



# Precinct Planning Update Meetings

**MEETING NOTES - January 14, 2010**

Office of the Architect for the University

## Constituent Invitees:

Michael Greco  
Assistant Director for Information Services, Miller Center

Andrew Chauncey  
Assistant Director for Finance and Program Analysis, Miller Center

Mary Brown  
Chief Financial Officer, Center for Politics

Bill Bergen  
Assistant Dean, School of Law

Stephen Parr  
Associate Dean, Management and Finance, School of Law

Teresa De Guzman  
Associate Dean for Finance & Administration, Darden School

Keith Crawford  
Facilities Administrator, Darden School

Erika Herz  
Manager, Sustainability Programs, Darden

David Graham  
Executive Director, JAG School

Mike Colburn  
Director of Support, JAG School

Craig K. Littlepage  
Director of Athletic Programs

Ed Rivers  
Director Intermural Sports

Rich Kovatch  
Associate Vice President for Business Operations

Mark Doherty  
Chief Housing Officer

## Technical Invitees:

Scott Martin  
Systems Development and Integration Manager, Facilities Management

Donald E. Sundgren  
Chief Facilities Officer

Rebecca White  
Director of Parking & Transportation

Richard Minturn  
Senior Academic Facility Planner, Provost's Office

Andrew Greene, LEED AP  
Sustainability Planner

Mary Hughes, FASLA, LEED AP  
University Landscape Architect

Julia Monteith, AICP, LEED AP  
Senior Land Use Planner

David J. Neuman, FAIA, LEED AP  
Architect for the University

## Summary: North Grounds Precinct Planning Update

### Meeting Agenda

- Introduction and Objectives, by David J. Neuman, Architect for the University
- Current Projects/Capital Planning by noted constituents of the North Grounds Precinct
- Review of the Grounds Plan, Precinct Planning and Infrastructure Planning by Julia Monteith, Senior Land Use Planner, Office of the Architect, Scott Martin, Systems Development and Integration Manager, Facilities Management and David J. Neuman, Architect for the University
- Overview of Sustainability Efforts Related to North Grounds by Andrew Greene, Sustainability Planner, Office of the Architect

### Presentation Summaries

#### Introduction and Objectives, by David J. Neuman, Architect for the University

Mr. Neuman began the meeting with general introductions followed by a short overview of recent planning efforts for the UVa. He also stated that this is the first of three precinct planning updates that the Office of the Architect will hold. In the coming months similar meetings will be held for the West Grounds and Central Grounds precincts, with an update on sustainability planning. He reminded everyone that meeting sustainability and land use planning goals requires collaboration by all parties at the University.

#### Current Projects/Capital Planning in the North Grounds Precinct

A representative from each constituent group in the North Grounds provided a presentation on their current projects and any capital planning that they are currently engaged in.

**Michael Greco**, Assistant Director for Information Services at the Miller Center of Public Affairs was the first to present. He informed the group that there are three main projects at the Miller Center to review. The first was the recently completed refurbishment of the Newman Pavilion. This refurbishment consisted of both aesthetic and technical improvements to the two main meeting spaces and the auxiliary spaces in the pavilion. The Newman Pavilion is the most public part of the Miller Center, so refurbishment efforts focused first on this space. Now complete, the next phase of refurbishment, which is dependent on fundraising, will focus on the Faulkner House and the Thompson Pavilion. These areas of the Center are less public in nature and include a library and numerous offices and research space for staff and visiting scholars.

A major initiative of the Miller Center is to build a presidential research library and additional office, conference and meeting space in the area behind the Center's current building. The Library project would allow the Center to expand their scholarly mission and aggregate current presidential research projects. The extra conference and meeting space would allow the Center to host more multi-day events. A pre-design study for the expansion has been completed by Cooper Robertson Architects, and fundraising is on-going.

Mr. Greco also gave an update on issues and initiatives related to sustainability at the Center. In general the Center has not been focused on sustainability, but highlighted their efforts to curb cut-through traffic between Old Ivy Road and Massie Road. They would also like to increase the green screening between the Center and adjacent properties (Ivy Gardens and Davenport Field/Klockner Stadium). Finally, the Center has set a goal to meet with sustainability personnel at the University to establish strategies to help it reduce water and energy use.

Following the presentation, there was one question regarding the typical mode choice for events at the Miller Center. According to Mr. Greco, the assumed choice is single occupancy vehicle, though in some cases a shuttle may be used to transport attendees/speakers between the Miller Center and their hotels.

**Ms. Terry De Guzman**, Associate Dean for Finance & Administration at the Darden School gave an update on facilities planning at the School. She began with an overview of the 20-acre Goodwin Grounds that the school occupies. The Goodwin Grounds consists of the 5 buildings of the Darden School (260,000 GSF), the 5 buildings of the Sponsors Executive Residence Center (180 beds and 140,000 GSF) and the 500-space Darden Parking Garage. Darden offers four major programs: the Full-Time MBA Program (640 Students), the MBA for Executives Program (120 Students), Executive Education programs – (~4,000 Participants) and the Doctoral Program (15 Students). In addition to the major programs there are also five centers of excellence and approximately 380 faculty and staff housed at Darden.

Because of changing needs in business education, three main planning efforts have been initiated by Darden: strategic space planning, a deferred maintenance program, and sustainability. The strategic space planning initiative was started in 2008 in collaboration with the Office of the Architect, the Provost's office and the consultant group DEGW. The space planning study was School-wide and included faculty, staff, students and a facilities committee. The study had five goals: 1) accommodate growth 2) Improve the quality of learning environment by incorporating technology, flexibility, sustainability 3) Improve the quality and quantity of research 4) Increase access to special support spaces and equipment 5) Enrich the character of space and optimize environmental performance. The strategies developed to meet these goals involved planning with a 10-year horizon, trying to accommodate growth in existing facilities and being innovative and flexible with space use.

Darden's second planning effort is its deferred maintenance program. This plan was developed in the summer of 2008 and studied deferred maintenance and facility renewal needs for the next 20 years. Using this dynamic building condition model as a road map, Darden is better able to schedule and budget major maintenance projects.

Darden has been a leader in sustainability efforts at UVa. The goal of the School is to be carbon neutral and zero waste by 2020, and a top ten business school for teaching and research on sustainability by 2013. These goals touch on Darden's facilities and operations as well as their teaching and research. The carbon reduction strategy for Darden will require focusing on their purchased electricity. The goal is to become carbon neutral by 2020 through a mix of conservation, energy efficiency and renewable energy purchase and production. To achieve zero waste by 2020 at Darden will require a mix of composting, recycling, pulping and purchasing/process changes.

Darden has made progress toward achieving their planning and sustainability goals. They have committed resources to these efforts and have established the guiding principles of 'sustainability', 'maximizing experience' and 'technology and innovation'. They have upgraded 32 learning team rooms, 5 classrooms and 7 conference rooms, created a PhD hub in the library, introduced open office sharing and created an 'innovation lab' at the school. Currently, Darden is implementing several maintenance projects addressing their building's systems and implementing water, waste and energy reduction strategies. They are also exploring ways of implementing more of the recommendations from the strategic space planning study.

Ms. De Guzman also gave an update on capital planning projects for 2010 and beyond at Darden. The main projects are planning for a Darden Library Research Center, continuing with technology upgrades and reconfigurations to learning team rooms, classrooms, conference rooms, and the video studio and continuing life cycle renewal projects as prioritized by their planning model. In addition, Darden is working on developing and

implementing its road map to carbon and waste neutrality by 2020 and is hoping to tap into Ground Improvement Funds for the further enhancement of the North Grounds streetscape.

**Mary Brown**, the Chief Financial Officer at the Sorenson Center for Politics gave a brief oral report to the group. The Center for Politics has been located at Montesano since May of 2008. In the spring of 2009, the University purchased Montesano from the UVa Foundation. Ms. Brown stated that they are in the early stages of planning for an addition to Montesano that could be used for classroom space and other functions. David Neuman also mentioned that the UVa Foundation still owns a parcel of land next to Montesano and that any planning the Foundation undertakes on the future development of that parcel will be shared with the Center for Politics.

**Bill Bergen**, Assistant Dean for the School of Law, presented a slide presentation for his School. The School of Law has occupied its current location in North Grounds since 1974 when it moved to Withers-Brown Hall from Clark Hall in Central Grounds. When the new Darden School was opened in the 1990s, the Law School moved into Slaughter Hall. These two buildings were bridged by Clay Hall and the Caplin Pavilion in 1997 and the Student Faculty Center at the rear of the School was completed in 2002. Clay Hall, Caplin Pavilion and the Student Faculty Center were all paid for through privately raised funds. In addition Withers-Brown Hall recently underwent interior renovations. The current capital campaign of the Law School does not focus on facilities, but rather on financial aid, endowed professorships and academic programs. In addition to the buildings of the Law School, considerable investments have been made in creating the Spies Garden and grass quadrangle landscape of the School as well.

The Law School is generally happy with its current facilities but recognizes that the ever changing landscape of legal education will require additional capital projects in the future. The latest trends in legal education are characterized by smaller, more numerous classes, more interdisciplinary studies, more demand for practical skills courses and instruction and more need for student services. To meet the challenges posed by these changes, the Law School has increased faculty from 50 in 1995 to 90 in 2009, increased the number of legal clinics that it supports from 2 in 1995 to 20 in 2009 and upgraded student services staffing. The physical manifestation of these changes has been to create 25 new faculty offices out of under-used library space, create a reference suite in the library, downsize large classrooms, create 2 new seminar rooms and an expanded legal clinic area, and upgrade technology throughout the school. In spite of these improvements, the School is beginning to run out of space for all of their students, faculty, administrative services, student services, and clinics. In addition, the available space is not easily configured for the modern law learning environment. There is an understood need for additional space at the Law School, but there is not a plan for addressing this need at this point.

The Law School also believes that more resources need to be invested in the streetscape around their Grounds. The School considers the approach into North Grounds on Arlington Boulevard and its intersection with Massie Road an important entry point. There is a feeling that while recommendations have been made to improve this intersection in the past, there has been no action. There is also a feeling that planning in the North Grounds area has focused on large-scale projects instead of smaller, more realistic projects. Several of the North Grounds constituents in the area have funded streetscape enhancements, including the Law School. Now, it is thought that the University should place a higher priority on the Arlington/Massie intersection. There was general agreement that this area should be addressed, and the Law School was encouraged to submit a proposal to the Grounds Improvement Fund as a way of funding a project there.

**David Graham**, Executive Director of The Judge Advocate General's Legal Center and School, U.S. Army (JAG School), gave a short update on their capital planning projects. The JAG School has been at UVa since 1951 and moved to its present location in North Grounds in 1975. The School expanded their building in 1990. The JAG School has seen its mission expand and change since 2001, and the School has grown and evolved. Currently there are 145 staff and faculty at the JAG School and Legal Center. The student population fluctuates throughout the year, but overall serves 6-7,000 students annually. With their growth has come a need for additional space. Planning has begun on a new 52,000 sf, \$34.5 million facility, to be located to the west of the existing JAG building. This building would provide office/administration space for the legal center, a new law library with seminar meeting rooms and a graduate course classroom. There are two issues hindering the construction of this project. The first concerns the nature of the lease that the JAG School has with the University. In the past, the JAG School has operated on a 20-year lease. In this arrangement, the buildings that JAG occupies are built by the University and then the JAG School leases them from UVa. The current 20-year JAG School lease has expired so the School is operating under a temporary lease until authorization is given to enter into a new long-term lease. Similarly, approval is needed from the Army for the construction of any new building. The JAG School is currently making its way through the approval process, but has not yet received approval.

**Craig Littlepage**, Director of Athletics, began the next presentation by introducing **Ed Rivers** and letting the group know that Mr. Rivers, who had been the Interim Director of Intramural Sports since the loss of Mark Fletcher, has been named as the permanent director. Mr. Rivers then gave an update of Intramural Sports current plans to expand the North Grounds Recreation Center. Beginning in August, IM-Rec worked with Cannon Design to assess the need and program for new recreation facilities. The consultant has proposed a phased expansion and renovation starting with North Grounds, then moving on to Slaughter and Memorial Gym. The North Grounds project will include a new 25 meter pool with a sauna and steam room and expanded fitness space and (2) tennis courts. The project will also include a flexible space that can be used for fitness classes, meetings or social functions. The project will also likely improve the locker rooms and entry into the recreation center. There is no set date for beginning construction on this project. Keith Crawford, with the Darden School, asked if the project would provide secure bike storage. The project does not dedicate space for indoor storage, but would likely include outdoor racks.

Craig Littlepage then gave an update on the Intercollegiate Athletics programs and facilities in the North Grounds. He began by highlighting the tremendous improvement to the facilities since 1990 and UVa is now arguably one of the top 3 or 4 ACC schools in terms of facilities. There still remains several needs and long-term growth plans for the Department. The highest priority for the Department is to construct a “bubble” over one of the turf practice fields on the south side of University Hall. This would allow multiple teams the ability to practice in inclement weather throughout the year. In the longer term, Mr. Littlepage shared the Department’s vision for the retirement of University Hall and the redevelopment of that site. This would include a new administrative building, and an indoor practice facility. Because of the partnership with the Boar’s Head Sport’s Club, there is no longer a need for an indoor tennis facility. Athletics would also like to create a gateway to the Olympic Sports Sites on the north side of Copeley Road, across from University Hall. This project would reconfigure the entrance to Klockner Stadium, the Baseball Stadium and Lannigan Field. Lannigan Field would also be renovated to bring it up to the level of a collegiate track and field facility through the construction of seating, rest rooms and moving throwing events away from the track for safety reasons.

The final planning update was given by **Rich Kovatch**, Associate Vice President for Business Operations. Business Operations has three main interests in the area: 1) the childcare center, 2) student housing, and 3) parking and transportation (P & T). The Child Care Center was built in 1991 and is located on Copeley Road, near its intersection with Emmet Street. The Center provides care for 110 children from infant to age 5. They currently have a waiting list of over 300 families, with a high demand for infant care. They certainly have a need for expansion and are looking to partner with the hospital (which also operates a child care center) to expand. In addition to this, there is probably demand for a 4th facility as well, though no plans are in place to do so. Housing operates three different housing areas in the North Grounds precinct. They are Faulkner housing area, Copeley 1-4, and University Gardens. Also, nearby are the Lambeth apartments. In all, there are 1,250 graduate and undergraduate beds and 323 family housing units in this area. Besides general maintenance to the housing stock, the only area that has undergone extensive renovations is Lambeth. Copeley has a long term need for replacement, but there are no immediate plans to do this, because Housing is currently in the midst of a major replacement initiative for the Alderman Road dorms. Mr. Kovatch said that future plans for the Copeley Housing could involve a public/private partnership. Parking and Transportation is located on Millmont Street, behind Barracks Road Shopping Center. P and T’s fleet includes 30 transit buses and charter shuttles. At the Millmont Street facility they also provide maintenance support to their vehicles and facilities management vehicles. Mr. Kovatch reported that transit is well used and new features like the GPS locators for the buses are popular. Currently P & T and the Office of the Architect are supporting the continued development of the transportation demand management plan with a goal of reducing the number of single occupancy vehicles that are driven and parked on Grounds.

This concluded the constituent presentations.

### **Review of the Grounds Plan, Precinct Planning and Infrastructure Planning by Julia Monteith, Senior Land Use Planner, Scott Martin, Systems Development and Integration Manager, and David J. Neuman, Architect for the University**

The 2008 Grounds Plan established a planning framework of the University over long range planning horizons of 2015 and 2025. The Plan channels future growth into ‘redevelopment zones’ that were identified and evaluated during the course of the Plan’s development. The zones were chosen because they promote infill development and allow the University to grow in a **sustainable** manner. The Plan focuses on five principles of sustainability that are inherently related to the University: Preservation, Context, Multi-Disciplinary Learning, Connectivity and Environment. Also defined in the Grounds Plan are **precincts** of the University Grounds: West, Central, and North Grounds.

The precincts are defined geographically and acknowledge the variation in academic function. Both academic and residential redevelopment zones exist in each precinct. The zones have been tested to ensure that they provide adequate space for the University to grow within its current boundaries.

Under the umbrella of the 2008 Grounds Plan, the precinct plans for Central, West and North Grounds provide for more detailed physical planning analyses of these areas. The precinct plans take a holistic approach to address the current and future physical form of each precinct. This includes addressing building form, views, circulation, servicing, parking and other aspects of built form. In addition to the three precinct plans, the Office of the Architect has developed a Health System Area Plan. This plan was developed for the unique needs of the Health System district, and is separate from the precinct planning effort. In the future, district plans may be developed in a similar fashion as the Health System Area Plan for other areas of the University as needed (such as for Athletics.) The fieldwork for the precinct plans was completed primarily by a series of interns (from the Architecture School Planning Department) over the course of the last year and a half.

The precinct plans apply a form-based zoning approach to the Grounds Plan redevelopment zones. This is a departure from traditional campus planning, where sites are often programmed for specific uses. In the case of form-based planning, the desired building size, form and landscape within the redevelopment zone is established, while the use is left open. This approach allows for flexibility of use in the face of changing future academic needs.

For each of the three precincts, a set of five maps has been created to convey the information developed in the precinct planning. The first three of these maps, Natural Systems, Linkages, and Green Space, catalogue existing conditions in each precinct and are the result of extensive fieldwork and GIS analysis. The final two maps, Proposed Green Space and Linkages and Development Volumes, draw on the planning completed and define the physical character of future development within the precincts.

The intent of these maps is to identify key defining characteristics and the quality of space to be retained or achieved. They provide guidance on a number of basic but important matters, such as the location of primary building facades and service areas. They also address how a building should respond to its context in regard to green space, circulation and views. Reinforcing the principles of the Grounds Plan, buildings of historic significance are identified and protected due to their distinguished character and contribution to the campus at-large. The proposed condition maps illustrate the interrelationship of proposed landscape and circulation initiatives to building development within the precincts.

These maps form the basis of the precinct plan documents. The final precinct plan contains a set of composite maps that show all three precincts to provide an overview of the ideas and concepts of the precinct plans. Following the presentation of the composite maps, each North Grounds precinct is presented individually and unique opportunities and constraints in this precinct are highlighted. The last section of the precinct plans provides examples of enhanced visualization for five of the planned redevelopment zones. Using GIS and Sketchup, the redevelopment zones are visualized in 3-D, showing their existing conditions and the potential proposed future conditions. The 3-D visualization of the athletics complex is highlighted to show how the area might look in the future if the general recommendations of the precinct plans are implemented.

In concert with the precinct planning effort was an initiative to study the utilities infrastructure across Grounds in relationship to the redevelopment zones. A development carrying capacity in gross square feet for each zone was calculated and existing utilities were evaluated to determine if additional service would be required to support the proposed redevelopment. For example, North Grounds can potentially support a large amount of future redevelopment. The largest potential redevelopment area is at University Hall, which could likely be served by the Massie Road heating and cooling plants. Central heating and cooling for future redevelopment in other areas of North Grounds would require upgrades to the North Grounds mechanical plant and/or Darden infrastructure. Currently, Energy and Utilities has plans to upgrade the North Grounds mechanical plant. Decisions about central heating and cooling for future redevelopment will be made on a project-by-project basis and are dependent on the size and scope of the proposed project. Future redevelopment is dependent on Rivanna Water and Sewer Authority completing the Meadowcreek Interceptor (sanitary sewer project – in progress). There are also possible issues related to changing storm water management regulations.

Much planning and construction has occurred in the North Grounds precinct in recent years. The major projects that have been completed in the area include the John Paul Jones Arena and the related parking structure and Leonard Sandridge Road, in 2006, and the renovation of Sunnyside House in 2008. In addition, there is a project underway

to make improvements to Davenport Baseball Stadium. This work will be completed in early 2010. Landscape projects in North Grounds include the landscape and stormwater infrastructure associated with the John Paul Jones Arena, the installation of a fountain and landscaping at Darden and several Grounds Improvement Fund projects that address pedestrian improvements. The Arts Gateway project that has been planned for the Cavalier Inn site is currently on hold, but the concept of using the area from the corner of Ivy and Emmet Street, up to Copeley Avenue to help connect North Grounds to Central Grounds is still under discussion.

### **Overview of Sustainability and UVa's Environmental Footprint Reduction Plan by Andrew Greene, Sustainability Planner, Office of the Architect**

Mr. Greene began the presentation with a short overview and time line of sustainability initiatives at UVa since 2005. These include the 2006 Sustainability Assessment, the adoption by the BOV in 2007 of a commitment to Leadership in Energy and Environmental Design (LEED) Green Building Rating System certification for all new and renovation building projects, the creation of Sustainability Advisory Panel, the completion of a greenhouse gas emissions inventory at UVa, the creation of the Presidential Committee on Sustainability and the current development of the Environmental Footprint Reduction Plan.

The President's Committee on Sustainability was created in Fall 2008 to advise President John T. Casteen III and Executive Vice President and Chief Operating Officer Leonard Sandridge on all matters related to the overall quality, diligence, and progress of the University's commitment to sustainability. The committee consists of 18 members. These 18 members also sit on subcommittees that focus on 1) School and Department Initiatives, 2) Policies and Procedures, 3) Community Outreach and Communications, and 4) Environmental Impact. Each of these sub-committees plays an important role in achieving the overall goals of the Committee on Sustainability.

The draft Environmental Footprint Reduction Plan (EFRP), under development by the President's Committee on Sustainability, seeks to establish carbon, water, waste and nitrogen reduction goals for University and outline a path for achieving these goals. The draft EFRP has three main objectives: 1) to show UVa leadership in sustainability 2) to define realistic goals for the University and 3) Detail specific strategies for meeting the defined goals.

The plan is divided into four areas of resource use that require reduction. They are Phase 1: greenhouse gas emissions (GHG), Phase 2: water, Phase 3: waste, and Phase 4: nitrogen. Currently, the draft EFRP plan addresses Phase 1, GHG emissions, though the final plan will contain goals and strategies for reducing Phase 2, 3 and 4 impacts. GHG emissions are primarily CO<sub>2</sub> emissions generated by the University's operation. CO<sub>2</sub> emissions are measured in metric tons, for reference, one metric ton of CO<sub>2</sub> represents the energy required to a) power a compact fluorescent light bulb for 15.2 years, b) power an incandescent light bulb for 3.3 years, c) drive a sub-compact car across the United States or d) drive an SUV half way across the United States.

In developing the draft EFRP plan, GHG emissions from University operations have been categorized into one of three scopes. Scope 1 emissions include direct emissions generated by University-owned equipment and activities. Examples include the heating plant, fleet, University Transit Service, jet, fertilizer application and refrigerants. Scope 2 emissions are generated by the electricity purchased by the University and Scope 3 emissions are created by UVa sponsored activities such as commuting to and from work and as-yet unquantified activities like air travel, procured goods and services and construction activities.

The Office of Environmental Health and Safety, along with Environmental Sciences students, catalogued the University's emissions for years 2000-2008. They found that in 2008, Scope 1 emissions accounted for 27% and Scope 2 accounted for 56% of the University's carbon output. Not all of the Scope 3 emissions are known, but they accounted for at least 17% of the total GHG emissions of the University. In looking at emission sources, approximately 87% of all University GHG emissions are related to building operations. A graphic showing the carbon footprint of each building on Grounds was shown. Each building was extruded based on its total carbon footprint. This showed that the Health System and large research buildings like the Chemistry Building are the largest sources of GHG emissions on Grounds. In North Grounds, the building with the largest footprint is Withers-Brown Hall, followed by John Paul Jones Arena.

The draft EFRP proposes 3 strategies for reducing GHGs: 1) Minimize and mitigate emission's growth from new construction 2) Catalyze efficiency and conservation efforts and 3) Increase renewable energy generation and use. Using a combination of these three strategies, the proposed University goal will be to reduce GHG emissions to 20% less than the 2008 level by the year 2020.

Several examples show how the strategies in the draft EFRP could be implemented. The University has made a commitment to achieving LEED certification for all new and major renovation (defined as >\$1 million) building projects. A potential strategy in the case of new construction, would be for GHG carbon emissions from a new building to be mitigated through implementing energy efficiency technologies in existing buildings and/or using more renewable energy. For strategy 2, the Ivy-Emmet Street parking garage was highlighted. Recently, the lighting in this garage was retrofitted for more efficient lighting. This one change resulted in a large reduction (336 metric tons annually) in carbon emissions and had a relatively short payback of two years. The Delta Force program instituted by FM Energy and Utilities is also an effective way of improving the energy efficiency of buildings. This program starts by conducting an energy audit for a building and then retro-commissioning that building. The program began by starting with high-energy-use buildings and installs energy efficient technologies in these buildings. The upgrades also include recycling and water conservation efforts, and the Delta Force team works with building occupants to promote behavior change. To date, MR-4 has been completed and Jordan Hall is underway. So far, their work has reduced the University's emissions by 2000 metric tons per year. While buildings account for a large portion of UVA's carbon footprint, 10% of the footprint comes from UVA students, faculty and staff driving to and from Grounds. In an effort to promote alternatives to single occupancy vehicles, the University is developing a transportation demand management plan. The plan recommends a mix of programs that would promote carpooling, and the use of transit. Implementing this plan could reduce GHG emissions by 1600 metric tons annually. The final strategy involves reducing the amount of fossil fuels we use. On Grounds, one initiative underway is to use more biodiesel in the UTS bus fleet. Outside of the University, as energy companies continue to add renewable energy into their portfolio, UVA's emissions per kWh or purchased electricity will decrease. Complementing this strategy, UVA should also pursue the long-term goal of installing renewable energy generation on Grounds to further increase the amount of renewable energy in our energy portfolio. In 2008, 94.8% of the University's energy portfolio was non-renewable. By 2020, the goal is to have only 78% of the energy portfolio derived from non-renewable sources.



David Neuman concluded the meeting by thanking all the presenters and highlighted how the renovation and expansion of the North Grounds Recreation Center will benefit all the constituents of the precinct, by providing them with expanded amenities and much needed space for social interaction.