To help prevent “Zoombombing,” (when an unauthorized person or stranger joins a Zoom event and says offensive comments or shows offensive images), the video, speaking, and screen sharing functions are available to presenters, but disabled for participants.

- You can communicate through the Q&A feature.
- You can leave and rejoin the meeting at any time (unless the meeting is at capacity or you are removed for inappropriate behavior).
- Multiple opportunities for questions will be provided throughout the presentation.
- Presentation and additional materials are available at [www.a2gov.org/lowertown](http://www.a2gov.org/lowertown)
Technology Overview – Ask a question/share a comment

We will be using the Q&A feature for those using a computer and the Raise Hand feature for those who are on the phone.

**Q&A:**
- Please use the Q&A feature located at the bottom of the screen to ask a question/comment.
- Type your question/comment.
- Click Send.

**Phone**
- **Raise Hand:**
  - Select *9 to raise your hand
  - You will be identified by the last 3 digits of your phone number
Zoom Meeting Norms

• Commit to learning and avoid speculation – we encourage you to ask questions through the chat feature so we can explore the issue together.

• When speaking over the phone, please move to a quiet area and silence any background sounds. We want to be sure that we hear what you are saying.

• Please remember the importance of rights and the dignity of others. With that, we ask that you:
  • Critique ideas, not people.
  • Are thoughtful about your language so this can be a comfortable and respectful forum for all participants - inappropriate written and/or verbal comment or language, including personal attacks and accusations, will result in the attendee being removed from the meeting.
Public Engagement Outreach Survey

Thank you for participating with the City of Ann Arbor. The city is trying to gain a better understanding of who we are reaching to find ways we can continuously improve public engagement efforts and support inclusivity. To help us gain this understanding, please complete this brief, anonymous survey. This survey is completely voluntary; you are not required to fill it out.

To fill out the survey, please visit: https://bit.ly/2X7LDxW
Follow-up Expectations

• Meeting summaries will be posted by Monday, August 10th on the project website.
• Your feedback will be considered in addition to technical and cost considerations for the recommendations of this study.
YOUR PROJECT TEAM

Steven Loveland, Project Manager
Lauren Hood, Facilitator
Stephen Dearing, QC Reviewer
Luke Liu, City Project Manager
Study Area

City of Ann Arbor – Lower Town Area Mobility Study
Project Purpose – Planning Study

• Understand how growth impacts the movement of people
• Seek ways to support the ease and safety of all travelers, including:
  • Pedestrians
  • Bicyclists
  • Transit users
  • Personal and commercial vehicles
• Obtain community input

Analysis of operations, safety, anticipated growth and congestion will shape the recommendations of the planning study.
Project Process

1. **Project Kick Off**
   - Public Engagement Opportunity

2. **Conditions Analysis**
   - Understanding the existing transportation conditions in the area

3. **Project Vision and Goals**
   - Developing the metrics needed to evaluate each solution based on impact

4. **Solution Development**
   - Evaluating and refining potential solutions to address mobility deficiencies

5. **Final Recommendations**
   - Selecting and reporting the short-term and long-term recommendations
## Project Schedule

<table>
<thead>
<tr>
<th>Task</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S</td>
<td>O</td>
<td>N</td>
</tr>
<tr>
<td>Task 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 13</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Efforts to Date

- Public Engagement Of Stakeholder Groups
- Policy Document Reviews
- Data Collection
- Crash Analysis
- Road Safety Audit (RSA)
- Analysis Software Selection Process
- Existing Conditions
  - Field Inventory for Pedestrian and Bicyclist’s Facilities
  - Modeling Existing Roadway Capacity
Public Engagement of Stakeholders

In-Person Interviews and On-Line Engagement of:

- Ann Arbor City Council
- Ann Arbor Public Schools
- Ann Arbor Area Transit Authority (The Ride)
- University of Michigan
- Michigan Department of Transportation
- Washtenaw Area Transportation Study (WATS)
- Neighborhood Groups
- People With Disabilities Advocates
- Walking and Biking Advocates
Public Engagement of Stakeholders Interview Results - Concerns

**Bicycle & Pedestrian Connectivity**
- Gaps in Facilities
- Fewer walkable businesses

**New Development**
- Growing Population
- Inadequate Parking
- Lack of Additional Retail

**Mobility Issues**
- Traffic Volumes & Speeds
- Safety

**Commuting Issues**
- Peak Hour Congestion
- Limited Huron River crossings
- Large Commuter Population from outside Ann Arbor

**Public Transit**
- Inadequate Frequency

**School Safety @ A² STEAM**
- No dedicated parent loading zone
Public Engagement of Stakeholders
Interview Results - Opportunities

**Public Transit**
- More frequency
- Upgraded amenities

**Better Connections**
- Enhanced walks to Hospital
- Fill in gaps for bikes and peds
- Improve access for Border to Border Trail

**Transit-Orientated Mixed-Use Development**
- More retail opportunities
Documents Reviewed

Understanding The Context of the Lower Town Area

- City Master Plan – Land Use Element 2009
- City Master Plan – Transportation Plan Update 2009
- City Master Plan – Non-motorized Transportation Plan 2013 Update
- City Master Plan – Sustainability Framework 2013
- City Parks and Recreation Open Space (PROS) Plan 2016-2020
- City Capital Improvements Plan FY 2020-2025
- North Main Huron River Corridor Vision 2013
- Northeast Area Transportation Plan 2006
- The Treeline – Allen Creek Urban Trail Master Plan 2017
- Connector Feasibility and Alternatives Analysis Studies
- Fuller East Medical Intersection Improvement Analyses
- City Council Resolutions Regarding Non-motorized Improvements
- University of Michigan Medical Center Campus Master Plan (2005)
- University of Michigan North Campus Master Plan (2009)
- Ann Arbor Area Transportation Authority (AAATA) Transit Improvement Plan (2014)
- Amtrak Ann Arbor Station EA, P&N, Appendixes et al. (2014)
Parallel Projects

NEIGHBORHOOD SLOW STREETS

HEALTHY STREETS

Questions, comments or concerns:
Cooper, Eli, A.I.C.P.
Transportation Program Manager
ecooper@a2gov.org
734.794.6430 x43710
Data Collection

- Summary of Stakeholder Interviews
- Summary of Planning Documents
- Google Earth and Maps
- Field Observations
- Crash History
- Traffic Data
Crash Analysis

Crash summary for study area

<table>
<thead>
<tr>
<th>Targeted Crash Patterns</th>
<th>Sideswipe</th>
<th>Head-on</th>
<th>Head-on Left-turn</th>
<th>Angle</th>
<th>Rear-end</th>
<th>Single Vehicle</th>
<th>Ped / Bike</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Crashes</td>
<td>83</td>
<td>9</td>
<td>13</td>
<td>93</td>
<td>189</td>
<td>71</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>17.3%</td>
<td>1.9%</td>
<td>2.7%</td>
<td>19.4%</td>
<td>39.5%</td>
<td>14.8%</td>
<td>2.9%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Fatal</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>A Injury</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>14.3%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>57.1%</td>
<td>28.6%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Sample of crash distribution for one of the corridors in the study area

City of Ann Arbor – Lower Town Area Mobility Study
Traffic Data

24-Hour Volume Data:
Broadway St at Maiden Ln

Turning Movement Count Data:
Pontiac Trail at Barton St – AM Peak

Origin / Destination Data:
Pontiac Trail at Dhu Varren Rd to Moore St at Traver St
Road Safety Audit

Long-Term Planning Study...

...with some Near-Term improvements!
Conducted Field Visits

- Walked it
- Drove it
- Made day and night visits
- School review
- Lots and lots of pictures!
POSITIVES

- Bicycle infrastructure
- Sidewalk condition
- Leading Pedestrian Interval at Barton/Pontiac Trail
- ADA on-street parking at Northside Grill
- Bus stops with pad/bus pull-off
- Lighting
- School features
POSITIVES – Bicycle Infrastructure
POSITIVES - Sidewalk Condition
POSITIVES – ADA on-street parking at Northside Grill
POSITIVES – Bus stops with pad/bus pull-off
POSITIVES – Lighting
**POSITIVES** – Northside STEAM families walking to school
Crash Potential #1
Pedestrian Infrastructure – Fence and Rails

We found locations with gaps in fences and railings.

Suggested Mitigations for Crash Potential #1
- Fill in railing gap
- Replace fencing as needed
Crash Potential #1
Pedestrian Infrastructure – Pathway Sight Distance

Hidden access to boardwalk along Barton Drive.

Suggested Mitigations for Crash Potential #1
- Clear brush
- Provide warning
Crash Potential #1
Pedestrian Infrastructure – Cascades Access

Pedestrians must cross Broadway to get to the Cascades when parking along Wall Street.

Suggested Mitigations for Crash Potential #1
- Provide shortened pedestrian wait times
Crash Potential #2
Speed Management – Broadway Bridge

High speeds coming down off either end of Broadway Bridge.

Suggested Mitigations for Crash Potential #2
  o Provide electronic speed warning systems on each end
Crash Potential #3
Traffic Congestion – Broadway EB (PM)

Traffic heading EB backs up from Maiden Lane onto Broadway Bridge.

Suggested Mitigations for Crash Potential #3
- Review and adjust signal timing
- Reduce pedestrian wait time on weekends
Crash Potential #4
Bike Infrastructure – Transitions

Transition from bike lane to path over bridges
- Broadway and Beakes/Division

Bike lanes ending
- Barton Dr at Pontiac Trail
- NB Division approaching Broadway
Suggested mitigations for Crash Potential #4

- Provide a ramp for bikes between path and bike lane
- Extend bike lane with dotted line (S. 7th Street) or use sharrow through intersection
- Signs – Share The Road/Bike Lane Ends
Crash Potential #5
Traffic Control Devices – Signs

- Sign Location
- Sign Maintenance

Suggested mitigations for Crash Potential #5
  - Sign inventory and upgrade as needed
Crash Potential #5
Traffic Control Devices – Pavement Markings

- Inconsistencies in treatments.
- Old markings not fully removed showing mixed message.

Suggested Mitigations for Crash Potential #5
- Survey to identify markings to be corrected or replaced
Crash Potential #5
Traffic Control Devices – Signals

Location of the crosswalk at Catherine and Division makes it difficult to see pedestrian

Suggested Mitigations for Crash Potential #5
  o LPI has been implemented through the city

Leading Pedestrian Interval (LPI)

- Activate ped signal 3-7 seconds prior to green light
Other Items Considered

Parking
  - Bus Stop on Broadway

Suggested mitigations
  - Remove the parking in this area
Other Items Considered

Lighting
- Fuller/Maiden Lane intersection (*lights set back from crosswalks*)
- Pontiac Street (*Moore to Swifi is dark*)
Selection of Analysis Tools

**Goals:**
- Identify the tools that allow Ann Arbor to understand the pressures, causes and challenges to mobility in the Lower Town Area.

**Objectives:**
- Evaluate and select modeling software that analyses multi-modal mobility for pedestrian, bicycle, transit, and vehicular traffic. The project team worked together with MDOT, WATS, and SEMCOG to determine the tools to use for the planning study.
Existing Conditions

- Pedestrian and Bike Inventory
- Existing Condition Traffic Models
Existing Conditions

• Origin and Destination Conclusions
Moving Forward, Next Steps

- Complete Existing Conditions analysis
- Perform Deficiency analysis of existing conditions
- Use the Travel Demand Model to forecast future travel
- **Vision, Goals and Alternatives workshop and Public Meeting #2**
- Perform an analysis of alternatives considered
- Report out recommendations to City and its residents
Have a question? Want to share a comment?

We will be using the Q&A feature for those using a computer and the Raise Hand feature for those who are on the phone.

Q&A:
- Please use the Q&A feature located at the bottom of the screen to ask a question/comment.
- Type your question/comment.
- Click Send.

Phone

Raise Hand:
- Select *9 to raise your hand
- You will be identified by the last 3 digits of your phone number
Public Engagement Outreach Survey

Thank you for participating with the City of Ann Arbor. The city is trying to gain a better understanding of who we are reaching to find ways we can continuously improve public engagement efforts and support inclusivity. To help us gain this understanding, please complete this brief, anonymous survey. This survey is completely voluntary; you are not required to fill it out.

To fill out the survey, please visit: https://bit.ly/2X7LDxW
Thank you!

Phone: (734) 794-6410 ext. 43637
Email: yliu@a2gov.org
Project Website: www.a2gov.org/lowertown