MCPB
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THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

December 10, 2003

MEMORANDUM

TO: Montgomery County Planning Board
VIA: John A. Carter, Chief, Community-Based Planning Division JC
FROM: Callum Murray, CM Potomac Team Leader
Community-Based Planning Division (495-4733)

CASE NUMBER: MR-03401-USM-1
REVIEW TYPE: Mandatory Referral
PROJECT NAME: University System of Maryland, Shady Grove Center
- Master Land Use Plan Update
- Education Center III Site Plan

9630 Gudelsky Drive, Rockville, Maryland
REVIEW BASIS: Article 28, Chapter 7-112 of Regional District Act

ZONES: LSC (Life Sciences Center) and MXN (Mixed-Use Neighborhood)
LOCATION: Southwest quadrant of intersection of Shady Grove Road and Darnestown Road
MASTER PLAN: Potomac Subregion

APPLICANT: University System of Maryland

STAFF RECOMMENDATION: APPROVAL with the following conditions:

- Coordinate transportation demand management activities with adjacent properties in the Shady Grove Life Sciences Center area, including coordination of transit and ridesharing programs anticipated in the proposed Shady Grove Transportation Management District.

- Submit Local Area Transportation Review (LATR) studies or statements as part of the mandatory referral submission requirements for any subsequent campus development plans.

- Supplement the peripheral bike loop depicted in the Proposed Pedestrian and Vehicular Circulation Plan (Illustration 8) with a bike path through the site to provide access to buildings.

- Provide a water quality plan as required for the Special Protection Area for each subsequent development project. This should especially address minimizing forest removal and reducing currently projected impervious surface levels.

- Submit a Natural Resource Inventory for each subsequent development project.

Project Summary
The University System of Maryland has submitted its Shady Grove Center Master Land Use Plan Update for review by the Planning Board under the mandatory referral process. Also included is a site plan for the proposed third Shady Grove Educational facility.

The previous Master Land Use Plan Update was approved in 1994 and provided for 500,000 square feet build-out of the Shady Grove Center. With the inclusion of the third educational facility scheduled to begin construction in July 2004, the Shady Grove Center's total build-out will be 519,000 square feet. The 2003 master plan update provides for a 985,000 square foot build-out, including an approximate 11-acre increase in land area. The purpose of the University System of Maryland in submitting the master plan is to provide a framework for guiding future development of the Shady Grove Center to meet the short-term and long-term educational needs of Montgomery County's residents and business community.

Neighborhood Description
The surrounding neighborhood consists of the following properties:

1. To the north, across Darnestown Road are the Bioreliance, Otsuka and Human Genome Sciences biotech research buildings in the LSC Zone (Life Sciences Center.)
2. To the northeast, diagonally across the intersection of Shady Grove Road and Darnestown Road and within the City of Rockville, is the Fallsgrove mixed use development, presently under construction. The planned build-out is for 1530 dwelling units (665 currently occupied), 950,000 square feet of office and research and development (125,000 completed), and 150,000 square feet of retail space (120,000 completed).
3. To the east and south are the residential subdivisions of Hunting Hills Estates and the Willows of Potomac in the R-200 and R-200TDR Zones.
4. To the west is the 192-acre Traville development in the MXN Zone (Mixed Use Neighborhood), presently under construction. The planned build-out is for 1.5 million square feet of office, research and development, and retail space, and 750 apartments. The headquarters of the Human Genome Sciences Research Center are located at Traville.

Subject Site
The site consists of two parcels, the existing 45.7-acre Shady Grove Center bounded by Darnestown Road to the north, Shady Grove Road to the south and east, and Traville Gateway Drive and the Traville development to the west. The parcel is within the Shady Grove Life Sciences Center (SGLSC) and is zoned LSC (Life Sciences Center). The site has a distinct natural character, defined by an existing wetland and forest area running north to south through the center of the campus. The site is gently sloped with a high point at the northern edge of the property and drainage towards the wetlands traversing the center of the site. Existing facilities on the campus include CARB I, (38,000 square feet), CARB IB, (30,000 square feet), Education Center I, (53,000 square feet) and Education Center II, (63,000 square feet). Construction of CARB II (Center for Advanced Research and Biotechnology) commenced on September 4, 2003, and has a projected completion date of January 2006. CARB II is the final phase

of the physical development of CARB, a partnership of the University System of Maryland, the National Institute of Standards (NIST) and Montgomery County. The project scope involves construction of a 140,000 gross square foot / 80,000 net square foot building and related site improvements that will unify the CARB facilities, provide research and teaching laboratories and bioprocess production facilities, and serve as the headquarters for the University of Maryland Biotechnology Institute. The SGLSC Architectural Review Board approved these plans on April 28, 2003.

The Master Land Use Plan Update includes a second parcel of approximately 11 acres on the south side of Shady Grove Road, directly opposite the existing center. It is bounded on the west by Willow Tree Drive, and to the south and east by the residential subdivisions of the Willows of Potomac and Hunting Hills Estates. This parcel is zoned MXN (Mixed Use Neighborhood) and was part of the Traville development diagrammatic plan. The University System is currently negotiating with the Traville Development Corporation regarding acquisition of the parcel. Assuming acquisition is consummated, the configuration and density (60,000 square feet.) defined by the approved diagrammatic plan will remain unchanged, although the use would be institutional, rather than commercial. This parcel is the location of a storm water management pond, and the Traville diagrammatic plan proposed part of the western portion of the parcel for dedication as a local park. The parcel will therefore require subdivision review in future.

The University System of Maryland may ultimately acquire a third peripheral parcel of land (the West parcel). The West parcel is zoned MXN (Mixed Use Neighborhood), is between three and four acres in size, and is located at the southwest quadrant of the intersection of Darnestown Road and Traville Gateway Drive, also within the Traville development area. No proposals have been made for this parcel and it is not otherwise addressed by the Master Land Use Plan Update.

Master Land Use Plan Concept

The Master Land Use Plan is organized around seven design principles, which are reflective of the vision for the Shady Grove Center. The design principles are as follows:

1. To create an open space network that respects, augments and amplifies existing site natural amenities; an open space system that is ordered, park-like and accommodating of passive recreation; and an open space network that is pedestrian-oriented, predominantly vehicle free and that unifies facilities.
2. To create a pedestrian environment that is auto-free and is linked to the surrounding community.
3. To create a vehicular circulation, service and parking system that will separate pedestrians and vehicles without compromising necessary access to facilities.
4. To create a total development of buildings, roads and infrastructure on the site that will be commensurate with sustainable design and 'smart growth' initiatives.
5. To create a development plan that balances density and open space and provides for future flexibility in development of the site.
6. To create a Landscape Plan that enhances the open space system and provides a gradual transition from the natural to the man-made areas of the site.

7. To create building guidelines that establishes human scaled spaces and consistent massing and architectural expression with existing development to guide development into the future.

Building Layout

The defining character of the site is established by the existing forest and wetland area bisecting the property north to south. This wooded corridor influences the placement of all facilities and infrastructure and forms the distinct natural character of the campus. The campus is organized around the forested center with buildings clustered on the periphery. Gudelsky Drive is an access road that connects both sides of the campus in a loop configuration.

The Master Land Use Plan indicates the ultimate build-out of the campus to be four research facilities, five educational facilities, one administrative building and three parking structures. The maximum building height proposed is 100 feet or five stories. Two six-level parking structures are proposed and one four-level structure. Although the campus is exempt from the Shady Grove Life Sciences Center Comprehensive Design Plan (CDP), the Master Plan and Education Facility III site plan largely adhere to the CDP's design criteria, including maximum height of 100 feet and minimum 50-foot building setbacks to MD 28 and Shady Grove Road.

Landscaping

The landscape concept for the Master Land Use Plan Update and the site plan builds on the natural features of the site, reinforces the open space system and creates a gradual transition from the naturalized areas at the center of the site to more formal man-made open spaces at the periphery. Several significant landscape spaces create special features within the campus. These consist of the Lawn, one of the primary man-made open spaces; the Central Plaza, which creates a shared pedestrian and emergency vehicle entrance to Education Facilities I, II and III and future Academic Buildings 1 and 2; and the Grove, a heavily wooded transition space between the woods and the storm water management pond.

Lighting

Site lighting is proposed throughout the campus to improve pedestrian safety and aesthetics. Light standards approximately 30 feet high, with sharp cut-off fixtures are proposed for roadways and parking areas to minimize excess glare and light spillage. Ornamental 12 feet high light standards are proposed for most pedestrian pathways and plaza areas, and low bollards for building entrance areas, campus entrances and along segments of a pedestrian concourse not covered by a building arcade. All light fixtures are proposed to be compatible with existing lighting on campus.

TRANSPORTATION

Based on a review of the Master Land Use Plan Update and information provided by the applicant, Transportation Planning staff recommends approval of the mandatory referral.

Background
The purpose of the Master Land Use Plan for the University System of Maryland, Shady Grove Center is to amend the 1994 Master Plan Update to reflect the proposed construction of Education Center III as well as the proposed increase in build-out from 500,000 gross square feet (GSF), as approved in the previous Master Plan, to 985,000 GSF.

Staff finds that the applicant has materially demonstrated adequate transportation facilities for the Education Center III facility site plan. However, Local Area Transportation Review studies must be submitted with the mandatory referral site plans for subsequent campus development under the amended Master Land Use Plan.

Currently, the site contains approximately 184,000 gross square feet of building area. The current campus Master Plan, adopted in 1994, envisioned a total of 500,000 gross square feet, a limitation assumed in the Shady Grove Life Sciences Center preliminary plan, Preliminary Plan #1-88233. The 1994 staff report for the campus Master Plan and the 1995 staff report for the CARB addition indicated that Adequate Public Facilities (APF) ordinance review was not required for development proposals on campus, citing the 500,000 gross square foot limit. With the completion of the Education Center III and CARB II facilities already planned, the total building area will increase to 519,000 gross square feet, essentially the limit envisioned in the 1994 campus Master Plan.

The changes to the campus Master Land Use Plan that are the subject of the current mandatory referral would increase the total square footage to 985,000 square feet. The Master Land Use Plan describes the total trip generation and parking generation associated with the 985,000 square foot build-out, but does not assess the impact of the additional development on area roadways. Staff therefore recommends deferring Adequate Public Facility (APF) review of future development proposals until time of mandatory referral for each specific proposal.

Transportation Planning staff's review is focused on the adequacy of accessibility, vehicular/pedestrian circulation system, and relationship to the adjoining development.

Location, Access and Circulation
The University System of Maryland Shady Grove Center is located south of Darnestown Road, northwest of Shady Grove Road, and east of Traville Gateway Drive in the Shady Grove Life Sciences Center area.

The site is currently served by one access point, Gudelsky Drive, connected to Shady Grove Road, a four-lane divided arterial roadway. The master plan includes three additional access points, one additional access point from Shady Grove Road and two new access points from Traville Gateway Drive with reconfiguration of Gudelsky Drive, an internal loop road.

Staff finds that the existing and proposed access points are safe and efficient. Staff also finds that the reconfigured Gudelsky Drive provides safe and efficient vehicular circulation system to the site. Since the reconfigured Gudelsky Drive will give preference to a new entrance off Shady Grove Road and will allow aggregation of larger

development parcels while keeping vehicular traffic on the periphery of the site, staff finds that the master plan provides a comprehensive system of safe and efficient vehicular and pedestrian circulation routes.

As indicated, the reconfigured Gudelsky Drive will connect with Traville Gateway Drive at two locations. The southern entrance from Traville Gateway Drive will provide efficient accessibility from the site to the planned Transit Center that will be provided by the Traville development at a location near the proposed traffic circle along Traville Gateway Drive. Also, connecting Gudelsky Drive with Traville Gateway Drive, currently under construction to the two-lane primary road standard, will provide a convenient vehicular/pedestrian circulation from the site to the adjacent Traville commercial development.

Master Plan Roadways and Bikeways

The 1985 Gaithersburg Vicinity Master Plan proposed a realignment of Great Seneca Highway, which could potentially affect the northwest portion of the site. Great Seneca Highway is classified as a major highway (M-90) with 150' right-of-way and is a four-lane divided highway from Germantown to Darnestown Road. Realignment construction of Darnestown Road/Great Seneca Highway is not anticipated in the foreseeable future. A Montgomery County CIP project, (Spur Road), to connect the existing intersection of Glen Mill Road and Darnestown Road, through the Fallsgrove development, to Shady Grove Road, is scheduled for completion in April 2005. The construction of this Spur Road will provide traffic capacity at the Shady Grove Road/Darnestown Road intersection. Shady Grove Road south of Darnestown Road is classified as a four-lane arterial roadway (A-34) with a 100' right-of-way and has been built to the master plan recommendation. The roadways shown on the University System of Maryland Shady Grove Center Master Plan in the vicinity of the site are consistent with the area master plan recommendations.

Staff finds that the bikeway network system shown illustrated on page 18 of the Master Land Use Plan is consistent with the on-going study of the Master Plan of the Countywide Bikeways. The proposed bike routes along a portion of Gudelsky Drive connecting Shady Grove Road with Traville Gateway Drive will provide a safe and efficient bikeway system for the site. Staff recommends supplementing the peripheral bike loop depicted in the Proposed Pedestrian and Vehicular Circulation Plan (Illustration 8) with a bike path through the site to provide access to buildings.

Transportation Management District and Transit Routes

Staff recommends that the applicant be encouraged to participate in the future Shady Grove Transportation Management District (TMD) in a good faith effort. The Montgomery County Department of Public Works and Transportation has been working on the framework for the TMD to help solve some of the transportation challenges in the Shady Grove area. The adjoining Traville development was required to participate in a future TMD, Share-a-Ride District, and/or other funding mechanisms recommended for the Shady Grove Master Plan Study Area. The University System of Maryland Shady Grove Center is encouraged to join the County and Traville development in establishing the TMD. Staff also recommends that the University cooperate with the Traville

development in providing transit routes inside the campus as shown on Illustration 9, page 22 of the Master Land Use Plan to enhance successful transit operations in this area.

Parking
The Master Land Use Plan consolidates parking into three structured parking decks and two surface parking lots at the perimeter of the campus providing a total of 3,092 spaces. Currently, there are 914 spaces on site, and the 1994 Master Plan proposed a total of 1,782. Parking supply is based on a ratio of 3.16 spaces per 1,000 GSF of development and is derived from enrollment projections for the Center and parking quantities proposed in the 1994 Master Plan. Trip generation is based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 6th Edition. At build-out, the projected total new trips to and from the site during a weekday morning peak hour are 610 entering vehicles and 144 exiting vehicles. Total new trips projected to and from the site during a weekday evening peak hour are 367 entering vehicles and 426 exiting vehicles, respectively.

ENVIRONMENT

The University System of Maryland Center is located in the southwest quadrant of Darnestown Road and Shady Grove Road. Already largely developed, this 53-acre site is entirely within the Piney Branch Special Protection Area. This site is gently sloping and is bisected by the headwater stream of Piney Branch. Associated with this stream are extensive forested and meadow wetlands and a regional storm water management pond.

Environmental Guidelines
Under the Piney Branch Special Protection Area agreement, a water quality plan will be required with each individual development phase. The water quality plan will include a concept for storm water management, especially for quality control, an imperviousness analysis, and possibly a requirement for pre- and post-construction monitoring. Goals of the water quality plan (such as increasing groundwater recharge, minimizing sediment loading and reducing storm flow) may be met by including infiltration devices, bio-retention areas, and minimization of imperviousness. The site plan for Educational Center III depicts innovative low-impact green roof planting and the use of these techniques for future buildings is encouraged. The Master Land Use Plan also emphasizes infiltration and groundwater recharge as the first priority for managing storm water and proposes techniques such as porous pavement, grass swales, infiltration trenches and bio-retention. Staff recommends that a running total of imperviousness levels and existing forest for the entire campus be included as part of each future development phase.

Forest Conservation
The site as currently developed contains about 18 acres of forest, located along Darnestown Road, Shady Grove Road (including the southern parcel) and in the environmental corridor that bisects the site. The Maryland Department of Natural Resources Forest Service will review individual sites for forest conservation as the

campus develops under the Code of Maryland Regulations. Representatives of the State will also ensure compliance with the plan during and after the construction phase. A forest conservation plan for the CARB II site was approved by the State on July 1, 2003. A conceptual forest conservation plan has been included with this master plan. Ultimate development includes approximately 12 acres of forest retention with 11 acres of forest removal. Because the forest removal exceeds the break-even point of 6 acres, it is anticipated that approximately 8.5 acres of forest planting will be required, 7 acres of which can be met on site.

Storm Water Management

Most of this campus drains to the Gudelsky regional storm water management pond, which has long been located on the southwest corner of the campus property. The pond serves much of the Shady Grove Life Sciences Center as well as the subject property. Because this pond controls for quantity only, a storm water management plan must be prepared as part of the development of each future expansion shown in this master plan. This pond is monitored and maintained by the County. An agreement for the use of this pond specifies that the ultimate imperviousness for this site should not exceed 72%. This percentage only referred to the capacity of the pond and did not consider other environmental issues. Therefore this limitation should not be considered permission to develop to this intensity within the sensitive headwaters of Piney Branch.

A recently completed study of the pond revealed a potential for a dam breach, due mainly to the improvements to Shady Grove Road extended. Repairs are currently being planned to alleviate the potential problem. This will consist primarily of placing additional culverts under Shady Grove Road. The County will complete this work in 2004.

Noise

The proposed plan for this site should pose no objectionable noise levels to the surrounding area. However, the Department of Environmental Protection administers the Montgomery County Code Chapter 31B Noise Control and may require a noise study to test noise disturbance and determine mitigation if needed at a later time.

Dust and Air Quality

There should be no objectionable fumes, dust or odors resulting from the proposed use.

Public Consultation

The University System of Maryland solicited public comment on the Master Plan Land Use Update from local civic associations and other stakeholders at meetings at the Shady Grove Center in March and April 2002. University staff have also held individual meetings with the presidents of the North Potomac Citizens Association and the Willows of Potomac Community. Planning staff notified local citizens associations and all abutting neighbors on August 19, 2003, that a mandatory referral application had been submitted. To date, no comments have been received.

Compatibility
Staff finds the Shady Grove Center Master Land Use Plan Update and Education Facility III to be compatible with existing and proposed adjacent development and recommends approval with conditions, including future mandatory referral of site plans for individual major structures.

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Attachments
1. Vicinity Map
2. Zoning Map
3. Surrounding Properties
4. Master Land Use Plan Concept
5. Master Land Use Illustrative Plan
6. Proposed Pedestrian and Vehicular Circulation
7. Master Plan 1994
8. Landscape Site Plan
9. Overall Planting Plan
10. Public Notice