Two documents are included, a spoken testimony and the written testimony.

SPOKEN TESTIMONY

My name is Eric Hu, I am a traffic Engineer, Transportation planner and Civil engineer for over 25 years. From the information I got, I believe the Master Plan underestimated traffic by 30%, at least. And, I believe the Master Plan must be scaled back accordingly. Following are the reasons.

1. **This is not a TOD**.

   A TOD requires a built mass transit system – a system like Metrorail. Based on a survey done by Metro, mass transit system must be within 0.5 miles radius of the project site in order to have the desired transit trip share.

2. **CCT is not a mass transit system**.

   A typical BRT system running in mixed traffic would have a max. capacity of 1,000 passengers in the peak direction during peak hour. CCT is not a mass transit system in comparison with Metrorail.

3. **Unrealistic Transportation Modeling Process**

   The master plan used trip rates that are unique to developments in and around Metro stations. If realistic trip rates were used, many intersections would have failed the CLV test and the PAMR (policy area mobility review) analysis would have shown that this plan is not acceptable.

4. **Misleading Transportation plan**

   It is not feasible to build interchanges at intersections that are closely located. Distance between Great Seneca Hwy/Muddy Branch Road and Sam Eng Hwy is only about 1300 feet. Also, a ramp can only accommodate about 800 to 1200 vehicles in an hour. Currently, traffic volumes at some intersections already exceed or near the capacity of a single ramp. To make the plan work, they might have to elevate Great Seneca Hwy from Muddy Branch Road to Sam Eng Hwy, and elevate Sam Eng Hwy to I-270.

5. **Flawed Traffic Analysis**

   The traffic analysis did not include nature traffic growth (growth that will occur with or without the development) If the build out year is 2030, nature traffic growth is 1% a year, the traffic estimate in the Master Plan would has underestimate traffic by 20% at least. If you look at page 43 Transportation Appendix and compare 2007 traffic volume and build out traffic volume you will see it.

6. **Transportation Network Issues**

   The master Plan did not address the issues of traffic impact on the I-270. With the additional traffic and the traffic feed from the new ICC, traffic will back up to Sam Eng Hwy and to local streets. Adding lanes to I-270 / ramps cannot solve the problem because it is not effective adding lanes to a super highway like I-270. Keep

on adding lanes and interchanges would result in a Franconia Springfield type of interchanges in this area.

Conclusion

This master plan underestimated traffic by using wrong trip rates and by ignoring normal traffic growth, and provided misleading and unacceptable mitigation measurements.

A comprehensive study must be done before approving this master plan. This master plan must be scaled back to a more reasonable level.

The written testimony continues on the next page.

WRITTEN TESTIMONY

The Life Sciences Center

Traffic and Transportation Issues

Eric Hu

1. **This Development is not a TOD (Transit- Oriented Development) Project.**
   The most basic element of a TOD project is a **built** mass transit system within a radius of 0.25 to 0.5 miles of the project site. According to a survey done by Metro, transit trips generated from a new development would be reduced rapidly if the development is beyond the 0.25- mile radius and would have very little or no impact on transit ridership if the development is beyond the range of the 0.5-mile radius of the mass transit system.

2. **Proposed CCT is not a Mass Transit System**
   For a successful TOD, a **high capacity** mass transit system is required. BRT system running in mixed traffic would have a maximum system capacity of **1,000** passengers in the peak direction during peak hour, and is hardly a mass transit system in comparison with Metrorail. Furthermore, the proposed CCT is designed as a feeder system to Metrorail – the most common type of high capacity system. It does not directly connect CBDs (Central Business Districts), and would therefore be much less effective in reducing vehicular traffic.

3. **Unrealistic Transportation Modeling Process**
   It is unrealistic and misleading to use trip generation rates that are unique to developments in and around Metrorail stations. The proposed developments do not include a real mass transit system and are not in walking distance to high capacity mass transit system. It is recommended that the ITE (Institute of transportation Engineers) trip generation rates be used in the plan and minimum discount rates be used for the proposed BRT and other transit services for office, retail, and housing.

   If realistic trip generating rates were applied to the PAMR (Policy Area Mobility Review) analyses, the analyses would have shown that the plan is not acceptable. For the same reason, more intersections would have failed the CLV congestion test. For this type of development a worst- case-scenario study should be conducted to assess the traffic impacts.

4. **Misguided Transportation Plan**
   To mitigate and accommodate traffic generated from the development, six interchanges were proposed in the adjacent area of the development. The logic behind the decision to build interchanges in a currently suburban and residential area is questionable, especially since this area will remain as primary residential.

   It is very disturbing to see that several proposed interchanges are so closely located. Common sense indicates that interchanges require long ramps and continuous lanes for acceleration,

   deceleration and weaving between the on and off ramps. Contrary to this logic, the distance between Great Seneca Hwy/Muddy Branch and Sam Eng Hwy is merely 1,300 feet, while the distance from Key West/Great Seneca Hwy to the proposed intersection of Belward Campus Drive is approximately 1,000 feet. It is not feasible to build interchanges at such close distance. Furthermore, a loop ramp can only accommodate 800 to 1,200 vehicles in an hour (AASHTO – American Association of State Highway and Transportation Officials). It

should be noted that, currently, critical lane volumes (with or without opposing left-turn traffic in calculation) at many intersections already exceed the possible capacity of a loop ramp. A two-lane loop is not feasible because of the requirements of huge radii and right-of-way, and difficult design issues. Therefore, it is questionable that the proposed interchanges would mitigate the traffic generated by the proposed development. To make the plan (Gaithersburg West Master Plan) work it would require elevating the section of Great Seneca Hwy from Muddy Branch to Sam Eng Hwy, and possibly to elevate Sam Eng Hwy from Great Seneca Hwy to I-270 ramp. Is this the vision we have for this area – a jungle of concrete?

The Gaithersburg West Master Plan called for adding travel lanes and building interchanges contradicting its own goals of promoting safe pedestrian crossing and encouraging the use of bikes. Wide streets and interchanges are not pedestrian and bike friendly.

5. **Misleading Traffic Analysis**

It is highly possible that the intersection analysis performed in the Transportation Appendix did not add background traffic increases to the build out (High Land Use Scenario) conditions in the build out year (assuming 2030). (Made request to MNCPPC but have not receive information) In the analysis, no-build conditions should be compared to built conditions, and both no-build and built conditions should include natural traffic growth. This is very troublesome because traffic volumes would be much higher (20% higher if we assume traffic increase 1% ever year) than those shown in the Transportation Appendix. The traffic analysis is flawed if no annual background traffic increase (including pipeline projects) was assumed in the process.

In the Cordon Line Analysis, as stated in the second paragraph "a constant level of through traffic…", "constant" means that no background traffic increase was added to the traffic analysis. The analysis provided in the plan constantly underestimated traffic volumes.

For a normal traffic analysis for this type of development, traffic analyses should be provided for no-build conditions and as for built conditions for every planned stage.

Even with underestimated vehicular traffic volumes, many intersections would operate near or over capacity (volume/capacity ratio over 0.85). When intersections operate near or over

capacity traffic would be unstable and drivers may be experience short stoppages; and excessive delays would occur with worsening air pollution.

6. **Problematic I-270 Corridor Transportation Network**

This plan did not address the issues of traffic impact on I-270. Currently, traffic from I-370 to I-270 is already backed up during morning peak hours. It is obvious that, with additional vehicular trips added, traffic will back up onto Sam Eng Hwy and spill over to local streets, and interchanges would become parking lots. A traffic network simulation tool should be used to analyze the traffic conditions in the adjacent area. Adding lanes to I-270 would not solve the problem because the effectiveness of adding lanes to a Highway with more than 4 lanes each direction would be diminished due to excessive vehicular weaving maneuvers. Furthermore, ICC (Inter-County Connector) would feed more traffic to I-270, and the only solution to alleviate the congestion is to construct or expand interchanges. The results would be another Franconia-Springfield type of interchanges in this area.

Transit capacity analysis should be included in the assessment of the transportation plan. Metrorail is already running at or near capacity; capacity cannot be increased without upgrading the platform at Shady Grove station (even with 8-car trains and no turnbacks at Grosvenor station). This plan (Gaithersburg West Master Plan) assumed very high transit trips without analyzing capacity of the proposed BRT system. As stated before, it is highly doubtful that the proposed BRT system can accommodate the projected (by the plan) ridership.

7. Conclusions

The Gaithersburg West Master plan underestimated traffic by using unrealistic trip generation rates and by ignoring normal traffic growth (growth that will occur with or without the proposed development), and provided misleading and unacceptable mitigation measurements.

A comprehensive study should be conducted before this plan is approved, and this plan should be scaled back to a reasonable level so that traffic generated from the development can be mitigated with a realistic transportation plan.