

TABLE 4-4
PEAK HOUR LEVELS OF SERVICE^a

Intersection Major Street Minor Street		Existing Traffic Control Device	Level of Service by Scenario ^b															
			1		2		3		4		5		6		7		8	
			Affected Environment (Year 2000)		2003 No Build		2003 Building II		2003 Building II & III		2005 Building II & III + Improvements at I-494/EBLR		2005 Building II & III + Improvements at Normandale/84th St		2005 Full Development + Improvements at I-494/EBLR		2005 Full Development + All Roadway Improvements	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
E Bush Lake Rd	78th St	Signal	E	C	E	C	E	C	E	C	E	C	E	C	E	C	E	C
E Bush Lake Rd	84th St	Signal	A	C	D	E	D	E	D	E	D	F	D	F	D	F	D	F
84th St	Normandale Lake Blvd	Signal	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
84th St	Norman Center Dr	Signal	A	B	A	D	A	D	A	D	C	D	C	D	C	D	C	D
Normandale Blvd	84th St	Signal	D	F	E	F	E	F	E	F	F	F	C	C	F	F	C	C
E Bush Lake Rd	WB I-494 Ramp	Signal	B	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B
E Bush Lake Rd	EB I-494 Ramp	Unsignalized	B	A	C	B	C	B	C	B	A	A	C	A	C	A	C	A
E Bush Lake Rd	Green Valley Dr	Stop	B/C	B/F	C/E	B/F	C/E	B/F	C/E	B/F	C/F	C/F	C/F	C/F	D/F	D/F	D/F	D/F
Norman Center Dr	Bridge Rd	Stop	A/B	A/A	A/C	A/D	A/C	A/F	A/F	A/F	B/F	C/F	B/F	C/F	C/F	C/F	C/F	C/F
E Bush Lake Rd	Highwood Dr	Signal	D	E	F	F	F	F	F	F	F	F	F	F	F	F	F	F
Norman Center Dr	Normandale Lake Blvd	Stop	A/B	A/B	A/D	A/D	B/E	B/E	B/F	B/E	C/F	B/E	C/F	B/E	C/F	B/F	C/F	B/F

Notes

- ^a All unmitigated cases. Based on procedures from 1997 *Highway Capacity Manual* and Software and Synchro v.4.
^b For STOP-controlled intersections: Major Street/Minor Street Level of Service.

Recommended Mitigation by Scenario

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|--|--|--|---|
| <p>1 None.</p> <p>2 <u>E Bush Lake Rd / 78th St</u>
 - Add second NB left turn lane (min. 225 ft storage).
 - Modify signal to reflect new geometry.
 <u>Normandale Blvd / 84th St</u>
 - Grade-separate/construct interchange.
 <u>E Bush Lake Rd / Green Valley Dr</u>
 - Install signal.
 - Add SB left turn lane (min. 125 ft storage).
 - Add second SB through lane.
 <u>E Bush Lake Rd / 84th St</u>
 - Add SB free right turn lane.
 - Add second SB through lane.
 <u>E Bush Lake Rd / Highwood Dr</u>
 - Add second SB left turn lane (min. 275 ft storage).
 - Add second EB through lane (with taper, min. 700 ft west of intersection).
 - Add second WB through lane (with taper, min. 700 ft east of intersection).</p> | <p>3 Scenario 2 improvements plus:
 <u>Norman Center Dr / Bridge Rd</u>
 - Install signal.</p> <p>4 Scenario 2 improvements plus:
 <u>Norman Center Dr / Bridge Rd</u>
 - Install signal.
 <u>Norman Center Dr / Normandale Lake Blvd</u>
 - Install signal.
 - Add SB left, through and right turn lanes.
 - Add dual EB left turn lanes.
 <u>84th St / Normandale Lake Blvd</u>
 - Modify signal timing/phasing.</p> | <p>5 Scenario 2 improvements plus:
 Background
 <u>E Bush Lake Rd / Green Valley Dr</u>
 - Install second NB through lane.
 Project-Generated Traffic
 <u>Norman Center Dr / Bridge Rd</u>
 - Install signal.
 <u>Norman Center Dr / Normandale Lake Blvd</u>
 - Install signal.
 - Add SB left, through and right turn lanes.
 - Add dual EB left turn lanes.
 - Add exclusive WB right turn lane.
 <u>84th St / Normandale Lake Blvd</u>
 - Modify signal timing/phasing.</p> | <p>6 Same as Scenario 5.
 7 Same as Scenario 5.
 8 Same as Scenario 5.</p> |
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