

To
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Town of Chapel Hill

From
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Project Manager
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Subject

Performance Motors TIS Reanalysis

Date

06/23/05

Technical Memorandum

Per request from Town of Chapel Hill staff on June 22, 2005, HNTB has completed an update to the original Performance Motors Traffic Impact Study, submitted to the Town of Chapel Hill in November, 2004. This memorandum is designed as an amendment to the original Traffic Impact Study and reference should be made to that document for additional details related to the project.

This update reflects changes in the proposed site plan and site development density as submitted by Philip Post and Associates to the Town (and forwarded to HNTB North Carolina, PC). These changes that resulted in a Special Use Permit Modification will affect the previously submitted traffic impact study by increasing the net amount of building size that is used as a variable to generate vehicle trips to and from Performance Motors, per standards found in the Institute of Transportation Engineer's *Trip Generation Manual, Volume 7*. The net building area to be increased, according to data from Philip Post and Associates, will rise from the 23,000 square feet studied originally, to 52,210 square feet.

The breakdown of the 52,210 square foot increase is as follows:

- Phase 1 Proposed Floor Area – 44,010 feet of BMW Sales/Service and PDI Buildings
- Phase 2 Proposed Floor Area – 7,000 feet of expanded Chevy/Saturn/Acura Showrooms and a Carwash
- Phase 3 Proposed Floor Area – 1,200 feet of BMW Building Expansion (Enclosing Service Drop off areas was not considered to be a “new” trip generator for this study)

The resulting modified Trip Generation Summary is listed below in Table 1 on the following page:

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Table 2. Peak Hour Intersection LOS and Delay (Sec/Veh) Results

Intersection	Time Period	2004 Existing		2007 No-Build		2007 Original Build		2007 Revised Build	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
US 15-501 and Sage Rd / Old Durham Rd	AM	33.0	C	38.5	D	38.9	D	39.4	D
	Noon	32.6	C	37.9	D	38.7	D	39.1	D
	PM	34.3	C	43.3	D	44.7	D	45.7	D
	Sat	32.0	C	37.7	D	41.7	D	39.8	D
US 15-501 and Eastowne Drive (Blue Cross Blue Shield Entrance)	AM	14.6	B	16.3	B	17.0	B	17.3	B
	Noon	15.2	B	17.4	B	17.7	B	18.6	B
	PM	25.9	C	26.9	C	29.4	C	31.0	C
	Sat	10.8	B	13.8	B	15.0	B	15.0	B
Old Durham Road and US 15-501 Frontage Road	AM	11.9	B	12.4	B	10.3	B	10.4	B
	Noon	13.2	B	14.1	B	11.0	B	11.2	B
	PM	12.9	B	14.5	B	10.8	B	11.0	B
	Sat	12.0	B	13.1	B	13.2	B	10.8	B
Old Durham Road and Scarlett Drive	AM	14.1	B	15.7	C	16.3	C	17.5	C
	Noon	19.9	C	26.2	D	28.2	D	38.5	E
	PM	17.1	C	22.6	C	25.5	D	31.4	D
	Sat	16.4	C	20.1	C	22.8	C	27.1	C
Old Durham Road and Site Exit Driveway	AM	11.5	B	12.4	B	12.5	B	12.7	B
	Noon	10.4	B	11.0	B	11.0	B	11.2	B
	PM	13.2	B	14.2	B	13.6	B	14.0	B
	Sat	11.6	B	11.6	B	10.7	B	11.6	B