Downtown Circulation Study Subcommittee

MEETING #1
MAY 12, 2022

AGENDA

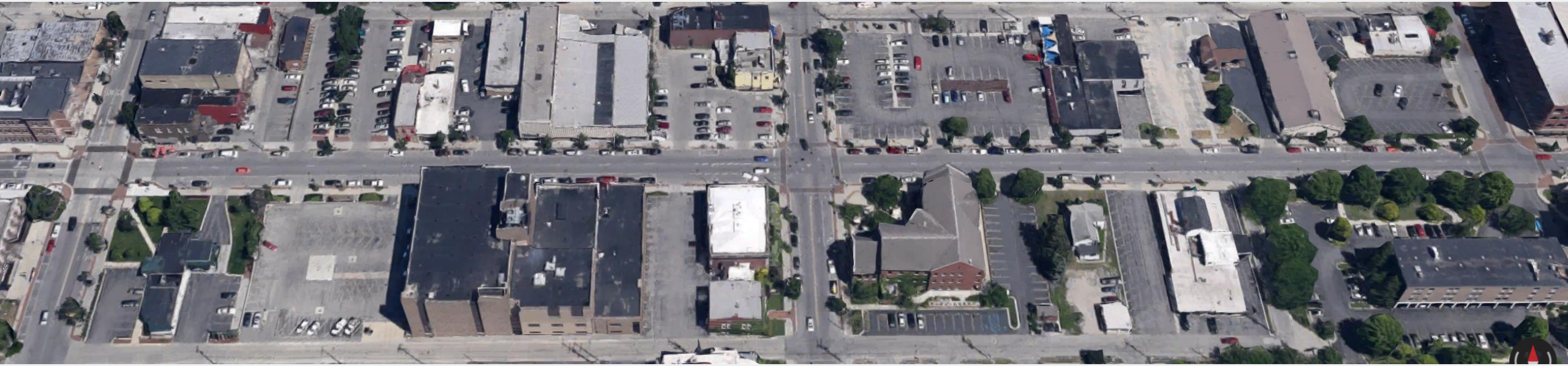
- Welcome + Introductions
- Current Master Plan themes + goals
- Existing State Street context + aspirations
- Greater downtown context + State Street's function
- Review Downtown Circulation Study
- Case Studies
- The "Why" and Goals for performing pilot

WELCOME + INTRODUCTIONS

WELCOME + INTRODUCTIONS

Purpose of the meeting: Define the “why” for converting State Street and pilot goals

Name, role + what are the characteristics of your favorite street?



MASTER PLAN THEMES + GOALS

2009 MASTER PLAN (AMENDED 2017)

TC-5 NEIGHBORHOOD

The TC-5 Downtown Neighborhood is the most formally and intensely developed of the two types of commercial neighborhoods. The focus is on high intensity, regional, commercial activity. The overall level of intensity generated within the confines of each district in this class of neighborhood tends to be the highest of commercial uses.

2009 MASTER PLAN (AMENDED 2017)

Standards established for governing intensity typical of TC-5 neighborhoods would include measures enforcing:

Hours

Day and night activities. Appropriate for all hours of business, especially when accommodating or supporting adjacent land uses.

Access

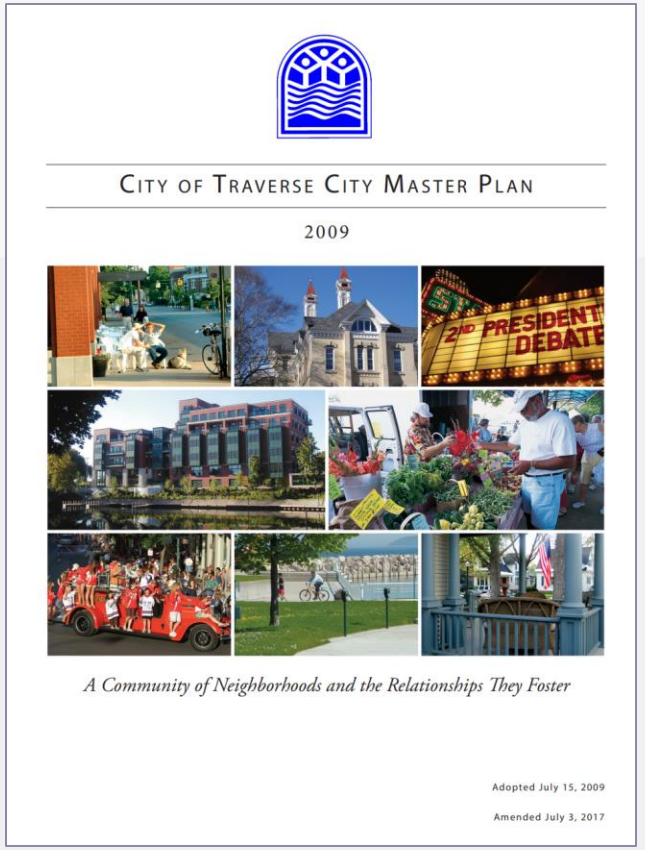
Motorized vehicle restrictions in terms of traffic speed, parking costs and access. Pedestrian focused, centralized parking facilities. High level public transit service.

Mass

Most dense. Greatest building mass within the city with appropriate balance and scale. Buildings typically placed close to street or civic spaces to provide a sense of enclosure to the public realm.

Emissions

High emission levels carefully managed with design and architectural solutions utilized to minimize effect on adjacent neighborhoods.



Transportation choices are important to our vitality and environmental health. Access to well established sidewalk network and trail system. High level of transit services. Access to high density parking strategically located within the neighborhood.

TRANSPORTATION ELEMENT

Goals

1. Encourage compact development patterns, which will curtail vehicle traffic and shorten trips.
2. Make businesses, services, and amenities more accessible through safe, efficient, and environmentally sensitive transportation.
3. Provide linkages between regional and local transportation options by coordinating related capital investments with regional and local providers.
4. Require all Campus Neighborhood Master Plans and the Downtown Development Authority to develop and implement transportation management plans that encourage transportation choices, such as transit, walking, and carpooling.

TRANSPORTATION ELEMENT

STREET FORM AND FUNCTION

- Provide well-planned connections within and throughout the transportation network improving the efficient distribution of travel throughout the network and promoting reduced motorized vehicular trips and lengths. Identify a framework of major streets providing connectivity throughout the City and region with a focus on the access to goods, services, and people. Routinely promote the use of alternatives to the single occupancy vehicle in both trip planning and cost related comparisons to the general public.

    - Objectives:
        - Use design elements to increase mobility and decrease speed (i.e. Front Street downtown)
        - Fewer emissions (fumes, noise, road pollution, etc.)
        - Fewer single-occupancy motor vehicle miles traveled
        - Increased accessibility and use of mass transit, carpools, and non-motorized modes of transportation
        - Achieve appropriate operating characteristics (i.e. traffic volume, speed, types of vehicles) for all streets

TRANSPORTATION ELEMENT

CONNECTIVITY AND VEHICLE HIERARCHY

- All components of the City's transportation system and its inter-connectivity will be designed and maintained to provide safe, convenient, inviting and efficient movement of people and goods in a manner that is appropriate to the context of the community and neighborhood through which it passes. The City shall consider all legal users of the public rights-of-way in its designs. When planning and designing new or reconstructed streets the City will give consideration to the following: (1) public safety, (2) pedestrians, (3) public transit users, (4) bicyclists, (5) commercial vehicles, (6) car-pooling vehicles, and (7) single occupancy vehicles.

TRAVERSE CITY
STREET DESIGN MANUAL

2018

RELEVANT KEY RECOMMENDATIONS

1. CONNECT NEIGHBORHOODS

Ensuring that neighborhoods are connected to schools, activity centers, recreational facilities, and other destinations via all modes of transportation helps to establish safer, more accessible, and more livable communities. Providing opportunities for people to walk or bike also helps to build healthier communities and reduce the number of vehicle trips.

2. FILL IN THE GAPS

It is important to think about the city's transportation system as a network. If there are gaps in the network, such as a missing bike lane or sidewalk or even a dead-end street, it is much less convenient to get around. Filling in the gaps between existing facilities is key to providing safe and convenient connections.

3. PROMOTE TRANSPORTATION CHOICES

Access to multiple transportation options that are equally safe and convenient provides community residents with choices. This is important for community vitality and environmental health, and requires investment in all modes of transportation to achieve an appropriate balance.

STATE STREET IS IDENTIFIED AS A “DOWNTOWN STREET”

Downtown Street

CONTEXT

Downtown is the most formally and intensely developed of the two types of commercial neighborhoods in Traverse City. The focus is on high intensity, regional, commercial, street-oriented activity. The overall level of intensity generated within downtown is the highest of all neighborhood types. This includes mixes of uses and 24-hour and late night services.

FUNCTION

Downtown streets are utilized to access mixed use and commercial areas. These streets typically carry a higher volume of low-speed traffic and have more pedestrians and bicyclist activity. Transit is also an active component of these areas and inter-modal connections are prioritized.

COMPOSITION

The pedestrian zone is defined and enhanced through wider sidewalks, mid-block crosswalks, human-scale lighting, benches, bike parking, and public green spaces. Urban-like plazas are present and can include outdoor cafes, public gardens, public art, and other enhancements. Trees are desired on downtown streets to provide shade and enhance the streetscape.

Parking is typically provided on both sides of the street and parking spaces are typically delineated with striping and meters. Angled parking may be appropriate where the right-of-way width allows.

Curb and gutter is standard on this type of street and drainage is properly accounted for using best management practices.

Example Downtown Street - East Front Street

Example Downtown Street - West Front Street

WHAT KEY WORDS STOOD OUT TO YOU?

EXISTING CONTEXT + ASPIRATIONS

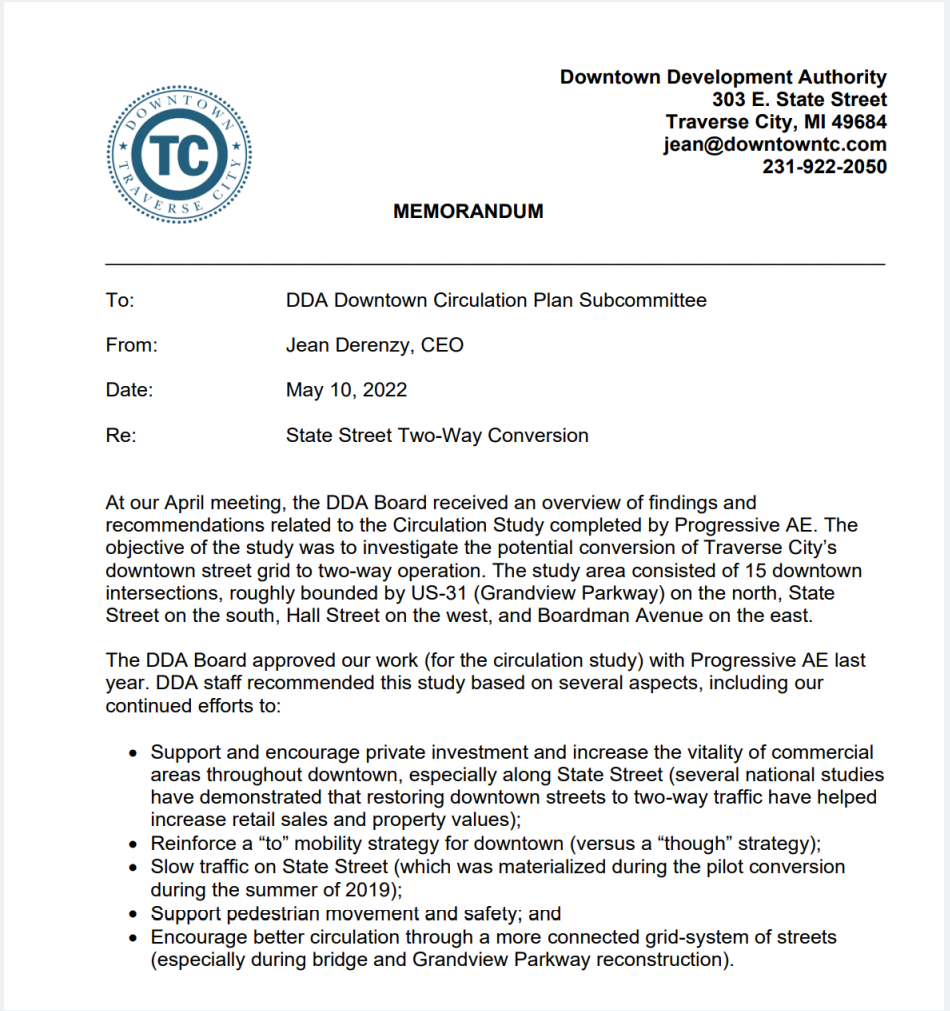
HISTORY OF DOWNTOWN CIRCULATION IN TRAVERSE CITY

- Spring 1967, segments of Front, Pine, State, and Boardman converted from two-way to one-way operation
- Primary goal to alleviate congestion without sacrificing on-street parking
- Different planning ideals at the time: auto-centric, emphasis on throughput of vehicles
- Not without contention – petition to block conversion failed (61% in support)

Looking east from 100 block of Front St, 1960s

PURPOSE OF THE CIRCULATION STUDY

- Support and encourage private investment and increase the vitality of commercial areas throughout downtown, especially along State Street (several national studies have demonstrated that restoring downtown streets to two-way traffic have helped increase retail sales and property values);
- Reinforce a “to” mobility strategy for downtown (versus a “though” strategy);
- Slow traffic on State Street (which was materialized during the pilot conversion during the summer of 2019);
- Support pedestrian movement and safety; and
- Encourage better circulation through a more connected grid system of streets (especially during bridge and Grandview Parkway reconstruction).



Downtown Development Authority
303 E. State Street
Traverse City, MI 49684
jean@downtowntc.com
231-922-2050

MEMORANDUM

To: DDA Downtown Circulation Plan Subcommittee

From: Jean Derenzy, CEO

Date: May 10, 2022

Re: State Street Two-Way Conversion

At our April meeting, the DDA Board received an overview of findings and recommendations related to the Circulation Study completed by Progressive AE. The objective of the study was to investigate the potential conversion of Traverse City’s downtown street grid to two-way operation. The study area consisted of 15 downtown intersections, roughly bounded by US-31 (Grandview Parkway) on the north, State Street on the south, Hall Street on the west, and Boardman Avenue on the east.

The DDA Board approved our work (for the circulation study) with Progressive AE last year. DDA staff recommended this study based on several aspects, including our continued efforts to:

- Support and encourage private investment and increase the vitality of commercial areas throughout downtown, especially along State Street (several national studies have demonstrated that restoring downtown streets to two-way traffic have helped increase retail sales and property values);
- Reinforce a “to” mobility strategy for downtown (versus a “though” strategy);
- Slow traffic on State Street (which was materialized during the pilot conversion during the summer of 2019);
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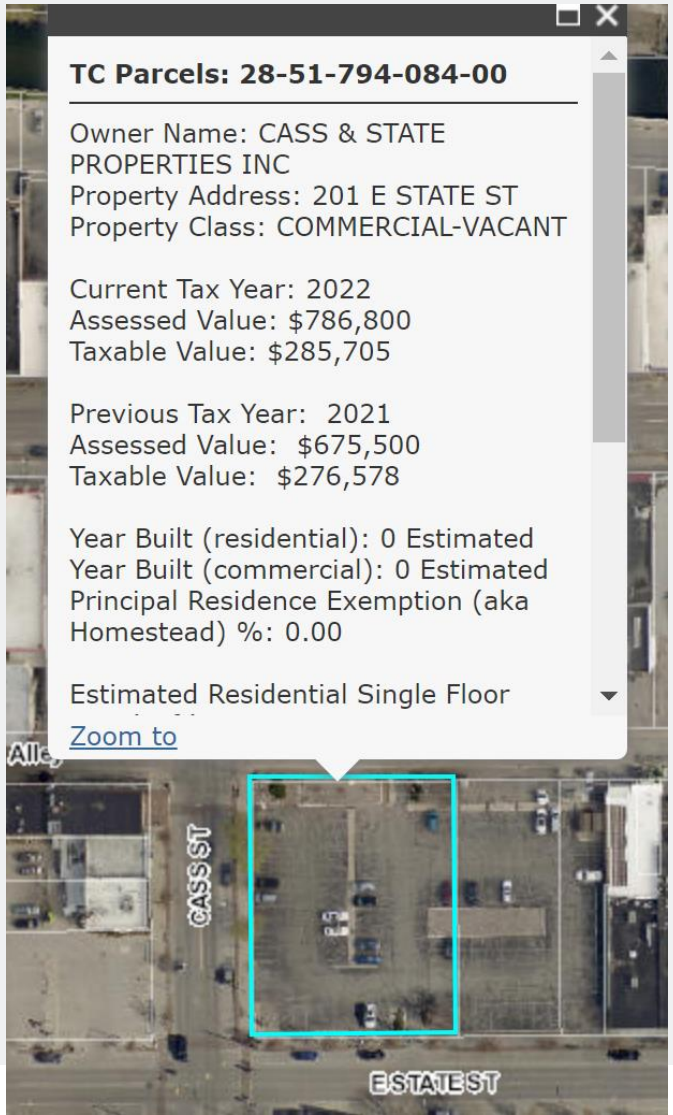
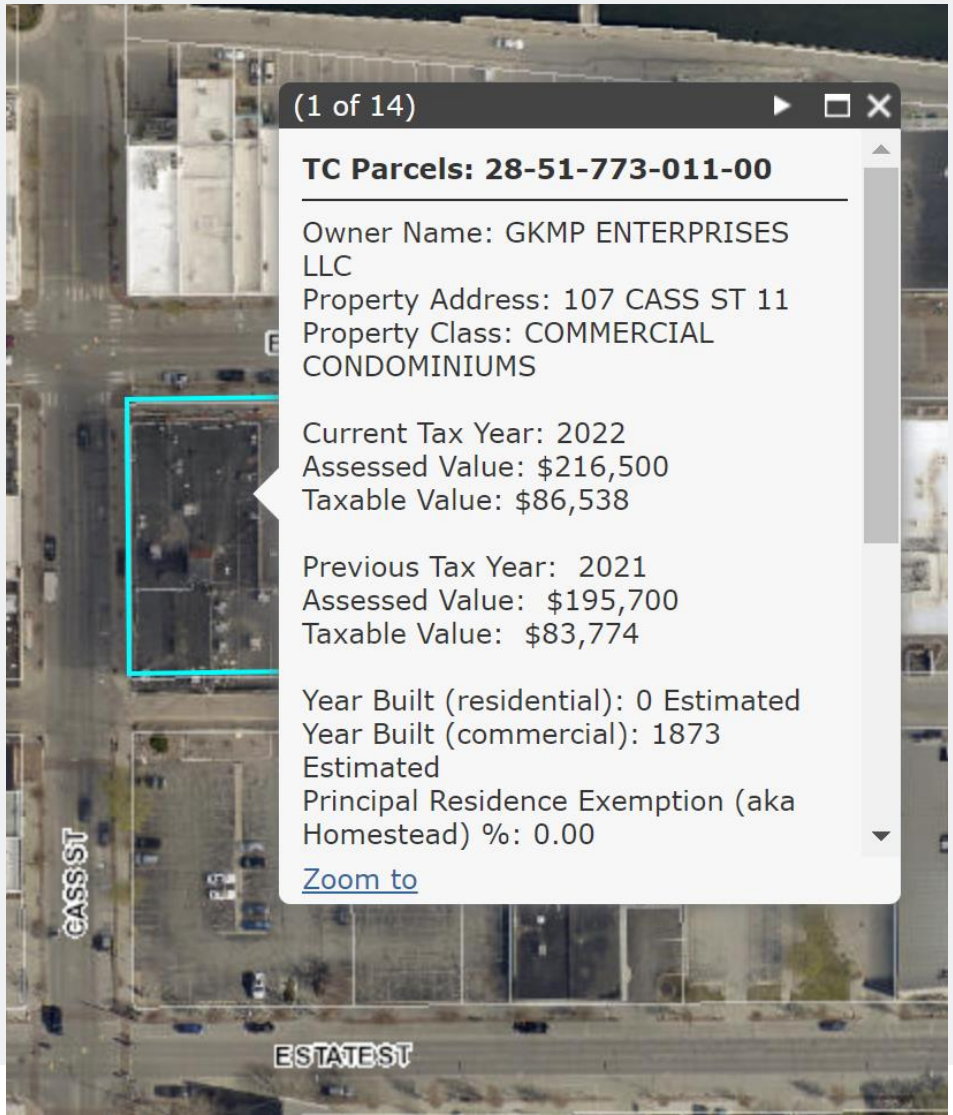
ACTIVITY





Parking lot

- Assessed Value = $786,800
- Taxable Value = $285,705

Millikens

- Assessed Value = $4,336,300
- Taxable value = $2,724,409

Building built in 1873

GREATER DOWNTOWN CONTEXT + STATE STREET'S FUNCTION

DOWNTOWN CIRCULATION STUDY

METHODOLOGY

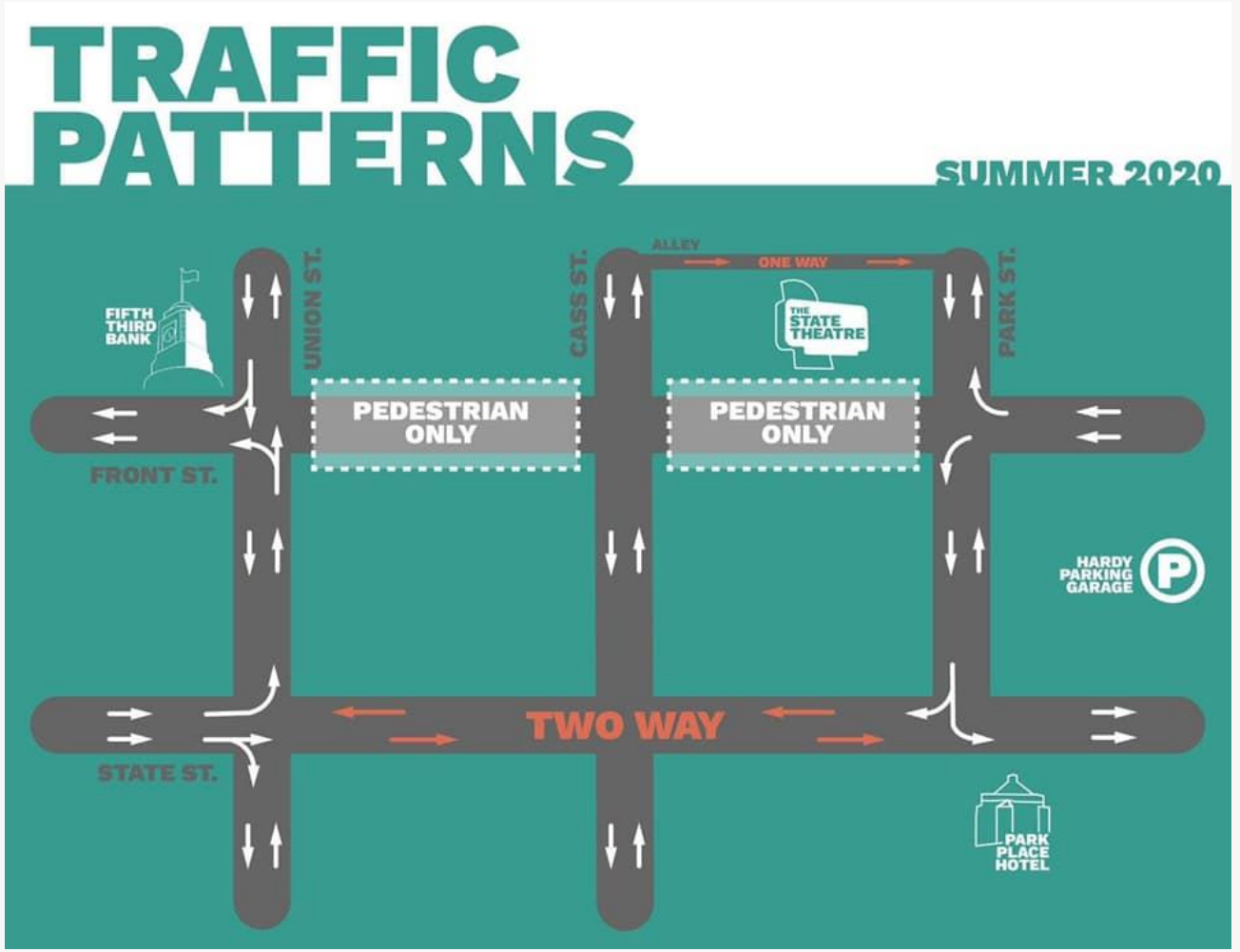
- Historical and case study research
- Data driven approach
  - Traffic counts
  - Model levels of service
- Public engagement
- Two alternatives evaluated
- Integrating feedback from key stakeholders (City Engineer, DDA, elected and appointed officials)
- Cost estimating

Study Objective

Investigate conversion of Traverse City's downtown street grid to two-way operation

2020 TWO-WAY STATE STREET PILOT

- Generally **well-received**
- Level of service **reasonable**
- Some **challenging** intersections (Union & State)
- Shortcomings with summer only pilot → did not experience winter maintenance cycle

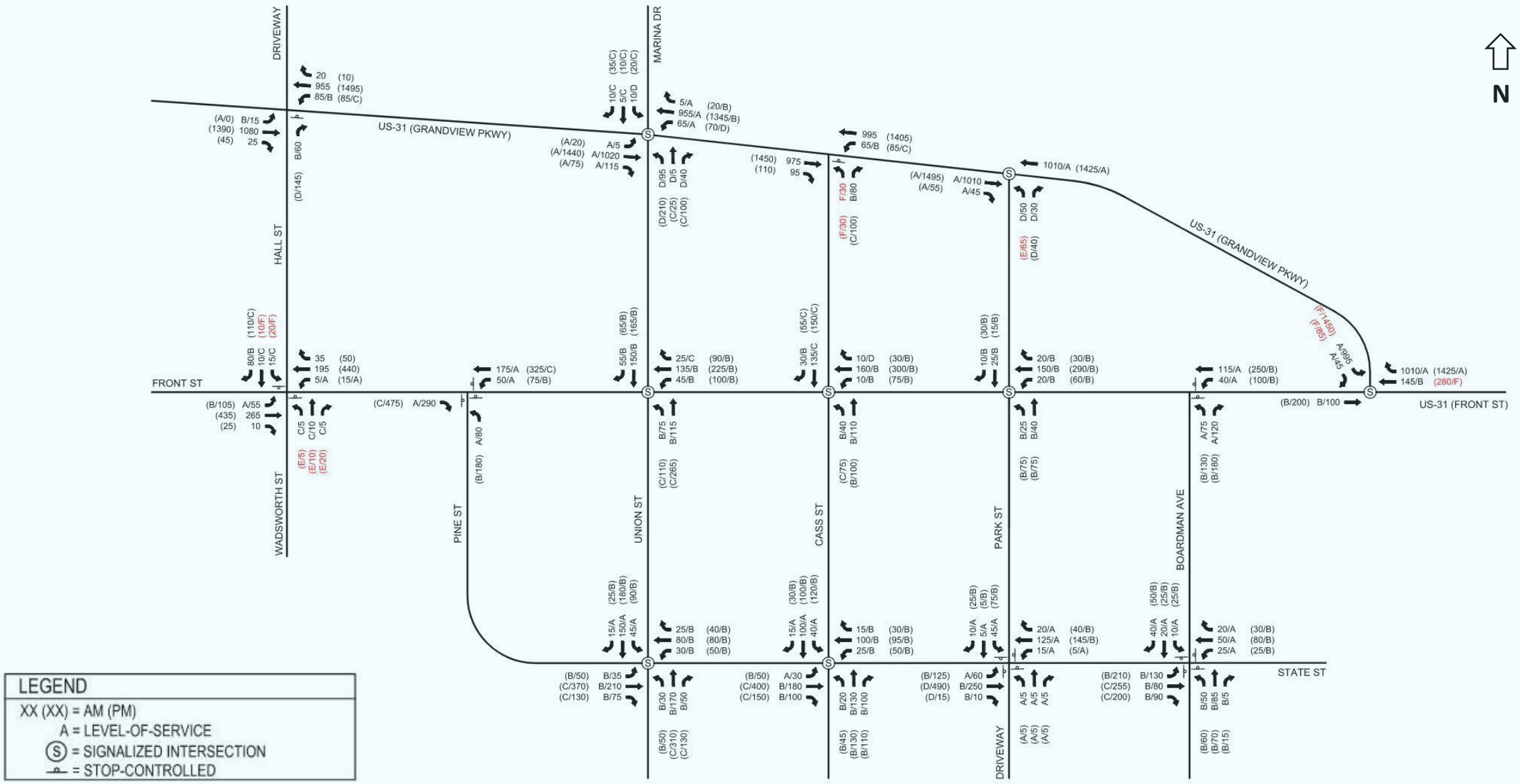


HYBRID TRAFFIC PATTERN (PILOT)

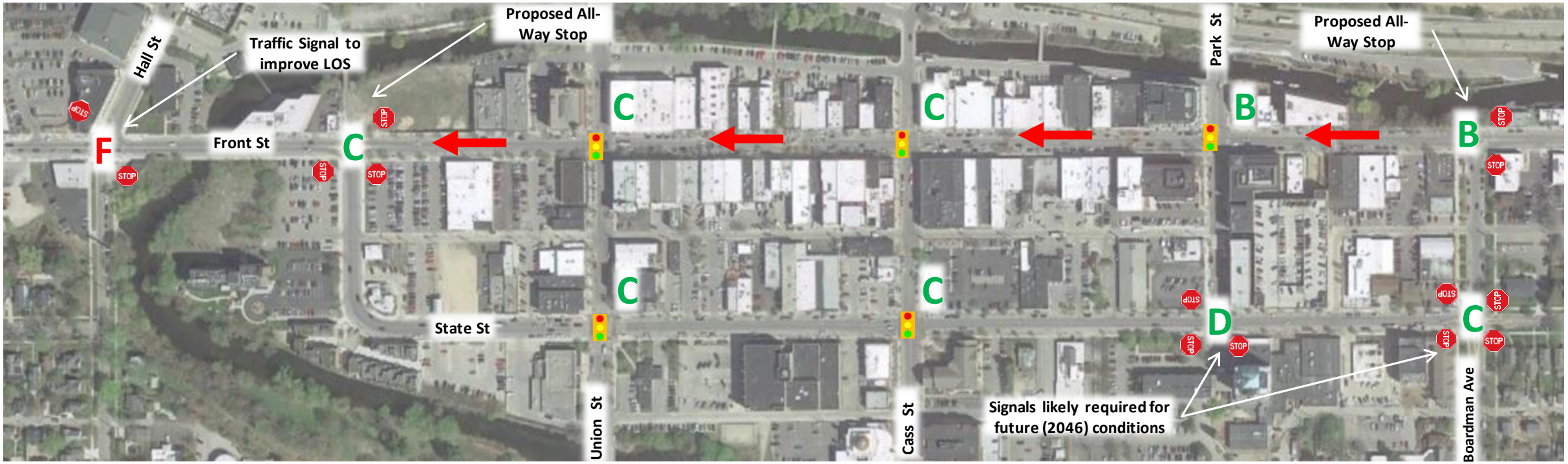
HYBRID (PILOT) – KEY TAKEAWAYS

- Intends to capitalize on best of both approaches (existing and all two-way)
- Minimal disruption to Front Street businesses
- Significant infrastructure costs to make changes
  - However, traffic signals represent most of the cost and must be changed regardless
- Impacts to parking due to needed turn lanes
  - Limited to State St
- Generally good level of service, but slightly lower than alternative 1 (all D or better)

HYBRID TRAFFIC VOLUMES & LOS (PILOT)



HYBRID LOS & IMPROVEMENTS (PILOT)



Notes:

1. Existing traffic signals along State St will need upgrades to accommodate two-way traffic.
2. Dedicated left-turn lanes required at all signalized and unsignalized intersections along State Street.

RECOMMENDATION

- A winter pilot of two-way Pine, State, and Boardman in 2022-2023
- Requires some infrastructure investments
  - Ex: Removal of islands at Pine & Front, State & Boardman, Boardman & Front
  - Potential signal modifications
- Requires dedicated barricade crew for road closures during snow removal

THEORETICAL IMPLEMENTATION TIMELINE

- **FALL 2022**
  - Splitter island removal / modification
- **FALL 2022 – SPRING 2023** – Winter two-way pilot
  - Pine (Front-State)
  - State (Pine-Boardman)
  - Boardman (Front-State)
- **Construction 2023 and 2024**
  - MDOT Grandview Pkwy construction – Division to Garfield

CASE STUDIES

CASE STUDIES

BUSINESS

Will two-way streets bring success to South Bend?

Two-way streets are coming to downtown South Bend

Erin Blasko South Bend Tribune
Published 7:00 a.m. ET Feb. 22, 2015

As one-way streets fall out of favor, 1st Street in downtown Duluth will become a two-way

The conversion will be made later this summer.

By **Brooks Johnson** Star Tribune | JUNE 25, 2020 — 12:10AM

Lansing seeks final input on two way street conversion

Six downtown Lansing streets set to allow cross traffic this fall

Downtown Billings traffic could move away from one-way streets

Rob Rogers Feb 1, 2021

Several one-way streets in Denver will soon allow 2-way traffic

Cedar Rapids Continues Conversion Of One-Way Roads To Two-Ways

Iowa Public Radio | By Kate Payne
Published April 26, 2019 at 9:05 PM CDT

Downtown Boise streets to convert to two-way

13th and 14th streets will change from one-way to two-way streets tonight.

Undoing the 'catastrophic mistake' of Pontiac's Woodward Loop

WEDNESDAY, MAY 10, 2017

SHARE

TRAFFIC AND CONSTRUCTION

Should Fargo-Moorhead trade its one-way streets for two-ways? Studies show safety, economic benefits

Written By: Barry Amundson | 5:10 pm, Jan. 18, 2019

Kalamazoo

Why one-way streets are hurting downtown Kalamazoo

Updated: Jan. 19, 2019, 3:42 p.m. | Published: Nov. 29, 2017, 11:00 a.m.

CASE STUDIES & NATIONAL TRENDS

Trends

- Beginning in late 1990s, many cities began to rethink one-way streets downtown
- As of 2018, **78 cities** in the U.S. had restored downtown streets to two-way travel
- Rethinking role of automobile on downtown streets

Rationale

- Economic
- Safety
- Efficiency
- Placemaking

A study in Vancouver, WA found retail sales increased from 10% to 20% after three key downtown streets were converted to two-way

A study in Louisville, KY found property values increased on streets reverted to 2-way by 21.6%.

2-WAY BENEFITS

Benefits

- Safety (slower speeds, reduces blind spots, better for pedestrian crossing)
- More satisfied businesses (greater activity, visibility)
- Decreased building vacancy
- More user-friendly (can arrive from either direction)
- Spurs new development
- Increased retail sales
- Increase in property tax revenue

New Albany, Indiana

- Several downtown streets were changed from one-way to two-way in 2017.
- On the three busiest streets that were converted, researchers found a 17% decrease in crashes when comparing the 3 years before the two-way conversion to the 3 years after.

Louisville, Kentucky

- Four adjacent one-way pairs were studied: two remained one-way and two were reverted back to two-way traffic.
- Researchers found that the two-way pair of streets experienced a collective decrease in total collisions of almost 49% in the first year after conversion despite attracting more vehicles per day than before the change.
- Property values increased on the reverted streets by an annual growth rate of 21.6% while overall housing prices in Louisville decreased by 1%.

TRANSPORTATION RESEARCH BOARD

Accessibility versus Mobility

- "A high level of auto accessibility in a downtown is more important to urban residents than access to regional roadways. By requiring less out-of-direction travel and fewer turning movements, a two-way street network is better for short trips to local establishments than a one-way street network. Livable streets benefit all users of a downtown whether they are using transit, an automobile or walking."

~Walker, Kulash, and McHugh; Transportation Research E-Circular, Number E-C019

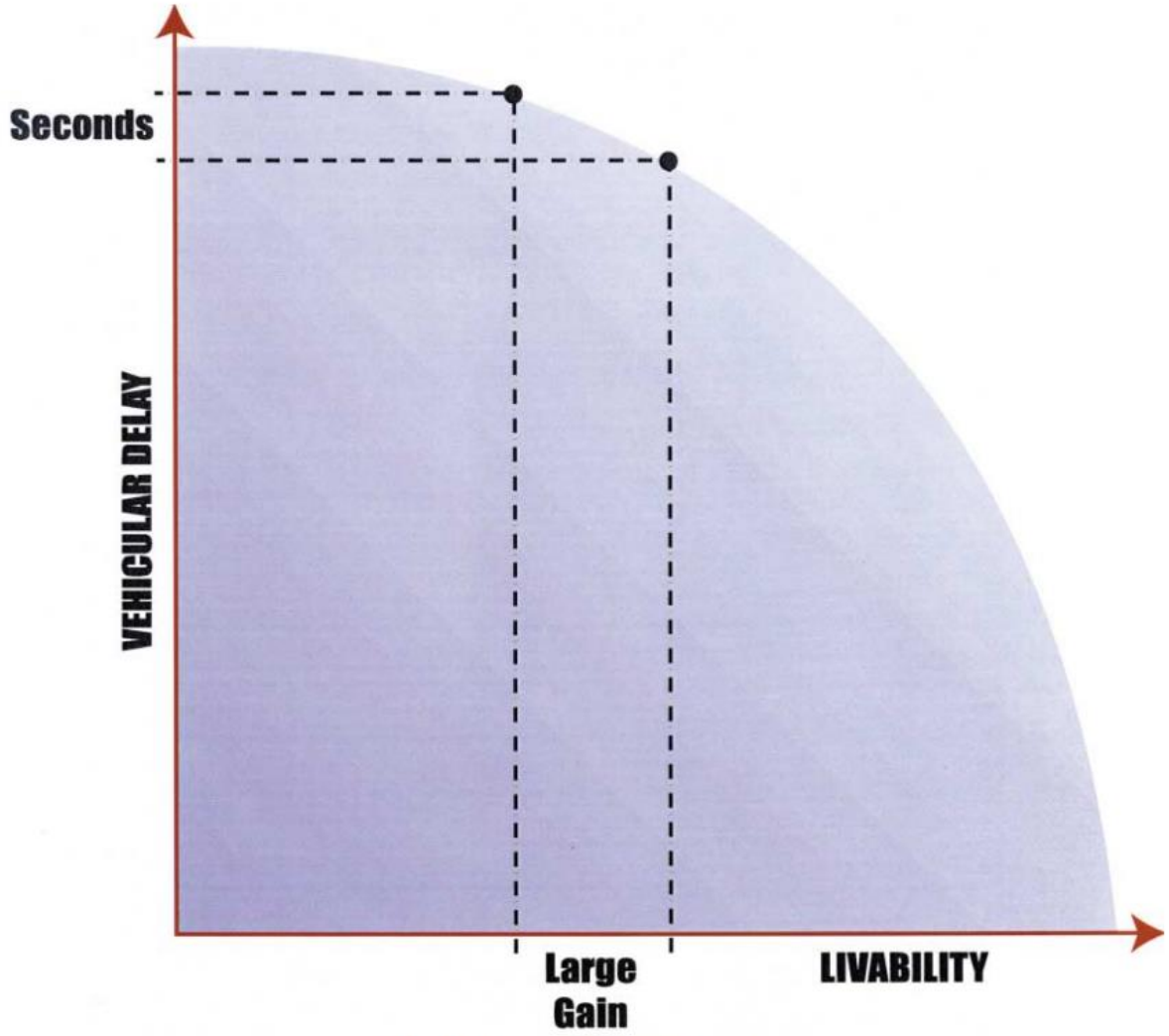
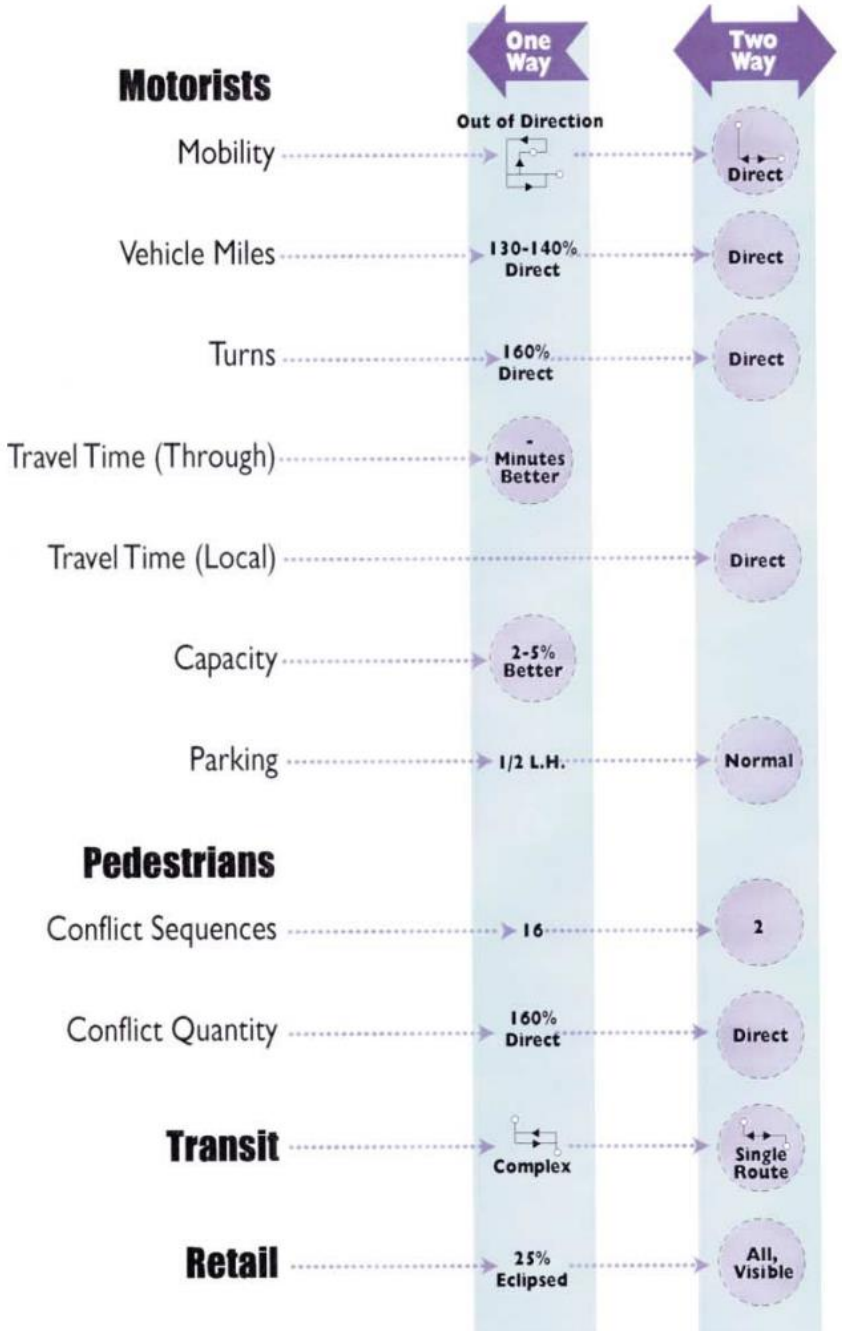


FIGURE 1 Livability index.

MEASURES

Research

- One-way streets create ~120 to 160% of turning movements when compared to a two-way system because motorists are “out-of-direction” to reach their destination.
- There are typically 30-40 percent more vehicle/pedestrian conflicts within a one-way street network than in a comparable two-way system
- There is also a systemwide increase in VMT, with the travel distance between portal and destination is usually 20 to 50% greater in a one-way street system.
- The overall average through-travel speeds are lower for a two-way street configuration than for a one-way system.
- Communities undertaking one-way conversions
    - Albuquerque, NM; Berkeley, CA; Cincinnati, OH; Edmonton, Alberta; Norfolk, VA; Toledo, OH; Waukesha, WI



ONE-WAY VS. TWO-WAY IMPACT ON TRAFFIC PATTERNS (IN GENERAL)

	Pro	Con
One-Way	• Greater vehicle capacity • Generally faster throughput • Fewer conflict points at intersections • Only have to look one direction when crossing a street	• Less intuitive → confusing for visitors • Requires more signage to alert users • Less direct (more circuitous) → more turning movements • Not favorable for transit • Greater pedestrian conflict sequences
Two-Way	• Slower vehicle speeds → accidents less severe • Fewer vehicles circulating and reduced vehicle miles traveled (VMT) → less greenhouse gas (GHG) emissions • Multiple routes to travel • Parking on right side of vehicle	• Less vehicle capacity • Increased vehicle delay, including emergency response vehicles • Traffic signals more complex • More conflict points

THE “WHY” AND GOALS FOR PERFORMING A PILOT

“New Albany’s biggest challenge, after nearly 60 years of one-way traffic, was to get residents to see the benefits of greater downtown access and visibility from more pedestrian- and bicycle-friendly two-way streets.”

~CITY OF NEW ALBANY PUBLIC WORKS SUPERVISOR

CONSIDERATIONS

Cost to physically convert

- Traffic signals
- Pavement markings
- Signage
- Curb adjustments
- Parking modifications

Safety

- Crashes
- Travel speeds
- Navigation
- Perception

Maintenance Costs

- Equipment
- Labor
- Materials

Economic impact

- Data from case studies
- Context
- Land optimization
- Reinvestment
- Placemaking

NEXT STEPS

NEXT STEPS

Work Tasks

- Align goals and objectives to proposed measures of success
- Recommendation to DDA

Proposed Schedule

- *Next Sub-Committee Meeting:* May 26, 2022?
- *DDA Meeting:* June 17, 2022?
- *City Commission Meeting*: July 18, 2022?

THANK YOU

We welcome your feedback, insights and inquiries.