

### Welcome and thank you for coming

First a brief presentation...then feedback stations

- Introduction
- Relmagine Corridor Improvements
- Complete Streets (Elements, Variations & Examples)
- Three Corridor Options
- Traffic/Public Access Analysis
- Transit
- Pedestrian Crossings
- Land Use/Building Form Overview
- What's Next?

### We are here to hear from you



# what is Relmagine Washtenaw?

A *multi-jurisdictional*, *cooperative* initiative to **TRANSFORM** Washtenaw Avenue around efficient mass transit into an attractive, vibrant, walkable, mixed-use corridor, with sense of place.



### current active partners







Ypsilanti Township the official website of the Charter Township of Ypsilanti

















OFFICE OF COMMUNITY & ECONOMIC DEVELOPMENT



### study area

#### Did You Know?

- Washtenaw Avenue is state route called M-17
- Any road improvements being considered will require review and approval by M.D.O.T





### visioning process 2008-2010







### redevelopment strategy

- Mixed-use corridor, create Sense of Place
- "Complete Street" improvements
- Concentrate on Transit Oriented Development at "Nodes"
- Housing, retail and office space easily accessible through high quality transit
- Vibrant neighborhoods and commercial areas connected by safe and pleasant walking and biking facilities





# Relmagine is good for the economy



- Reduced sprawl & pollution
- Reduced infrastructure & service costs
- Enhanced competitiveness
- Improved commercial conditions
- Investment stability
- Increased property values
- Connecting low and moderate-income people to jobs through improved transit access

"Across the country, transit oriented development has significantly greater value than property not near transit." - Urban Land Institute

### creating a complete street

- Corridor improvements more detailed planning
- Street, pedestrian zones, bike lanes, pedestrian crossings





5 miles, 4 communities, 3 cross section types, 2 dozen road crossings and one vision

### a service oriented corridor





- Primarily commercial 53% of the 5 miles
- Lots of active, successful commercial more under way

### a service oriented corridor









• 100 acres for redevelopment vacant/underutilized building





(Source: Re-Imagining Washtenaw Avenue, 2009)

Vision

Stronger commerce, improved shopper safety and experience

**Relmagine Washtenaw** 

# a place many call home

 It is the front door to many - whether you live along the road (24% of the corridor) or in adjacent neighborhoods





• Auto oriented challenges – congestion, high speeds and volumes, noise, poor visual experience

Vision Welcoming sense of place for residents w/ improved "curb appeal"

#### **Pedestrians**

- High volumes- residential & commercial
- Pedestrians <u>not</u> a priority in 20<sup>th</sup> century
- Progress being made: 47 % of frontage did not have walks (2000) – today reduced to 21%
- Still work to be done to improve pedestrian "level of service" (PLOS) increase buffers, add street trees, calm traffic, install pedestrian crossings

#### Safety - Did You Know?

One pedestrian death every 2 hours and a pedestrian injury every 8 minutes.





#### Vision

Comfortable + safe pedestrian zone and cross walks for all users all year long

**Relmagine Washtenaw** 

### <u>Bicyclists</u>

- Rapidly expanding method of transportation - up 11.8% 2006-2011 (Source: National Sporting Goods Association 2011)
- Currently no bike lanes along entire route
- Community planning documents call for continuous bike facilities
- Recommendation Improve bike "level of service" (BLOS) with continuous buffered bike lanes



#### Bicycling- Did You Know?

After buffered bike lanes were installed on Philadelphia's Spruce and Pine streets, bike traffic increased 95% and the number of bicyclists riding on the sidewalks decreased by up to 75% Bicycle Coalition of Greater Philadelphia, 2010

#### Vision

Improved bicycling connectivity for commuters and recreational users



#### <u>Auto</u>

- Average daily traffic (ADT) 26,000 45,750 (both directions)
- Three intersections have high crash frequencies Hogback, Glencoe Crossing and Golfside
- Ann Arbor Ypsilanti average commute increases 9 min. at peak (Source: Re-Imagining Washtenaw Avenue, 2009)
- Next Steps Improve traffic flow with increased transportation options, intersection operations and traffic calming measures

What is Traffic Calming?

Measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for nonmotorized users<sup>- Lockwood, Ian. ITE Traffic Calming</sup>

Definition. ITE Journal, July 1997, pg. 22.

- Curb extensions
- □ Speed tables, raised crosswalks
- Median island
- Tighter corner radii
- Roundabouts
- Bike lanes
- Road diets
- □ Street trees
- Roadway striping
- □ Speed reductions

#### Vision

Improve safety and maintain acceptable levels of service as the corridor evolves

**Relmagine Washtenaw** 

#### <u>Transit</u>

- Highest ridership in AATA transit system
- Lack of sidewalks make bus accessibility poor
- Narrow ROW limits ability to add bus stop amenities
- Traffic congestion affects service reliability (delay)
- Transit stop consolidation, improvements underway



#### Vision

A true "transit oriented" corridor with an efficient and effective mass transit system

**Relmagine Washtenaw** 

# What does a **Complete Street** look like?

### The Circa 1900 Complete Street



Circa 1900 : Photo of men constructing the first mile of concrete road on Washtenaw

Source: Ypsilanti Historical Society

- Rail
- Horseback
- Vehicular
- Wheelbarrow?

#### How many modes can you find?

### The 21<sup>st</sup> Century Complete Street

Public Act 135 defines complete streets as "...roadways planned, designed, and Art constructed to provide appropriate access to all legal users ... whether by car, truck, transit, assistive device, foot, or bicycle." Vegetation State Transportation Commission Policy on Complete Streets, July, 2012 Outdoor Dining Transit Bicycle Lańe Island On Street Parking Sidewalk

#### Building a Complete Street



#### **Current Road Condition**

#### Building a Complete Street



#### Narrow Road Lane Width

 to ensure safety to pedestrians by calming traffic speeds and shortening crosswalks



### Adding Buffered Bike Lanes

- to ensure safety to bicyclists by creating a **buffer from motorists**
- allowing cyclists to ride in the roadway where they are more likely to be **seen by motorists**
- allow bicyclists to move at a comfortable speed undetermined by the flow of adjacent traffic



### Adding Mid-block Crossings

 to ensure safety and convenience to pedestrians by properly marking designated areas to cross the road



#### Adding Pedestrian Zones

• At **Links** and **Nodes** which include the following:



### Sidewalks

• to ensure safety to pedestrians with **one continuous path** through the corridor



### Landscaped Buffers

- to ensure safety to pedestrians by **creating space from traffic**
- creating a more environmentally friendly corridor by **filtering runoff** and
- beautifying the streetscape with **lush vegetation**



### **Activated Space**

• which can **enliven the corridor** with the addition of outdoor dining, art, additional screening & seating/benches

# What are the complete street variations that could fit **Our Corridor**?

	6' 8' Walk Landscape Buffer	7' 2' Buffered Bike Lane	11' Travel Lane	11' Travel Lane	11' Turn Lane	11' Travel Lane	11' Travel Lane	7' 2' Buffered Bike Lane	8' Landscape Buffer	12'     activated space		
operty Line	 14' (20' at Node) Pedestrian Zone	69' Road Pavement Zone									roperty Line	
ď	97' (109' at Node) Future Public Access											

5 Four Travel Lanes with Center Turn and Two Bike Lanes



### Add a Narrow Median

- to ensure safety by **shortening the length** one travels to cross the road
- and by **calming traffic**



**4a** Four Travel Lanes with Narrow Median and Two Bike Lanes



### Widen the Median

- to ensure pedestrian and driver safety by allowing **indirect left** turns
- as well as providing 20 50% greater vehicular capacity at intersections
- and to look to the future and create enough room to accommodate other types of transit

6' 8' Walk Landscape Buffer	7' 2' Buffered Bike Lane	11' Travel Lane	11' Travel Lane	45' Wide Median (Could Accommodate Future Transit System) (Indirect Left)	11' Travel Lane	11' Travel Lane	7' 2' Buffered Bike Lane	8' Landscape Buffer	12' activated space
14' (20' at Node) Pedestrian Zone	14' (20' at Node) Pedestrian Zone 103' Road Pavement								
ă.				131' (143' at Node) Future Public Access					

Four Travel Lanes with Wide Median and Two Bike Lanes



### Road Diet

- to ensure safety to pedestrians and motorists by eliminating multiple threat sideswipe & severe crashes
- to ensure safety to pedestrians by **shortening crosswalks**
- to **reduce traffic noise** and to **gain space** for other amenities, such as:

	6' 8' 7'   Buffer 8' Buffer 7'	A 11' Travel Lane	11' Turn Lane	11' Travel Lane	7' 2' Buffered Bike Lane	8' Landscape Buffer	12'     activated space	
roperty Line	14' (20' at Node) Pedestrian Zone	R	47' Road Paveme		14' (2 Ped Z	0' at Node) estrian one	Property Lin	
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### **On Street Parking**

- to ensure safety to pedestrians by providing a **buffer to pedestrians**
- to make street-orientated **businesses more viable** and
- to **serve residents**



**3a** Two Travel Lanes with Center Turn, Two Bike Lanes and Parking



### and Dedicated Transit Lanes

- to ensure safety by **reducing crashes** involving transit
- to **reduce traffic congestion** by drawing people from their cars to reliable & efficient transit



Two Travel Lanes with Center Turn, Two Bike Lanes and Two Transit Lanes

# Are there **real life** applications of these options?

### **Example**: 5-lane with bike lanes



Stadium Boulevard, Ann Arbor, Mi

### **Example**: Medians



Direct Left - Mack Avenue, Grosse Point Woods, MI



Indirect Left & Buffered Bike Lanes - Northwestern Highway (M-10), Southfield, MI

### **Example**: 5-lane to 3-lane conversion



Before: Main Street in Pottstown, Pa (5-lane with parking)

After: Main Street in Pottstown, Pa (3-lane with bike lanes and parking)

### **Example**: Dedicated transit, 3-lane



Euclid Avenue, Cleveland, OH

# Putting the sections together



# Scenario A: Uniform (5-lane)



#### Scenario A Uniform (5-Lane)































att





# Scenario C: Dedicated Transit (4-lane w/median & 3-lane)



SPECIAL CONDITION

SPECIAL CONDITION

#### Scenario **C Dedicated Transit** (4 Iane w/median & 3 Lane)





#### Scenario **C Dedicated Transit** (4 lane w/median & 3 Lane)



# How do we know these scenarios will work? Vehicular Traffic/Public Access Needs



#### Vehicle volumes

Source: TDM Reform Demonstration Project, Smart Growth America 2013



Amount of space required to move the same number of people by car, bus and bicycle

Source: TDM Reform Demonstration Project, Smart Growth America 2013





# Encouraging Mode Shifts

### How desired mode shift/diversion can be encouraged:

- Traffic moves to another street (Packard and Huron River Drive / Clark)
- Commuters choose alternatives to their cars
- Commuters may choose to combine trips or carpool
- Commuters choose different times outside of peak hours to travel

# background of traffic analysis

### <u>Process</u>

- Developed computer models to determine the amount of time that the driver waits at signalized intersections
- Used traffic volumes (MDOT/WATS), number of lanes, signal timings, and number of buses
- Assumption: LOS D or better preferred, with a LOS E not uncommon and sometimes acceptable in urban areas

Levels of Service	Seconds of Delay	Description
LOS A through C	0 – 35 seconds	Very little delay at signals, will get through the signal
LOS D	35 — 55 seconds	Some delay at signals, will usually get through the signal
LOS E	55 — 80 second	Moderate delay, may have to wait through a signal
LOS F	> 80 seconds	A lot of delay, will likely have to wait through a signal

# **Existing Conditions/No Action**



### **Projected Traffic Volumes**

- 2% AM and 3% PM increase in traffic for 2020
- 12% AM and 6% PM increase in traffic for 2040

Intersection	Today	2040
Huron Parkway	D / D	D / D
Hogback/Carpenter/NB US-23	E/E	F/F
Golfside	D / D	E / D
Hewitt	С/С	C/C
Oakwood	B / B	B / B

# Scenario A: Uniform (5-lane)



### Impacts to Automobiles

– Updated signal timing

Intersection (autos)	Today	2040
Huron Parkway	D / D	D / D to D / <mark>E</mark>
Hogback/Carpenter/NB US-23	E/E	<b>F / F</b> to <b>C / D</b>
Golfside	D / D	<b>E</b> / D to <b>D</b> / <b>E</b>
Hewitt	С/С	С/С
LOS below D Oakwood	B / B	B / B

# Scenario A: Uniform (5-lane)



### Impacts to Buses

- Added Transit Signal Priority for 2040
- Bus LOS is better with Transit Signal Priority

Intersection (buses)		Today	2040
Huron Parkway		D / D	D / D
Hogback/Carpenter/NB US-23		E/E	<b>F / F</b> to <b>D</b> / <b>D</b>
Golfside		D / D	E / D to C / D
Hewitt		С/С	D / D
LOS Improves LOS below D	Oakwood	B / B	B / B

# Scenario A: Uniform – Public Access Needs

• Pedestrian zone east of US-23 requires significant additional public access to implement





### Impacts to Automobiles

- Some intersections would require 15% (~200 vph) reduction in through traffic to maintain LOS E,
- –A LOS D would require a 20%-25% reduction

Intersection (autos)		Today	<b>2040</b> <sup>2</sup>
Huron Parkway		D / D	D / D
Hogback/Carpenter/NB US-23 <sup>1</sup>		E/E	<b>F / F</b> to <b>D</b> / <b>E</b>
	Golfside	D / D	<b>E</b> / D to <b>)</b> / <b>E</b>
LOS improves LOS below D	Hewitt	С/С	C / D
	Oakwood	B / B	B / C
<sup>1</sup> Assumes geometric improvements to US-23 interchange. <sup>2</sup> Assumes 15% reduction in through traff			
#### Scenario B: Varied (5-lane, 4-lane w/median & 3-lane)



#### Impacts to Buses

- All signals would have Transit Signal Priority
- Intersections east of Carpenter Road: buses use right-turn lane for a queue jump

Intersection (buses)		Today	<b>2040</b> <sup>2</sup>
Huron Parkway		D / D	D / D
Hogback/Carpenter/NB US-23 <sup>1</sup>		E/E	<b>F / F</b> to <b>D</b> / <b>D</b>
Golfside		D / D	<b>E</b> / ]) to D / <b>E</b>
	Hewitt	С/С	C / D
LOS Improves LOS below D	Oakwood	B / B	B / D
	<sup>1</sup> Assumes geometric im	provements to US-23 interchange.	<sup>2</sup> Assumes 15% reduction in through tr

#### Scenario B: Varied – Public Access Needs

• Requires the least amount of additional public access



# Scenario C: Dedicated Transit (4-lane w/median & 3-lane)

#### **Impacts to Automobiles**

- Some intersections would still require 15% reduction in traffic to maintain LOS E or better
- LOS for automobile traffic similar to Scenario B, but may improve if more people ride transit

Intersection (autos)		Today	<b>2040</b> <sup>2</sup>
Huron Parkway		D / D	D / D
Hogback/Carpenter/NB US-23 <sup>1</sup>		E/E	<b>F / F</b> to <b>D</b> / <b>E</b>
Golfside		D / D	<i>E</i> / D to D / E
LOS improves LOS below D	Hewitt	С/С	C / D
	Oakwood <sup>1</sup> Assumes geometric improve	<b>B / B</b> ments to US-23 interchange. <sup>2</sup> Assu	B / C Imes 15% reduction in through traffic.

#### Scenario C: Dedicated Transit (4-lane w/median & 3-lane)



#### **Impacts to Bus**

- LOS for buses would be improved over Scenario B

Intersection (buses)		Today	<b>2040</b> <sup>2</sup>	
Huron Parkway		D / D	<b>C/C</b>	
Hogback/Carpenter/NB US-23 <sup>1</sup>		E/E	<b>C/C</b>	
Golfside		D / D	<b>C / D</b>	
LOS improves LOS below D	Hewitt	С/С	<mark>B / C</mark>	
	Oakwood	B / B	A / C	
<sup>1</sup> Assumes geometric improvements to US-23 interchange. <sup>2</sup> Assumes 15% reduction in through traffic.				

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SmithGroupJJR | Parsons Brinckerhoff

#### Scenario C: Dedicated Transit – Public Access Needs

• Has the greatest public access needs



# What is being proposed for **transit**?

#### **Transit Improvements**



- Queue Jumps
- Transit Signal Priority
- Super Stops/Pull Offs

#### Super Stops



Typical Washtenaw Corridor Super Stop

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#### Super Stop – Examples



Metro Area Express, Kansas City Area Transportation Authority

#### How does the chicken cross the Corridor? Good question.

#### pedestrian crossing need

Pedestrian volumes are driven by transit access, major destinations and adjacent residential land use

Indicator	Washtenaw	"Pedestrian Friendly" Street
Traffic volumes	26,000 – 45,750 ADT	14,000 ADT (Main St. Ann Arbor)
Speed limit	40-45 mph	25 – 30 mph
Road width (avg)	63 ft	30 ft
Crossing time (avg)	18 seconds	8.5 seconds
Block size	Platt – Huron Parkway 1250 ft. Huron Parkway – Pittsfield 1360 ft.	300 – 400 ft
Accidents	Intersection *23/Hogback/Carpenter *Golfside Huron Parkway Hewitt	Average Crash Frequency 

#### pedestrian crossing types

- **Street Intersections**: traffic is usually moving in multiple directions because of turning vehicles
- Midblock Crossings: traffic moving in two directions; need to consider crossing times, crosswalks, curb ramps, medians, refuge islands.





#### pedestrian crossing – potential locations

**Street Intersections:** Pedestrian crossing conditions vary at the intersections across the corridor.

Improvements for the signalized intersections could include – sidewalks, ADA ramps, refuge islands, pedestrian oriented signals.

- Stadium
- Manchester
- *Platt (under development)*
- Huron Parkway
- Pittsfield

- Yost
- Carpenter
- Glencoe Crossing
- Golfside
- Fountain Plaza



- Hewitt
- Mansfield
- Oakwood
- Summit

#### pedestrian crossing – potential locations

**Midblock Crossings:** There are many locations where pedestrians are crossing the street without a pedestrian crossing.

New /improved midblock crossings will be added in the corridor. Potential segments include:

- Platt to Huron Parkway (near Whole Foods)
- Huron Parkway to Pittsfield (near Peasano's)
- Carpenter to Glencoe Hills Drive (Service Center)
- Glencoe Hills Drive
- SpiceTree and McDonalds



- Maulbetsh (at Cueter Chrysler)
- west of Courtland (near Dairy Queen)
- Near Roosevelt
- Oakwood to Cross (@ EMU)

Note: Location and design of all pedestrian crossings will require additional MDOT analysis and approval

# Is there anything **Planned Adjacent** to the corridor?

#### Design Guidelines / Zoning Study



Ann Arbor PittsfieldTownship

Ypsilanti Township

Ypsilanti

#### **Corridor Transformation**

- Requires a paradigm shift--from land use and development decisions to building massing and materials choices
- Guide and monitor development of individual sites and buildings, roadways, landscaping, and all other site improvements, in order to guarantee excellence and innovation in design
- Focusing on economic revitalization of corridor

"The desire to go 'through' a place must be balanced with the desire to go 'to' a place" PA/NJ DOT's, Smart Transportation Guide







### **Process Leading to Transformation**



- Promote a mixture of uses
- Site arrangement options
- Reduced/relocated parking
- Transit-oriented design
- Improved ped/bike design
- Apply Building Form guidelines

## So, what's Next?

In a moment we will ask you to provide input by visiting the **6 Stations** that are set up, so that you can become integrated in the planning process and help us Relmagine Washtenaw!

#### You can also provide input online at **Peak Democracy**. So, please tell your friends and family to help us refine a **consensus vision** for our corridor.

#### www.washtenawavenue.org

#### We will be holding **another Public Meeting** in the Fall Stay tuned and thank you for coming

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