



MEMORANDUM

DATE: August 16, 2016

TO: Linn County TSP Project Management Team

FROM: Carl D. Springer, P.E., PTOE, DKS Associates
Julie Sosnovske, P.E., DKS Associates

SUBJECT: **Linn County Transportation System Plan | P14180-010**
Task 6.1 Technical Memorandum #8: Transportation Solutions Identification Process DRAFT

This memorandum describes the recommended process for updating the County’s transportation improvement list. We will score candidate projects to demonstrate how well they achieve Linn County’s objectives, and we will assign funding priorities accordingly. The outcome will result in “Aspirational” and “Financially Constrained” lists of projects. The Aspirational list includes all projects that the County would implement if funding was not a constraint. The Financially Constrained list is the highest priority subset of the Aspirational list that fit within the level of anticipated funding.

Financially Constrained Planning Process

The Financially Constrained Transportation System Plan will be developed using the following process:

Step 1 - Identify Expected Funding

The first step is to identify the expected amount of funding available through 2040 to build transportation system improvements. The estimates will be broken out by funding responsibility (County, State, or other) and will be based on historic revenue and expenditure data and an assumption that past trends will continue into the future. State funding estimates will be determined in coordination with ODOT Region 2 staff.

Step 2 - Develop Set of Aspirational Projects

This step involves developing an Aspirational list of projects to address the needs of the future transportation system for all modes, as identified in Technical Memorandum #7. At this point, the list of projects will not be constrained by funding. This list will be formed primarily using the following sources:

- Current project list provided by County staff (2015-2020 Capital Improvement Project Draft¹)
- Projects on Linn County facilities (rural area only) that have been identified in other local and state transportation plans
- New projects proposed by the public (or developed by the project team to address concerns raised by the public) through the online comment map, email correspondence, attendance at Community Workshop #1, initial stakeholder feedback at the start of the TSP update process, or other means
- New projects proposed by the County maintenance group or Technical Advisory Committee (TAC) (or developed by the project team to address concerns raised by these two groups)

The preliminary project list will be developed leading up to and during the second series of community workshops. While it is preferable to identify all potential projects during the early phases of the TSP update process, it is understood that some solutions may not be conceived or suggested until later in the process. Any new project ideas developed following the first series of community workshops will be considered for potential inclusion in the remaining solution identifications process on a case-by-case basis.

Step 3 - Initial Screening and Categorization

During the preparation of the preliminary project list, initial screening will be performed, particularly for previously identified projects. This screening will help the project team determine whether the previously identified projects have been completed or additional studies have been performed that have resulted in refined projects. The projects will be categorized into the following groups:

- **Rural Modernization** projects include improvements to County jurisdictional roadways outside of urban areas to meet cross-section and roadway design standards. The focus will be on arterial and collector streets, and projects are expected to include widening travel lanes and paved shoulders, improving pavement structure, and other similar cross-section and pavement improvements. These could also include bike lanes, sidewalks, and/or wider shoulders consistent with roadway standards.
- **Bicycle and Pedestrian** projects include improvements that are primarily designed to serve bicycle and pedestrian needs. This project category focuses on additional improvements such as multiuse trails, pedestrian refuge islands, pedestrian crossings, additional shoulder width beyond minimum standards, and other similar projects.
- **Spot Improvements** will address a variety of safety and operational improvement needs throughout the County. They will focus on specific locations where the roadway will benefit from turn lanes to improve operational and safety needs, adequate clear zone to reduce fixed object collisions, advanced intersection warning signs, and other similar projects.
- **Corridor Improvements** include multimodal corridors where additional travel lanes or more significant improvements are needed to accommodate increased motor vehicle capacity, a systemic safety need along an entire roadway, and other similar projects.

¹ Prepared by C.R. Knoll, P.E., September 10, 2015.



- **Future Studies** include future planning efforts needed to provide additional details for specialized projects or to help with the selection of a preferred alternative when insufficient information or analysis is available through the TSP update process.

These lists will help facilitate the detailed evaluation process identified in Step 5. As additional projects are identified, additional categories may be considered.

Step 4 - Develop Cost Estimates

Planning level cost estimates will be developed for each Aspirational project and compared to expected funding for projects through 2040 (from Step 1). Each project will be assigned a primary funding responsibility (County, State, or other).

Step 5 - Alternatives Evaluation

Each project from the Aspirational project list will be scored based on the evaluation criteria that was developed in Technical Memorandum #4 (see appendix). In situations where multiple project alternatives are available to address the same or conflicting transportation system needs, the evaluation criteria will be used to identify the project that will best meet the goals of the TSP. The project scoring highest will be retained on the Aspirational project list.

The evaluation criteria focus on compliance with state and local plans and policies, the importance of multi-modal transportation options, engineering design standards, and a desire to maximize positive (and minimize negative) economic, social (livability), and environmental impacts.

Step 6 - Project Prioritization and Funding Plan

Using a combination of evaluation criteria scoring, feedback from project stakeholders, and financial consideration, three tiers of projects will be identified:

- **Financially Constrained Projects** are those projects that can be reasonably expected to be funded and implemented through 2040. These projects are planned to receive the limited County or State revenue sources that are expected to be available through the TSP horizon year.
- **Aspirational Projects** are the desirable projects that would require additional funding sources, such as partnerships or grants. This list is intended to facilitate County efforts to seek additional funding and to be ready for grant opportunities as they become available. Projects on the Aspirational list will be assigned a priority (e.g. high, medium, low) for implementation beyond the funded list of projects (Financially Constrained) based on individual project scores.
- **Development-Related Projects** provide additional capacity and/or connectivity to support development areas. These projects would likely be constructed using development resources.





Appendix:

Evaluation Criteria

Goal I: Mobility - Provide for efficient motor vehicle travel to and through the county.

Measure of Effectiveness	Evaluation Score
Street Connectivity Connection enhances system efficiency.	+4 Improves system efficiency
	+2 Improves efficiency of a localized area, but has no impact on efficiency of the system
	0 No change
	-2 Improves efficiency of a localized area, but may detract from the efficiency of another location
	-4 Negative impact on system efficiency
Alternative Local Routes Improvement reduces reliance on state highways for shorter local trips.	+4 Significantly reduces reliance on state highways for shorter local trips
	+2 Reduces reliance on state highways for shorter local trips
	0 No change
	-2 Increases reliance on state highways for shorter local trips
	-4 Significantly increases reliance on state highways for shorter local trips
Daily Traffic Capacity Optimize daily traffic capacity.	+4 Significantly optimizes daily traffic capacity
	+2 Optimizes daily traffic capacity
	0 No change
	-2 Reduces daily traffic capacity
	-4 Significantly reduces daily traffic capacity

Goal 2: Active Transportation - Increase the convenience and availability of pedestrian and bicycle modes.

Measure of Effectiveness	Evaluation Score
Pedestrian and Bicycle Improvements Adds pedestrian and bicycle improvements that fill in system gaps, improve system connectivity, and are accessible to all users.	+4 Significantly improves pedestrian or bicycle connectivity or accessibility
	+2 Improves pedestrian or bicycle connectivity or accessibility
	0 No change
	-2 Reduces pedestrian or bicycle connectivity or accessibility
	-4 Significantly reduces pedestrian or bicycle connectivity or accessibility
Access to Community Destinations Improve walking and biking connections to community destinations such as schools, parks and social services.	+4 Significantly enhances pedestrian or bicycle access to community destinations
	+2 Enhances pedestrian or bicycle access to community destinations
	0 No change
	-2 Reduces pedestrian or bicycle access to community destinations
	-4 Significantly reduces pedestrian or bicycle access to community destinations
Facility Amenities or Furnishings Improves user experience and comfort to encourage higher levels of walking and biking trips (e.g., provide benches, planter strips, lighting, wayfinding)	+4 Significantly improves facility amenities
	+2 Improves facility amenities
	0 No change
	-2 Negatively impacts facility amenities
	-4 Significantly negative impacts on facility amenities



Goal 3: Transit - Provide transit service and amenities that encourage a higher level of ridership.

Measure of Effectiveness	Evaluation Score
Transit Access Improves access to transit facilities. Promotes transit as a viable alternative to the single occupant vehicle.	+4 Significantly improves access to transit facilities
	+2 Improves access to transit facilities
	0 No change
	-2 Negatively impacts access to transit facilities
	-4 Significantly negative impacts on access to transit facilities
Transit Amenities or Facilities Improves user experience and comfort to encourage higher levels of transit ridership (e.g., provide benches, shelters, lighting, schedules)	+4 Significantly improves amenities or facilities for transit
	+2 Improves amenities or facilities for transit
	0 No change
	-2 Negative impact on amenities or facilities for transit
	-4 Significantly negative impacts on amenities or facilities for transit



Goal 4: Equity - Provide an equitable, balanced and connected multi-modal transportation system.

Measure of Effectiveness	Evaluation Score
Multiple Travel Modes Connection or improvement serves a variety of travel modes.	+4 Serves more than two travel modes
	+2 Serves more than one travel mode
	0 Serves single travel mode
	-2 Serves single travel mode, but has a negative impact on another
	-4 Serves single travel mode, but has negative impact on more than one travel mode
Connected System Improves access to all areas of the county.	+4 Significantly increases access to all areas of the county
	+2 Increases access to all areas of the county
	0 No change
	-2 Decreases access to all areas of the county
Accommodate all Ages Improves accessibility for all ages and supports travel independence in the county.	+4 Connection or improvement benefits residents of all ages
	+2 Connection or improvement benefits some residents, but not all
	0 No change
	-2 Connection or improvement benefits some residents, but has a negative impact on another age group
	-4 Connection or improvement benefits some residents, but has a negative impact on more than one age group



Goal 5: Health and Safety - Enhance the health and safety of residents.

Measure of Effectiveness	Evaluation Score
Safety	+4 Significantly improves public safety
Improves public safety (e.g., visibility of transportation users in constrained areas, street lighting, emergency vehicle access)	+2 Improves public safety
	0 No change
	-2 Has potential for reducing public safety
	-4 Has potential for reducing public safety significantly
	Health
Encourages active living and physical activity.	+2 Encourages active living and physical activity
	0 No change
	-2 Discourages active living and physical activity
	-4 Significantly discourages active living and physical activity
Emergency Routes	+4 Significantly enhances awareness and reliability of Hazardous Materials and Seismic Lifeline Routes
	+2 Enhances awareness and reliability of Hazardous Materials and Seismic Lifeline Routes
	0 No change
	-2 Worsens awareness and reliability of Hazardous Materials and Seismic Lifeline Routes
	-4 Significantly worsens awareness and reliability of Hazardous Materials and Seismic Lifeline Routes
Enhances awareness and reliability of Seismic Lifeline Routes.	



Goal 6: Sustainability - Foster a sustainable transportation system.

Measure of Effectiveness	Evaluation Score
Environment Minimizes impact to the natural environment.	+4 Significantly enhances the natural environment
	+2 Enhances the natural environment
	0 No change
	-2 Negatively impacts the natural environment
	-4 Negatively impacts the natural environment in significant ways
Improved Roadway Efficiency Implements Transportation Demand Management (TDM) and Transportation System Management (TSM) or other strategies to create greater mobility, reduce auto trips, make more efficient use of the roadway system, and minimize air pollution.	+4 Significantly improves roadway efficiency
	+2 Improves roadway efficiency
	0 No change
	-2 Negatively impacts roadway efficiency
	-4 Significantly negative impact on roadway efficiency



Goal 7: Economy - Ensure the transportation system supports a prosperous and competitive economy.

Measure of Effectiveness	Evaluation Score
Freight Improves freight access/connectivity and accommodates deliveries.	+4 Significantly improves freight facilities
	+2 Improves freight facilities
	0 No change
	-2 Negatively impacts freight facilities
	-4 Significantly negative impacts on freight facilities
Employment Enhances access to employment.	+4 Significantly enhances travel comfort and convenience to employment in the county.
	+2 Enhances travel comfort and convenience to employment in the county.
	0 No change
	-2 Negative impact on travel comfort and convenience to employment in the county.
	-4 Significantly negative impacts on travel comfort and convenience to employment in the county.



Goal 8: Coordination - Coordinate with local and state agencies and transportation plans.

Measures of Effectiveness	Evaluation Criteria
No measures of effectiveness for Goal 8, this is required for all solutions.	No evaluation criteria for Goal 8, this is required for all solutions.

