

20. Where do you prefer to get your produce?



A. Farmer's Market



B. Small market produce section

21. Where do you prefer to get your produce?



A. Community Garden



B. Farmer's Market

22. Where do you prefer to get your produce?



A. Supermarket produce section



B. Farmer's Market

23. Where do you prefer to get your produce?



A. Farmer's Market



B. Community Garden



C. Supermarket Chain



D. Regional Large Market

24. Where do you prefer to buy snacks?



A. Convenience Store



B. Supermarket

25. Which do you prefer?



A. Convenience Store



B. Small Grocery Store

Transportation

Please give us your opinions regarding some broad transportation options.

For each slide, please rank each of the six pictures on your score sheet.

26. Modes of Transportation (Work): How often do you use?



Bicycle 0 1 2 3 4 5+



Bus 0 1 2 3 4 5+



Car/Truck 0 1 2 3 4 5+



Flex Car 0 1 2 3 4 5+



Max 0 1 2 3 4 5+



Walking 0 1 2 3 4 5+

27. Which would you prefer when traveling **More** than 5 blocks?



Bicycle -2 -1 0 1 2



Bus -2 -1 0 1 2



Car/Truck -2 -1 0 1 2



Flex Car -2 -1 0 1 2



Max -2 -1 0 1 2



Walking -2 -1 0 1 2

28. Which would you prefer when traveling **Less** than 5 blocks?



Bicycle -2 -1 0 1 2



Bus -2 -1 0 1 2



Car/Truck -2 -1 0 1 2



Flex Car -2 -1 0 1 2



Max -2 -1 0 1 2



Walking -2 -1 0 1 2

29. How **accessible** are these?



Bicycle -2 -1 0 1 2



Bus -2 -1 0 1 2



Car/Truck -2 -1 0 1 2



Flex Car -2 -1 0 1 2



Max -2 -1 0 1 2



Walking -2 -1 0 1 2

30. How **affordable** are these?



Bicycle -2 -1 0 1 2



Bus -2 -1 0 1 2



Car/Truck -2 -1 0 1 2



Flex Car -2 -1 0 1 2



Max -2 -1 0 1 2



Walking -2 -1 0 1 2

Transportation- Walk and Bike

Please give us your opinions regarding your preference for walking and biking.

Please select which picture you prefer or when directed by the moderator, rank each picture on the slide.

31. Where do you prefer to **walk**?



32. Where do you prefer to walk?

A



B



C



D



33. Where do you prefer to walk?



A. Commercial

-2 -1 0 1 2



B. Residential

-2 -1 0 1 2

34. Where do you prefer to walk?

A



B



C



D



35. Which condition bothers you most?



A. Sawdust & Dirt



B. Damaged and Oil



C. Concrete



D. Cracked Concrete

36. Where do you prefer to cross the street?

A



B



C



D



37. How Safe is each Intersection?

A



-2 -1 0 1 2

B



-2 -1 0 1 2

C



-2 -1 0 1 2

D



-2 -1 0 1 2

38. Which crosswalk do you prefer?



A. Unmarked



B. Marked

39. Which do you prefer?



A. Countdown



B. Standard



C. Unmarked

40. Where do you prefer to **bike**?

A



B



C



D



41. Where do you prefer to **bike**?



A. Wide Street



B. Narrow Street

42. Where do you prefer to **bike**?



A. Marked Bike Lane



B. Separate Bike Lane



C. Unmarked residential street



D. Unmarked commercial street

Transportation- Mass Transit

Please give us your opinions regarding your preference for mass transit stops.

Select a picture that you prefer from the following slides.

43. Which type of **Max** stop do you prefer?

A



B



C



44. Which type of **Bus** stop do you prefer?

A



B



C



45. Which bus stop do you feel
safest at?

A



B



C



Recreation

Please give us your preference about the following recreational opportunities.

Select a picture that you would prefer from the following slides.

46. Playgrounds: Ground Cover



A. Grass surface



B. Blacktop surface

47. Playgrounds



A. Open



B. Gated

48. Playground Location



A. Park



B. School

49. Where do you feel is safer?



A. Canopied



B. Open

50. Activity Location



A. Indoor Courts



B. Outdoor Courts

51. Parks: Pets



A. Leashed



B. Off Leash

Park Features

Please tell us which park features you would most like to see in a park.

Rate the importance by:

- 2 not important at all
- 1 low importance
- 0 no opinion
- 1 somewhat important
- 2 very important.

52. Play Fountain



-2 -1 0 1 2

53. Viewing Fountain



-2 -1 0 1 2

54. Play Equipment



-2 -1 0 1 2

55. Public Art



-2 -1 0 1 2

56. Benches



-2 -1 0 1 2

57. Drinking Fountains



-2 -1 0 1 2

58. Sports Field



-2 -1 0 1 2

59. Skate Park



-2 -1 0 1 2

60. Off Leash Area



-2 -1 0 1 2

61. Baseball



-2 -1 0 1 2

62. Tennis



-2 -1 0 1 2

63. Basketball



-2 -1 0 1 2

64. Gardens



-2 -1 0 1 2

65. Walking Paths



-2 -1 0 1 2

66. Sheltered Picnic Benches



-2 -1 0 1 2

Socializing

Please rank the following places and activities based on your preference for socializing.

Rate the importance by:

- 2 a terrible place for socialization
- 1 a poor place for socialization
- 0 no opinion
- 1 a fair place for socialization
- 2 a great place for socialization

67. Community Center



-2 -1 0 1 2

68. Bowling



-2 -1 0 1 2

69. Tavern or Bar



-2 -1 0 1 2

70. Movie Theaters



-2 -1 0 1 2

71. Coffee/Tea Cafe



-2 -1 0 1 2

72. Sheltered Areas



-2 -1 0 1 2

73. Library



-2 -1 0 1 2

74. Playground



-2 -1 0 1 2

75. Skateboarding



-2 -1 0 1 2

76. Basketball



-2 -1 0 1 2

77. Field Sports



-2 -1 0 1 2

78. Baseball



-2 -1 0 1 2

79. Tennis



-2 -1 0 1 2

80. Bicycling



-2 -1 0 1 2

81. Walking Dogs



-2 -1 0 1 2

82. Walking



-2 -1 0 1 2

Demographic Information

Please answer the questions marked “Demographic Information” on your answer sheet. All answers are confidential and will not be linked to you in any way. This will help us interpret the information better.

Conclusion

Thank you for taking this survey.

Please leave your answer sheets at the front of the room.

**Appendix B:
Technical Information**

Creating The ArcReader Mapping Project

About ArcReader

ArcReader is a free, downloadable desktop mapping application that enables the user to view map products packaged by ArcPublisher. This capstone mapping project was prepared in ArcGIS 9.2, and then published in Arc Reader using ArcGIS's Arc Publisher extension. The publishing process packages the map along with all the data necessary to view the map. The capstone team members also included the photographs used in the VPS survey with the data package in order to enable the hyper linking function within the mapping product. This hyper linking function enables the viewer of the ArcReader map to click on a photograph location in the map and automatically view the actual photograph in a JPEG format. ArcReader also provides the map user with the ability to view, print, query, and navigate within the map. ArcReader Information and Downloads are available through ESRI at:

<http://www.esri.com/software/arcgis/arcreader/about/features.html>.

About the data

The mapping project utilizes a combination of regional data, data collected by students in previous Capstone projects, and a geocoded data layers based on the photographs used in the VPS. The majority of the regional data is in the form of ESRI shapefiles from Metro's Regional Land Information System (RLIS). The RLIS data is dated from May 2007. One RLIS dataset, building footprints, was manually updated using recent orthophotography as a reference. This RLIS data is supplemented with local transportation and parks data available through the City of Portland. Additional layers related to commercial business in the North Portland area were provided by students in the previous two Capstones. The students collected field data and verified the data with site visits. Our Capstone class considered creating the ArcReader for all audiences, regardless of their level of GIS experience by incorporated user-friendly options for viewing the Arc Reader map. Several Layers were clipped to the map extents which improve the performance when using the map. The process for the geocoded photograph location layer is outlined in Appendix X, "Geospatial Location Methodology". The following layers were chosen for inclusion in the final ArcReader Mapping Project:

Layer Description	Last Updated	Layer Name	Comments
VPS Capstone Photos	2007	geocode_2007_08_14-01	current capstone
Bike Racks	2007	bike_racks_pdx	
Public Telephones	2002-03	amenities_metro	
Shelters	2002-03	amenities_metro	
Fountains	2007	fountains	
Parks Restrooms	2007	parks_pdx_restrooms	

Restaurants (with Detail Label Layer)	2006-07	Restaurants	previous capstone
Markets/Grocery (with Detail Label Layer)	2006-07	N_pdx_Grocery_Markets	previous capstone
Retail Locations (with Detail Label Layer)	2006-07	n_pdx_retail	previous capstone
Hospitals	2001	kaiser	clipped from hospital
Schools	2006	schools_metro	needs update per recent changes
Libraries	2001	libraries_metro	
Bicycle Routes	2007	bicycle_routes_pdx	
Park and Ride Locations	2007	park_ride_metro	
Bus Stops	2007	bus_stops_metro	
Bus Lines	2007	bus_lines_metro	
Bus Route Number	2007	bus_labels_metro	
MAX stops	2007	light_rail_stops_metro	
MAX line	2007	light_rail_lines_metro	
Freeway Labels	2007	freeway_shield_location_pdx	modified
Freeways	2001	freeways_metro	
Curbs	2007	curb_pdx	
Shoulders	2007	curb_pdx	
Streets	2007	streets_pdx	
Arterials	2007	arterials_pdx	
Railroads	2006	railroads_generalized_pdx	
Building Footprints	2006	building_footprints_sg	modified bldg_footprints_pdx
Parks and Open Spaces	2007	parks_metro	
Community Centers	2007	parks_metro	
School Grounds	2007	parks_metro	
Rivers	2001	river_poly_metro	
Neighborhoods	2001	neighborhoods_metro	

Geospatial Location Methodology

The locations of photographs used in the Visual Preference Survey (VPS) were mapped using two different methodologies, automated and manual placement. These locations were used to geocode points for use in the ArcReader project as a shapefile. Ninety photograph collection points were mapped using this process.

Automated Method

Location information was collected with a Global Positioning System (GPS) logging device, in particular the Qstarz Double 32 Bluetooth GPS Travel Recorder <http://www.qstarz.com/Products/GPS%20Products/BT-Q1000.html>. Photographs were taken using a camera with the time synchronized to the GPS. The Qstarz device logs on intervals which can be set to a frequency of up to once every second. The method of use was to snap a picture and press the point of interest button on the GPS logger as the picture was taken. The output of the Qstarz logger were saved as National Marine Electronics Association (NMEA) files, however, it was difficult to find programs that work with this particular format. GPSBabel (<http://www.gpsbabel.org/>) is a freeware tool that can trans-code various GPS data file types. Using GPSBabel, the NMEA files were converted to GPS Exchange format (GPXXML, *.gpx).

Once the GPS log tracks were converted to GPS Exchange format, they were brought into a demo version of a program called Topofusion Pro (<http://www.topofusion.com/>). When .gpx GPS track was opened in Topofusion, a 'properties' option allowed selection of a directory of pictures. Topofusion Pro was then able to compare picture time stamps with the GPS log track and, based on these comparisons, points of interest were geo-located. Topofusion Pro provided the option to save a track file in many other formats. The photograph locations were saved as GIS shapefiles, a format that can be natively opened in ArcGIS. These shapefile outputs defaulted to indicate the E/W hemisphere in a way that projected these points in the middle of China. However, using the projection tools in ArcGIS, the data was re-projected correctly to the NAD 1983 HARN, Oregon North projection, which is an industry wide standard used for our region.

Manual Method

Without GPS tracks for automated image placement the process can be tedious. The method that was determined as optimum primarily utilized Google Earth (<http://earth.google.com/>).

Some photograph information contained latitude and longitude. In the cases where this Latitude/Longitude (Lat/Long) data was provided, the Lat/Long was input into Google Earth and a placemark pushpin was automatically placed in that location. By default the placemark was labeled 'Untitled Placemark', so when entering these points they were 'named' with the entire photo filename as used in the VPS Project. Once a placemark was added it was then listed in the 'Places' sidebar in Google Earth. Right clicking on the placemark listing allowed the saving of the individual point as a keyhole markup file (.kml) which is Google Earth's preferred format. This method was used to save individual points as a backup with filenames such as "UP_WillametteBus44_02.jpg.kml".

In cases where Lat/Long wasn't recorded with the photograph, the Google Earth interface allowed flexibility in point placement. Once a placemark was added using an address or intersection, with the properties box open, it was moved to the appropriate location by dragging the point. Through visual comparison with the actual photos the placemarks were located with significant accuracy. Again, as a backup, these individual points were saved to .kml files.

Final Step

The last phase of the Google Earth mapping process was to accumulate all the individual points that were both automatically and manually created. Once each of the required images were geo-located -the points were all segregated under "My Places" in a folder called GIS_Capstone. By right clicking on this parent folder Google Earth had the ability to save the .kml file that includes all the located points. This combined .kml file was then opened in Topofusion Pro, solely for the purpose of re-saving the file as a shapefile. This shapefile was then opened in ArcGIS and reprojected.

ArcReader Tutorial

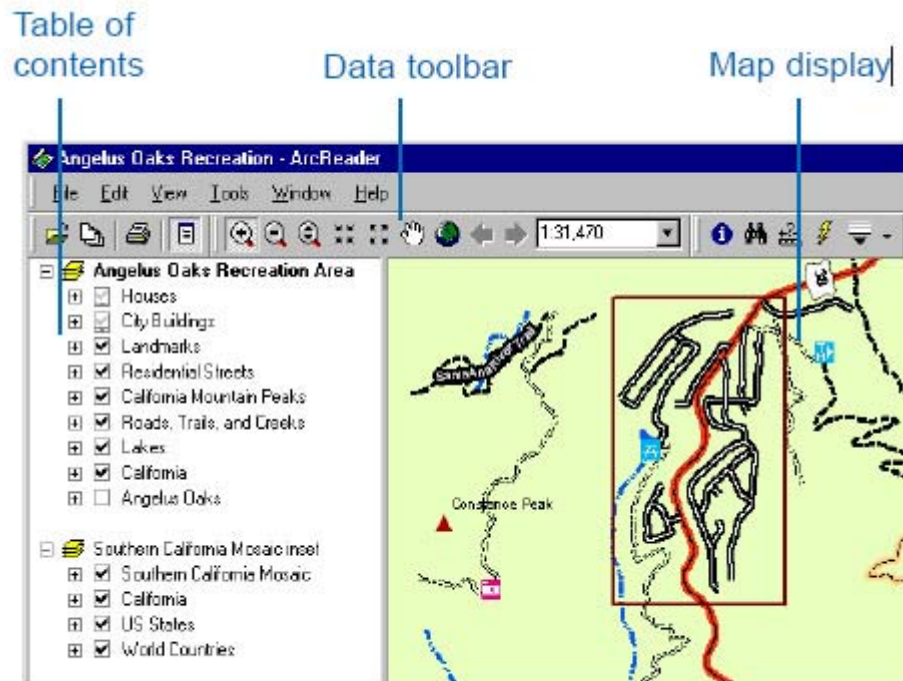
Compiled with Information from ESRI Documentation Installed with ArcReader

Understanding ArcReader:

ArcReader is a free utility that provides GIS users with a method to share electronic maps. It can open published map files (.pmf) that have been created in ArcMap and ArcGlobe with the ArcGIS Publisher extension. A published map is a graphical representation of geographic data. These published maps do not actually store the data shown on the map but rather reference the data, which may be stored on a local disk, another computer, or the Internet.

Map Layers:

Geographic information on a map is displayed as layers; each layer represents a particular type of feature, such as a stream, lake, political boundary, or wildlife habitat. Layers are listed in the table of contents lists which also shows how the features in each layer are represented on the map. You can turn each layer on or off by checking and unchecking the check box next to the layer. When the layer is on, it draws on the map. Layers are drawn on the map in the order in which they are listed in the table of contents. Layers listed on top of other layers in the table of contents will be drawn on top of those layers on the map.



This is an example of a .pmf—the Angelus Oaks Recreation.pmf.

Data View and Layout View:






ArcReader provides two different ways to view a two-dimensional map: data view and layout view. Each view allows you to look at and interact with the map in a specific way. When you want to browse geographic data on your map, choose data view which displays the

contents of a data frame. A data frame can be thought of as a container that holds a map's data. Access data view by clicking the View Menu then choosing Data View. When you want to see the entire map page, use layout view. In layout view, you'll see a virtual page showing all the map elements and data frames. Access data view by clicking the View Menu then choosing Layout View.

(NOTE: A published map that contains 3D globe content does not have data frames or a layout view.)

Moving Around the Map:

As you work with a map, you can easily change how you view the data it contains. When browsing a map, you might want to pan and zoom around the data and investigate different areas and features. The Data toolbar contains useful zoom and pan tools for these functions.


Zoom In	
Zoom Out	
Continuous Zoom/Pan	
Pan	
Full Extents	

To use the zoom tools click the Zoom In button , Zoom Out button , or Continuous Zoom/Pan button on the Navigation toolbar. Alternatively, you can click Tools, point to Navigation, then click Zoom In or Zoom Out. When using the Zoom In or Zoom Out tools, single click on the map where you would like your display to be centered or click and drag to create a boxed area to which to zoom. Using the Continuous Zoom/Pan tool, left-click and drag down on the display to zoom in or up on the display to zoom out. Right-click the Continuous Zoom/Pan tool to quickly Pan the map. You can also pan the map view by using the Pan button on the Navigation toolbar. Click on the Full Extents tool to zoom to the entire area of the map.

Exploring Data and Features on a Map:

Sometimes just looking at a map isn't enough; you often need to query the data to solve problems. ArcReader allows you to explore the data on the map and get the information you need. You can find features that have a particular characteristic or attribute, examine all the attributes of a particular layer, measure distances on the map, point at features to identify what they are, or hyperlink to more information.


Finding Features with Attribute Values:

On the Data toolbar, click the Find button . Click the Features tab. Type the attribute value of interest in the Find text box. Click the In layers drop-down arrow and click the layer you want to search. Search for the attribute in all fields, in a specific field, or in the primary display field. Click Find. Right-click the found feature listed in the Results window and click Flash feature, Zoom to feature(s), or Identify feature(s).


Tip: Use the Find tool, which has a search field, if you know exactly what you are looking for. The fewer fields to search, the quicker the results. You can also access the Find

tool by right-clicking a layer in the table of contents, clicking the Find button on the Data toolbar, or clicking the Edit menu and clicking Find.


Finding a Place (requires internet access):

On the Data toolbar, click the Find button . Click the Places tab. Choose a service from the Services drop-down list. In the Place text box, type the name of a place. Choose a place type to limit your search to a specific type of place. The place type list is provided by the service, and some services do not support place types. Set the Candidate value to the number of places to display that meets your criteria. Use the Search drop-down list to limit your search spatially. You can search the full extent of the data in your map or the current visible extent. Click Find. Right-click a found place to flash, zoom to or pan to the place.

Finding an Address (requires an internet connection):

On the Data toolbar, click the Find button . Click the Addresses tab. Choose a service from the address locator drop-down list, such as U.S. Address Finder Tele Atlas. Once a locator has been selected, options for defining the address will be displayed. Fill out the address information. Partial searches are supported so not all fields must be searched but you will want to fill in enough information for the service to be able to locate a match. Click Find. Right-click a found address to flash, zoom to, or pan to the place.

Identifying Features:

Click the Identify button  on the Data toolbar. An empty Identify window appears. Click the map feature you want to identify or drag a box around multiple features. By default, information about the topmost layer will populate the Identify window. Use the Identify from drop-down arrow to identify a feature in a specific layer. Only features in that layer will show in the Identify Results window.


Tips:






- The Identify tool can be accessed by right-clicking a layer in the table of contents and clicking Identify or by right-clicking the results in the Find dialog box. You can also click the Tools menu, point to Data, then click Identify.
- Identify shows the location of the mouse click. Location will show the feature location if you click the layer in the Identify tree. The x,y location is the inside centroid for polygons, midpoint for lines, and the actual location for points.
- To identify multiple features at once, click and drag a box around the features you want to identify.
- A lightning bolt appearing next to an attribute indicates that the field has a hyperlink. Click the attribute to see the link.

Copying from the Identify Window:

To copy a single attribute, click the attribute in the Identify tree, right-click the field and click Copy. You can now paste the attribute into another software application. To copy an entire record, right-click the feature in the Identify tree. Click Copy Record. The layer name and its attributes will be copied. Use the Options dialog box (click the Tools menu and click Options) to control whether the layer name is included in the Copy command. The copied records can then be pasted into another application.


Measuring Distance and Features:

On the Data toolbar, click the Measure button . The Measure Info dialog box will appear. The Measure Info dialog box contains five tools for measuring distance and features. By default, the Distance (line) measurement tool is enabled until you select one of the tools from the Measure Info dialog box. The tools on the Measure Info dialog box are listed below.



-  Measure Areas: Measure areas automatically without holding down the Alt key.
-  Measure Features: Measure any feature with a single click—point, line, or polygon. A point measurement will return the x,y coordinates of that point.
-  Measure Snapping: Snaps to features while measuring.
-  Total Measures: Keeps a sum of consecutive measurements until unclicked.
-  Measure Units: Set the distance and area measurement units. The measure units are set to the map units by default..

Click the map at the location where you want to start measuring. Move the pointer to the point that you want to measure. If you want to measure along the curve of a line, click along the line to add vertices. Double-click to end.

Accessing Hyperlinked Features:

Click the Hyperlinks button  on the Tools toolbar. Hyperlinked features are colored blue when using the Hyperlink tool. When you hover over the feature, the icon will change to a hand and you will see a ToolTip with the name of the target. Click on a hyperlinked feature and the hyperlink opens. If more than one hyperlink exists at that location, a list of available hyperlinks will pop up, choose from that list to view the hyperlink

Interactively Revealing Layers

Because layers draw in the order they appear in the table of contents, you will sometimes want to be able to see what is under another layer without turning the top layer off. This can be done by using the swipe button  or the transparency tool . To use the swipe tool, choose a layer from the drop-down list on the Effects toolbar. Click the Swipe button . Click the display canvas and drag to swipe the layer. As you drag the swipe pointer, the layer beneath the swipe layer will be revealed. This provides a temporary look at the data underneath data. To make a layer see-through for longer viewing, adjust the transparency for that layer. On the Effects toolbar, choose a layer from the drop-down menu. Click the Transparency tool and move the slider to set the transparency for the layer.

Using the Magnifier Window:

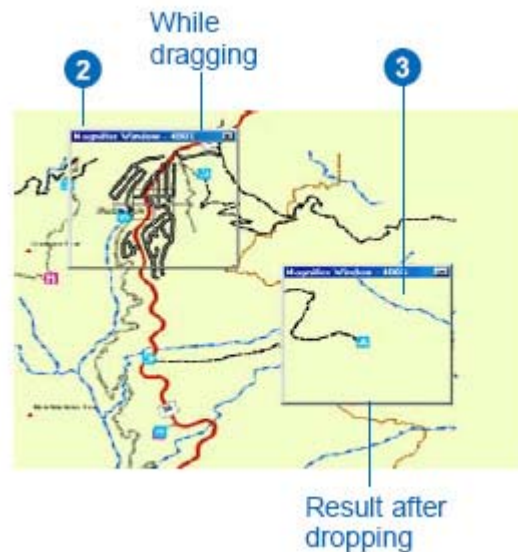
When you don't want to adjust your map display but want to see things in greater detail, use the magnifier window. The magnifier window works like a magnifying glass. As you pass the window over the data, you see a magnified view of the location under the window. Moving the magnifier window around does not affect the current map display. *NOTE: The magnifier window is not enabled for published maps that contain 3D globe content.*

1. Click Window and choose Magnifier to open the Magnifier Window.



2. Click the title bar of the Magnifier Window and drag it over the map. While you are dragging it, the Magnifier Window will show crosshairs to indicate which part of the display will be magnified.

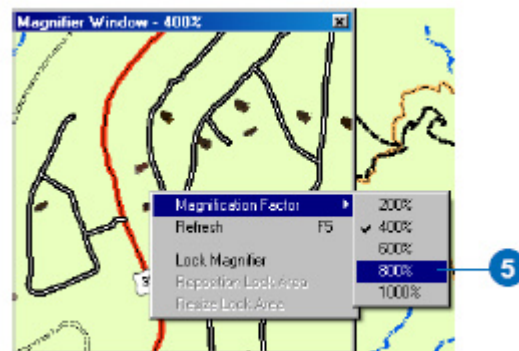
3. When the crosshairs are over the portion of the map you would like to magnify, release the mouse button. You will see an enlarged view of the location under the Magnifier Window.



You can change several properties of the Magnifier Window, such as the magnification factor and what the Magnifier Window displays.

4. Move your pointer near the edge of the Magnifier Window until it turns into resizing arrows, then click and drag the window in the direction you want to resize (make it a little larger).

5. Place your pointer inside the Magnifier Window and right-click. Point to Magnification Factor and choose a percentage from the options given. This will scale the data displayed in the Magnifier Window by the percentage chosen.



6. Right-click the Magnifier Window and click Lock Magnifier. Click and drag the title bar of the Magnifier Window to move it somewhere else; notice that the picture doesn't change but instead keeps your snapshot.

Using the Markup Tools:

The ArcReader Markup toolbar provides tools that allow you to interact with the ArcReader display using digital ink. The tools on the Markup toolbar (pen, highlighter, and eraser) let you add digital ink on top of your PMF and store this ink in an associated pmfink file. The pmfink file is created when a PMF is closed, or upon exiting ArcReader. By default, the pmfink file is stored in the same directory as the pmf. If the user does not have write-access to the directory in which the pmf is stored, then the pmfink file will be written to C:\Documents and Settings\\Application Data\ESRI\ArcReader\Ink.



The Pen tool is used to create ink graphics on the map. By default, the pen ink color is red. Pen ink is available in three different widths: thin, medium, and thick.

The Highlighter tool can be used to emphasize areas on the map. Highlighter ink is semitransparent, so you can see the features underneath your highlighting, much like using a highlighter pen on a sheet of paper. The highlighter tool is available in yellow, green, and blue, at a standard width.

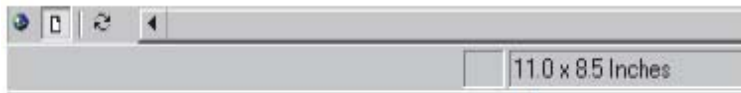
The Eraser tool allows you to erase part or all of a sketch. The Eraser tool is also available in three widths. Additionally, there is the option to erase a full stroke. To erase ink using one of the specified widths, click and drag the eraser across the ink you want to erase. To erase an entire stroke, choose the erase stroke tool and click the stroke you want to erase.

To use any of these tools, click the drop-down arrow on the tool itself. Choose a markup style (pen width, hilite color, or eraser type) with which to work. Then click with the mouse or begin writing with the Tablet PC pen anywhere on the map to begin inking, hiliting or erasing. It is important to note that ink that is written in data view is viewable in both data and layout view, while ink that is written in layout view will only appear in layout view.

Printing from ArcReader:

You may print from either data view or layout view. However, there are a few things to consider when printing from ArcReader. When printing from layout view, the entire page layout will be printed. If you are printing from data view, the data will be printed as it appears in the ArcReader display. The data will be scaled to fit the specified printer page.

You can print your map from layout view, but it is important to keep in mind that the map will not automatically scale to fit the printer page. Open the Page Setup dialog box under the File menu and choose the appropriate printer setup, orientation, and layout settings based on the page size shown on the ArcReader status bar.



In Layout view the original page size is displayed on the status bar.

These settings allow the printed map to fit on the desired page. If the map you are working with has a page size that larger than your printer, you can still print the map to the paper size of your choice by checking Scale to Fit Page. Click OK then click the Print button. When printing from data view, the portion of the map in the display area will be scaled to fit the selected printer page. Printing from data view always scales the map to fit the page.

**Appendix C:
VPS Supplemental Documents**

INDICATOR MATRIX

	Barriers	Incentives
Healthy Eating	<p>Fast food restaurants.</p> <p>Convenience stores.</p> <p>Lack of nutrition education.</p> <p>Lack of grow-your-own education.</p> <p>Lack of space to garden.</p> <p>Expensive food products.</p> <p>Lack of farmers' markets.</p>	<p>Full service grocery stores.</p> <p>Affordable full service grocery stores.</p> <p>Culturally specific grocery stores.</p> <p>Community gardens.</p> <p>Education.</p> <p>Farmers' markets.</p>
Active Living	<p>Crime and perceptions of crime (also day vs. night).</p> <p>Parks and the nature of the parks.</p> <p>Lack of desirable destinations.</p> <p>Lack of physical education in schools.</p> <p>Fast moving traffic.</p> <p>Lack of safe bike paths.</p> <p>Lack of crosswalks.</p> <p>Lack of street lights.</p> <p>Lack of street trees.</p> <p>Messaging (billboards, signage, types of businesses, types of public activities).</p> <p>Zoning/Planning.</p>	<p>Parks and the nature of the parks.</p> <p>Safe and affordable recreational opportunities.</p> <p>Social activities.</p> <p>Available businesses and services.</p> <p>Jobs.</p> <p>Sidewalks.</p> <p>Walking trails.</p> <p>Bicycle paths.</p> <p>Participatory planning.</p> <p>Education in general.</p> <p>Physical education in schools.</p> <p>Zoning/Planning.</p>

Food Options

1. A B C

2. A B C D

3. A B C D

4. A B

5. A B

6. A B

7. Rate Each Option: (circle your selection)

A) -2 -1 0 1 2

B) -2 -1 0 1 2

C) -2 -1 0 1 2

D) -2 -1 0 1 2

8. Rate Each Option: (circle your selection)

A) -2 -1 0 1 2

B) -2 -1 0 1 2

C) -2 -1 0 1 2

D) -2 -1 0 1 2

9. Rate Each Option: (circle your selection)

A) 0 1 2 3 4 5+

B) 0 1 2 3 4 5+

C) 0 1 2 3 4 5+

D) 0 1 2 3 4 5+

10. Rate Each Option: (circle your selection)

A) 0 1 2 3 4 5+

B) 0 1 2 3 4 5+

C) 0 1 2 3 4 5+

D) 0 1 2 3 4 5+

11. Rate Each Option: (circle your selection)

A) 0 1 2 3 4 5+

B) 0 1 2 3 4 5+

C) 0 1 2 3 4 5+

D) 0 1 2 3 4 5+

12. A B C D

13. A B

14. A B

15. A B

16. A B

17. A B

18. A B

19. A B

20. A B

21. A B

22. A B

23. A B C D

24. A B

25. A B

Transportation

26. Rate Each Option: (circle your selection)

Bicycle	0	1	2	3	4	5+
Bus	0	1	2	3	4	5+
Car/Truck	0	1	2	3	4	5+
Flex Car	0	1	2	3	4	5+
Max	0	1	2	3	4	5+
Walking	0	1	2	3	4	5+

27. Rate Each Option: (circle your selection)

Bicycle	-2	-1	0	1	2
Bus	-2	-1	0	1	2
Car/Truck	-2	-1	0	1	2
Flex Car	-2	-1	0	1	2
Max	-2	-1	0	1	2
Walking	-2	-1	0	1	2

28. Rate Each Option: (circle your selection)

Bicycle	-2	-1	0	1	2
Bus	-2	-1	0	1	2
Car/Truck	-2	-1	0	1	2
Flex Car	-2	-1	0	1	2
Max	-2	-1	0	1	2
Walking	-2	-1	0	1	2

29. Rate Each Option: (circle your selection)

Bicycle	-2	-1	0	1	2
Bus	-2	-1	0	1	2
Car/Truck	-2	-1	0	1	2
Flex Car	-2	-1	0	1	2
Max	-2	-1	0	1	2
Walking	-2	-1	0	1	2

30. Rate Each Option: (circle your selection)

Bicycle	-2	-1	0	1	2
Bus	-2	-1	0	1	2
Car/Truck	-2	-1	0	1	2
Flex Car	-2	-1	0	1	2
Max	-2	-1	0	1	2
Walking	-2	-1	0	1	2

Transportation- Walk and Bike

31. A B C D

32. A B C D

33. Rate Each Option (circle your selection)

A) -2 -1 0 1 2

B) -2 -1 0 1 2

34. A B C D

35. A B C D

36. A B C D

37. Rate Each Option: (circle your selection)

A) -2 -1 0 1 2

B) -2 -1 0 1 2

C) -2 -1 0 1 2

D) -2 -1 0 1 2

38. A B

39. A B C

40. A B C D

41. A B

42. A B C D

Transportation- Mass Transit

43. A B C

44. A B C

45. A B C

Recreation

46. A B

47. A B

48. A B

49. A B

50. A B

51. A B

Park Features

(circle your selection)

52. -2 -1 0 1 2

53. -2 -1 0 1 2

54. -2 -1 0 1 2

55. -2 -1 0 1 2

56. -2 -1 0 1 2

57. -2 -1 0 1 2

58. -2 -1 0 1 2

59. -2 -1 0 1 2

60. -2 -1 0 1 2

61. -2 -1 0 1 2

62. -2 -1 0 1 2

63. -2 -1 0 1 2

64. -2 -1 0 1 2

65. -2 -1 0 1 2

66. -2 -1 0 1 2

Socializing

(circle your selection)

67. -2 -1 0 1 2

68. -2 -1 0 1 2

69. -2 -1 0 1 2

70. -2 -1 0 1 2

71. -2 -1 0 1 2

72. -2 -1 0 1 2

73. -2 -1 0 1 2

74. -2 -1 0 1 2

75. -2 -1 0 1 2

76. -2 -1 0 1 2

77. -2 -1 0 1 2

78. -2 -1 0 1 2

79. -2 -1 0 1 2

80. -2 -1 0 1 2

81. -2 -1 0 1 2

82. -2 -1 0 1 2

Please continue to next page.

Demographic Information

The following questions are optional. All answers are confidential and will not be linked to you in any way. Demographic information will help us interpret the survey results. Thank you for participating in the survey.

1. Age: _____
2. Gender: Male Female
2. Do you have any children under the age of 18 living at home?
 Yes No
3. Do you own your place of residence?
 Yes No
4. How long have you lived in this neighborhood? _____
5. Do you work in North Portland?
 Yes No
6. Do you attend school?
 Yes No

If yes, which one? _____
7. Which of the following best describes the ethnic or racial group with which you identify yourself?
 African-American
 Asian/Pacific Islander
 Caucasian/White
 Hispanic/Latino
 Some other group or identification

Visual Preference Survey Moderator Script

Moderator Instructions

Allow sufficient time for the participants to mark their responses.

Key to script:

- **Bold** - slide titles
- ***Bold italics*** – slide titles that moderator speaks during survey
- [caption] – instructions for moderator
- *Italics* – text that moderator speaks during survey

NOTE: Observe audience and slow or speed presentation of slides accordingly. Some slides require more time than others.

[begin survey]

Introduction

[instruction slide]

Thank you for taking this survey. Your answers will be helpful to us. Please remember that there are no right or wrong answers to the questions. We are only asking for your opinion. You do not need to write your name on the answer sheet.

Instructions – 2

[instruction slide]

Throughout the survey, you will be answering questions in one of three ways:

- 1) Choose a picture that you prefer.*
- 2) Rate an individual picture on the shown rating scale.*
- 3) Rank a set of pictures on a slide.*

Nearly all of the following slides were taken in North Portland.

Instructions – 3

[instruction slide]

During the survey, you will be advised on which method you will use when answering the question.

You will mark your answer on the answer sheet that has been provided. Does everyone have an answer sheet?

[if not -provide answer sheet]

Please make sure you are answering the correct question.

One other thing to remember is that you are not rating the picture quality. You are rating the concept shown by the picture.

Let's begin!

[Read **bold** slide titles now]

Food Options

Please turn to page one of your answer sheet packet.

Please give us your opinions about the following food options.

Select a picture that you prefer from the slides.

1. Where do you prefer to shop?

Select an image you prefer.

Locate question number one on your answer sheet.

Please choose A, B, or C and then circle that letter on your answer sheet.

[pause 3 seconds]

2. When preparing a meal, where do you prefer?

A, Small Market, [pause 2 seconds]

B, Community Garden [pause 2 seconds]

C, Supermarket Produce [pause 2 seconds]

D, Farmers Market [pause 2 seconds]

3. When preparing a meal where do you prefer?

A, Supermarket [pause 2 seconds]

B, Regional large market [pause 2 seconds]

C, Community garden [pause 2 seconds]

D, Farmers Market [pause 2 seconds]

4. When preparing a meal where do you prefer?

A, Farmer's Market [pause 2 seconds]

B, Supermarket Deli

5. When preparing a meal where do you prefer?

A, Supermarket [pause 2 seconds]

B, Small Ethnic Market

6. When preparing a meal where do you prefer?

A, Supermarket [pause 2 seconds]

B, Small Ethnic Market

Food Options

[instructional slide]

Please give us your opinions about the following food options.

You will rate each picture on the slide by

-2 means not important at all to you

-1 means low importance to you

0 means you have no opinion

1 means somewhat important to you

2 means very important to you

Before we began does anyone have any questions?

[answer questions, if none -continue]

Ok, we will continue with the survey

7. Rate the Quality

Remember that you will rate each letter on your answer sheet

A, Mexican Food [pause 3 seconds]

B, Chinese Food [pause 3 seconds]

C, Fast Food [pause 3 seconds]

D, Family Restaurant [pause 3 seconds]

8. Healthy Menu Items

A, Mexican Food [pause 3 seconds]

B, Chinese Food [pause 3 seconds]

C, Fast Food [pause 3 seconds]

D, Family Restaurant [pause 3 seconds]

Please turn to page 2 on your answer sheet. Page numbers are marked on the top right side.

Food Options

[instruction slide]

Please give us your opinions about the following food options.

For each picture on the slide, circle how often per week you use the following food options for a meal.

0, not at all, 1 time a week, 2,3,4 -times a week, and 5 or more times a week.

Let's continue

9. How often per week do you eat here?

- A, Mexican Food [pause 3 seconds]
- B, Chinese Food [pause 3 seconds]
- C, Fast Food [pause 3 seconds]
- D, Family Restaurant [pause 3 seconds]

10. How often per week do you eat here?

Rate each picture,

- A, Panda Express [pause 3 seconds]
- B, Quizno's [pause 3 seconds]
- C, McDonald's [pause 3 seconds]
- D, Taco Bell [pause 3 seconds]

11. How often per week do you eat here?

Rate each letter,

- A, Subway [pause 3 seconds]
- B, Jack In The Box [pause 3 seconds]
- C, Burger King [pause 3 seconds]
- D, KFC [pause 3 seconds]

Please turn to page 3 of your answer sheet. [Optional, say -page numbers are located on the top right side of your sheet]

Food Options [instructions slide]

Please give us your opinions about the following food options.

You will be asked to select a picture from each slide.

Circle your choice on your answer sheet

12. Where do you prefer?

Select one picture either A, B, C, or D [pause 3 seconds]

13. Where do you prefer?

Select one picture either

- A, Chinese Food Chain, or
- B, Local Chinese Food [pause 3 seconds]

14. Where do you prefer?

Select one picture either

- A, Local Mexican food, or
- B, Mexican Food Chain [pause 3 seconds]

15. Where do you prefer?

Select one picture either
A, Family Restaurant, or
B, Fast Food

[pause 3 seconds]

16. Where do you prefer?

Select one picture either
A, Regular Fast Food, or
B, Sandwich Shop

[pause 3 seconds]

17. Where do you prefer?

Select one picture either
A, Super Market Deli, or
B, Sandwich Shop

[pause 3 seconds]

18. Where do you prefer?

Select one picture either
A, Fast Food, or
B, Supermarket Deli

[pause 3 seconds]

19. Where do you prefer?

Select one picture either
A, Farmer's Market, or
B, Fast Food

[pause 3 seconds]

20. Where do you prefer to get your produce?

Select one picture either
A, Farmer's Market, or
B, Small market produce section

[pause 3 seconds]

21. Where do you prefer to get your produce?

Select one picture either
A, Community Garden, or
B, Farmer's Market

[pause 3 seconds]

22. Where do you prefer to get your produce?

Select one picture either
A, Supermarket produce section, or
B, Farmer's Market

[pause 3 seconds]

23. Where do you prefer to get your produce?

Select one picture either

A, Farmer's Market

B, Community Garden

C, Supermarket Chain

D, Regional Large Market [pause 3 seconds]

24. Where do you prefer to buy snacks?

Select one picture either

A, Convenience Store, or

B, Supermarket [pause 3 seconds]

25. Which do you prefer

Select one picture either

A, Convenience Store, or

B, Small Grocery Store [pause 3 seconds]

Please turn to page 4 of your answer sheet

Transportation [instructional slide]

Please give us your opinions regarding some broad transportation options.

Rate each of the six pictures on your answer sheet for each slide.

26. Each week, how many times do you use these modes of transportation going to and from your work?

On your answer sheet circle how many times for

Bicycle [pause 2 seconds]

Bus [pause 2 seconds]

Car/Truck [pause 2 seconds]

Flex Car [pause 2 seconds]

Max [pause 2 seconds]

Walking [pause 2 seconds]

27. Which do you prefer when traveling More than 5 blocks?

Remember,

-2 means not important at all to you

-1 means low importance to you

0 means you have no opinion

1 means somewhat important to you

2 means very important to you

Rate each of the pictures on your answer sheet

Bicycle [pause 2 seconds]

Bus [pause 2 seconds]

Car/Truck [pause 2 seconds]

Flex Car [pause 2 seconds]

Max [pause 2 seconds]

Walking [pause 2 seconds]

Please turn to page 5 of your answer sheet

28. Which do you prefer when traveling Less than 5 blocks?

Rate each of the pictures on your answer sheet

Bicycle [pause 2 seconds]

Bus [pause 2 seconds]

Car/Truck [pause 2 seconds]

Flex Car [pause 2 seconds]

Max [pause 2 seconds]

Walking [pause 2 seconds]

29. How accessible are these?

Rate each of the pictures on your answer sheet

Bicycle [pause 2 seconds]

Bus [pause 2 seconds]

Car/Truck [pause 2 seconds]

Flex Car [pause 2 seconds]

Max [pause 2 seconds]

Walking [pause 2 seconds]

Please turn to page 6 of your answer sheet. [Optional, -page numbers are located on the top right side of your sheet]

30. How affordable are these?

Rate each of the pictures on your answer sheet

<i>Bicycle</i>	[pause 2 seconds]
<i>Bus</i>	[pause 2 seconds]
<i>Car/Truck</i>	[pause 2 seconds]
<i>Flex Car</i>	[pause 2 seconds]
<i>Max</i>	[pause 2 seconds]
<i>Walking</i>	[pause 2 seconds]

Transportation- Walk and Bike [instructional slide]

Please give us your opinions regarding your preference for walking and biking.

Please select which picture you prefer or, when directed, rate each picture on the slide.

31. Where do you prefer to walk?

Select one picture either, A [pause], B [pause], C [pause], D [pause]

32. Where do you prefer to walk?

Select one picture either, A [pause], B [pause], C [pause], D [pause]

33. Where do you prefer to walk?

Rate each of these pictures by circling your preference on the answer sheet.

<i>A, Commercial</i>	[pause 2 seconds]
<i>B, Residential</i>	[pause 2 seconds]

34. Where do you prefer to walk?

Select one picture either, A [pause], B [pause], C [pause], D [pause]

35. Which condition bothers you most?

- A, Sawdust & Dirt*
- B, Damaged and Oil*
- C, Concrete*
- D, Cracked Concrete*

[pause 2 seconds]

Please turn to page 7 of your answer sheet. [Optional, -page numbers are located on the top right side of your sheet]

36. Where do you prefer to cross the street?

Select one picture either, A [pause], B [pause], C [pause], D [pause]

37. How safe is each Intersection?

Rate each picture, A, B, C, and D, on your answer sheet.

-2 Dangerous

-1 Unsafe

0 you have no opinion

1 somewhat safe

2 very safe [pause 8 seconds]

38. Which crosswalk do you prefer?

A, Unmarked or

B, Marked [pause 2 seconds]

39. Which do you prefer?

A, countdown,

B, Standard crosswalk, or

C, Unmarked

[pause 2 seconds]

40. Where do you prefer to bike?

Select one picture either, A, B, C, or D

[pause 2 seconds]

41. Where do you prefer to bike?

A, Wide Street, or

B, Narrow Street [pause 2 seconds]

42. Where do you prefer to bike?

A, Marked bike lane,

B, Separate Bike lane

C, Unmarked residential street, or

D, Unmarked Commercial Street

[pause 2 seconds]

Transportation- Mass Transit [instructional slide]

Please give us your opinions regarding your preference for the type of mass transit stops.

Select a picture that you prefer from the following slides

43. Which type of Max stop do you prefer?

Select one picture either, A, B, or C

[pause 2 seconds]

44. Which type of Bus stop do you prefer?

Select one picture either, A, B, or C

[pause 2 seconds]

45. Which bus stop do you feel safest at?

Select one picture either, A, B, or C

[pause 2 seconds]

Please turn to page 8 of your answer sheet. [Optional, -page numbers are located on the top right side of your sheet]

Recreation

[instructional slide]

Please give us your preference about the following recreational opportunities.
Select a picture that you prefer from the following slides

46. Playgrounds: Ground Cover

What do you prefer,
A, Grass surface, or
B, Blacktop surface

[pause 2 seconds]

47. Playgrounds

Do you prefer,
A, open playgrounds, or
B, gated

[pause 2 seconds]

48. Playground Location

Do you prefer playground located in
A, Park or
B, School

[pause 2 seconds]

49. Where do you feel is safer?

A, Canopied or
B, Open

[pause 2 seconds]

50. Activity Location

Do you prefer
A, Indoor courts or
B, outdoor courts

[pause 2 seconds]

51. Parks: Pets

Do you prefer

A, leashed

B, off leash

[pause 2 seconds]

Park Features

[instructional slide]

Please tell us which park features you would most like to see in a park

In your opinion, Rate the importance by:

-2 not important at all

-1 low importance

0 no opinion

1 somewhat important

2 very important

Let's begin,

52. Play Fountain

[pause 3 seconds]

53. Viewing Fountain

[pause 3 seconds]

54. Play Equipment

[pause 3 seconds]

55. Public Art

[pause 3 seconds]

56. Benches

[pause 3 seconds]

57. Drinking Fountains

[pause 3 seconds]

58. Field Sports

[pause 3 seconds]

59. Skate Park

[pause 3 seconds]

60. Off Leash Area

[pause 3 seconds]

61. Base Ball

[pause 2 seconds]

Please turn to page 9 of your answer sheet. [Optional, -page numbers are located on the top right side of your sheet]

62. Tennis

[pause 3 seconds]

63. Basketball

[pause 3 seconds]

64. Gardens

[pause 3 seconds]

65. Walking Paths

[pause 3 seconds]

66. Sheltered Picnic Benches [pause 3 seconds]

Socializing [instructional slide]

Please rank the following places and activities based on your preference for socializing.

In your opinion, Rate the importance by:

-2 a terrible place for socialization

-1 a poor place for socialization

0 no opinion

1 a fair place for socialization

2 a great place for socialization

Let's begin,

67. Community Center [pause 3 seconds]

68. Bowling [pause 3 seconds]

69. Tavern or Bar [pause 3 seconds]

70. Movie Theaters [pause 3 seconds]

71. Coffee Tea/Café [pause 3 seconds]

72. Sheltered Areas [pause 3 seconds]

73. Library [pause 3 seconds]

74. Playground [pause 3 seconds]

75. Skateboarding [pause 3 seconds]

76. Basketball [pause 3 seconds]

77. Field Sports [pause 3 seconds]

78. Baseball [pause 3 seconds]

79. Tennis [pause 3 seconds]

Please turn to page 10 of your answer sheet. [Optional, -page numbers are located on the top right side of your sheet]

80. Bicycling [pause 3 seconds]

81. Walking Dogs [pause 3 seconds]

82. Walking

[pause 3 seconds]

[end]

[announce]

*Thank you for taking this survey, please turn the page and continue.
Please answer the questions marked "Demographic information".*

*All answers are confidential and will not be linked to you in any way.
This will help us interpret the visual preference survey.*

*Once again, thank you for taking this survey.
Please leave your answer sheet at the front of the room.*

Focus Group questionnaire results

1) *How would you rate your overall experience participating in the VPS?*

[1] Excellent [3] Good [1] Average [1] Poor

2) *How would you rate the length of the VPS?*

[2] Too long [4] Just fine [] Should be longer

Comments:

- The slides went a little fast
- Too long in some areas

3) *At anytime during the survey, did you experience fatigue?* [2] Yes [3] No

Comments:

- When questions seemed duplicated
- Mental fatigue – some segments too long
- Repetition
- I questioned how I would answer it as a North Portland resident. Since I lived in NE

4) *In your opinion, did you find the survey repetitive?* [4] Yes [0] No

Comments:

- A little
- Somewhat
- A lot of asking what / perceived as same / similar questions
- Sports fields/ basketball/ baseball →Doesn't Sports fields include everything?
- Need an option to opt out or a scale with <&>
- Though I understand their where reasons to slice information, I got confuse on the sequence of questions. Suggestion: 1) Mix questions up, 2) Explain to audience reasons up. 3) State upfront pictures from their neighborhood, so they feel some ownership.

5) *Did the photographs accurately represent indicators for healthy eating/active living?*

[3] Yes [3] No

Comments:

- But I wasn't sure if it was intended to link brands with market size. E.g. New Seasons – local supermarket
- The buildings was only seen not the food
- There were a lot of good questions asked, but perhaps you could include some pictures of cars and what types of cars are preferred in a neighborhood
- I think it would help to focus photos & accompanying questions word precisely. The use of “do you prefer” is over used especially with out qualification

6) *Did you find it easy to record your answer on the score sheet(s)?*

[4] Yes [2] No

Comments:

- The questions/slides went a little too quickly for me to truly think and respond – not enough time to look at picture
- List questions on form
- Put headers on sequence/choices

7) *Was the Arc Reader Project helpful when viewing the locations of the photographs?*

[5] Yes [1] No

Comments:

- not for our survey – But it is helpful in general
- Would have like to see more of it – more searches, details, applications
- Yes, but the two need to be combined\
- Perhaps show this first

8) *Did the Arc Reader Project have too little information? [0] Yes [6] No*

Comments:

- We would need to explore it some more
- Yikes – No – Lots of Info – Fabulous maybe a segment on Air Pollution

9) *Did the Arc Reader Project seem to have too much information?* [0] Yes [6] No

Comments:

- Though I'll need to spend some time playing with it
- It depends on the audience
- But how could you present it in conjunctions with survey questions/pictures

10) *Did you have sufficient instructions to use the Arc Reader Project?* [2] Yes [2] No

Comments:

- Unsure
- It sounds like we'll receive them.
- Just too little time to show. Your knowledge of the program is very valuable.

Other Comments:

- I really liked Q. 35 – tapping into perceptions of quality of community conditions
- Question about transportation to and from work – may not want to assume residents are employed outside the home.
- Some of the food Q's were difficult – not sure if asking about "food type" or restaurants specifically

**Appendix D:
CD Rom Contents**

Table of Contents (CD Rom)

ReadMe – text file explaining contents of CD

ArcReader Software

- Documentation folder - License File
- Support folder - AiSetup
- Setup/Installation Files
- Setup Help File

ArcReader Tutorial

Final VPS Results

- VPS Results PDF
- VPS Results PowerPoint
- VPS Tabulated Results PPT

Final ArcReader Project

- Data Files
- PMF folder – Photos and ArcReader document

VPS Survey and Script

- VPS Final Survey Powerpoint
- VPS Moderator Script
- VPS Final Survey PDF