# 2. Scope of Work

## 2.1 Understanding the Service

We at Corradino understand that the purpose of a truly multi-modal thoroughfare master plan is to establish physical and cultural environments that support and encourage safe, comfortable and convenient travel by a variety of modes.

We also understand that a broad constituency must be engaged in the planning process including elected and agency officials, neighborhood and business leaders and, most important, the general public. The final plan must give form to their vision and provide a consensus on how to move the plan forward to fruition.

The overarching goal is to protect and enhance the quality of life in the Novi-centered area. The following guiding principles will help achieve that goal:

- Provide an efficient, safe, and connected transportation system that is coordinated with existing and projected needs and takes into consideration future growth;
- Provide a transportation system that is economical and responsive to land use and non-motorized principles; and,
- Promote interconnectivity between development plans and the existing and future roadway networks.

In creating the plan, an emphasis will be placed on improved connectivity to lessen the traffic burden on collector and arterial roadways. Expanding the travel and bicycle systems will also assist in reducing vehicular traffic. Likewise, ensuring transit has an appropriate role, particularly serving the elderly, is essential to building a truly multi-modal system.

Developing such a plan requires transparency during and after the planning process is concluded when implementation begins. This means the community, and its leaders/stakeholders, must be engaged. Communication techniques that are usually employed include:

- Stakeholder interviews;
- Public forums;
- Project Web site;
- Media outreach;
- Social media outreach;
- Project Team meetings; and,
- Planning Commission and City Council meetings.

Long-range planning is driven by a number of factors: local growth and land use changes; federal emphasis on performance-based planning; the Michigan Department of Transportation (MDOT) need to maintain its Trunkline system; the Road Commission of Oakland County (RCOC) need to manage county roads; available funding; and, the planning process of the Southeast Michigan Council of Governments (SEMCOG), which integrates these considerations with the needs of its members, including the City of Novi.

Developing a Thoroughfare Master Plan (TMP) requires tools and a process that may be familiar to planners, especially for any single transportation mode, but the integration of priorities among modes is less clearly established. In this proposal we will explain our approach to integrating tools into an evaluation process that results in a forward-thinking multi-modal plan.

Foundation of Multi-modal Plan

### 2.1.1 Performance-based Planning

At the federal level, *MAP-21: Moving Ahead for Progress in the 21st Century* is the operative comprehensive transportation funding authorization. It supersedes SAFETEA-LU. It emphasizes performance-based planning and requires that regional plans, such as SEMCOG's Regional Transportation Plan (RTP), integrate national and statewide MAP-21 planning goals and livability principles. Novi's TMP is the City's unique input to the RTP, so it is important to understand this planning platform and the way it points to evaluation metrics that can be used to develop a truly multi-modal plan.

Performance-based planning can be applied at each stage of the planning process. For example, during *Modeling and Forecasting,* involving land use and traffic, a variety of performance measures can be generated (Figure 2.1). In using SEMCOG's model to mix and match projects, we will determine the performance on the Novi community of alternative scenarios. An alternative's performance then provides objective information to be used during the *Planning* and *Decision Making* stages. Quantification of decision-making categories of information allows for efficient communication of results to the public and stakeholders. At the *Project Delivery* stage, performance-based planning improves delivery and monitoring of projects.

*Figure 2.1: Performance measures are used at each stage of the process*


Performance considerations include:

Travel Demand

- Travel efficiency;
- System conditions;
- Safety;
- Environmental concerns; and,
- System investment and economics.

An important part of the process will be to hold an initial performance measures workshop with the Project Team to collaboratively define measures relevant to Novi. The intent is to describe the "user experience" on the transportation system, and thus the "user benefits" of doing any given project. These measures will be devised to include transit and non-motorized modes. Figure 2.2 provides some examples of specific quantifiable measures that can be offered for consideration.

***Figure 2.2: Potential Specific Measures by Category and Travel Mode***

| | Travel Demand | Travel Efficiency | Facility Conditions | Safety | Environment | Economic |
|---|---|---|---|---|---|---|
| **Auto** | • Traffic volume<br>• Vehicle miles traveled<br>• Vehicle hours traveled | • Congestion delay by vehicle hours<br>• Peak period speeds<br>• Average speeds<br>• Specific road segments by LOS<br>• Lane miles by LOS | • Pavement conditions<br>• Bridge conditions | • Accident prediction by links<br>• Accident summary for region (PDO, Injury, Fatal, Total) | • Air emissions | • User benefit $<br>• Benefit-cost ratio<br>• NPV of project<br>• GDP impact<br>• Personal income<br>• Jobs |
| **Transit** | • Net change in ridership<br>• Net change in transit share | • Transit accessibility to employment<br>• Transit headways<br>• Transit vehicles over capacity<br>• Households within walking distance | • Stop and station amenities<br>• Park-and-ride conditions | • N/A | • Effects on auto emissions via transit mode shifts | • User benefit $ |
| **Bike and Pedestrian** | • Net change in non-motorized trips<br>• Net change in overall mode share | • Accessibility to amenities via non-motorized modes<br>• Missing links | • Sidewalk and dedicated path pavement conditions<br>• Bike parking | • Number of bike and pedestrian accidents | • Effects on auto emissions via non-motorized mode shifts | • User benefit $ |