

- Sign Lighting: Via backlighting (e.g., "halo-effect") or by lighting external to the sign and focused directly onto the sign face; no sign shall be internally lighted.

### **Traffic Design Features**

- Capacity: Road network designed with assurance that it can support the development.
- Speed Limits: Pedestrian friendly.
- Traffic Calming: Devices such as landscaped circles with signed pedestrian crossings should be provided in appropriate locations.

### **Other Design Features**

- Sustainability: Use sustainable construction techniques to minimize the impact upon the environment, including energy efficient building designs, recycled materials, water conservation devices, permeable pavement, native plantings, low chemical usage to maintain the landscaping, and similar measures which are sensitive to the environment.
- Stormwater Management: Share detention basins among a number of properties and design them, where appropriate, as attractive water features.
- Site Planning: Create vistas, views, vest pocket parks, passive and active recreational areas, connections to surrounding fabric, etc. Any new development should be compatible with adjacent and nearby land uses, thereby creating an interrelated mixture of existing and proposed land uses, all in harmony with each other.

## **SOUTHERN MONTGOMERY TOWNSHIP MASTER PLAN TRAFFIC STUDY**

McDonough & Rea Associates, in conjunction with Donald Johnson, Township Special Projects Engineer, and Richard Coppola, Township Land Use Planner, has prepared a "Southern Montgomery Township Master Plan Traffic Study" to accompany this "Land Use Plan Element 2003 Amendment No. 1" document.

In addition to analyzing the traffic impacts resulting from build-out of the principal properties within the study area under existing zoning provisions (see the table on page 18 of this report), McDonough & Rea Associates also analyzed the traffic impacts which theoretically could result from development under four (4) different development options. The four (4) development options are detailed on the four (4) tables in Addendum II to this report.

The traffic study is attached to this report as Addendum III.

Summarily, the four (4) development options are as follows:

**Development Option I:**

Sharbell	218 Age-Restricted Units, 120 Bed Assisted Living Facility, & 30,000 sf Offices
Bloomberg & Bloomberg (Don Drake)	714,149 sf Offices With 158,137 sf At Current Bloomberg Traffic Generation Rate & 556,003 sf At Institute Of Traffic Engineers (ITE) Rate
John Drake	104,614 sf Offices, & 13 du
Zirinsky & Castaneda	308,470 sf Retail, & 30 Age-Restricted Units
Horowitz	17,860 sf Retail
Single-Family Lots No. & So. Sides Of Route 518	18 du

**Development Option II:**

Sharbell	218 Age-Restricted Units, 120 Bed Assisted Living Facility, & 30,000 sf Offices
Bloomberg & Bloomberg (Don Drake)	811,523 sf Offices With 158,137 sf At Current Bloomberg Traffic Generation Rate & 653,386 sf At Institute Of Traffic Engineers (ITE) Rate
John Drake	104,614 sf Offices, & 13 du
Zirinsky & Castaneda	308,470 sf Retail, & 30 Age-Restricted Units
Horowitz	17,860 sf Retail
Single-Family Lots No. & So. Sides Of Route 518	18 du

**Development Option III:**

The same as "Development Option I", except all of the "Bloomberg" traffic was projected at the current Bloomberg traffic generation rate.

**Development Option IV:**

The same as "Development Option II", except all of the "Bloomberg" traffic was projected at the current Bloomberg traffic generation rate.

The existing zoning option and the four (4) development options were analyzed regarding the levels of service that can be anticipated at the three (3) key signalized intersections in the "Land Use Plan Study Area" where traffic volumes and turning movements will be at their highest levels. The three (3) key intersections are as follows:

- The lighted intersection of State Route 206 and County Route 518;
- The intersection of State Rout 206 at the exit from the Princeton North Shopping Center, where a new Montgomery Township Master Plan road will form a fourth leg to the intersection, which will be lighted; and
- A new lighted intersection on County Route 518 where two (2) new Montgomery Township Master Plan roads will connect with Route 518. From the north, the Route 518/Orchard Road connector roadway will extend through the "Sharbell" property and intersect Route 518. From the south, the new Montgomery Township Master Plan "outer loop" road in the southwest quadrant of the Route 206/Route 518 intersection will intersect Route 518 across from the Route 518/Orchard Road connector roadway.

The traffic study was a "planning analysis" performed in order to determine the required geometry which will be required at each of the subject three (3) intersections under the four (4) development options in order to achieve a reasonable level of service; in this regard, a level of service "C/D" was sought as a reasonable design parameter.

Therefore, the traffic report summarizes the anticipated level of service and the required geometry of intersection improvement for each of the four (4) development options.

As indicated on pages 4 & 5 of the traffic report, the anticipated levels of service for each of the identified scenarios are as follows:

*"...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."