
HRC NEWS

Vol. 3. No. 1. Spring 1994

A Publication of the Housing Research Center at The Pennsylvania State University

SPRING ADVISORY COUNCIL MEETING

This issue focuses on the Housing Research Center Spring Advisory Council Meeting scheduled for March 29. This one day business and research meeting is designed to bring together approximately 50 industry representatives, state officials, University representatives, and special guests to discuss funding proposals, completed and new research projects, and technology transfer programs for the upcoming year.

As a result of our last meeting (December 1993) the HRC Advisory Council drafted a new set of policies and procedures which will be presented at this meeting.

At the heart of this revision is the shifting from a two day meeting once a year to a twice a year one day meeting. Previous issues of the HRC NEWS outline the reasons for this change. The remainder of this issue outlines the agenda for the spring meeting as an overview of the progress and goals of the HRC for the upcoming year.

HRC REPORT

This meeting will begin with an introductory management and administrative report presentation by Director Jack Willenbrock, PBA representative Bob Buddenbohn, and Assistant Director Steve Taylor. This year's annual report will focus on a discussion and the envisioned adoption of the HRC Three-Year Plan that will be presented to the Ben Franklin Partnership and the PBA Board of Directors later in the spring.

The Three-Year Plan presents completed (1992-93) and current (1993-94) research and technology transfer projects as evidence of the HRC's efforts to consolidate and concentrate efforts into its major areas of research emphasis. The plan summarizes typical research and operation budgets to place present projects in perspective with regard to the upcoming proposal submission to the Ben Franklin Partnership Program which will be due

April 20, 1994.

continued next page

THE NEW J. ROGER GLUNT SCHOLARSHIP FOR RESIDENTIAL CONSTRUCTION AT PENN STATE

The Pennsylvania Builders Association has established the J. Roger Glunt Graduate Scholarship in Residential Construction in Penn State's College of Engineering with a \$60,000 gift raised by individual members and local affiliated associations.

"The scholarship honors Roger Glunt's initiatives supporting higher education during his term as president of the 170,000 member National Association of Home Builders," says Dean A Kresge, current PBA president and president of Sugar Hollow Homes, Inc., of Reeders, PA. "The scholarship represents a convergence of interests, cementing a shared commitment to research and education in construction and to continued support of Penn State's residential construction program.

During his tenure, Glunt fostered active ties with researchers and educators by initiating the National Housing Endowment Scholar-in-Residence Program, scholarship support for Ph.D. students in residential construction, and by visiting 14 university and college residential building programs across the country.

Glunt has been involved with Penn State's Department of Civil and Environmental Engineering for 14 years and serves on the Advisory Committee for the Bernard and Henrietta Hankin Chair in Residential Building Construction.

Glunt is president of Glunt Building Co., Inc. in Pittsburgh, Pa, a company he co-founded with his father to build single-family homes. Glunt Building now encompasses multifamily construction, residential remodeling, real estate sales, and property management. Glunt is the first Pennsylvanian to serve as NAHB president. He was elected a life director of NAHB in 1976, served as a national representative in 1968, and as a national vice president in 1982 and 1983. Earlier, in 1976, Glunt served as president of the Builders Association of Metro Pittsburgh and was a recipient of its Builder of the Year Award.

Spring Advisory Council Meeting continued

The remainder of the plan focuses on proposed projects for the 1994-95 and 1995-96 operating cycles. The major premise of this proposal assumes that State funding for the HRC Center of Excellence will be reduced to a lower level after the next operating cycle (the 1994-95 cycle). The philosophy of the partnership program has always been to provide seed money to help centers and companies get started. If the proposal is funded, it will be the third year of state funding for the HRC.

With this in mind the proposals for future funding assume a core level of funding for the HRC of \$100,000 (assuming a basic yearly level of support from the Pennsylvania building industry of \$75,000, and minimum matching funds for operations from the Ben Franklin Partnership Program of \$25,000).

This core operations model would ensure that the following activities would be funded at the noted levels, during the 1995-96 operating year:

| | |
|---|------------------|
| Technology Transfer Component | \$ 15,000 |
| HRC Operations | \$ 40,000 |
| One Master's Level Research Project | \$ 35,000 |
| Additional Technology Transfer Project or Additional Conferences | <u>\$ 10,000</u> |
| | \$100,000 |

Additional masters and Ph.D. level research and additional technology transfer activities would be added to this core operations budget as individual faculty secure funding from outside sources (NSF, DOE, USDA, etc.) in their own areas of expertise. For example, Gren Yuill has been involved in a Modular Housing Energy project funded by the DOE (\$60,000) for the last two years.

The major consideration with regard to this core operation budget is to define the scope of the fund-raising program to be implemented by PBA and the HRC to ensure this level of funding. Fund-raising will be the topic of the second report by the operations committee.

1993-94 HRC FUNDRAISING CAMPAIGN

To date, the 1993-94 fund-raising campaign has brought in \$37,300 toward the pledged amount of \$75,500. This goal must be reached in order to fund the four research projects that have been budgeted for this cycle.

The next agenda item will discuss present research projects.

RESEARCH PROJECTS PROGRESS REPORT

The next section of the agenda addresses industry consultant committee meetings which will review individual reports on the progress of current projects. The first four research projects listed below are sponsored by the HRC Advisory Council; the last project is sponsored by the DOE.

1. CAD/Infrastructure Applications in Residential Infrastructure Systems
K. Parfitt/C. McIntyre
2. Innovative Structural Framing Systems in Wood Engineering for Residential Construction
H. Manbeck/S. Taylor
3. Building the Healthy Home *P. Adams-B*
4. Fundamental Knowledge Requirements/Builder Certification Program in Residential Construction *J. Willenbrock/J. Julo*
5. HVAC Systems for Modular Housing
G. Yuill/ E. Werling

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Contributions and news items are
welcome. The deadline for summer issue
submissions is June 1, 1994.

PRIORITIZATION PROCESS FOR THE 1994-95 RESEARCH AND TECHNOLOGY

TRANSFER PROJECTS

The next agenda item will consist of reconvening the Industry Consultant Committee meetings in order to finalize the list of projects that will be considered for next year's funding. At our December meeting, the individual committees developed a list of projects which were formalized into project descriptions and distributed to the Advisory Council members for their review prior to this meeting. The HRC has also been soliciting suggestions from PBA members to be considered at this meeting. The existing HRC Emphasis Areas and the list of proposed project titles are listed below:

CAD/INFRASTRUCTURE SYSTEMS

1. Ground Water Infiltration Devices to Control/Delay Stormwater Runoff
2. Analysis of Review and Inspection Fees Charged by Municipalities in Pennsylvania
3. HRC Annual Infrastructure Symposium

STRUCTURAL SYSTEMS

1. Time Dependent Behavior of Structural Insulated Panels (SIPs)
2. Cost Comparison of Conventional Framing Systems Using Current Design Practices
3. Improved Efficiency of Wood Framing Systems

ENERGY ANALYSIS AND OPTIMIZATION

1. Optimization Analysis of Infiltration Control in Residential Construction
2. Duct Leakage Testing Procedures

CONSTRUCTION MANAGEMENT

1. Business Management Practices of Homebuilders
2. Overcoming Barriers to Affordable Housing
3. TQM Applications for Homebuilders in PA
4. Training Opportunities for Homebuilders Related to Building Codes
5. Business Management Practices of Homebuilders

TECHNOLOGY TRANSFER

1. Advanced Courses for PBA and GBI/CGR Grads
 2. Annual Housing Conference in PA
 3. Development of an Indoor Air Quality Instructional Manual
 4. Procedure for Reaction to "Burning Issues" of Research/Technology Transfer
- Individual committees will meet to solicit additional project descriptions submitted by Advisory Council

members and then prioritize a list for submission to the voting members. The prioritization process must ensure that projects address critical issues in the residential construction industry based on the input not only from the Advisory Council but also from PBA members and other related industry members. Projects must also fit into the emphasis areas of the HRC defined by the expertise of the project investigators.

Later in the day the entire Advisory Council will reconvene to hear presentations of each priority list by the individual committee's industry representative. The council will then vote and rank each project with regard to how it should be included in the April 20th Ben Franklin proposal.

1993-94 HRC BEN FRANKLIN PROPOSAL

The objective of the project prioritization process is to recommend a list of projects that will conform to the proposed 1994-95 budget. The Three-Year Plan, as recommended by the HRC Operations Committee, includes the following level of operations for the HRC for the next cycle:

| | |
|-------------------------|------------------|
| CAD/INFRASTRUCTURE | \$ 40,000 |
| STRUCTURAL SYSTEMS | \$ 40,000 |
| CONSTRUCTION MANAGEMENT | \$ 35,000 |
| ENERGY/AIR QUALITY | \$ 20,000 |
| TECHNOLOGY TRANSFER | \$ 15,000 |
| OPERATIONS | <u>\$ 40,000</u> |
| | \$190,000 |

1993-94 TECHNOLOGY TRANSFER PROJECTS

| | Computer-Based | Cost- |
|--|--|---------------|
| IMPORTANT | Estimating Seminar | Growth |
| | Fall 1994 | |
| National Builders Seminar Las Vegas, Nevada | Management Model for Residential Construction | |
| Computer Based Co Seminar (Harrisburg) | Fall 1994 | |
| Spring Advisory Council and Reception Dinner | Annual Symposium | Energy |
| | Fall 1994 | |
| Ben Franklin Proposal | Spray Irrigation | |
| Fall Advisory Council | On hold pending the State Legislature debate on changes to ACT 537 which will change the way in which the PA DER will approve and review spray | |

irrigation systems

HRC REPORTS

CAD Workshop

(To be announced)

Research projects reports described in this HRC NEWS issue and other HRC publications can be obtained by contacting Steven Taylor at the HRC, 212 Sackett Building, University Park, PA 16802, and requesting an order form. Reports can be obtained by submitting the order form, along with a check made payable to The Pennsylvania State University (\$75, Non-members: \$50, Patron Members; or \$25, Contributing Members) for each report requested. Leadership and Supporting Members receive free copies of research reports at the end of the HRC operating cycle.

The HRC has also published the second edition of the Housing Research Fact Sheets that describes the HRC Research Report Series to date. For a free copy, please contact the HRC at the above address.

This publication is available in alternative media upon request.

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