

ENVIRONMENT AND ENERGY CONSERVATION COMMISSION

c/o Department of Environmental Services
2100 Clarendon Blvd., Suite 705
Arlington, VA 22201
December 20, 2016

The Honorable Libby Garvey, Chair
Arlington County Board
2100 Clarendon Blvd., Suite 300
Arlington, VA 22201
Subject: Wilson School Environmental Assessment

Dear Chair Garvey:

The Environment and Energy Conservation Commission (Commission) provides these comments on the Environmental Assessment Checklist (EA) dated May 19, 2016 for the Wilson School site (1601 Wilson Boulevard, Arlington, Virginia). Members of the Commission served on the Public Facilities Review Committee (PFRC) for the Wilson School, participated in the presentation on the EA provided by Arlington Public Schools (APS) staff on October 24, 2016, and reviewed the draft Use Permit and other materials made available to the Commission in November.

Although the school's final design incorporates some admirable sustainability elements (including classrooms open to the natural light, rainwater collection on-site for use within the building, and broad planted terraces to provide green space and reduce the amount of pervious surface lost to site development), the Commission has concerns about the adequacy of the EA and the manner in which some of the sustainability elements have been discussed or omitted.

A. Energy:

The early designs for the site had consistently highlighted the intent to achieve "net-zero" energy, LEED Gold status, and further Community Energy Plan goals — consistent with the Western Rosslyn Area Planning Study. The EA lists very briefly some of the measures intended to promote energy efficiency at the school including high performance glazing, solar hot water concentrators for domestic hot water production, and installation of EnergyStar equipment. The EA does not, however, describe several of the most significant energy conservation measures (discussed further below) that had been pursued until recently, or why they were abandoned.

1. Geothermal Wells: One of the features of the Wilson design most attractive to the Commission was the proposed geothermal well system. The Commission has been advised by APS that geothermal wells are no longer under consideration because (1) costs were excessive; and (2) irrespective of cost, the unexpected siting of the temporary Fire Station on the school site during construction meant that the geothermal well system could not be installed as planned.

With respect to cost, the feasibility analysis conducted by the County's consultant, Haley & Aldrich, projected first year energy and maintenance savings of approximately 73%; a 10-year payback period; a total savings of \$2.2 million over the 30-year life cycle compared to a non-thermal system; and a 32% reduction in carbon dioxide emissions. Analysis of energy

conservation measures should not only consider capital costs but also overall life cycle costs, which would support inclusion of the geothermal well system.

Commission members have reviewed the staff report in support of the decision to locate Fire Station 10 on the field during construction, the lengthy FAQs published on the issue, and attended the PFRC meeting held on September 1, 2016 devoted exclusively to that topic. The County's exhaustive analysis of the various siting options did not, to our knowledge, discuss the potential impact of Fire Station 10 on the geothermal system at Wilson.

Recommendations: The EA should be revised to include some discussion of the geothermal system and the rationale for its abandonment. In addition, the County Board might reasonably consider seeking some accommodation from Penzance during the site planning process to compensate the County for the lost opportunity costs suffered as a result of the change in construction plans. Finally, the site planning documents indicate that to reduce the costs associated with both solar power and geothermal, the County has been exploring the potential for power purchase agreements (PPAs). The Commission is interested in understanding the outcome of those discussions and the potential that PPAs might be secured at other public sites.

2. Solar Power: As with geothermal, solar power had been a part of the Wilson School sustainability package throughout the design process. APS has advised the Commission that solar panels have been omitted from the budget and that, upon review, the mountable area was deemed to be considerably less than originally projected. Although the apparent reduction in available space on the upper roof could reduce the energy savings of the system, the information provided to date does not provide us with a clear understanding of the relative costs and benefits of solar power at this site.

Recommendation: The EA should be revised to provide a fuller explanation of the reasons for rejecting solar power and whether solar can be installed now or at some point in the future.

B. Light and Glare:

Regulation 4.4 requires that an EA contain an examination of "visual effects." The EA checklist is more explicit and requires a description of how the design will "avoid nuisance light that disturbs neighbors, minimizes glare, and protects the dark sky." The EA does not discuss the proposed lighting of the Wilson sports field with LED lights or how such lighting will avoid nuisance light that disturbs neighbors, minimizes glare, and protects the dark sky.

Recommendation: Because the installation of sports field lighting has been controversial at other settings, the EA should be revised to consider visual effects, including potential glare on neighboring apartments and homes and the school terraces themselves, the potential effects of the high color temperature (CCT) sports lighting on human health, and the life cycle costs of sports lighting.

C. Noise:

Although the EA states that the proposal will not result in increased noise levels, it appears likely that nearby apartments will be exposed to noise from athletic events at the fields. Unlike nearly every other source of noise in Arlington, noise from athletic events authorized or sanctioned by the County is exempt from the new Arlington noise ordinance.

Recommendations: The EA should be revised to acknowledge the potential effects of noise emanating from the sports field. We also recommend that APS ensure that neighbors are aware of such potential noise and have an opportunity to propose mitigation measures.

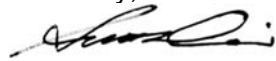
D. Hazardous Substances/Waste. The EA and supporting documentation note that petroleum-contaminated soil and groundwater are present on site and that APS will develop a mitigation program. In response to questions raised by the Commission at our meeting, APS indicated that it would install vapor barriers at “relevant points of the building.”

Recommendations: The Commission asks that the design team provide additional detail in the environmental assessment on proposed mitigation necessary to prevent vapor migration from residual petroleum products detected in both soils and groundwater.

Conclusion

We appreciate the opportunity to provide these comments on the EA. We are happy to discuss them further with APS at its convenience and look forward to working with APS as the design develops and construction begins.

Sincerely,



Scott Dicke, Chair
Environment and Energy Conservation Commission

cc: Arlington Public School Board