



June 6, 2003

MEMORANDUM

TO: Malcolm Shaneman, Supervisor
Community-Based Planning Division

VIA: Ronald C. Welke, Supervisor *DKH for*
Transportation Planning

FROM: Ed Axler, Coordinator *EA*
Transportation Planning

SUBJECT: Preliminary Plan No. 1-92072-A
Georgetown Preparatory School (Inigo's Crossing)
10600 Rockville Pike, Rockville
Grosvenor (Metrorail Station) Policy Area

This memorandum is Transportation Planning staff's adequate public facilities (APF) review of the preliminary plan. The preliminary plan amendment is needed to amend the Planning Board's Opinion dated December 29, 1992 (Attachment 1), to include apartment units on Parcel 1 (Attachment 2, 1993 Record Plat).

RECOMMENDATIONS

Transportation Planning staff recommends the following conditions as part of the transportation-related requirements to approve this preliminary plan in accordance with the conditions of Zoning Application Case No. G-796:

1. Limit the amended development to a total of 473 mid-rise apartments and the existing private educational institute.
2. Satisfy Local Area Transportation Review (LATR) by mitigating the impact of site-generated traffic at the intersection of Tuckerman Lane and Old Georgetown Road (MD 187). The improvement is to reconfigure the westbound approach lanes of Tuckerman Lane to use the second, left-most through lane as a combination (third) left-turn and (second) through lane (Attachment 3, Tuckerman Lane diagram). The applicant would be responsible for any needed modification to the traffic signal

equipment and geometric change to accommodate the third left-turn movement through the intersection.

Coordinate with the Maryland State Highway Administration (SHA) at site plan review (as requested in their letter dated May 23, 2003, Attachment 4) for further detailed review of traffic signal modifications/operations and the functional adequacy of turning radii. SHA has reviewed and approved the improvement concept at the time of the zoning case. This improvement is related to part of SHA's Capital Transportation Program (CTP) Project No. MO8991, I-270 (East Spur) for improvements at I-270/Rockledge Drive/Old Georgetown Road and Old Georgetown Road/Tuckerman Lane (Attachment 5, page from SHA's CTP).

3. Satisfy LATR by mitigating the impact of site-generated traffic at the intersection of Rockville Pike (MD 355) and Strathmore Avenue/Georgetown Preparatory School's main access by constructing a separate eastbound right-turn lane from the school's main access.
4. Site access from Tuckerman Lane should serve as the main access for the proposed apartment development and as secondary access only for Georgetown Preparatory School. Refer to the Attachment 6, second binding element in the Hearing Examiner's Report. The school's secondary access point should have a gatehouse or similar access-control feature. Coordinate with the Department of Public Works and Transportation (DPWT) for Georgetown Preparatory School's emergency access needs.
5. Provide the following at the intersection of Tuckerman Lane and Grosvenor Place Road/the proposed apartment/secondary school access point (Attachment 7, DPWT's letter dated June 2, 2003):
 - a. Design and provide for the installation of a traffic signal at the applicant's expense in coordination with DPWT for the safe operation of this intersection. A traffic signal warrant study was conducted and determined that a traffic signal is warranted after the Planning Board's first hearing for the zoning case. The traffic signal should be installed, prior to any use as an access road.
 - b. Provide eastbound and westbound left-turn lanes along Tuckerman Lane.
 - c. Provide a westbound deceleration lane because of the limited sight distance as required by DPWT. With construction of the deceleration lane, dedicate or place in an easement additional right-of-way for the existing eight-foot bikeway to be relocated northward.
 - d. Prohibit through movements across Tuckerman Lane by providing raised island(s) for channelization but permit all turning movements into and out of the proposed apartment/secondary school access point and Grosvenor Place Road (which is the fifth binding element in the Hearing Examiner's

Report). Coordinate with DPWT regarding the dimensions of the raised island for adequate truck turning radii.

- e. Provide at least 11-foot wide approach lanes along Tuckerman Lane to safely accommodate through traffic.
 - f. Provide for safe pedestrian crossing (e.g., pedestrian crosswalks, pedestrian signal heads, etc.) as required by DPWT.
 - g. Provide the necessary safety improvements (e.g., skid-resistant pavement, advanced signal warning, etc.) as required by DPWT and related to the traffic signal installation to compensate for the potential sight distance inadequacy on the westbound approach of Tuckerman Lane.
6. Coordinate with DPWT to conduct a sight distance evaluation along Tuckerman Lane at the proposed apartment/secondary school access point prior to plat recordation. Remove any necessary obstructions (possibly tree trimming) to provide adequate sight distance for a commercial curb cut and intersection with Tuckerman Lane.
 7. Provide for the installation of two bus shelters along Tuckerman Lane as proffered by the applicant and identified as a feature of the zoning application in the Hearing Examiner's Report (Attachment 8, excerpts from the Hearing Examiner's Report and District Council's resolution) to encourage use of public transit in coordination with DPWT's Transit Services Division.
 8. Provide at least four-foot wide concrete lead-in sidewalk from Tuckerman Lane to the apartment buildings and into the school site at site plan.
 9. Dedicate 12 to 20 feet of right-of-way for 75 feet from the centerline of Rockville Pike, as a major highway, M-6.
 10. Provide for the dedication of right-of-way for the master-planned North Bethesda Transit Easement along Tuckerman Lane (Attachment 9, Record Plat No. 606-75) connecting to the Grosvenor/Strathmore Metrorail Station as required by DPWT.
 11. Revise the APF Agreement, dated May 25, 1993 (Attachment 10), associated with the approval of Preliminary Plan No. 1-92072, to reflect the proposed apartment units and other revisions to the original recommendations by the Planning Board.
 12. Satisfy the master plan recommendation to participate in the North Bethesda Transportation Management District (TMD) as a multi-family housing development. Submit a draft Traffic Mitigation Agreement (TMA) with the Planning Board and DPWT. The TMA must be executed prior to release of building permits. The TMA must include participation in the North Bethesda Transportation Management Organization. The traffic mitigation goals for Stage 2 of the master plan development are to achieve and maintain:

- a. a 39 percent non-auto-driver mode share for employees.
 - b. a 30 percent non-auto-driver mode share for multi-family residents.
13. Provide a Transportation Management Plan (TMP) to prevent the overflow traffic generated from large school events from impeding traffic movements on nearby roadways and at nearby intersections. The TMP should include such provisions as adequate parking, additional traffic control in congested areas, safe pedestrian movements from off-site parking areas to the campus, and coordination with police and DPWT.

DISCUSSION

Site Location

The proposed apartment site is located on the north side of Tuckerman Lane opposite Grosvenor Place Road approximately 1,200 feet west of Rockville Pike.

Vehicular and Pedestrian Access

The site's vehicular access is proposed from Tuckerman Lane opposite Grosvenor Place Road with the agreement of the Tuckerman Heights Homeowners Association to cross their easement. The easement was designated for only public use by DPWT and includes the limited right-of-way for the master planned North Bethesda Transitway between the Grosvenor/Strathmore Metrorail Station and Montgomery Mall. See Attachment 9, record plat with highlighted plan note. A reciprocal easement from the property owner, Tuckerman Heights Homeowners Association, and DPWT was obtained for a site access driveway to Tuckerman Lane directly opposite Grosvenor Place Road.

Pedestrian access should be provided by a sidewalk connection from the eight-foot hiker/biker path along Tuckerman Lane to the proposed apartments and into the school site as described in Recommendation No. 8. A pedestrian route is available to conveniently walk to the Grosvenor/Strathmore Metrorail Station which is approximately 1,500 feet away via straight-line distance or 2,000 feet away using the existing pathways.

Bus Shelters Along Tuckerman Lane

To initially mitigate site-generated traffic through the intersection of Old Georgetown Road and Tuckerman Lane for the rezoning case, the applicant proposed to provide two bus shelters along Tuckerman Lane. This was one of several mitigation measures as identified in their Transportation Consultant's *Transportation Issues Addendum*, dated April 9, 2002. During the public hearings by the Hearing Examiner, the applicant proffered to pay for the construction of the bus shelters at two of the 12 existing bus stops served by Ride-On routes 6 and 37 along Tuckerman Lane between Rockville Pike and Old Georgetown Road. In accordance with the *Local Area Transportation Review Guidelines*, the applicant may reduce the site-generated traffic by 20 weekday peak-hour trips during the weekday morning and evening peak periods. The locations of the two bus shelters would be determined by DPWT, Transit Services Division.

Prior Regulatory Actions

1. The Planning Board approved Preliminary Plan No. 1-92072 on December 17, 1992, for the Georgetown Preparatory School to construct a new Humanities building with a limitation on the enrollment, the number of staff persons, and the end of weekday classroom hours. A new record plat was recorded and the applicant entered into an APF Agreement dated May 25, 1993.
2. Zoning Application Case No. G-796 to change the subject site from the R-90 zone to the PD-28 zone:
 - a. In response to the Planning Board's initial concerns the applicant filed additional materials to Park and Planning staff, and the Planning Board recommended a continuance at its May 9, 2002, hearing to allow the applicant to further revise their plan.
 - b. With those revisions, the Planning Board recommended that the Hearing Examiner approve rezoning at its September 12, 2002, hearing.
 - c. The Hearing Examiner recommended approval to the County Council in Philip Tierney's Report and Recommendation dated October 15, 2002.
 - d. The Local Map Amendment and Development Plan was approved by County Council on October 29, 2002.
3. The boundary between the Grosvenor Policy Area and North Bethesda Policy Area was shifted to the west to include the entire 15-acre property classified as the PD zone under Local Map Amendment G-796 in the Grosvenor Policy Area. The Planning Board held a hearing to amend the Annual Growth Policy (AGP) on November 14, 2002. The County Council approved a resolution to amend the AGP for the boundary change on November 26, 2002.

Master Plan Roadways and Bikeways

According to the *North Bethesda/Garrett Park Master Plan*, the roadways and bikeways are as follows:

1. Rockville Pike is designated as a six-lane, divided, major highway, M-6, with a minimum right-of-way of 150 feet. A Class I bikeway on the east side is planned in the Master Plan to connect the Grosvenor/Strathmore Metrorail Station to the Twinbrook Metrorail Station.
2. Tuckerman Lane is designated as a four-lane, arterial road, A-71, with a minimum 80-foot right-of-way, and an existing, eight-foot Class I bikeway on the north side.

Grosvenor Place Road is a private road and, therefore, not described in the Master Plan.

Nearby Planned Transportation Improvements

1. Old Georgetown Road (MD 187) and Tuckerman Lane: At this intersection, construction of an additional eastbound left-turn lane and a westbound left-turn lane on Tuckerman Lane has been recently built as part of SHA's CTP Project No. MO8991, I-270 (East Spur) and includes the I-270/Old Georgetown Road and Rockledge Boulevard interchange construction project.
2. Rockville Pike (MD 355) and Strathmore Avenue: SHA is constructing a spot improvement at this intersection, identified as Contract No. MO6055187. SHA is extending the southbound left-turn lane on Rockville Pike by approximately 350 feet and creating a second westbound left-turn lane on Strathmore Avenue. The second left-turn lane is to be created by moving the northern curb line from four to seven feet and re-striping the pavement markings. A public hearing for a mandatory referral was held on March 1, 2002, to receive the Planning Board's comments.
3. Strathmore Avenue:
 - a. SHA has a project to reconstruct Strathmore Avenue as a two-lane urban roadway, identified as Contract No. MO7835184 between Kenilworth Avenue and Weymouth Street. The project was recently bid, but construction has not yet started.
 - b. A DPWT project to provide sidewalks along Strathmore Avenue between Jolly Way and Stillwater Avenue as PDF 11-109, Project 506747, was folded into an SHA Neighborhood Conservation Project study to reconstruct Strathmore Avenue between Kenilworth Avenue and Rockville Pike. However, the study is now on hold and the status of the sidewalk project is uncertain.

Site-Generated Traffic

The traffic study was updated from the previous study submitted for the prior zoning case to reflect the changes in traffic conditions for the subject preliminary plan. In both the previous and updated traffic studies, the number and type of housing units remained the same. The number of site-generated peak-hour trips was determined using trip-generation rates as garden apartments as follows:

1. Without considering the site proximity to the Grosvenor/Strathmore Metrorail Station, the proposed 473-unit apartment development would generate a total of 192 peak-hour trips during the weekday morning peak period (6:30 a.m. to 9:30 a.m.) and 224 peak-hour trips during the weekday evening peak period (4:00 p.m. to 7:00 p.m.).
2. A 20 percent reduction in vehicular trips was used in the traffic study associated with the transit mode share because the subject site is located in the proximity of a Metrorail station. The percent reduction is consistent with the percentage use in the

traffic studies for other similar developments (e.g., the nearby Grosvenor Village and both Jefferson Village and White Flint Place located near the White Flint Metrorail Station). The proposed apartment development would generate 154 (or 38 fewer total) vehicular peak-hour trips during the weekday morning peak period and 179 vehicular (or 45 fewer total) peak-hour trips during the weekday evening peak period.

In addition, the total traffic condition included the added traffic generated by 100 more students. The added traffic was determined by proportionally increasing the current number of peak-hour vehicular trips to and from the school during the weekday morning and evening peak-hour. The vehicular traffic includes students, staff, and faculty trips. The number of vehicular trips analyzed in the traffic study is as follows:

Type of Vehicular Trip	Peak Hour	
	Morning	Evening
Current Trips	245	209
Added Trips	54	47
Future Trips	299	256

The previous and updated traffic studies were submitted to satisfy LATR because the proposed development generates 50 or more total peak-hour trips during the weekday morning and the evening peak periods. The congestion analysis in the updated traffic study included the following:

1. Transit Mode Share: Based on the results from WMATA's "Development-Related Ridership Survey II", 20 percent of the site-generated traffic would walk or bicycle to the Grosvenor/Strathmore Metrorail Station rather than use their vehicles. The 20 percent transit mode share is lower than the 25 percent mode share previously used for the approved Grosvenor Village development. The five percent difference in the transit mode share is because the pedestrian path from Inigo's Crossing to the Metrorail station is approximately 2,000 feet compared with Grosvenor Village located next to the Metrorail station.
2. Background Development and Traffic: The traffic from the approved, but unbuilt nearby developments was analyzed in the background traffic condition. The background traffic included Grosvenor Village, Strathmore Concert Hall, Strathmore Educational Center, Grosvenor/Strathmore Metrorail Station's parking garage, and the Montgomery County Conference Center.
3. Use of the Proposed Apartment/Secondary School access point: The transportation consultant conservatively assumed some vehicular traffic currently is using the existing Tuckerman Lane access initially for the zoning case. Because this access point is supposed to be only for emergency use, those weekday peak-hour trips entering from Tuckerman Lane were diverted to the main access from Rockville Pike. The number and reassignment of vehicular trips were further refined during this preliminary plan review.

4. Consistency of the Traffic Count at the Intersection of Rockville Pike and Strathmore Avenue: In the previous traffic study for the zoning case, the traffic data was collected and had different approach volumes during weekday morning and evening peak hours. Specifically, a 1999 traffic count used in the traffic study for the Grosvenor/Strathmore Metrorail Station garage and Strathmore Hall had been compared with three other traffic counts. The four traffic counts were collected between 1997 and 1999 during days when schools were in session. Upon Transportation Planning staff's comparative analysis, it was determined that the counts used in the Strathmore traffic study were representative of the typical weekday traffic conditions. Only one of the older traffic counts was excluded because it was more than ten percent higher than the highest of the other three counts. Subsequent traffic counts were collected in December 2001, for the subject housing development and were consistent with the earlier traffic counts.

Congestion at Nearby Intersections

Based on the results of the submitted updated traffic study, the critical lane volumes (CLV) values at nearby intersections for the existing, background, and total traffic conditions during the weekday morning and evening peak periods are as follows:

Intersection	Peak Period	Congestion Standard	Weekday Traffic Condition			
			Existing	Background	Total	Total-Improved
Rockville Pike and Edson Lane	Morning Evening	1,600 (North Bethesda)	922 1,110	997 1,215	1,004 1,224	N/A N/A
Rockville Pike and Strathmore Avenue/School Main Access	Morning Evening	1,800 (Grosvenor)	1,544 1,639	1,703 1,801 ¹	1,682 ² 1,777 ²	N/A N/A
Rockville Pike and Tuckerman Lane (North)	Morning Evening	1,800 (Grosvenor)	1,071 1,314	1,182 1,505	1,211 1,608	N/A N/A
Rockville Pike and Tuckerman Lane (South)	Morning Evening	1,800 (Grosvenor)	924 838	1,049 1,068	1,068 1,088	N/A N/A
Rockville Pike and Grosvenor Lane	Morning Evening	1,800 (Grosvenor)	1,174 1,008	1,528 1,358	1,561 1,388	N/A N/A
Tuckerman Lane and Old Georgetown Road	Morning Evening	1,600 (North Bethesda)	1,657 ³ 1,630 ³	1,592 ⁴ 1,465 ⁴	1,607 ^{4,5} 1,477 ⁴	1,528 ^{4,6} 1,485 ⁴
Tuckerman Lane and Grosvenor Place Road/ Site Access	Morning Evening	1,800 (Grosvenor)	545 536	594 619	684 666	N/A N/A

Six of the seven intersections satisfy their LATR congestion standard. The specific details of the congestion analysis and table footnotes are discussed below:

1. Rockville Pike and Strathmore Avenue/Georgetown Preparatory School's Main Access Point: As footnote one indicated, the LATR congestion standard of 1,800 at this intersection is exceeded in the background traffic condition during the weekday evening peak hour. The CLV values in the other traffic conditions are below the congestion standard of 1,800. As indicated by footnote two, the construction of a separate eastbound right-turn lane from the School's main access (described in Recommendation No. 3) provides additional intersection capacity to reduce the CLV value below 1,800.
2. Old Georgetown Road and Tuckerman Lane: As footnote three indicated, the LATR congestion standard of 1,600 at this intersection is exceeded in the existing traffic condition during the weekday morning and evening peak hours. The CLV values in the background traffic condition are below the congestion standard of 1,600. As indicated by footnote four, a SHA improvement (described in the "Nearby Planned Transportation Improvements" section above) will add an extra eastbound and westbound left-turn lane on Tuckerman Lane in the background, total, and total-improved traffic conditions. As footnote five indicated, the morning CLV value in the total traffic condition is seven more than the CLV value in the background traffic condition.

As indicated by footnote six, the morning CLV value in the total-improved traffic condition is 64 less than the CLV value in the background traffic condition. As discussed in Recommendation No. 2, the applicant proposes to reconfigure the westbound approach lanes of Tuckerman Lane to use the second, left-most through lane as a combination (third) left-turn and (second) through lane. For the weekday morning peak period, the site-generated traffic could be mitigated because the CLV value in the total traffic condition is reduced so that the total-improved traffic condition is equal or less than the CLV value in the background traffic condition.

3. The Congestion Standard for an Intersection on the Border of Two Policy Areas: The CLV congestion standard for the intersection of Rockville Pike and Strathmore Avenue is a CLV of 1,800 which is in accordance with the Planning Board practices. The intersection is located on the border of two policy areas (Grosvenor and North Bethesda) with different congestion standards (1,800 and 1,600, respectively). The practice is to apply the higher intersection congestion standard on policy area borders (i.e., in this situation, the CLV standard of 1,800). The higher congestion standard near Metrorail stations is consistent with the State's smart growth policy to encourage development near existing major transportation facilities.
4. Congestion Analysis for the Weekday Evening Peak Period as Determined in the Traffic Study: According to the *Local Area Transportation Review Guidelines*, the traffic study only needed to analyze the intersection congestion level highest peak hour within the weekday evening peak period from 4:00 p.m. to 7:00 p.m. The peak hour of the traffic generated by the proposed apartments is within this weekday

evening peak period. The peak hour of the site-generated traffic may occur at a different peak hour for certain background developments such as the Grosvenor/Strathmore Metrorail Station's parking garage, Strathmore Concert Hall, and Strathmore Educational Center.

Policy Area Review/Staging Ceiling Condition

In the Grosvenor Policy Area, the remaining capacity for housing units is a positive 540 housing units as of May 31, 2003, under the *FY 2003 AGP* transportation staging ceilings.

The site used to be located in both the North Bethesda Policy Area and Grosvenor Policy Area with its border extended north from Grosvenor Place Road at the intersection of Tuckerman Lane. The larger portion of the apartments was located west of the borderline in the North Bethesda Policy Area. Only one of the seven-story buildings containing an estimated 170 apartment units appeared to be located within the Grosvenor Policy Area.

As of May 31, 2003, North Bethesda Policy Area is a negative 281 housing units remaining under *FY 2003 AGP* transportation staging ceilings. In the *Final Draft FY 2004 AGP* for the North Bethesda Policy Area, the Montrose Parkway West between Tower Oaks Boulevard and East Jefferson Street was counted as funded for construction in the *Montgomery County FY 03-08 Capital Improvements Program (CIP)*. The transportation capacity from the Montrose Parkway improvement could be counted because it is fully-funded in the first five years of the CIP. The resultant transportation capacity created by the Montrose Parkway would be distributed among the North Bethesda and Rockville City Policy Areas and the three Metrorail policy areas (i.e., Twinbrook, White Flint, and Grosvenor) and between non-residential (i.e., jobs) and residential (i.e., housing units) development.

Between the zoning case review and now, the AGP was amended by the County Council on November 26, 2002, to shift the boundary between the Grosvenor Policy Area and North Bethesda Policy Area to the west. As a result, the entire 15-acre property classified as the PD zone under Local Map Amendment G-796 is now within the Grosvenor Policy Area.

North Bethesda Transportation Demand Management

This site is located within the boundary of the North Bethesda TMD. The TMD is operated by a private nonprofit organization, Transportation Action Partnership. The TMD is not an entity to join per se but instead an organization in which to participate by cooperating in:

1. Conducting the annual employee survey.
2. Appointing a transportation coordinator.
3. Promoting alternative transportation modes to residents on the site.

4. Paying the annual Transportation Management Fee if the County reestablishes the Fee. The applicant as a new multi-family residential developer would be required to pay the fee.

The Stage II goal is to achieve and maintain the 30 percent non-driver traffic mitigation goal for residents in the planning area.

EA

Attachments

cc: Sande Brecher
Greg Cooke
Jeff Dunkel
Mary Goodman
Robert Klein
Bill Landfair
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