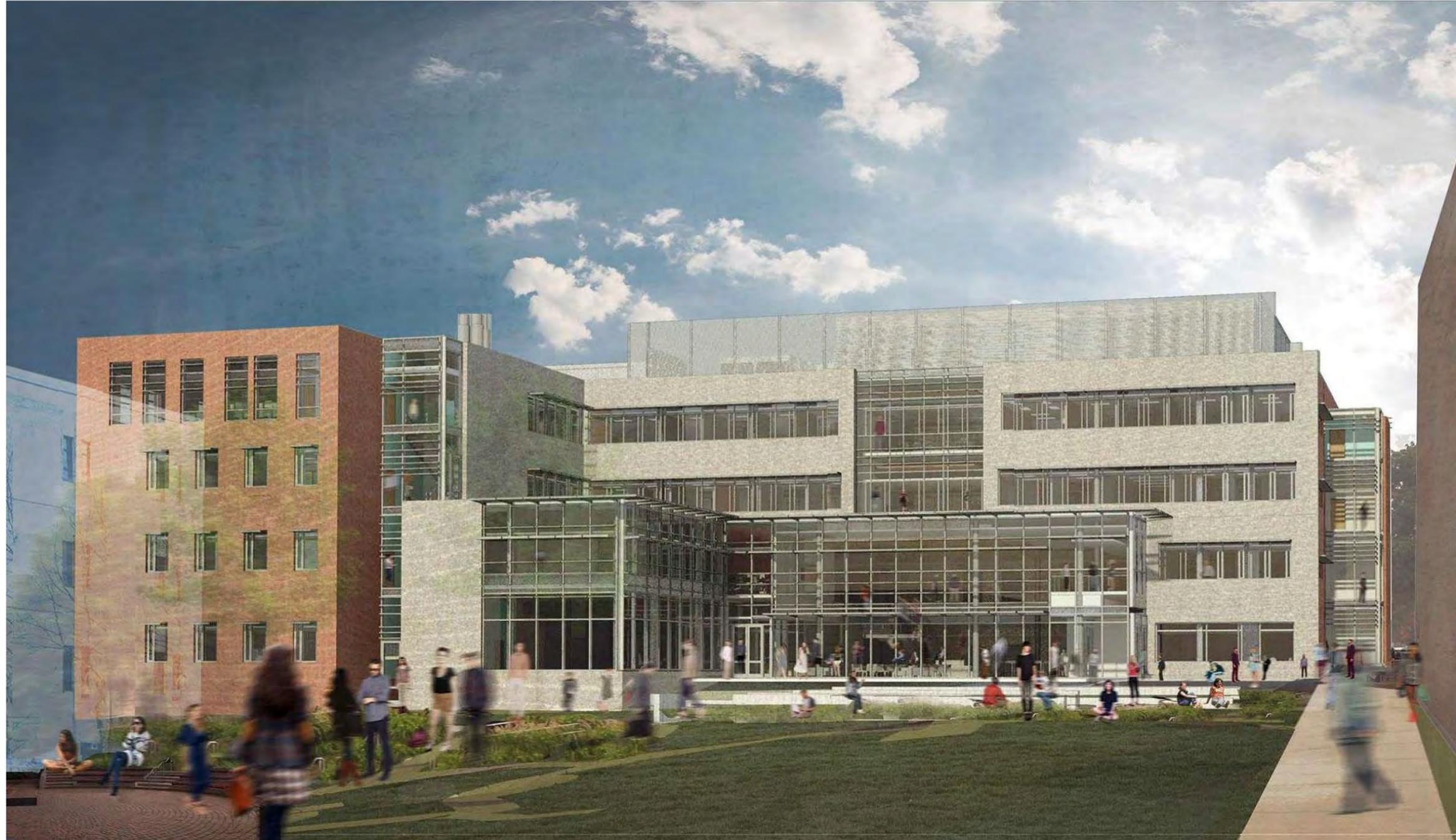


MANDATORY REFERRAL REVIEW

Montgomery College – Rockville Campus



New Student Services Center

July 6, 2015

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- A203: Signage Wall Details
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- S200: Wall & Foundations Sections
- S201: LED Panel Plan & Sections

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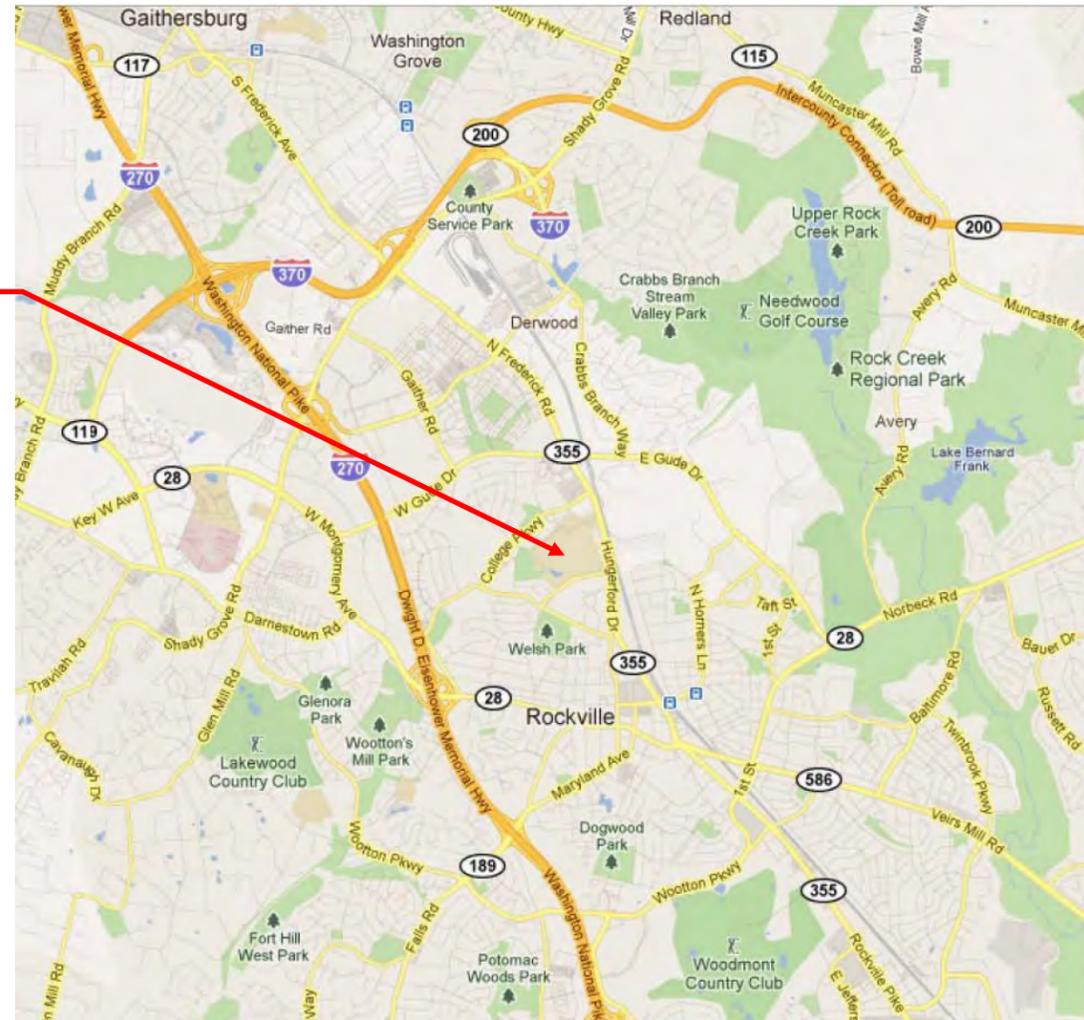
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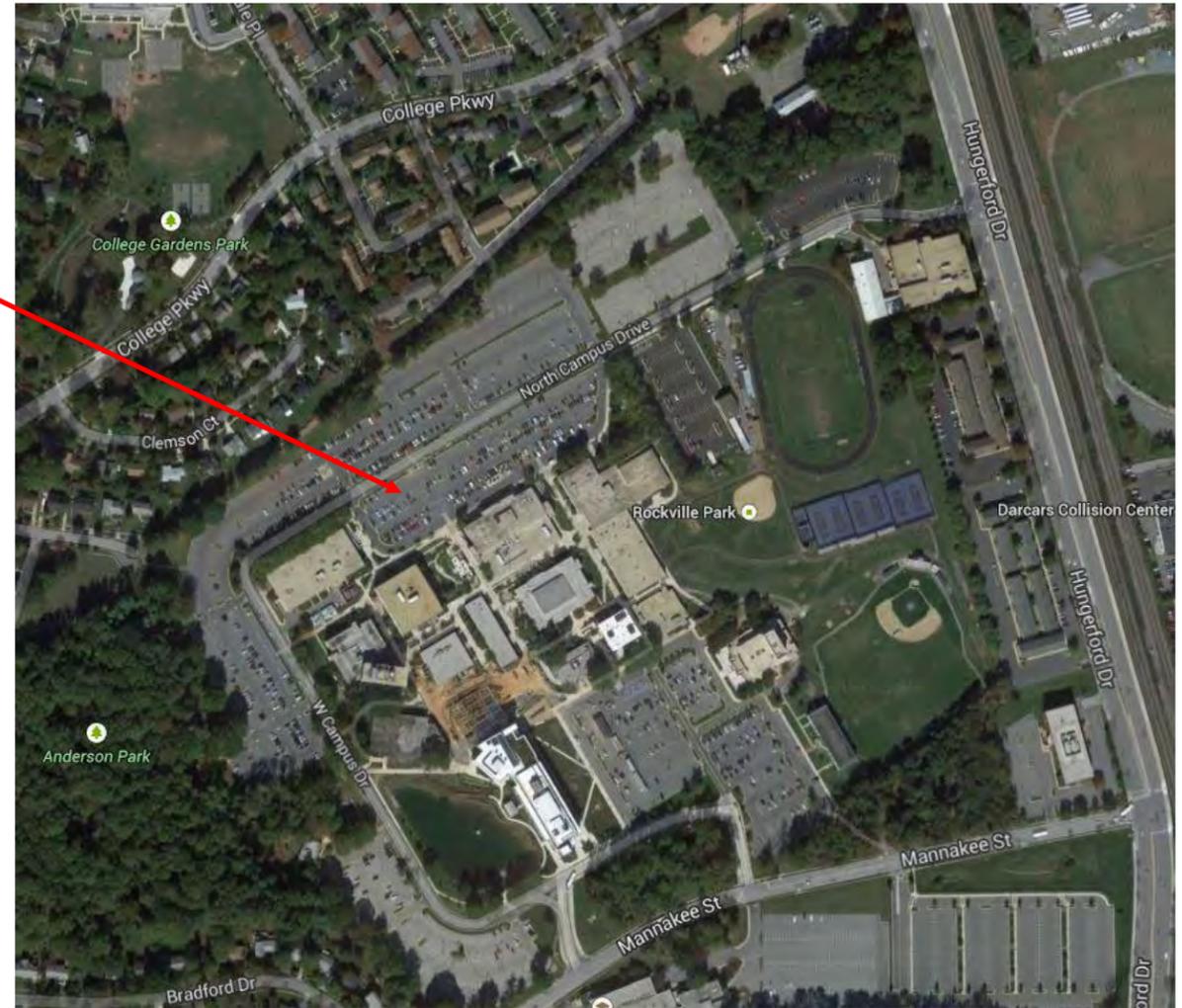
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VICINITY AND LOCATION MAPS

Project Location



Project Location



SCOPE OF PROJECT

Montgomery College intends to design and construct a new Student Services Center to replace its existing facility. The new building will house various student services, intake functions and programs serving students, as well as, one academic department (School of Education), administrative offices, the campus security office and a central plant operation serving both this building and the campus.

The proposed building consists of a basement and four stories above grade. The mechanical equipment will be located in the basement and on the roof. The proposed building contains 72,283 NSF and 128,000 GSF.

In addition to the building, the project proposes the following major site improvements:

- The existing Student Services building will be demolished, with its site returned to open green space.
- **"Landmark Gateway Signage" to include a monumental "Montgomery College" sign-wall** as well as a LED message board is proposed to be installed on campus property along the frontage of Maryland Route 355, Hungerford Drive at the intersection with North Campus Drive. The immediate area around these signs will include decorative brick paving and landscaping.
- The central portion of parking lot #4, located between the proposed Student Services Center and the new North Parking Garage (currently under construction) will be re-configured and re-surfaced.
- The existing wooden deck located between the Humanities Amphitheater and Campus Center will be removed with the site restored to an open green space.
- **Approximately 1,200 LF of new 8" sanitary sewer will be constructed in North/West Campus Drive** from the building site to a tie-in point adjacent to the Science West building.
- Within North Campus Drive, directly adjacent to the track/football field (approximately 1,000 LF east of the proposed building site), roughly 500 LF of 12" water main (to replace an existing 8") and 8-way telecommunications duct bank is proposed as part of an on-going effort to upgrade existing campus infrastructure.

ARCHITECTURAL DESIGN

SITE GOALS

The building was organized to maintain each department, as a cohesive unit on the same floor and within proximity to other departments that work closely together. Emphasis was given to making the space inviting to students and easy to navigate between the various services throughout the building. A large atrium on the first floor has a Welcome Center that is staffed to assist students with their questions and directing them to the proper department. The upper floor is visible from the atrium which maintains a comfortable continuity between the departments. The building is sited at the end of the mall that runs the north-south length of the campus. The extensive use of glazing on the southern exterior will serve as a light and friendly gateway to the campus.

DESIGN SUMMARY

1. BUILDING EXTERIOR

a. Masonry Walls:

The masonry walls indicated on the elevations will be rain screen construction consisting of 4" masonry veneer, 4" cavity, 2" rigid insulation; air/water barrier and 8" CMU back up. The north, east and west brick veneer will match the brick on the

Science Center. The brick on the southern elevation, while complimentary with the other brick will be a lighter color. Copings and accent bands will be of cast stone. Through-wall flashing will be stainless steel. Insulation will be provided by mineral wool batts within the stud cavity and/or rigid insulation in the air cavity.

b. Glazing, Window and Curtainwall Systems:

Glazing system will consist of 1" insulated glazing units held in thermally-broken glazed aluminum curtainwall frames. High performance clear glass, with low-e coatings, will be used in most of the openings; opaque and translucent glass panels will be used in select locations. Operable windows with opening limits will be located in all offices. Sun control in the form of exterior aluminum sunscreens will be provided on the west and south, as indicated on the elevations. Window systems shall have sun control treatments consisting of (interior) roll shades.

Continuous stainless steel flashing will be provided around the entire perimeter of glazed openings. Continuous primary sealant/backer rod (continuous with building air/water barrier) and a continuous secondary weather sealant/backer rod will be installed around the entire perimeter. Interior sealant will also be installed around the entire perimeter.

c. Roofing:

Roofing will be constructed according to Montgomery College's standard bituminous built-up roof, consisting of a high albedo cap sheet, 2-ply of modified bitumen membrane over a self-adhering base layer, cover board and R-25 rigid polyisocyanurate insulation. Stainless steel flashing will be used for transitions. An extensive green roof assembly will be installed at the second floor as indicated on the drawings. A tray system of sedum vegetation will be installed on top of the standard built-up roof.

The equipment screening of an aluminum profiled and/or perforated panel on steel framing will be used around the perimeter of the rooftop equipment.

d. Thermal and Moisture Protection:

Thermal and moisture protection are important elements of building performance. The Energy Code will establish minimum design and performance criteria for the thermal characteristics of the building envelope assemblies. Masonry wall systems will incorporate a continuous cavity between the brick/panel veneer and the insulated backup wall, with a system of weeps to collect and drain any infiltrating moisture out of the wall. The cavity face of the substrate will be covered by a continuous air/water barrier.

Curtainwall insulation at spandrel conditions will be accomplished using mineral wool insulation between the interior finish and the curtain wall assembly. Sealants will be selected on the basis of performance, substrate material, and economy, and are expected to include both silicon and urethane based materials. A waterproofing system compatible and continuous with the air-water barrier system will be provided at below-grade conditions.

2. BUILDING INTERIOR

a. Overview of Interior Finishes:

The Selection of interior finishes has been organized around nine general categories of interior spaces which are as follows:

- i. Lobby / Welcome Center

- ii. MBI Café
 - iii. Bookstore / Retail Area
 - iv. Common Areas
 - v. Class Labs
 - vi. Office Suite Reception Areas
 - vii. Offices
 - viii. Conference Rooms
- b. Lobby / Welcome Center:
The entry lobby and Welcome Center are located on the ground level. It consists of a polymeric terrazzo flooring system and a 4" precast terrazzo base. The ceilings in the lobby will be acoustical wood panels. A stair, in a grandstand configuration, will connect the lobby to the second floor will be constructed of terrazzo, stainless steel and glass. Accent walls will have matching wood panels or ceramic tile. They will be limited to lounges and elevator lobbies. Cabinetry will be a combination of matching wood and synthetic polymer panels. Countertops will be synthetic composite materials.
- c. Café:
The walls and floors of the café area will be finished with ceramic floor and wall tile. The transaction counter will be constructed of plastic laminate with a solid surface counter top. A gypsum board ceiling and specialty lighting will be located over the transaction counter. Final selection of equipment and casework will be finalized during the next phase.
- d. Campus Store:
Typically, floors will have carpet and 4" high vinyl base. Walls will be gypsum wall board painted with water-based, low-luster paint. The ceilings will be a combination of exposed ceiling zones and acoustic lay-in tiles. The store entry doors and glazing system will be an anodized aluminum interior storefront system. An elevator connects the 1st floor retail with the bookstore in the basement. Where indicated, plastic laminate cabinetry will be utilized. Final selection of equipment, casework, display and retail lighting that will be part of this project for the bookstore will be provided by the college.
- e. Common Areas:
In general, the corridor floors will be finished with resilient tiles. Some terrazzo will be used in front of the elevators. Wall surfaces of the corridors will be impact resistant gypsum wall board with water-based, low-luster paint. The entries to the suite will be in recessed alcoves with wood accent panels and built-in seating for waiting. The ceilings in the corridors will be a 2x4 acoustic tile. Some 2x6 planks may be used as accents. Wood ceiling panels may be used in the main east/west corridor that runs in front of the elevators. Soffits, used to transition varying ceiling areas, will be integrated into the design and constructed of painted gypsum board.
- f. Class Labs:
Typically, floors will have resilient tile with a 4" high vinyl base. Walls will be gypsum wall board painted with water-based, low-luster paint. The ceilings will be constructed with 2x4 acoustic tile. Class Lab doors will be solid core natural finished wood veneer with vision panel and blinds; with painted hollow metal frames with glass vision panels and room darkening shades.
- g. Office Suite Reception Areas:

Typically, floors will have carpet and a 4" high vinyl base. Walls will be gypsum wallboard painted with water-based, low-luster paint. Suite entry doors will be solid core natural finished wood veneer with vision panel; and shall have painted hollow metal frames with large glazed vision panels to allow visibility and natural light to be shared throughout the space. The reception desk will be assembled from the standard components available from Maryland Correctional Enterprises. The ceilings above the reception area will be standard acoustic ceiling tile.

- h. Offices:
Typically, floors will be carpet with 4" high vinyl base. Walls will be gypsum wall board painted with water-based, low-luster paint. The ceilings will be constructed with 2x4 ACT. Office doors will be solid core natural finished wood veneer with no vision panel. They will be framed with painted hollow metal frames and have sidelite and transoms. Plastic laminate will be used for the vertical panels and will support a synthetic top.
- i. Conference Rooms
Typically, floors will have carpet and 4" high vinyl base. Walls will be gypsum wall board painted with water-based, low-luster paint. The ceilings will be constructed with 2x4 ACT with specialty lighting. Conference Room doors will be solid core natural finished wood veneer with vision panel and blinds; and shall have painted hollow metal frames with glass panels with room darkening shades. Plastic laminate will be used for the vertical panels and will support a synthetic top.

3. ELEVATORS

- a. ASSUMPTIONS:
Since the Student Services Center supports a variety of functions ranging from offices to classrooms, it does not fit easily into any one group for calculating ridership. Consequently, the number of elevators was determined by working with Montgomery College and comparing existing buildings on campus and estimating the **building's population on a typical day.**
- The desire of the college to encourage the use of the stairs and control maintenance costs was also taken into consideration.
- b. ELEVATOR TYPE
The building's HVAC equipment and the City of Rockville's height restriction of 75'-0" prevented the use of overhead traction elevators. MRL (machine room less) elevators are being used for the two, 5-stop elevators in the building. The other two elevators will be hydraulic.
- Two, 5-stop MRL elevators (basement to 4th floor). 3,500 lb. capacity, speed-350 fpm.
 - One 2-stop hydraulic elevator for the bookstore (basement to 1st floor). 3,500 lb capacity, speed 150 fpm.
 - One 2-stop hydraulic passenger/freight elevator for the loading dock/bookstore (basement to 1st floor) 4,000 lb capacity, speed 150 fpm.

PROJECT LOCATION

The proposed New Student Services Center location is on the northern portion of the Rockville Campus of Montgomery College. It is located on the far western end of Parking Lot #4, bordered to the north by North Campus Drive (a private road), to the west by the Technical Center and to the south by the Humanities Building. See sheet SDP-1 in Appendix A.



View From Southwest

HOURS OF OPERATION

The new Student Services Center will operate during normal College hours, which are 6 AM to midnight.

MASTERPLAN

The Rockville Campus of Montgomery College was founded in 1965 and is the College's second campus. The main campus is situated on approximately 85 acres with 20 academic, administrative and support buildings.

In order to address new opportunities and challenges, the College undertook a comprehensive update of its College-wide Facilities Master Plan to support its increasing enrollment, define facilities needs, and justify major new facilities initiatives anticipated as a result of this effort. The major components of the Master Plan are the Germantown, Rockville and Takoma Park/Silver Spring Campuses, Workforce Development & Continuing Education, and Central Services. The time frame for the Facilities Master Plan is ten years, 2006 to 2016, and the time frame for twenty-year Land Use Plan extends out to 2026. The overarching goal of the Facilities Master Plan is to establish a framework for development of capital

projects to support the role, mission, and academic vision of Montgomery College. Both the 2002-2012 and 2006-2016 Facilities Master plans proposed net projects on the Rockville Campus, adding to the Campus net assignable square foot space inventory and responding to the 10-year space deficiencies of each plan. The near term projects are essentially the same in both plans with the same new and renovated buildings. However, the 2006-2016 Facilities Master Plan shifts the location of the Student Services Center to the north and calls for the consolidation of humanities programs in a new facility that replaces the Technical Center. In comparison to the 2002-2012 Facilities Master Plan, the updated 2006-2016 Facilities Master Plan also calls for a stronger emphasis on outdoor space with a central green mall and proposes larger parking structures in two locations, north and south of the Campus core.

The 2002-2012 Facilities Master Plan for the Rockville campus outlined a strategy for the campus that would establish a physical framework for growth. This framework worked toward the provision of a hierarchy of open and built space, the design of quality of life space on campus, and consolidation and expansion of student service functions.

One of the major challenges for the College in the next ten-year planning period will be to correct deficiencies in the amount of, and the quality of, its academic spaces. Almost half of the Rockville Campus was constructed during the mid-to-late 1960s and while these facilities have been maintained at a high level, some buildings have ceased to be functionally adequate. The Rockville Campus also has critical shortages of quality of life spaces. As demands for academic and administrative space have increased, spaces such as meeting rooms, break-out areas, outdoor gathering areas, student lounges, and group study areas have been reduced or converted to teaching spaces. While classrooms are valuable academic spaces, the experience of learning and teaching is not limited to the classroom. Students and faculty require spaces that allow informal educational experiences and these areas are ideal places to learn collaboration and communicate skills and opportunities.

To address these and other challenges, and to establish a coherent, logical framework for development of capital projects, the Facilities Master Plan has established goals and priorities. This Facilities Master Plan for the Rockville Campus focuses on:

- Providing sufficient and adequate space—classrooms, labs, offices, study, meeting rooms, and support facilities—based on existing and projected needs, so that each and every area can contribute creatively and productively every day to helping students change their lives;
- Co-locating departments and functions rationally so that students, visitors, and the College community itself benefits from the ease, energy, and excitement generated by the synergy of proximity;
- Presenting students the needed range of opportunities to study and learn collaboratively in supportive environments with the special assistance of faculty, librarians, counselors, and staff;
- Affording students opportunities to meet and develop socially through formal programs of leadership, recreation, and athletics, and informally in inviting indoor and outdoor spaces;
- Maximizing the land resources available on the campus while retaining its unique character, quality, and setting, and yet meeting the needs of the large numbers of students, faculty, staff, and visitors who come to the campus every day;
- Inviting students, faculty, staff, and visitors to participate in the varied campus and College activities by organizing the campus—including buildings, parking, outdoor athletic facilities, and circulation for pedestrians—to make their experience pleasant and successful; and
- **Anticipating the campus' future development beyond the ten-year planning horizon.**

The Facilities Master Plan for the Rockville Campus is designed to support a 6.3% increase in enrollment through construction of approximately 330,000 nsf (461,000 gsf) of new space, and the renovation and reallocation of additional space in existing campus buildings. The physical goals of the Facilities Master Plan include enhancement of the entrances to the campus, creation of open space to enhance the **campus environment, provision of additional space to meet the College's needs, and renovation of existing buildings.**

The proposed New Student Services Center project complies with the Montgomery College Facilities Master Plan for 2006 to 2016.

SIDEWALKS AND PATHS

Most buildings within the Rockville Campus are within a ten minute walk of each other, according to the Facilities Master Plan for 2006-2016.

ADA-accessible sidewalks will run along the entire perimeter of the proposed Student Services Center with a main walk leading from new ADA-compliant parking spaces in the remaining portion of adjacent parking lot #4.

TYPICAL ROADWAY SECTIONS

No roadways are proposed for this project.

HISTORICAL PROPERTIES

There are no historical properties impacted by the project.

CONSTRUCTION PHASING

The new Student Services Center will be constructed as an individual project and is not part of a phased project.

PUBLIC LAND

The Rockville Campus does not contain any public land.

PROJECT FUNDING

The project is funded from the Montgomery County and State of Maryland capital budgets. Each contributes a 50% share.

PUBLIC PARKLAND

The project will not affect any public parkland.

GENERAL LOCATION

The Rockville Campus is the largest and most centrally located of the three Montgomery College campuses. It is located in a suburban setting north of the city center of Rockville, between the Rockville and Shady Grove Metro stations. Although situated just off and accessed from MD 355/Hungerford Drive, the campus has little frontage on this major thoroughfare. Along its southern edge, across Mannakee Street, the campus faces a large property owned by the Montgomery County Public School system, the Carver Educational Services Center (CESC). Further west along Mannakee Street is the residential neighborhood of Anderson Park, primarily consisting of single-family homes. Directly north of campus is the College Gardens apartment complex. The eastern edge of campus is bordered by residential scale office buildings fronting MD 355. The William's Company owns the property adjacent to the northeast corner of the campus, with utility easements running across the northern side of the campus.

SITE DEVELOPMENT PLAN

Site Development Plans are located within Appendix A. The site plans contain a summary of site data, existing property lines, proposed building setbacks, and limits of the proposed site improvements.

Exhibits detailing the Landmark Gateway Signage portion of this project are located within Appendix D.

UTILITIES AND RIGHTS-OF-WAY PLAN

The location of existing utilities and associated rights of way are shown on URW-1 in Appendix A.

Several existing gas mains are within a Transcontinental Gas Pipeline Corp Right of Way that is located beneath the campus' northern parking lots and travel in a southwesterly to northeasterly direction. The City of Rockville has an existing sanitary sewer with a 15-foot wide easement on the west side of campus. It travels south along the outside of Campus Drive, continues south of the pond, and crosses Mannakee Street. An existing 12" water main is located underneath Campus Drive, at the northwestern corner of the campus, and follows counter-clockwise, where it leaves Campus Drive south of the pond towards Mannakee Street.

The proposed Student Services Center will require the relocation of approximately 200 LF of PEPCO duct bank and service cables. Additionally various campus (private) utilities will be relocated or removed, including storm drain, water mains, electrical cabling for campus lighting and telecommunications conduits.

The project will include re-routing of storm drain, new telecommunications duct banks, a new PEPCO transformer and electrical service, an exterior emergency generator and associated duct bank/cabling, the re-routing of hot water and chilled water service and return lines as well as approximately 1,200 LF of new sanitary sewer running through North Campus Drive from the building site to a connection point on West Campus Drive adjacent to the Science West building.

VEHICULAR AND PEDESTRIAN CIRCULATION PLAN

The Rockville Campus is bounded by MD 355 (Hungerford Drive) to the east and Mannakee Street to the south, both public streets. Direct access to the campus is provided via a signalized entranceway intersection along Hungerford Drive at North Campus Drive (private) and two unsignalized entranceway intersections along Mannakee Street at South Campus Drive (private).

Inside the campus is a U-shaped, private, ring road, Campus Drive, which serves the main parking lots on the north, west and south sides of campus.

The campus is served by public transportation both on and off-campus. These services include a Washington Metropolitan Area Transit Authority (WMATA) Metro bus route and two Montgomery County Ride-On bus routes that provide connections to two rail stations on the WMATA Red Line. Bus stops and shelters are provided on campus for these transit systems. A Vehicle and Pedestrian Plan, VPP-1, is attached within Appendix A.

NATURAL RESOURCE INVENTORY/FOREST STAND DELINEATION (NRI/FSD PLAN)

A natural resource inventory and forest stand delineation plan has been prepared for the project area as well the entire College Campus (Plan #2006-00028). The NRI/FSD shows the existing environmental resources within the project limits and adjacent land.

No forested areas are located within the Parking Garage project limits but there are approximately 95 trees located within the **project area**. **The only forested area within the College's property is near the outfall to the existing stormwater management pond.** The wooded areas along Mannakee Street are classified as tree stands. NRI plan sheets will be submitted for review shortly.

SPECIAL PROTECTION AREA

The project is not located in a Special Protection Area.

PRELIMINARY FOREST CONSERVATION PLAN

Forest Conservation will be required as part of the Student Services project. Approximately 28,000 SF of afforestation credit is required. A combination of Critical Root Zone Credit and shade/ornamental tree planting will be used to meet this requirement. Individual tree replacement will also be required in accordance with the City's requirements. At this time, 2 significant trees will need to be replaced. Proposed site landscaping will satisfy this requirement. The forest conservation plans will be developed and based on the Natural Resource Inventory/Forest Stand Delineation plan approved by the City of Rockville Forestry Department. FCP plan sheets are under development.

TOPOGRAPHIC MAP

The proposed Student Services Center is located on the north side of campus within parking lot #4. The existing **grade around the proposed building footprint slopes generally from north (449') to south (438')**. The project site does not contain any slopes in excess of 15%, with the exception of a few locations within the adjacent Humanities Amphitheater in which some minor site improvements are proposed.

See sheets VF-1 through VF-3 in Appendix A for the existing conditions topographic information.

DEMOLITION OF THE EXISTING STUDENT SERVICES BUILDING

As part of this project, the existing Student Services Building is to be demolished and the site converted into a landscaped lawn. The existing Student Services Building is located due south of the new building. It is a one-story building of approximately 9,900 sf +/- with a basement of 600 sf +/- . It consists of a steel structural frame and exterior masonry walls of brick and CMU. Interior partitions are GWB and metal stud construction. The floor is concrete slab on grade. **The basement is approximately 11'-0" deep +/-** and constructed of concrete. The building and basement are to be removed in their entirety. The existing building will remain occupied during construction. Demolition is to take place immediately after the new student services center is occupied.

STORMWATER MANAGEMENT CONCEPT PLAN

The stormwater management will be subject to review and approval by the City of Rockville Department of Public Works. The goal of the project is to treat stormwater management to the *maximum extent practical* in accordance with MDE's guidelines for "Environmental Site Design."

In accordance with the City of Rockville regulations, the stormwater management treatment volume requirements are to be based on the overall project limits of disturbance, this includes the core site as well as the Landmark Gateway Signage and utility extension/replacement work described earlier in this narrative. Additionally, the limit of disturbance (LOD) **for a 12" water main installation to be constructed with the North Garage project within North Campus Drive along the frontage of parking lot #4 and the new Student Services Center is to be accounted for within this project's SWM requirements.**

Accounting for all of the work described above, at this stage the project carries a LOD of approximately 150,700 SF, and although the project proposes an overall reduction in impervious area of roughly 10,000 SF, the stormwater management requirements equate 16,656 CF based on a weighted "PE" of 1.80".

The site is very much an urban setting, tightly confined by existing buildings, roadways and parking lots. For this reason, providing on-site ESD SWM practices is challenging. After studying the SWM requirements and the site's necessary infrastructure and improvements, we believe providing 100% of the calculated ESD SWM treatment volume is *not practical*.

Although 100% treatment is not practical, the project does propose the following ESD practices:

1. A micro-bioretenion facility is proposed on the low side of existing parking lot #4. This facility is intended to treat a maximum drainage area of 20,000 SF. Drainage through the parking lot in excess of 20,000 SF will bypass the facility and drain into the campus storm drain system, as is the current condition of this parking lot.
2. The new building will include a 3,000 SF green roof on a lower level intended to function as both SWM treatment and an improved aesthetic for building occupants.
3. The area where the existing wooden deck will be removed and restored to open green space will function as a non-rooftop disconnect for the adjacent existing concrete sidewalk.
4. A pedestrian plaza is proposed to be located at the south end of the site, between the Humanities Amphitheater and the new open green space provided by the removal of the existing Student Services building. This plaza is proposed to be constructed on concrete pavers with a permeable base intended to provide ESD SWM treatment for the plaza area as well as an adjacent equivalent area.

While these facilities do not meet the full volume required for ESD SWM treatment, they are all proposed to treat areas that are currently untreated impervious surfaces. It is for this reason that we believe this SWM proposal provides a vast improvement in the SWM functionality of the project site.

A SWM Concept Plan, SWM-1, is attached within Appendix A.

LEED (LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN)

1. SUMMARY

- a. The goal of this project is to obtain a LEED rating of Silver or higher. A LEED worksheet showing the breakdown of possible points is included at the end of this document. The project area will include the building footprint and the conversion of existing Student Center demolition into a landscaped area. It does not include the various campus improvements that will be made during construction.

2. SUSTAINABLE SITES

- a. Design effort will focus on stormwater management and site improvement such as high albedo materials to reduce heat island effect.
- b. The net area of paved surfaces will be considerably reduced in this project to support SS 7.1 credit and mitigate non-roof heat island effects. Three main project areas will see a reduction in paved surfaces.
 - i. One, roughly 50% of the existing asphalt paving in the existing parking will be partially replaced with green roofs and plant beds.
 - ii. Two, the entire existing non-green roof of the existing Student Center will be mostly replaced with lawn plant bed.
 - iii. And three, the wood deck west of the Campus Center building will be replaced with a panel of trees and turf.
 - iv. Most of the sidewalk will be a light gray cast-in-place concrete and will have high ratings for reflectivity. There are two large paved areas with unit pavers; it is recommended that the unit pavers in these areas are of similar color as the light gray cast in place concrete sidewalk. This palette reinforces the landscape architect's **design intent to simplify and calm the landscape**. The addition of large shade trees throughout the project, along main walkways and in the parking lot should provide the desired canopy coverage to minimize hardscape exposure.

3. WATER EFFICIENCY

- a. Water efficient landscaping has several ways to achieve points.
 - i. The first option is to not use an irrigation system.
 - ii. The plant palette will feature mostly native or plants hardy to the region.
 - iii. Although the plants will be native and hardy, the landscape architect recommends a watering program that provides the regular watering needed during establishment of plants.
- b. Innovative wastewater technologies
 - i. This credit has 2 potential points. The goal is to reduce the potable water use for building sewage by 50%. Ways to achieve this are thru water-conserving water closets and urinals.

c. Water use reduction

- i. The goal for this credit is to increase water efficiency and reduce the burden on municipal supply and waste water systems. This credit has the potential for 4 points and is broken down as follows.

30% reduction:	1 point
35% reduction:	2 points
40% reduction:	3 points
45% reduction:	4 points

4. ENERGY AND ATMOSPHERE

- a. Optimize energy performance.
 - i. Currently, the energy model is yielding approximately 20.9% energy savings. This will be approximately 5 points.
- b. Onsite renewable energy.
 - i. The college is reviewing the possibility of using photovoltaic panels.
- c. Enhanced commissioning.
 - i. This credit is relatively easy to achieve, however it does have a cost associated with it. In order to achieve this credit we must start the Commissioning process before the design midpoint and perform additional verification.
 - Design review prior to mid-construction documents.
 - Review contract submittals applicable to commissioned systems.
 - Develop systems manual for commissioning of systems.
 - Verify training is complete.
 - Commissioning agent reviews the building operation within 10 months after construction is complete.
- d. Enhanced refrigerant management
 - i. This credit has 2 paths. The first is to use no refrigerants at all. Because we need to have a chiller this will not be feasible. Option 2 is to choose refrigerants that are less damaging to the ozone. We should be able to achieve this since we are using efficient chillers.
- e. Measurement and verification
 - i. This credit requires that plans be in place to measure and verify the actual energy use of the building. This effort will continue for 1 year post construction.
- f. Green Power
 - i. The goal of this credit is to encourage grid source renewable energy. In order to achieve this credit we must purchase 35% of the buildings electricity from renewable sources with at least a 2-year contract.

5. CONSERVING MATERIALS & RESOURCES
 - a. Since this project is new construction the emphasis will be on using materials with high recycled content and managing construction waste.

6. INDOOR ENVIRONMENTAL QUALITY
 - a. Daylight and Views: Views
 - i. Unfortunately, the depth of the building and enclosed spaces does not allow daylight to enter the majority of spaces.

 - b. Outdoor air delivery monitoring
 - i. We typically provide outdoor air monitoring capabilities in our designs as it allows for more efficient designs. We will achieve 1 point for providing outdoor air monitoring.

 - c. Increased ventilation
 - i. This credit is typically difficult to earn and requires increased energy use. This credit will most likely not be achieved.

 - d. Thermal comfort – design
 - i. This credit is easily achievable and simply needs documentation from the design team proving thermal comfort levels will be met.

 - e. Thermal comfort – Verification
 - i. This credit is also easily achievable and requires that an occupancy comfort level survey be completed. This survey must take place 6-18 months after occupancy. If more than 20% of occupants are unsatisfied we must make a corrective plan.

 - f. Low emitting materials will be specified to reduce the effects of off gassing.

7. REGIONAL PRIORITIES
 - a. Emphasis will be given to Items, such as stormwater management and construction waste management, which have been identified as regional priorities.

LEED Credit Description		Possible Credits	Y	?	N
Pf1	Minimum Program Requirements		R		
Pf2	Project Summary Details		R		
Pf3	Occupancy and Usage Data		R		
Pf4	Schedule and Overview of Documents		R		
Sustainable Sites					
SSp 1	Construction Activity Pollution Prevention		R		
SS 1	Site Selection	1	1		
SS 2	Development Density & Community Connectivity	5	5		
SS 3	Brownfield Development	1			1
SS 4.1	Alternative Transportation - Public Access	6	1	5	
SS 4.2	Alternative Transportation - Bike Storage & Changing Rooms	1	1		
SS 4.3	Alternative Transportation - Low-Emitting & Fuel-efficient Vehicles	3	1	1	1
SS 4.4	Alternative Transportation - Parking Capacity	2	2		
SS 5.1	Site Development - Protect or Restore Habitat	1		1	
SS 5.2	Site Development - Maximize Open Space	1			1
SS 6.1	Stormwater Design - Quantity Control	1			1
SS 6.2	Stormwater Design - Quality Control	1		1	
SS 7.1	Heat Island Effect - Non-Roof	1	1		
SS 7.2	Heat Island Effect - Roof	1	1		
SS 8	Light Pollution Reduction	1			1
		26	13	8	5
Water					
Wep 1	Water Use Reduction - 20%		R		
WE 1	Water Efficient Landscaping - No potable use or no irrigation	4	4		
WE 2	Innovative Wastewater Technologies	2	1	1	
WE 3	Water Use Reduction - (2-4 points)	4	2	2	
		10	7	3	0
Energy and Atmosphere					
EAp 1	Fundamental Commissioning		R		
EAp 2	Minimum Energy Performance		R		
EAp 3	Fundamental Refrigerant Management		R		
EA 1	Optimize Energy Performance (12%-48%)	19	7	12	
EA 2	On-Site Renewable Energy (2.5%-12.5%)	7			7
EA 3	Enhanced Commissioning	2	2		
EA 4	Enhanced Refrigerant Management	2	2		
EA 5	Measurement & Verification	3	1	2	
EA 6	Green Power	2	2		
		35	14	14	7

Conserving Materials & Resources	MRp 1	Storage and Collection of Recyclables		R		
	MR 1.1	Building Reuse- Maintain Existing Walls, Floors and Roof	3			3
	MR 1.2	Building Reuse- Maintain Interior Nonstructural Elements	1			1
	MR 2	Construction Waste Management	2	2		
	MR 3	Materials Reuse	2			2
	MR 4	Recycled Content- 10%- 20%	2	2		
	MR 5	Regional Materials- 10%-20%	2	2		
	MR 6	Rapidly Renewable Materials	1	1		
MR 7	Certified Wood	1		1		
		14	7	1	6	
Enhanced Indoor Environmental Quality	IEQp 1	Minimum IAQ Performance		R		
	IEQp 2	Environmental Tobacco Smoke Control		R		
	IEQ 1	Outdoor Air Delivery Monitoring	1	1		
	IEQ 2	Increased Ventilation	1		1	
	IEQ 3.1	Construction IAQ- During Construction	1	1		
	IEQ 3.2	Construction IAQ- Before Occupancy	1	1		
	IEQ 4.1	Low-Emitting Materials- Adhesives/Sealants	1	1		
	IEQ 4.2	Low-Emitting Materials- Paints and Coatings	1	1		
	IEQ 4.3	Low-Emitting Materials- Flooring Systems	1	1		
	IEQ 4.4	Low-Emitting Materials- Composite Wood / Agrifiber Products	1	1		
	IEQ 5	Indoor Chemical Pollution Source Control	1	1		
	IEQ 6.1	Controllability of Systems- Lighting	1	1		
	IEQ 6.2	Controllability of Systems- Thermal Comfort	1		1	
	IEQ 7.1	Thermal Comfort- Design	1	1		
	IEQ 7.2	Thermal Comfort- Verification	1	1		
	IEQ 8.1	Daylight & Views- Daylight	1		1	
IEQ 8.2	Daylight & Views- Views	1		1		
		15	11	4	0	
Innovation in Design	ID 1.1	Innovation in Design -	1		1	
	ID 1.2	Innovation in Design -	1		1	
	ID 1.3	Innovation in Design -	1		1	
	ID 1.4	Innovation in Design -	1		1	
	ID 1.5	Innovation in Design -	1		1	
	ID 2	LEED Accredited Professional	1	1		
			6	1	5	0
Regional Priority	RP	Regional Priority for 20850 zip				
	EAc2	On Site Renewable Energy	0			
	MRc1.1	Building Reuse - maintain existing walls, floors and roof	0			
	MRc2	Construction Waste Management	1	1		
	SSc6.1	Stormwater Design - quantity control	1	1		
	WEc2	Innovative Wastewater Technologies	1	1		
	WEc3	Water Use Reduction	1		1	
		4	3	1	0	
		LEED Certified (40-49 Points)				
		Silver (50-59 Points)		110	56	36
		Gold (60-69 Points)				18
		Platinum (80+ Points)				

LANDSCAPE PLAN

1. LANDSCAPE CONCEPT & COMPONENTS:

The new Student Services Center will create a new visitor parking lot, a new entry terrace, and provide a bookend to the long north-south open space. The parking lot and the entry terrace will essentially be the new gateway to the campus and will play a major role in the daily and first time experience of the campus. The existing Student Service Building and the existing wood deck at the amphitheater will be demolished to create new open spaces that reinforce the bold and simple landscape ideas the College envisions for the campus.

2. PARKING LOT:

The new visitor parking lot will be amply shaded and designed for pedestrian scale and comfort. The entire southern aisle must be graded and designed for accessibility with a walkway connecting the parking spaces to the new Student Services Center to the west and the parking garage to the east.

3. ENTRY TERRACE:

The entry terrace at the new Student Services Center will receive and direct visitors from the parking lot toward the main campus open space. This area will be one of the main hubs of activities for daily use by students, faculty and staff. The main gathering area and the two entrances to the building will be highlighted by special paving.

4. AMPHITHEATRE:

Improvements are proposed to the existing amphitheater include opening both visual and physical access to the amphitheater itself. The existing perimeter brick walls to the north and south will be demolished except for the section at the northwest and southwest corners which will remain for tree preservation. To the south, new seat walls replace the existing wall. New steps provide direct access from the south and north, better connecting the amphitheater with other parts of the campus. At the north edge of the amphitheater, a set of seating steps create a place to linger and enlivens the walkway edge; the seat steps also allow for easier circulation through this area.

5. BOSQUE & LAWN:

The existing Student Service building will be demolished to create two new spaces. A bosque of understory trees over a permeable paving surface will create another main of hub of active use that supports the heavy west-east pedestrian circulation south of the amphitheater. The same special paving used on the entrance terrace will be used here but with spacers to allow for larger joints that allow this plant bed to function as a SWM facility. Movable tables and chairs will additionally support the spill out from the existing Campus Center dining. The remaining open space will be converted to a simple panel of trees and turf with two rows of large shade trees along the walkways. This lawn space will be the largest flat open space on the campus where casual and light active play can occur.

6. PLANTINGS:

The planting palette will be predominantly large and medium shade trees and shrubs with an emphasis on native species. Perennials and groundcovers will also be used to provide additional year-round interest and provide a multi-layered planting strategy. The slopes on the north and south side of the amphitheater will be fully planted with shrubs and groundcovers to stabilize the slopes but also to discourage pedestrian cut through. **Large shade trees should be 3.5" in caliper and medium shade trees 2.5" calipers.** Understory trees 8-10 ft. tall. Assume plants in plant beds to be 30 inches shrubs.

7. SOILS:

Improved soil depths in plant beds to be a minimum of 30" in depth. Improved soil depth for lawn should be a minimum of 10". For soils under permeable pavers an improved imported soil with integrated layers of geo-grid to enhance stability and support pavement is recommended.

8. TREE PRESERVATION:

Excavations, demolition, or construction near or around existing tree roots will be done with extra care. Tree preservation measures will be practiced pre-, during, and post-construction **to ensure the trees' survival.**

9. IRRIGATION: The College does not irrigate plant beds or lawns.

LIGHTING PLAN

Montgomery College Rockville Campus lighting standards will continue to be utilized. The walkways and plazas will be illuminated by pole mounted, pedestrian scale light fixtures. Lighting consistent with College standards will also be provided in parking lot #4 and along North Campus Drive.

Campus emergency phones will be provided for safety.

Cut sheets for site lighting to be used are located within Appendix C.

OVERALL CONCEPT DEVELOPMENT PLAN

The new Student Services Center is included in the Montgomery College Facilities Master Plan for 2006 to 2016.

NOISE ABATEMENT

During construction the contractor will be required to follow all City of Rockville noise ordinances. Any impact of noise during construction will affect the adjacent college buildings. As a result it will be important to control both noise and other disturbances to students. Once construction is complete it is expected that any noise generated will be typical of that of a typical college parking area.

TRAFFIC IMPACT STATEMENT

The Montgomery College Rockville campus is proposing the construction of a new Student Service Center. **A scoping agreement with the City of Rockville's Traffic and Transportation Division stipulated** the analysis of seven (7) off-site study intersections during AM and PM peak periods. A traffic study report was prepared in accordance with the City of Rockville Comprehensive Transportation Review (CTR) Guidelines. The CTR required mitigation improvements for intersections meeting unacceptable levels of service (0.89 v/c) during the background conditions analyses. All of seven (7) intersections operated within acceptable levels of service.