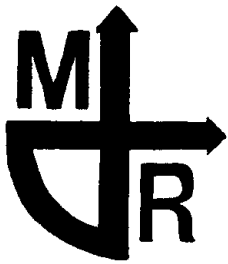


ADDENDUM III

**SOUTHERN MONTGOMERY TOWNSHIP
MASTER PLAN TRAFFIC STUDY
PREPARED BY McDONOUGH & REA ASSOCIATES**



SOUTHERN MONTGOMERY MASTER PLAN
TRAFFIC IMPACT STUDY

NEW JERSEY

PREPARED BY:

JULY 1, 2003

MCDONOUGH & REA ASSOCIATES
2517 Highway 35
Building G, Suite 201
Manasquan, New Jersey 08736

01-158

MASTER PLAN TRAFFIC STUDY FINDINGS

McDonough & Rea Associates, in conjunction with Coppola & Coppola Associates and Donald Johnson, PE, special projects engineer, has prepared a *Southern Montgomery Township Master Plan Traffic Study* to accompany recommendations made by Coppola & Coppola Associates with respect to existing and proposed zoning in the southwest and northwest quadrants of the State Route 206/County Route 518 intersection. The *Southern Montgomery Township Master Plan Traffic Study* has analyzed the following scenarios:

1. *Development Option I:*
 - 248 Age-restricted residential units
 - 120 Bed-assisted living facility
 - 848,754 SF of office space
 - 326,330 SF of retail space
 - 31 Residential dwelling units

2. *Development Option II:*
 - 248 Age-restricted residential units
 - 120 Bed-assisted living facility
 - 946,137 SF of office space
 - 326,330 SF of retail space
 - 31 Residential dwelling units

3. *Development Option III* – Same as Development Option I, however with 714,140 SF of office space generating traffic at the current peak hour rate exhibited by occupancy of the *Route 518 Business Park* by *Bloomberg Financial Services*.

4. *Development Option IV* – Same as Development Option II, however with 811,523 SF of office space generating traffic at the current peak hour rate exhibited by occupancy of the *Route 518 Business Park* by *Bloomberg Financial Services*.

5. Traffic generation from existing zoning within the area.

The aforementioned development scenarios have been analyzed with respect to levels of service that can be anticipated at the 3 key signalized intersections in the Southern Montgomery Township study area where traffic volumes will be at their highest levels. These intersections are as follows:

1. The intersection of State Route 206 at County Route 518.
2. The intersection of State Route 206 at the exit from the *Princeton North Shopping Center* where a new Montgomery Township Master Plan Road will ultimately form a fourth leg to the intersection.
3. A new intersection on County Route 518 where 2 new Montgomery Township Master Plan Roads will intersect that roadway. From the north, the Route 518/Orchard Road Connector through the *Sharbell Tract* will intersect Route 518. From the south, the new Montgomery Township “Outer Loop” roadway in the southwest quadrant of Route 206/518 will intersect opposite the Route 518/Orchard Road Connector.

The 3 aforementioned intersections are the key intersections within the study area which will experience the highest amount of through traffic and turning traffic. This study has been performed in order to determine the required geometry at each of these intersections in order to achieve a reasonable level of service design parameter. Level of service “C/D” was sought as a reasonable design parameter.

The following report summarizes the anticipated levels of service, required geometry, etc., for each development option.

DEVELOPMENT OPTION I

For *Development Option I*, the 3 studied intersections will all operate at level of service “C” during the AM peak street hour and PM peak street hour. A *Level of Service Summary* for each development option showing overall levels of service for each intersection and for the various movements at each intersection is appended to this report along with intersection geometry sketches and projected future traffic volumes for each intersection.

DEVELOPMENT OPTION II

For *Development Option II*, the 3 studied intersections will all operate at level of service “C” during the AM or PM peak street hours, except for the Route 518 intersection at the Master Plan Road/Orchard Road Connector that will operate at level of service “D” during the AM peak street hour.

DEVELOPMENT OPTION III

For *Development Option III*, the intersections of Route 206 at Route 518 and Route 206 at the *Princeton North Shopping Center*/Master Plan Road will operate at level of service “C” during the AM or PM peak street hours. The intersection of Route 518 at the Master Plan Road/Orchard Road Connector will operate at level of service “D” during the AM and PM peak street hours.

DEVELOPMENT OPTION IV

For *Development Option IV*, the intersection of Route 206 at Route 518 will operate at level of service “D” during the AM or PM peak street hours. The intersection of Route 206 at the *Princeton North Shopping Center*/Master Plan Road will operate at level of service “C” during the AM peak street hour and level of service “D” the PM peak street hour. The intersection of Route 518 at the Orchard Road Connector/Master Plan Road will operate at level of service “F” during the AM peak street hour and level of service “E” during the PM peak street hour.

EXISTING ZONING SCENARIO

For the *Existing Zoning Scenario*, the *Sharbell Tract* in the northwest quadrant of Route 206/518 was assumed to be 248 age-restricted residential units, a 120 bed assisted living facility, and 30,000 SF of office space. The remaining lands in the southwest quadrant of Route 206/518 were assumed to generate traffic in accordance with existing zoning. Furthermore, traffic generated from within the *518 Business Park* was assumed to do so at the *Bloomberg Financial Services* rate as a substantial expansion for the *518 Business Park/Bloomberg* has been previously approved.

For the *Existing Zoning Scenario*, the intersection of Route 518 and 206 will operate at level of service “C” during the AM and PM peak street hours. The intersection of Route 206 at the *Princeton North Shopping Center/Master Plan Road* will also operate at level of service “C” during the AM and PM peak street hours. The intersection at Route 518 and the *Orchard Road Connector/Master Plan Road* will operate at level of service “D” during the AM peak street hour and level of service “C” during the PM peak street hour.

SUMMARY

In summary, *Development Option I* will result in the best overall level of service for the 3 studied intersections with all intersections operating at level of service “C” during the AM and PM peak street hours. *Development Option II* and the *Existing Zoning Scenario* will be similar with all intersections operating at level of service “C” during the AM and PM peak street hours, except for the Route 518 intersection at the *Orchard Road Connector/Master Plan Road* which will operate at level of service “D” during the AM peak street hour for either of these 2 scenarios.

Development Option III will permit the Route 206/518 intersection and the Route 206/*Princeton North Shopping Center* intersection to operate at level of service “C” during the AM and PM peak street hours. However, the Route 518 intersection with the *Orchard Road Connector* will operate at level of service “D” during the AM and PM peak street hours.

Development Option IV, which is the most intense from a traffic generation standpoint, will have the Route 206 at Route 518 intersection operate at level of service “D” during the AM and PM peak street hours. The Route 206/*Princeton North Shopping Center* intersection will operate at level of service “C” during the AM peak street hour and level of service “D” during the PM peak street hour. The Route 518 intersection with the Orchard Road Connector will operate at level of service “F” during the AM peak street hour and level of service “E” during the PM peak street hour.

The foregoing traffic analyses represent “planning analyses” which are intended to define the scope and nature of improvements that will be required in order to support different development options. It is important to note that as development applications are filed for important tracts of land in the area such as the *Castaneda (CGEM)* and the *Route 518/Bloomberg Tract*, that those Applicants be required to prepare fully detailed traffic impact studies to more precisely define peak hour impacts.

Based on the anticipated traffic impacts from development of these tracts, it is assumed that the development applications will be responsible for constructing master plan roads through these areas and for upgrading intersections as may be required. The exact “fair share” cost allocation between Developers will depend on specific development applications and the traffic impact studies prepared for those applications.



McDonough & Rea Associates, Inc.

Traffic and Transportation Consulting

2517 Highway 35, Bldg. G, Suite 201, Manasquan, NJ 08736 • (732) 528-7076 • Fax (732) 528-6673
105 Elm Street, Lower Level, Westfield, NJ 07090 • (908) 789-7180 • Fax (908) 789-7181

TRIP GENERATION COMPARISON

	<u>AM PEAK STREET HOUR</u>			<u>PM PEAK STREET HOUR</u>		
	<u>IN</u>	<u>OUT</u>	<u>TOTAL</u>	<u>IN</u>	<u>OUT</u>	<u>TOTAL</u>
DEVELOPMENT OPTION I	1420	400	1820	770	1610	2380
DEVELOPMENT OPTION II	1560	420	1980	790	1740	2530
DEVELOPMENT OPTION III	2520	370	2890	730	2800	3530
DEVELOPMENT OPTION IV	2870	410	3280	770	3120	3890
EXISTING ZONING	2290	310	2600	450	2340	2790