



TECHNICAL MEMORANDUM

From: URS Consultant Team

To: CATA Project Staff

Date: May 27, 2010

Topic: Update on Transit Alignment and Station Locations as part of
the Detailed Definition of Corridor Alternatives

1.0 OVERVIEW

This memorandum provides an update on the detailed development of alternatives for consideration and evaluation for the Michigan/Grand River Corridor. On February 24, after the completion of the Fatal Flaw evaluation of corridor options, the Steering Committee recommended that the following transit options, generally aligned in the center of the right-of-way, proceed for further development as Detailed Alternatives.

- Bus Rapid Transit (BRT)
- Light Rail Transit (LRT)
- Modern Streetcar

An important part of developing Detailed Alternatives is to identify the location of potential transit stations. This process began on Tuesday, March 2, 2010 with Steering and Technical Committee members participating in a joint Station Planning Workshop. The purpose of the workshop was to consider design issues and parameters that affect location decisions for potential transit stations for each of the transit modes under consideration. This effort was followed by a series of four public meetings to obtain additional input from corridor stakeholders including business, property owners, and developers. After considering the input from each of these sessions, the Steering Committee approved a set of potential stations along the main portion (or mainline) of the corridor at the April



27, 2010 meeting. At its meeting on May 26, the Steering Committee recommended the alignments and station locations in downtown Lansing and the Meridian area, also known as the ends-of-line.

2.0 STATION LOCATION CONSIDERATIONS

Technical and Steering Committee members and community stakeholders considered how a new transit system would fit within the context of the existing corridor, and the role that stations would play in providing access and mobility along the corridor at the recent planning workshop and public meetings.

2.1 Three Key Ingredients to Transit Station Areas

Because transit stations represent a significant physical investment, there are three key issues to consider when planning transit stations: 1) Corridor Fit, or how the transit station will be integrated with community features, existing land use, available right-of-way, and utilities; 2) Station Function, or how the location will relate to demand for ridership, the accessibility of the station, and the ability to transfer from one mode to another; and 3) Development Potential, or the potential of each station to become a focus of additional investment in housing and commercial activity.

2.2 Multiple Layers to Consider for Station Locations

Participants at the workshop and public meetings also considered multiple “layers” of considerations related to the location of stations. They included the following, which were represented on maps:

- Major Activity Nodes,
- Higher-Density Residential Areas,
- Major Employment Centers,
- Transit Dependent Populations,
- Transit Centers,
- Feeder Bus Lines,
- Park-and-Ride Facilities,
- Development Opportunity Areas,
- Signalized Intersections, and
- Station Spacing (access vs. speed).



As part of developing an understanding of how potential station locations would serve different parts of the corridor, the Michigan/Grand River Corridor was broken into a series of ten “districts,” including:

- Downtown Lansing/Stadium,
- Health Services,
- Clemens/Foster,
- Midtown,
- MSU West,
- Downtown East Lansing District,
- MSU West District,
- Downtown East Lansing District,
- MSU East District,
- Hagadorn, and
- Northwind/Park Lake.

2.3 Transit Station Access

Another important aspect of station planning is to consider how patrons will access the station. This includes such factors as the quality of the sidewalk and path system, directness of routes, and streetscape/lighting enhancements to encourage walking.

2.4 End-of-Line Considerations

The Technical and Steering Committees also considered how corridor alternatives would function and serve each end of the corridor in Downtown Lansing and the Meridian area. In Downtown Lansing, it was critical to serve the central business district centered on Michigan Avenue as well as the Capitol complex, Lansing Community College, and the CATA Transportation Center. On the other hand, members believed it was also important to avoid negative impacts, including those on Washington Square (pedestrian facilities, on-street parking, streetscaping and landscaping) and on roadways parallel to Michigan Avenue that cross the Grand River (Shiawassee and Kalamazoo Streets).

In Meridian Township, it was important to serve key destinations including Meridian Mall, Meijer, and businesses east of Marsh Road. It was assumed that this end-of-line would incorporate a transit center for transfers to other bus routes, enhanced pedestrian facilities, and a park-and-ride facility.



This would require approximately four acres for a park-and-ride facility and transportation center that would ideally have access and be visible from the intersection of Grand River and Marsh Road.

3.0 STATION PLANNING WORKSHOP RESULTS

At the March 2, 2010 Station Planning Workshop, Technical and Steering Committee members broke into three groups to identify potential station locations to serve the ten districts in the corridor. Workshop participants identified an average of 30 stations for Modern Streetcar, 20 stations for BRT, and 14 stations for LRT. These results were fairly consistent with access spacing guidelines for each of those modes. The three groups consistently choose the same location for many stations. These included important north/south streets and destinations such as Capitol Avenue, the Hospital Area, Foster Avenue, Harrison Road, Bogue Street, Hagadorn Road, and Park Lake Road. There was less consistency in where to locate other stations, though in many cases two groups agreed on the same location.

The alignments of transit in Downtown Lansing and in the Meridian District were also discussed. The primary alignment would be in the center of Michigan and Grand River Avenues, however, there are a number of possibilities for how stations would serve each end of the corridor. Each group presented a variety of ideas, including alternatives for one-way loops in Downtown Lansing and different options for accessing shopping destinations in the Meridian District.

In addition to identifying station locations, participants considered the physical requirements of each of the mode alternatives and the impacts on the public right-of-way. To assist with this discussion, scale diagrams of the transit guideway and station elements were made available to place over aerial photography. Participants learned about station elements and options for platform location.

4.0 BUSINESS AND DEVELOPER MEETINGS

A series of four meetings were conducted to obtain additional input on station planning from the business and development community along the Michigan/Grand River Corridor. These meetings were held on the following dates:

- March 23, 2010 - Foster Center and Meridian Township Center
- April 6, 2010 - Foster Center, and
- April 7, 2010 - Hannah Community Center



A total of 46 participants attended the four meetings. This was the second time the business and development community was engaged to discuss corridor planning.

A draft set of station locations for each of the transit modes was presented. These locations were based on input from the Station Planning Workshop, as well as other considerations such as station spacing and an understanding of constraints and opportunities on the ground. Other information presented included characteristics of the three transit modes under consideration, guidelines for station planning, and information about population and employment densities along the corridor.

Participants provided input regarding the transit modes and the pros and cons of various station locations. As a result of this input and further consideration, the Technical Committee recommended the following changes to the initial set of station locations:

- Combine Abbott Road and Division Street LRT stations into one station at Mac Avenue.
- Move Park Lake Road LRT station to Northwind Drive.
- Add LRT station at Okemos Road, dependent upon the alignment for Meridian end-of-line conditions.

5.0 COMMUNITY CONSULTATIONS

From late April through May 2010, the project team met with a number of stakeholders throughout the corridor. Table 1 includes a list of participants to date. Topics of discussion have included the following:

- End-of-Line Concepts
- Conceptual Engineering
 - Basis of Design
 - Traffic and Parking Issues/Impacts
 - Location of transit vehicle storage and maintenance facility
- Station Area Planning
- Economic Development/Transit-Oriented Development (TOD)
- Service Planning
- Ridership



Table 1: Community Consultations to Date

Consultation	Date(s) of Consultation
CATA	May 10, 2010
City of East Lansing	May 19, 2010
City of Lansing	April 26, 2010
Lansing Chamber of Commerce	May 10, 2010
Lansing Township	May 12, 2010
Meridian Township	April 27 and May 11, 2010
Michigan Department of Transportation	May 12, 2010
Michigan State University	May 11 and May 20, 2010
Tri-County Regional Planning Commission	May 19, 2010

6.0 STATION LOCATION DECISIONS

On April 27, 2010, the Steering Committee discussed the result of the business/developer meetings and approved the list of mainline station locations. On May 26, 2010, the Steering Committee, following input from individual stakeholder consultations and the Technical Committee as a whole, approved alignments and potential station locations in downtown Lansing and the Meridian area. These station locations and alignments are shown on figures titled “Synthesis of Potential Station Locations”, dated May 27, 2010.