### **CAMPUS MASTER PLAN INSTITUTIONAL OVERLAY SUBMITTAL** 29 JANUARY 2015 Revised: Feburary 17, 2015



Council District 24 Council Member: Jason Holleman Owner: St. Cecilia Congregation Case No. 2008IN-001-002

# UINAS COLLEGE NASHVILLE

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### PREFACE

The Saint Cecilia Congregation owns and operates three distinct schools on the Dominican Campus in the Cherokee Park neighborhood of Nashville. Overbrook School (Pre-K-8), St. Cecilia Academy (9-12), and Aquinas College share a picturesque 83 acre site west of downtown. The shared nature of both the schools and the land have made establishing boundaries between the schools a must.

Even though Overbrook School and St. Cecilia Academy are not included in the Institutional Overlay, the proposed development must take into consideration the shared campus with Aquinas College. Any references to Overbrook School or St. Cecilia Academy are to provide an understanding of a cohesive campus plan.

The Dominican Campus schools, per the filing of this Institutional Overlay, have agreed to surrender their privilege of acquiring any new or additional access points to Cherokee Road. The acquisition of additional access to Cherokee Road requires amendment to the Aquinas Institutional Overlay/Masterplan as well as approval from The Metropolitan Nashville City Council. The Dominican Campus pledges to continue the open communication policy it has established with the neighborhood, especially where concerns have been raised about the development of the campus grounds.

In September 2008, the Zoning Administrator, Lon F. West, issued the following condition which the Dominican Campus has agreed to uphold:

"The Owner of the property and any successor, agent, assign or subsequent purchaser shall not acquire any new or additional access to Cherokee Road without first obtaining the approval of the Metropolitan City Council. This condition applies to all uses of the property located at 4210 Harding Pike, not only to Aqunias College; and to any subsequent purchaser of any portion of the property."

The general purpose of this amendment to the original Institutional Overlay presented in 2008 are as follows:

- Modification of overall plan to reduce scope c college and the lower schools
- Maintain existing historic structures in their original locations
- Allow the use of temporary modular buildings to serve as swing space for the renovation of the existing buildings on campus.

• Modification of overall plan to reduce scope of campus and further define the separation between the

riginal locations s to serve as swing space for the renovation o



### INTRODUCTION

### OVERVIEW OF CAMPUS

Overbrook School, St. Cecilia Academy, and Aquinas College make up the Dominican Campus. All three are owned and operated by the Dominican Sisters of the St. Cecilia Congregation. The campus is centered around the historic White House, originally built for the previous property owner. It now serves as the administrative offices for the college. Overbrook School begins with a Pre-K program and continues with two classes from Kindergarten through Eighth Grade. St. Cecilia Academy is an all girl's high school serving grades Nine through Twelve. The schools are programmed for a maximum 440 and 300 respectively.

Aquinas College was founded in 1928 as Saint Cecilia Normal School. The school was used to educate the sisters and prepare them for teaching children and young adults. The school was moved to the Dominican Campus in 1961 and was renamed Aquinas Junior College. With the new name came public enrollment and nursing students from nearby St. Thomas Hospital were the first to join. Since then, the college has developed strong nursing and teaching programs based in the school's roots. In 1994, Aquinas College became a four year institution offering a variety of liberal arts and education degrees. Enrollment in Fall 2014 is 474.

The student body is mostly commuter based, with a small number living at St. Thomas Seton Lodge on the St. Thomas West campus adjacent the site. Aquinas College envisions moving forward by putting more emphasis on the four year programs and moving away from their history of a two year, part-time student body. To provide a more traditional four year college experience, the college has planned to provide on-campus residence halls and student life opportunities, such as food service and student life centers.

This submittal sets the ground work for the college's vision of progress. As the needs of the growing student body, administration, faculty, and donors change, this plan will adapt to meet those needs and desires. Any major revision to the Institutional Overlay will be submitted to the Metropolitan Nashville Council for approval.



### **ZONING ANALYSIS**

#### **OVERVIEW**

The Dominican Campus is located off Harding Pike in West Nashville on a plot of 83 acres of land. As of December of 1974, the whole campus was zoned R8, which requires a minimum of 8,000 square foot lot for single or two-family dwellings, within an Urban Zoning Overlay. Overbrook School and St. Cecilia Academy operate under a permit which allows Community Education use on an R8 zoned site. This Institutional Overly does not include the lower schools.

The campus is bounded by an R6 property to the north, currently the McCabe Golf Course, which requires a minimum 6,000 square foot lot for single or two-family dwellings. A CSX railway separates the two properties and requires an easement of 75 feet on either side of the track. The Richland Creek Greenway traverses along the north side of the easement. The west side of the Dominican Campus borders with St. Thomas West Hospital, on a site zoned for Office General (OG) with an Urban Design Overlay. The two sites are separated by a drainage tributary along most of the property line. The Cherokee Park Neighborhood boarders to the east, zoned R8 as well, including an Urban Zoning Overlay and a Neighborhood Conservation Overlay.

Requirements	R8 Zone		Institutional Overlay Zone
	Per Code	Current Size	Proposed Standard
Lot Area	NA	2,015,757 SF	2,015,757 SF
Building Square Footage		60,000 SF	546,800
Floor Area Ratio (FAR)	0.5	0.03	0.271
Impervious Surface Ratio (ISR)	0.7	0.14	0.296
Street Setback (From Centerline)	40 feet	-	40 feet
Minimum Rear Setback	20 feet	-	25 feet
Minimum Side Setback	15 feet	-	75 feet
Parking Required			
Classroom Space	-	-	1 per 400 net SF
Office Areas	-	-	1 per 300 net SF
Support Space	-	-	1 per 500 net SF
Dormitory	-	-	1 per 2 rooming units
Landscape Buffer Yard	Standard "B"	-	_

### **ZONING ANALYSIS**

### FLOOR AREA RATIO (FAR)

The definition of Floor Area Ratio (FAR) is the total floor area of all buildings on a site divided by the total area of the site. The R8 zoning allows for a FAR of 0.5, or 50% of the area of the site. This condition includes buildings with multiple floors. The Aquinas College site is currently allotted 46.2 acres of the 83 acre campus, or a little over two million square feet. The campus expansion calls for increasing the built square footage from approximately 60,000 SF, an FAR of 0.03, to approximately 546,800 SF, or an FAR of 0.27. The college aims to maintain a pastoral setting at the frontage of the campus and operate within the FAR limitation condition.

### IMPERVIOUS SURFACE RATIO (ISR)

Impervious Surface Ratio (ISR) is the relationship between areas of the site that reduce or prohibit the absorption of storm water and the total area of the site. The R8 zoning permits an ISR of 0.7, or 70% of the site area can be covered with an impervious surface with proper storm water management in place. Aquinas College currently has an ISR of 0.14 (14%). The proposed Masterplan has an ISR of 0.296 (29.6%). No increase to the allowed ISR of 0.7 is proposed.

#### SETBACKS

Minimum setback requirements for the R8 zoning code include 20 FT on the rear and 15 FT along the sides of the property. Harding Pike, being classified as an Arterial-Boulevard according to the Major and Collector Street Plan, carries a 40 FT setback requirement for the R8 zoning classification. This setback is not applicable to the site, as the forward buildings will not encroach on the flood way boundary for Richland Creek, which travels through the site up the drainage tributary. A setback will also be added to the western boundary to avoid the flood plain as the tributary runs along the property line. The northern portion of the original 92 acres of the Dominican Campus have been set aside as a 75 FT easement for the railroad tracks. The rear setback in the master plan for the college is 25 FT from the property line, providing a total of 100 FT setback from the tracks.

The eastern edge of the college campus borders the two lower schools. A berm/landscape buffer and/or fence is proposed to separate the college campus from the lower schools for both privacy and security. The buffer from the eastern edge of the college campus to the residential areas averages over 600 FT. Overbrook School and St. Cecilia Academy have their buffers (50 FT and 100 FT respectively) as required by local code.

### SIGNAGE

There are currently three signage systems in place on campus; general way-finding/traffic control, building specific signs, and overall campus identification sign.

There are no internally lit signs currently on campus and none are proposed in the master plan. Any lighting for signage has been and will be from external sources, likely from ground mounted sources. The master plan proposes signage that will comply with current Metro Zoning sign regulations. The existing engraved masonry entry sign at Harding Pike and the various post mounted metal signs on campus are to remain. To promote the individuality of the Aquinas campus, the college proposes to install a free-standing, ground-mounted sign on Harding Pike to replace the existing temporary sign panels.





Aquinas Center (Library)



Main Academic Building





St. Joseph's Office Modular



Carriage House (Adoration Chapel)



## **EXISTING CONDITIONS**

### **EXISTING BUILDINGS**

The existing buildings programmed for Aquinas College use are on the western half of the Dominican Campus. The master plan ensures the development and expansion of the college will remain on the western half of the campus. The White House, at the center of the campus, serves as administrative space for Aquinas College and will remain the focal point of the Dominican Campus. The Main Academic Building currently houses most of the classroom and lab space for the college. The Library, on the north side of campus, is located within a renovated gymnasium space. There are two modular buildings serving as offices and classrooms. The two historic properties, the White House and Little White House, are proposed to remain and will be renovated accordingly

#### White House

Aquinas Administration Offices 2-Story Stucco 8.724 SF

Main Academic Building Classrooms, Labs, Faculty Offices 2-Story Brick 37,188 SF

St. Joesph's Office Modular

Arts and Sciences College Faculty Offices 1-Story Siding 1,344 SF

#### St. Martin's Modular

Nursing College Offices and Classrooms 1-Story Siding 3.526 SF



St. Martin's Modular (Nursing College)



**Facilities Shop** 

#### **Aquinas Center**

Library, Computer Lab 1-Story Brick with Mezzanine 15.514 SF

#### Little White House

Education College Faculty Offices 2-Story Brick 1,366 SF

#### Carriage House

Adoration Chapel 1-Story Block 1,292 SF

#### **Facilities Shop**

Maintenance Shop and Storage 1-Story Block 2.112 SF

### **EXISTING CONDITIONS**

#### **EXISTING PARKING**

The current number of parking spaces for the whole Dominican Campus totals 495 in paved parking areas. The college has access to 280 of those spaces in three parking areas spread throughout their campus. The college also allows for overflow parking in the green field between the Main Academic Building and the Library. The lower schools, Overbrook School and St. Cecilia Academy, occupy the rest of the parking spaces on the eastern half of the Dominican Campus.

#### White House Parking

Located along the side and behind the building 30 Faculty Spaces

#### Faculty & Visitor Parking Lot

Located at the front of the Main Academic Building 54 Faculty & Visitor Spaces

#### General Parking Lot

Located behind the Main Academic Building 138 General Student Parking Spaces Overflow expansion into nearby field

#### Library Parking Lot

Located on the eastern side of the Aquinas Center 58 Parking Spaces



### PROPOSED CAMPUS CONCEPT

#### ACTIVITY ZONE ANALYSIS

The western half of the Dominican Campus are the designated areas for Aquinas College development and expansion. The college would encompass a little over 46 acres of the 83 acre Dominican Campus site. Overbrook School would be portioned about 17 acres in the northeastern corner of the campus. St. Cecilia Academy would be allocated about 19.5 acres in the southeastern corner of the site. The shared athletic facilities for the lower schools would be located in the northeast corner within the 100 FT landscape buffer.

The Conceptual Master Plan lays out the land use for the college campus, which is centered around the creation of a student life quadrangle and an academic quadrangle. The mixture of uses among the spaces creates an organic educational experience for the student body. Building placement is critical to creating those places where college students gather for a sense of community. Given the college's Dominican roots, faith and spirituality play a large role in the everyday lives of the students and faculty. The chapel, therefore, will become a vital piece of the Aquinas campus.

#### Chapel

The proposed Chapel will be designed to capture the Catholic heritage of the Saint Cecilia Congregation. The Chapel will serve as a focal point of the campus and a vital part of student community.

#### Academic Areas

The main academic areas are located on the east side of the proposed Aquinas campus and enclose their own green space. The space opens towards the college campus to create a physical border between Aquinas and the remainder of the Dominican Campus to further differentiate the Lower School experience from that of the collegiate experience. However, as part of the eclectic nature of a college campus, future academic buildings may mix with the student life buildings.

#### Administrative Areas

The White House will continue to function as the general administration building for Aquinas College. As the college expands, the administrative functions for the college will expand to a dedicated administative building. The proposed building is located across from the White House and Carriage House to create an open and welcoming entrance to the Aquinas campus.

### PROPOSED CAMPUS CONCEPT

#### Support Services Areas

The proposed Student Center will be located in the renovated existing Main Academic Building. This repurposed facility would accommodate a dining hall, bookstore, student fitness, student lounges, etc.

Parking for the college campus would be located around the perimeter of the site, allowing for a primarily pedestrian campus. In addition, wider than normal sidewalks will serve as access for service vehicles and pedestrians while restricting regular vehicular traffic. The college campus would be served by two large lots, one in the northeast corner and a two level structure along the western border. Additional convenience parking for visitors would be provided in the roundabout in front of the Student Center and Administration Building.

#### **Residential Areas**

The residential buildings are proposed for the west and north sides of the new Central Campus Green. Each building is in close proximity to both the Chapel and the Student Center, creating a central spot for student life on campus.

#### **Athletic Areas**

The areas proposed for recreational purposes infill along the southern, western, and nothern borders of the college campus. The Aquinas Center, currently the campus library on the north end of campus, will be renovated back into a gymnasium for student use. Athletic fields and courts are interspersed throughout the campus to encourage student physical fitness and community/relationship building.

#### **Operations Areas**

The campus buildings will primarily be serviced from the west side drive. The site slopes down to the west and the buildings along that slope will have the opportunity to be designed with walk-out basements. The two level parking structure shown along the west side of campus will have on grade access on both levels, eliminating the need for ramp access between levels. The slope of the site will conceal the garage from the neighborhood areas and it will be minimally visible from Harding Pike.



## **PROPOSED CAMPUS CONCEPT**

### CONCEPTUAL MASTER PLAN

#### Aquinas College Buildings

Existing (1) White House (2) Aquinas Student Life Center (Repurposed)(5) Aquinas Recreation Center (Repurposed) (6) Little White House(7) Carriage House Adoration Chapel (8) Facilities Shop (9) Tennis Courts (10) Rec Center Parking

#### Proposed

(11) Academic Building (12) Library (13) Residence Hall (14) Main Chapel (14) Main Ghaper
(15) Administration Building
(16) Visitor/Aministration Parking
(17) Two Level Parking Structure
(18) General Campus Parking Lot



#### PROPOSED BUILDINGS

#### Overview

The intent of this master plan is to develop an aesthetically cohesive campus for Aquinas College. The buildings are visualized as brick with limestone or precast concrete details. The buildings will typically be two or three stories. Buildings on the western side of campus have the option for an additional, partially concealed, basement floor as the grade recedes toward St. Thomas West Hospital. Final elevations and site plans will be submitted to the Metropolitan Planning Commission for review and approval before the building permits are procured.

Each proposed building is described below in further detail. The square footages provided are intended to convey general sizes of buildings. Actual square footages will depend upon the needs of the college at the time of construction.

#### Aquinas Student Center (2)

The current Main Academic Building for Aquinas College will be renovated to accommodate the new Student Life Center. The building is programmed to have an on-campus bookstore, dining area, student fitness, student lounges, etc. Appropriate changes will be made to the interior layout of the building to accommodate changes in programming and use.

#### Aquinas Recreation Center (5)

The Aquinas Recreation Center is a planned renovation of the current Aquinas Library on campus to return the building to its original use as a gymnasium.

#### Academic Building (11) x4

The four Academic Buildings proposed will house classrooms, lab space, lecture halls, study areas, and academic offices for the college. The exterior of the buildings will adhere to the proposed brick with limited stone detailing vernacular of the college campus.

#### Library (12)

The new library is envisioned as being the connection between the academic and student life areas of the campus. The three story building will be clad in brick with stone or precast concrete details to conform to the aesthetic of the college campus.

#### 42,000 Square Feet

#### 15,500 Square Feet

#### 27,000 Square Feet (18,000 SF Expansion Proposed)

#### 52,000 Square Feet

#### Residence Halls (13) x5

The residence halls are currently programmed as three story buildings with the two along the west side of campus having a fourth floor as a basement due to the slope of the existing grades. The basement floors would provide on grade access from the nearby parking structure while the first level will provide at grade access to the student green space. The residential halls are placed around a central public green, close to the chapel, library, and student center. This locates on-campus residents in the heart of campus life of the college. The campus brick and stone detail aesthetic will apply to the residential halls.

#### Main Chapel (14)

The Chapel's exterior design will include brick with pre-cast or real stone accents and detailing. The vaulted single story structure will be comparable in height to the surrounding buildings on campus. Its central position makes it accessible throughout the college campus and emphasizes the faith culture and heritage of the Dominican Campus. It is anticipated that the chapel tower will be a landmark element on campus.

#### Administration Building (15)

The Administration building is programmed to house the general administrative functions of the college. The building will be two stories and clad in brick with stone or precast concrete details.

#### Recreation Spaces (14)

Along with the renovation of the library, there are recreational spaces proposed for the campus. The existing tennis courts will remain or be reconstructed in the same general area.

56,000 Square Feet

#### 15,000 Square Feet

#### 24,000 Square Feet

### **VEHICULAR & PEDESTRIAN CIRCULATION**

The roundabout in front of the current Main Academic Building would be redeveloped to include angled parking for visitors to the campus and supplemented with a small lot to the south of the proposed Administration Building. A drive is proposed to provide vehicular access to the proposed parking lots along the western and northern borders of campus. A service/pedestrian path is also proposed to bisect the campus and continue along the eastern border of the campus. These drives would also provide service and emergency access for the campus. The schools also have an existing supplemental access point to Cherokee Road. This access drive, along with the main access from Harding Pike, will provide emergency access to the campus and will comply with Fire Marshall requirements. The campus will also work with the Fire Marshall's Office to make sure the pedestrian and service paths meet their requirements for emergency access.

Pedestrian access will be provided from the campus, along the entry drive, to Harding Pike. A sidewalk will also be constructed along the property frontage at Harding Pike and will include a new bus stop. The sidewalk will provide access to the public right-of-way along Harding Pike and the crosswalk to the existing bus stop. The pedestrian connection, the sidewalk along Harding Pike, and the upgraded bus stop will be built prior to acquiring the Use and Occupancy permit for the combination of residence halls that would accommodate three hundred students.

The proposed parking areas will be built on an as-needed basis as the campus expands and a demonstrated need exists.

#### Visitor/Administration Lot (15)

Located at the entrance to campus 44 new parking spaces

#### General Campus Lot (18)

Located at the north end of campus 177 new parking spaces

#### General Campus Parking Structure (16)

2 story garage located along the western border of campus 450 new parking spaces

#### Rec Center Parking Lot (17)

Located adjacent to the Recreation Center on the North side of campus 45 new parking spaces

e (16) of campus



### MASTER PLAN

#### Aquinas College Buildings

(1) White House (1) White House
(2) Aquinas Student Life Center
(2A) Dining Hall Loading Area
(5) Aquinas Recreation Center (6) Little White House
(7) Carriage House (Adoration Chapel)
(8) Facilities Shop
(9) Academic Building

- (10) Library (11) Residential Hall
- (12) Main Chapel
- (13) Administration Building
- (14) Tennis Courts

- (14) Terms Courts
  (15) Visitor/Aministraion Parking
  (16) Two Level Parking Structure
  (17) Rec Center Parking (to Remain)
  (18) General Campus Parking Lot
  (19) Proposed Pedestrian Connection and Bus Stop

## **PROJECTED PHASING**

#### PROPOSED IMPLEMENTATION

The projected projects for the development and expansion of the Aquinas campus are presented as a guide to the desired growth of the school. The actual development of the campus will depend on the funding available and realistic needs of the administration and student body. The work will be privately funded and rely on grants, bond financing, and private donations.

The initial phase proposed will involve several steps starting with the building of the first residence hall building and renovating the Main Academic Building into the Student Life Center. These changes cultivate the on-campus life and sense of community that most traditional four-year colleges provide to their students. In order to facilitate the renovation of the existing Main Academic Building, the college will need on-site swing space in the form of modular buildings that will be removed intermittently as new permanent structures are built. These modular buildings are proposed to be located in such a way to facilitate the college campus feel prior to the permanent buildings are constructed.



### **PROJECTED PHASING**

#### **INITIAL PHASE PLAN**

#### Aquinas College Buildings

(1) White House

(2) Aquinas Student Life Center

(5) Aquinas Library

- (6) Little White House
- (7) Carriage House (Adoration Chapel)
- (8) Facilities Shop
- (11) New Residence Hall
- (M) Modular Campus Buildings



### **PROJECTED PHASING**

### LONG RANGE PLAN

#### Aquinas College Buildings

(1) White House (2) Aquinas Student Center (5) Aquinas Recreation Center (6) Little White House (7) Carriage House (Adoration Chapel) (8) Facilities Shop (9) Academic Building (10) Library (11) Residential Hall (12) Main Chapel (13) Administration Building (14) Tennis Courts (15) Visitor/Aministraion Parking (16) Two Level Parking Structure (17) Rec Center Parking (to Remain) (18) General Campus Parking Lot(19) Proposed Pedestrian Connection and Bus Stop

#### Other Dominican Campus Buildings

(Not Included in Institutional Overlay) (20) St. Cecilia Academy (21) St. Cecilia Administration Addition (22) St. Cecilia Theater Addition (23) St. Cecilia Theater Renovation (24) St. Cecilia Fine Arts Addition (25) St. Cecilia Tennis Courts (26) Overbrook School (27) Overbrook Addition

(28) Athletics Fieldhouse

## CIVIL ENGINEER'S NARRATIVE

#### Grading and Drainage

A drainage conveyance locally known as Kingfisher Creek and a tributary to Richland Creek bisects the front of the property near Harding Pike then travels along the southern property boundary adjacent to Saint Thomas Hospital. This portion of Kingfisher Creek is designated by the United States Geological Survey (USGS) as a "blue line" stream and has a drainage area greater than one square mile. Based on current Flood Insurance Rate Maps produced by the Federal Emergency Management Agency (FEMA), Kingfisher Creek would encumber a portion of the 83 acre site adjacent to the creek with floodwaters during significant rainfall events.

Based on current Metropolitan Nashville Stormwater Regulations, Kingfisher Creek would be protected by a 75 foot stream buffer, measured outward from the FEMA defined floodway boundary. The first 50 feet of the buffer would be considered a "no disturb zone" where the vegetation cannot be disturbed and the remaining 25 feet allows limited disturbance however no structures or impervious surfaces. Disturbances would require approval from the Stromwater Management Committee.

Access to the campus currently crosses through the stream buffer as a result of prior approval granted by the Stormwater Management Committee for this disturbance. The masterplan shows another minimal disturbance to the buffer for vehicular controls on the site and would also require approval from the Stormwater Management Committee.

The natural drainage for the majority of the subject property is directed toward Kingfisher Creek. Metro Stormwater Regulations requires both water quality treatment and detention of stormwater runoff.

Water quality will be provided through a series of Metro Stormwater Division approved Best Management Practices (BMP) structures creating a "treatment train" throughout the site. Although difficult to determine at this time, which devices will ultimately be needed to provide the necessary results, such as bioswales, filter strips, bioretention, ponds, proprietary mechanical devices, or any other approved system, will be considered, as necessary, to remove 80% of total suspended solids as required by the Stormwater Regulations. These BMP controls will be strategically placed across the campus allowing for maximum performance.

Due to the location of the campus within the Kingfisher Creek drainage basin and its close proximity to Richland Creek, we believe the "ten percent" rule outlined in the Metro Stormwater Regulations would apply to the campus. The "ten percent" rule basically recognizes that detention in the lower 10% of the drainage basin can create an adverse impact by changing the timing of the outflow for a specific drainage basin, and as a result an exemption from detention can be granted for this condition. Detailed modeling of the Kingfisher Creek and Richland Creek drainage basins will be provided and submitted to Metro Stormwater for compliance. If determined the "ten percent" rule cannot be utilized, normal detention devices such as detention ponds and underground detention devices will be installed to attenuate the post-development flows to a level not exceeding the pre-development discharges.

## CIVIL ENGINEER'S NARRATIVE

#### Utilities

Based on the proposed student load anticipated on the campus at the completion of the masterplan construction, an additional 46,600 gallons per day is projected as the increase in water and sewer demands. Metro Water Services has provided a letter of water and sewer availability based on the aforementioned projected flows.

Domestic and fire water services will be serviced from an existing 16-inch water line in Harding Pike. Sanitary sewer will be serviced from public the 24-inch main that is located near the western property boundary.

## LANDSCAPE ARCHITECT'S NARRATIVE

#### Overview

Landscaping will be an integral component in the campus improvement plan. The existing campus is blessed with many fine shade, small flowering and evergreen trees. Every effort will be made to plan new buildings and site improvements in a manner that will preserve many of these existing trees. New landscaping will incorporate primarily the use of native plant materials, taking into consideration drought tolerant species (particularly shrubs and groundcovers). Particular effort will be taken to preserve the mature existing tree buffers located on the campus edges adjacent to the Cherokee Park neighborhood and the St. Thomas West Hospital campus. Landscape plans for each phase of campus development will need to be approved with the final site plans.

#### Campus Buildings

As new campus buildings are constructed, appropriate landscaping will be added including foundation shrub/groundcover plantings, as well as shade and flowering trees.

#### Courtvards

The master plan suggests that a series of courtyards will be constructed, creating "outdoor rooms" that will be flanked by new and existing buildings. These will be planted with shade trees near pedestrian gathering spots to offer shade. Evergreen trees will be used for screening and understory trees will add interest and seasonal color.

#### Parking Lots/Drives

Proposed parking lots within the campus will meet the Metro Landscape Ordinance requirements, including: the placement of one 2" caliper tree every 50 feet on the perimeter of new parking lots on side property lines. 8% of each parking lot will be landscaped with grass, trees or shrubs, and one 2" caliper tree will be planted for every 15 parking spaces. Each tree island will contain at least 90 square feet.

#### Screening

All ground mounted mechanical and service equipment will be screened with evergreen landscaping. Every effort will be made to avoid locating mechanical and service equipment in direct view of pedestrian gathering points. Evergreen plants will be selected that are natural looking and need limited pruning or trimming.

#### Bioswales, Bioretention, and Ponds

Stormwater detention and storm management ponds will be utilized if required as was indicated in the Civil Engineer's narrative. Appropriate water loving native plant materials will be provided in these storm management areas.

## TRAFFIC ENGINEER'S NARRATIVE

#### **Project Description**

The Dominican Campus and Aquinas College are located along West End Avenue / Harding Pike in West Nashville. The site is bounded by West End Avenue / Harding Pike to the south, Saint Thomas West Hospital to the west, the CSX railroad to the north, and residential development along Cherokee Road to the east. The Dominican Campus consists of three distinct schools: Overbrook School, St. Cecilia Academy and Aquinas College. The Institutional Overlay applies exclusively to Aquinas.

Currently, development in the immediate vicinity of the project site is a mixture of residential, institutional and medical with commercial and retail to the west along West End Avenue / Harding Pike and White Bridge Road.

The purpose of this study is to analyze the traffic impacts associated with the proposed master plan for Aquinas College. The proposed master plan consists of adding approximately 475,000 square feet of currently programmed buildings to the campus. The proposed buildings include:

- a Chapel
- 4 Academic Buildings
- 5 Residence Halls
- Dining Hall Addition
- a Library
- an Administration Building

#### Data Collection

In order to provide data for the traffic impact analysis, manual traffic counts were conducted at the following intersections:

- West End Ave./Harding Pike and Cherokee Road/MBA Driveway
- West End Ave./Harding Pike and Montgomery Bell Avenue
- Harding
- Town Center Transportation Plan)
- Cherokee Road and Valley Road
- Cherokee Road and Aberdeen Road

 Cherokee Road and Dominican Campus secondary drive Specifically, the traffic counts were conducted from 7:00 - 9:00 AM and 4:00 - 6:00 PM on a typical weekday by RPM Transportation Consultants, LLC. These counts were conducted during February, May and June of 2008. Along with the turning movement counts, 24-hour tube counts were conducted on the two campus drives in May of 2008. From the turning movement counts, it was determined that the peak hours of traffic flow at the intersections occur from 7:15 - 8:15 AM and 4:30 - 5:30 PM for the typical weekday.

West End Ave./Harding Pike and Dominican Campus main driveway/Vine Court (obtained from the

## TRAFFIC ENGINEER'S NARRATIVE

#### **Projection of Future Traffic Volumes**

In order to account for the traffic growth prior to the completion of the proposed project, future nobuild traffic volumes were established. Even though the desired implementation is 5 to 10 years, it was assumed that the student body count will reach the anticipated long term enrollment of approximately 750 FTE day students by year 2020. Therefore, 2014 is assumed to be a reasonable analysis year for the background conditions. Historical daily traffic volumes were obtained from the TDOT count station near Cherokee Road on West End Avenue/Harding Pike. By utilizing the TDOT ADAM software trend analysis for this count station, the average annual growth rate was determined to be 5.3% from 2008 to 2014. Based on the traffic data obtained from TDOT a conservative 1.0% annual traffic growth from 2014 to 2019 was assumed for the study area. The existing traffic volumes were increased by 1.0% per year for five years (2019) or by a total of 5.0%.

#### Conclusions and Recommendations

Both of the signalized intersections along West End Avenue/Harding Pike will operate at a Level of Service (LOS) B or better after the completion of the proposed master plan. Also, the local streets surrounding Aquinas College will operate at LOS A after the completion of the proposed master plan. The analyses presented in this study indicate that no roadway or traffic control improvements are necessary to accommodate the projected traffic volumes generated as a result of the proposed master plan for Aquinas College. An additional impact study will be conducted if the enrollment exceeds 750 FTE day students.

< refer to separate package for full Traffic Impact Study by RPM Transportation Consultants, LLC>