Placing People at the Center: Envisioning Change

"It is futile to plan a city's appearance, or speculate on how to endow it with a pleasing appearance of order, without knowing what sort of innate, functioning order it has."—Jane Jacobs

Planning jointly for mobility and community form shifts the emphasis of the master plan circulation element from the movement of vehicles, people and goods to a broader concern with the quality of people's experience in a community. Mobility is an important part of that experience, to be sure, but in ways that traditional planning has often neglected.

If local circulation planning is to emphasize the quality of daily life, it must start with some broad questions. Before investigating the condition of roadways and other transportation facilities, planners begin by taking the pulse of community residents and others who spend time in the municipality. They ask some very basic questions:

Are people thriving here the way things are today? If not, why not?

How would we like to live in the future?

How could our transportation system and the physical form of our community work together to produce a more satisfying community life?

What should we expect of private developers to help bring this about?

This chapter suggests methods for elaborating these questions, creating a community dialogue, and achieving answers that help to shape a community vision for change.
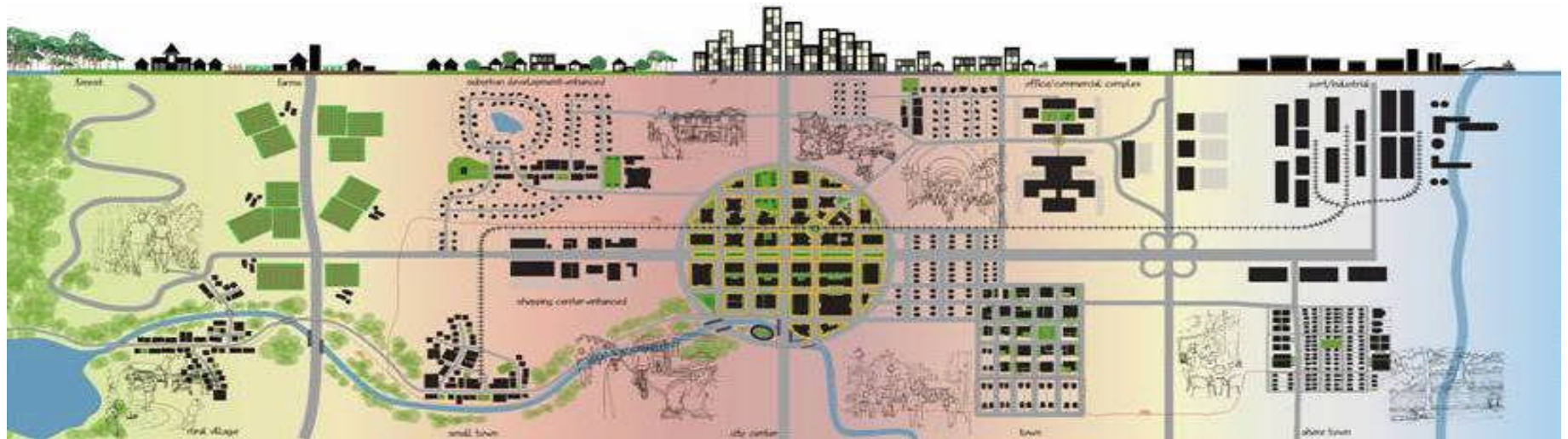
Identifying Place Types with the Activity-Based Transect

As a first step in envisioning change, local leaders need to understand the current forms and activity patterns characteristic of their municipality. New Jersey's communities are built in strikingly different ways. Mixed-use, compact settlements are found at both ends of the urban-rural spectrum—from city centers to rural hamlets. Sprawling developments can also be found both in urban areas and at the edge of farmlands. Many New Jersey communities are located near regional freight corridors, port operations, or other specialized activities that pose challenges to creating community quality and walkability.

A transect is a geographical cross section of a region used to reveal a sequence of environments. It is an old idea, first used in the 1790's by von Humboldt, a naturalist, to describe plant and animal communities over a range of territory. Two core ideas emerge from thinking about communities – whether animal habitat or human settlements: communities exist in a natural range of types and intensities and communities are complex, multi-dimensional places that should not be described or planned in just one dimension. A corollary idea, also from nature, is that communities exist more or less in balance and change slowly over time; i.e., they evolve.

Traditionally, communities have been described as physical places. But, as Chapter 1 describes, *activities* are a critical part of the description. For that reason, we have created an *Activity-Based Transect* to look at communities in both the physical and socio-economic dimensions.

The Activity-Based Transect provided with this guide is intended to be used as a diagnostic tool for understanding community form. The transect diagram is a symbolic representation of the variety that can be found in New Jersey's community forms. Here, the transect is an idealized "slice" of geography that shows the gradual changes in density and scale as one moves between rural and urban environments. This Activity-Based Transect can be read from left to right as a progression from rural highlands and agricultural areas through towns and suburbs to a central city, then on to the port industry and seaside towns of the New Jersey shore.

The central task in using the transect as a planning tool is to find the main qualities of each place type. Together with the Patterns on the reverse side of the folio, the transect helps planners visualize the types of development appropriate at each scale, how different pieces fit together, and what sort of activities might take place there.

Each of the place types depicted in the Transect presents characteristic planning challenges as well as opportunities. For the "traditional" settlement types with strong centers — cities, towns and villages, for example — typical concerns include a desire

to strengthen and diversify the central business district, improve traffic operations and parking in the core area, and enhance pedestrian facilities. Smaller towns may need to take steps to protect their unique identities against encroachment from nearby suburbanizing areas, while for larger cities economic revitalization is often a primary concern.

In suburban areas without strong centers, typical concerns include traffic congestion, poor pedestrian conditions, disconnection between the component parts of the community, a lack of local identity, insufficient public space, and inadequate local revenues. Planners may seek to overcome some of these deficiencies by creating focal points that can become centers over time, introducing mixed uses through infill development, and establishing pedestrian facilities.

A New Jersey municipality will often include several of the place types. For instance, a traditional grid-based town may be surrounded with scattered suburban development and some remaining active farmland. A city may see suburban forms emerging in its lower density outskirts or industrial districts. It is

not unusual for a municipality to have to contend simultaneously with the characteristic problems of an older center *and* those stemming from full-blown suburban sprawl. For these municipalities, the process of preparing the Circulation Element requires consideration of the distinct needs of each type of place and the ways in which they interact.

Community Assessment with the Seven Patterns

Once a municipality's existing place type, or types, have been identified, the next step is to assess how well they work and how they might be enhanced. The patterns of Mobility and Community Form on the reverse side of the transect diagram and described later in this publication provide a tool for a comprehensive local assessment and visioning process. The patterns can be used in municipalities of any size or type, both to gauge current conditions and generate ideas for change. There are patterns for Circulation, Shopping Streets, Parking, Transit Stops, Neighborhoods, Public Places, and the Natural Environment.

The patterns reflect time-tested community forms including settlements that place living and working areas in close proximity, the arrangement of buildings around central squares or parks that serve as gathering spaces, and buildings interlaced with pedestrian pathways for easy access on foot. They incorporate provisions for automobiles, truck traffic, and parking that are more compatible with these time-tested forms of settlement than those generally found in New Jersey today. Each pattern includes organizing principles that define and support that pattern and the activities it promotes. Each of the principles represents one way of nurturing a vibrant, successful community through a linked approach to mobility and form. Successful examples from New Jersey are depicted throughout.

The patterns and examples are not intended as strict rules, but rather to prompt community dialogue. They encourage attention to the use of public space, the quality of civic life, and the degree of social interaction in the community in the context of planning for local mobility needs. Sample questions to consider include the following:

Where do people like to gather, and what places do they avoid?

113

Do neighbors have easy opportunities to meet one another?

Are shopping areas inviting?

What is it like to wait for the bus or train in this community? Are transit stops attractive, comfortable places?

How many local needs can be satisfied by walking?

Can residents bicycle to open spaces or waterfronts?

What routine activities contribute to a desirable way of life here? What activities seem to hinder our enjoyment of this community?

We believe that the patterns can be applied in every community, albeit in different ways as the community context indicates. Other patterns may suggest themselves through the community dialogue process.

Getting the Details Right

The pattern principles described in this guide incorporate many smaller-scale environmental features that were once considered too small to be included in a Circulation Element. Many of these fine-grained details are increasingly seen as an important part of a community's overall effort to set its direction. Examples include the quality of bus passenger waiting areas, the placement and legibility of signs, striping and other visual cues for drivers, pedestrian-oriented illumination, bicycle safe drainage grates, and appropriately designed curb ramps for wheelchair users.
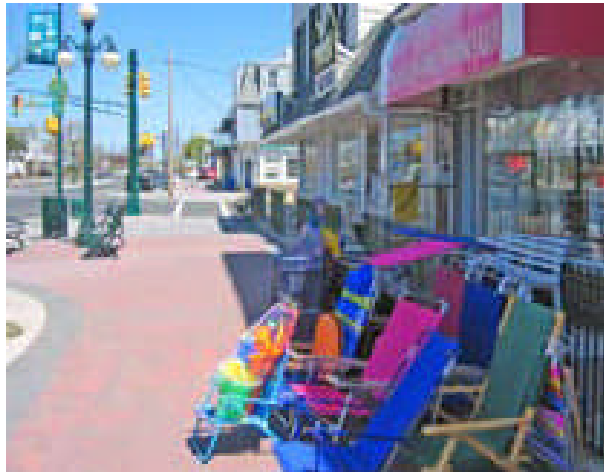
Planning for facility maintenance is another critical "detail" which is often overlooked. Planners may find it useful to spell out a program of facility maintenance in the Circulation Element. In addition to a schedule of pavement repairs, the maintenance program should indicate how sidewalks and bike lanes will be kept free of snow, debris, and excess vegetation throughout the year, and how pedestrian access will be provided during construction.

114

Combining the Transect and the Patterns

The Transect and the Patterns can be used together to inform a community dialogue and visioning process for linking transportation and land use in the master plan. This requires thinking about the form(s) each pattern takes in the municipality today, and whether they suit the fundamental character of the community or the place it is to become. For example, the Transit Stop pattern includes a Comfort principle:

Make each transit stop or station a comfortable, attractive and inviting place to wait for the bus or train; encourage provision of supportive activities and services.

This principle can be adapted to a community of any size. In a rural village, it may mean locating an express bus shelter near a local deli, so that transit passengers have a secure place to wait and can buy a newspaper or beverage if the bus is delayed. In a larger town with commuter rail service, it may mean creating a ground floor retail environment beneath the train station, as in South Orange, drawing people to the station area as a destination in its own right. In the urban core, the focus might shift to providing a commuter-friendly, mixed-use Transit Village with office and hotel space, clearly marked transit connections, inviting waiting areas and retail establishments catering to office employees, families and tourists.

Wide sidewalks support a vibrant street life, whether in small towns (Avon-by-the-Sea, left) or major cities (Jersey City, right). Each pattern principle can be adapted to a range of local circumstances.

A similar range of applications can be found for each of the principles. For the Access to Nature principle in the Natural Environment pattern, a village might create a greenway with an attached park. Residents of a Delaware River town might prefer a bike path with river views. At the shore, this principle could be attained by providing a boardwalk with benches. In the city, it could take the form of a riverwalk or urban greenway system. The patterns are flexible, and they are not intended to prescribe any one style of design or any particular lifestyle, with one exception: they do call for a lifestyle incorporating numerous opportunities for walking.

Looking at the transect and patterns together, it is apparent that each of these patterns can be more fully realized--and more easily achieved--in center-based communities with mixed uses and interconnected street networks, as found in New Jersey's traditional towns, villages, and cities. Moreover, a strong center in itself provides a structure for many of the pattern principles. Center-based, mixed-use community form represents a "mega-pattern" that helps to organize the other patterns.

Just as the patterns tend to take their ideal form in places with strong centers, in places that lack a center and street network, they tend to take a distorted form. For example, a large-lot subdivision may *look* like a neighborhood, but if the neighbors do not actually interact, the Neighborhood pattern has not been attained in any true sense. In the same way, a highway consisting of disconnected shopping centers is a distortion of the Shopping Street pattern. Instead of drawing pedestrian traffic to stroll and shop, a "Shopping Mall Street" may entice people to drive up and down the corridor performing multiple errands, reparking their cars each time and creating unnecessary congestion and air pollution. This problem can sometimes be addressed by creating new connections between shopping centers, opening up parking areas for shared use and improving walkway systems.

Participatory Planning Process

A meaningful assessment of mobility and community form requires extensive community participation, since only those who live in or use the community can fully understand the ways in which it supports or hinders their experience.   There are several methods of community participation that are well suited for this purpose, including travel diaries, field-based audits and other observational studies, neighborhood interviews, focus groups, and small group brainstorming meetings.   Much of the information collected can be organized through a system of participatory mapping. Since both the planning process and the resulting products rely heavily on graphical representation to convey ideas, the translation from concept to code is relatively easy to understand for most citizens.

Participatory activities should be organized to tap into different sectors of the community and capture both common and divergent experiences. For example, children and seniors, homeowners and renters, African-Americans and Caucasians, established populations and recent immigrants, merchants, transit passengers, bicyclists, wheelchair users and those with limited vision—all may have very different stories to tell about their experience of community mobility. A Circulation Element that incorporates the perspectives of these varied groups will be more effective in achieving sustainable mobility patterns than one focused more narrowly on the needs of the "average" resident.

To begin, planners might ask for 50-100 volunteers to keep a log or diary of their transportation experiences for one week. They should be encouraged to record positive and negative experiences, including the slightest details. Some of these will involve situations or locations where people were stymied in their efforts to move about in public places. The following are samples of the experiences that might be recorded:

This street was intimidating to cross on foot. (I pushed the button, but the "Walk" signal never seemed to appear. I wonder if it's broken?)

There were no parking spaces anywhere downtown and I circled and circled and finally went home. I'll try the mall tomorrow instead.

The bus didn't arrive as scheduled, and there were no seats left when it finally came.

There are too many trucks on our street and they shake the windows when we are trying to sleep.

Traffic was so bad that it took 20 minutes to reach my exit.

Planners should review and synthesize the diary responses, clarify uncertain points with respondents, and record any location-specific issues on a map. This will allow common themes and concerns to be readily identified.

Next, planners can ask residents and others present in the community, such as business owners, to participate in targeted field-based observations or "audits" focusing on various themes or areas of concern. This procedure is now being used in many communities for the specific purpose of gauging pedestrian conditions around schools, but it has general application across the patterns.

Working in small groups, and using one or more of the patterns as a guide, participants would be asked to tour an area of the municipality, recording their impressions about what works well and what does not in a notebook or hand-held tape recorder as well as through photo logs. These tours may be made on foot, by bike or by car; a combination of modes is most effective in revealing the key factors at work. (It can also be especially instructive to tour an area by wheelchair, or board a local bus.) If possible, observations should be made at different times of day. In addition to observing physical conditions and the behavior of other people using the environment, it is important for each participant to record his or her own impressions. Which places feel safe, inviting, and accessible? Which feel unsafe, uninviting, disorienting, or cut off?

Systematic observation generates a wealth of information about the effectiveness of individual places in the community, often providing critical data that would not be available any other way. For example, in one case participants observed a recurrent illegal left turn used as a shortcut at a congested jughandle intersection. Citizens observing the situation gained insight into how the problem could be corrected and an improvement project followed.[1] In another case, a puzzling pattern of pedestrian crashes was traced to residents' frequent practice of carting groceries home along a highway shoulder, suggesting a need for sidewalk construction and potentially, a supermarket home delivery service. Citizens working in groups with mobile phones can also conduct informal studies of neighborhood cut-through traffic patterns or traffic safety issues at local schools.

Observational studies can be combined with informal interviews to gain additional insight. For instance, observation and discussions with local merchants may reveal the main sources of truck double-parking problems and suggest needed locations for loading zones. Pedestrians may be able to explain why they feel safer jaywalking than using a particular intersection. Crossing guards offer detailed knowledge of children's school routes. Bus drivers may be interviewed for their unique insights into the safety issues associated with local bus stops. (In communities with a significant volume of bus riders, on-board observation of activity at each bus stop may also be useful.) Useful historical perspectives can also be gained through interviews

---

[1] Observing the shortcuts that people take, whether as motorists, truck drivers, pedestrians or bicyclists, often provides a clue to needed improvements such as new network connections, midblock crosswalks and intersection improvements. A worn path by the side of a road is a common indicator of unmet pedestrian needs.

with senior residents. For instance, hearing that an unused park now full of debris was once ideal for strolling can be an inspiration for change.

Once travel diaries and participatory audits are completed, planners may hold small meetings in individual neighborhoods as well as larger public brainstorming sessions to discuss their findings, gain additional perspectives on community assets and problems, and begin a community dialogue to establish a vision for the future. At this point, additional stakeholders can be brought into the process, such as school officials, the local parks department, environmental and historical commissions, neighborhood associations and bicycle clubs. Supplemental focus groups may also be held to garner perspectives that have not been sufficiently represented.

The visioning process often involves consideration of issues at a scale beyond those reflected in the seven patterns, such as pressures or trends arising from the larger region. To help assess regional opportunities and foster coordination across local borders, neighboring communities could be asked to provide a liaison to the process. It is also useful to consult with county transportation officials, the local Transportation Management Association, and the Metropolitan Planning Organization for the appropriate region of the state. Typically this phase will include setting several goals or guiding principles for the plan. This process should be a fluid one that continues throughout the development of the plan.

Data Collection, Analysis and Display

In addition to the rich detail gained from travel diaries, field observations and community discussion, most municipalities will also need some basic quantitative information as a foundation for the decision-making that goes into their Circulation Element. Data collection may include various benchmarks drawn from the pattern principles, as well as traditional indicators of travel demand and supply by mode.

Socioeconomic data and forecasts, including detailed population forecasts by age cohort, provide a life-cycle profile of the community that is important for mobility-friendly planning. A Circulation Element based on the principles of mobility and community form may also reference certain indicators that are typically found in the other elements of a Master Plan, including data on land use and housing trends, employment and economic development, environmental quality, open space, and the supply and usage of local recreational facilities.

Transportation demand data of interest includes traffic volumes, truck volumes, turning movement data, transit and paratransit ridership, pedestrian and bicycle usage, parking volumes by mode (automobile, truck, and bicycle), and parking duration. Supply data may include inventories of local roads, sidewalks, crosswalks, curb ramps, bicycle facilities, transit operations and transit stops, and parking areas. (If there is no public transit service available within the municipality, information should be provided on nearby regional services and access to those services.) Supply data should also include identification of principal truck routes and constraints to truck movement, such as narrow intersections, low-clearance underpasses and low-load bridges, and the location of designated loading zones. Supply inventories may include a number of variables for each of these elements: their dimensions, functional types, capacity and physical condition.

System performance data may also be collected to help gauge conditions for various modes or locations of interest. While such efforts have traditionally focused on motor vehicle level of service analysis, LOS methodologies exist as well for pedestrian, bicycle, and transit service, which are helpful in forming a more complete picture of community mobility. For instance, the New Jersey Department of Transportation maintains an analysis tool for calculating the pedestrian and bicycle suitability of New Jersey roadways. Street connectivity, which is important to the Circulation pattern, may be measured with a Connectivity Index.

Safety data is also of paramount importance in evaluating system performance. Data should be collected on the location of recent motor vehicle, pedestrian and bicycle crashes and the circumstances of those resulting in severe injuries or fatalities. Since roadway speeds have important consequences for the safety and comfort of road users (including pedestrians, bicyclists, bus passengers and senior drivers) vehicle speed data should also be obtained for major roads and those with a history of frequent crashes. Speed profiles are increasingly available from local police departments, due to the popularity of portable speed readout devices. Compliance rates for motorists at pedestrian crosswalks can also be developed.

During the data collection process, it is also important to review relevant plans at the county, regional, and state levels, including county bicycle master plans, the long-range transportation plan prepared by the area Metropolitan Planning Organization, the statewide long-range transportation plan and freight plan prepared by NJDOT, the State Bicycle and Pedestrian Master Plan, and the State Development and Redevelopment Plan. Plans made by neighboring municipalities should also be reviewed for pertinent information.

Once data collection is completed, consideration turns to how to best analyze and display the findings in a meaningful fashion that will inform decision-making. The most useful methods are those that allow the integration of the rich qualitative detail gained through participatory observation with quantitative data for each element of the transportation system. Annotated GIS

maps are often the most useful way to integrate these quantitative and qualitative sources of information. For instance, a corridor map could display traffic volumes, speed data, crash locations, parking turnover rates, crosswalk compliance and adjacent land uses, along with remarks and observations from community members. This would allow for a multifaceted consideration of improvements that would better accommodate-- or change-- key behaviors at each location, in line with community desires for the corridor.

The variety of themes that can be included in community-based mapping are essentially unlimited. As cartographic theorist John O'Looney has observed, maps can incorporate not only the physical attributes of places, but their character and reputation. He notes that in some urban areas, "streets are military boundaries for rival gangs; nondescript landscapes hold important landmarks for neighborhoods. To outsiders, these elements may be undecipherable. Each community has its own 'hot corner,' its youth hangouts, its lovers' lane. Most communities have areas where growth and economic activity occur naturally and other areas where nothing seems to go right. Mapping and understanding the forces underlying these dynamics will be the first step toward remediating community problems."[2]

Interactive participatory mapping, in which community residents add comments to a map or mark their own ideas for improvement, is an ideal technique for mobility-friendly community planning. Participatory GIS maps allow for ongoing synthesis and critique of the various ideas and information generated throughout the planning process. Several communities have also experimented with online interactive systems that allow users to add comments and see what others have said about a particular location of concern to them. Collective maps of community assets are also valuable in identifying treasured places that should be preserved or enhanced, such as favorite views along a scenic corridor.

Citizen groups may also request that planners prepare a map on a topic of special concern to them. Community mobility maps can be prepared for people in each phase of the life cycle: one might show the special needs and typical destinations of senior citizens while
another would illustrate children's mobility patterns and issues. A map of wheelchair-accessible sidewalks and crossings can also be helpful in spotting and correcting deficiencies. Communities have also created accessibility contour maps that show the travel time to various types of destinations, such as public transit stops, health care facilities, or libraries, from different parts of a community in order to identify unmet needs or inequities.

---

[2] *Beyond Maps: GIS and Decision-Making in Local Government*, John O'Looney, ESRI Inc., 2000

2-01 Garden
Style Apt Conv

V ST

4-03 Office 4
Story TOD

7-01
Civic/Community
Uses

W ST

18TH ST

16TH ST

5-05 Ret/Res
3 Story TOD

17TH ST

5-14 Live/Work Units

19TH ST

X ST

5-13 Ret/Office
4 Story TOD

21ST ST

22ND ST

23RD ST

BROADWAY

YALE ST

BURNETT WAY

1-01 SF 6K sqft Lots

5-07 Ret/Res
4 Story TOD

5-11 Ret/Office
2 Story TOD

1-01 Small Conv
Ret or Office

1ST AVE

4-01 Office
2 Story Conv

16TH ST

17TH ST

HARKNESS ST

LARKIN WAY

1-02 SF 6K
sqft Lots with AU

8-01 Parks and Open Space

24TH ST

18TH ST

2ND AVE

SLOAT WAY

CASTRO WAY

2ND AVE

5-05 Ret/Res 3 Story TOD

5-14 Live/Work Units

5-11 Ret/Office 3 Story TOD

Interactive GIS mapping can help communities envision alternatives, as in this transit station area planning exercise.

Supplemental Technical Studies

If the community assessment and visioning process leaves key questions unanswered, supplemental technical studies may be warranted to support informed transportation decision-making and ensure that the Circulation Element adequately addresses critical issues. The decision to perform technical studies will also depend on the complexity of the issues identified as well as the resources available. Planning assistance may be available from the New Jersey Department of Transportation, NJ Transit, the Office of Smart Growth, county and regional agencies, or private foundations. The following are some of the types of supplemental studies that may be considered:

- Transit needs study
- Senior mobility study
- Teen mobility study
- Safe Routes to School planning study
- Bicycle and pedestrian plan
- Greenway or trails plan
- Community safety audit
- Main Street revitalization plan
- Corridor plan
- Market analysis for corridor redevelopment
- Waterfront access plan
- Scenic roads inventory

- Travel demand forecast
- Traffic impact studies of key development proposals
- Traffic circulation and capacity study
- Intersection study
- Parking study
- Truck routing study
- Urban goods movement study
- Wayfinding plan
- Gateway study
- Traffic Calming study
- Transit Village planning study

Completing the Visioning Process

In order to develop concrete recommendations out of the community's initial ideas and technical findings, it is useful to focus attention on several priority issues and/or locations. Community workshops or charrettes (intensive problem-solving sessions) may be helpful in crafting plans for specific neighborhoods, sites or corridors. Visualization techniques can be used to allow community members to envision what a neighborhood, site, or corridor could look like after applying one or more of the Patterns. However, in keeping with the emphasis this form of planning places on the quality of people's experience, it is

important to couple visually based techniques with consideration of the functional effects of change. For this purpose, it is helpful to arrange a field visit to a peer community that has already made the type of change proposed.

Discussions should include consideration of the regulatory tools and funding needed to accomplish local objectives, including any changes that may be needed in the community's Land Use element, local zoning or subdivision regulations. This stage provides an opportunity to consider form-based codes, design guidelines for new development, and street regulating plans, all relatively uncommon but often effective tools for achieving mobility-friendly community forms.

There are many examples of mobility-friendly community transformations that have occurred or are under discussion in places around New Jersey, often as a result of a local visioning process:

- Reclaiming a community's Main Street – or creating an entirely new one -- for local shopping and civic needs;

- Breathing life into an older commercial highway, as in current plans for Route 130 in Burlington County;

- Creating a Transit Village around an existing rail station, as in Rahway;

- Transforming a barren surface parking lot into a vibrant mixed use development, as in a proposal for downtown Trenton;

- Retrofitting suburban streets that are too wide and uncontrolled to provide for pedestrian mobility and safety;

- Reducing speeding, aggressive driving or cut-through traffic in residential areas or commercial centers;

- Fixing problem intersections and safety "hot spots";

- Developing bicycle paths;

- Opening up access to a neglected waterfront;

- Creating safe walking routes for schoolchildren;

- Improving downtown parking;

- Managing truck traffic and creating effective delivery zones;

- Improving access to transit stations and stops, and

- Reclaiming and "humanizing" a former industrial area.

Resources for Assessment and Visioning

Choosing Our Community's Future: A Citizen's Guide to Getting the Most Out of New Development. David Goldberg, Smart Growth America, 2006

Designing New Jersey. New Jersey Office of State Planning, 2000.

Getting to Smart Growth: 100 Policies for Implementation. Smart Growth Network, 2003.

Guidebook on Methods to Estimate Non-Motorized Travel: Overview of Methods.   W. Schwartz et al., FHWA, July 1999.

A Pattern Language, Christopher Alexander, New York: Oxford University Press, 1977

Pedestrian- and Transit-Friendly Design: A Primer for Smart Growth. International City/County Management Association, EPA, and Smart Growth Network, 1998.

Transportation Planning Resource Guide. Wisconsin Department of Transportation, 2001. http://www.dot.wisconsin.gov/localgov/land/resourceguide.htm

Victoria Transport Policy Institute. British Columbia, Canada. www.vtpi.org