

SUI Mini-Grant Program Proposal
Course on *Sustainable Development and Environmental Issues for Engineers*

Final Report 4/21/04

To: SUI Program
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re: SUI Mini-Grant Program
-Development of a course in *Sustainable Development and Environmental Issues for Engineers*
-Timeframe: May 1, 2003 to April 30 2004
-Total Request: \$3000

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As mentioned in the interim report, I met with professors and researchers at several universities in the eastern area of the United States who specialize in various aspects of the issues that an engineer might encounter in sustainable land design. From these meetings I got recommendations to use portions of several books and other information available from EPA publications, CDs and websites for some of the class material. As suspected, there is no 'one stop shopping' to cover these issues and it appears that the proposed compilation from various sources will be necessary. There are two types of texts which, in combination, will probably cover about half the course material, one in hazardous waste (for pre-existing site conditions such as at Brownfields) and the other in runoff best management practices. I have chosen two good textbooks on these subjects. I have also obtained some video and electronic presentation media to use as lecture material for many of the class modules.

I then met with several other professionals concerning some of the remaining topics such as a 'smart growth' planning specialist and a professor in architecture who is knowledgeable in 'green buildings'. I also attended two conferences, where I was able to obtain some information on special sustainable issues such as mercury collection efforts from constructed facilities and air issues.

This grant also had a side benefit of being useful in my research development. While visiting a sustainable facility in Edisto beach, and talking with other professionals, I became more and more interested in a certain sustainable material called pervious concrete. This gave me additional confidence in the possible benefits of its use and prompted me to pursue funding opportunities for research. Since then, we have been successful in obtaining research funds and have started to set up a quite interesting research program on pervious concrete.

I have completed a syllabus for a proposed course in sustainable development which is now entitled: **Sustainable Land Development for Engineers**. This course material is being distributed for review and approval to our graduate committee and other University departments and a copy of the preliminary copy is attached. Some of the funds were also used to collect some pervious concrete samples which will be used in one module of the proposed course.

Thank you again for facilitating my efforts in the development of this material.