

# OUR MAIN STREET SPRINGFIELD



MAIN STREET SAFETY PROJECT | 20th Street to 72nd Street

## TECHNICAL MEMORANDUM #11:

### SOLUTIONS EVALUATION CRITERIA

DATE: July 22, 2019

TO: Molly Markarian | City of Springfield  
Bill Johnston | ODOT Region 2

FROM: Kayla Fleskes, John Bosket | DKS Associates

SUBJECT: Solutions Evaluation Criteria  
Tech Memo #11: Final

DKS Project 14180-023

As alternative solutions are developed to address the safety problem on Main Street, a set of criteria will be needed to help compare and understand trade-offs, as well as guide the selection of a recommended alternative infrastructure solution. This memorandum describes the proposed solutions evaluation criteria, how they relate to the project goals and objectives, and how they will be used in the planning process.

### Proposed Solutions Evaluation Criteria

The project goals and objectives, described in Tech Memo #10, will guide the development and evaluation of alternative solutions for Main Street. The solutions evaluation criteria are an extension of those goals and objectives and describe more specifically what will be evaluated to determine how well an alternative solution supports the goals and objectives. Using the goals and objectives as a guide, the project team and Technical Advisory Committee developed and refined the proposed solutions evaluation criteria with input from elected and appointed officials. The specific approach for measuring each criterion will be described in greater detail during the analysis of solutions. The proposed solutions evaluation criteria, along with the project goals and objectives, are presented in Table 1.

While some objectives are supported by multiple criteria, this does not imply that those objectives will be more heavily weighted. No weighting has been applied to any of the goals and objectives, other than the acknowledgement that for a solution to advance it must be feasible to implement and must demonstrate the ability to improve safety, since the primary purpose of the Main Street Safety Project is to improve safety. The results of the evaluation will be summarized qualitatively to indicate how well each objective would be supported, with the future No-Build scenario, the analysis for which was documented in Tech Memo #9, used as the baseline (e.g., the alternative solution would significantly improve conditions, moderately improve conditions, or not improve conditions). Therefore, the intent of the evaluation criteria is to inform the discussion about the trade-offs related to each alternative solution with stakeholders, leading to refinement and selection of a recommended solution.





**Table 1: Proposed Solutions Evaluation Criteria**

Goals	Objectives <i>Identify infrastructure solutions that:</i>	Solutions Evaluation Criteria
<b>Safety –</b>  Increase the safety of Main Street for all users	Have been demonstrated to result in reducing fatalities and serious injury crashes so that Main Street is not on the statewide high crash list	<ul style="list-style-type: none"> <li>• Potential to reduce the number of crashes resulting in fatalities and serious injuries</li> <li>• Potential to improve safety for people walking and biking along and across Main Street</li> <li>• Potential to reduce vehicle speeds</li> <li>• Number of All Road Transportation Safety (ARTS) and Safety Priority Index System (SPIS) locations addressed</li> </ul>
	Have been demonstrated to result in reducing the frequency of all crashes so that Main Street is not on the statewide high crash list	<ul style="list-style-type: none"> <li>• Potential to reduce the number of crashes</li> <li>• Number of ARTS and SPIS locations addressed</li> </ul>
<b>Business Community –</b>  Support the viability of existing and future businesses	Provide viable ways for customers and deliveries to patronize/serve businesses along the Main Street corridor	<ul style="list-style-type: none"> <li>• Change in travel time to access Main Street businesses by customers driving, walking, biking and taking transit</li> <li>• Availability of routes to businesses that are appropriate for truck traffic</li> </ul>
	Support the visibility and economic viability of Main Street businesses	<ul style="list-style-type: none"> <li>• Potential to maintain or enhance property values or economic potential of sites along Main Street</li> <li>• Potential impacts on business signing visibility</li> </ul>
	Support the potential for future businesses to locate on Main Street	<ul style="list-style-type: none"> <li>• Potential to maintain or enhance property values or economic potential of sites along Main Street</li> </ul>



Goals	Objectives <i>Identify infrastructure solutions that:</i>	Solutions Evaluation Criteria
<b>Mobility –</b>  Ensure people and goods travel efficiently and reliably through the corridor	Maintain or improve the efficiency and reliability of passenger vehicle operations through the corridor	<ul style="list-style-type: none"> <li>• Average corridor travel time</li> <li>• Travel time reliability</li> <li>• Intersection delay</li> </ul>
	Maintain or improve the efficiency and reliability of transit operations through the corridor	<ul style="list-style-type: none"> <li>• Average corridor travel time</li> <li>• Travel time reliability</li> <li>• Intersection delay</li> </ul>
	Maintain or improve emergency response times for police, fire and life safety operations	<ul style="list-style-type: none"> <li>• Average corridor travel time</li> <li>• Travel time reliability</li> <li>• Intersection delay</li> <li>• Delay caused by traversable and non-traversable obstructions</li> </ul>
	Meet ODOT's freight vehicle mobility standards along Main Street	<ul style="list-style-type: none"> <li>• Potential to meet vehicle-carrying capacity requirements for a Reduction Review Route (east of Bob Straub Pkwy)</li> </ul>
	Meet Main Street's functional classifications in the Springfield Transportation System Plan	<ul style="list-style-type: none"> <li>• Consistency with the functional classification of major arterial east of Bob Straub Pkwy and minor arterial west of Bob Straub Pkwy</li> </ul>
<b>Transportation Choices –</b>  Create a multimodal environment that connects people and destinations	Ensure access to services and destinations along Main Street for all members of the community	<ul style="list-style-type: none"> <li>• Frequency of enhanced pedestrian crossing opportunities of Main Street</li> <li>• Frequency of enhanced bicycle crossing opportunities of Main Street</li> <li>• Continuity of pedestrian and bicycle facilities along Main Street</li> </ul>
	Create safe, comfortable, efficient, and continuous pedestrian and bicycle travel and access along Main Street	<ul style="list-style-type: none"> <li>• Pedestrian level of traffic stress along Main Street</li> <li>• Bicycle level of traffic stress along Main Street</li> <li>• Opportunity to relocate obstructions (e.g., utility poles, sign posts) out of the walkway</li> </ul>
	Support existing transit service and provide flexibility to accommodate Enhanced Corridor transit service in the future	<ul style="list-style-type: none"> <li>• Compatibility with existing and potential future transit service</li> </ul>



Goals	Objectives <i>Identify infrastructure solutions that:</i>	Solutions Evaluation Criteria
<b>Vital Community –</b>  Support the vitality of the community and its vision for Main Street	Enhance the built and natural environment and stimulate implementation of the Main Street Vision Plan to make it a vibrant place for those who live, work, shop and travel through the corridor	<ul style="list-style-type: none"> <li>• Potential for streetscape improvements to be incorporated into the corridor, such as landscaping, stormwater planters, inviting bus stop amenities and other distinctive amenities</li> <li>• Potential to reduce vehicle speeds</li> </ul>
	Connect neighborhood residents to Main Street destinations and services; and transportation options to access the broader region	<ul style="list-style-type: none"> <li>• Alignment of enhanced pedestrian and bicycle crossings with active transportation travel routes to neighborhoods to the north and south</li> <li>• Continuity of pedestrian and bicycle facilities along Main Street</li> <li>• Directness of routes between neighborhoods and Main Street destinations and services</li> </ul>
<b>Feasibility –</b>  Develop a plan with a clear and achievable approach to implementation	Can be implemented starting within five years of Facility Plan acknowledgement and maintained with foreseeable resources	<ul style="list-style-type: none"> <li>• Degree to which recommendations can be implemented</li> <li>• Consistency with Springfield’s TSP and LTD’s Community Investment Plan.</li> <li>• Ability to maintain improvements with reasonably anticipated resources</li> </ul>
	Can be implemented incrementally as funding is secured	<ul style="list-style-type: none"> <li>• Potential for initial phases to be eligible for ODOT transportation safety funding (All Roads Transportation Safety), or other funding sources that may become available</li> </ul>
	Ensure the cost-effective use of resources	<ul style="list-style-type: none"> <li>• Benefit/Cost ratio of safety-focused improvements</li> </ul>