CITY OF MENLO PARK

STAFF REPORT

Transportation Master Plan Oversight and Outreach Committee
Meeting Date: **10/30/2017**
Staff Report Number: **17-001-TMP**

Regular Business: **Provide feedback on Performance Measures and Prioritization Criteria**

Recommendation

Staff recommends the Committee provide feedback on the performance metrics and prioritization criteria for the Transportation Master Plan.

Policy Issues

The development of a Transportation Master Plan (TMP) is included in the City Council's adopted 2017 Work Plan (#46) and is one of the highest priority implementation programs in the 2016 General Plan Circulation Element. The Oversight and Outreach Committee (the Committee) will help guide the TMP process to a successful completion. The Committee is a Brown Act body, meaning all meetings of the Committee would be open to the public and noticed at least 24 hours before the meeting.

Background

ConnectMenlo

On Nov. 29, and Dec. 6, 2016, the City Council completed actions to approve the ConnectMenlo General Plan Land Use and Circulation Elements. This was a multiyear, comprehensive process that represents a vision for a live/work/play environment in the former M-2 (Bayfront) Area while maintaining the character and values that the City has embraced. The General Plan serves as the City's comprehensive and long range guide to land use and infrastructure development in the City.
While the adoption of the General Plan was a major accomplishment for the City, the work is not done. The plan is dynamic; the Elements contain a number of goals, policies and programs that implement the City's vision.

Transportation challenges, including multimodal safety, traffic congestion, neighborhood quality of life, and regional coordination are significant concerns to the City of Menlo Park. The Circulation Element includes a number of forthcoming transportation-related programs, including those to encourage multimodal transportation, provide opportunities for active transportation to encourage health and wellness, minimize cut-through traffic on residential streets, and consider changes to the transportation impact metrics the City uses to evaluate development proposals. The TMP and updates to the Transportation Impact Fee (TIF) were identified as the highest priority programs in the Circulation Element.

TMP Purpose

The TMP will bridge the policy framework adopted within the Circulation Element and project-level efforts to modify the transportation network within Menlo Park. Broadly, it provides the ability to identify appropriate

projects to enhance the transportation network, conduct community engagement to ensure such projects meet the communities' goals and values, and prioritize projects based on need for implementation. The TMP, when completed, will provide a detailed vision, set goals and performance metrics for network performance, and outline an implementation strategy for both improvements to be implemented locally and for local contributions toward regional improvements. It will serve as an update to the City's Bicycle and Sidewalk Plans. Following development of the Master Plan, the TIF program update would provide a mechanism to modernize the City's fee program to collect funds toward construction of the improvements identified and prioritized in the Master Plan.

TMP Initiation

On May 23, 2017, the City Council authorized the City Manager to enter into an agreement with W-Trans, after an extensive consultant selection process for the TMP and TIF Program.

On August 29, 2017, the City Council appointed 11 members to the TMP Outreach & Oversight Committee. The core mission for the Committee is as follows:

- Provide advisory input and recommendations to the consultant and staff regarding the outreach process and draft Master Plan materials and submittals
- Guide and keep the project process on track to meet the key milestones
- Reach out to community members to share content and encourage participation at community engagement activities such as workshops/meetings and other planning activities

Analysis

City staff and the W-Trans team initiated work on the project, and one of the first tasks was to collect input from the community on how the City should prioritize transportation improvements. Feedback was collected through various methods, attending community events such as the Downtown Block party and Summer Concert Series at Kelly Park, a project online open house, and three walking workshops held in different parts of the City. Staff and the W-Trans team will provide a summary of the engagement and feedback received in a presentation to the OOC at the meeting on Monday, October 30, 2017.

The City has several transportation-related goals that have been identified through ConnectMenlo and the Climate Action Plan. Table 1 summarizes these goals.

Table 1 Transportation Related Goals

Goal	Plan	Description
Safe Transportation System	Policy CIRC-1.1	Reduce fatalities to zero and non-fatal collisions by 50 percent by 2040
Greenhouse Gas Reduction	Climate Action Plan	Reduce greenhouse gas emissions by 27 percent by 2020 from 2005 level
Complete Streets	Policy CIRC-2.1	Design transportation projects to accommodate all modes and people of all abilities
ealth and Wellness	Policy CIRC-4.1	Encourage the use of safer and lower emission modes such as walking, biking, and transit

The goals and community input were used to develop the proposed performance metrics. W-Trans has

prepared a matrix of performance metrics using criteria from the Victoria Transport Policy Institute (Attachment A). Table 2 summarizes the metrics by mode type.

Table 2 Performance Metrics	
Type (Mode)	**Metric**
Network	Land Paved for Transportation Fatal Collisions Collision Rates Universal Design
Pedestrian	Pedestrian Connectivity Portion of Students walking Non-motorized mode share Transportation Affordability
Bicycle	Bicycle Connectivity Level of Stress Portion of students biking Non-motorized mode share Transportation Affordability
Transit	Transit Accessibility Transportation Affordability
Vehicle	Vehicles Miles Traveled Levels of Service Transportation Affordability

Staff is requesting feedback from the Committee regarding the goals and performance metrics. Staff would like to hear the Committee's feedback on the following:

- Are the right goals identified for the TMP to focus on?
- Should any additional goals be added?
- Do the performance metrics listed reflect the goals identified?
- Are there performance metrics listed that can be eliminated or should be added?

The goals and performance metrics will be used to prioritize near-term and long-term strategies for improving transportation. Staff expects that project priorities will be evaluated in the next phase of TMP development using prioritization criteria developed from the goals and performance metrics listed above. These prioritization criteria can include both quantitative elements and more relative, qualitative elements as summarized in Table 3. Staff is requesting feedback on which criteria the Committee considers most important and how transportation projects should be assessed. Specifically, staff would like to hear the Committee's feedback on the following:

- Are these the right criteria to evaluate and rank projects? Are any missing or should any be deleted?
- Which are the most important to you (e.g., top 3)?
- How should projects be evaluated against such criteria?

Table 3 Prioritization Criteria	
Network connectivity	Location (near schools or key destinations)
Candidate project for grant funds	Congestion relief potential
Travel mode priority	Safety improvement
Ease of implementation	Improving access to healthy food or physical activity opportunities
Neighborhood support and participation	

Staff and the consultant team will facilitate a discussion with the Committee as part of the meeting on Monday, October 30, 2017 to explore feedback on these questions.

Public Notice

Public notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

A. W-Trans memo Performance Metrics and Prioritization Criteria Matrix dated October 25, 2017

Report prepared by:
Kristiann Choy, Senior Transportation Engineer

Report reviewed by:
Nicole H. Nagaya, Assistant Public Works Director

Memorandum

Date: October 25, 2017

Project: MPA022

To: City of Menlo Park
Transportation Master Plan
Oversight and Outreach Committee

From: Mark Spencer
mspencer@w-trans.com

Subject: Performance Metrics and Prioritization Criteria Matrix

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W-Trans has prepared a memorandum and matrix summarizing the proposed performance metrics and prioritization criteria to be used to track the implementation of the improvements outlined in the Transportation Master Plan process.. The performance metrics are divided into three broad categories: Safe Transportation System, Sustainable Transportation, and Complete Streets. These three categories encompass many of the goals and policies outlined in the ConnectMenlo Circulation Element.

The Victoria Transport Policy Institute's research project *Well Measured: Developing Indicators for Sustainable and Livable Transport Planning* contains a summary of best practices for developing transportation performance metrics and the following principles should be applied when selecting transportation performance indicators (Hart 1997; Jeon 2007; Marsden, et al. 2007; Renne 2009; FHWA 2011):

- Comprehensive – Indicators should reflect various economic, social and environmental impacts, and various transport activities (such as both personal and freight transport).
- Quality – Data collection practices should reflect high standards to ensure that information is accurate and consistent.
- Comparable – Data collection should be clearly defined and standardized to facilitate comparisons between various jurisdictions, times and groups. For example, "Number of people with good access to food shopping" should specify 'good access' and 'food shopping.'
- Understandable – Indicators must be understandable to decision-makers and the general public. The more information condensed into an index, the less meaning it has for specific decisions.
- Accessible and transparent – Indicators (and the raw data they are based on) and analysis details should be available to all stakeholders.
- Cost effective – Indicators should be cost effective to collect.
- Net effects – Indicators should differentiate between net (total) impacts and shifts of impacts to different locations and times.
- Functional – Select indicators suitable for establishing usable performance targets.

Table 1 –Performance Metrics and Prioritization Criteria Matrix – Safe Transportation System

Performance Metric	Description	Data Required	Mode
Land Paved for Transportation: Maintain existing city owned impervious area	How much of the city is paved for transportation Has impact on water runoff and aesthetics	• Survey of transportation network	Network
Fatal Collisions: Track number of fatalities related to traffic collisions every year	Policy CIRC-1.2 – Vision Zero	• Collision records • GIS data	Network
Collision Rates: Study intersection collisions rates at key intersections every three years	Policy CIRC-1.2	• Collision records • GIS data	Network
Universal Design: Number of accessible curb ramps, consistent with current ADA standards, at marked crosswalks	Percentage of ADA accessible sidewalks, curb ramps, etc. This metric quantifies the accessibility of the network.	• Sidewalk inventory • Survey of transportation network	Network
Pedestrian Connectivity: **XX-**percent of proposed pedestrian facilities included in the Pedestrian Master Plan constructed per year Number of traffic signals where pedestrian signal phases are on all legs of signalized intersection	Quantifies the completeness of pedestrian infrastructure network	• Sidewalk inventory • Survey of transportation network	Pedestrian and network
Bicycle Connectivity: **XX-**percent of proposed bicycle facilities included the Bicycle Master Plan constructed per year Review Level of Traffic Stress annually	Quantifies the completeness of bicycle infrastructure network	• Bicycle network inventory • Survey of transportation network	Bicycle and network

Portion of Students using Alternative Modes: Calculate school travel mode split	Portion of travel to school and other local destinations by walking and cycling.	• School surveys	Person, bicycle, and pedestrian

Table 2 – Performance Metrics and Prioritization Criteria Matrix – Sustainable Transportation

Performance Metric	Description	Data Required	Mode
VMT per Service Population: Quantify the VMT per service population	Increases in VMT contribute to traffic congestion and air pollution, causing carbon dioxide and particulate matter emissions. Because of population growth and economic development, most regions cannot feasibly reduce absolute VMT. Reducing per service population, VMT can help a region achieve air quality, climate change, and congestion reduction goals without penalizing it for population growth. For regions interested in reducing transportation GHG emissions, an advantage of using a VMT metric is that VMT is more straightforward to analyze, since it does not account for vehicle fleet characteristics and fuel carbon content.	• Travel demand models	Vehicle
Intersection Level of Service: Review intersection level of service for consistency with ConnectMenlo every three years	Traditional performance metric that quantifies vehicle delay at a specific intersection and repots an A-F grade.	• Traffic counts • Roadway geometry	Vehicle
Transportation Affordability: Measure the average annual cost of transportation relative to annual income Measure total hours of congestion affecting a specific neighborhood or city-wide and quantify with an average hourly wage the cost of congestion	Affordability captures the ability of transportation system users to pay for transportation. Whereas measures of transportation cost capture only the dollar amount that transportation system users pay, affordability puts cost in the context of income and other expenditures. A more affordable system is one that consumes a smaller share of users' incomes. Transportation investments and compact development patterns can make transportation more affordable by reducing travel distances and providing less expensive options such as walking, bicycling, and transit. Changes in fares or tolls may have other cost implications for transit riders and motorists. An affordability measure tracks the financial impact of such actions on transportation system users. Because affordability is particularly important for low-income and disadvantaged groups, this measure is often included in equity analyses. It can be calculated and compared across income groups.	• Transit fares • Private vehicle ownership costs • Value of employer benefits	Vehicle, person, pedestrian, bicycle, and transit

Table 3 –Performance Metrics and Prioritization Criteria Matrix – Complete Streets

Performance Metric	Description	Data Required	Mode
Transit Accessibility: Number of households within one mile of Caltrain Station Percent of jobs located within one-half mile of high-quality transit	Transit accessibility reflects the relative convenience of transit as a mode choice. It can be measured in terms of distance to transit stops or travel time on transit. Metrics typically emphasize the availability of transit where people live, where people work, and on routes that connect the two.	• Regional trip origin and destination • Location of Transit Stops	Transit
Non-Motorized Mode Share: Measure the mode share of non-motorized trips (non-motorized trips divided by total trips)	Bicycling, walking, and transit are core elements of a sustainable transportation system. Trips by bicycling, walking, and transit produce fewer emissions and let people work physical activity into their daily routines to improve their health and save money. Drivers who switch to non-motorized modes can reduce their expenditures on fuel and vehicle maintenance while helping to reduce traffic congestion. A safe and attractive environment for pedestrians can also help promote economic development by increasing foot traffic near local businesses and attracting tourists and other consumers.	• Census data • Household travel surveys • Travel demand models	Pedestrian and bicycle
Land Use Diversity: Measure the proportion of residents living in locations within one-half mile of retail or employment opportunities	Conventional zoning often results in segregation of residential and commercial land uses. In contrast, mixed-use development locates land uses with complementary functions close together. Complementary uses may include housing, retail, offices, restaurants, and services—destinations that people travel to on a regular basis. Locating activities closer together can reduce trip lengths, allowing trips to be made by walking and bicycling rather than by driving and increasing opportunities to combine trips.	• Zoning maps • Housing location • Transportation analysis zones	Vehicle, person, pedestrian, bicycle, and transit

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