Atlanta BeltLine
Decision Support Tool:
Strategic Planning Session

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About the Center for Quality Growth and Regional Development
The Center for Quality Growth and Regional Development (CQGRD) is an applied research center of the Georgia Institute of Technology. The Center serves communities by producing, disseminating, and helping to implement new ideas and technologies that improve the theory and practice of quality growth.

For more information visit www.cqgrd.gatech.edu.
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I. INTRODUCTION

The Atlanta BeltLine is metro Atlanta’s most wide-ranging urban redevelopment, combining transit, trails, parks, and greenspace, affordable housing, brownfield remediation, and economic development along 22 miles of historic railways that encircle the urban core (Atlanta Development Authority, 2005).

The City of Atlanta created Tax Allocation District Number Six (BeltLine TAD) as of December 31, 2005 for the Redevelopment Plan and the Redevelopment Powers Law. The legislation (05-O-1733) mandates that the Advisory Committee should develop and implement a Decision Support Tool (DST) for the BeltLine project.

Due to the complexity of implementing the DST, the Center for Quality Growth and Regional Development (CQGRD) facilitated a strategic planning session to help the BeltLine Tax Allocation District Advisory Committee (TADAC) frame a work scope and approach for framing procedures and measurements in the development of the DST.

The DST strategic planning session covered both evaluation and measurement which include contextualizing a process and identification of metrics. These metrics apply to both short term impact of development proposals and the impacts of the BeltLine project over a longer period of time, based on the goals, objectives, and vision for the BeltLine. The DST integrates physical, economic, environmental, land use, and socioeconomic information to establish priorities, monitoring capability and project evaluation. The DST could also contribute to improved public understanding and to the effective and equitable implementation of projects.

The purpose of this report is to summarize the methodologies of the DST and discussions during the session. Section II presents the agenda of the BeltLine DST Strategic Planning Session along with the list of participants on October 16th, 2008. Section III provides a brief overview of the Atlanta BeltLine project, explores literature on the DST, and suggests a framework for the BeltLine DST. Section IV summarizes the analysis methodologies of the DST and the measurements of the potential variables. Section V introduces a Multi Criteria Decision Analysis (MCDA) as a methodology that can combine the results of different analyses to set priorities for plan scenarios. Discussion on the roles of TADAC and consultants and preparation of RFQ and RFP are presented in Section VI. Section VII draws conclusions and suggests next steps.
II. STRATEGIC PLANNING SESSION AGENDA

Atlanta BeltLine
Decision Support Tool
Strategic Planning Session
October 16, 2008: Georgia Tech: Atlanta, GA
Sponsored by the BeltLine Tax Allocation District Advisory Committee (TADAC)

2.1 AGENDA
Technology Square, Georgia Tech Global Learning Center, 84 Fifth Street, Atlanta. Room 334

7:30 a.m. Continental Breakfast

8:00 a.m. Introduction
Catherine L. Ross, Director and Harry West Chair, Center for Quality Growth and Regional Development, Georgia Tech

8:15 a.m. Review of the legislation and progress of BeltLine project
Catherine L. Ross, Director and Harry West Chair, Center for Quality Growth and Regional Development, Georgia Tech

8:50 a.m. Overview of the Decision Support Tool (DST) framework
Jason Barringer, Research Scientist, Center for Quality Growth and Regional Development, Georgia Tech
Myungje Woo, Research Scientist, Center for Quality Growth and Regional Development, Georgia Tech

9:50 a.m. Break

10:00 a.m. Potential metrics and methodologies of the DST

Population & economic analysis
Robert B. Lann, Director for Community Policy and Research Services, Enterprise Innovation Institute, Georgia Tech

Transportation & infrastructure analysis
Faye Dimassimo, Kimley-Horn

Health & environmental impacts
Amy Danner, Research Scientist, Center for Quality Growth and Regional Development, Georgia Tech
12:00 p.m. Lunch
Georgia Tech Hotel Restaurant

1:00 p.m. Potential metrics and methodologies of the DST (Continue)

*Multi Criteria Decision Analysis*
Myungje Woo, Research Scientist, Center for Quality Growth and Regional Development, Georgia Tech

*Qualitative measurement*
Harley F. Etienne, Assistant Professor, City and Regional Planning & Public Policy, Georgia Tech

*Visualization*
Jason Barringer, Research Scientist, Center for Quality Growth and Regional Development, Georgia Tech
Myungje Woo, Research Scientist, Center for Quality Growth and Regional Development, Georgia Tech

2:45 p.m. Break

3:00 p.m. Discussion on the role of TADAC, stakeholders, and consultants
*Moderator:* Catherine L. Ross, Director and Harry West Chair, Center for Quality Growth and Regional Development, Georgia Tech
*Invited Guests:* David Haddow, Haddow and Company, Real Estate Consultants
Paul Moore, Glatting-Jackson, Community Planning, Design, Transportation

4:00 p.m. Conclusions and next steps

5:00 p.m. Adjourn
### 2.2 PARTICIPANTS

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<td>Al Caproni</td>
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<td>Amy Danner</td>
<td>Center for Quality Growth and Regional Development, Georgia Tech</td>
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<td>BeltLine TADAC</td>
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<td>Nathaniel Smith</td>
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<td>Paul Moore</td>
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III. ATLANTA BELTLINE DECISION SUPPORT TOOL (DST)

3.1 Overview of the Atlanta BeltLine

The BeltLine is metro Atlanta’s most wide-ranging urban redevelopment and comprehensive economic development project, combining greenspace, trails, transit, and new developments along 22 miles of historic railways that encircle the urban core (Atlanta Development Authority, 2005).

Source: Atlanta BeltLine, Inc.
Figure 1. Overview map of the BeltLine

Components of the BeltLine
- **Transit, Trails, and Transportation:** 22-miles of light rail transit, 33-miles of multi-use trails, improvements of sidewalks, streetscapes, and road/intersection.
- **Parks and Greenspace**: 1,200 acres of new greenspace through a linear park alongside trails and improvements to 700 acres of existing greenspace.
- **Affordable Workforce Housing**: estimation of 5,600 affordable units (both rental and ownership).
- **Brownfield Remediation**: estimation of 1,100 acres of brownfields
- **Economic Development**: new economic development (estimation of $20 billion), estimation of 30,000 new full-time jobs, and 48,000 year-long construction jobs.

The Redevelopment Plan: a required document for the TADAC
- **Historic Preservation**: preservation of Atlanta’s historic structures as part of the BeltLine
- **Land Use**: a comprehensive framework for land use that is transit oriented and enhances quality of life.
- **Public Art**: public art displays and transformation of physical structures such as benches and bike racks into art around the BeltLine.
- **Community Engagement**: TADAC, BeltLine Affordable Housing Advisory Board, Quarterly Briefings, Atlanta BeltLine Study Groups.

According to the legislation (05-O-1733), the City of Atlanta created Tax Allocation District Number Six (BeltLine TAD) as of December 31, 2005 for the Redevelopment Plan and the Redevelopment Powers Law, and this district will exist for twenty-five years. The legislation also provides a following statement that the Advisory Committee shall develop and implement a Decision Support Tool (DST) for the BeltLine project.

The Advisory Committee shall be responsible for developing and implementing a “decision making support tool” designed to measure the impact of the BeltLine project and ensure accountability for effective and equitable implementation of the project. By way of description only, the “decision making support tool” should address such factors as balanced development, poverty reduction, income, educational achievement, land use, historic preservation, density, growth, park usage, trail usage, water quality, traffic, sewer capacity, community involvement/civic engagement, retail growth, health measures, cultural considerations, and environmental impacts.

### 3.2 Outline of the Decision Support Tool

A Decision Support Tool (DST) is a consistent and reproducible process for making decisions by providing a detailed picture of impacts related to the implementation of a plan or policy. A DST has been used in diverse areas from a market strategy of products to urban planning. While the scope of the DST is broad depending on where it is applied, the roles of the DST can be summarized as organizing relevant information, spatially resolving actions of the plan, predicting impacts, and generating performance measures.

These roles are performed from three different tools: the information tool, the modeling tool, and the monitoring tool. The most costly and time consuming process is data gathering. The data used in the DST are categorized into three types, including benchmark data, assessments, and stakeholder expectations. The benchmark data include both qualitative and quantitative data and these data are usually observed. Assessment data as performance measures are substantially used in the DST to cover unobserved data. A popular method to gather this type of data is an expert panel survey where respondents rate each criterion from 1 to 5 as the lowest to the highest importance (or
accountability). In addition, stakeholder expectations are important in a decision process. Such relevant information may be gathered from surveys, charettes, and public meetings.

The DST is particularly useful in a situation where there are several plan scenarios and conflicting criteria because it provides a tool to investigate potential benefits of alternative scenarios, compare between scenarios and with the baseline data, identify trade-offs, and most importantly have projects/policies move to meet the stated goals. While the DST brings such benefits in a decision making process, this tool has not been broadly applied for long term projects in urban planning due to high costs of performance and other political reasons.

3.3 Process of the Atlanta BeltLine Decision Support Tool

The primary objective of the Atlanta BeltLine DST, which is legislatively mandated, is to evaluate the process and measure the impacts of the 25-year long term Atlanta BeltLine project, based on goals, objectives, and vision for the BeltLine, and to ensure the effectiveness and equity of its implementation. Since the BeltLine is a long term and large scaled redevelopment project, the DST should integrate physical, economic, environmental, land use, and socioeconomic information to establish priorities of project and monitoring capability. Figure 2 shows a suggested process of the DST.
The DST is a process, rather than a tool box, where each actor communicates to find out the best solution or scenario. The process of the DST can be divided into four stages. In the first stage, the vision and goals of the BeltLine should be identified. There should be consensus on what the
BeltLine should be in the future. In the second stage, a strategy should be set to achieve the identified vision and goals. Based on this strategy, each plan scenario is analyzed using demographic, economic, and fiscal impact analysis, transportation and infrastructure impact analysis, and health and environmental impact analysis. Finally, the results of each analysis are combined to set priorities for plan scenarios and implement them. It is important to note that communications with the public should be considered throughout the entirety of the DST process.

3.3.1 Visions and Goals of the BeltLine

Vision and goals of the BeltLine are important because the decision criteria (e.g. 18 variables stated in the legislation) are identified based on the vision and goals to achieve them. The Atlanta BeltLine Redevelopment Plan, which was prepared by the Atlanta Development Authority in 2005, identified visions of the BeltLine. However, since the economic, financial, and social environments have experienced rapid change since the Atlanta BeltLine Redevelopment Plan was initially proposed, the visions and goals of the BeltLine should be revisited to reflect these changes and consider their impact on future environments. This allows the engagement of stakeholders to ensure that existing or new visions and issues are incorporated into the BeltLine project process.

3.3.2 Setting the DST Strategy

This step is a preparation stage of the analysis. A key issue in setting the DST strategy is how to set the scope of the DST. Specific problems and needs for the BeltLine areas and each project to achieve the goals and visions of the BeltLine are identified. Potential variables to address such problems and the impacts of each project are determined, including 18 factors that are mandated by legislation (potential variables and their measurements will be discussed in the next section). Available revenues and approximate costs for the DST strategies should be estimated considering short term and long term evaluations because the scope of the DST (specifically, how and how much the impacts should be measured) is constrained by the project budget.

This process should be applied differently for the different areas because each area within the BeltLine has different potentials, problems, and needs. For example, the socio-economic characteristics, physical environments, and infrastructure of the Southeast, Northeast, Northwest, and Southwest areas of the BeltLine are different.

3.3.3 Analysis of Plan Scenarios

The plan scenarios can be divided into two levels. The first could be the components of the BeltLine, such as transit, trails, parks, greenspace, affordable workforce housing, brownfield remediation, economic development, and so on. While they have been already determined by Atlanta BeltLine Redevelopment Plan, these components may be allocated differently in each quadrant plan area, depending on their current situation and future potential. Another level would be detailed plan scenarios (or proposals) of each component in the first level. For example, an economic development component may have several plan scenarios based on the composition of retail, industrial, and other uses, and development densities. Also, the residential area may have different plan scenarios based on the size and number of units for rental and ownership. There could be a different set of plan scenarios for each plan area. Once plan scenarios are approved, the next step is to measure the impacts of projects and how well they can achieve the visions and goals of the BeltLine.
Using the results of the analyses, preferred plan scenarios could be chosen. Although the analyses will significantly support the decision process, the integration of the results of these analyses will be necessary to incorporate diverse potential criteria into the analysis. Finally, those preferred plan scenarios should be reviewed to examine how well they reflect the vision and goals of the Atlanta BeltLine.

3.3.4 Implementation

Setting Priorities
Since the BeltLine has a 25 year planning and implementation horizon with diverse projects and project components, it is essential to track and identify the schedule and priorities of proposed project and plan scenarios. Multi Criteria Decision Analysis can be used to identify the strength and weaknesses of each project and help determine the priorities for implementation.

Community Engagement
The most important component of the DST is its successful implementation. This can be realized by close coordination between TADAC, stakeholders, and consultants. Due to the long planning horizon and large scaled characteristics of the BeltLine project, it may face many unintended consequences, such as conflict with residents, political, environmental, and financial issues, during the implementation of the project. The DST should incorporate a strategy to deal with such unintended consequences by communicating with stakeholders within the community engagement framework (CEF), including Tax Allocation District Advisory Committee (TADAC) and other stakeholders.

Periodic Review
Each plan and implementation should be reviewed periodically (e.g. every 5 years) to evaluate the planning process (equity and transparency), budgetary condition, and other consequences, such as performances (e.g. park and trail usages).
IV. ANALYSIS OF THE IMPACTS AND POTENTIAL VARIABLES

The DST should incorporate both short term and long term evaluation strategies. The components or projects of the BeltLine should be determined by considering their long term effects on demographic and economic components, natural and built environment of the region as well as the BeltLine areas, and at the same time a short term (e.g. 5-year) development program should be prepared under the short term budgetary plan. This long term project development requires establishing priorities for projects and plans based on the estimation of the long term effects of proposed projects considering physical, economic, environmental, and socio-economic impacts. For those screened by the long term evaluations, short term evaluations could measure how soon proposed plans can generate benefits in a community and, as a result, encourage other projects to be developed, how consistent they are with on-going projects, and the extent to which they are consistent with the community’s vision and goals.

Since the BeltLine is mostly led by public parties for the public interests, the economic efficiency analysis is desirable to measure non-market social benefits, especially for public infrastructure including parks, trails, and transit, while the financial efficiency analysis may be slightly more useful to measure the costs and benefits of the private economic developments. However, it is important that both analyses are conducted. The long-term effects on the economy, transportation, and environment both in a community and in metro Atlanta as a whole are important along with the cost and benefit aspects. Demographic, economic, transportation, health, and environmental impact analyses should be conducted to measure such effects in both the short and long term.

4.1 Demographics, Economics, and Fiscal Impacts

The BeltLine may create the inflow of new residents and employees (e.g. construction workers during the project and service sector employees after the completion of the project) both in the community and in metro Atlanta. Previous literature shows that both job and population growth affects each other (Boarnet, 1994; Steinnes, 1977; Thurston & Yezer, 1994). This means that jobs create pressure on population growth and vice versa. Based on the size of population and built environment of plan scenarios, population and employment growth of each industrial sector can be estimated using the input-output model during the planning period. Also, the different characteristics of residential components, such as rental, ownership, and affordable housing, may generate a different characteristic of households, and then affect population and economic growth.

The BeltLine redevelopment includes economic development, which may affect both population and economic growth. Different industrial sectors may bring different number of jobs and wages and salaries. The places where those newly created workers live and where the businesses locate are an important measurement of the economic impacts.

Both demographic and economic impacts are closely related to fiscal impacts. Whether households and businesses generate enough revenue to pay for required city services is a key issue in the fiscal impact analysis. The flip side of the increase in tax base from the revitalization of the BeltLine area is that all those people moving into an area require city services. The provision of high-end housing may cover the cost of providing city services, whereas affordable housing and low-income rental housing may not. Thus, the BeltLine project needs a balance between residential components as well as between residential and non-residential components.
4.2 Transportation and Infrastructure Impacts

The land use factors of the BeltLine will affect travel behaviors of residents of redevelopment sites and surrounding areas as well as metro Atlanta by changing the relative efficiency of different modes. The changes in demand and supply of the different transportation modes and traffic may change the extent of current congestion and air quality from the emission change. The impacts of these land use factors on per capita vehicle trip generation and related emissions can be estimated by a transportation model (Litman, 2008).

Other variables related to transportation and infrastructure may include density (population and employment density/land use and redevelopment), quality of pedestrian environment, air quality, impacts on existing infrastructure, connectivity, traffic, accessibility (distance to transportation modes), and sewer capacity (per capita/project use of water). Specifically, the Clean Water Atlanta Model can be used to designate red flag areas with potential capacity limitations.

4.3 Health and Environmental Impacts

The DST should provide a systematic approach for identifying and evaluating valuable environmental resources within the BeltLine and surrounding area to effectively manage the environment resources. The environmental resources and their measurement criteria include surface and groundwater hydrology, wildlife habitat, soil quality (brownfield contamination), water quality, and waste water capacity (Edwards, 2000). Using GIS analysis, the spatial relationship between activities and potential environmental effects can be assessed. In addition, the ‘checklists’ method can be used for identifying and documenting the qualitative environmental impacts that are associated with each redevelopment project.

Many external factors, such as the environment where we live, work and go to school, and the social and economic factors, policies, and services that shape the environment, affect the ability to be healthy. The BeltLine has the greatest ability to shape these factors through specific designs and plans. Therefore, it is important to make health a part of the decision making process related to the BeltLine by predicting health consequences, informing decision makers and the public about health impacts, and providing realistic recommendations to prevent or mitigate negative health outcomes.

The Center for Quality Growth and Regional Development (CQGRD) conducted a comprehensive HIA of the Atlanta BeltLine project in 2007. This was one of the first HIAs performed in the United States to evaluate a major transportation/land use project that has the potential for long-term, widespread redevelopment impact. The rest of this section presents key findings from the Atlanta BeltLine HIA that can be applied for the Health Impact Analysis of the BeltLine DST.

A formal Health Impact Assessment (HIA) is defined as a combination of procedures, methods, and tools by which a project is evaluated as to its potential effects on the health of a population, and the distribution of those effects within the population. The steps of an HIA include: screening, which determines whether or not there exists the potential for significant health impacts as the result of a policy, program, or project; scoping, which establishes the study area boundaries, identifies possible consequences, and determines a management approach for the HIA; appraisal, which considers the nature and magnitude of health impacts and the affected populations; dissemination, which circulates the results of the HIA to decision makers, individuals implementing the plan/policy, and community stakeholders; and monitoring and evaluation, which reviews the effectiveness of the HIA process and evaluates the actual health outcomes as a result of the project or policy.
While the entire scope of an HIA provides a framework of comprehensive considerations on the health impacts of the BeltLine, key variables and their measurements in the appraisal process can also be applied as DST metrics. They may include air quality, access and connectivity to greenspace, and walkability.

The BeltLine may create several areas where people are expected to live within 200 meters\(^1\) of high-volume corridors, which may increase mortality and morbidity rates from cardiovascular and respiratory illnesses, risk for lung cancer, and short and long term non-cancer health effects such as bronchitis and asthma. Since these high-volume corridors negatively affect air quality in adjacent areas along the corridors, plan scenarios that reduce such high-volume traffic may be desirable. For example, Figure 3 and 4 show the simulation results of projected changes in high volume road segments in 2030 with and without BeltLine.

An equal distribution of parks, trails, and transit by race and income may increase the use of those facilities and contribute to the reduction of risk of developing diabetes, high blood pressure, colon cancer, feelings of depression/anxiety, and the control of weight by increasing physical activities.

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\(^1\) Studies by Houston, et al. (2006) and Fischer, et al. (2000) show that the level of particulate concentrations becomes normal beyond 200 meters from major roadways.
Studies have shown that walking has positive effects on the accumulation of physical activity and therefore has positive effects on health (Frank et. al, 2006). The walkability can be measured by the proximity to the destination facilities, such as workplace, shopping facilities, schools, etc., and design elements of physical environments, such as the pedestrian environment and safety.

4.4 Consideration of Equitable Development

Most American metropolitan areas, including metro Atlanta, suffer from geographic disparities of race, income, housing affordability, employment opportunities, and environmental safety. As required by the Georgia Redevelopment Powers Law, §§ O.C.G.A. 36-44-1 et seq., the Atlanta BeltLine should realize equitable economic and social developments in distressed areas. Equitable development emphasizes an equal distribution of affordable housing, equitable allocation of public investment, and reduction of health disparities between areas to ensure that all community members can benefit from the improved economic and social conditions (PolicyLink, 2006).

Equitable public investments may generate community benefits including the improvement of transportation access, affordable housing, employment opportunities, and environmental justice. Environmental justice addresses equitable distribution of environmental burdens, such as air pollution, contamination from industrial facilities, and crime, as well as environmental goods, such as clean air and water, access to parks and trails and transportation, and health care. While these variables are measured in other impact analyses, including transportation, health, and environmental impacts, they also must be evaluated and addressed from an equity assessment focusing on impacts, costs and benefits.

4.5 Qualitative Analysis

The impact analyses, discussed in the previous sections, bear diverse variables. Many variables may be clearly measured with numeric values, but some variables may not. For example, balanced development, historic preservation, community involvement/civic engagement, and cultural considerations, which are mandated to be addressed within the DST by the legislation, are not quantitatively measured and should be approached by the qualitative analysis. While qualitative analysis is sometimes highly subject to interpretation and subject to researcher bias and error, it offers rich detail and context that is needed for valid conclusions and action.

In addition to the above qualitative variables, an overarching question may include for whom the BeltLine is being built and what impacts the planning and completion of the BeltLine will have on various groups. The answers for these questions can be approached by interviews, surveys, participation, ethnography, and observation. For example, environmental justice and equity considerations can be measured by a mix of structured interviews with key stakeholders or neighborhoods impacted by environmental justice or equity issues, and a participant-observation of planning events. One of the important issues in a redevelopment project is to enhance “social capital”. Researchers can explore perceptions of increasing or decreasing neighborhood capacity by administering paper or in-person surveys. Also, researchers would visit often the BeltLine area to get answers for such questions. They take fieldnotes and conduct semi-structured interviews over the course of a defined research period. This method (ethnography) is useful for finding hidden populations.

Thus, the qualitative analysis can complement quantitative/market analysis by representing lived experiences and needs of the residents. In practical use, the results of response-driven sampling,
such as an interview, and the results of researcher’s participant-observation of planning events should be combined to be added to quantitative and market analysis of neighborhoods. This may make a complete set of decision metrics.

4.6 Community Involvement and Visualization

Community involvement and civic engagement are mandated by the legislation to reflect neighborhoods and communities’ opinions and warrant the transparency of the planning process. Consultants could attend and participate in community meetings, local events, and daily life. They record comments, events, themes from meeting and other spaces. From this participant-observation method, the planning processes and their progress can be jointly examined by neighborhood residents, stakeholders, and professional consultants. The existing Community Engagement Framework (CEF), including TADAC, BeltLine Affordable Housing Advisory Board, Atlanta BeltLine Study Groups, Community Representation on the ABI Board of Directors, and Citizen Participation Advocate, should play a key role in keeping this process going (Atlanta Development Authority, 2006).

In order to facilitate communications with the public, visualization methods would be an effective tool to compliment the qualitative analysis methods. The method includes the use of GIS (Geographic Information System) mapping (including internet based mapping) charrettes, and citizen input surveys.

For example, diverse theme maps have been used in Health Impact Assessments (HIAs) to gather public input on traffic problems, undesirable walking conditions, and crime (Figures 5, 6, and 7).

Source: CQGRD, 2008
Figure 5. Stakeholder input on traffic problems
Interactive Mapping System (IMS) is a method for communicating with community groups. It involves visualization using GIS and its extensions. An interactive mapping system is a technology that performs all GIS functions on a website. The public as well as stakeholders would be able to click each site of the BeltLine area on the web to explore the existing conditions of the sites and their future development concepts. Using this technology, they can easily access up to date information that shows the progress of the BeltLine project and the spatial changes of this area.
An online survey with 3D visualization of proposed plans using the GIS software and Community Viz, as well as the paper-based survey in community meetings or events, would be useful not only to effectively get citizen input, but also to gather responses from diverse neighborhood groups.

4.7 Potential Metrics
By way of conducting the analyses of the impacts, the DST could address and measure more than 29 variables including 18 variables, which are described in the legislation, along with other relevant factors, identified during the BeltLine DST strategic planning session. These variables are grouped into five categories: demographic, economic, & fiscal impacts, transportation & infrastructure impacts, health & environmental impacts, community involvement, and socio-economic issues (Table 1).
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<td>1. Demographic, Economic, &amp; Fiscal impacts</td>
<td>Density*</td>
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<td></td>
<td>Wages and salaries</td>
<td>Average wage rate by industrial sector</td>
</tr>
<tr>
<td></td>
<td>Income (Revenue) *</td>
<td>Revenue from the proposed projects (from households and businesses)</td>
</tr>
<tr>
<td></td>
<td>Balanced development*</td>
<td>Harmony with surrounding areas and composition of diverse land uses within a community Balance between residential and non-residential uses, and between different housing types</td>
</tr>
<tr>
<td>2. Transportation &amp; Infrastructure impacts</td>
<td>Traffic*</td>
<td>Per capita vehicle trip generation</td>
</tr>
<tr>
<td></td>
<td>Connectivity</td>
<td>Modal interconnectivity</td>
</tr>
<tr>
<td></td>
<td>Accessibility</td>
<td>Distance to transportation nodes</td>
</tr>
<tr>
<td></td>
<td>Sewer capacity*</td>
<td>Per capita/project use of water</td>
</tr>
<tr>
<td>3. Health &amp; Environmental impacts</td>
<td>Water quality*</td>
<td>Extent of water contamination under brownfields</td>
</tr>
<tr>
<td></td>
<td>Environmental impacts*</td>
<td>Per capita generation of air pollution (air quality), noise, and water use</td>
</tr>
<tr>
<td></td>
<td>Health measures*</td>
<td>Health impact analysis (air quality)</td>
</tr>
<tr>
<td></td>
<td>Land use*</td>
<td>Harmony with surrounding areas, transit supportive, and livable</td>
</tr>
<tr>
<td></td>
<td>Accessibility</td>
<td>Distance to high volume corridors</td>
</tr>
<tr>
<td></td>
<td>Walkability</td>
<td>Walkability audit</td>
</tr>
<tr>
<td></td>
<td>Safety</td>
<td>Bike and pedestrian safety</td>
</tr>
<tr>
<td></td>
<td>Park usage*</td>
<td># of daily users</td>
</tr>
<tr>
<td></td>
<td>Trail usage*</td>
<td># of daily users</td>
</tr>
<tr>
<td>4. Community involvement</td>
<td>• Community involvement/civic engagement*</td>
<td>programs and methods engaging existing residents and stakeholders in development procedure</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------------------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>• Education achievement*</td>
<td>Enrollment in educational institutions</td>
</tr>
</tbody>
</table>
|                          | • Equitable development | Equitable distribution of services by race and income  
Equitable distribution of affordable housing  
Equitable public investment in each quadrant area  
Reduction of health disparities |
| 5. Socio-economic issues | • Environmental Justice | Equal distribution of environmental risks, hazards, investments, and benefits  
Equal access to environmental investments, benefits, and natural resources  
Equal access to information and participation in decision making in environment-related matters |
|                          | • Cultural considerations* | Reflection of cultural characteristics on community design |
|                          | • Historic preservation* | Design factors that address historic preservation |
|                          | • Income* | Estimation of median income in a community |
|                          | • Poverty reduction* | Ratio of low income people |

* The legislation mandated variables (Ordinance 05-O-1733)
V. METHODOLOGIES OF SETTING PRIORITIES

The BeltLine project has multiple variables to be measured to analyze the impacts of plan scenarios and set priorities for them in different plan areas. The impact analyses, including demographic, economic, and fiscal impact analysis, transportation and infrastructure impact analysis, health and environmental impact analysis, and qualitative analysis, could not only investigate special issues for each project or plan scenario, but also provide the basic information of the variables in the DST metrics for each project or plan scenario. Implementation requires setting priorities of plan scenarios by combining the results of all variables. A useful methodology is a Multi Criteria Decision Analysis (MCDA), a technique to help the decision makers to choose, rank or sort plan scenarios in situations of multiple and conflicting criteria (Antunes, et al, 1994; Chen et al., 2008; Chowdhury & Rahman, 2008).

5.1 Decision Matrix

Once each variable for each plan scenario is measured by consultants, the results are expressed in a matrix (Figure 8). The first line represents plan scenarios from A1 to An, and the first column each variable of the potential metrics. The value of each plan scenario could be a function of their consequence data (Equation 1).

\[ v_j(A^i) = f_j(c^i_j) \]  

(1)

Table 2 presents an example of the application for the BeltLine project. The table assumes that there are four different plan scenarios for economic development, which is one of components of the BeltLine redevelopment. Each plan scenario would be analyzed with diverse variables in the left column. They may include 18 variables, mandated by the legislation, and additional variables that were identified during the strategic planning session. For example, the plan scenario 1 is assumed to have 3,161 (person/ mile²) of population density, 5 percent of population growth, 15 percent of retail growth, and so on. In the same way, all variables could be measured for the plan scenarios 2, 3, and 4.

The consequence data in Table 2 are absolute numbers of measurements and have different measurement units and signs. For example, population density is measured with population per
square miles, growth rate with percent, income with million dollars, and commuting time (traffic) with minutes. While most variables have a positive sign, the traffic variable has a negative sign because increasing commuting time has a negative effect. Also, some variables are qualitatively measured in ordinal scales (e.g., “1” for the lowest and “5” for the highest), while others in cardinal scales. Therefore, the original data should be transformed to unify the unit and sign to be equally compared.

Table 2. Example of decision matrix

<table>
<thead>
<tr>
<th>Categories</th>
<th>Variables</th>
<th>Scenario1</th>
<th>Scenario2</th>
<th>Scenario3</th>
<th>Scenario4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demographic, Economic, &amp; Fiscal impacts</td>
<td>Density (POP/sq. mile) (+)</td>
<td>3,161</td>
<td>5,000</td>
<td>2,000</td>
<td>1,000</td>
</tr>
<tr>
<td></td>
<td>Growth Rate (POP) (+)</td>
<td>0.05</td>
<td>0.2</td>
<td>0.15</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>Retail Growth Rate (+)</td>
<td>0.15</td>
<td>0.3</td>
<td>0.25</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td>Income (Revenue) (million $) (+)</td>
<td>2</td>
<td>15</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>2. Transportation &amp; Infrastructure impacts</td>
<td>Traffic (Commuting time) (-)</td>
<td>25</td>
<td>23</td>
<td>21</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Sewer capacity (M-gallon) (+)</td>
<td>4.2</td>
<td>6</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>3. Environmental impacts</td>
<td>Water Quality Index (+)</td>
<td>50</td>
<td>48</td>
<td>53</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Air Quality Index (+)</td>
<td>0.68</td>
<td>0.65</td>
<td>0.75</td>
<td>0.81</td>
</tr>
</tbody>
</table>

5.2 Standardization of Decision Matrix

In order to unify the unit and sign, the following transformation functions can be applied (Chen et al., 2008). For negative variables, the standardized value is calculated by dividing the minimum value of the variable by each value of the same variable (Equation 2). For positive variables, each value is divided by the maximum value of the same variable (in a same row) (Equation 3).

\[
v_j^i = \frac{\min_{x \in A}(c_j^i)}{c_j^i}
\]  
\[
v_j^i = \frac{c_j^i}{\max_{x \in A}(c_j^i)}
\]

Population density is assumed to have a positive sign here, meaning that a higher density is desirable in a community. Compact development, which has relatively higher density, is known as an energy efficient development pattern and contributes to good air quality by reducing travel miles (Stone et al., 2007). However, an excessive population density may bring negative externalities, such as congestion and load of infrastructure capacity, in a community. Therefore, further research should be conducted on identifying the optimal density in the BeltLine area.
Table 3 presents the results of standardization of each value. Now, all values are between 0 and 1, and the sign of all variables is same.

### Table 3. Standardized values of decision matrix

<table>
<thead>
<tr>
<th>Categories</th>
<th>Variables</th>
<th>Scenario1</th>
<th>Scenario2</th>
<th>Scenario3</th>
<th>Scenario4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demographic, Economic, &amp; Fiscal impacts</td>
<td>Density (+)</td>
<td>0.63</td>
<td>1.00</td>
<td>0.40</td>
<td>0.20</td>
</tr>
<tr>
<td></td>
<td>Growth Rate (+)</td>
<td>0.25</td>
<td>1.00</td>
<td>0.75</td>
<td>0.50</td>
</tr>
<tr>
<td></td>
<td>Retail Growth Rate (+)</td>
<td>0.50</td>
<td>1.00</td>
<td>0.83</td>
<td>0.67</td>
</tr>
<tr>
<td></td>
<td>Income (Revenue) (+)</td>
<td>0.13</td>
<td>1.00</td>
<td>0.67</td>
<td>0.47</td>
</tr>
<tr>
<td>2. Transportation &amp; Infrastructure impacts</td>
<td>Traffic (+)</td>
<td>0.76</td>
<td>0.83</td>
<td>0.90</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>Sewer capacity (+)</td>
<td>0.70</td>
<td>1.00</td>
<td>0.50</td>
<td>0.33</td>
</tr>
<tr>
<td>3. Environmental impacts</td>
<td>Water Quality Index (+)</td>
<td>0.91</td>
<td>0.87</td>
<td>0.96</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>Air Quality Index (+)</td>
<td>0.84</td>
<td>0.80</td>
<td>0.93</td>
<td>1.00</td>
</tr>
<tr>
<td>:</td>
<td>:</td>
<td>:</td>
<td>:</td>
<td>:</td>
<td>:</td>
</tr>
</tbody>
</table>

#### 5.3 Preferences on Variables

The DST may consider more than 18 variables to investigate the impacts of all plan scenarios (or proposals). These variables can be equally analyzed in the evaluation of plan scenarios. However, in reality, each plan area, such as the Northwest, Southwest, Northeast, and Southeast, has different problems and needs. Also, some criteria may be more important in evaluating plan scenarios of the economic development, and however different criteria would be important in plan scenarios of trails and parks. Since each variable has different importance, it should be weighed differently.

### Table 4. Relative importance of variables

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>Density</th>
<th>Growth</th>
<th>Retail growth</th>
<th>Income (Revenue)</th>
<th>Traffic</th>
<th>Sewer capacity</th>
<th>Water quality</th>
<th>Air quality</th>
<th>...</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.06</td>
<td>0.10</td>
<td>0.12</td>
<td>0.20</td>
<td>0.16</td>
<td>0.12</td>
<td>0.14</td>
<td>0.10</td>
<td></td>
<td>1.00</td>
</tr>
</tbody>
</table>

The general method of setting the weight is based on the survey and consultations with experts (Chowdhury & Rahman, 2008). Usually, the weight is larger than “0” \((w_j > 0)\) for all variables, and the sum of them is “1” \(\sum w_j = 1\). A weight vector is expressed as \(w = (w_1, w_2, ..., w_j, ..., w_q)\)
As an example only, Table 4 shows ‘income’ has the highest weight (0.20) and ‘density’ the lowest (0.06).

5.4 Aggregation

The final step would be the setting priority of plan scenarios using the aggregated values of all variables. While there are several ways to aggregate the weighted values, including maximin criterion, maximax criterion, hurwicz criterion, bayes criterion, and concordance & disconcordance analysis, a popular evaluation method is the simple additive weighting (SAW) method (Equation 4).

\[
V(A^i) = \sum w_j \cdot v_j(A^i)
\]

(4)

where \( V(A^i) \) is the overall evaluation of a plan scenario \( A^i \).

Table 5 presents the relative importance of the variables and their weighted values for four scenarios. The result of the simple additive method (SAW) at the end of the table shows that Plan scenario 2 has the highest priority, and the next preferable scenarios are Plan scenario 3, 4, and 1 in order. The results of other aggregation methods also show that Plan scenario 2 is the best scenario although there are some differences in the ranks between less important plan scenarios.

Table 5. Aggregated values of plan scenarios

<table>
<thead>
<tr>
<th>Categories</th>
<th>Criteria</th>
<th>W</th>
<th>Scenario1</th>
<th>Scenario2</th>
<th>Scenario3</th>
<th>Scenario4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demographic, Economic, &amp; Fiscal impacts</td>
<td>Density (+)</td>
<td>0.06</td>
<td>0.038</td>
<td>0.060</td>
<td>0.024</td>
<td>0.012</td>
</tr>
<tr>
<td></td>
<td>Growth Rate (+)</td>
<td>0.10</td>
<td>0.025</td>
<td>0.100</td>
<td>0.075</td>
<td>0.050</td>
</tr>
<tr>
<td></td>
<td>Retail Growth Rate (+)</td>
<td>0.12</td>
<td>0.060</td>
<td>0.120</td>
<td>0.100</td>
<td>0.080</td>
</tr>
<tr>
<td></td>
<td>Income (Revenue) (+)</td>
<td>0.20</td>
<td>0.027</td>
<td>0.200</td>
<td>0.133</td>
<td>0.093</td>
</tr>
<tr>
<td>2. Transportation &amp; Infrastructure impacts</td>
<td>Traffic (+)</td>
<td>0.16</td>
<td>0.122</td>
<td>0.132</td>
<td>0.145</td>
<td>0.160</td>
</tr>
<tr>
<td></td>
<td>Sewer capacity (+)</td>
<td>0.12</td>
<td>0.084</td>
<td>0.120</td>
<td>0.060</td>
<td>0.040</td>
</tr>
<tr>
<td>3. Environmental impacts</td>
<td>Water Quality Index (+)</td>
<td>0.14</td>
<td>0.127</td>
<td>0.122</td>
<td>0.135</td>
<td>0.140</td>
</tr>
<tr>
<td></td>
<td>Air Quality Index (+)</td>
<td>0.10</td>
<td>0.084</td>
<td>0.080</td>
<td>0.093</td>
<td>0.100</td>
</tr>
<tr>
<td>SUM ( V(A^i) = \sum w_j \cdot v_j(A^i) )</td>
<td></td>
<td>0.566</td>
<td>0.935</td>
<td>0.765</td>
<td>0.675</td>
<td></td>
</tr>
</tbody>
</table>

\(^3\) See the appendix F. Multi Criteria Decision Analysis (MCDA) for the results of maximin criterion, maximax criterion, hurwicz criterion, bayes criterion, and concordance analysis.
5.5 Conclusion

A Multi Criteria Decision Analysis (MCDA) combines the results from different variables to make decisions by providing structured and documented information on the problem. However, the result from the MCDA is not a final solution. Instead, the information generated from the MCDA can provide a basis for negotiation between different stakeholders. The final decision should be based on the consensus of stakeholders within the community engagement framework.
VI. NEXT STEP (Preparation of RFP & RFQ)

6.1 Discussion Notes

6.1.1 Discussion on the roles of TADAC and consultants

The first part of the afternoon – included a Question and Answer session with consultants in the planning field – primarily centered on three issues. First, it was noted that it is important for the requestor to give as much information as possible to the prospective bidders in Request for Proposals (RFPs) and Requests for Qualifications (RFQs), including a clear vision of success, clear tangible goals, and at the minimum a loose cost- and timeframe for the project. This, argued some consultants, would ensure a much greater product in the end because it allows bidders to compete not on cost alone, but on other, more quality-oriented, measures as well.

Second, there was a brief discussion regarding the role of real estate developers in the process. It was stated that one of the most important duties of the TADAC is to ensure accountability from developers and ensure that they deliver the results they promise. The discussion also touched on the fact that the TADAC will likely have to shore up its ability to ensure such accountability, either by hiring staff or by retaining consultants to monitor and measure progress on the many projects that are going to be underway at the same time.

Third, and finally, the discussion then briefly centered on the issue of affordable housing, and how the TADAC might ensure that (a) enough affordable housing is built, and (b) how it remains affordable. One very important issue to be raised here is the need to establish and maintain trust between the public sector and the developers who are building affordable housing. Without that trust, problems are very likely to occur.

6.1.2 Discussion on RFP, RFQ, and the next step

The second part of the afternoon was devoted to a presentation from Dr. Catherine Ross on the difference between RFPs and RFQs and how this relates to the duties and goals of the Beltline TADAC. Dr. Ross recommended that, given the current financial climate, the TADAC should initially concentrate on issuing RFQs, since the more general scope of these will ensure that contractors and consultants are on hand as soon as financing becomes available for the individual projects and they are set to respond to a broad set of requirements TADAC may have.

Interspersed with Dr. Ross’s presentation was extensive discussion between TADAC members about what the next steps and first priorities should be for the committee. There seemed to be agreement on the fact that the committee needed to identify the goals they will pursue in their work program, to which Dr. Ross remarked that the legislation framing the TADAC process should be very helpful in formulating such goals. Furthermore, the discussion also touched on the question of how to ensure that the TADAC has enough expertise to evaluate proposals and contract issues. The question centered on whether this expertise should be in the form of staff or hired consultants. This issue was not resolved at the meeting, but will be discussed further in the future.
6.2 Guide to Request for Proposal (RFP)

6.2.1 Overview of RFP

A Request for Proposal (RFP) is an invitation for suppliers, often through a bidding process, to submit a proposal to provide a specific commodity or service. A bidding process is one of the best methods for leveraging a company's negotiating ability and purchasing power with suppliers. The Request process brings structure to the procurement decision and allows the risks and benefits to be identified clearly upfront. The Request purchase process is lengthier than others, so it is used only where its many advantages outweigh any disadvantages and delays caused. The added benefit of input from a broad spectrum of functional experts ensures that the solution chosen will suit the company's requirements.

The RFP may dictate to varying degrees the exact structure and format of the supplier's response. The creativity and innovation that suppliers choose to build into their proposals may be used to judge supplier proposals against each other, at the risk of failing to capture consistent information between bidders and thus hampering the decision making process. Effective RFPs typically reflect the strategy and short/long-term business objectives, providing detailed insight upon which suppliers will be able to offer a matching perspective.

Key objectives
- Obtain correct information to enable sound business decisions.
- Decide correctly on strategic procurement.
- Leverage the company's purchasing power to obtain a favorable deal.

Key benefits
- Informs suppliers that your company is looking to procure and encourages them to make their best effort.
- Requires the company to specify what it proposes to purchase. If the requirements analysis has been prepared properly, it can be incorporated quite easily into the Request document.
- Alerts suppliers that the selection process is competitive.
- Allows for wide distribution and response.
- Ensures that suppliers respond factually to the identified requirements.
- By following a structured evaluation and selection procedure an organisation can demonstrate impartiality - a crucial factor in public sector procurement.

Specifications of an RFP

An RFP typically involves more than a request for the price. Other requested information may include basic corporate information and history, financial information (can the company deliver without risk of bankruptcy), technical capability (used on major procurements of services, where the item has not previously been made or where the requirement could be met by varying technical means), product information such as stock availability and estimated completion period, and customer references that can be checked to determine a company's suitability.

In the military, an RFP is often raised to fulfill an Operational Requirement (OR), after which the military procurement authority will normally issue a detailed Technical Specification against which

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4 Retrieved from the Instructional Designs’ website (www.internettraining.com).
venders will be made by potential contractors. In the civilian use, an RFP is usually part of a complex sales process, also known as enterprise sales.

RFPs often include specifications of the item, project or service for which a proposal is requested. The more detailed the specifications, the better the chances that the proposal provided will be accurate. Generally RFPs are sent to an approved supplier or vendor list.

The bidders return a proposal by a set date and time. Late proposals may or may not be considered, depending on the terms of the initial RFP. The proposals are used to evaluate the suitability as a supplier, vendor, or institutional partner. Discussions may be held on the proposals (often to clarify technical capabilities or to note errors in a proposal). In some instances, all or only selected bidders may be invited to participate in subsequent bids, or may be asked to submit their best technical and financial proposal, commonly referred to as a Best and Final Offer (BAFO).

6.2.2 Components of a Typical RFP (Example)

Organizational Overview
Example: The Bald Bear Insurance Company was founded in 1889 to provide insurance and investment opportunities to rural families and businesses. Currently, Bald Bear has 1.4 billion dollars of policies in force, with offices located in fourteen states. At the present time, Bald Bear has 1,243 consulting sales agents serving approximately 180,000 clients.

Required Deliverables

Assumptions and Agreements

- The project must be completed by ____________.
- A preliminary budget for this project has been approved.
- Vendor bids may not exceed $.
- ALL task/job/policy data will be current and approved as such by Bald Bear management.
- ALL technical illustrations, drawings, and schematics to be included in the output will be approved and provided by Bald Bear.
- Bald Bear will appoint one person, with decision making authority, to serve as a project coordinator/manager. Bald Bear will provide appropriate support documentation for the successful completion of the project.
- There will be no significant changes to the task/job/policy data during the project. The vendor will provide technical support to the Bald Bear support staff once the project is started.
- At the conclusion of the project, all materials developed by the project team will become the exclusive property of Bald Bear. In addition, any and all work sheets and other working documentation will also become the property of Bald Bear.
- When applicable, travel and lodging will be billed at cost. Ground travel will be billed at the standard rate used by Bald Bear. Air travel will be by coach with a major U.S. airline. Lodging and meals will not exceed $ per day. All postage, UPS ground, overnight delivery, and shipping charges will be billed at cost. All telephone and data transmission charges will be billed at cost.
- Billing for services and products completed will be submitted at the end of each month.
- Billing for travel, lodging, meals, postage, shipping, communications, et cetera, will be invoiced separately at the end of each month.
6.2.3 Required Proposal Format
The proposal must contain a (1) Technical section and (2) a Time-Cost section.

Technical Proposal
In the Technical section, the vendor should include time-lines, projected required personnel, and schedules for completing the project.

Time-Cost
In the Time-Cost section, the vendor must detail the time and costs that will be required to complete the project.

Additional Documentation (optional)
Vendors must include a short demo or direct us to an internet site which demonstrates their production capabilities.

Request for References (optional)
Submission Deadline
Submit Proposal To:
For Additional Information or Clarification, Contact:
Basis for Award of Contract
Lowest Bid
Award Date

6.2.4 Do’s and Don'ts When Selecting and Working With Outside Vendors and Contractors
Gather Information About Vendors
- Identify potential vendors.
- Contact potential vendors and request information about their company and capabilities.
- Contact potential vendors and request examples of their work.
- Contact potential vendors and request references.

Qualify Potential Vendors
Using the above information; determine those vendors who have the capability to produce the materials you want developed. Include in your decision such variables as geographic location, industry experience, reputation, size of staff, and quality/level of work.

Develop the RFP
Be sure to include enough information in the form of storyboards, manuals, videos, overheads, training guides, et cetera, so the vendor has a good feel for what you want. Avoid intimidating language and behavior, i.e., penalty clauses and threats. You have a legal right to sue if a project does not come in on time or is dropped by the vendor. This is understood and is written into the agreements section of the proposal. It has been my experience that clients usually delay projects because they are understaffed, do not deliver support materials on time, or change their minds in midstream. Keep in mind that this year you may be the "boss," but next year, you may be asking them for a job.
Distribute the RFP
Send out your RFP eight to ten weeks before your requested submission date. Writing a detailed proposal takes time; give potential vendors time to think about and respond to your request for proposals.

- Distribute the RFP to those vendors whom you have identified as being able to produce the materials that you want produced.
- Do not send your RFP to organizations with whom you do not have any intention of working.
- Do not send out an RFP to have someone else do your project planning for an in-house project. Do not send out an RFP to get ideas or to learn something about your job/project.
- Do not send out an RFP to plan your budget.

Answer Questions
Be available yourself to answer questions about what you want. You do not have to answer questions concerning money beyond what is included in the RFP.

Award the Project on the Date Indicated
Vendors often must schedule staff and resources to complete your project. Being indecisive about awarding or starting a project makes you and your organization look like amateurs.

Award the Project to the Lowest Bidder
Nothing "ticks" a vendor off worse than to lose a contract if they are the lowest bidder. Suspicions of kickbacks, favoritism, politics, etc., soon circulate among vendors and others in your industry. You will also probably be told to" go fish" if you ever approach the vendor to submit a proposal for a future project. If you are not going to award the project based upon cost, tell potential vendors what and how you will award the project. Be specific.

Debrief Bidders
Telling someone that they did not get a proposal is never pleasant. Take time to talk with each vendor who submitted a proposal and give each a critique of their proposal. This will help the vendor to do a better job next time, and to be more competitive in the future when you ask them to respond to a future proposal.

(1) If You Don't Know What You're Doing or What You Want
Ask several vendors to come in for a vendor meeting. Explain what you envision, but also explain that you're not sure what you want. Ask vendors for ideas, suggestions, and possible solutions for your problem. Most vendors are willing to take a couple of hours to help you. Make it informal, and promise nothing. Be up front, open, and honest. Take time to read trade magazines, attend conferences, and learn as much as you can about various topics related to your project.

(2) Working with the Vendor During the Project
If you promise to supply storyboards, task analysis, illustrations, technical drawings, photographs, videos, etc., deliver these materials on or ahead of time. It is very frustrating for a vendor to try and work for someone who can't or won't "team" with them on a project. If a project does fall behind, and it's your fault, don't try to blame the vendor. You may get away with it, but you and your organization's reputation will suffer in the long run. Finally, pay your invoices. Failing to do so will often break several financial agreements usually detailed in the proposal. Organizations who do not pay their bills often find their projects are set aside by vendors who must work on projects that produce a predictable cash flow in order to meet their financial obligations.
6.3 Guide to Request for Qualification (RFQ\textsuperscript{5})

6.2.1 Overview of RFQ
An RFQ is a procurement tool routinely used by state and local governments and the private sector to select partners in major systems acquisitions, mainly those involving real estate development transactions. This approach differs from the traditional request for proposals approach in that it places greater emphasis on the actual qualifications of the potential contractor—his or her track record—rather than how well the potential contractor responds to detailed project specifications and requirements.

6.2.2 Example of RFQ
RFQ Sample: City of San Diego Redevelopment Agency

Introduction
The Redevelopment Agency of the City of San Diego ("Agency") seeks qualified firms to provide architectural design and/or sustainable design services needed for a wide range of development projects (residential, commercial, retail, mixed-use, industrial). The purpose of this Request for Qualifications ("RFQ") is to enable the Agency to enlist consultant firms that will provide guidance and assistance on an "as needed" basis with review of project designs, project design recommendations, preparation of architectural renderings and preliminary designs, client consultations, and related projects and services. Responses to this RFQ may be for either architect services or sustainable design consultant services or for both and may cover one of more project types or activities.

The Agency consists of three entities: the Centre City Development Corporation, the Southeastern Economic Development Corporation, and the Redevelopment Division of the City of San Diego’s City Planning & Community Investment Department ("Redevelopment Division"). This solicitation for consultant services is only for the 11 project areas managed by the Redevelopment Division, which include approximately 7,613 acres. A list of the project areas and specific details regarding each project area can be found online at http://www.sandiego.gov/redevelopment-agency/projarea.shtml.

Scope of work
The consultant will be required to have available personnel that have experience in architectural design and/or sustainable design in an urban environment. Through the RFQ process, the Agency plans to maintain a diverse list of pre-qualified consultants. For projects that are less than $25,000, the Agency anticipates directly engaging one or more of the pre-qualified consultants on a project-by-project basis. For projects above $25,000, the Agency anticipates sending Requests for Proposals to at least three (3) of the pre-qualified consultants that have relevant qualifications, skills and/or background. Depending on the Scope of Work for the various projects, the Agency may need to select from firms with specific specializations.

The professional services may include, but not be limited to, the following areas:

\textsuperscript{5} Retrieved from the city of San Diego Redevelopment agency’s website (www.sandiego.gov/redevelopment-agency/index.shtml).
• Analysis of a proposed project's consistency with applicable City zoning, building permit requirements, redevelopment project area plans, community design guidelines, and other appropriate aesthetic criteria
• Analysis of and client consultation on applicable green standards at the state and local level, including Title 24, the Urban Form and Conservation Elements of the City of San Diego’s General Plan, and City Council Policy 900-14 (Sustainable Building Policy)
• Analysis and recommendations on site design improvements or alternative site design options
• Analysis and recommendations on opportunities to reduce resource consumption, operating costs and environmental impact and improve the overall health and well being of occupants
• Client consultation and discussion of Leadership in Energy and Environmental Design (LEED) and/or Build it Green GreenPoint Rated ratings systems and their processes
• Assessment of likely and reasonably achievable credits under the LEED and/or GreenPoint Rated programs
• Assessment of the likelihood of a proposed project to qualify for an expedited ministerial process or an expedited discretionary review process as provided for in the City of San Diego’s Sustainable Building Policy (900-14)
• Analysis and recommendations to address specific sites and/or issues
• Consultation and recommendations on program marketing and policy issues

Specific deliverables may include, but not be limited to:
• A summary of the consultation or analysis, which may include analyses of the level of consistency of the proposed project with local and state development standards, a description of unique project constraints, and opportunities identified for increased sustainable design integration
• Design concept sketches and/or renderings with appropriate written recommendations, call outs, and disclosures
• Alternative design concept sketches and/or renderings that incorporate opportunities identified for increased sustainable design integration
• Preliminary costs estimates and lifecycle cost estimates for the proposed project and any alternative designs
• A LEED checklist and/or a Build it Green GreenPoint Rated checklist as appropriate
• Information on existing incentives, programs, and resources that may be available for the proposed project
• Development and delivery of presentations to groups or individuals
• Attendance at meetings and/or public hearings

Performance of the Scope of Work may require review of architectural plans and specifications and other relevant documents, site visits, and interactions with community stakeholders to better understand the existing building/site conditions, relationship to surrounding buildings/space, overall code compliance, and other design constraints and project issues.

Public disclosure
As a general rule, all documents received by the Agency are considered public records and will be made available for public inspection and copying upon request. If you consider any documents submitted with your response to be proprietary or otherwise confidential, please submit a written
request for a determination of whether the documents can be withheld from public disclosure no later than ten (10) days prior to the due date of your response. If you do not obtain a determination of confidentiality prior to the submittal deadline, any documents submitted will be subject to public disclosure.

**Submittal format and content**

All respondents are required to follow the format specified below. The contents of the submittal must be clear, concise, and complete.

**Submittal Cover**— Include the Request for Qualification’s title and submittal due date, the name, street address, email address, and telephone number of the firm.

- **Cover Letter** – The cover letter should be brief (two pages maximum), and any changes to the format or deletions of requested materials should be explained in the cover letter. Describe how the delivery of services will be provided to the Agency, including the location of the firm’s offices and the response time to the Agency’s requests for proposals. Include the title and signature of the firm’s contact person for any future submissions. The signatory must be a person with official authority to bind the firm.

- **Methods and Strategic Plan**– Describe the overall plan and approach your firm would employ in carrying out the Scope of Work.

- **Qualifications and Experience** – Provide a description of the firm’s experience in providing consulting services for public entities. Identify which items within the Scope of Work for you which you would like your firm to be considered and list consecutively, with the award and completion dates noted, the firm’s experience in the past three (3) years specifically related to those items of the Scope of Work. For each, include the names and telephone numbers of the firm’s project manager and the client’s project manager. If listing subconsultants, describe the experience and the exact tasks that each firm will perform.

- **Project Personnel** – List the contact person who will have primary responsibility for potential future engagements; other project personnel, including partners and/or subconsultants, and their individual areas of responsibility. Include a resumé for each professional and technical person that may be assigned to a future engagement, including partners and/or subconsultants. In the resumés include at least two (2) references from previous projects. Provide an organization chart containing the names of all key personnel, partners, and subconsultants with titles and their specific assignments on potential future engagements.

- **Schedule of Rates** – Provide a schedule of hourly rates and fees.

- **Other Information** – Provide other pertinent information regarding this project in the following order:
  A. Description of insurance coverage for respondent and partners (types of coverage and policy limits, deductible, exclusions, and outstanding claims)
  B. Completed Equal Opportunity Contracting Program (EOCP) Consultant Requirements (Attachment)
  C. Copy of valid MBE/WBE/SBE/DBE/DVBE certification for firms to be involved on this project

**Schedule**

The solicitation, receipt and evaluation of submittals, and the selection of the provider of the required consultant services will conform to the following tentative schedule. Note: Dates are subject to change.
Distribution/Advertisement September 15, 2008
Submittal of Qualifications Deadline October 20, 2008
Review Submittals October 21-October 31, 2008
Offers and Contract Negotiations November 3-November 14, 2008
Final Contract Approval December 19, 2008

One original and two (2) copies of the submittal shall be delivered no later than 5:00 p.m. on the
Submittal of Qualifications date listed above to:
Redevelopment Agency of the City of San Diego
1200 Third Avenue, Suite 1400
San Diego, CA 92101
(619) 236-6269

Copies received by FAX or email shall not be deemed received. Submittals received after 5:00 p.m.
on the Submittal of Qualifications date will not be reviewed.

Submittal selection process
Submittals which meet the requirements outlined in this RFQ will be reviewed. In the event that an
interview is required, it is mandatory that the principal firm and the designated project manager
attend.

Submittal evaluation criteria
Submittals received by the Agency will be evaluated according to the criteria listed below:

- Conformance with the specified RFQ format;
- Organization, presentation, and content of the submittal;
- Specialized experience, technical knowledge and competence of the firms (including
principal firms, partners, and subconsultants) considering types of service required; the
complexity of the project; record of performance; and the strength of the key personnel
who will be dedicated to the project;
- Proposed methods to accomplish the work in a timely and competent manner;
- Knowledge of and experience in urban design and/or sustainable design;
- Knowledge and understanding of the local environment and a local presence for
interacting with Agency staff;
- A willingness to make meaningful wide-range subconsulting and employment
opportunities available to all interested and qualified firms and individuals in the market
place;
- Financial stability of the principal firm and/or consultant team;
- Consultant schedule of hourly rates and fee structure.

Terms and conditions
Issuance of this RFQ does not commit the Agency to award a contract, to pay any costs incurred in
the preparation of a response to this request, or to procure a contract for services. All respondents
should note that the execution of any contract pursuant to this RFQ is dependent upon the approval
of the Executive Director or his designee.

The Redevelopment Agency retains the right to reject all submittals. Selection is also dependent
upon the negotiation of a mutually acceptable contract with the successful respondent. A sample
contract may be obtained via e-mail by contacting the Agency Contact noted below. Each submittal shall be valid for not less than ninety (90) days from the date of receipt.

Any addendums will be posted on the Redevelopment Agency website at http://www.sandiego.gov/redevelopment-agency/index.shtml. It shall be the consultant’s responsibility to check the website for any possible addendums.

The firm selected to perform the work described in this RFQ will be required to provide evidence of public liability and property damage insurance with limits of not less than $1,000,000 per occurrence for all covered losses and not less than $2,000,000.00 general aggregate for injury to, or death of, one or more persons and/or property damage arising out of a single accident or occurrence insuring against all liability of the City of San Diego, Agency, selected consultant, its subconsultant(s), and its authorized representatives, arising out of, or in connection with, the performance of work under the contract with the Agency. Professional liability insurance (errors and omissions) shall be required of said firm in the minimum amount of $1 million.

**Equal opportunity program requirements**
The Agency is strongly committed to equal opportunity in solicitation of professional service consultants to assure that consultants doing business with, or receiving funds from, the Agency are equal opportunity contractors and employers. The Agency encourages prime consultants to share this commitment. Prime consultants are encouraged to take positive steps to diversify and expand their subconsultant solicitation base and to offer consulting opportunities to all eligible subconsultants. Individuals, contractors, vendors, consultants, grantees, lessees, and banks contracting with the Agency must comply with the City of San Diego’s Equal Opportunity Program.

**Federal Requirements**
The selected respondent(s) and each of its (their) Subconsultants and/or co-venture partners, shall comply with Title VII of the Civil Rights Act of 1964, as amended, Executive Orders 11246, 11375, and 12086, the California Fair Employment Practices Act, and any other applicable federal and state laws and regulations hereinafter enacted. The respondent shall not discriminate against any employee or applicant for employment based on race, religion, color, ancestry, age, gender, sexual orientation, medical condition or place of birth. The selected respondent shall cause the above provisions to be inserted in all subcontracts for any work covered by this document so that such provisions will be binding upon each subconsultant.

In addition to the foregoing, selected consultants shall comply with City of San Diego Council Policy 100-04, adopted by Resolution R-282153, relating to the Federal Americans with Disabilities Act (“ADA”). Consultants are responsible for establishing and implementing an ADA program within the consultant’s work place, and ensuring compliance with Council Policy 100-04 by its subcontractors.

**Local Requirements**
Consultant must comply with requirements of San Diego Ordinance No. 18173, Section 27.2701 through 22.2708, Equal Employment Opportunity Outreach Program (Attachment).

**Nondiscrimination Policy**
The respondent shall not discriminate on the basis of race, gender, religion, national origin, ethnicity, sexual orientation, age, or disability in the solicitation, selection, hiring or treatment of subconsultants, vendors, or suppliers. Respondent shall provide equal opportunity for subconsultants to participate in
subconsulting opportunities. Respondent understands and agrees that violation of this clause shall be considered a material breach of the contract and may result in contract termination, debarment, or other sanctions.

CONFLICT OF INTEREST
State law makes it illegal for public officials or their employees to enter into a contract when conditions are such that public officials or their employees may have a financial interest in said contract. The law defines “making a contract” to include responding to Request for Proposals. The law further defines “public official” very broadly, to include members of advisory boards that are not actual parties to a contract. Prospective respondents, who are aware of any circumstances that could create a conflict of interest in responding to this RFQ, are urged to contact Agency staff immediately.

Local business and employment
The respondent acknowledges that the Agency seeks to promote employment and business opportunities for local residents and firms on all Agency contracts. The respondent will, to the extent legally possible, solicit application for employment and proposals for subconsultants for work associated with this project from local residents and firms as opportunities occur. The respondent agrees to hire qualified residents and firms whenever feasible.

Agency contact
If you have any questions regarding this RFQ, please contact:
VII. CONCLUSION

The Atlanta BeltLine is a wide-ranging and 25-year long urban redevelopment, combining greenspace, trails, transit, and new developments along 22 miles of historic railways that encircle the urban core. Due to its scale and scope, a DST with a single metrics cannot capture the impacts of the project and requires instead a comprehensive framework for the DST.

A Decision Support Tool (DST) is a consistent and reproducible process, rather than a one-time simple tool box, for making decisions by providing a detailed picture of impacts related to the implementation of a plan.

This report proposes four stages of the DST for the implementation of the BeltLine project. In the first stage, the vision and goals of the BeltLine are readily identified. In this stage, there should be consensus on what the BeltLine should be in the future. In the second stage, a strategy should be set to achieve the identified vision and goals. The DST metrics (potential variables) should be the criteria used responding to the vision and goals of the BeltLine. Based on this strategy, each plan scenario is analyzed using demographic, economic, and fiscal impact analysis, transportation and infrastructure impact analysis, and health and environmental impact analysis. Finally, the results of each analysis are incorporated into the DST metrics and combined to set priorities for plans or projects following through until their implementation. A possible method to combine the results of the analyses and set priorities is a multi criteria decision analysis.

Once the BeltLine project has established the larger framework by which the priorities of the components of the BeltLine and plan scenarios for different areas are set for a long term period, a short term (e.g. 5-year) work plan should be prepared for those screened by the long term evaluations. The short term evaluation could have a similar process to the long term evaluation. However, more emphasis should be given to the criteria that address how soon proposed plans can generate benefits in a community and, as a result, encourage other projects, how well they are in harmony with on-going projects, and how much they are consistent with the community's vision and goals.

In addition, the implementation should be reviewed periodically to evaluate the planning process (equity and transparency), budgetary condition, and other consequences.

During the process of the DST, the TADAC should ensure accountability from consultants assuring they present relevant information coherently and comprehensively. In order to ensure such accountability, the TADAC may be able to hire staff or retain consultants to monitor and measure progress. In the meantime, under the current financial climate, it is suggested that the TADAC should initially consider issuing RFQs because their more general scope will ensure that qualified consultants bringing wide-ranging expertise are on hand as soon as the financial situation becomes clear for the individual projects.
References:


Gale, S., 2006, Decision Support Tools, presented at the workshop of BC’s Northern Interior Forests: Planning for Sustainability in a Dynamic Landscape


PolicyLink, 2006, Building the Line to Equity: Six Steps for Achieving Equitable Transit Oriented Development in Massachusetts, retrieved from http://www.policylink.org/pdfs/Building_The_Line_To_Equity.pdf


APPENDIX
(Presentation documents)
A. Review of The Legislation

Review of the Legislation

Dr. Catherine Ross
Harry West Professor and Director of the Center for Quality Growth and Regional Development
Georgia Institute of Technology

Atlanta BeltLine Decision Support Tool Strategic Planning Session, Georgia Tech, Atlanta, Georgia October 16, 2008

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Atlanta BeltLine Decision Support Tool

Potential Metrics

<table>
<thead>
<tr>
<th>CATEGORIES</th>
<th>VARIABLES*</th>
<th>EXAMPLE OF MEASUREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Population &amp; Economic impacts</td>
<td>Density</td>
<td>Population and employment density</td>
</tr>
<tr>
<td></td>
<td>Growth</td>
<td>Population and employment growth</td>
</tr>
<tr>
<td></td>
<td>Retail growth</td>
<td>Estimated growth of retail establishments and employment</td>
</tr>
<tr>
<td></td>
<td>Income (Revenue)</td>
<td>Revenue from the proposed projects</td>
</tr>
<tr>
<td>2. Transportation &amp; Infrastructure impacts</td>
<td>Traffic</td>
<td>Per capita vehicle trip generation</td>
</tr>
<tr>
<td></td>
<td>Sewer capacity</td>
<td>Per capita/project use of water</td>
</tr>
</tbody>
</table>

* The legislation mandated 18 variables to be addressed within the DST.
### A. Review of The Legislation

<table>
<thead>
<tr>
<th>CATEGORIES</th>
<th>VARIABLES*</th>
<th>EXAMPLE OF MEASUREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Environmental impacts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Water quality</td>
<td></td>
<td>Extent of water contamination under brownfields</td>
</tr>
<tr>
<td>• Environmental impacts</td>
<td></td>
<td>Per capita generation of air pollution, noise, and water use</td>
</tr>
<tr>
<td>4. Health impacts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Health measures</td>
<td></td>
<td>Health impact analysis</td>
</tr>
<tr>
<td>• Park usage</td>
<td></td>
<td># of daily users</td>
</tr>
<tr>
<td>• Trail usage</td>
<td></td>
<td># of daily users</td>
</tr>
</tbody>
</table>

* The legislation mandated 18 variables to be addressed within the DST.

<table>
<thead>
<tr>
<th>CATEGORIES</th>
<th>VARIABLES*</th>
<th>EXAMPLE OF MEASUREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Land use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Land use</td>
<td></td>
<td>Harmony with surrounding areas, transit supportive, and livable</td>
</tr>
<tr>
<td>• Balanced development</td>
<td></td>
<td>Harmony with surrounding areas and composition of diverse land uses within a community</td>
</tr>
<tr>
<td>• Historic preservation</td>
<td></td>
<td>Design factors that address historic preservation</td>
</tr>
<tr>
<td>6. Community input</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Community involvement/civic engagement</td>
<td></td>
<td>Programs and methods engaging existing residents and stakeholders in development procedure</td>
</tr>
<tr>
<td>• Education achievement</td>
<td></td>
<td>Enrollment in educational institutions</td>
</tr>
<tr>
<td>• Cultural considerations</td>
<td></td>
<td>Reflection of cultural characteristics on community design</td>
</tr>
<tr>
<td>7. Socio-economic issues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Income</td>
<td></td>
<td>Estimation of median income in a community</td>
</tr>
<tr>
<td>• Poverty reduction</td>
<td></td>
<td>Ratio of low income people</td>
</tr>
</tbody>
</table>

* The legislation mandated 18 variables to be addressed within the DST.
A. Review of The Legislation

THANK YOU!

Center for Quality Growth and Regional Development
Georgia Institute of Technology | Atlanta, Georgia
www.cqgrd.gatech.edu
B. Overview of the Decision Support Tool

Overview of the Atlanta BeltLine Decision Support Tool

Jason Barringer
Myungje Woo
Center for Quality Growth and Regional Development
Georgia Institute of Technology

Atlanta BeltLine Decision Support Tool Strategic Planning Session, Georgia Tech, Atlanta, Georgia October 16, 2008

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What is a Decision Support Tool (DST)?

- Process that provides a consistent and reproducible basis for making decisions
- Provides a detailed picture of impacts related to the implementation of a plan or policy
B. Overview of the Decision Support Tool

What does a DST do?

- Organizes relevant info
- Spatially resolves actions of the plan
- Predicts impacts
- Generates performance measures

How does a DST work?

Coordinates into one tool:

- Information tool
- Monitoring tool
- Modeling tool
B. Overview of the Decision Support Tool

What are the inputs

- Benchmark data
  - Qualitative and Quantitative
- Assessments
  - Performance Measures
- Stakeholder expectations
  - Relevant information from surveys, charettes, and public meetings

What are the benefits of using a DST

- Investigate potential benefits of alternative scenarios
- Comparison between scenarios and with the baseline data
- Identify trade-offs
- Do projects/policies meet the stated goals
What is the purpose of the Atlanta BeltLine DST?

The primary objective is **to measure the impacts** of the 25 year long Atlanta BeltLine project, based on vision and goals of the BeltLine, and **to ensure the effectiveness and equity of its implementation.**

### Process and the DST

1. **Vision & goals of BeltLine**
   - Approve scope of BeltLine process
   - Approve vision & goals
   - Approve strategic statements & opportunities for the BeltLine
   - Approve evaluation criteria & methodologies

2. **Setting DST strategy**
   - Approve strategies
   - Approve financial assumptions

3. **Analysis of plan scenarios or projects**
   - Evaluate conformity to region's vision & goals
   - Approve evaluation criteria & methodologies for prioritization

4. **Implementation**
   - Approve plans for implementation
### B. Overview of the Decision Support Tool

#### (1) Vision and goals of BeltLine

<table>
<thead>
<tr>
<th>Process of the BeltLine DST</th>
<th>Approve scope of BeltLine process</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Approve vision &amp; goals</td>
</tr>
</tbody>
</table>

**Vision and goals** of the Atlanta BeltLine will be key criteria in creating decision tool variables to measure the impacts of plan scenarios and making decisions in each process.

#### (2) Setting the DST Strategy

- Identify specific **problems and needs** for the BeltLine areas and each project.
- Determine **possible variables and methods** of DST.
- **Set strategies** to address selected problems
- Estimate available **revenues and approximate costs** for strategies.
B. Overview of the Decision Support Tool

(3) Analysis of Plan Scenarios

▶ Approve plan scenarios (two levels).
▶ Conduct analyses to measure the impacts of each plan scenario and choose preferred plan scenarios (short term & long term).
▶ Determine preferred plan scenarios.
▶ Evaluate conformity to region’s vision & goals.

Short Term Analysis

▶ How soon can proposed plans generate benefits in a community?
▶ How well are they harmony with on-going project?
▶ How much are they consistent with community’s vision and goals?

Methods: DST metrics
### B. Overview of the Decision Support Tool

#### Long Term Analysis

- Such **large scaled** and **long term** developments will bring substantial impacts on physical, economic, environmental, and socio-economic areas.

**Methods:**
- Economic efficiency analysis
- Population impact analysis
- Transportation impact analysis
- Health impact analysis
- Environmental impact analysis

#### (4) Implementation

- Conduct **Multi Criteria Decision Analysis** to determine **priority** of plan scenarios
- Community engagement framework

**Methods:** Visualization will be useful to facilitate communications
B. Overview of the Decision Support Tool

THANK YOU!

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Economic Impacts

• Start with types of businesses in the project.
• Metrics
  – Jobs
  – Wages and salaries
• Economic impacts – same questions.
• Consider \textit{NET} changes.
• Where will workers live…….?
C. Demographics, Economics, and Fiscal Impacts

Demographics

- Jobs create pressure on population growth.
- Commuting patterns, wages, housing costs determine where employees live.
- Characteristics of residential components.
- Households impact local governments...

Fiscal Impacts

- Will households generate enough revenue to pay for required city services?
- Will firms generate enough revenue to pay for required city services?
- Projects need a balance between residential and non-residential components to be fiscally neutral.
D. Transportation and Infrastructure Impacts

POTENTIAL METRICS AND METHODOLOGIES OF THE DST – TRANSPORTATION AND INFRASTRUCTURE

VARIABLES

- Concurrency with Development
  - Estimation of demand and supply
- Air Quality
  - Per capita vehicle trip generations and related emissions
- Impact on existing infrastructure
  - Projected land use and trip generation to current capacity (future no build)
- Connectivity
  - Modal interconnectivity
- Traffic
  - Per capita vehicle trip generation
D. Transportation and Infrastructure Impacts

**VARIABLES**

- **Density**
  - Population and employment density/land use and redevelopment
- **Accessibility**
  - Distance to transportation nodes
- **Environmental Impacts including social equity cost effectiveness**
  - Cost/Performance/Benefits
- **Sewer Capacity**
  - Per capita/project use of water
- **Methodology**
  - Clean Water Atlanta model to designate red flag areas with potential capacity limitations

**METRICS AND METHODOLOGIES BUILT ON**

- MARTA Alternatives Analysis and DEIS studies
- ARC regional travel demand model
- City of Atlanta Comprehensive Transportation Plan
- ARC Regional Development Plan
- IT3 analysis
D. Transportation and Infrastructure Impacts

ARC: Vehicular Commute Sheds - 2020 Option 4
(TDM Strategies, Managed Supply and Treated Demand, Density Increases in Employment Centers)
Commute Sheds to each employment center shown include 15, 20, and 30-minute travel times.

ARC: Origin/Destination Pairs
OD pairs indicate volumes during the AM and PM period (bandwidth) and TTI (color)
Health and Environmental Impacts

What is Health?

World Health Organization (WHO) Constitution- 1948
Health is “…a state of complete physical, social and mental well-being, and not merely the absence of disease or infirmity.”

Ottawa Charter for Health Promotion- 1986
Expanded the definition to include the ability of an individual or group “to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment.”
E. Health and Environmental Impacts

What is a Health Impact Assessment?

A Health Impact Assessment (HIA) is:
“a combination of procedures, methods, and tools by which a policy, program, or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population.”

3 types of HIAs:
• Proactive HIAs- before project or policy
• Retrospective HIAs- after project or policy
• Concurrent HIAs- occurring simultaneously with projects

HIAs consider:
• social and environmental justice issues,
• adopt a multidisciplinary and participatory process, and
• use both qualitative and quantitative evidence in the process.

Steps of an HIA Process:
1. Screening- should we conduct an HIA?
2. Scoping- planning for the HIA
3. Risk assessment- implementation of the HIA
4. Dissemination- circulates the results
5. Monitoring and evaluation- review of the HIA process
E. Health and Environmental Impacts

**Air Quality**

The BeltLine represents a massive 25-year construction project, including the creation of parks, trails, transit, 50,000 housing units, and 13 million square feet of other new construction.

Because of this construction, the BeltLine may create several areas where people are living within 200 meters of high-volume corridors.

**Potential Health Implications:**
- Increased mortality and morbidity rates from cardiovascular and respiratory illnesses
- Increased risk for lung cancer
- Short- and long-term non-cancer health effects such as bronchitis and asthma

**2005 High Volume Road Segments**
E. Health and Environmental Impacts

Air Quality

2030 High Volume Road Segments **With the BeltLine**

<table>
<thead>
<tr>
<th>BeltLine HIA</th>
<th>Air Quality</th>
</tr>
</thead>
</table>

| 2030 High Volume Road Segments **Without the BeltLine** |

| Proposed Land Uses around High Volume Road Segments |

<table>
<thead>
<tr>
<th>BeltLine HIA</th>
<th>Air Quality</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Total Acres of Residential Parcels in 200m Buffer</th>
<th>Potential Development Density (Housing Units/Acre)</th>
<th>Potential Affected Living Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hulsey Rail Yard</td>
<td>52.50</td>
<td>7.65</td>
</tr>
<tr>
<td>Inman Rail Yard</td>
<td>37.36</td>
<td>8.78</td>
</tr>
<tr>
<td>I-20 West</td>
<td>68.30</td>
<td>12.15</td>
</tr>
<tr>
<td>I-75/85 South</td>
<td>25.00</td>
<td>12.15</td>
</tr>
<tr>
<td>Total</td>
<td>183.16</td>
<td></td>
</tr>
</tbody>
</table>
E. Health and Environmental Impacts

### Access to Greenspace

#### Equity

The BeltLine creates parks, trails, and transit equally distributed by race and income; 11,000 people will have access to a park for the first time.

**Potential Health Implications:**
- Better access to employment opportunities, services, healthy foods, and recreational facilities

#### Physical Activity

The BeltLine will create 1,300 acres of parks, 33 miles of trails, $4 million in streetscape and intersection improvements, and an extension of the transit system.

**Potential Health Implications:**
- Reduced premature death and risk of developing diabetes, high blood pressure, and colon cancer
- Reduced feelings of depression/anxiety
- Helps control weight
E. Health and Environmental Impacts

Access to Greenspace

Park Access in the Study Area

Access and Connectivity

Access to Greenspace in the Hospital HIA Study Area
E. Health and Environmental Impacts

Example of Walkability Audit Questions

Access and Connectivity

The roadway, although in good condition, was extremely wide and somewhat curvy throughout this segment. Although sidewalks mimicked the street orientation with no buffer in between the two, sidewalks were often scattered with debris and dust and were essentially the same height as the roadway.

Along parts of the segment, there are times that the sidewalk height is even with the roadway height, creating essentially a continuous curb cut, with no separation between pedestrians and automobiles.

Examples of poor pedestrian conditions: although shady and separated from the street, these sidewalks are raised and broken and are narrow.
## E. Health and Environmental Impacts

### Walkability Audit Recommendations

<table>
<thead>
<tr>
<th>KEY FINDINGS</th>
<th>RECOMMENDATIONS</th>
<th>RELATIONSHIPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connectivity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Walkability and Mobility**

The Walkability Audit (see Section E.2 and Appendix A.4) found significant barriers to walking and bicycling in the study area, including poorly maintained sidewalks, insufficient buffers between pedestrians and traffic, insufficient signage, a lack of shade, and a lack of accommodation for bicycles.

- **Increase and improve barriers between pedestrian and automobile traffic along high-volume corridors, such as Collier Parkway:**
  - Improve the quality of the sidewalk.
  - Ensure sidewalk width is adequate for adults walking alone.
  - Increase the number of crosswalks.
  - Increase and maintain lighting for pedestrians.
  - Add pedestrian signals at existing intersections.
  - Narrow roadways or lanes.
  - Increase the number of lanes.
  - Add medians.
  - Add bicycle lanes.
  - Add speed limits.
  - Add landscaping.
  - X X

- **Increase pedestrian education to include:**
  - Conduct a program to make pedestrians aware of their surroundings.
  - Conduct outreach within the community to make residents familiar with new walking and bicycle options in the community.
  - X X

### Latent Demand Score (LDS) Analysis

![Results of the Bicycle LDS](image_url)
E. Health and Environmental Impacts

Decatur Bicycle Network

The final Decatur Bicycle Network

THANK YOU!

Center for Quality Growth and Regional Development
Georgia Institute of Technology | Atlanta, Georgia
www.cqgrd.gatech.edu
What is a Multi Criteria Decision Analysis (MCDA)?

- Conflicts between criteria
- Conflicts between different interpretations of the criteria and different sets of preferences among the different actors

The MCDA is a technique to help the decision makers to choose, rank or sort alternatives in situations of multiple and conflicting criteria (Peckham, 1997).
F. Multi Criteria Decision Analysis (MCDA)

Basic Structure of Multi Criteria Decision Analysis

- A serial process of defining objectives
  Vision & goals
- Arranging them into criteria
  Setting DST Strategy
- Identifying all possible alternatives
- Measuring consequences
  Analysis of Plan Scenarios
- Aggregation
  Setting Priorities

(1) Decision Matrix

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$A^1$</td>
</tr>
<tr>
<td>$j$</td>
<td>...</td>
</tr>
<tr>
<td>$q$</td>
<td>...</td>
</tr>
</tbody>
</table>

- Preferences on consequences are captured as values: $v_j(A^i) = f_j(c_{ij})$
F. Multi Criteria Decision Analysis (MCDA)

(2) Standardization of Consequences

Since the unit of each criterion is different, the consequence data of all criteria should be transformed to unify the unit and sign.

- **Standardization (1)**
  
  For negative criteria: 
  \[ v_i' = \frac{\min_{x \in A} (c_i^j)}{c_i^j} \]
  
  For positive preference criteria: 
  \[ v_i' = \frac{c_i^j}{\max_{x \in A} (c_i^j)} \]

- **Standardization (2)**
  
  \[ v_i' = \frac{(c_i^j - \min(c_i^j))}{(\max(c_i^j) - \min(c_i^j))} \]

(3) Preferences on Criteria

- **Expressions of the relative importance of criteria**: \[ w_j > 0 \] and \[ \sum w_j = 1 \].
  
  A weight vector is denoted as \[ w = (w_1, w_2, ..., w_j) \].

- **A popular evaluation method is the simple additive weighting (SAW) method**: 
  \[ V(A) = \sum w_j \cdot v_j(A) \]
  
  Where \[ V(A) \] is the overall evaluation of alternative \( A \).

- **Sensitive analysis**: the role of each criterion on the selection of alternatives can be understood by changing weights of different criteria.
F. Multi Criteria Decision Analysis (MCDA)

(4) Other aggregation models in MCDA

- Maximin Criterion
- Maximax Criterion
- Hurwicz Criterion
- Bayes Criterion
- Concordance & Disconcordance Analysis

Selecting Priority of the Individual Projects

(1) Consequence data

<table>
<thead>
<tr>
<th>Categories</th>
<th>Criteria</th>
<th>Plan Scenarios for Economic Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Population &amp; Economic impacts</td>
<td>Density (POP/sq2) (+)</td>
<td>ALT1</td>
</tr>
<tr>
<td></td>
<td>Growth Rate (POP) (+)</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>Retail Growth Rate (+)</td>
<td>0.15</td>
</tr>
<tr>
<td></td>
<td>Income (Revenue) (million $) (+)</td>
<td>2</td>
</tr>
<tr>
<td>2. Transportation &amp; Infrastructure impacts</td>
<td>Traffic Commuting time ( -)</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Lower capacity (M-gallon) (+)</td>
<td>4.2</td>
</tr>
<tr>
<td>3. Environmental impacts</td>
<td>Water Quality Index (+)</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Air Quality Index (+)</td>
<td>0.68</td>
</tr>
</tbody>
</table>

- Suppose that there are 4 plan scenarios (proposals) for the economic development.
### F. Multi Criteria Decision Analysis (MCDA)

#### Selecting Priority of the Individual Projects

### (2) Standardization

<table>
<thead>
<tr>
<th>Categories</th>
<th>Plan Scenarios for Economic Development</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Criteria</td>
</tr>
<tr>
<td>1. Population &amp; Economic impacts</td>
<td>Density (+)</td>
</tr>
<tr>
<td></td>
<td>Growth (+)</td>
</tr>
<tr>
<td></td>
<td>Retail growth (+)</td>
</tr>
<tr>
<td></td>
<td>Income (Revenue) (+)</td>
</tr>
<tr>
<td>2. Transportation &amp; infrastructure impacts</td>
<td>Traffic (+)</td>
</tr>
<tr>
<td></td>
<td>Sewer capacity (+)</td>
</tr>
<tr>
<td>3. Environmental impacts</td>
<td>Water quality (+)</td>
</tr>
<tr>
<td></td>
<td>Air quality (+)</td>
</tr>
</tbody>
</table>

- The consequence data should be transformed to unify the unit and sign.

### (3) Setting weights

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>Density</th>
<th>Growth</th>
<th>Retail growth</th>
<th>Income (Revenue)</th>
<th>Traffic</th>
<th>Sewer capacity</th>
<th>Water quality</th>
<th>Air quality</th>
<th>Sum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.06</td>
<td>0.10</td>
<td>0.12</td>
<td>0.20</td>
<td>0.16</td>
<td>0.12</td>
<td>0.14</td>
<td>0.10</td>
<td>1.00</td>
</tr>
</tbody>
</table>

- Assume that “Revenue” has the highest weight (0.20) and “Density” the lowest (0.06) according to the survey results.
### Selecting Priority of the Individual Projects

#### (4) Aggregation

<table>
<thead>
<tr>
<th>Categories</th>
<th>Criteria</th>
<th>Plan Scenarios for Economic Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Population &amp; Economic Impacts</td>
<td></td>
<td>W</td>
</tr>
<tr>
<td>Density</td>
<td></td>
<td>0.06</td>
</tr>
<tr>
<td>Growth</td>
<td></td>
<td>0.10</td>
</tr>
<tr>
<td>Retail growth</td>
<td></td>
<td>0.12</td>
</tr>
<tr>
<td>Income (Revenue)</td>
<td></td>
<td>0.20</td>
</tr>
<tr>
<td>2. Transportation &amp; Infrastructure Impacts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic</td>
<td></td>
<td>0.16</td>
</tr>
<tr>
<td>Sewer capacity</td>
<td></td>
<td>0.12</td>
</tr>
<tr>
<td>3. Environmental Impacts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water quality</td>
<td></td>
<td>0.14</td>
</tr>
<tr>
<td>Air quality</td>
<td></td>
<td>0.10</td>
</tr>
<tr>
<td>SUM ($V(A_i) = \sum w_i V_i(A_i)$)</td>
<td></td>
<td>0.566</td>
</tr>
</tbody>
</table>

Maxmin Criterion (conservative approach):

ALT2 (0.060) > ALT1 (0.025) > ALT3 (0.024) > ALT4 (0.012)

Maxmax Criterion:

ALT2 (0.200) > ALT4 (0.160) > ALT3 (0.145) > ALT1 (0.127)
F. Multi Criteria Decision Analysis (MCDA)

Selecting Priority of the Individual Projects

- **Hurwicz α Criterion:**
  
  \[ ALT2 (0.165) > ALT4 (0.123) > ALT3 (0.115) > ALT1 (0.102) \]

  \[
  \text{Strategy} = \alpha(\text{Min}) + (1 - \alpha)(\text{Max})
  \]

  If we assume that \( \alpha = 0.75 \),
  
  \[
  \begin{align*}
  ALT1 &= 0.75*0.025 + 0.25*0.127 = 0.102 \\
  ALT2 &= 0.75*0.060 + 0.25*0.200 = 0.165 \\
  ALT3 &= 0.75*0.024 + 0.25*0.145 = 0.115 \\
  ALT4 &= 0.75*0.012 + 0.25*0.160 = 0.123
  \end{align*}
  \]

- **Bayes Criterion:**
  
  - If the decision maker supposes that each criteria has a same weight,
  
  \[
  V(A^i) = \frac{\sum v_j(A^i)}{N}
  \]

  \[ ALT2 (0.938) > ALT3 (0.743) > ALT4 (0.646) > ALT1 (0.591) \]

  - If the decision maker consider the weights of all criteria,
  
  \[
  V(A^i) = \sum w_j \cdot v_j(A^i)
  \]

  \[ ALT2 (0.935) > ALT3 (0.765) > ALT4 (0.675) > ALT1 (0.566) \]
F. Multi Criteria Decision Analysis (MCDA)

Selecting Priority of the Individual Projects

**Concordance Analysis**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ALT 1</td>
<td>0.038</td>
<td>0.025</td>
<td>0.060</td>
<td>0.027</td>
<td>0.122</td>
<td>0.084</td>
<td>0.127</td>
<td>0.084</td>
</tr>
<tr>
<td>ALT 2</td>
<td>0.060</td>
<td>0.100</td>
<td>0.120</td>
<td>0.200</td>
<td>0.132</td>
<td>0.120</td>
<td>0.122</td>
<td>0.080</td>
</tr>
<tr>
<td>ALT 3</td>
<td>0.024</td>
<td>0.075</td>
<td>0.100</td>
<td>0.133</td>
<td>0.145</td>
<td>0.060</td>
<td>0.135</td>
<td>0.093</td>
</tr>
<tr>
<td>ALT 4</td>
<td>0.012</td>
<td>0.050</td>
<td>0.080</td>
<td>0.093</td>
<td>0.160</td>
<td>0.040</td>
<td>0.140</td>
<td>0.100</td>
</tr>
</tbody>
</table>

**K**

- **K_{12} = \{7, 8\}**
- **K_{13} = \{1, 6\}**
- **K_{14} = \{1, 6\}**
- **K_{21} = \{1, 2, 3, 4, 5, 6\}**
- **K_{23} = \{1, 2, 3, 4, 6\}**
- **K_{24} = \{1, 2, 3, 4, 6\}**
- **K_{31} = \{2, 3, 4, 5, 7, 8\}**
- **K_{32} = \{5, 7, 8\}**
- **K_{34} = \{2, 3, 4, 5, 7, 8\}**
- **K_{41} = \{5, 7, 8\}**
- **K_{42} = \{5, 7, 8\}**
- **K_{43} = \{5, 8\}**

**C**

- **C_{12} = 2**
- **C_{13} = 2**
- **C_{14} = 2**
- **C_{21} = 6**
- **C_{23} = 5**
- **C_{24} = 5**
- **C_{31} = 6**
- **C_{32} = 3**
- **C_{34} = 5**
- **C_{41} = 6**
- **C_{42} = 3**
- **C_{43} = 2**
## Selecting Priority of the Individual Projects

**Concordance Analysis**

\[
\text{ALT}_i = \sum C_{ii} - \sum C_{i'i}
\]

- ALT1 = \((C_{12}+C_{13}+C_{14})-(C_{21}+C_{31}+C_{41})\) = 6 - (6 + 6 + 6) = -12
- ALT2 = \((C_{21}+C_{23}+C_{24})-(C_{12}+C_{32}+C_{42})\) = 16 - (2 + 3 + 3) = 8
- ALT3 = \((C_{31}+C_{32}+C_{34})-(C_{13}+C_{23}+C_{43})\) = 14 - (2 + 5 + 2) = 5
- ALT4 = \((C_{41}+C_{42}+C_{43})-(C_{14}+C_{24}+C_{34})\) = 11 - (2 + 5 + 5) = -1

ALT2(8) > ALT3(5) > ALT4(-1) > ALT1(-12)

### SUMMARY

- **Maxmin Criterion (conservative approach):**
  ALT2 (0.060) > ALT1 (0.025) > ALT3 (0.024) > ALT4 (0.012)

- **Maxmax Criterion:**
  ALT2 (0.200) > ALT4 (0.160) > ALT3 (0.145) > ALT1 (0.127)

- **Hurwicz \(\alpha\) Criterion:**
  ALT2 (0.165) > ALT4 (0.123) > ALT3 (0.115) > ALT1 (0.102)

- **Bayes Criterion:**
  ALT2 (0.938) > ALT3 (0.743) > ALT4 (0.646) > ALT1 (0.591)
  ALT2 (0.935) > ALT3 (0.765) > ALT4 (0.675) > ALT1 (0.566)

- **Concordance Analysis:**
  ALT2 (8) > ALT3 (5) > ALT4 (-1) > ALT1 (-12)
A Multi Criteria Decision Analysis (MCDA) provides

- a structured and documented information on the problem
- a focus for discussion
- and a means for resolving conflicts

Finding a solution with MCDA implies a process of generating solutions with information on why certain solutions are better.

The information generated can provide a basis for negotiation between the different actors.

THANK YOU!
Qualitative Research and the Beltline’s Decision Making Tools

G. Qualitative Research and the Beltline’s Decision Making Tools

Harley Etienne, Ph.D.
Georgia Institute of Technology
City and Regional Planning & Public Policy

Oct. 16, 2008

Qualitative Research

- Interviews
  (Structured and Unstructured)
- Surveys
- Participation
- Ethnography
- Observation

### Advantages/Drawbacks to Qualitative Research

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Drawbacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides data when quantitative measures are not available</td>
<td>Highly subject to interpretation and researcher bias/error</td>
</tr>
<tr>
<td>Offers rich detail and context that is needed for valid conclusions and action</td>
<td>Time/resource consuming and often impractical to execute</td>
</tr>
<tr>
<td>Allows informants to actively participate in research design and analysis</td>
<td>Often not challenged by quantitative researchers as invalid and ungeneralizable</td>
</tr>
</tbody>
</table>

### Overarching Research Questions

- **For whom are we building the Beltline?**
  - Workers, Residents (homeowners/renters), Students, Tourists, Shoppers, Children, Elderly, etc.
  - *How do they function now? Itineraries?*
  - *How might they use the Beltline?*
  - *What lies between their current and future transportation needs?*
  - *What obstacles to access exist? Which ones might exist in the future?*
  - *What impacts will the planning and completion of the Beltline have on various groups?*
Community Involvement
Civic Engagement

• Participant - Observation Research
  ▫ Researchers attend and participate in community meetings, visioning exercises, local events and daily life. They record comments, events, themes from meetings and other spaces.

• Action Research
  ▫ Encompasses many forms of qualitative research and allows interviewees/participants to shape the direction of the research. Research protocols are created jointly by neighborhood residents and professional research staff.

• Recommendation -- Consider systematic participant-observation of Beltline related planning events

Environmental Justice and Equity Considerations

• Interviews
  ▫ Researchers would conduct interviews with local advocates or neighborhoods currently or potentially impacted by environmental justice or equity issues.

• Observation
  ▫ Researchers could employ participant-observation technique or dispatch residents to offer their own “observations” through text or visual media.

• Recommendation – A mix of structured interviews with key stakeholders and advocates and participant-led observation would be appropriate.
G. Qualitative Research and the Beltline’s Decision Making Tools

**Metrics of “Social Capital”**

- **Surveys**
  - Researchers explore perceptions of increasing/decreasing neighborhood capacity by administering paper or in-person surveys.

- **Evaluations of Institutional Effectiveness**
  - Researchers conduct interviews and/or content analyses to understand what role neighborhood or city level organizations/structures are contributing to the planning process.

- **Recommendation** — Surveys may be useful but are often difficult to conduct and would not offer much on “social capital”. Evaluations of individual institutions would be impractical for planning purposes as it might impede the larger process.

**Displacement**

- **Ethnography**
  - *Researchers live in (or visit often) target neighborhoods to answer research questions. They take fieldnotes and conduct semi-structured interviews over the course of a defined research period.*

- **Recommendation** — A full scale and traditional ethnography is impractical for Beltline planning purposes but useful for finding hidden populations. An adapted form—network ethnography—might be useful to consider.
G. Qualitative Research and the Beltline’s Decision Making Tools

Concluding Recommendations

• Qualitative research for Beltline planning will:
  ▫ Complement quantitative/spatial/market analysis
  ▫ Accurately represent lived experiences and needs of Atlanta residents
  ▫ Provide basis of action and planning

• Research Mode
  ▫ Mixed--Respondent-Driven Sampling and Participant Observation
    • Create demographic profile of subareas
    • Employ a network ethnography method to find and interview hidden populations in each area
    • Join the results of respondent-driven sampling with observations of results of participant-observation of planning events and neighborhood responses to outreach to create evolving perspective of process and neighborhood needs
    • Add findings and analysis to quantitative/spatial/market analysis of neighborhoods
Community Involvement and Visualization

Jason Barringer
Myungje Woo
Center for Quality Growth and Regional Development
Georgia Institute of Technology

Atlanta BeltLine Decision Support Tool Strategic Planning Session, Georgia Tech, Atlanta, Georgia October 16, 2008

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Community Involvement & Civic Engagement

- Mandated by the legislation
  - Reflect neighborhoods and communities’ opinions
  - Warrant the transparency of the planning process
- Existing Community Engagement Framework (CEF) should play a key role.
  - TADAC, BeltLine Affordable Housing Advisory Board, Atlanta BeltLine Study Groups, Community Representation on the ABI Board of Directors, Citizen Participation Advocate
H. Community Involvement and Visualization

INTRODUCTION

- Visualization is an effective method for communicating with the public.
- Both Off- and Online methods can facilitate communications with the public.
  - GIS mapping system
  - Internet based GIS system
  - Online survey

Piedmont Hospital HIA

- Used maps to gather public input on
  - Traffic problems
  - Undesirable walking conditions
  - Crime
H. Community Involvement and Visualization

Piedmont Hospital HIA

Map Number | Comment
---|---
1 | Broken Sidewalk
2 | No Sidewalk
3 | Trees overgrown into the sidewalk
5 | Walking on Collier is unsafe/scary
7 | Ardmore Park streets need repaired sidewalks
10 | Too many fast foods restaurants between 28th St & Collier

* No comment provided

Walkability Audit Sections
The roadway, although in good condition, was extremely wide and somewhat curvy throughout this segment. Although sidewalks mimicked the street orientation with no buffer in between the two, sidewalks were often scattered with debris and dust and were essentially the same height as the roadway.

Examples of poor pedestrian conditions: although shady and separated from the street, these sidewalks are raised and broken and are narrow.

Along parts of the segment, there are times that the sidewalk height is even with the roadway height, creating essentially a continuous curb cut, with no separation between pedestrians and automobiles.
H. Community Involvement and Visualization

Piedmont Hospital HIA

Decatur Transportation Plan

HIA/Transportation Plan HIA
- Conducted by CQGRD, City of Decatur officials, and CDC
- 60 Participants
- Raised key issues for the transportation plan:
  - Balance between modes
  - Safety for kids
  - Walking should be the norm
  - Bike and Pedestrian safety
H. Community Involvement and Visualization

HIA/Transportation Plan HIA

- Plan should address four broad areas
  - Intersection improvements
  - Bicycle facilities
  - Sidewalk improvements
  - Traffic Safety

- Also came up with a customized definition of health:
  - Health is a holistic sense of spiritual, mental, and physical well-being and the absence of illness and disease.

- These guiding principles were the underlying foundation of the study and drove the analysis and recommendations.
### H. Community Involvement and Visualization

#### HIA/Transportation Plan HIA
- Develop a process for prioritizing pedestrian route improvements based on a combination of latent demand score (high demand), existing conditions (low level of quality), adjacent land uses (street typology), and proximity to a designated Safe Route to School corridor.
- Decrease walking distance around large intersections
- Bicycle parking facilities throughout the city.
- Opportunities for bicycle facilities should be considered in the design or reconstruction of new or existing streets, recreational areas, or site developments.

#### HIA Survey
- Both paper and online surveys were conducted.
I. Preparation for RFP & RFQ

Preparation for RFP & RFQ

Dr. Catherine Ross
Harry West Professor and Director of the Center for Quality Growth and Regional Development
Georgia Institute of Technology

Atlanta BeltLine Decision Support Tool Strategic Planning Session, Georgia Tech, Atlanta, Georgia October 16, 2008

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A Request for Proposal (RFP):

- Is an invitation for suppliers to submit a proposal on a specific commodity
- Brings structure to the procurement decision and identifies risks and benefits
- Can dictate the exact structure and format of the supplier’s response
# I. Preparation for RFP & RFQ

## Key Objectives of RFPs
- To obtain correct information
- To decide on strategic procurement
- To leverage the company's purchasing power

## Key Benefits of RFPs
- Informs suppliers of intent to procure
- Requires the company to specify what it wants to purchase
- Alerts suppliers that the selection process is competitive
- Allows for wide distribution and response
- Ensures suppliers respond factually
- Can demonstrate impartiality

## Components of a Typical RFP
- Organizational Overview
- Description
- Target Audience
- Required Deliverables
- Assumptions and Agreements
- Technical Proposal
- Time–Cost Proposal
- Submission Deadline
## Preparation for RFP & RFQ

**A Request for Qualifications (RFQ):**

- Contains desired minimum qualifications of the firm
- Provides a scope of work statement
- Places greater emphasis on the track record of potential contractors

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THANK YOU!

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