Executive Summary

Purpose

The Springfield Downtown Street Conversion Study explores the feasibility study of converting several downtown streets from one-way to two-way traffic operation. The goal is to further the economic competitiveness and mobility throughout downtown Springfield by recommending a street system that improves multimodal interaction, way finding, walkability, and quality of life, while maintaining acceptable parking and traffic operations.

The study area for the Springfield Downtown Streets Conversion Study is generally described as Main and High Streets from Yellow Springs Street to Spring Street, Fountain Avenue from High Street to Columbia Street and Limestone Street from High Street to North Street.

The purpose of this project is to improve the existing transportation infrastructure in order to support community growth and development as identified by the City of Springfield and others, such as, the Center City Association, the Greater Springfield Chamber of Commerce, and the Community Improvement Corporation of Springfield. This project is needed to support recent redevelopment initiatives, planned investments and the overall economic development goals of Springfield.
Public Involvement

To ensure that the recommended alternative is comprehensive and offers benefits to all types of users, the study process identified public participation from residents, property owners, and the business community, as well as agency coordination, as critical to the success of this study.

In September 2010, at the beginning of the project, the study team developed a Public Involvement Plan outlining ways to disseminate study information and solicit public input (see Appendix B – Public Involvement Plan). The Public Involvement Plan identified steering committee meetings, public meetings, and the TCC website (http://www.clarktcc.com/streetsconversion.htm) as the primary methods for sharing and soliciting information. Over the course of nine months, the study team hosted four steering committee meetings and two public meetings with 2 meetings per day.

The final set of public meetings on February 15, 2011, unlike the first public meeting which generated only 26 questionnaires, the second public meeting generated 104 questionnaires. The questionnaires and associated comments from the second public meeting overwhelmingly supported implementation of Alternative 1. The steering committee thus agreed to the recommendation of Alternative 1 in the final planning report.

Existing & Future Conditions

The existing conditions were assessed as part of the needs analysis. The needs analysis is an essential component of the purpose and need statement, because all developed alternatives must meet the need of a project. The existing conditions analysis helped identify needs by assessing High Street, Main Street, Fountain Avenue and Limestone Street in the following areas: traffic operations, safety, access, pedestrian walkability, multimodal components, environmental factors, and red flags.

The City of Springfield, as well as, other developers and partners have been working on future development opportunities at various locations throughout downtown. The Center City Association has also been working to identify development opportunities.

These recent and proposed projects/investments in the downtown will establish a better economic environment as well as generate additional traffic in the downtown. Travel demand modeling and capacity analysis was conducted for the year 2030 in order to assess the operational needs of the street network, assuming some of the above referenced projects happen.
Alternatives

In November 2010, after conducting research and reviewing the existing and future conditions with the public at the October 5, 2010 public meeting and analyzing the results of the initial public survey and comment period, the study team began developing conceptual alternatives that would meet the purpose and need.

Alternative 1 includes improving and converting all of the streets studied, which includes Main Street, High Street, Fountain Avenue, and Limestone Street, to two-way traffic. Under this alternative the east-west streets of Main Street and High Street would be converted to two-way streets between Race Street and Spring Street and the north-south streets of Fountain Avenue and Limestone Street would be converted to two-way streets between North Street and High Street.

Alternative 2 includes converting High Street and Main Street to 2-way traffic flow from Yellow Springs Street to Spring Street.

Alternative 3 includes converting Fountain Avenue to 2-way traffic flow from High Street to Columbia Street and converting Limestone Street to 2-way traffic flow from High Street to North Street where the current 2-way travel begins/ends.

Other improvements would be pedestrian and multimodal oriented such as new sidewalks and curb ramps, street trees and lighting, benches and trash receptacles, and pavement markings for identifying bike routes or reminders to share the road.

No specific bike lanes or routing was developed as part of this study; however, the steering committee noted that the issue should be explored further in future engineering phases of study. For now, Sharrow pavement markings are included as part of the alternative to remind drivers to be alert to other modes of transportation.

Alternative analysis was completed in order to assist the steering committee and public in determining the trade-offs and costs of each alternative.

The No Build or do nothing alternative was included in the analysis. The cost of doing nothing is zero; however, the trade-off is that no changes are made to the current condition.

The analysis was both qualitative and quantitative. The qualitative analysis was based on the goals of the study and feedback from both the steering committee and the public as to which measures were the most important to them. The quantitative analysis was based on traffic analysis results and cost estimates prepared for each alternative.

All three conceptual alternatives were modeled to assess the feasibility of converting the streets from one-way to two-way traffic operations. Each alternative was modeled using the 2030 projected...
volumes in order to compare the results to the 2030 No Build condition.

For each alternative, the traffic modeling showed that traffic redistributed itself to minimize delay in the system. The intersection level analysis for each alternative still showed that the system would operate efficiently with only slightly increased delay at certain intersections. For all three alternatives, the intersection with the highest percentage of capacity utilized in the peak hour is still shown to operate less than 100% (full capacity), resulting in acceptable traffic operations throughout the modeled area.

The study team developed planning level cost estimates for each of the conceptual alternatives. In order to better understand the cost numbers for each alternative, the costs were broken down in a menu style table so that the steering committee and the public could see which components contributed the most or least to the overall cost of each alternative, see Table i.i.

A matrix was developed for comparing the alternatives, Table 2. The matrix represents both qualitative and quantitative categories for each of the alternatives considered. The No Build alternative was not scored as it is the existing condition and the baseline for which the alternatives are measured against. Since the alternatives build on each other, Alternative 1, which includes all facets of Alternatives 2 & 3, scores the best in most categories.

Table i.i: Construction Cost Estimates

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Without Pavement M/F</th>
<th>With Pavement M/F</th>
<th>Streetscaping Only</th>
<th>Total Project Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative 1</td>
<td>$2.5 M</td>
<td>$3.2 M</td>
<td>$5.9 M</td>
<td>$9.1 M</td>
</tr>
<tr>
<td>High Street, Main Street, Fountain Avenue, Limestone Street Conversion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternative 2</td>
<td>$1.85 M</td>
<td>$2.4 M</td>
<td>$4.9 M</td>
<td>$7.3 M</td>
</tr>
<tr>
<td>High Street and Main Street Conversion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternative 3</td>
<td>$0.667 M</td>
<td>$0.9 M</td>
<td>$0.96 M</td>
<td>$1.66 M</td>
</tr>
<tr>
<td>Fountain Avenue and Limestone Street Conversion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

M/F = Pavement mill & fill overlay of 3” curb replacement is included in the streetscaping cost
Executive Summary

Conclusions

Based on the research and analysis conducted as part of this study two conclusions (questions answered) were made regarding the conversion of streets in the project study area.

Is converting the studied streets feasible from a traffic operations standpoint?

Yes. The traffic analysis performed for the downtown, including the conversion of the studied streets to two-way travel, resulted in acceptable operations throughout the downtown network through the year 2030. The traffic analysis included intersections outside the study area that would receive rerouted traffic as a result of the network rebalancing itself due to drivers adjusting their travel patterns to take advantage of the new traffic flow.
Will the conversion of the studied streets benefit the economy of downtown?

Yes. All of the research presented in Section 6.0 and referenced in Appendix F concludes that street conversions are successful in benefiting the economy of areas adjacent to the conversions. However, conversions alone are not the sole reason for rejuvenating the economy but are a contributing factor as part of an overarching strategy.

Recommended Alternative

During the final steering committee meeting on April 4, 2011, the committee reviewed all of the alternatives and the public comments received to date. After discussing the merits of each alternative, the potential for phasing, the analysis matrix and probable costs associated with each alternative, the committee agreed to recommend Alternative 1 for further development. Alternative 1 was also the alternative most widely supported by the public (see Section 2.0 and Appendix B).

Alternative 1 includes converting all 4 studied streets to two-way traffic flow along with implementing streetscape enhancements and multimodal improvements, such as the potential for additional bus stops and Sharrows that increase awareness of bicycle traffic by emphasizing sharing vehicle lanes with bicyclist.

The steering committee agreed not to phase the implementation of the alternative because of challenges associated with access and traffic signal equipment installation and operations.

The next step for the recommended alternative is to identify a potential funding source and position the alternative for continuation into and through the ODOT PDP. The next steps of the ODOT PDP involve collecting more data and beginning detailed engineering and environmental studies for the specific components of the recommended alternative.