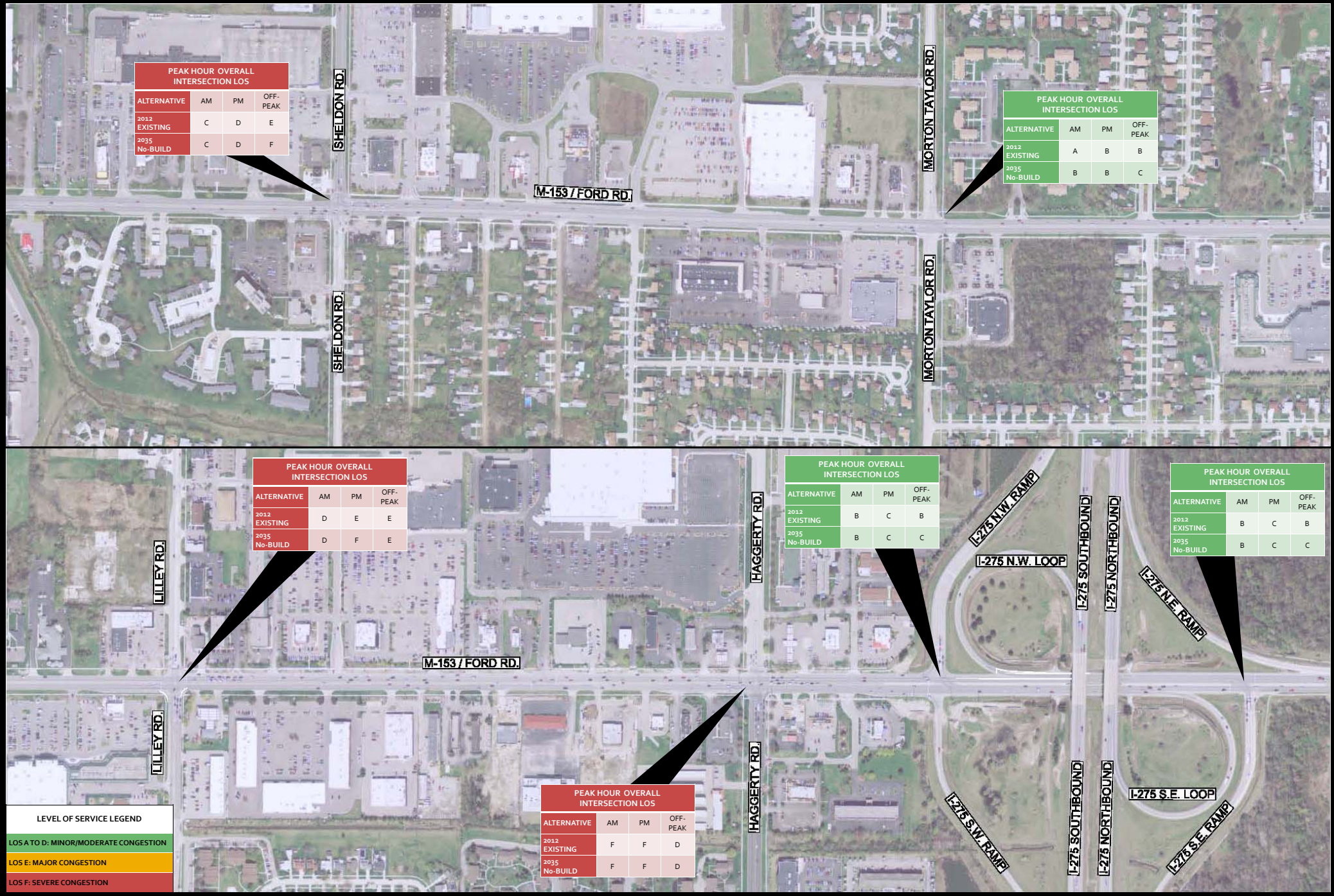
Alternative 1 - No-Build



I-275 at M-153 (Ford Road) Area Traffic and Environmental Study

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I-275 at M-153 (Ford Road) Area Traffic and Environmental Study

No-Build Illustrative Alternative

- Description:
  - No change from current traffic operations
- Advantages:
  - No additional right of way or environmental impacts
- Disadvantages:
  - Does not address operational deficiencies along Ford Road
  - Ford Road at capacity for 2012 traffic, which consistently gets worse through 2035 study year
  - Traffic backups continue at each intersection and on southbound I-275 ramp at Ford Road
  - Does not improve existing Ford Road pavement condition

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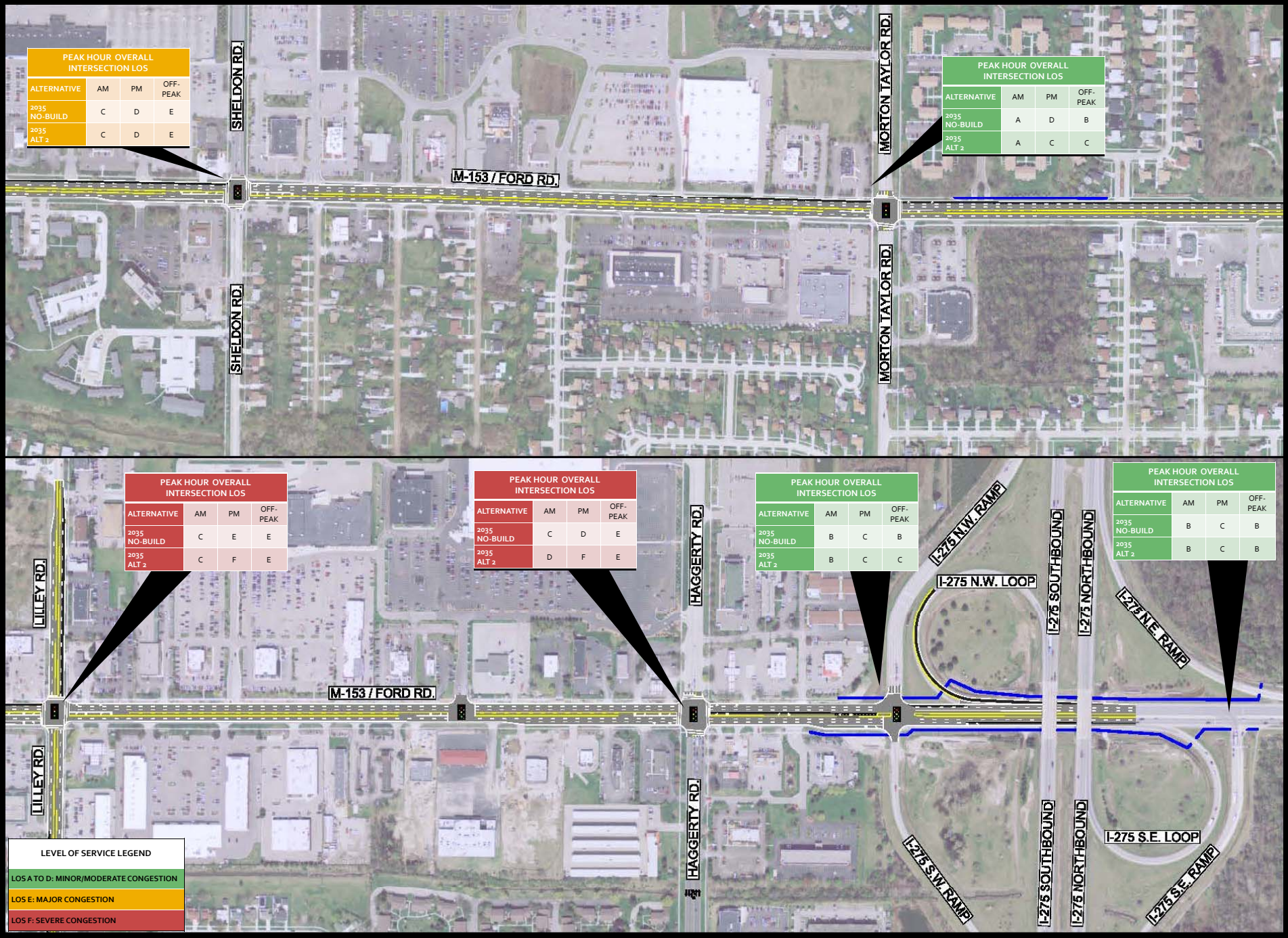
Alternative 2 – Operational Improvements



I-275 at M-153 (Ford Road) Area Traffic and Environmental Study

MDOT Michigan Department of Transportation

I-275 at M-153 (Ford Road) Area Traffic and Environmental Study

Operational Improvements Illustrative Alternative

- Description:
  - Addition of westbound through-lane on Ford Road from I-275 to Sheldon Road and conversion of existing eastbound right-turn lane at Haggerty Road to shared right through-lane
  - Additional pedestrian and safety improvements
- Advantages:
  - Low construction impact relative to other options
  - Low construction cost relative to other options
  - Provides short-term relief and some additional safety improvements, such as sidewalk and pushbutton pedestrian signals
- Disadvantages:
  - Attracts approximately 15 to 25 percent more vehicles with an added lane on Ford Road
  - Quickly reaches capacity and only achieves minor levels of service improvement relative to existing condition
  - Traffic backups continue on southbound I-275 ramp at Ford Road
  - Does not improve existing Ford Road pavement condition

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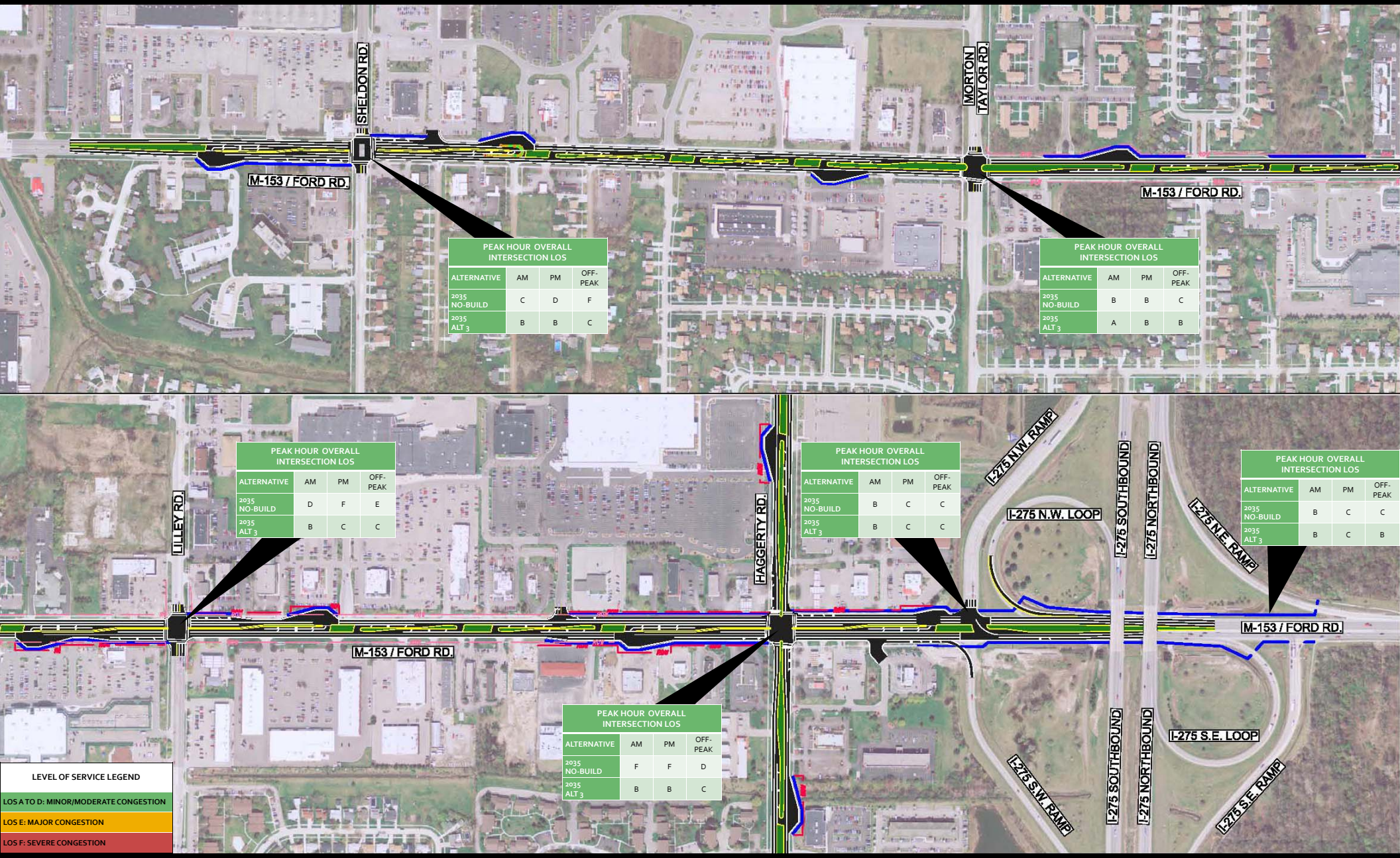
Alternative 3 – Boulevard



I-275 at M-153 (Ford Road) Area Traffic and Environmental Study

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I-275 at M-153 (Ford Road) Area Traffic and Environmental Study

Boulevard Illustrative Alternative

- Description:
  - Provides a Ford Road and/or Haggerty Road boulevard with two through-lanes in each direction, with restricted left turns at intersections, numerous passenger vehicle turnarounds, and truck turnarounds (loons) where necessary
  - Additional pedestrian and safety improvements
  - Other boulevard options may also be investigated, such as adding boulevards to other major north/south crossings, limiting truck turnarounds, or a modified roadway alignment
- Advantages:
  - Moderate construction impacts relative to other options
  - Moderate construction cost relative to other options
  - Low/moderate right of way impacts
  - Improved safety (restricted left turns) – safer access to businesses
  - Minimal environmental impacts
  - Improved level of service throughout
  - Continuity of sidewalks and improved safety by providing crossings and pedestrian islands
  - Reduction in traffic backups on southbound I-275 at Ford Road due to improved Ford Road operations
- Disadvantages:
  - Limited truck turnarounds along Ford Road and/or Haggerty Road
  - Indirect access to businesses

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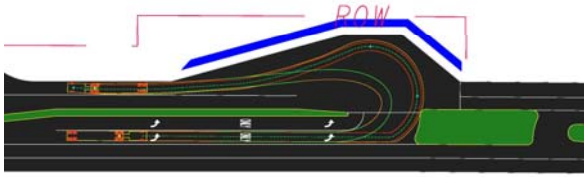
I-275 at M-153 (Ford Road) Area Traffic and Environmental Study

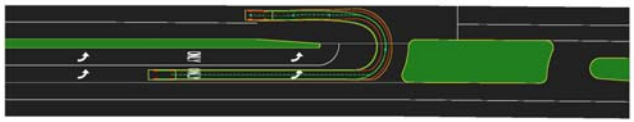
Boulevard Details/Options

Boulevard Details

Commercial Vehicle Turnaround



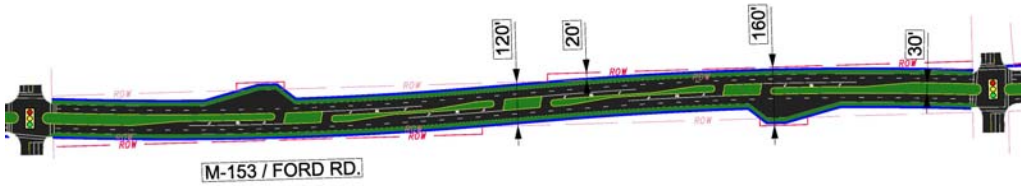
Passenger Vehicle Turnaround



Boulevard Options

~ Restrict commercial turnarounds to specified locations along the corridor

Modified Alignment Boulevard



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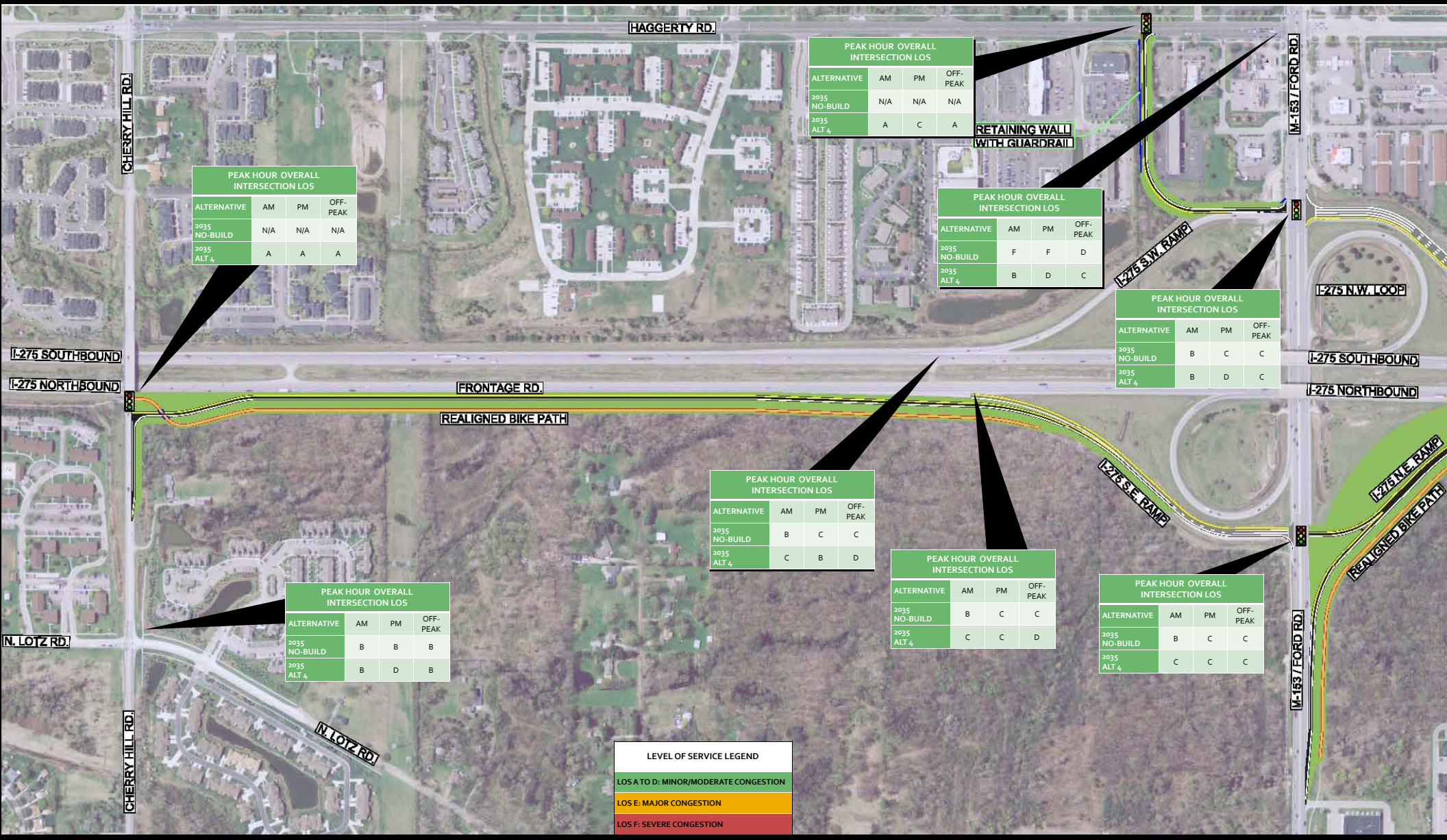
Alternative 4 – Western Wayne Transportation Improvement Plan (WWTIP)



PEAK HOUR OVERALL INTERSECTION LOS

ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	N/A	N/A	N/A
2035 ALT 4	A	C	A

PEAK HOUR OVERALL INTERSECTION LOS

ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	N/A	N/A	N/A
2035 ALT 4	A	A	A

PEAK HOUR OVERALL INTERSECTION LOS

ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	F	F	D
2035 ALT 4	B	D	C

PEAK HOUR OVERALL INTERSECTION LOS

ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	B	C	C
2035 ALT 4	B	D	C

PEAK HOUR OVERALL INTERSECTION LOS

ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	B	C	C
2035 ALT 4	C	B	D

PEAK HOUR OVERALL INTERSECTION LOS

ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	B	C	C
2035 ALT 4	C	C	D

PEAK HOUR OVERALL INTERSECTION LOS

ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	B	B	B
2035 ALT 4	B	D	B

PEAK HOUR OVERALL INTERSECTION LOS

ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	B	C	C
2035 ALT 4	C	C	C

LEVEL OF SERVICE LEGEND

- LOS A TO D: MINOR/MODERATE CONGESTION
- LOS E: MAJOR CONGESTION
- LOS F: SEVERE CONGESTION

I-275 at M-153 (Ford Road) Area Traffic and Environmental Study

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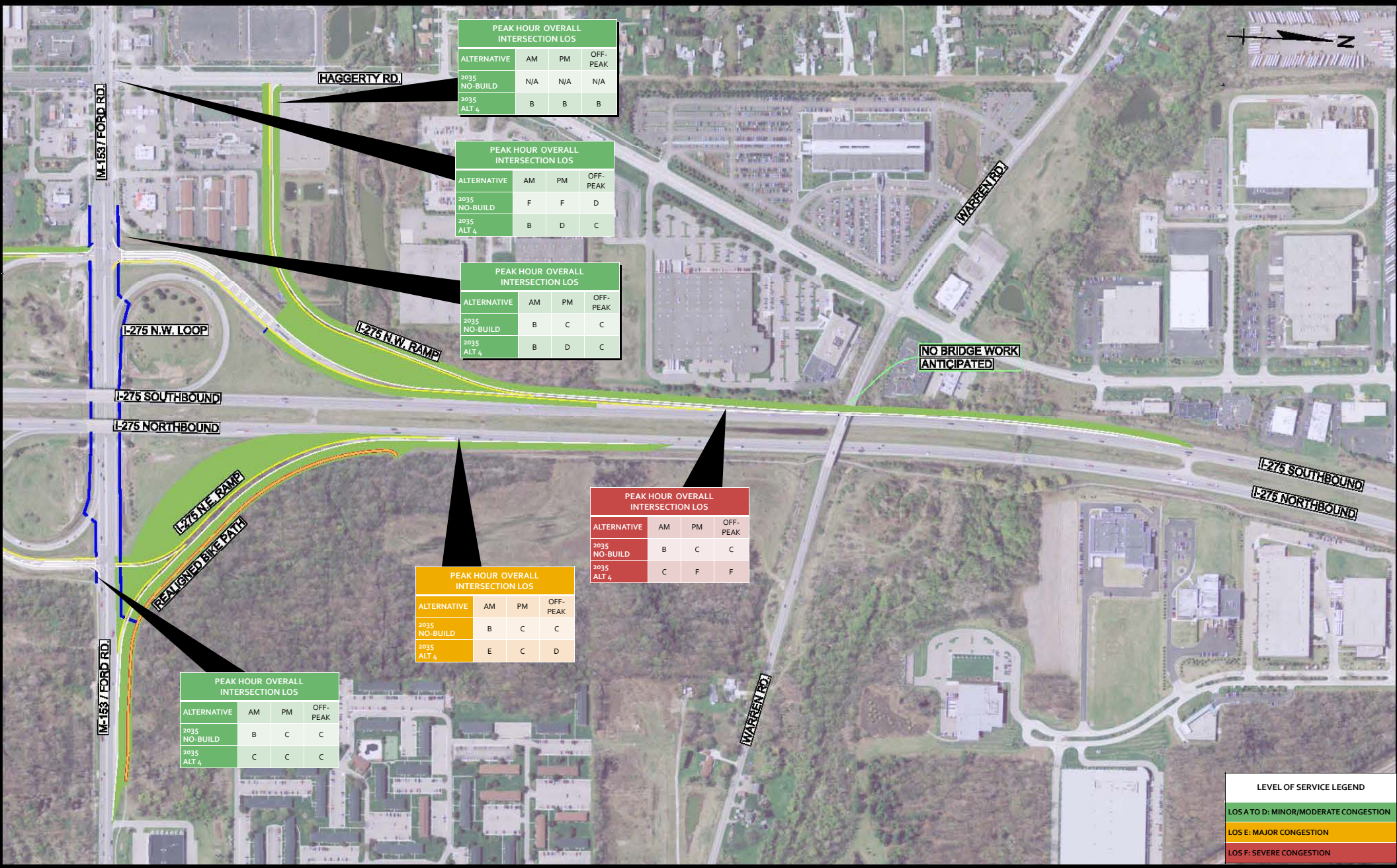
Alternative 4 – Western Wayne Transportation Improvement Plan (WWTIP)



PEAK HOUR OVERALL INTERSECTION LOS			
ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	N/A	N/A	N/A
2035 ALT 4	B	B	B

PEAK HOUR OVERALL INTERSECTION LOS			
ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	F	F	D
2035 ALT 4	B	D	C

PEAK HOUR OVERALL INTERSECTION LOS			
ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	B	C	C
2035 ALT 4	B	D	C

PEAK HOUR OVERALL INTERSECTION LOS			
ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	B	C	C
2035 ALT 4	C	F	F

PEAK HOUR OVERALL INTERSECTION LOS			
ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	B	C	C
2035 ALT 4	E	C	D

PEAK HOUR OVERALL INTERSECTION LOS			
ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	B	C	C
2035 ALT 4	C	C	C

LEVEL OF SERVICE LEGEND
LOS A TO D: MINOR/MODERATE CONGESTION
LOS E: MAJOR CONGESTION
LOS F: SEVERE CONGESTION

I-275 at M-153 (Ford Road) Area Traffic and Environmental Study

MDOT Michigan Department of Transportation

I-275 at M-153 (Ford Road) Area Traffic and Environmental Study

Western Wayne Transportation Improvement Plan (WWTIP) Illustrative Alternative

- Description:
  - Provides direct southbound I-275 ramp access to Haggerty Road north and south of Ford Road, reducing congestion at the Ford Road/Haggerty Road intersection. Includes a frontage road from Cherry Hill Road north to Ford Road and a modification of the northbound I-275 entrance ramp
  - Additional pedestrian and safety improvements
- Advantages:
  - Minimal construction impacts to Ford Road(off alignment)
  - Improvement in level of service at Ford Road/Haggerty Road
  - Draws traffic away from Haggerty Road
  - Safety improvements, such as sidewalk and pushbutton pedestrian signals along Ford Road
- Disadvantages:
  - Many right of way and environmental impacts anticipated
  - Moderate to high construction cost compared to other alternatives
  - Does not address congestion on Ford Road except at Haggerty Road
  - All other intersections similar to no-build
  - No change to Ford Road relative to safety, difficult access to businesses during peak times, etc.
  - Confusing interchange ramp operations and geometric configuration with multiple decision points
  - Increased maintenance costs due to addition of pavement, retaining walls, and bridge widening
  - Does not improve existing Ford Road pavement condition

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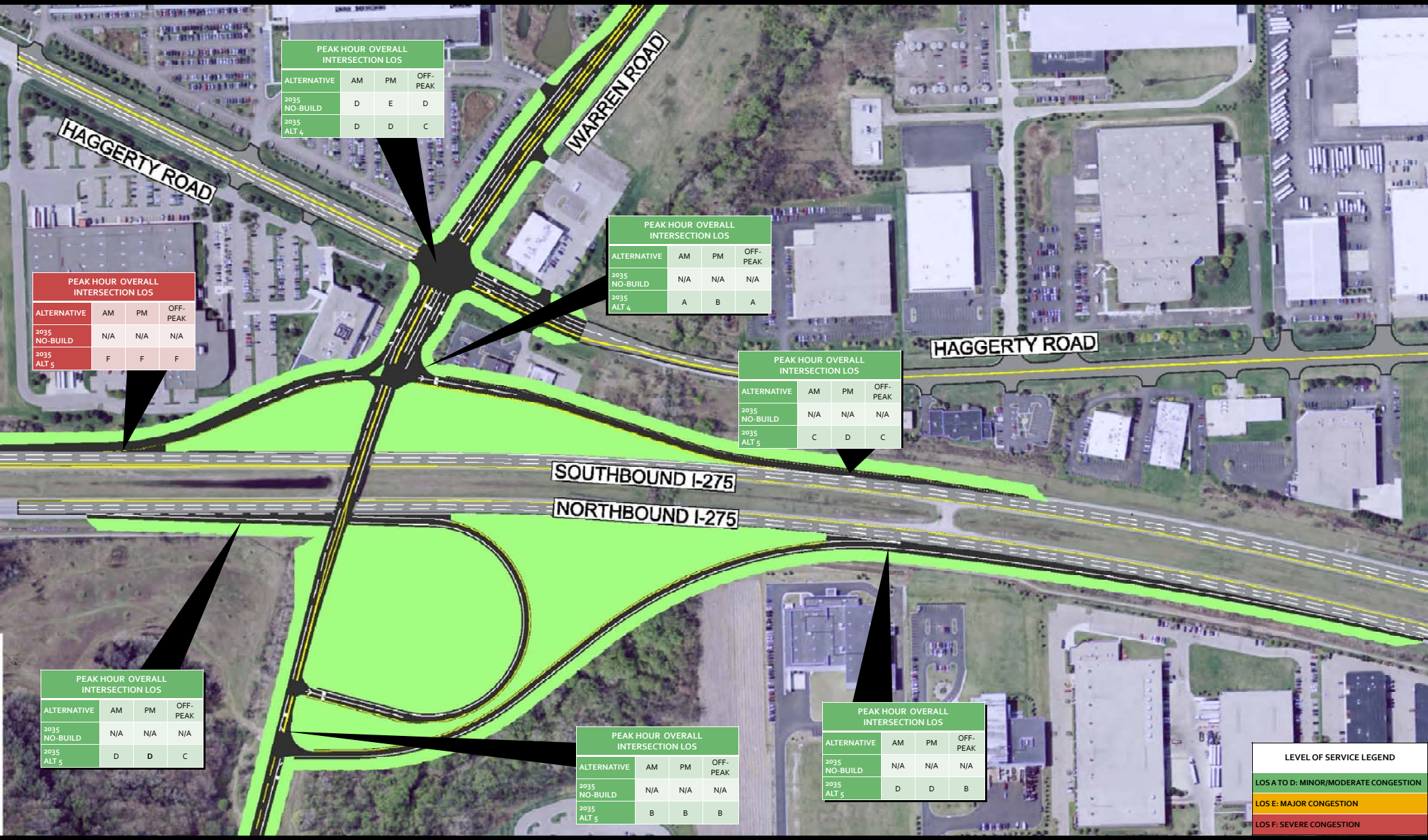
Alternative 5 –New Interchanges



PEAK HOUR OVERALL INTERSECTION LOS			
ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	D	E	D
2035 ALT 4	D	D	C

PEAK HOUR OVERALL INTERSECTION LOS			
ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	N/A	N/A	N/A
2035 ALT 4	A	B	A

PEAK HOUR OVERALL INTERSECTION LOS			
ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	N/A	N/A	N/A
2035 ALT 5	F	F	F

PEAK HOUR OVERALL INTERSECTION LOS			
ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	N/A	N/A	N/A
2035 ALT 5	C	D	C

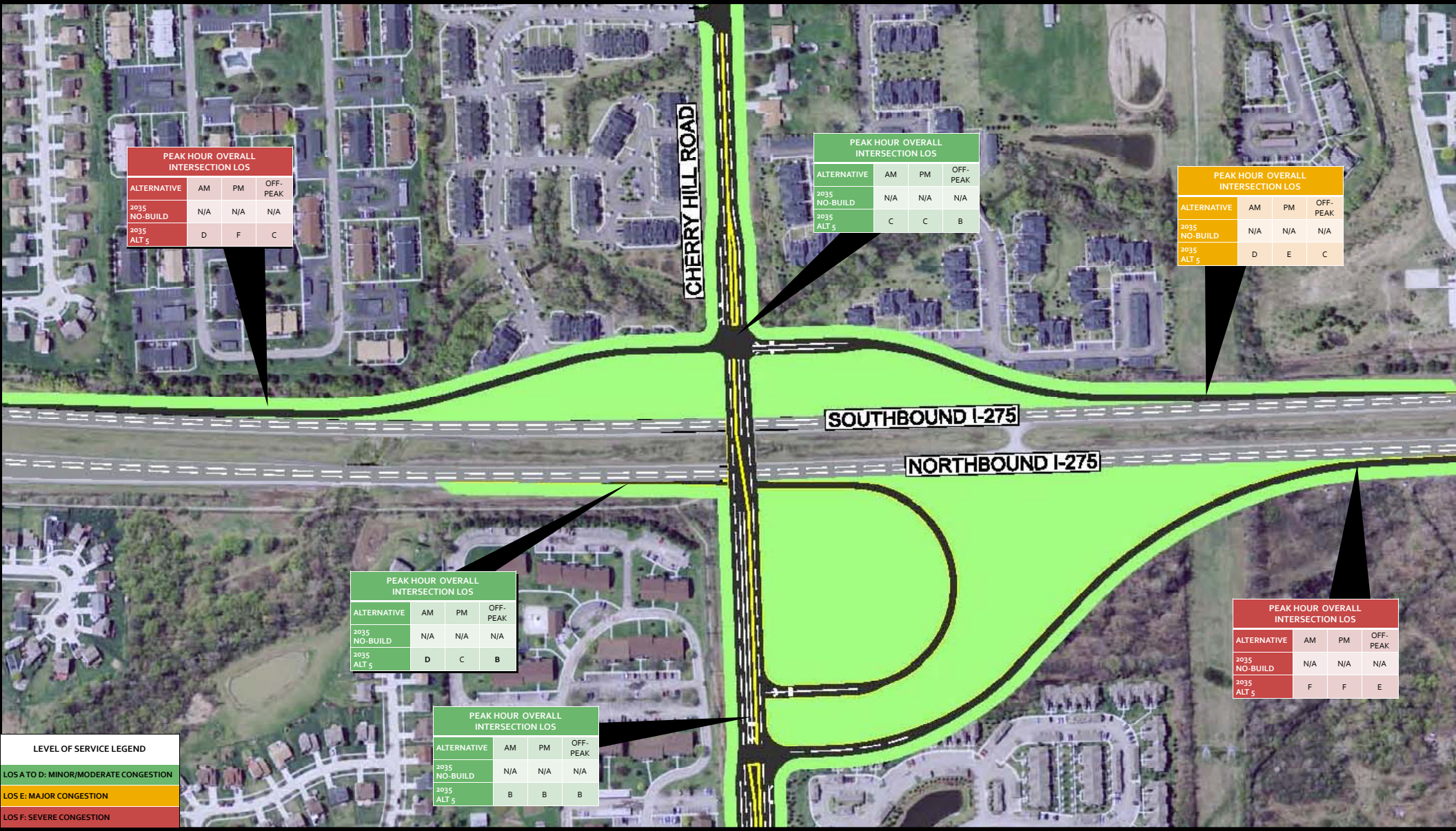
PEAK HOUR OVERALL INTERSECTION LOS			
ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	N/A	N/A	N/A
2035 ALT 5	D	**D**	C

PEAK HOUR OVERALL INTERSECTION LOS			
ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	N/A	N/A	N/A
2035 ALT 5	B	B	B

PEAK HOUR OVERALL INTERSECTION LOS			
ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	N/A	N/A	N/A
2035 ALT 5	D	D	B

LEVEL OF SERVICE LEGEND
LOS A TO D: MINOR/MODERATE CONGESTION
LOS E: MAJOR CONGESTION
LOS F: SEVERE CONGESTION

Alternative 5 –New Interchanges



PEAK HOUR OVERALL INTERSECTION LOS			
ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	N/A	N/A	N/A
2035 ALT 5	D	F	C

PEAK HOUR OVERALL INTERSECTION LOS			
ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	N/A	N/A	N/A
2035 ALT 5	C	C	B

PEAK HOUR OVERALL INTERSECTION LOS			
ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	N/A	N/A	N/A
2035 ALT 5	D	E	C

PEAK HOUR OVERALL INTERSECTION LOS			
ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	N/A	N/A	N/A
2035 ALT 5	**D**	C	**B**

PEAK HOUR OVERALL INTERSECTION LOS			
ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	N/A	N/A	N/A
2035 ALT 5	B	B	B

PEAK HOUR OVERALL INTERSECTION LOS			
ALTERNATIVE	AM	PM	OFF-PEAK
2035 NO-BUILD	N/A	N/A	N/A
2035 ALT 5	F	F	E

LEVEL OF SERVICE LEGEND
LOS A TO D: MINOR/MODERATE CONGESTION
LOS E: MAJOR CONGESTION
LOS F: SEVERE CONGESTION

I-275 at M-153 (Ford Road) Area Traffic and Environmental Study

MDOT Michigan Department of Transportation

I-275 at M-153 (Ford Road) Area Traffic and Environmental Study

New Interchanges Illustrative Alternative

- Description:
  - Provides full access interchanges at Cherry Hill Road and Warren Road to alleviate traffic at the Ford Road/Haggerty Road intersection as well as the Ford Road/I-275 interchange
  - Additional pedestrian and safety improvements
- Advantages:
  - Provides full access to and from Cherry Hill Road and Warren Road
  - Diverts traffic away from Haggerty Road
  - Safety improvements, such as sidewalk and pushbutton pedestrian signals along Ford Road
- Disadvantages:
  - High construction cost and future maintenance costs
  - Major right of way impacts
  - Many environmental impacts anticipated
  - Introduces conflicts with existing ramps to Ford Road which makes the freeway less safe
  - Cherry Hill Rest Area entrance ramp to northbound I-275 too close to proposed exit ramp to Cherry Hill Road
  - Minimal diversion of traffic from Ford Road and Haggerty Road
  - Does not improve existing Ford Road pavement condition

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I-275 at M-153 (Ford Road) Area Traffic and Environmental Study

Additional Improvements (Alt's 1-5)

- Intersection improvements along Cherry Hill Road
- Pave Lotz Road and improve Lotz Road/Ford Road intersection
- Additional pedestrian crossings with pushbuttons
- Provide bike crossings at bike path
- Provide overhead lighting at signals
- Access management (shared drives)

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I-275 at M-153 (Ford Road) Area Traffic and Environmental Study

Draft Project Costs

Alternative	Est. Construction Cost	Potential ROW Impacts/Costs	Est. Additional Maintenance Cost
1 – No-Build	Moderate	Moderate	Low
2 – Operational Improvements	Moderate	Moderate	Low
3 – Boulevard	Moderate	Moderate	Low
4 – WWTIP Study	High	High	Moderate
5 – New Interchanges	High	High	High

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I-275 at M-153 (Ford Road) Area Traffic and Environmental Study

Possible Factors For Further Consideration

Alternative	Transportation Factors (Mobility, Safety)		Environmental Factors (Habitat Protection, Wetlands, Air Quality)			Community Factors (Title VI/Environmental Justice)			Cost Factors (Cost, Cost Effectiveness)		Other
	LOS	Crashes	Wildlife Habitat Impacts	Wetland Impacts	Air & Water Quality	Pedestrian and Bike Access	Emergency Resp. Time	Property Impacts	Approx Const. Cost	Benefit Cost Analysis	
1 – No-Build											
2 – Operational Improvements											
3 – Boulevard											
4 – WWTIP Study											
5 – New Interchanges											

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