

WEST BOARDMAN LAKE



Opportunities, Issues, and Responses

City of Traverse City

March 22, 2011



OUTLINE

- Purpose/Approach
- Agenda
- Results of February 23 Meeting
- Responses and Design
- Discussion Input



PURPOSE

Review February 23 results, share responses, design and development details based on input, and seek additional input.



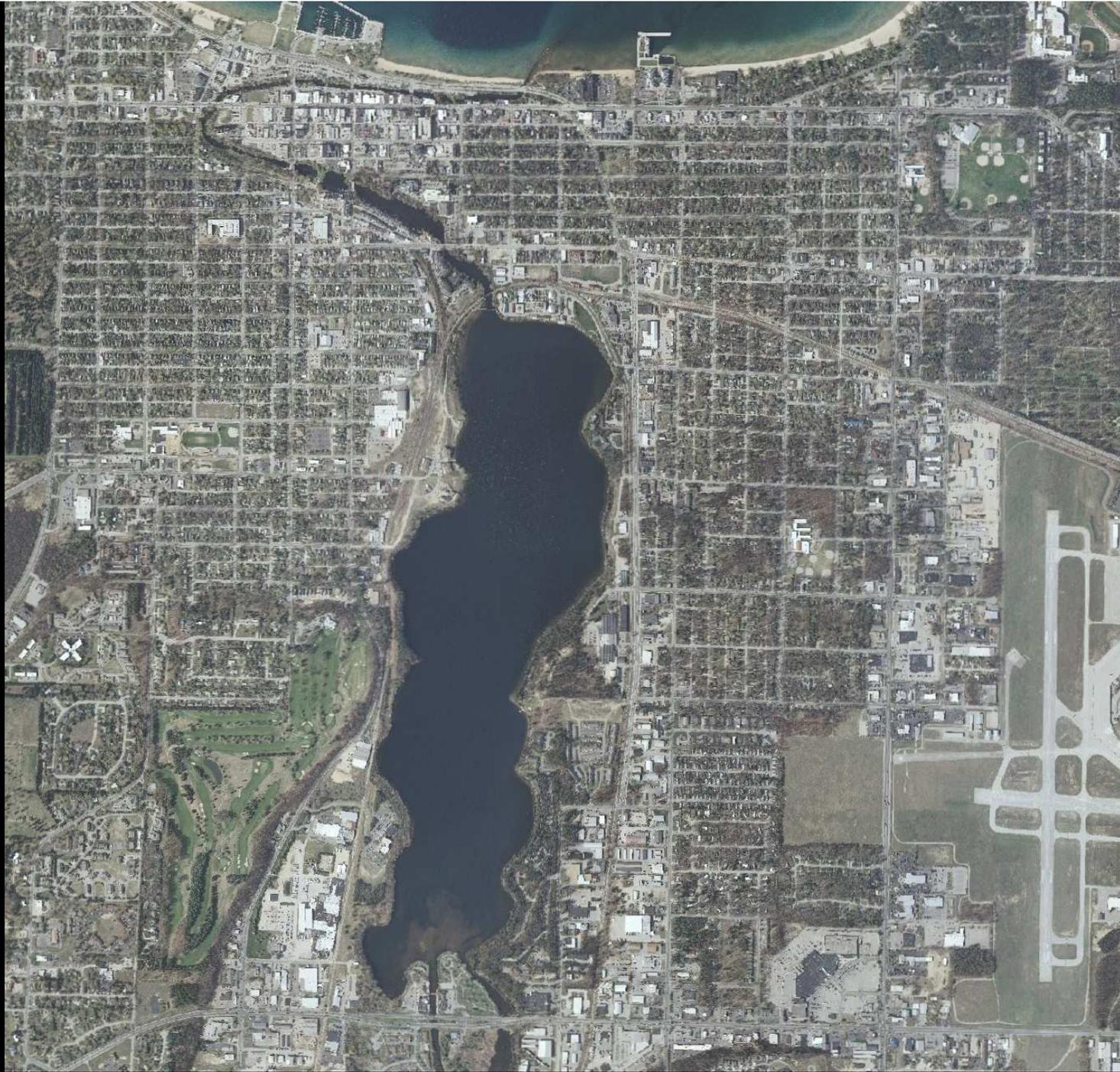
APPROACH

- Identify key opportunities and concerns for investments in infrastructure, redevelopment, and recreation.
- Develop design options to realize opportunities and address issues
- Determine whether design options meet opportunities and address issues
- Recommendation for Copy Central



AGENDA

Introduction	7:00 p.m.	7:15 p.m.
Data/Info	7:15 p.m.	7:35 p.m.
Nat Res/Env	7:35 p.m.	7:50 p.m.
Plans	7:50 p.m.	8:30 p.m.
City Impacts	8:30 p.m.	8:45 p.m.
Discussion	8:45 p.m.	9:00 p.m.







DRIVING FORCE

- Copy Central purchase agreement
- Only reason to buy Copy Central is to build BLA.
- Copy Central may not be needed to solve Eighth Street intersection
- Purchase would increase likelihood that BLA would move forward
- More time to address issues and determine final design



GROUND RULES

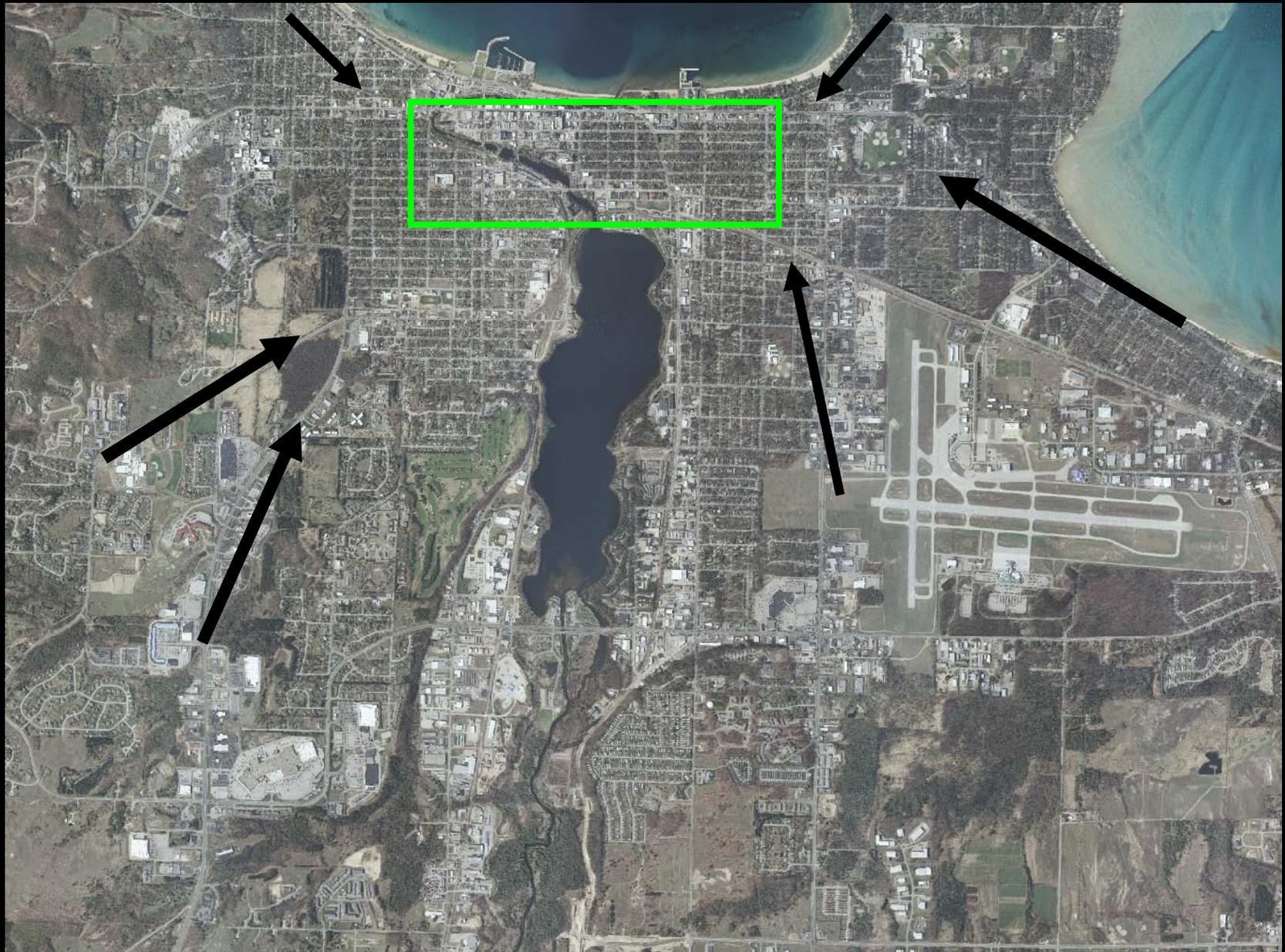
- Raise hand to speak and wait to be called on.
- Everyone has a right to their opinion and to be respectfully heard.
- Try to understand others opinions, rather than judge their opinions.
- Be thoughtful of the time you speak and make sure others get the chance to speak.
- Please, no side discussions.



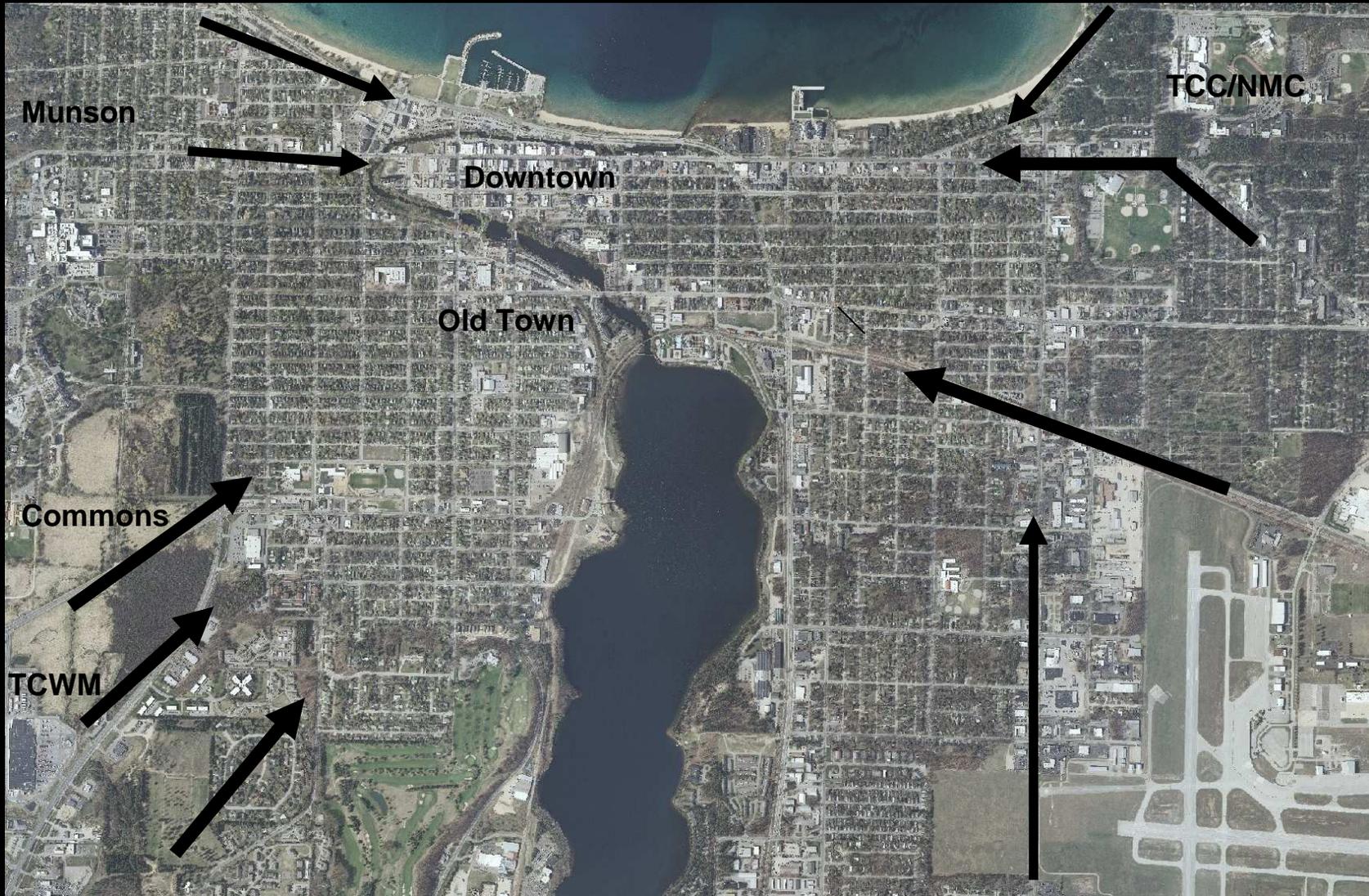
PROBLEM STATEMENT

- Cass and Union Streets are serving as a transportation arterials with negative traffic impacts
- Access to downtown and the central business district needs to be maintained.
- Railroad property acquisition needs to be exercised.
- Non-motorized access is improved, but limited.
- Redevelopment and recreation access on West Boardman Lake is limited.
- Rail access is important to be maintained.
- Geographic limitations complicates options.

REGIONAL MOBILITY CHALLENGES



REGIONAL MOBILITY CHALLENGES





STRUCTURE

- February 23: Public Meeting
 - Issues and Opportunities
- March 22: Public Meeting
 - Review Response and Design Alternatives
- April 20: City Planning Commission Intro
- April 25: City Commission Intro
- May 4: City Planning Commission Recommendation
- May 9: City Commission Decision



GIVENS

- Budget \$4.5 million



BUDGET

Activity	Cost
Railroad Wye Relocation	\$1,190,000
Street Right of Way Acquisition	\$990,000
Non-Motorized Trail	\$858,500
Street Construction	\$875,000
Contingencies (15%)	\$587,025
TOTAL	\$4,500,525



GIVENS

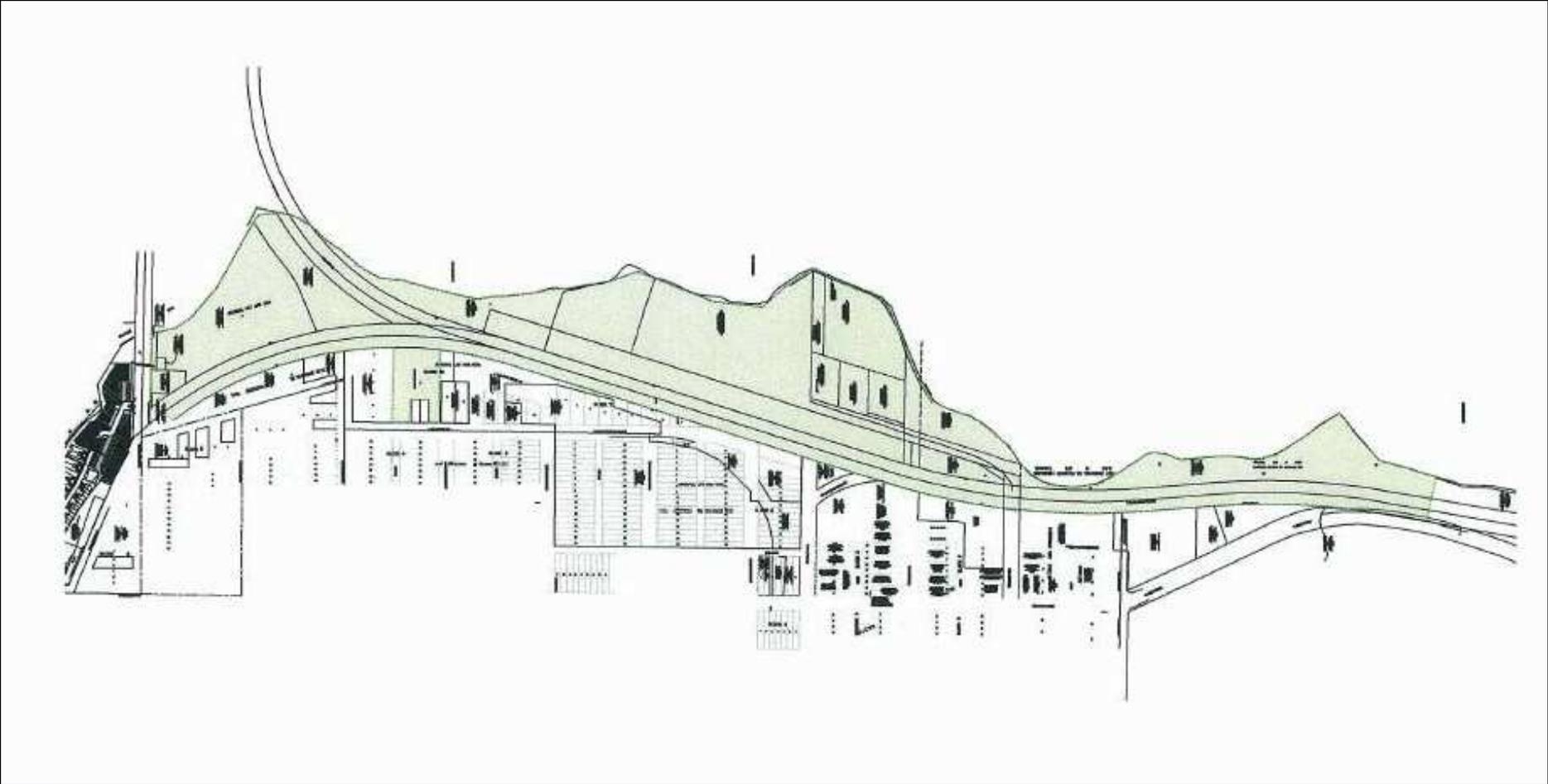
- Budget \$4.5 million
- Source of revenue is through Brownfield Plan



BROWNFIELD REVENUE

- Increased taxes due to additional investment are captured to pay for public improvements.
- Investments must be within Brownfield Plan District. Land Bank facilitated property purchase

BROWNFIELD ELIGIBLE PROPERTY BOUNDARIES





BROWNFIELD REVENUE

- Increased taxes due to additional investment are captured to pay for public improvements.
- Investments must be within Brownfield Plan District; Land Bank facilitated property purchase
- Brownfield Plan approved in 2001 to include Lake Ridge for Boardman Lake Avenue.
- Brownfield Plan updated in 2010 to include all public improvements.



GIVENS

- Budget \$4.5 million
- Source of revenue is through Brownfield Plan
- Public Investments must be consistent with City Master Plan
- City Commission will have final authority over design and implementation of public investments in the City



SUMMARY OF INPUT – FEB 22

- Seventy-one Opportunities and Issues identified
- Fifty received votes
- Raw data posted on the City's website



CATEGORIES

- Data/Information
- Natural Features/Environment
- Plans
- City Impact



DATA/INFORMATION

- Project starting without data (15)
- Traffic impact study needed (9)
- Approach traffic as a whole, not neighborhood by neighborhood (5)
- Need data, traffic not that bad on Cass, especially after 5:00 p.m. (2)



NATURAL FEATURE/ENVIRONMENT

- Greenspace with wildlife will be lost (20)
- Overall trail experience – pedestrian access (12)
- Money better spent on trail between Lake Ridge and Rail (9)
- Impact on Loons and Wildlife (6)



PLANS

- Like to see traffic calming on Cass and Union (14)
- Will not help reduce traffic, what other options to reduce single occupancy vehicles (14)
- Extend project south of 14th Street (13)
- Eighth Street intersection (10)
- Why direct traffic down 10th Street? (7)
- Why the trail in front of Lake Ridge condos? (7)



CITY IMPACTS

- Help reduce E/W traffic around OTN (14)
- Traffic increase on 10th and other connector streets (12)
- Cass Street is deteriorating (10)
- If BLA not built, how will motor traffic be reduced? (10)
- Road would create another divide in TC (10)



DATA/INFORMATION

- Three main sources
 - City traffic data
 - Previous assessments
 - Grand Vision

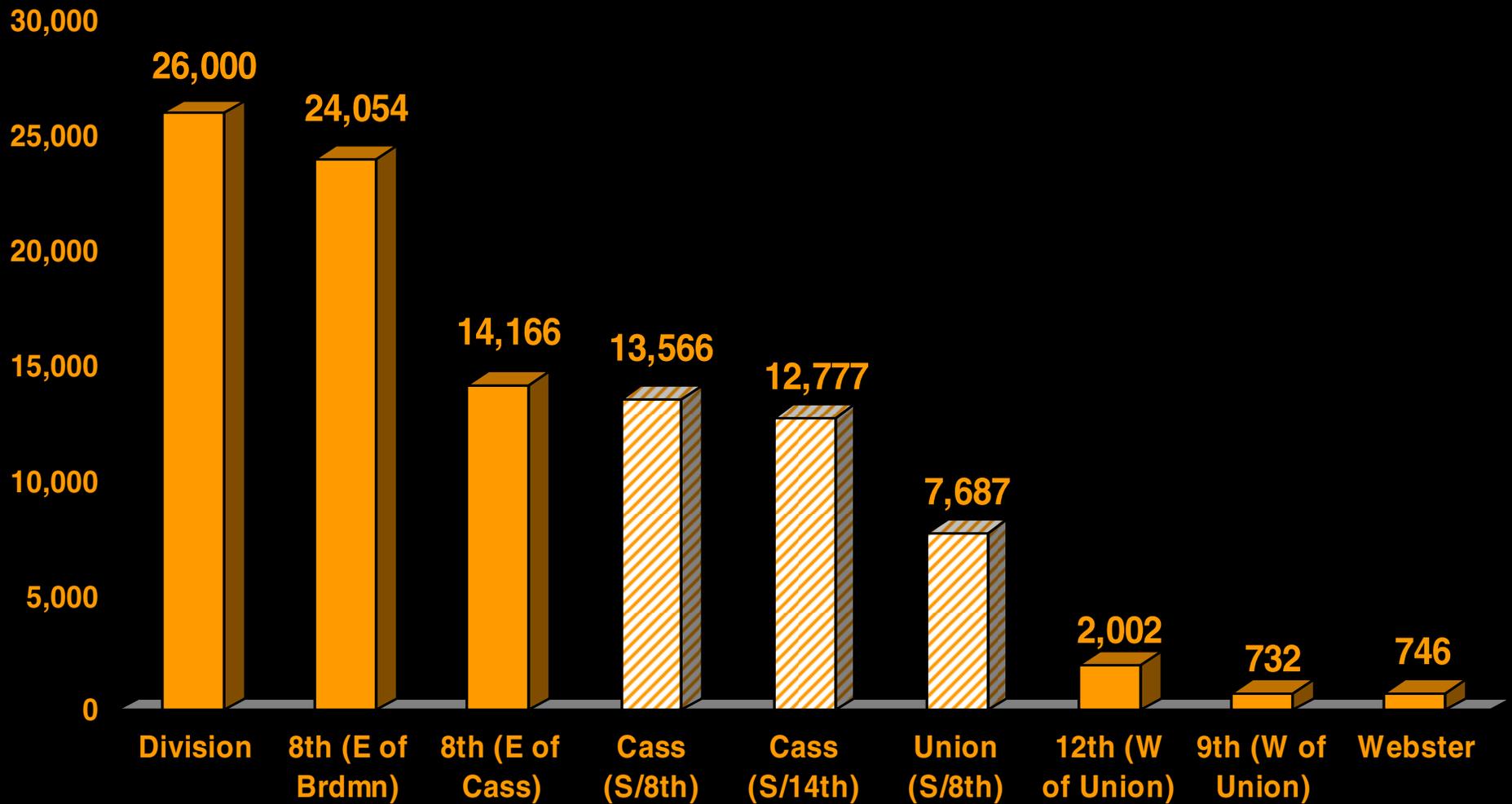
CITY TRAFFIC



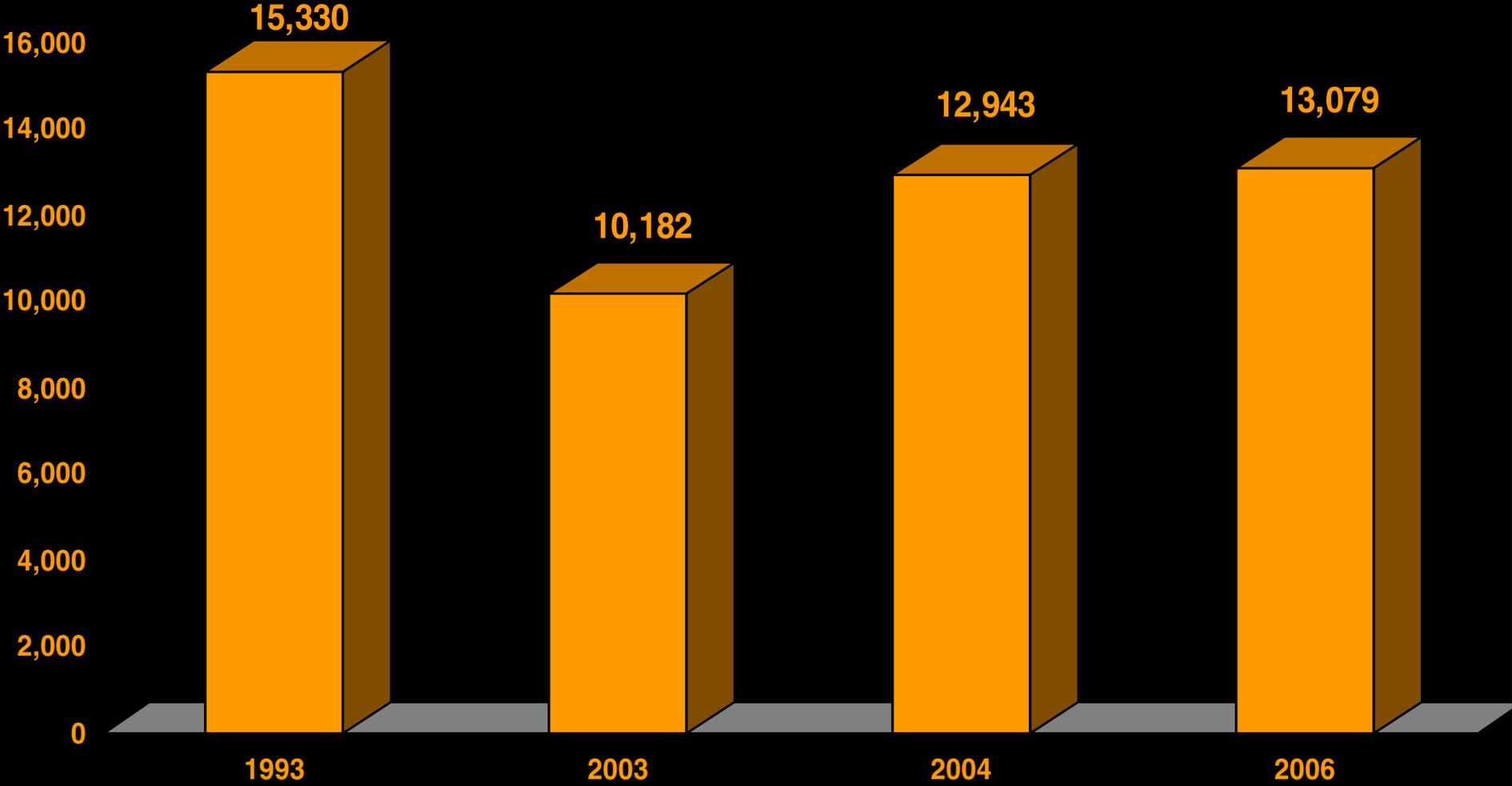
CITY TRAFFIC



TRAFFIC COUNT – 2006/2007



CASS STREET (S. 8TH)





FRIDAY

TRAVERSE CITY
RECORD-EAGLE

AUGUST 6, 1999

NORTHERN MICHIGAN'S NEWSPAPER

Plan would calm traffic along Cass and Union

■ City commission expected to consider four-way stops along Union and Cass at Tenth and Twelfth streets

By **BILL O'BRIEN**
Record-Eagle staff writer

TRAVERSE CITY — Four-way stop signs along two of the city's busiest north-south streets were proposed by the city Planning Commission Wednesday night.

Planners approved a recommendation from the city's Traffic Calming Committee to install stop signs along Union and Cass

streets at Tenth and Twelfth streets, creating four-way stops at all four intersections.

The proposal started with a request from the Old Town Neighborhood Association to the city commission earlier this year, which was forwarded to the traffic calming committee and city planners for review.

The city commission is expected to consider the proposal at its next meeting Aug. 16. The neighborhood group wants the signs installed before the start of the coming school year.

"It's very clear — it is difficult and dangerous to cross those streets, for adults and even more so for children," said planning commissioner Dan O'Neil, who grew up near the intersection of Cass and Twelfth streets.

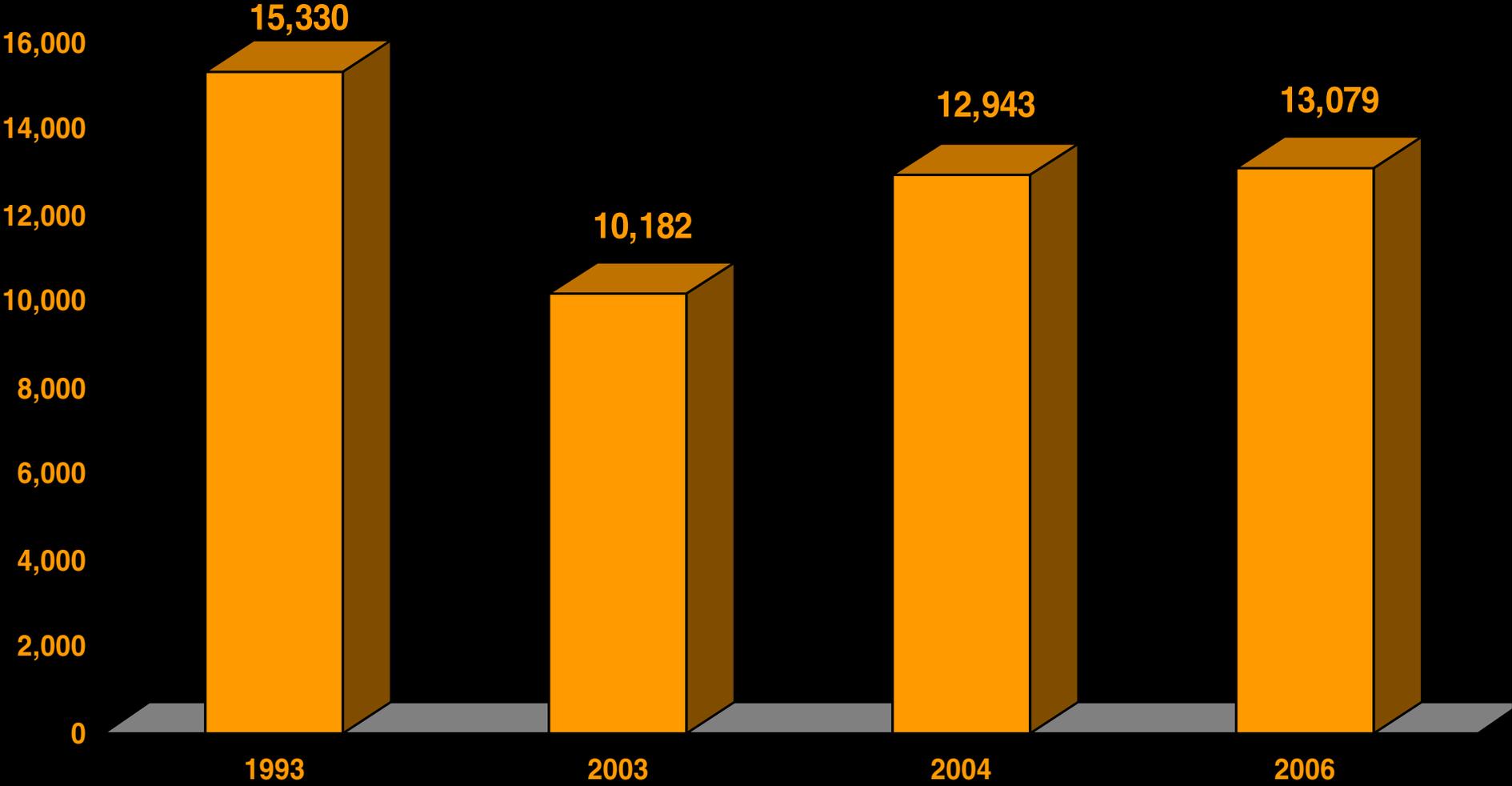
Both Union and Cass streets have no traffic

— See **STOP**, Page 3A ▶

ANOTHER



CASS STREET (S. 8TH)





PREVIOUS ASSESSMENTS

- 1994 Cass Union Study
 - BLA would see 12,000 to 16,000 vehicle trips per day
 - BLA incorporated into City Plan
- 1998 Update
 - anticipated 14,000 to 18,000 trips per day

GRAND VISION

- Mead and Hunt conducted Transportation Gap Analysis
- Report Issued in October 2010
- Included assessment of Boardman Lake Avenue in Corridor 9



**Transportation Gap
Analysis and Refined
Corridor/Intersection
Analysis Report
(Tasks 3.6 and 4.2)**



Report prepared by



www.meadhunt.com

October 2010



GRAND VISION

“(Corridor 9) Proposed improvements: There are two sections of this corridor that are projected to reach LOS F. They are the links on 14th Street from Division to Cass and 8th Street from Barlow to Garfield. Because these areas are in the heart of the urban core, road widening is not proposed.”



GRAND VISION

“Instead, congestion will be addressed with demand-side strategies. Multi-modal design investment in this core area, including the proposed TART Trail route, should be very effective.”



GRAND VISION

“The segments of this corridor on Cass Street from 14th Street to 8th Street and on 8th Street from Cass Street to Midtown Avenue will benefit from the planned construction of Boardman Lake Avenue from 14th Street to 8th Street.”



GRAND VISION

“This planned addition to the street grid system will provide additional capacity for through traffic movements on Corridor 9. It is estimated that between 1/3 and 1/2 of the total traffic volume on Corridor 9 between Cass Street and Midtown Drive will utilize the new roadway.”



GRAND VISION

“The projected 2035 directional design hour volumes for these two segments of Corridor 9 have been reduced by 1/3 to account for this anticipated traffic shift. Without the addition of Boardman Lake Avenue, these two segments would be anticipated to experience LOS F within the time horizon of this study.”



INDUCED TRAFFIC

- New roads bring new traffic
- Increased optional trips
- Based on declining cost of travel
- Expanded auto-based development opportunities and sprawl housing choices
- Research often correlated with major arterials or highways



INDUCED TRAFFIC

$$e_{LR} = \frac{\% \Delta v}{\% \Delta p} = \frac{\Delta v}{\Delta p} \times \frac{p_1}{v_1} = \left(\frac{v_2 - v_1}{p_2 - p_1} \right) \times \frac{p_1}{v_1} \quad [1]$$

where e_{LR} is the long run elasticity of demand. If the following simplifications are made for ease of presentation,

$$\begin{aligned} a &= p_2 - p_1 \\ b &= v_{1,s} - v_1 \\ c &= v_2 - v_{1,s} \end{aligned} \quad [2]$$

as shown in Figure B-1, then the long run elasticity can be represented as

$$e_{LR} = \frac{b+c}{a} \times \frac{p_1}{v_1} = \left(\frac{b}{a} \times \frac{p_1}{v_1} \right) + \left(\frac{c}{a} \times \frac{p_1}{v_1} \right) \quad [3]$$

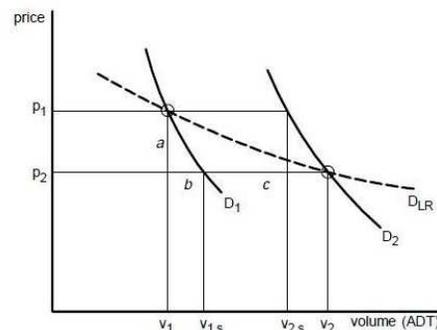
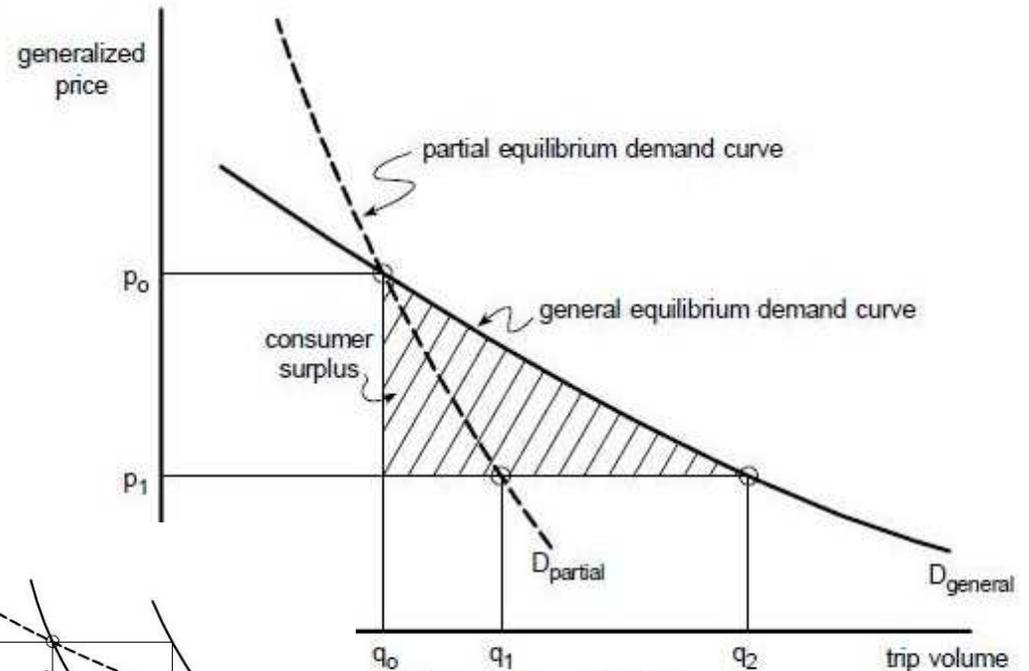
where the first term in parentheses is the short run elasticity (e_{SR}) and the second term is the shift in the demand curve over the long run, represented as an elasticity. Thus the long run elasticity is the sum of the e_{SR} and a purely long run component which will be called the long run share, e_{LRS} , defined as

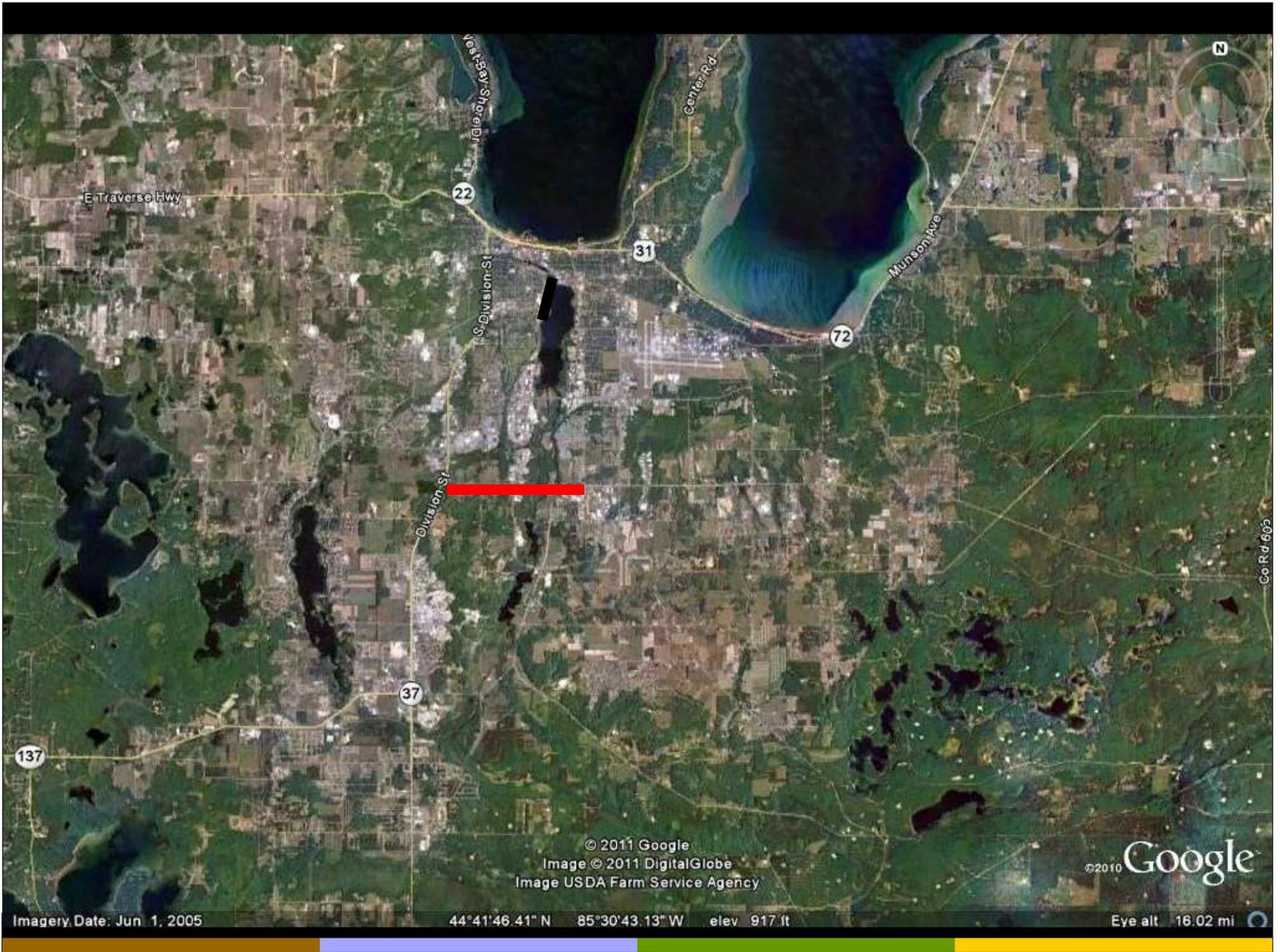
$$e_{LRS} = \left(\frac{c}{a} \times \frac{p_1}{v_1} \right) = \left(\frac{v_2 - v_{1,s}}{p_2 - p_1} \right) \times \frac{p_1}{v_1}$$

so

$$e_{LR} = e_{SR} + e_{LRS}$$

The e_{LRS} component can be interpreted in the same way as a normal elasticity, a be empirically measured as the difference between the short run elasticity and the long run elasticity estimated for the appropriate time period.³





E Traverse Hwy

Westway Shovel Rd

Center Rd

Munson Ave

Division St

Co Rd 603

© 2011 Google
Image © 2011 DigitalGlobe
Image USDA Farm Service Agency

©2010 Google

Imagery Date: Jun 1, 2005

44°41'46.41" N 85°30'43.13" W elev 917 ft

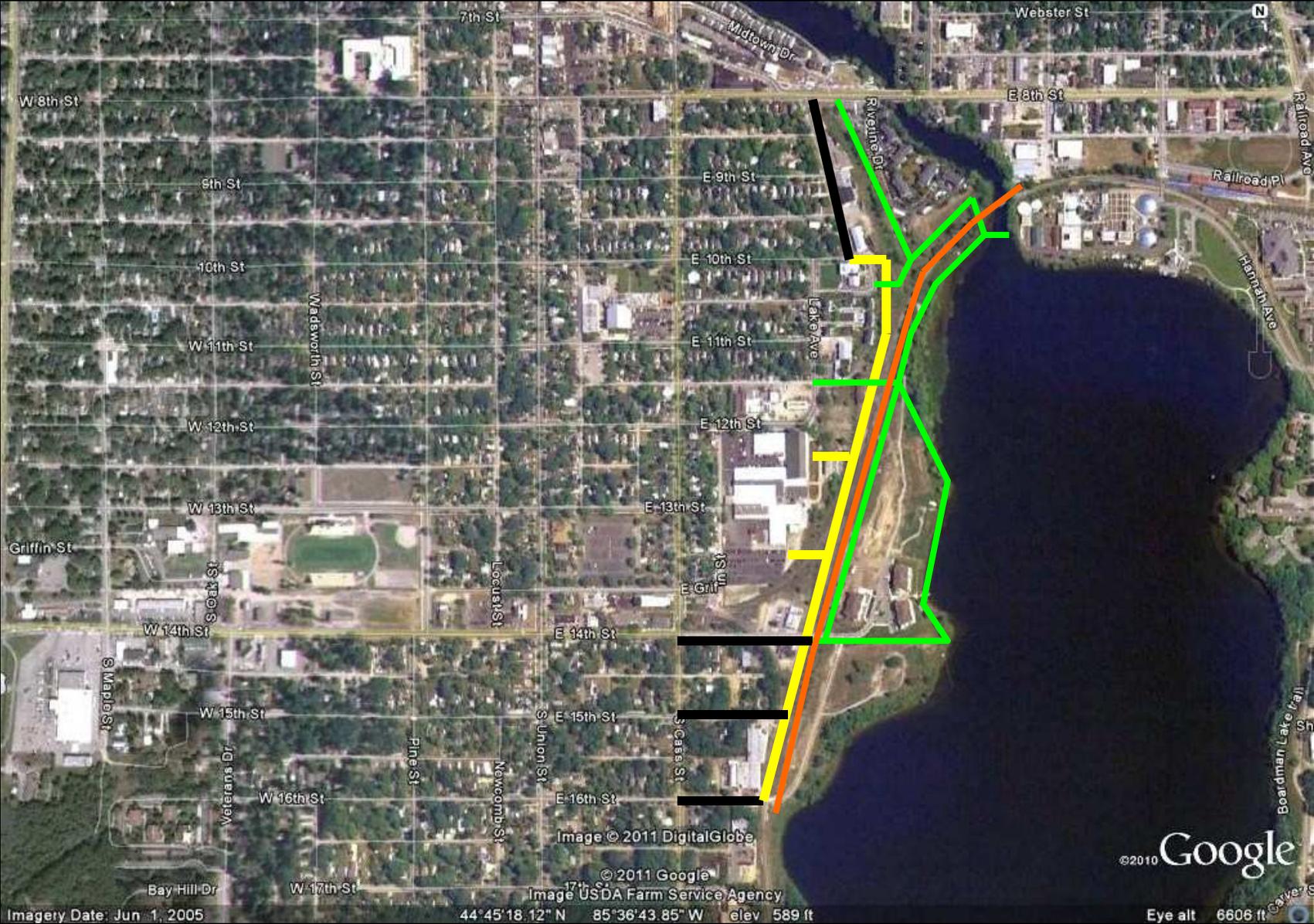
Eye alt 16.02 mi



INDUCED TRAFFIC

- Traverse City is regional commerce, recreation, and entertainment center.
- Difficult balance of access and livability
- Goal is to add to connectivity and divert traffic from neighborhood

CONNECTIVITY





DISCUSSION – DATA/INFORMATION

- What questions or issues arose from the data presented?



NATURAL RESOURCES/ENVIRONMENT

- Greenspace
- Trail and pedestrian experience
- Habitat

WEST BOARDMAN LAKE RECREATION



**Railroad will remain that
bifurcates public space**

WEST BOARDMAN LAKE RECREATION



**Railroad will remain that
bifurcates public space**

WEST BOARDMAN LAKE RECREATION



**Historical Railroad
Industrial Use**

WEST BOARDMAN LAKE RECREATION



**Natural habitat is of
relatively low quality**



NATURAL RESOURCES/ENVIRONMENT

- Work with GT Conservation District to develop habitat plan
- City Parks and Rec to develop rec area improvements plan
- Trust Fund Grant application for trail and rec area enhancement



TRUST FUND GRANT

- A 2,900 foot long, 10' paved trail;
- Recreation area development including shelter, play structure, seating, picnic areas, and floating platform;
- Grant Request: \$210,000 Match \$210,000 = \$420,000 Total

CITY TRUST FUND GRANT APPLICATION



CITY TRUST FUND GRANT APPLICATION





DISCUSSION – NAT RES/ENVT

- How does the proposed plan impact the natural resource and the environment?



PLANS





DESIGN PRINCIPLES

- Expand City network - connectivity
- Encourage use, maintain travel at slow speeds
- Ensure safe and effective pedestrian crossings
- Improve natural features
- Improve access to recreation and redevelopment property
- Create traffic calming opportunities on Cass and Union



PLANS

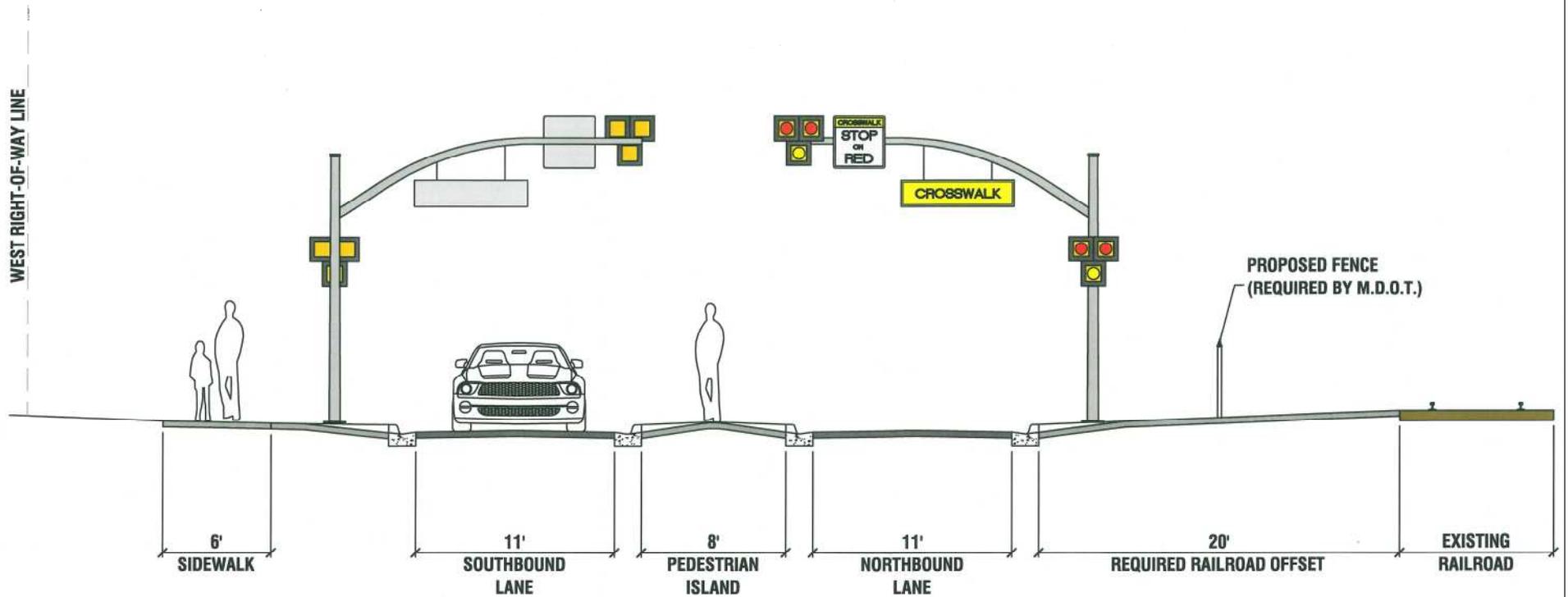
- Pedestrian Crossings
- Connections – 8TH, 10TH, 14TH, 16th, Lake, Cone Drive
- Redevelopment

PEDESTRIAN CROSSINGS

- Separated median
- HAWK – **H**igh intensity **A**ctivated cross**W**alks



PEDESTRIAN CROSSINGS





PEDESTRIAN CROSSING OPTIONS





DESIGN OPTIONS

- North – Rail Easement
- North – 4 Lane Intersection
- North – Roundabout
- North – Lake Street
- South – 14th Street Access
- South – 16th Street Access
- Center – Trailhead
- Center – Trailhead 11th-12th Street Access

NORTH – RAIL EASEMENT OPTION (1)



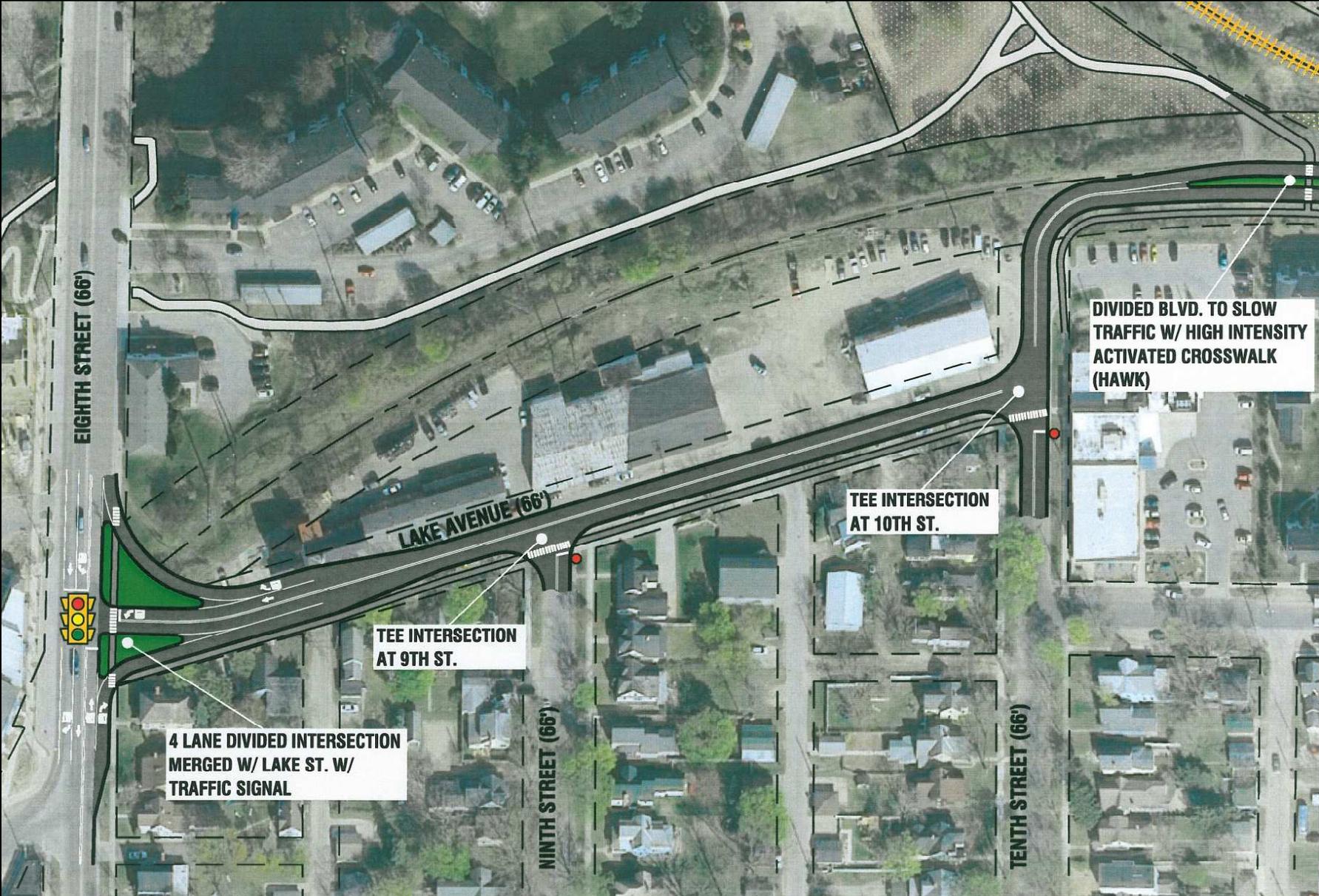
NORTH – RAIL 4 LANE INTERSECTION OPTION (2)



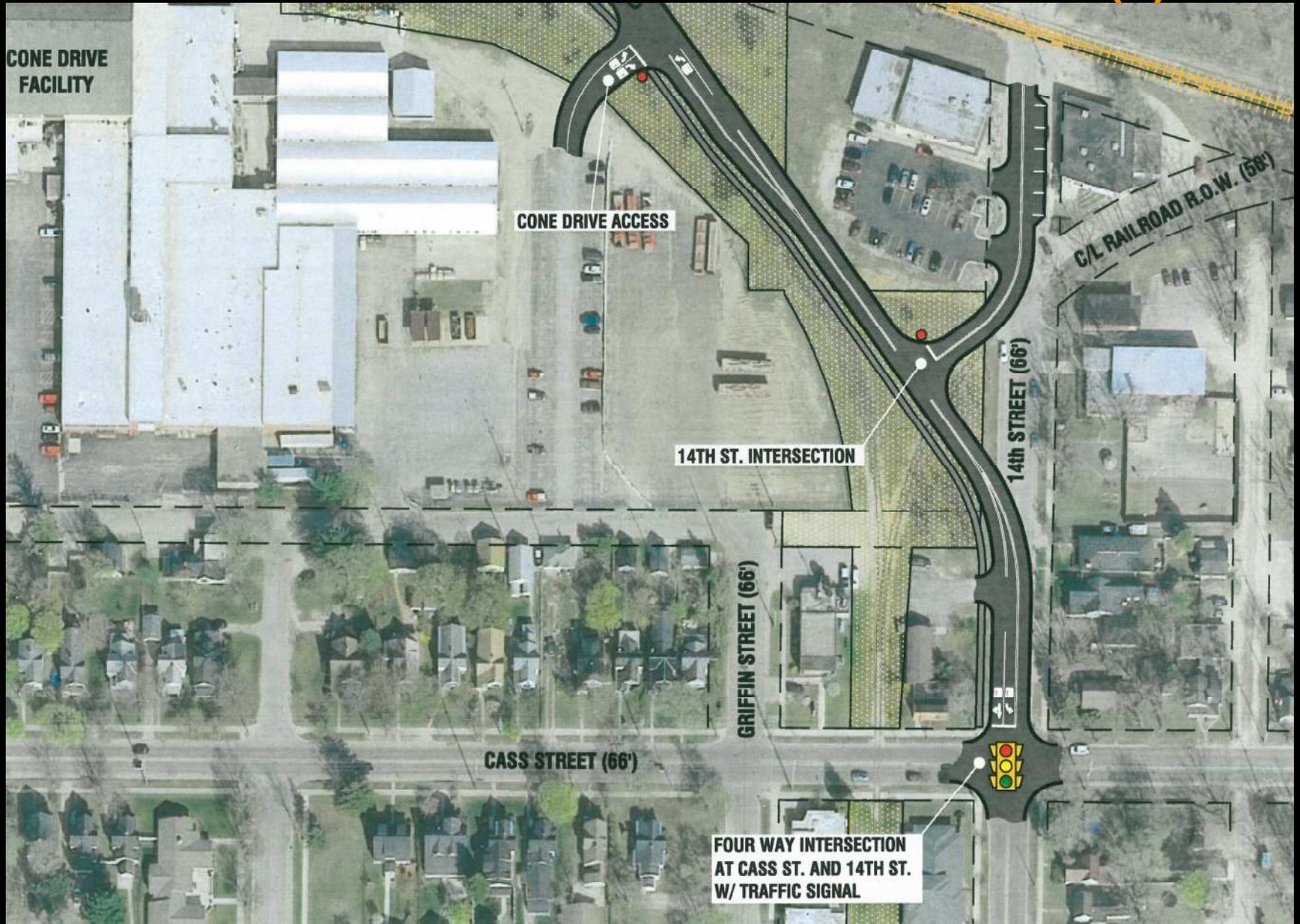
NORTH – ROUNDABOUT OPTION (3)



NORTH – LAKE STREET OPTION (4)



SOUTH – 14TH STREET ACCESS OPTION (5)



SOUTH – 16TH STREET ACCESS OPTION (6)



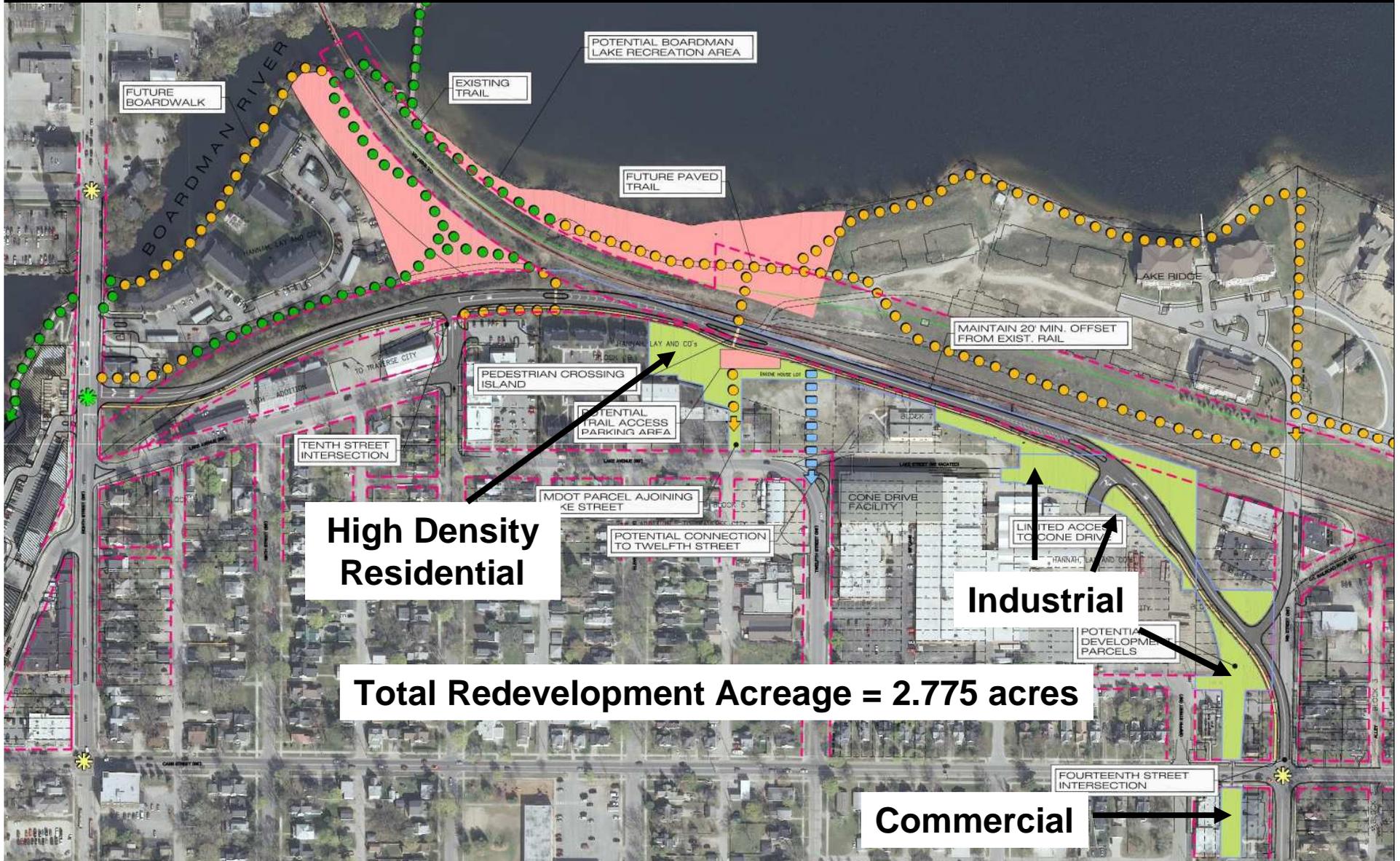
CENTER – TRAILHEAD (7)



CENTER – TRAILHEAD 11th-12th STREET ACCESS (8)



WEST BOARDMAN LAKE REDEVELOPMENT



High Density Residential

Industrial

Total Redevelopment Acreage = 2.775 acres

Commercial

NORTH – RAIL EASEMENT OPTION (1)



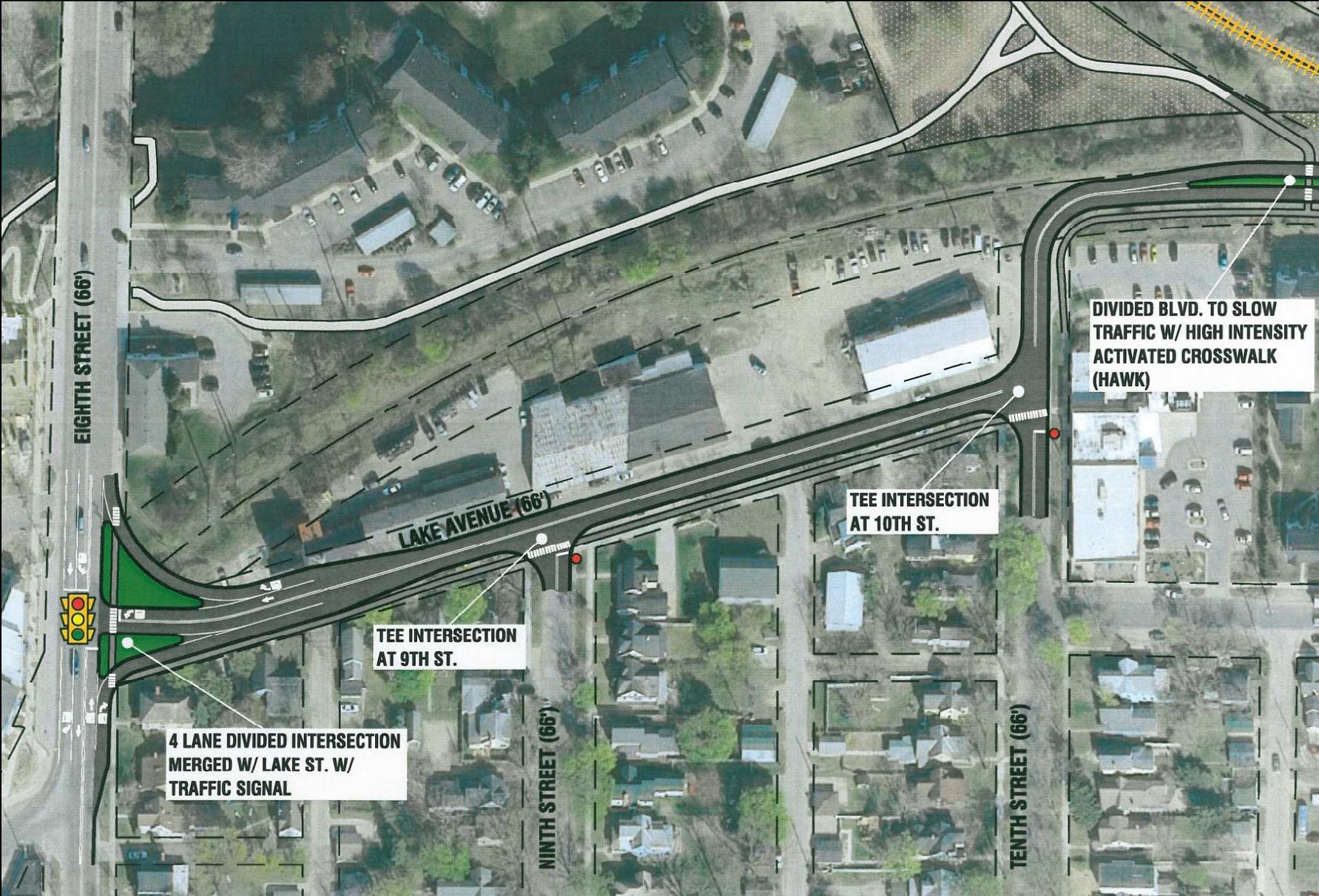
NORTH – RAIL 4 LANE INTERSECTION OPTION (2)



NORTH – ROUNDABOUT OPTION (3)



NORTH – LAKE STREET OPTION (4)



SOUTH – 14TH STREET ACCESS OPTION (5)



SOUTH – 16TH STREET ACCESS OPTION (6)



CENTER – TRAILHEAD (7)



CENTER – TRAILHEAD 11th-12th STREET ACCESS (8)





DISCUSSION – PLANS

- What are the pros and cons of each option?



CITY IMPACTS

- Overall traffic flow analysis
- Reduce divide
- Fencing between rail and street
- Landscaping
- Night Sky lighting

WEST BOARDMAN LAKE





NEXT STEPS

- Publish plans and results on website
- Introduce to City Planning Commission (April 20) and City Commission (April 25)
- Consideration by City Planning Commission (May 3) and City Commission (May 9)