

City of Alexandria, Virginia

MEMORANDUM

DATE: APRIL 2, 2010

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

FROM: JAMES K. HARTMANN, CITY MANAGER 

SUBJECT: BUDGET MEMO # 42 : BURKE LIBRARY GREEN ROOF

This memo describes the source of funding and project scope of the planned green roof at Burke Library. The City is planning to install a new green roof on the Burke Library beginning in late summer of 2010. The total cost of this project is estimated at \$383,000 (\$172,000 from City general obligation bonds; \$211,000 from a 2005 Federal STAG grant), which was included in the FY 2010 CIP. During construction of the green roof it is anticipated that the library will remain open, although there may be some noise disruptions at times. The City plans to work with the library staff to coordinate these noisy construction times with periods of lower library use.

The City received a State and Tribal Assistance Grant (STAG) from the EPA in 2005 to perform water quality improvement projects within the Four Mile Run watershed. The total 2005 STAG award was \$481,100 with a \$393,627 required City match (55%/45% split) for a total budget of \$874,727. For this grant match, the City utilized general obligation bond funds from the Capital Projects Fund. City Council allocated these funds at the September 22, 2009 legislative meeting.¹

Of the total 2005 STAG award budget of \$874,727, \$383,000 is designated for installing a green roof on the Burke Library. The \$383,000 is made up of \$172,000 of City bond proceeds and \$211,000 of Federal funds. The remaining 2005 STAG funds will provide for a feasibility study, design, and construction of a bioretention area and a Best Management Practice (BMP) at Charles Barrett Elementary School; a bioretention area at Nicholas Colasanto Center; and a BMP at Fire Station 206. BMP's are temporary holding tanks for stormwater. An important consideration is that if any of these facilities was to undergo a major renovation or site change at any point in the future, the City would be required to implement a stormwater management solution like a BMP or green roof at that time, likely without the availability of grant funding.

¹ Because the matching funds for this grant are bond proceeds and not cash capital, these funds cannot be directly transferred to the City's operating budget for other uses. Also, regardless of whether capital funding sources are bonds or cash capital, they are in the City's Capital Projects Fund and not the City's General Fund for operating expenses. Even if the City could find a way to "shift" previously allocated CIP funds for a future operating budget, it has historically been the City's practice to not use one-time funding sources to fund operating budget needs.

The proposed green roof project at the Ellen Coolidge Burke Library, located at 4701 Seminary Road, will provide 10,932 square feet of vegetative green roof. The existing library site is comprised of approximately 95% impervious surfaces allowing storm water runoff to contribute to erosion and storm water quality issues in Four Mile Run. This project will reduce the impervious surface of the site by 20% thereby reducing storm water runoff and improving water quality. Green roof projects have positive impacts to buildings by moderating temperature extremes and helping to reduce exposure to ultraviolet (UV) radiation and cold winds that accelerate the break down of roof materials. City staff also studied the possibility of installing a BMP at the site instead of the green roof. However, the ability to connect into the main storm sewer lines is highly problematic and the level of disruption resulting from such a project (would likely result in a full facility closure for at least a month) made the green roof the more desirable solution.

A structural assessment was performed in November of 2008 and determined that the additional load of the green roof would require added structural elements to support this roof. The design team has determined that adding structural supports overtop the existing roof will help transfer the loads on the roof while minimizing disturbance to the interior of the library. Additionally, while the existing roof remains in good condition, it cannot be modified to accept the green roof and maintain the remaining warranty period of seven years. The new roof is expected to have twice the total life span of the existing roof at approximately forty years.

The installation of the green roof is projected to begin late summer and take three months to complete by the fall of 2010. During this work the scheduling of construction activities will be coordinated with library operations to minimize noise disruptions.

If it is the decision of City Council to not use these funds for a green roof at Burke Library, there are other needs within the Four Mile Run watershed that these funds could be applied to that are consistent with both the Four Mile Run Master Plan and the intended purpose of the grant. For example, there are other eligible City sites for BMP's (primarily athletic field parking lots) within the watershed, however, these projects were deemed to be less beneficial overall to the watershed environment than the Burke Library green roof. Another potential use of the funds would be to redirect them to the RPCA-managed Four Mile Run Master Plan implementation project, which is focusing on habitat and water quality improvements within the channel itself.

If Council does not wish to use the City funds for a project in the Four Mile Run watershed, the City would have to return \$211,000 in grant monies. The City funds, which are a one-time funding source, could then be applied to another capital need in the City. It is important to note that the City continues to work with Congressman Jim Moran each year to identify and apply for additional federal funding (STAG grants) for work in the Four Mile Run watershed in order to address the substantial remaining need for improved stormwater management. It might weaken the City's case in future grant applications if grant funds already in hand are returned.

City staff will continue to proceed with the project as planned barring an action by Council to reverse the September 22, 2009 allocation of funds. These 2005 Federal funds have a 5-year limit on project approval by the DEQ and EPA as well as commencement of construction, which the City is close to reaching (fall of 2010). It is possible to request good-faith extensions.