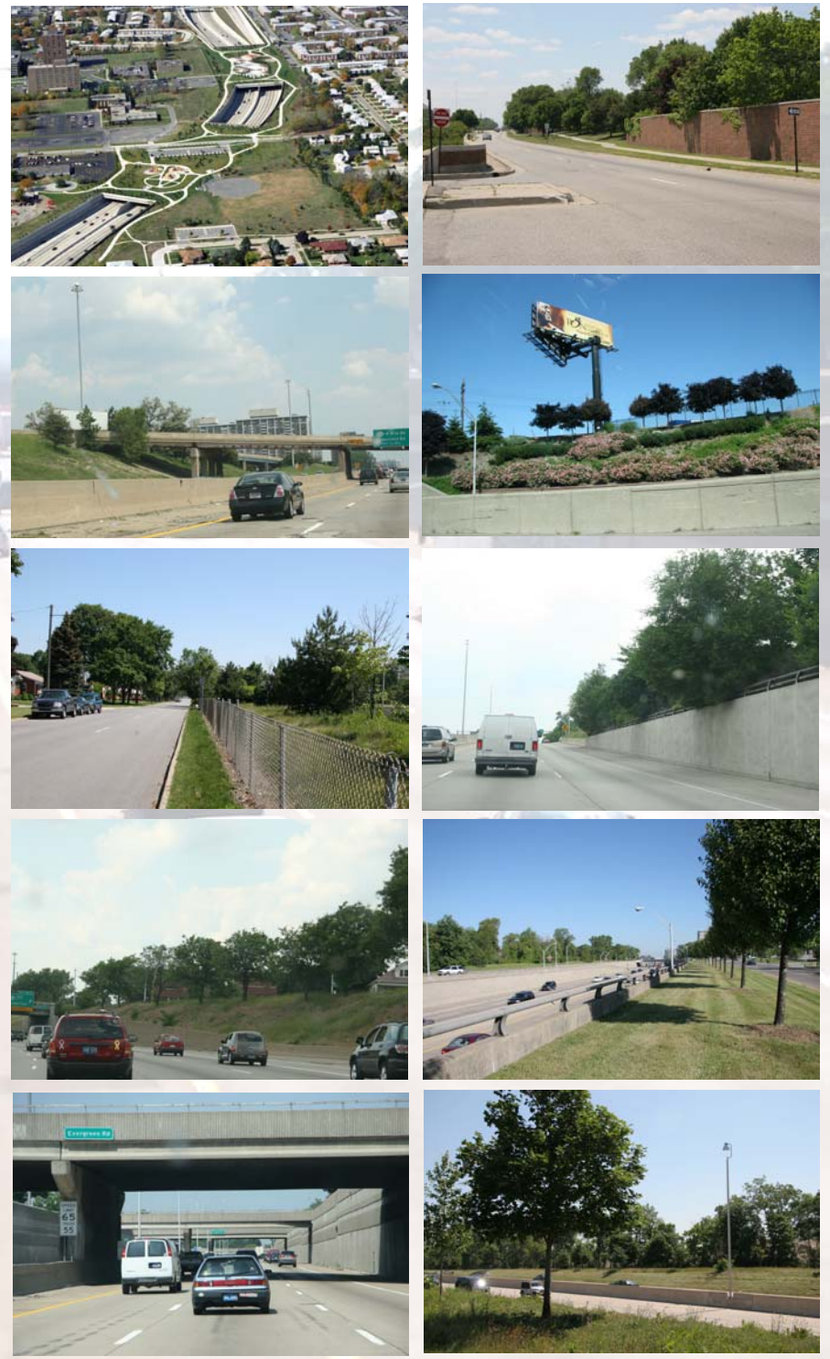
# DETROIT RIVER INTERNATIONAL CROSSING STUDY

## BUS TOUR

### June 26th 2006



Detroit River International Crossing EA
Bus Tour June 2006

Tour Book

URS

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## The Tour

An opportunity for the Project Team and the public to view and comment on existing roadway features that could be considered for the access route alternatives.

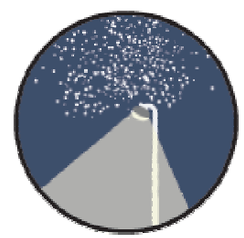
## Make observations of ***Potential Treatments***

*VEGETATION*

*CONNECTIONS*

*SOUND ATTENUATION*

*EARTHFORMING AND BERMS*

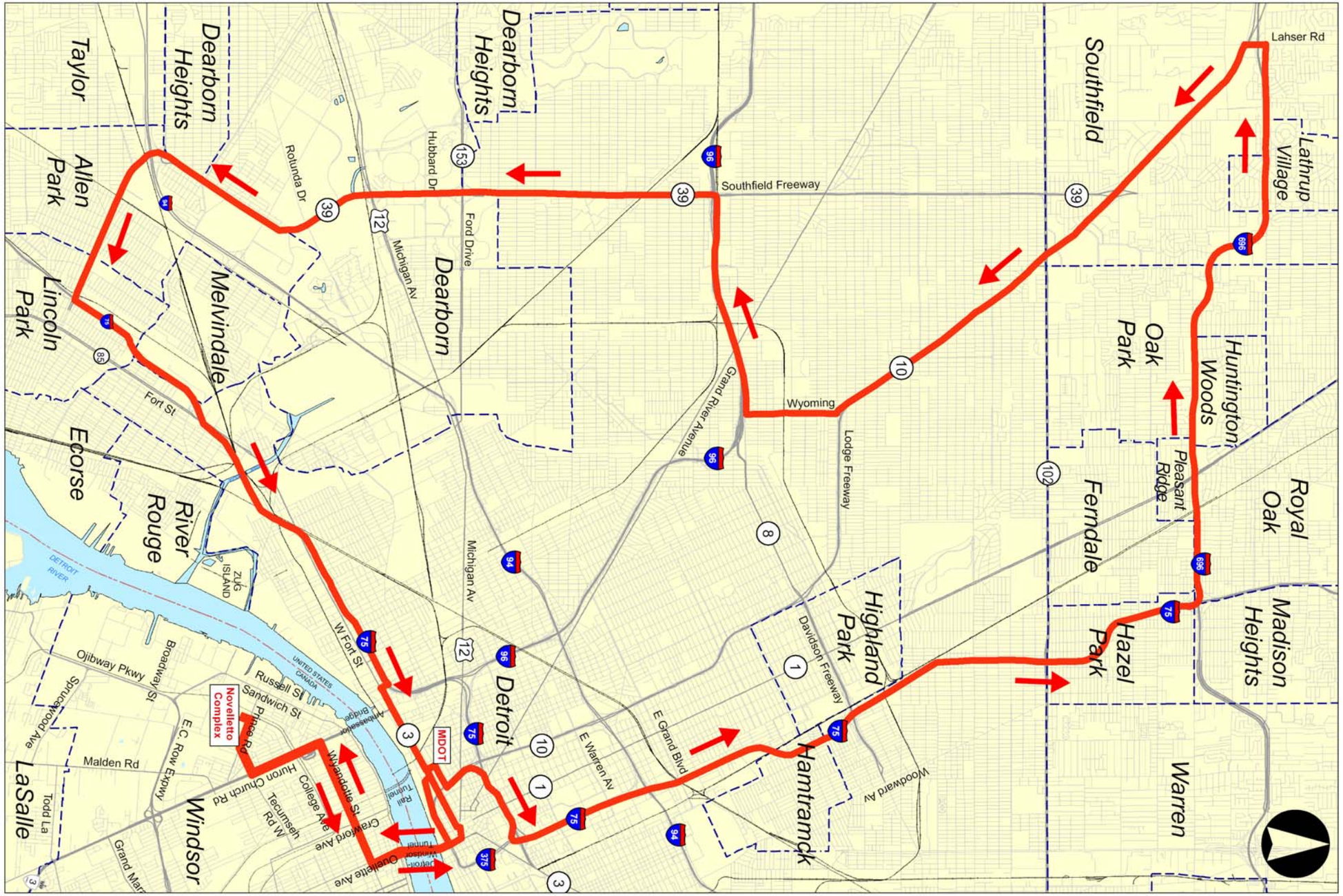

*LIGHTING*

*SUSTAINABLE TECHNOLOGIES*

*UNIFYING MOTIFS*

*WATER MANAGEMENT*

## What are opportunities for the DRIC Study?





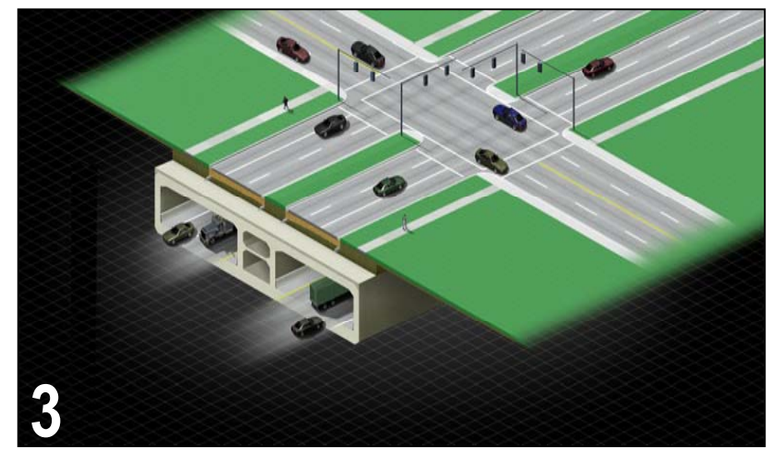

# Key Map of Tour Route

One-way service roads on either side of 6-lane freeway at grade.

One-way service roads either side of 6-lane freeway depressed.

Six-lane freeway at grade, along side Huron Church/Highway 3.

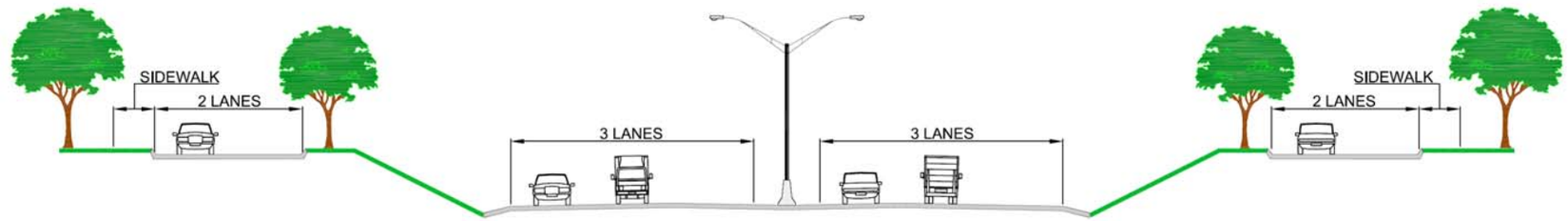
Six-lane freeway depressed, parallel to Huron Church/Highway 3.



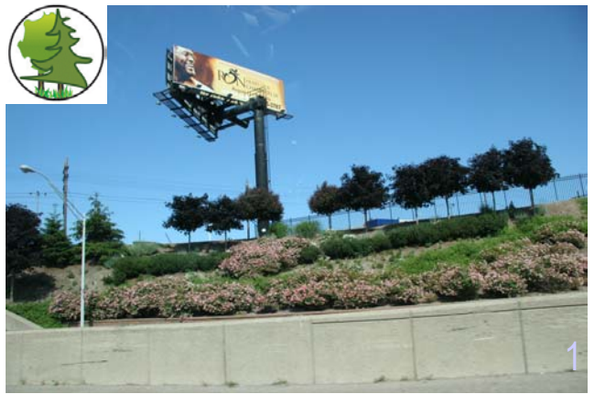

Cut and cover tunnel below rebuilt Huron Church Road/Highway 3 Corridor.



# Cross Section Alternatives




I-75 Typical Section




## *Observe...*

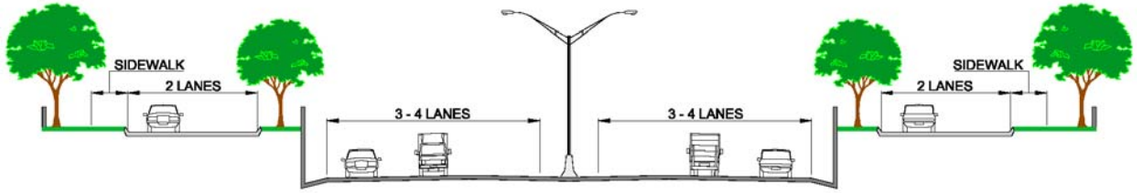
Typical Cross Section:

- 6 Lanes;
- 2-lane (one way) service roads on either side;
- Depressed with embankments

Potential Solutions at Roadside:

- Vegetation – Mature Trees / plantings within right-of-way;
- Lighting – Conventional;
- Retaining Wall – Patterned Concrete.

*…how could these apply to the DRIC Access Road?*




I-696 Typical Section

## *Observe...*

Typical Cross Section:

- 6 to 8 Lanes;
- 2-lane (one way) service roads on either side;
- Depressed with retaining wall

Potential Solutions at Roadside:

- Vegetation – Trees within right-of-way;
- Connections – Pedestrian Plazas;
- Sound Attenuation – Red Brick;
- Earthforming/Berms – At Residential Areas
- Lighting – Conventional;
- Retaining Wall – Patterned Concrete.

*...how could these apply to the DRIC Access Road?*

*MDOT Context Sensitive Solutions Case Study: Metro Region*

# Three Pedestrian Plazas over I-696

## Context

These three pedestrian plazas are located in the cities of Oak Park and Southfield in Oakland County. The area includes a mix of residential, community, and commercial properties.

## Purpose and Description

The purpose of the pedestrian plazas is to maintain connectivity within neighborhoods that would have been separated by the freeway construction. Three pedestrian plazas (bridge decks), each approximately 700 feet wide, within a mile length along I-696 were built as part of the original freeway construction in 1989.

## Public Engagement

Residents adjacent to each plaza provided design input as to surface features such as green space, curvilinear walkways, active and passive play areas, and a local street. In addition, features removed by the freeway were replaced.

## Context Sensitive Solutions Approach

The width of each plaza was determined by adjacent residential developments, established pedestrian paths, no additional residential purchases would be made, and that no artificial ventilation would be required. The bridge carrying Greenfield Road over the freeway was given extra wide pedestrian sidewalks and a few isolated homes were purchased to increase park areas adjacent to the plazas.

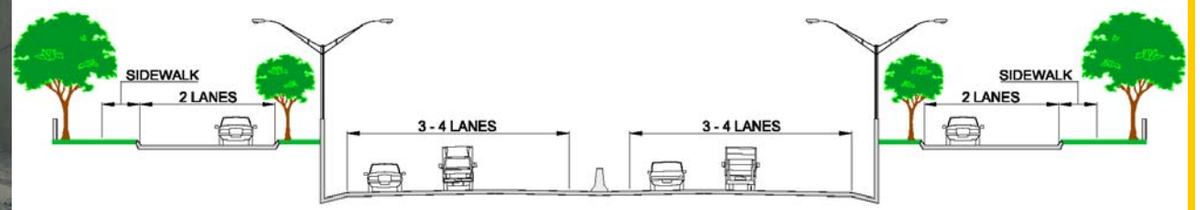
## Outcome

The plaza surfaces are maintained by the cities of Oak Park and Southfield, while MDOT retains maintenance responsibility for the plaza structures.

*Contacts: Win Stebbins, Engineer Manager, Lansing, 517-373-2246*
*Mike Eustice, Region Construction Engineer, Metro*

*Region, 248-483-5173*
Nov 2005

This fact sheet courtesy of MDOT




M10 Typical Section

## *Observe...*

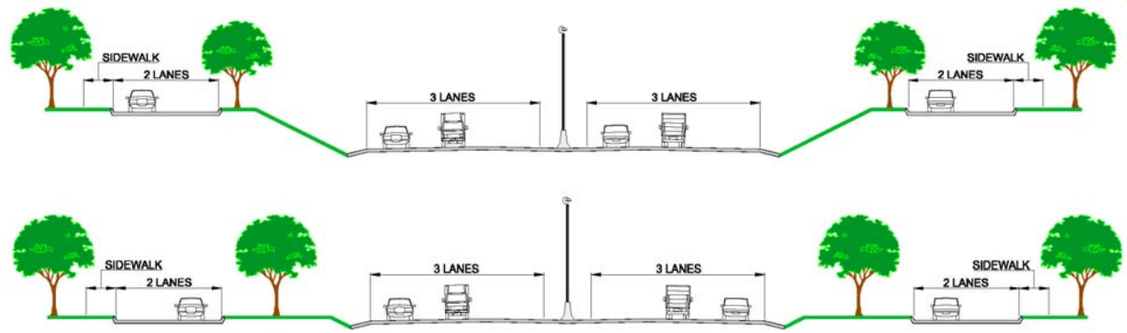
Typical Cross Section:

- 6 Lanes;
- 2-lane (one way) service roads on either side;
- Depressed with retaining walls and embankments.

Potential Solutions at Roadside:

- Vegetation – Mix of young & mature;
- Earthforming/Berms – At Residential Areas
- Lighting – Conventional; High mast;
- Retaining Wall – Concrete, Patterned Concrete.

*…how could these apply to the DRIC Access Road?*




M39 Typical Sections

## *Observe...*

Typical Cross Section:

- 6 Lanes;
- 2-lane (one way) service roads on either side;
- Depressed with embankments;
- At grade.

Potential Solutions at Roadside:

- Vegetation – Young & mature mix of coniferous and deciduous trees;
- Lighting – Unconventional;
- Retaining Wall – Concrete, Patterned Concrete.

*...how could these apply to the DRIC Access Road?*

# Vegetation

M-39, Michigan

I-696, Michigan

Lakeshore Boulevard West, Toronto

I-96, Michigan

St.John's Sideroad, Aurora

Lakeshore Boulevard, Toronto



## Examples from Other Locations

# Connections

I-696, Michigan

Windsor

The Netherlands

The Netherlands

Barcelona, Spain

Windsor

The Netherlands

The Netherlands



## Examples from Other Locations

# Sound Attenuation

Huntington Woods, Michigan

I-696, Michigan

M-39, Michigan

Southern Ontario

404, Markham

Southern Ontario

Miami, USA

I-696, Michigan

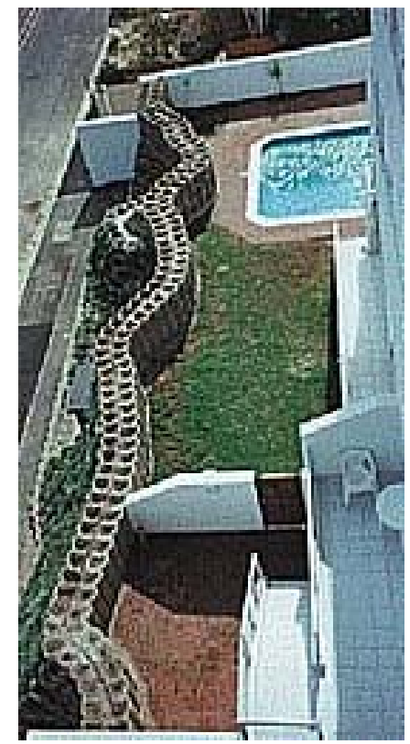
I-75, Michigan



## Examples from Other Locations

# Sound Attenuation

Noise barrier along the road to Digne, France (Photo: Demailly)





## Examples from Other Locations

# Earthforming / Berms

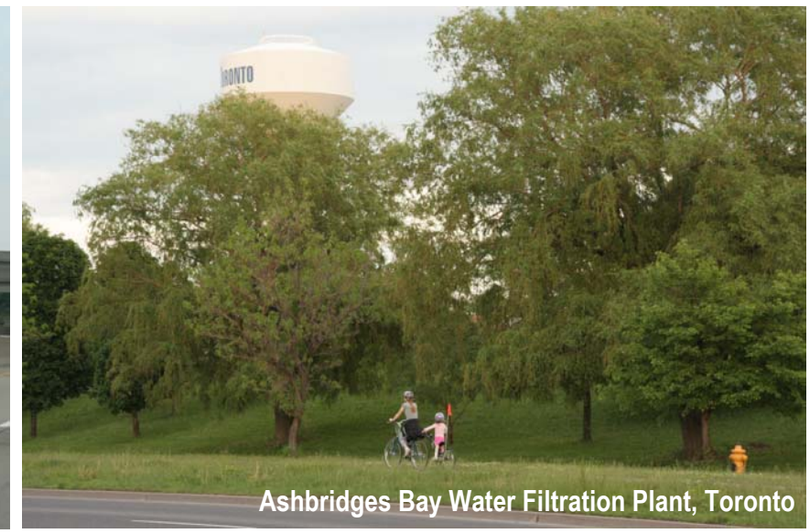
404, Markham

Bristol, UK.

Bristol, UK

I-696, Michigan

M-39, Michigan


Ashbridges Bay Water Filtration Plant, Toronto



## Examples from Other Locations

# Lighting

I-696, Michigan

Barcelona, Spain

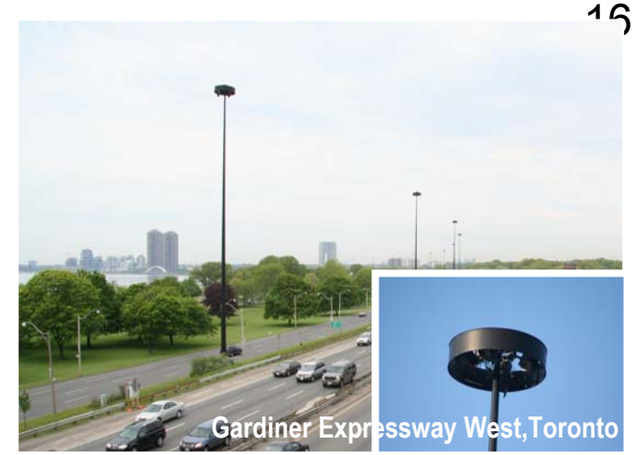
Lakeshore Boulevard East, Toronto

St.John's Sideroad, Aurora

M39, Michigan

Don Valley Parkway, Toronto

Denmark


Gardiner Expressway West,Toronto

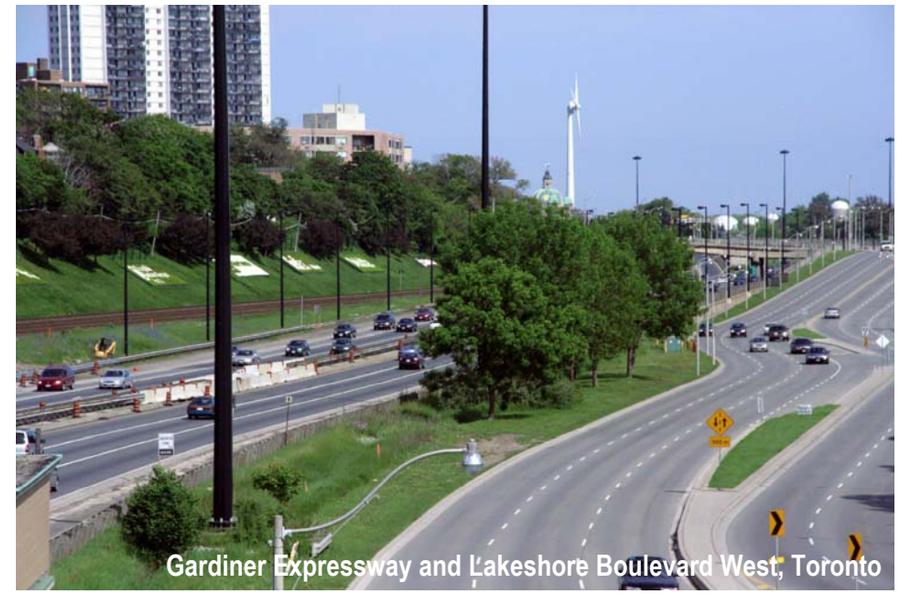
M39, Michigan

Gardiner Expressway West , Toronto



## Examples from Other Locations

# Sustainable Technologies



## Examples from Other Locations

# Motifs

Texas, USA

Miami, USA

Texas, USA

Sudbury

Oslo, Norway

Jersey City, USA

Wawa, Ontario



## Examples from Other Locations

# Water Management

# Retaining Walls

Bayview Ave, Toronto

Bayview Ave, Toronto

M-10, Michigan

I-696, Michigan

Germany

M-39, Michigan

The Netherlands

I-696, Michigan

M-39, Michigan

M-10, Michigan



## Examples from Other Locations

# Sidewalks

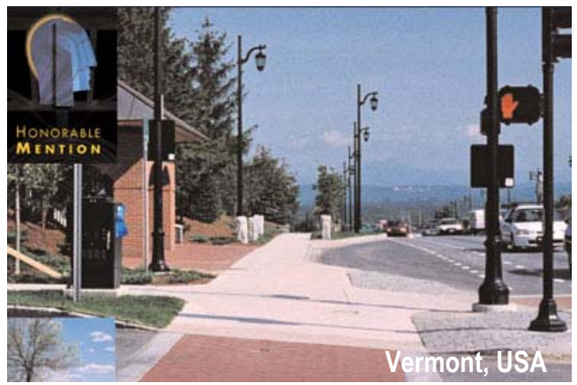
St.John's Sideroad,Aurora

St.John's Sideroad, Aurora

Lakeshore Boulevard East, Toronto

Lakeshore Boulevard West, Toronto

I-696, Michigan



Vermont, USA

Queen Street Overlooking
Gardiner Expressway ,Toronto

Washington, USA

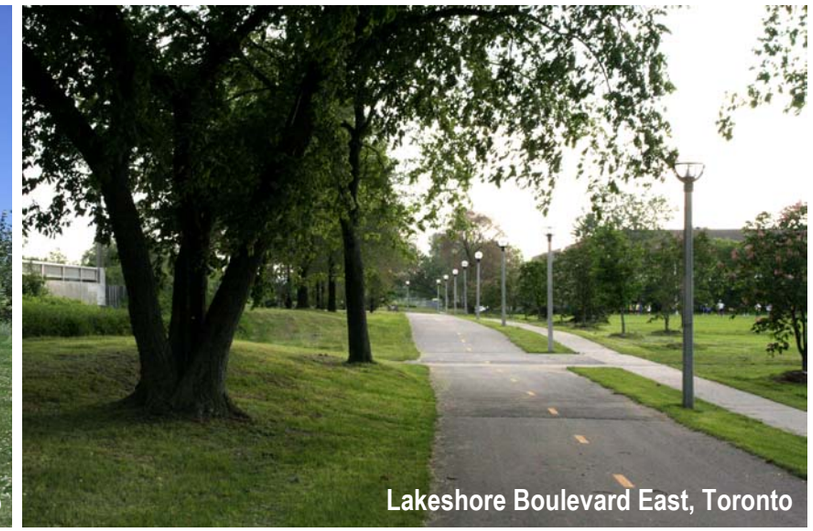


## Examples from Other Locations

# Bike paths

Lakeshore Boulevard West , Toronto

Ashbridges Bay, Toronto


Lakeshore Boulevard East, Toronto

Lakeshore Boulevard West, Toronto

Lakeshore Boulevard East, Toronto

# Access Roads

Pearson International Airport, Toronto

Pearson International Airport, Toronto

North Service Road, Windsor

The Netherlands

North Service Road, Windsor



## Examples from Other Locations

# Access Roads – Gardiner Expressway, Toronto

Gardiner Expressway East After

Gardiner Expressway East After

Before

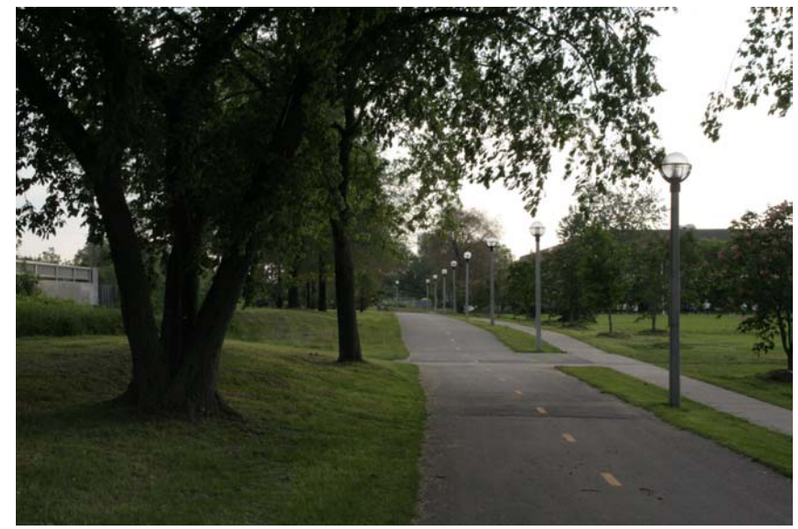
Gardiner Expressway and Lakeshore Boulevard West, Toronto

Before



## Examples from Other Locations

# Access Roads – Gardiner Expressway, Toronto

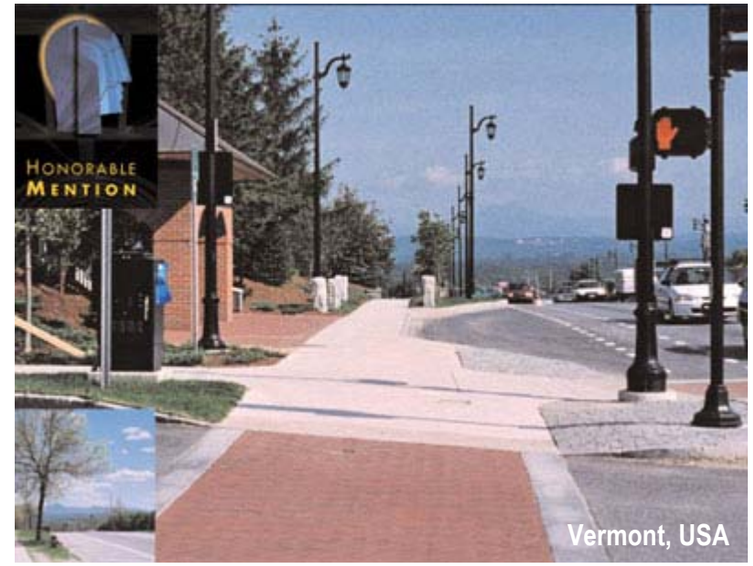


# Access Roads - St. John's Side Road, Aurora

# FHWA Award Examples

Minnesota, USA

Washington, USA



Vermont, USA

Minnesota, USA

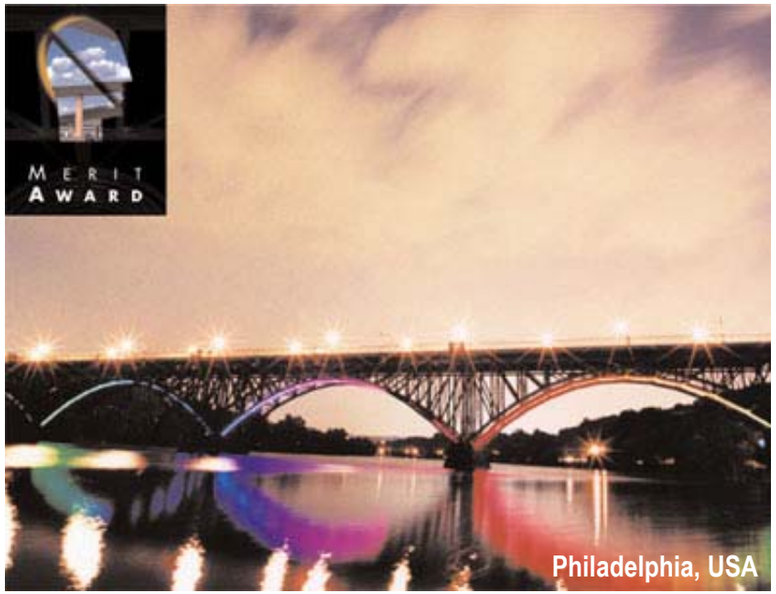
Colorado, USA

Boston, USA

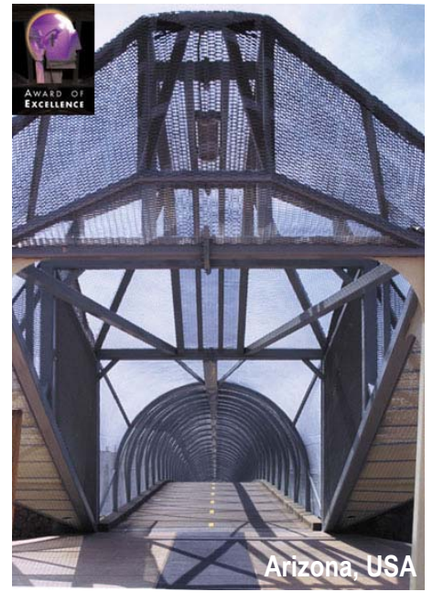


## Examples from Other Locations

# FHWA Award Examples



Philadelphia, USA



Arizona, USA

Minnesota, USA

Tennessee, USA

Las Vegas, USA

Virginia, USA



## Examples from Other Locations

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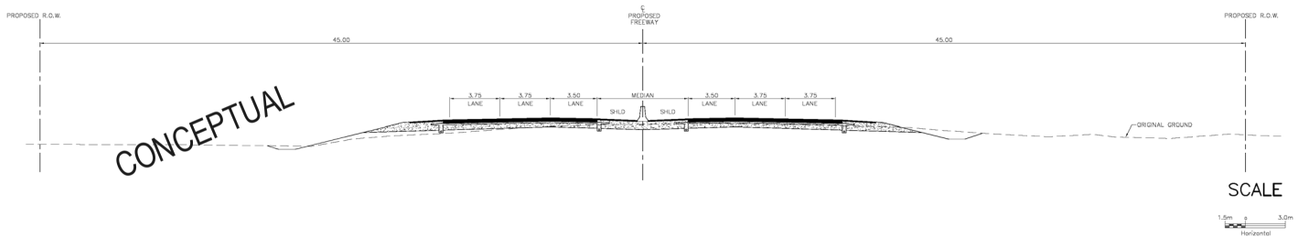
# Access Road Conceptual Visualizations – Highway 401

Highway 401 from Dougall Parkway to Highway 3.

## Existing Conditions

Highway 401 from North Talbot Road to Highway 3 to be widened from 4 to six lanes

TYPICAL 6–LANE RURAL FREEWAY SECTION

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Detroit River
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# Access Road Conceptual Visualizations – Highway 3

Highway 3 between
Highway 401 and Howard Ave.

## Existing Conditions

## 1A

One-way service roads on either side of 6-lane freeway at grade.

## 1B

One-way service roads either side of 6-lane freeway depressed.

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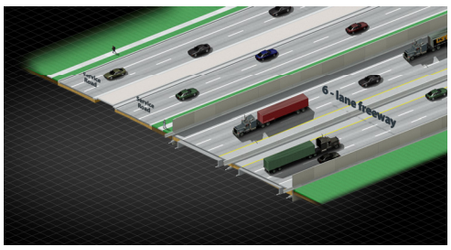
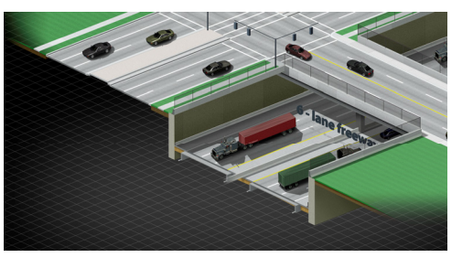
# Access Road Conceptual Visualizations – Highway 3

## Highway 3 between Highway 401 and Howard Ave.

**2A** Six-lane freeway at grade, along side Huron Church/ Highway 3.



**2B** Six-lane freeway depressed, parallel to Huron Church/Highway 3.



**3** Cut and cover tunnel below rebuilt Huron Church Road/Highway 3 Corridor.

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# Access Road Conceptual Visualizations – Highway 3

## Highway 3 between Cousineau Rd. to Cabana Rd.

## Existing Conditions

## 1A

One-way service roads on either side of 6-lane freeway at grade.

## 1B

One-way service roads either side of 6-lane freeway depressed.

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# Access Road Conceptual Visualizations – Highway 3

## Highway 3 between Cousineau Rd. to Cabana Rd.

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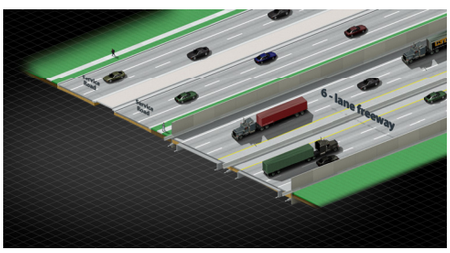
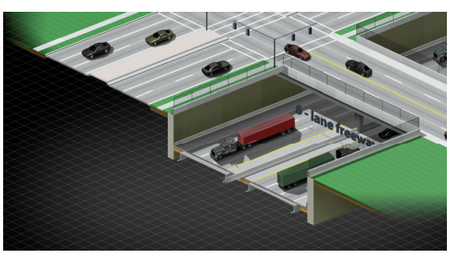


**2B** Six-lane freeway depressed, parallel to Huron Church/Highway 3.



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# Access Road Conceptual Visualizations – Highway 3

## Highway 3 between Howard Ave. and Cousineau Rd.

### Existing Conditions

### Option 1

1A One-way service roads on either side of 6-lane freeway at grade.

### Option 2

1A One-way service roads on either side of 6-lane freeway at grade.

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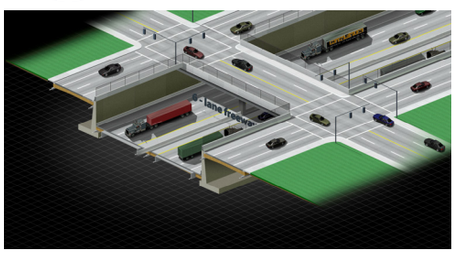
# Access Road Conceptual Visualizations – Highway 3

## Highway 3 between Howard Ave. and Cousineau Rd.

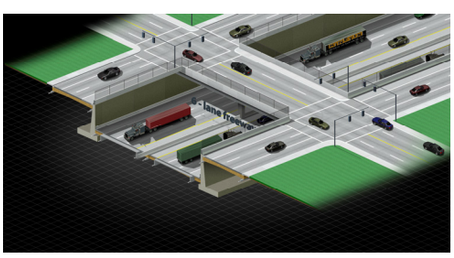
1B

One-way service roads either side of 6-lane freeway depressed.



1B

One-way service roads either side of 6-lane freeway depressed.



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# Access Road Conceptual Visualizations – Highway 3

## Highway 3 between Howard Ave. and Cousineau Rd.

**2A** Six-lane freeway at grade, along side Huron Church/ Highway 3.

**2A** Six-lane freeway at grade, along side Huron Church/ Highway 3.

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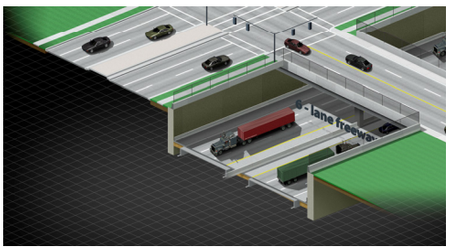
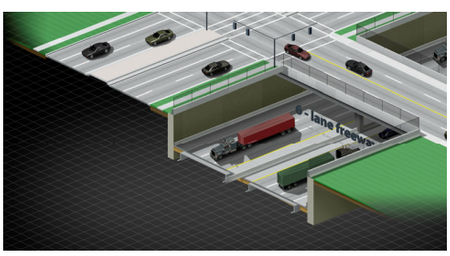
# Access Road Conceptual Visualizations – Highway 3

## Highway 3 between Howard Ave. and Cousineau Rd.

**2B** Six-lane freeway depressed, parallel to Huron Church/Highway 3



**2B** Six-lane freeway depressed, parallel to Huron Church/Highway 3.



**3** Cut and cover tunnel below rebuilt Huron Church Road/Highway 3 Corridor.

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# Access Road Conceptual Visualizations - Huron Church

## Huron Church Road between Cabana Rd. to Grand Marais Rd.

## Existing Conditions

**1A** One-way service roads on either side of 6-lane freeway at grade.

**1B** One-way service roads either side of 6-lane freeway depressed.

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# Access Road Conceptual Visualizations - Huron Church

## Huron Church Road between Cabana Rd. to Grand Marais Rd.

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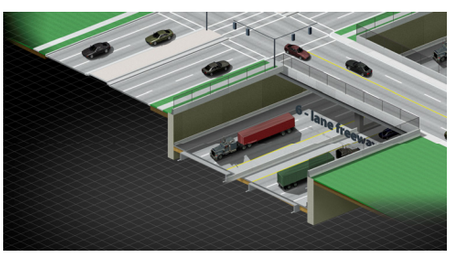
**2B** Six-lane freeway depressed, parallel to Huron Church/Highway 3.



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# Access Road Conceptual Visualizations - Huron Church

Huron Church Rd. between Grand Marais Rd. and E.C.Row Expressway.

## Existing Conditions

## 1A

One-way service roads on either side of 6-lane freeway at grade.

## 1B

One-way service roads either side of 6-lane freeway depressed.

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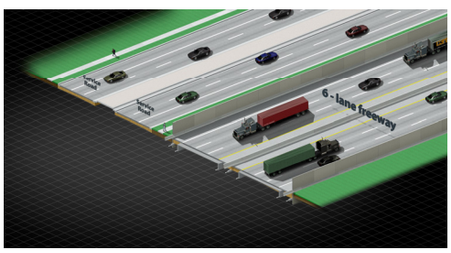
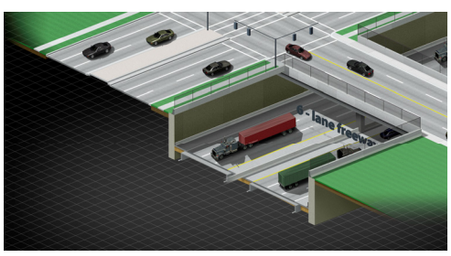


**2B** Six-lane freeway depressed, parallel to Huron Church/Highway 3.



**3** Cut and cover tunnel below rebuilt Huron Church Road/Highway 3 Corridor.

Canada | U.S. Department of Transportation Federal Highway Administration | Ontario | MDOT Michigan Department of Transportation | URS

# Questions/Comments – I-75

**Based on your observations, what are your suggestions for….**

Vegetation:

Lighting:

Retaining Walls:

**General Comments/Notes:**

Name:_____

Address:_____

_____

_____

Phone:_____

Email:_____

# Questions/Comments – I-696

**Based on your observations, what are your suggestions for….**

Vegetation:

Connections:

Sound Attenuation:

Earthforming/Berms:

Retaining Walls:

Lighting:

**General Comments/Notes:**

Name:_____

Address:_____

_____

_____

Phone:_____

Email:_____

# Questions/Comments – M-10

**Based on your observations, what are your suggestions for….**

Vegetation:

Earthforming/Berm:

Lighting:

Retaining Walls:

**General Comments/Notes:**

Name:_____

Address:_____

_____

_____

Phone:_____

Email:_____

# Questions/Comments – M-39

**Based on your observations, what are your suggestions for….**

Vegetation:

Lighting:

Retaining Walls:

**General Comments/Notes:**

Name:_____

Address:_____

_____

_____

Phone:_____

Email:_____