



## ARLINGTON COUNTY, VIRGINIA

**County Board Agenda Item  
Meeting of September 26, 2009**

**DATE:** September 23, 2009

**SUBJECT:** SP #371 SITE PLAN AMENDMENT to modify the condition regarding LEED compliance at 1800 Wilson Boulevard (RPC # 17-010-038, -040 through -194)

**Applicant:**

1800 Wilson Boulevard, LLC

**By:**

Nan E. Walsh

Walsh, Colucci, Lubeley, Emrich & Walsh, P.C.

2200 Clarendon Boulevard, 13<sup>th</sup> Floor

Arlington, VA 22201-3359

**C.M. RECOMMENDATION:**

Approve the site plan amendment request subject to all previously approved conditions and revised condition #66.

**ISSUES:** Site Plan Condition #66 pertains to the encouragement of green building techniques recommended by the U.S. Green Building Council (USGBC). The developer failed to adequately document Leadership in Energy and Environmental Design (LEED) components as specified by the condition and is requesting consideration of a mitigation proposal.

**SUMMARY:** The developer is unable to document the incorporation of 25 LEED points as specified by condition #66. At the time this project was approved and built it was not required or common practice to have a LEED accredited professional on the project team. The absence of this expertise and lack of focus on the LEED condition led to a failure to track and document points during construction as required. To meet the spirit of the condition to reduce the environmental impacts of buildings in Arlington County, the developer is able to demonstrate achievement of 14 LEED points and is proposing a program of energy and water saving equipment that was created in cooperation with County staff and the condominium owners association. No bond was required to insure LEED compliance because no bonus density was approved. Since 2003 when this project was approved, the LEED condition language has

County Manager: \_\_\_\_\_

Staff: Neil Thompson, Planning Division, DCPHD  
Joan Kelsch, DES

PLA- 5361

evolved significantly. The condition language currently used on site plans includes safeguards to preclude this situation from happening again.

**BACKGROUND:** On June 14, 2003 the County Board approved the site plan for a 153-unit residential development with ground floor retail and live/work units.

Site: Located at 1800 Wilson Blvd., the site is bound as follows:

- |               |  |
|---------------|--|
| To the north: | Wilson Blvd.; the Colonial Village Shopping Center; multi-family housing.  |
| To the west:  | Gas station, North Rhodes St.; retail uses.                                |
| To the east:  | Various retail uses and vacant lots; office buildings.                     |
| To the south: | Clarendon Blvd.; Rhodeside Green Park; townhouses; multi-family buildings. |

Zoning: The site is zoned “C-O-2.5” Commercial Office Building, Hotel and Apartment Districts

Land Use: The site is designated on the General Land Use Plan (GLUP) as mixed “Medium Office-Apartment-Hotel.”

Neighborhood: The site is located within the Radnor/Ft. Myer Heights Civic Association.

In 2000, the County began to include site plan conditions outlining LEED expectations and requirements for site plan projects. Site plan conditions varied on a case by case basis and enforcement mechanisms were not strong. At the time the 1800 Wilson project was approved, LEED standards were used for a variety of projects, including some multi-family residential projects.

The site plan was approved with the condition that commercially reasonable efforts be made to achieve 25 points. At this early phase of the USGBC LEED program and Arlington County’s own green building program, LEED accredited professionals were not required and point tracking compliance for site plan projects was enforced by County staff.

The developer did not include a LEED accredited professional on the development team and did not adequately focus on integrating environmental components and the required documentation was not maintained. Some points, such as those for site selection in a transit corridor apply to the project without any additional effort, but other possible points, such as use of specified construction waste management techniques, require specific documentation during the actual time performed. Therefore, the developer is unable to definitively determine the actual points achieved for the project.

**DISCUSSION:** Complying with LEED standards requires significant up-front planning and documentation. This was the major omission of the developer. Site Plan Condition #66 that the applicant is requesting to amend states:

Prior to application for a Master Certificate of Occupancy, the developer agrees to submit to the County Manager documentation of all building components that could earn the developer points under the U.S. Green Building Council's system for LEED certification in order to determine the level of environmental "green building" technologies incorporated in the building. The developer agrees to use commercially reasonable efforts to achieve a LEED Scorecard Total Project Score of 25 points. The developer agrees to immediately notify the County Manager and the Zoning Administrator of any certification level received from the U.S. Green Building Council.

From the outset of this amendment process the developer has accepted responsibility for their failure to adequately document the project's LEED components. The developer reports that LEED was new at the time and the lack of experience led to inadequate focus on incorporating specific environmental elements.

Upon completion of the project the developer was unable to document the required project LEED score of 25 points specified to meet the condition. Since some LEED points are impossible to document after installation, prior to issuance of the Master Certificate of Occupancy the developer initiated discussions with DES environmental staff to explore alternative measures that would meet the spirit of the condition by promoting green building measures.

Condition #66 requires that the developer use "commercially reasonable" efforts to achieve 25 points. This does not mean that achieving 25 points was required, but that commercially reasonable efforts had to be made and documented indicating why all 25 credits could not be achieved.

As an example regarding the standard to establish what may be commercially reasonable, the developer reported that while Energy Star refrigerators and dishwashers were installed at 1800 Wilson, they were unable to use Energy Star washers because, according to their research, GE did not make a stackable washer/dryer unit that met Energy Star criterion in 2004. In addition, they were committed to using GE appliances both because of special builder pricing incentives and their customer service department is most familiar with them and stocked those parts. A business may give reasonable consideration to its own interests, exercising discretion within its good faith business judgment when determining what is commercially reasonable. The definition of commercially reasonable efforts allows for decisions to be made based on product availability, as well as cost, design considerations, service issues, and other similar factors.

The developer offered documentation of potential LEED points for County staff to review and analyze. The green building measures incorporated into the planning and construction of 1800 Wilson Boulevard determined to be adequately documented representing thirteen (13) points are:

- SS1 Site Selection
- SS2 Density Development
- SS3 Brownfields
- SS4.1 Transportation
- SS7.1 Non-roof Heat Island
- WE1 Irrigation
- IEQ4.1 Low VOC Paint
- IEQ6.2 Controllability of Systems
- ID2 Exceed 7.1
- SS 4.2 Bike Storage
- IEQ 8.1 Daylight
- IEQ 8.2 Views
- ID3 TDM Plan

Staff review of the documentation provided by the applicant was determined to support partial credit for the following two areas, for an additional one (1) point and fourteen (14) points total:

- |                 |         |
|-----------------|---------|
| IEQ4.3 Carpet   | ½ point |
| ID4 Energy Star | ½ point |

The reason for partial credit for carpet is that several units that upgraded carpet don't have the necessary LEED documentation for the style/color installed. In addition, LEED requires that the carpet system (carpet and pad) be certified by the Carpet and Rug Institute's Green Label Plus program. Because the majority of the units had the appropriate carpet installed, but not the pad, staff awarded ½ point.

The reason for partial credit for Energy Star appliances is that Energy Star refrigerators and dishwashers were installed, but LEED requires that refrigerators, dishwashers, and clothes washers be installed to earn the full credit. Thus, a ½ point is awarded.

The developer's request for consideration of a point for having a LEED certified approved professional was denied by staff. Staff acknowledges that Brian Dayhoff was a LEED AP employed by the developer but there is little evidence that he worked on the project and integrated LEED components into the building. Thus the intent of this credit was not met.

When analyzing compliance with Condition #66, the developer asked that one other issue be taken into consideration. The soil at the 1800 Wilson site was contaminated by a neighboring gas station. The soil remediation initially was estimated to cost \$250,000, but ended up costing the developer approximately \$1,000,000, due both to the extent of contamination and the special handling and landfill requirements associated with disposing of contaminated soil. While the applicant proposed and received one LEED credit for remediating a brownfield site, the scope of the contamination, caused by the adjacent gas station exceeded what was originally budgeted. The developer notes that while this unexpected cost did not directly impact any other decisions

made by the applicant with respect to LEED compliance, the remediation work conducted eliminated an environmental problem in Arlington County at an added expense to the developer.

To address the lack of documentation of achieved LEED credits during construction, the developer is willing to implement additional post-construction energy conservation measures at 1800 Wilson for both the common areas of the building and the residents who live there. Meetings were held with the developer, County staff members and representatives of the 1800 Wilson Boulevard Condominium Association on June 9 and August 12, 2009. At those meetings the condominium association representatives submitted list of efficiency and conservation measures that in their view represented the largest benefit return on investment while contributing to energy demand reduction. The developer incorporated nine (9) out of the ten (10) items into their mitigation proposal. In addition the developer provided additional secure bicycle parking at the request of the condominium owners. The developer believes these measures represent a good faith effort to provide environmental improvements at the site. The developer did not agree to any additional recommendations for mitigation, stating that the LEED components and the on-site lighting and water fixture retrofits are adequate and financially reasonable.

For the common areas, the developer will:

- Replace 184 lighting ballasts in building stairwells, electrical and mechanical rooms, main trash room, elevators and garage areas to accommodate T-8 bulbs. Once this change is made, the developer will purchase 489 T-8 bulbs for the newly installed ballasts. This will save a significant amount of electricity and, in turn, lower monthly utility bills for the condominium. T-8 bulb costs approximately \$2.00, and replacing each ballast adds another \$15.25, for a total cost of about \$3,784.
- Replace one lighting fixture in the G-1 level maintenance bathroom with a higher efficiency fixture.
- Provide 20 occupancy sensors in the common areas, including attic spaces, so that lighting is activated only for short periods of time when people are in these spaces.
- Install 3 “Mini-Clik” rain detectors for existing irrigation system controllers. The Mini-Clik system proposed for installation at 1800 Wilson helps save water by allowing the irrigation system to function only when soil moisture is low. The Mini-Clik® prevents sprinklers from coming on during or after precipitation. The system automatically compensates for the amount of rainfall that occurred. The irrigation stays off until soil moisture dries sufficiently to warrant watering.

In the individual condominium units, the energy-saving program is multi-faceted. It includes:

- Providing lavatory faucet aerators, which if installed may save up to 167,000 gallons of water annually;
- Providing kitchen faucet aerators, which if installed may save up to 137,000 gallons of water per year; and,

- Purchasing green cleaning education kits for all 153 unit owners, containing seven (7) biodegradable products. This kit is currently being offered to new Parc Rosslyn residents. The kit contains the following products made by Seventh Generation:

Natural Dish Liquid  
Natural Glass and Surface Cleaner  
Natural Laundry Detergent  
Natural Fabric Softener  
Natural Dishwasher Detergent  
All Purpose Cleaner  
Recycled Reusable Bag

**CONCLUSION:** Staff finds that achieving an additional 11 LEED credits on the site would be very difficult, and may not be possible at all now that the building is complete. A full re-commissioning of the building and a comprehensive energy audit would be required to evaluate potential energy efficiency improvements. Significant energy savings would likely be achieved only if relatively new equipment in the building is replaced, additional insulation is added, or other significant structural changes are made. These whole building assessments and retrofits are time-consuming, expensive processes and would require discarding equipment and materials installed during construction.

1800 Wilson Boulevard was approved and constructed at an early phase of the LEED program and Arlington County's green building program. The development team failed to integrate specific LEED components in this project and did not adequately track and document LEED points during construction due to lack of experience and expertise. The amendment request represents the developer's effort to reduce the impact of not meeting the LEED goals for the project. The spirit of condition #66 was to reduce the environmental impacts of the project through proven green building techniques. The program of improvements proposed along with the 14 LEED points documented offers a best case outcome given the circumstances. Staff recommends approval of the amendment subject to all previously approved conditions and the revised condition as follows:

66. Prior to application for a Master Certificate of Occupancy, the developer agrees to submit to the County Manager documentation of all building components that could earn the developer points under the U.S. Green Building Council's System for LEED Certification in order to determine the level of environmental "green building" technologies incorporated in the building. The developer agrees to use commercially feasible efforts to achieve a LEED scorecard total project score of 25 points. The developer agrees to immediately notify the County Manager and the Zoning Administrator of any certification level received from the U.S. Green Building Council.

In the event that the developer is unable to achieve a LEED score of at least 25 points the developer shall provide documentation of a LEED scorecard total score of 14 points and perform on site lighting, water fixture retrofits and owner/resident education consisting of:

- Replacement of 184 lighting ballasts in building stairwells, electrical and mechanical rooms, main trash room, elevators and garage areas to accommodate T-8 bulbs. Once this change is made, the developer will purchase 489 T-8 bulbs for the newly installed ballasts.
- Replacement of one lighting fixture in the G-1 level maintenance bathroom with a higher efficiency fixture.
- Provision of 20 occupancy sensors in the common areas, including attic spaces, so that lighting is activated only for short periods of time when people are in these spaces.
- Installation of 3 “Mini-Click” rain detectors for existing irrigation system controllers.
- Provision of lavatory faucet aerators for all units.
- Provision of kitchen faucet aerators for all units.
- Purchase of green cleaning education kits for all 153 unit owners, containing seven (7) biodegradable products. This kit is currently being offered to new Parc Rosslyn residents. The kit contains the following products made by Seventh Generation:

Natural Dish Liquid  
Natural Glass and Surface Cleaner  
Natural Laundry Detergent  
Natural Fabric Softener  
Natural Dishwasher Detergent  
All Purpose Cleaner  
Recycled Reusable Bag

County DES environmental staff shall conduct an on site inspection to confirm that all proposed equipment in the above bullet points is installed and operational.

PREVIOUS COUNTY BOARD ACTIONS:

- April, 2003                      The County Board deferred the proposed GLUP, Rezoning and Site Plan to the May 17, 2003 County Board meeting.
- The County Board approved an Amendment to the Master Transportation Plan to extend a segment of North Quinn Street between Clarendon Boulevard and Wilson Boulevard.
- May, 2003                        The County Board deferred the proposed GLUP, Rezoning and Site Plan to the June 14, 2003 County Board meeting.
- June, 2003                        The County Board approved the GLUP, Rezoning, and Site Plan for a mixed-use building containing 153 condominium units and approx. 6,000 sq. ft. of retail.
- March 2009                        The County Board deferred site plan amendment request.
- May, 2009                         The County Board deferred site plan amendment request.
- July, 2009                         The County Board deferred site plan amendment request.