

# X. Laskin Road Interchange

Deficiencies

No direct access to eastbound I-264

Proposed Alternatives

No Improvement Alternative Developed  
Figure X.4

## X.1 Existing Conditions

Existing conditions present at the Laskin Road interchange are described focusing on roadway geometry, volumes, capacity analysis, and crash history.

### X.1.1 Geometry, Speeds, Lanes, Traffic Control

Figure X.1 displays a summary of the existing roadway geometry. The Laskin Road interchange is configured as a series of directional ramps that connect to Laskin Road also provide access to Virginia Beach Boulevard. Additionally, no direct access is provided to eastbound I-264 or from westbound I-264 to Laskin Road.

There are no major geometric deficiencies at the Laskin Road interchange.

Additional details on the existing conditions geometry at the Laskin Road interchange can be found in the Technical Appendix.

## X.1.2 Volumes & Operations

Figure X.2: Existing Volumes displays the existing volumes for the Laskin Road interchange for the year 2014. Traffic counts were conducted during early December 2014, with counts conducted on Tuesdays, Wednesdays and/or Thursdays. The peak hour counts document the typical commuter pattern on I-264, with heavier volumes in the westbound direction during the AM peak period and in the eastbound direction during the PM peak period.

Table 10.1 displays a summary of the results of the capacity analysis of existing conditions at the Laskin Road interchange using the Highway Capacity Manual software (HCS) package. No major deficiencies are present, and all movements operate with no worse than LOS C conditions.

Table 10.1 Summary of 2014 Existing Conditions HCS Capacity Analysis Laskin Road Interchange				
Movement (Type)	AM Peak Hour		PM Peak Hour	
	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
EB I-264 West of Laskin Rd (Freeway)	15.7	B	18.9	C
EB I-264 to Laskin Rd (Diverge)	21.8	C	26.7	C
EB I-264 between Laskin Rd and First Colonial Rd (Freeway)	10.0	A	11.9	B
WB I-264 between Laskin Rd and First Colonial Rd (Freeway)	15.1	B	13.0	B
Laskin Rd to WB I-264 (Merge)	24.2	C	21.8	C
WB I-264 West of Laskin Rd (Freeway)	21.1	C	18.5	C

Capacity Analysis indicates that all movements at the Laskin Road interchange are currently operating with adequate capacity.

# I-264 Corridor Evaluation Study

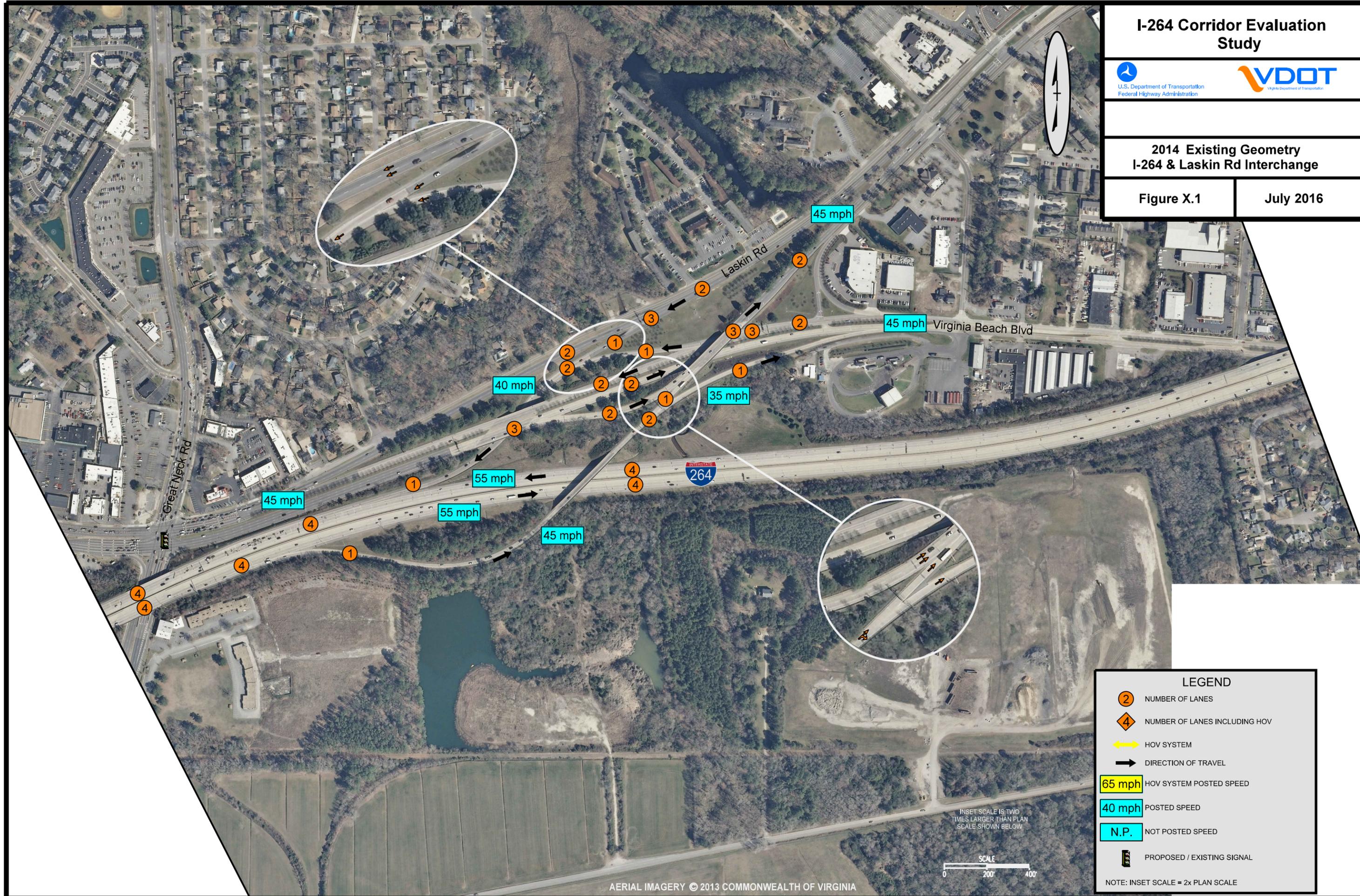
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## 2014 Existing Geometry I-264 & Laskin Rd Interchange

Figure X.1

July 2016



**LEGEND**

- 2 NUMBER OF LANES
- 4 NUMBER OF LANES INCLUDING HOV
- HOV SYSTEM
- DIRECTION OF TRAVEL
- 65 mph HOV SYSTEM POSTED SPEED
- 40 mph POSTED SPEED
- N.P. NOT POSTED SPEED
- PROPOSED / EXISTING SIGNAL

NOTE: INSET SCALE = 2x PLAN SCALE

INSET SCALE IS TWO TIMES LARGER THAN PLAN SCALE SHOWN BELOW

SCALE  
0 200' 400'

# I-264 Corridor Evaluation Study



## AECOM

### 2014 Peak Hour Volumes I-264 & Laskin Rd Interchange

Figure X.2

July 2016



**LEGEND**  
XXX AM PEAK HOUR VOLUME  
(XXX) PM PEAK HOUR VOLUME

SCALE  
0 100' 200'

### X.1.3 Crashes

**Figure X.3** displays the 4-year crash history at the Laskin Road interchange for the years 2009-2012. It illustrates a large number of crashes throughout the interchange and to the west of the interchange. Crashes in both directions of travel appear to be evenly distributed. The eastbound I-264 off-ramp to Laskin Road shows a high density of crashes nearest I-264.

**Table 10.2** summarizes the crash history by direction and type of facility (ramp or mainline) at I-264 and Laskin Road for the period 2009-2012. A total of 55 crashes occurred within the study area and a majority of the crashes (29) involved rear end crashes that occurred mostly (48) on the mainline. There were 21 injury crashes and 0 fatal crashes. Rear End and Fixed Object Off-Road were the two most frequent types of crashes that made up 73% of the total number of crashes.

Location	Type of Crash						Total	Severity		
	Rear End	Angle	Head On	Sideswipe - Same Dir.	Non-Collision	Fixed Object Off Road		Property Damage Only	Injury	Fatal
EB ML	19	2	2	2	1	3	<b>29</b>	17	12	0
WB ML	7	3	0	3	1	5	<b>19</b>	12	7	0
EB Ramp	3	1	0	0	0	3	<b>7</b>	5	2	0
WB Ramp	0	0	0	0	0	0	<b>0</b>	0	0	0
<b>Total</b>	<b>29</b>	<b>6</b>	<b>2</b>	<b>5</b>	<b>2</b>	<b>11</b>	<b>55</b>	34	21	0

### X.2 Forecasted Conditions

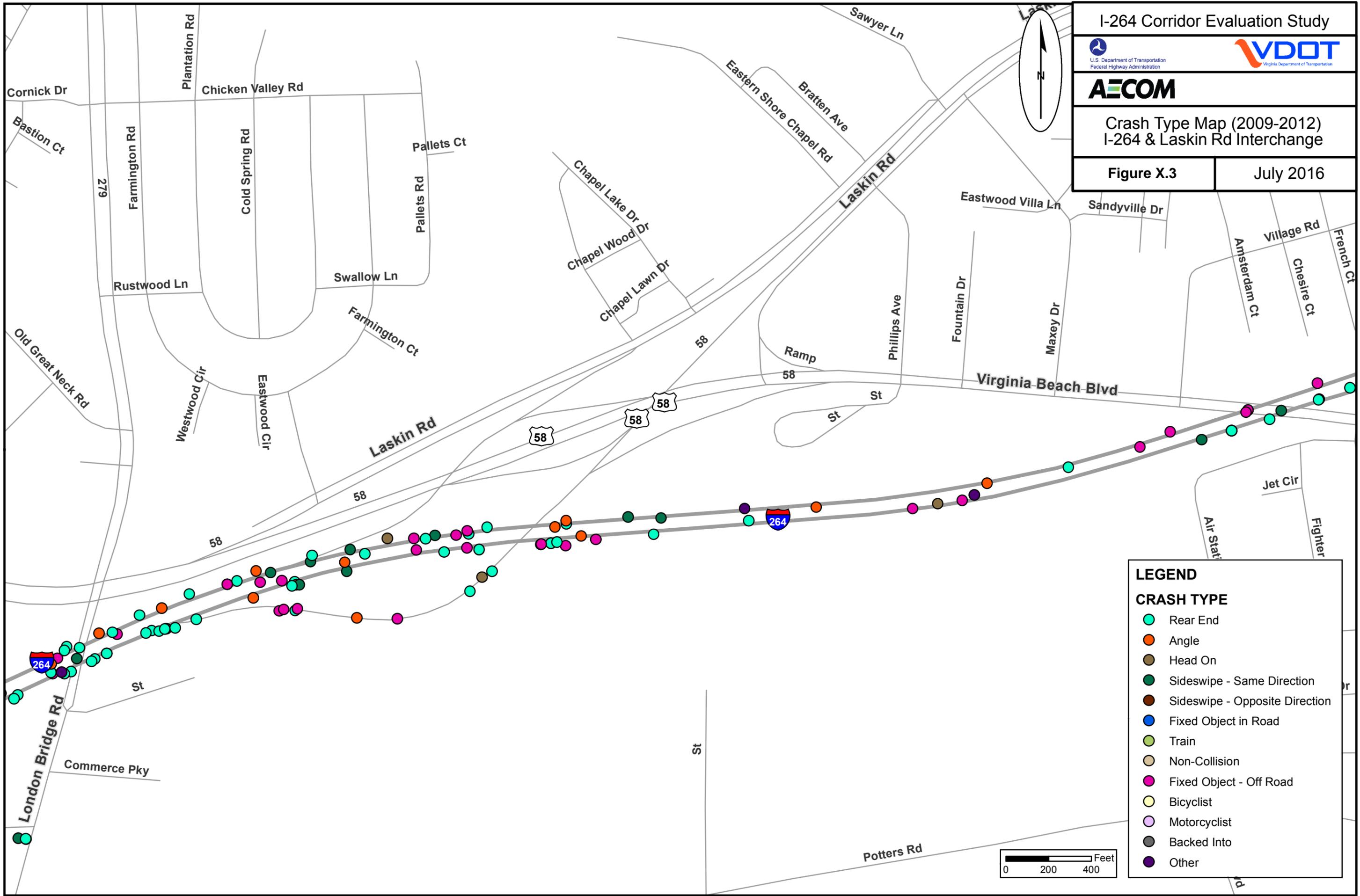
The analysis of forecasted conditions includes the development and evaluation of future volumes and operations for the year 2040. The forecasted conditions include the No Build alternative and improvement alternative.

#### X.2.1 Forecasted Volumes & Operations

**Table 10.3** displays the forecasted conditions volumes for the No Build (regular font) and Build (**bold font**) Alternative at the Laskin Road interchange for the year 2040. Existing volumes are also listed (*in italics*) in order to provide for comparison. In general, the volumes show moderate change in growth entering and exiting I-264, except for westbound I-264 after the Laskin Road interchange which exhibits higher change in growth (>20%). The roadway geometry for the No Build Alternative at I-264 and Laskin Road is the same as the geometry found in the existing conditions. No improvements are currently funded in the *Six-Year Improvement Program* for I-264 and Laskin Road.

**Table 10.4** displays a summary of the results of the HCS capacity analysis of the No Build Alternative. Since moderate traffic volume growth is forecasted, service levels have remained the same or increased slightly from what is currently experienced in the existing condition. All movements operate with slightly higher densities than their current levels.

Interstate & Direction	Movement		2014 Existing Volumes		2040 No Build Alternative		2040 Build Alternatives	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
	From	To						
I-264 EB	Mainline before Laskin		<i>3,303</i>	<i>4,377</i>	3,542	4,700	<b>3,837</b>	<b>5,113</b>
	EB I-264	SB Laskin Rd	<i>1,205</i>	<i>1,628</i>	1,205	1,632	<b>1,543</b>	<b>2,080</b>
	Mainline after Laskin		<i>2,098</i>	<i>2,749</i>	2,337	3,068	<b>2,294</b>	<b>3,033</b>
I-264 WB	Mainline before Laskin		<i>3,387</i>	<i>2,875</i>	3,772	3,158	<b>4,044</b>	<b>3,464</b>
	NB Laskin Rd	WB I-264	<i>1,353</i>	<i>1,232</i>	1,353	1,232	<b>1,931</b>	<b>1,759</b>
	Mainline after Laskin		<i>4,740</i>	<i>4,107</i>	5,125	4,390	<b>5,975</b>	<b>5,223</b>



**LEGEND**

**CRASH TYPE**

- Rear End
- Angle
- Head On
- Sideswipe - Same Direction
- Sideswipe - Opposite Direction
- Fixed Object in Road
- Train
- Non-Collision
- Fixed Object - Off Road
- Bicyclist
- Motorcyclist
- Backed Into
- Other

**X.2.2 Improvement Alternatives**

Capacity analysis at I-264 and Laskin Road indicates no major deficiencies are forecasted to occur specifically on I-264. However, the interchange still exhibits few geometry deficiencies. Consequently, any major maintenance activities (such as bridge replacement) should be designed to incorporate consideration of a plan for future improvements. No improvement alternatives were developed and analyzed for the I-264 and Laskin Road interchange. The existing geometry at I-264 and Laskin Road is shown in **Figure X.4**.

Since no improvement alternative has been developed, the Build Alternative volumes were analyzed using the same procedure – HCS – used in the analysis of existing conditions and No Build Alternative. The No Alternative Improvement is utilizing the Build volumes developed at the interchange. Even though there are no improvements for the Laskin Road interchange, there are improvements developed at other interchanges along I-264. The build volumes were calculated to reflect those improvements and balance traffic along the study area. The results of the capacity analysis for the forecasted year 2040 alternative (including the No Build Alternative) are shown in **Table 10.4**. The results show that all of the movements associated with I-264 and Laskin Road exhibit adequate LOS D or better.

**Capacity Analysis indicates that all movements at the Laskin Road interchange will continue to operate with adequate capacity through 2040.**

**X.2.3 Alternative: Cost**

No planning level cost estimates were developed at the Laskin Road interchange since no improvements were developed.

**X.2.4 Stakeholder Coordination**

A series of coordination meetings were held with staff from the City of Virginia Beach. In general, representatives from the City were supportive of the evaluation process and no improvement alternative was selected for this location.

**X.2.5 Recommendation**

No improvements are recommended to the Laskin Road interchange.

Table 10.4 Summary of HCS Capacity Analysis Results Year 2040 Alternatives: Laskin Road & I-264									
Year 2040 Alternative		No Build Alternative				No Alternative Improvement			
Time of Day		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Dir	Movement (Type)	Density	LOS	Density	LOS	Density	LOS	Density	LOS
East-bound I-264	EB I-264 West of Laskin Rd (Freeway)	16.3	B	20.3	C	17.6	B	22.1	C
	EB I-264 to Laskin Rd (Diverge)	22.3	C	28.0	D	25.3	C	31.9	D
	EB I-264 between Laskin Rd and First Colonial Rd (Freeway)	10.8	A	13.3	B	10.6	A	13.1	B
West-bound I-264	WB I-264 between Laskin Rd and First Colonial Rd (Freeway)	16.8	B	14.3	B	18.0	C	15.7	B
	Laskin Rd to WB I-264 (Merge)	25.4	C	22.7	C	30.8	D	27.9	C
	WB I-264 West of Laskin Rd (Freeway)	22.8	C	19.8	C	26.6	D	23.5	C

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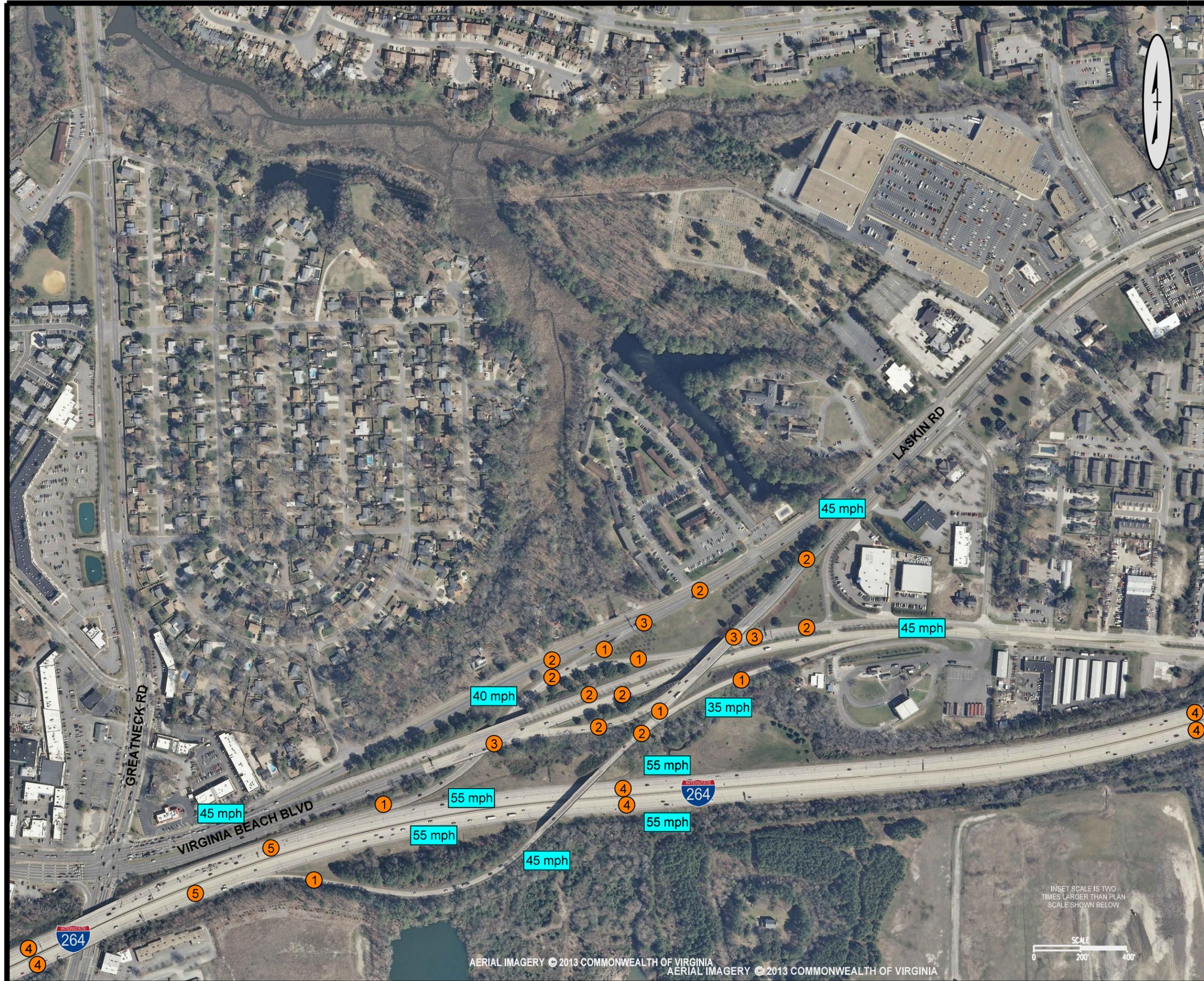


**AECOM**

2040 Build Alternative  
I-264 & Laskin Interchange

Figure X.4

July 2016



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