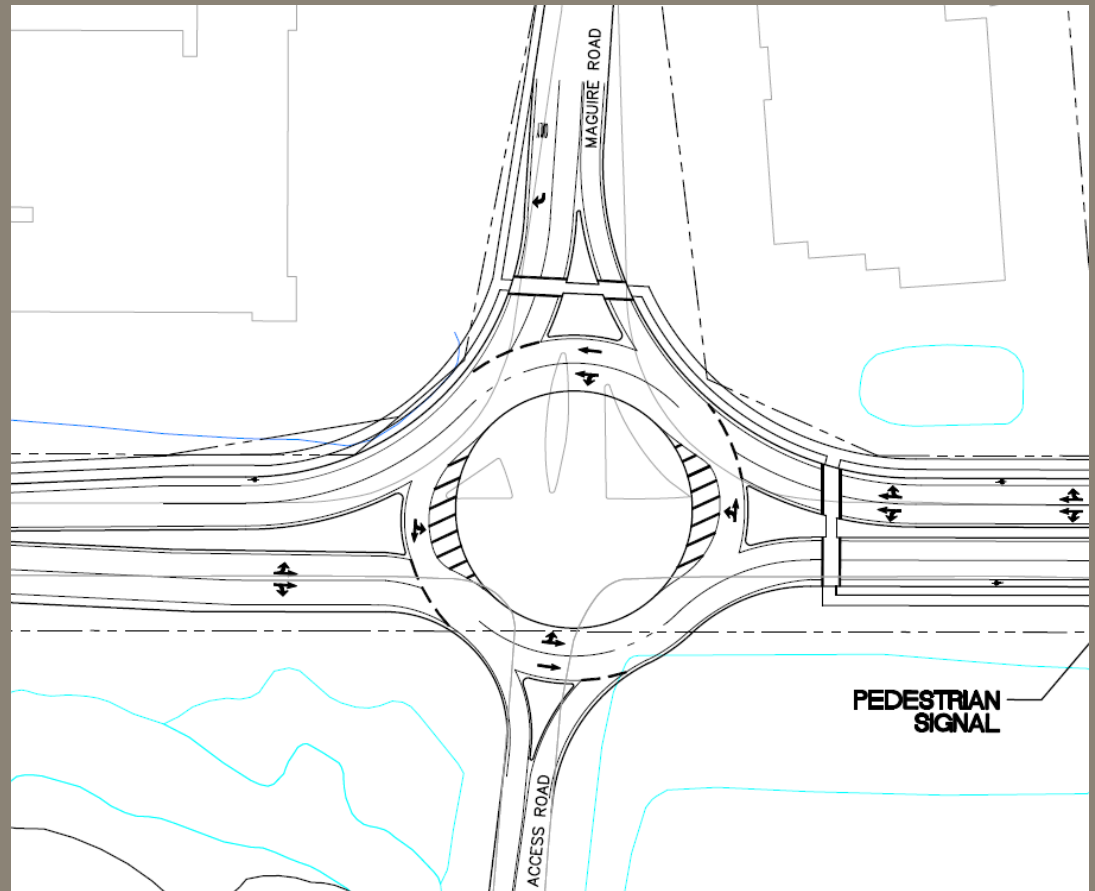


Maguire Road Roundabout

Town of Lexington
Hartwell Avenue
25 Percent Design
Plan Development



July 10, 2014

Agenda

Project Background

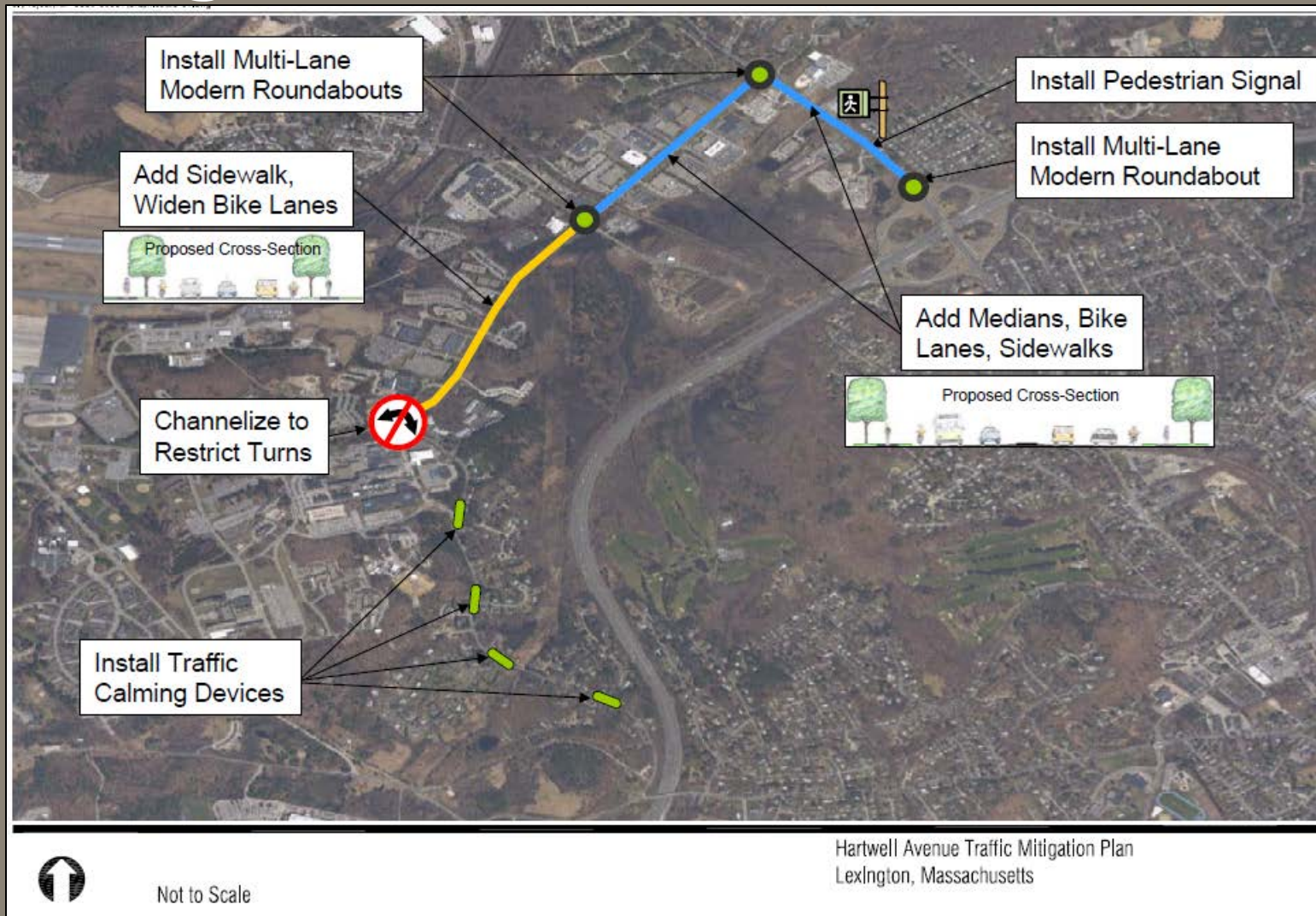
Existing Conditions

Roundabout Attributes

Proposed Conditions

Questions and Comments

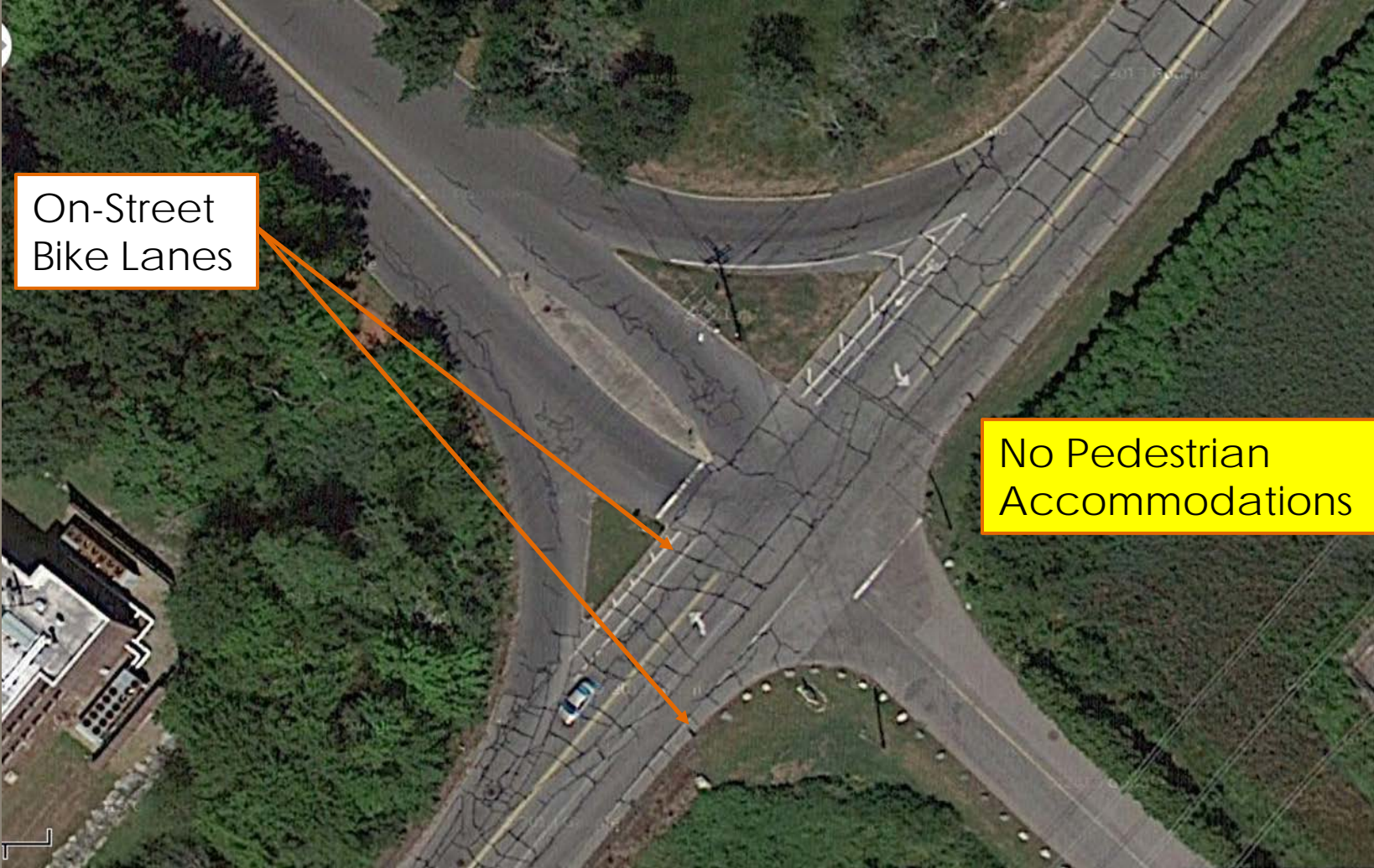
Background - 2010 Traffic Plan



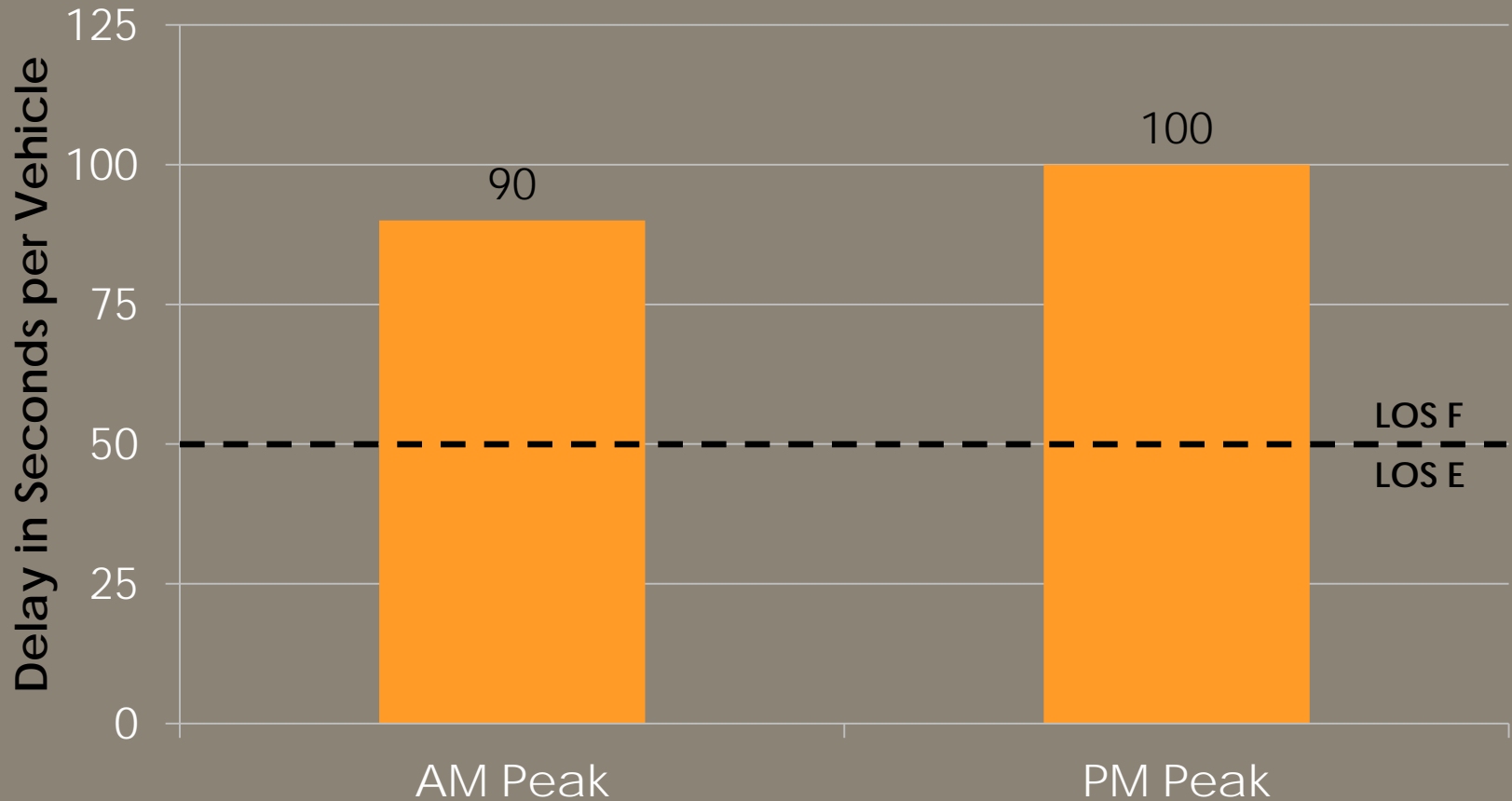
Current Scope



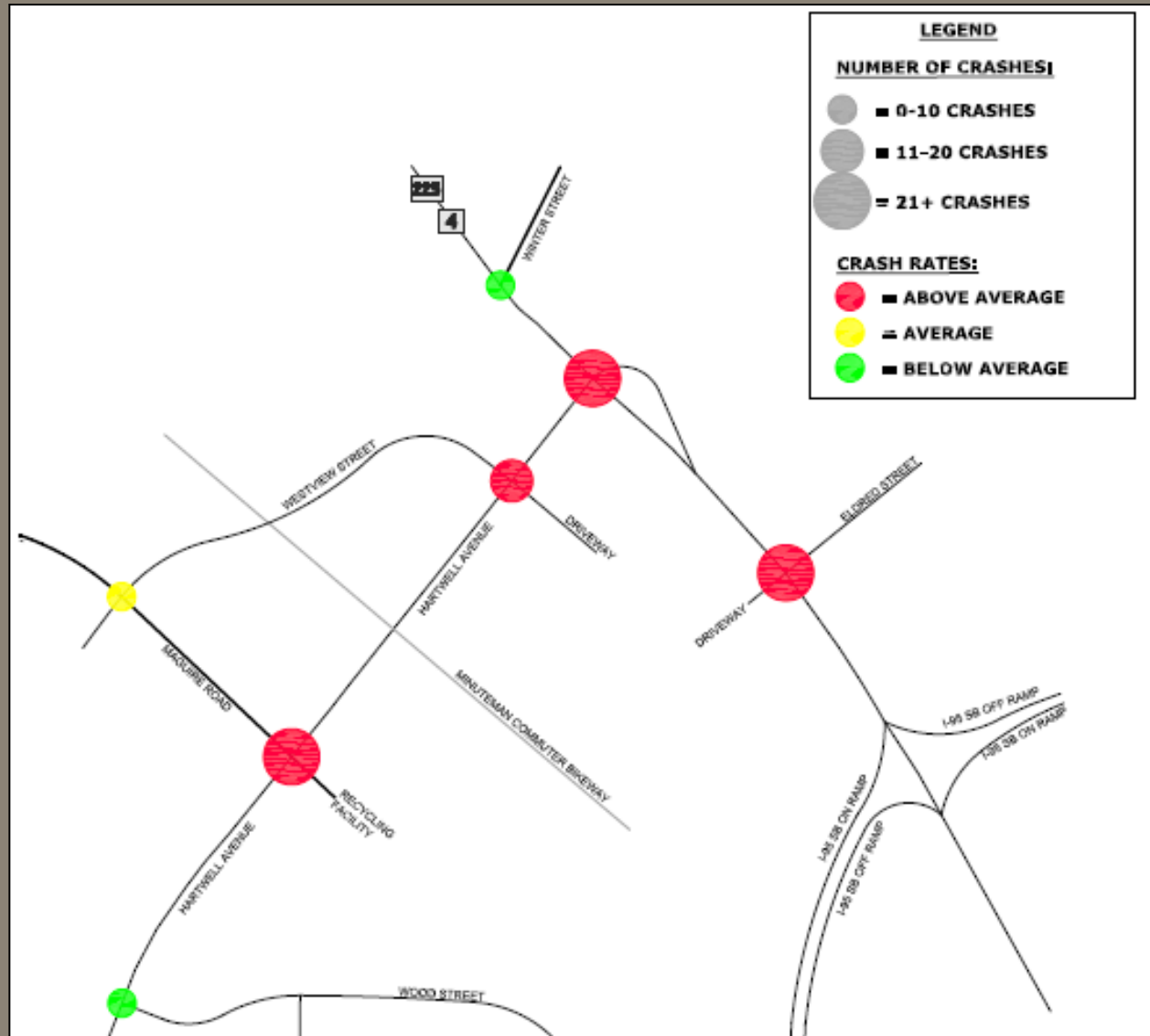
Existing Pedestrian/Bicycle Accommodations



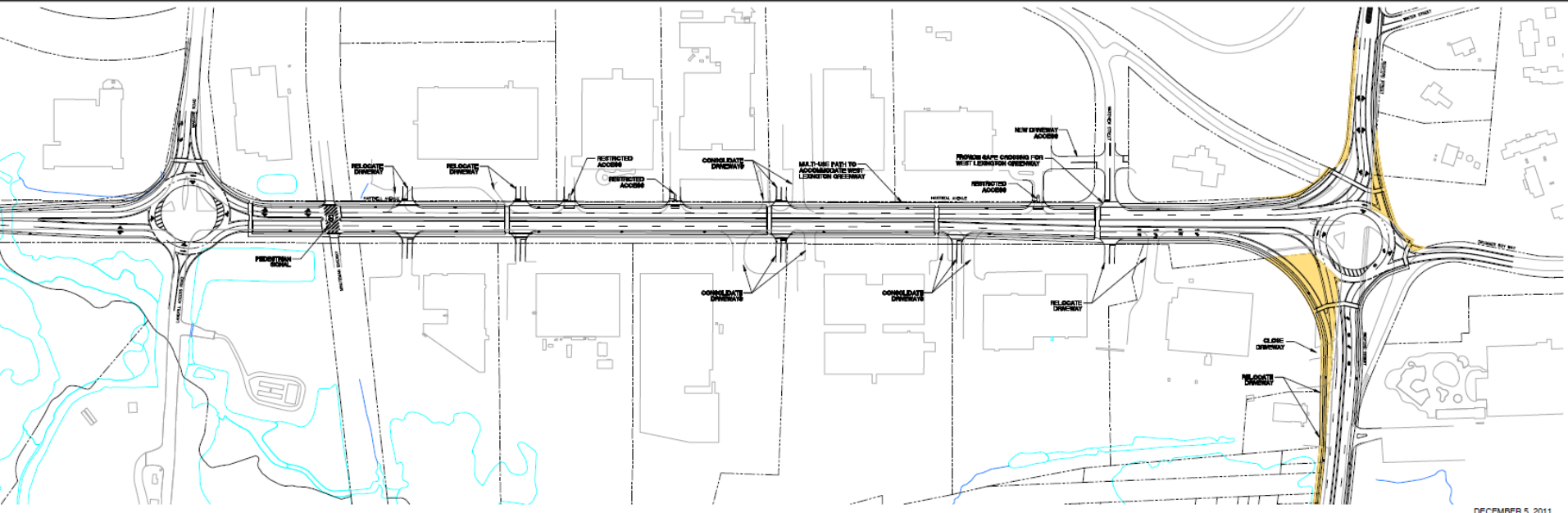
Existing Maguire Road Operations



Recent Crash Experience



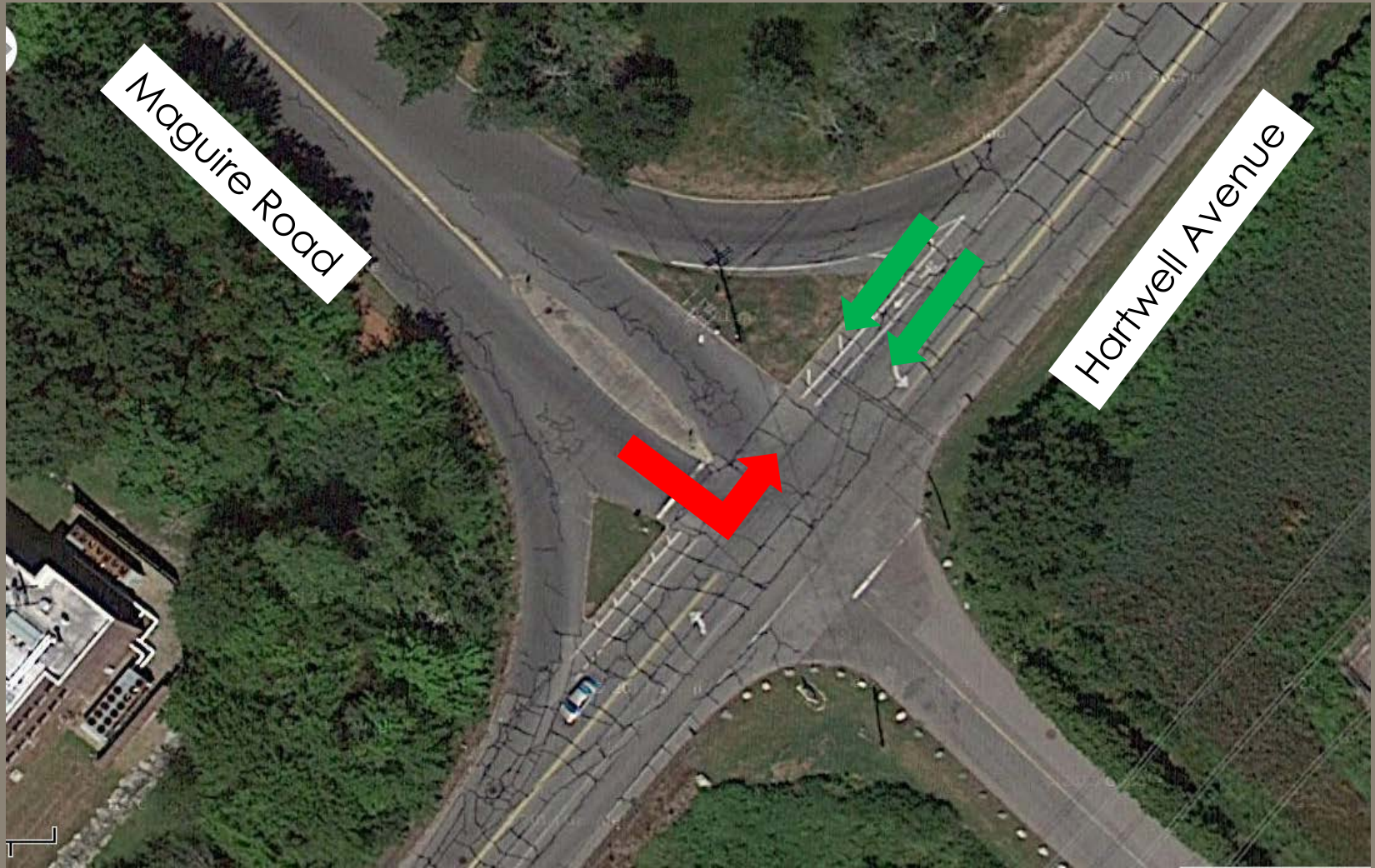
Corridor Study Plan



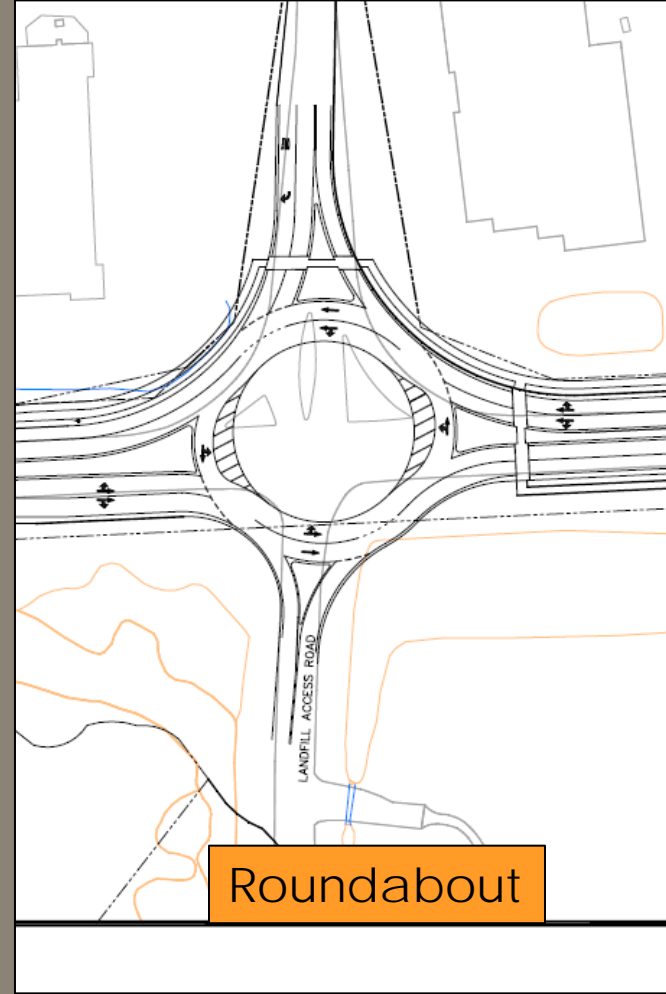
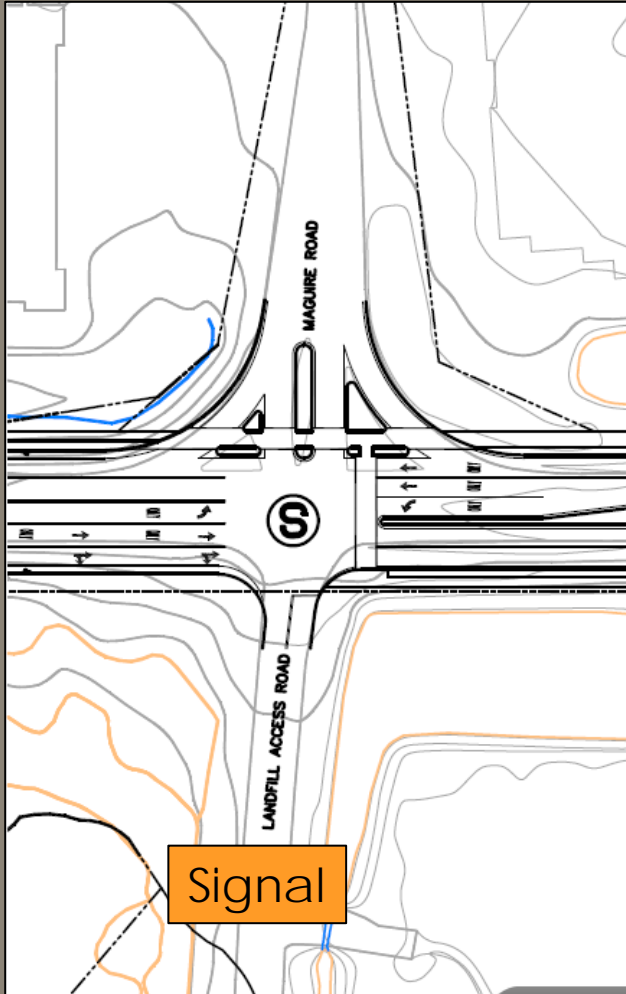
DECEMBER 5, 2011

HARTWELL AVENUE TRAFFIC MITIGATION STUDY
LEXINGTON, MASSACHUSETTS
CONCEPTUAL TRAFFIC IMPROVEMENTS PLAN
HARTWELL AVENUE
FIGURE 2

Existing Conditions



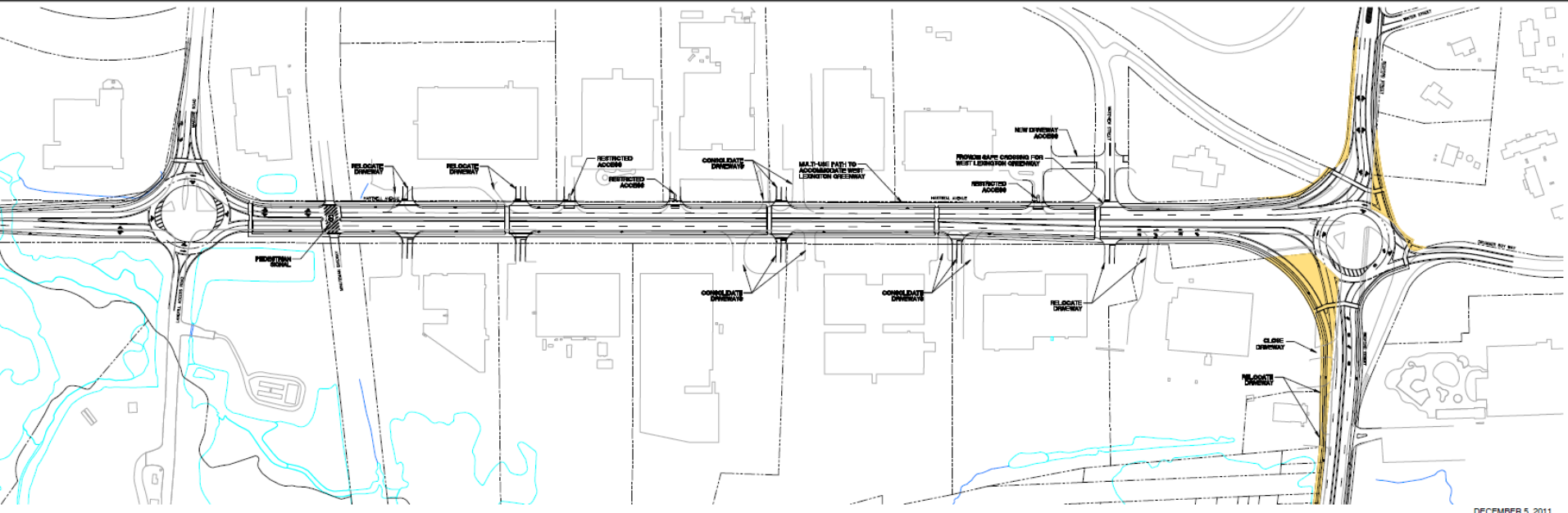
Alternatives



Why a Roundabout?

- Compatible with overall plan
- It "fits"
- Adequate capacity
- Safer
- Handles all modes
- No signal maintenance

Compatibility

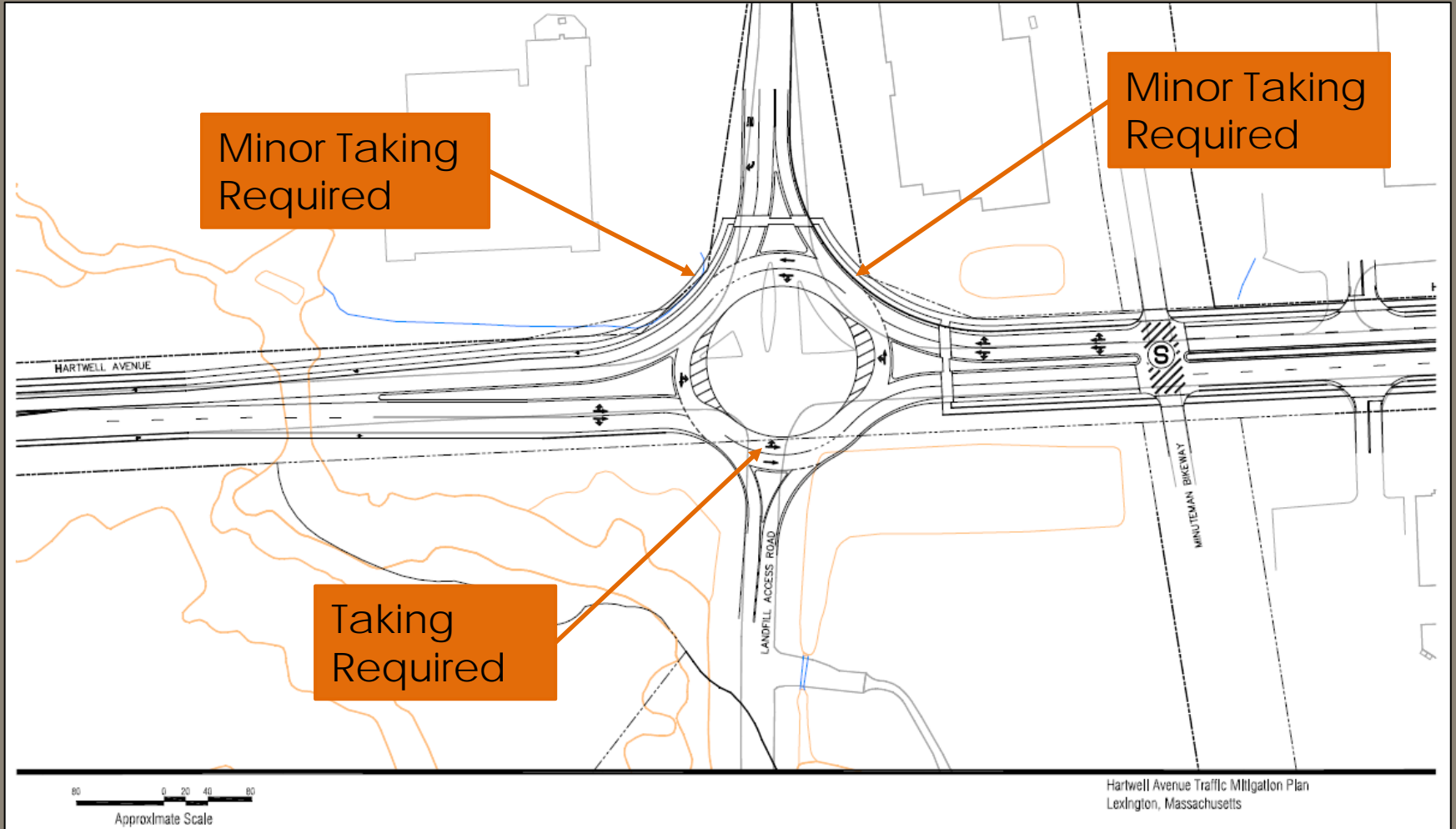


DECEMBER 5, 2011

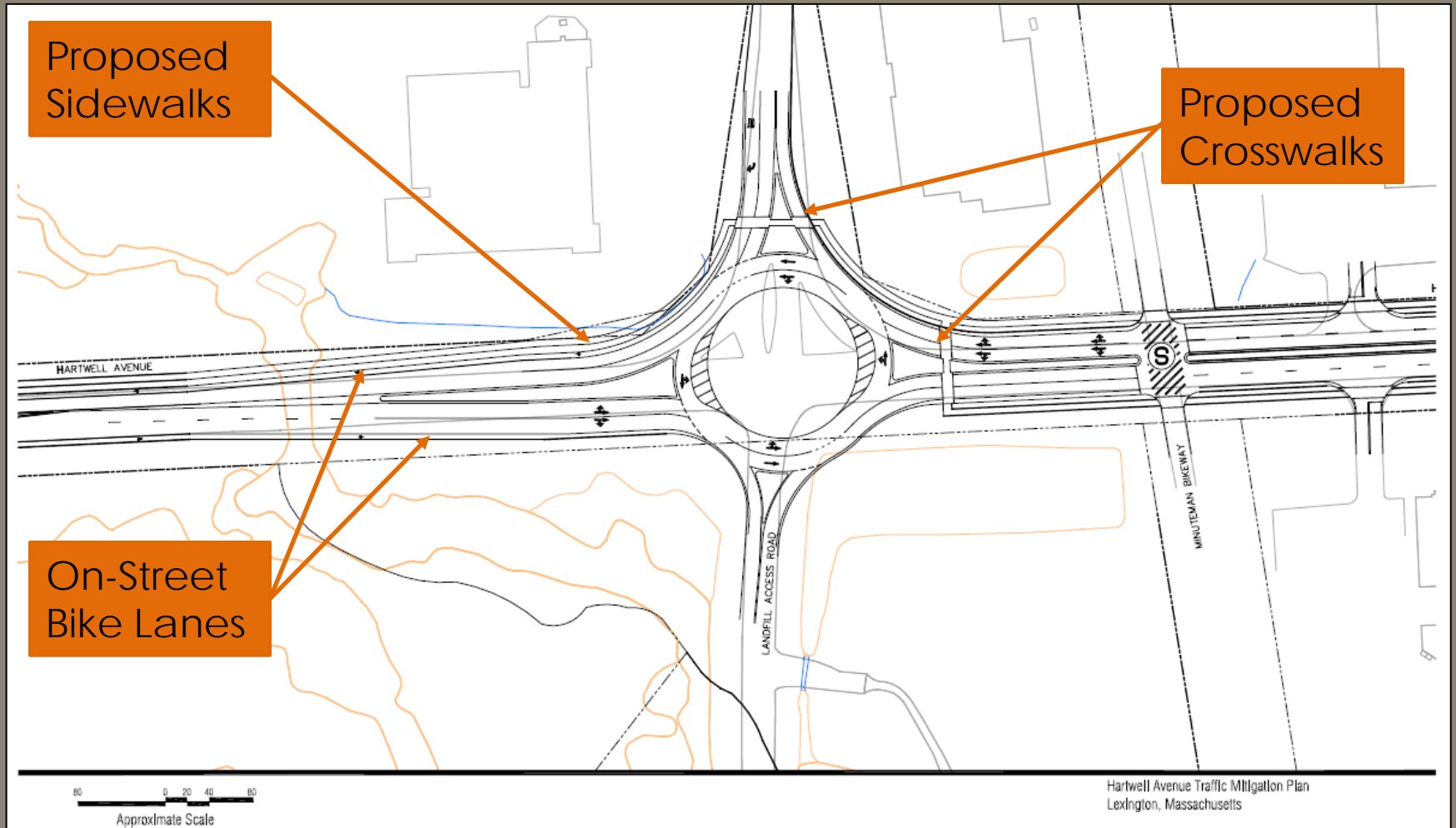
HARTWELL AVENUE TRAFFIC MITIGATION STUDY
LEXINGTON, MASSACHUSETTS
CONCEPTUAL TRAFFIC IMPROVEMENTS PLAN
HARTWELL AVENUE

FIGURE 2

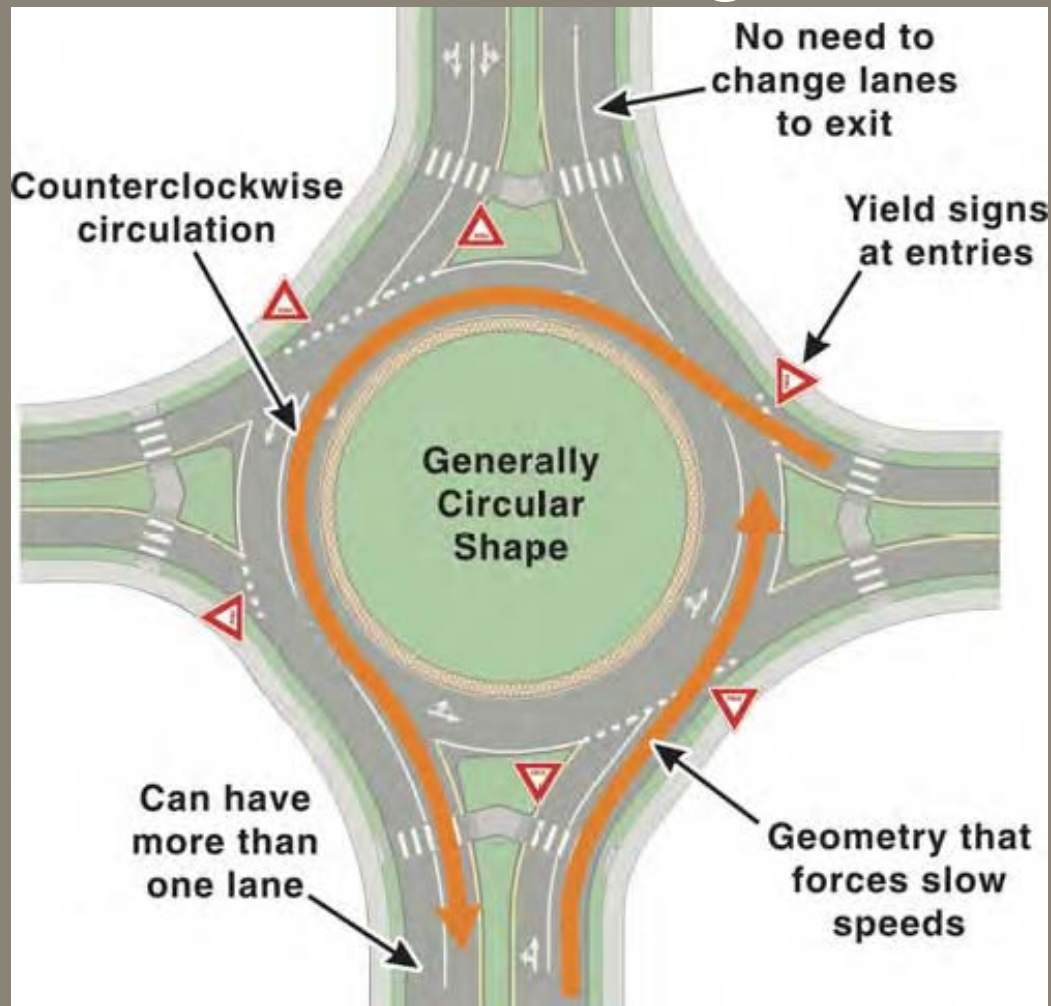
Roundabout Plan/Footprint



Pedestrian/Bicycle Accommodations



Roundabout Safety

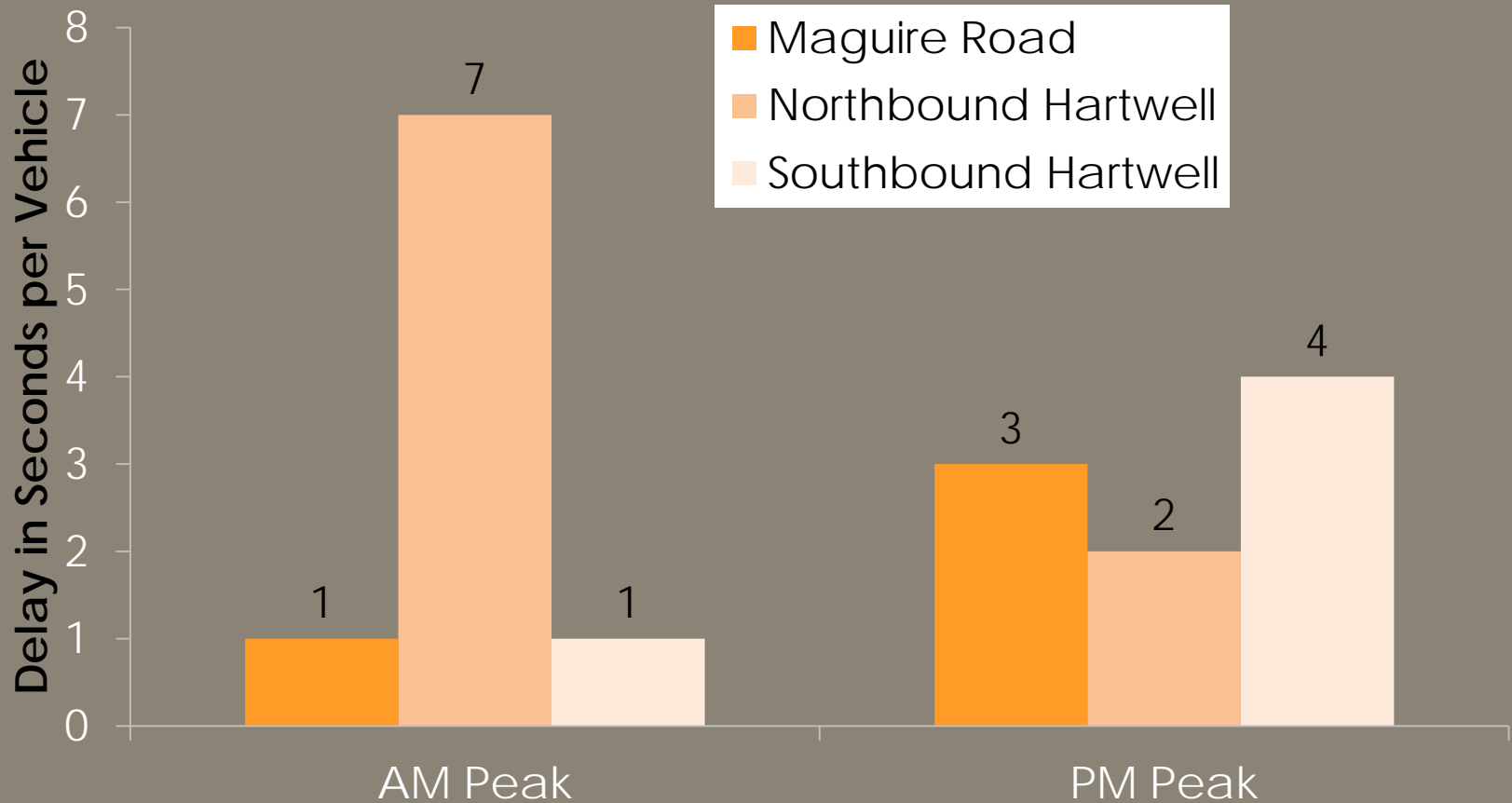


Source: NCHRP Report 672

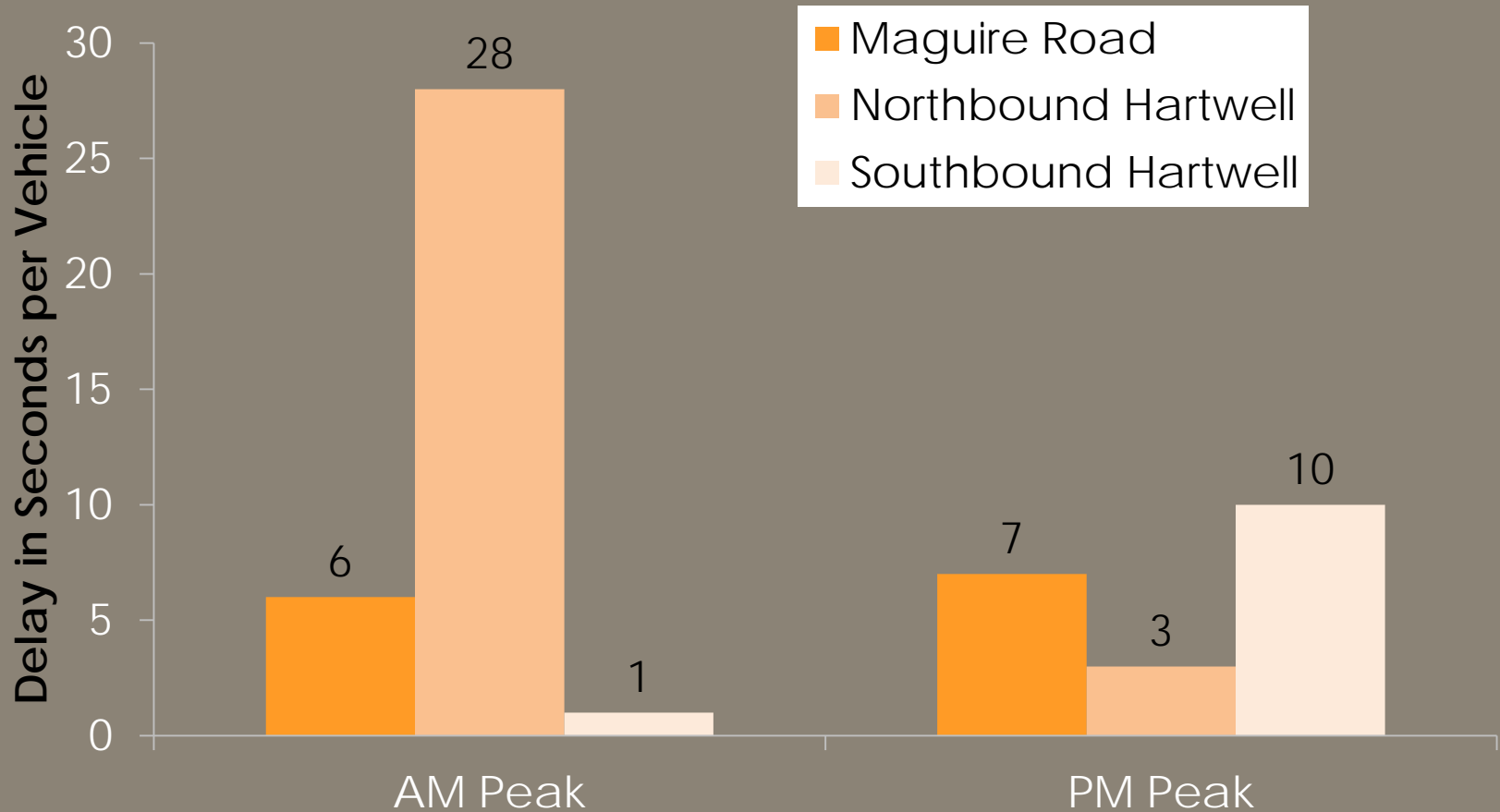
Roundabout Safety

- Lower speeds
- Fewer crashes
- Less severe crashes
- Fewer conflict points

Existing Operations with Roundabout

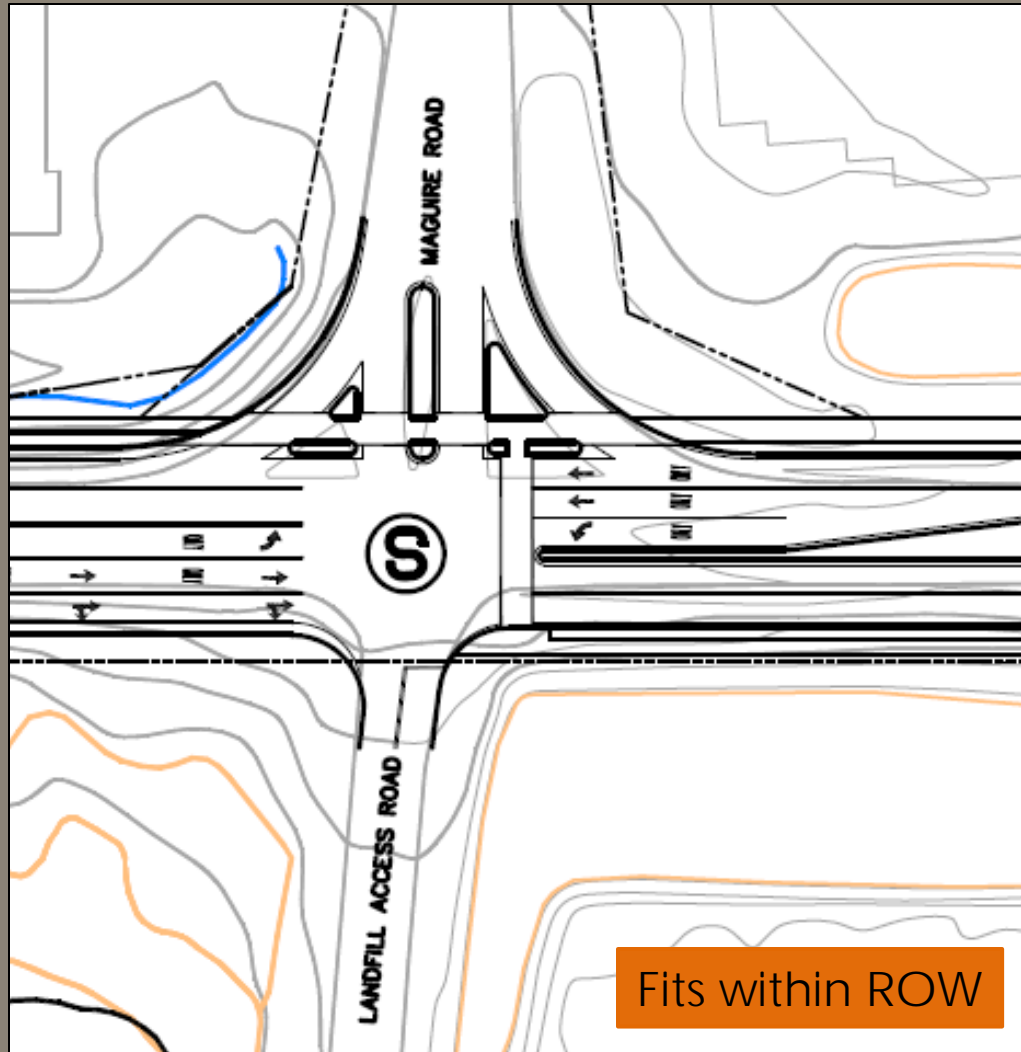


Future Operations with Roundabout



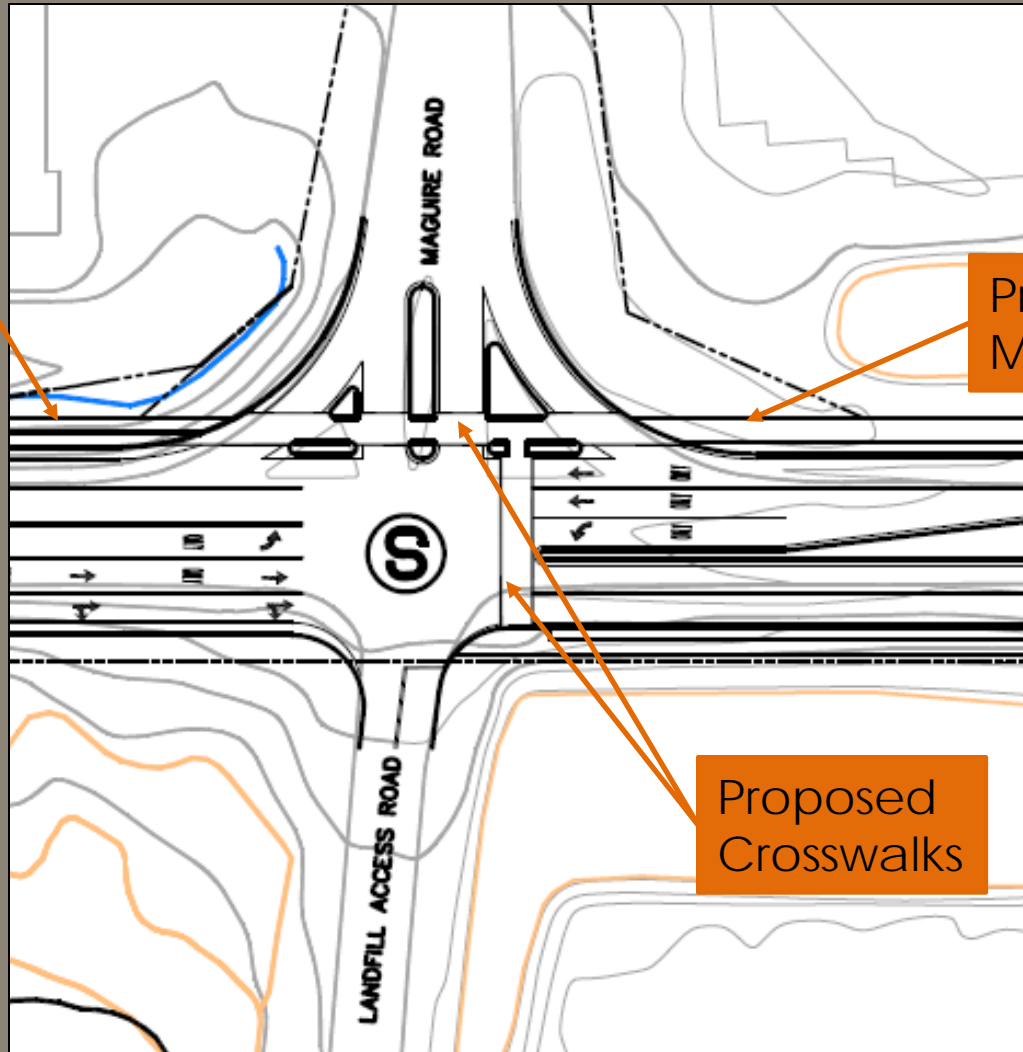


Signal Alternative



Signal Pedestrian/Bike Accommodations

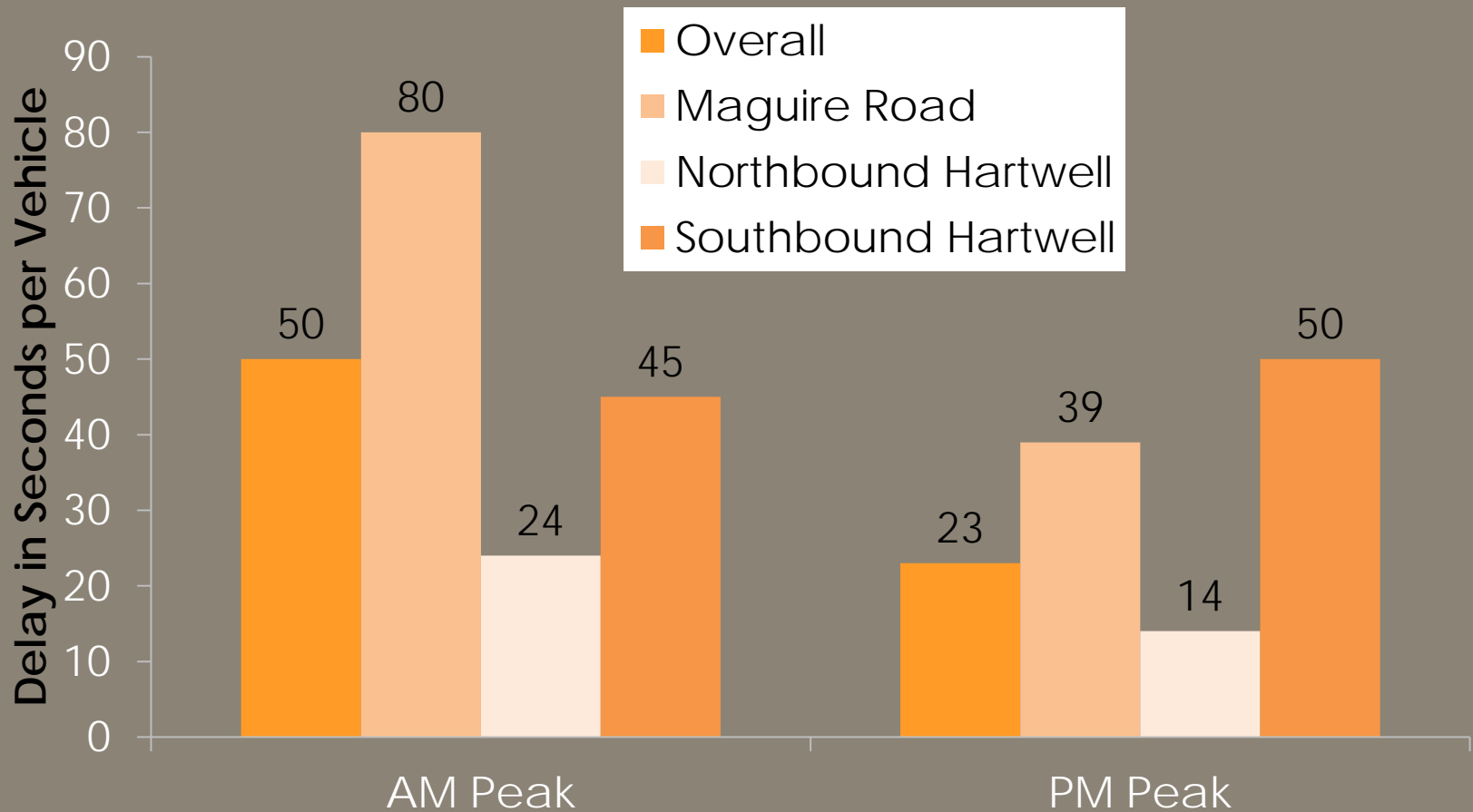
Proposed Sidewalk



Proposed Multi-Use Path

Proposed Crosswalks

Future Operations with Signal



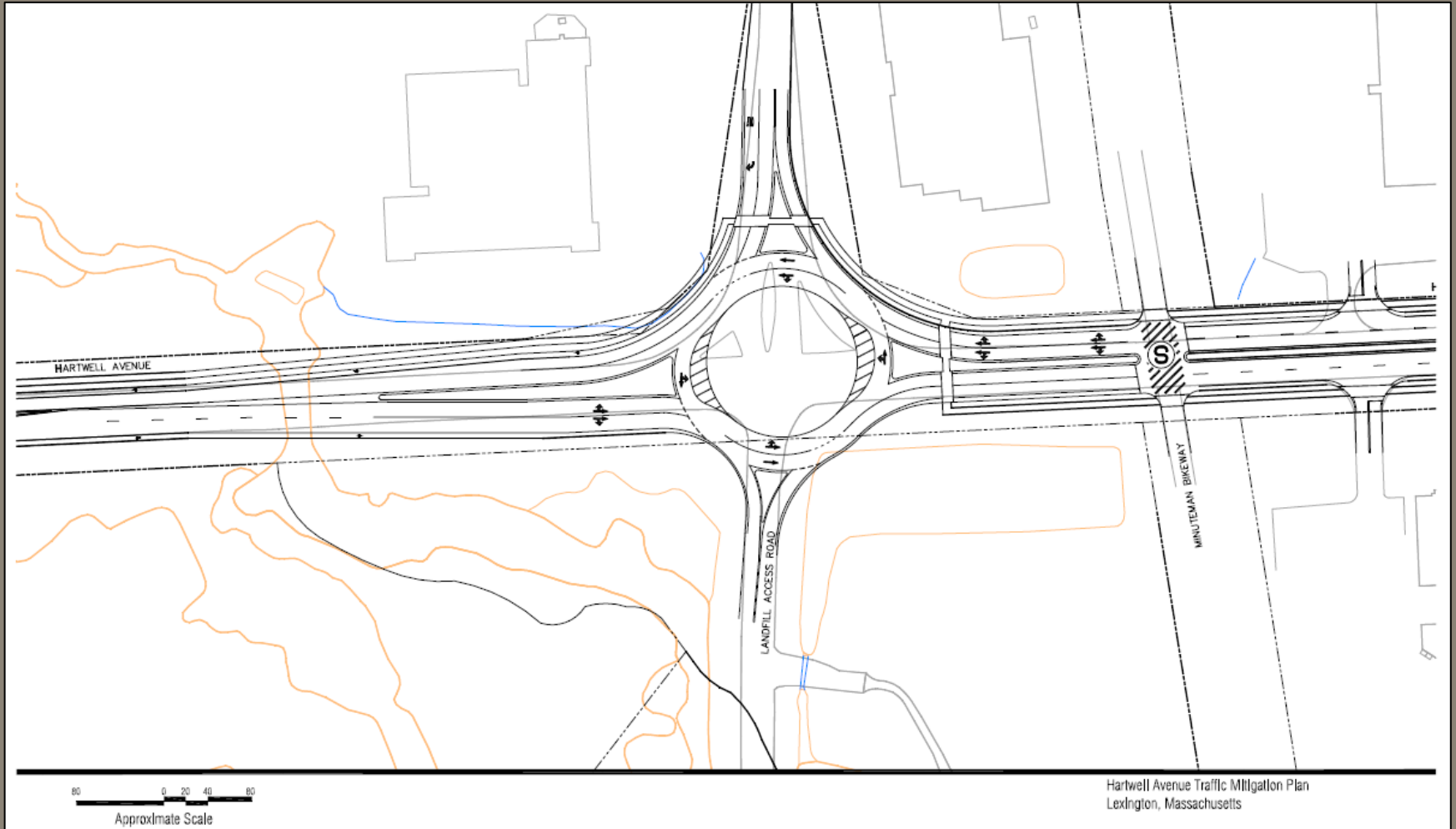
Future Signal Operations

[Signal Operations](#)

Comparison of Intersection Options

	Roundabout	Signal
Cost	\$1.3 m	\$1.5 m
Footprint	Some sliver takings	Fits within ROW
Operations	More capacity	Adequate capacity
Safety	Safer	Safe
Impact on Bridge	May require minor widening	Requires widening
Compatibility	Yes	Not so much

Questions/Comments



Contact Information

jlivsey@lexingtonma.gov

Other Work – Bridge Study



Other Work – Bridge Study



Other Work – Bedford Street



Other Work – Bedford Street



Other Work – Bedford Street

