INNOVATIVE COMMUNICATIONS FOR A NEW DECADE OF ROOFING

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Significant efforts were put forth to enhance the quality of roofing products and designs. Various studies have been initiated to address specific problems in an effort to achieve "trouble free roofing." Most of our efforts focused on solving roofing problems. However, an additional effort must be made to communicate those solutions to enhance roofing quality in this decade.

With the widespread use of computers in the design field and the increased utilization by manufacturers, designers and contractors, it is only logical to think of computerization as the resource for a new decade. It will enable designers and contractors to have easy access to those essential factors needed while designing or installing a roofing system.

Computerized Specifications and Details
Manufacturers' specifications and details can be computerized and made available to users on floppy disks. This process will assure quality, due to the availability and accuracy of the details.

Computerized Wind Design
Such a program could be utilized by designers to compare various systems and investigate those requirements which are needed for a particular project.

Computerized Code Listings
Various manufacturers or other code agencies could program code requirements and make them available to users through a simplified program by which the user may gain access to accurate information at the push of a button.

Networking
Through modems and other communication lines, information pertaining to roof designs can be shared among the various parties involved. The information can also be updated and readily available to users.

A wealth of technical information is available to us today as a result of a team effort among various industry professionals. This information can be put into use by simplification and computerization, as well as faster communication.

KEYWORDS

Code listing programs, communications, computerized specifications and details, computerized wind design, networking.

INTRODUCTION

Looking into the 1990s, the roofing industry has been presented with the opportunity to enter a new era in technological advancement. The designer, applicator and manufacturer have available resources that must be explored and utilized to enhance communication, which will ensure the higher performance of roofing systems. During the 1980s, various organizations have made conscious and major efforts to develop new standards and improve the quality of today's roofing technology.

It has become essential, especially with the current resources, to unite today's technology in a team effort between the related fields.

ROOFING IN THE EIGHTIES

During the last 10 years, we have seen a great deal of growth in the roofing systems promoted by manufacturers. With a variety of materials, designs and aggressiveness in promoting such systems, it has become increasingly apparent generic roofing details are not the safest and most effective form of specifying and selecting a roofing material. In the '80s, organizations such as National Roofing Contractors Association, Single Ply Roofing Institute, American National Standards Institute, Rubber Manufacturers Association, etc. have helped to set the guidelines for major issues that have impacted roofing performance.

CURRENT RESOURCES

Until recently, manufacturers have relied on publications to communicate criteria and proper installation methods for their various products. Specifiers have used published manufacturers' specifications and details, and other documents published by roofing institutes to develop project specifications. Roofing contractors have relied on the same publications to complete installation proposals to specifiers.

In the process, and due to a variety of documents that required exploration, certain valuable information was often not properly communicated because of the extensive research required.

In a highly competitive market, specifiers and roofing contractors began to explore and adapt the newest technology to improve capability and efficiency. Toward the end of the last decade, we have seen the growing trend toward computerization.

ADAPTING NEWER TECHNOLOGY

Through computerization, many firms and companies are establishing a foundation for future tools of communication. Many specifiers rely on computerized software to complete project specifications and other bid documents. Many applicators are utilizing computerized estimation packages to successfully and efficiently complete their bidding process. Manufacturers are beginning to develop computerized software for utilization by specifiers and roofing contractors.

With this trend, many areas can be addressed, not only to improve efficiency, but to also enhance future roofing installations.

COMPUTERIZED SPECIFICATIONS AND DETAILS

Computerized packages for manufacturers' specifications and details are being developed as a supplement to their current publications.

This software will simplify the steps necessary for the specifier to complete project documentation. The details are typically stored on floppy disks, and can be loaded on hardware by the specifier, then retrieved and easily modified, if necessary, with minimal effort. The roofing contractor can also benefit, generating his shop drawing by selecting the applicable detail.

Based on job conditions, faster modifications could be initiated and approved by the specifier. Quality and efficiency associated with lower cost of operation will help to promote long-lasting roofing systems and eliminate discrepancies.

COMPUTERIZED WIND DESIGN PROGRAM

With the increased usage of single-ply systems and the variety of mechanically fastened roofing systems, along with the demand for higher wind performance, roofing institutes have defined the basis for essential elements to be considered when designing and selecting an economical and suitable roofing design.

To effectively utilize previous research and the wealth of information that is currently available, software could be developed to eliminate an exhausting information finding process. By answering a series of questions, the designer can easily select an appropriate design.

CODE LISTING PROGRAMS

Code agencies could develop a computerized software program to pinpoint those approved assemblies. The software can be categorized by manufacturers, systems and applicable components.

As an additional step, various manufacturers can develop specific software to address their systems as well as design criteria which is to be considered by specifiers.

With the availability of various information through these software programs, the roofing designer can begin a simple process to investigate available code approvals. Once a roofing system has been selected, the second step will be to ensure fire and wind performance and to designate additional enhancements to the previously selected design. The final step is to utilize the computerized specifications and details to complete the roofing proposals.

Efficiency and quality will result due to simplicity and availability of information. However, a great responsibility befalls the industry in updating and coordinating the ever changing data.

ESTABLISHING A BROADER BASE FOR COMMUNICATION

With the widespread use of computerization and software in the '90s, it is only logical to determine and select a simple process that is effective in updating and upgrading resources. The successful approach should be inviting and less sophisticated as well as adaptable.

Manufacturers will have to generate user friendly specification and detail packages, and manage their update among customers. Roofing institutes and code agencies could distribute software, or rely on "networking."

NETWORKING

When considering networking, it is important to utilize simple software to ease the updating process.

Through the use of modems and telephone lines, a main processing station could be linked to user's stations to ensure the availability of constantly updated information at the push of a button.

Roofing manufacturers can utilize the networking process to communicate information to their sales representatives or directly to the customer, whichever seems more feasible. A roofing contractor, by a simple investment, can equip currently used computers for adaptations.

The benefit of networking can be greater to specifiers. The process will allow the manufacturer to review roofing proposals in the design stage more effectively.

IMPLEMENTATION OF NETWORKING INFORMATION SYSTEMS

Effective implementation could begin by individual companies compiling their information system and making it available to designers. Designers can access the information system which can be categorized into specific files (such as code listings, wind design information or installation details). The designer will select the appropriate file and then continue, to access additional information.

As an alternative, a central communication agency could control information systems covering various roofing assemblies by their manufacturer. The information could be accessed by designating the desired company, the applicable roofing system and then selecting the design screen in question.

The central communication agency will develop menus/programs to provide access to the system, which will allow the manufacturers to submit (following those menus) their design criteria and other applicable information. The same process could be used for annual updates.

In lieu of electronic networking, individual companies or the central communication agency could offer membership for computer software that is programmed to operate on standard MS-DOS systems. The software package could be customized to focus on specific design criteria. The users will subscribe and designate the type of software applicable to their needs.

ADDITIONAL BENEFITS OF NETWORKING

Greater benefits can be foreseen from networking, all of which will enhance the quality of the installed roofing system. The roofing contractor can obtain the manufacturer's approval for his proposed shop drawings in a timely manner. Specifiers can effectively communicate with manufacturers during the design stage of the project to complete project documentation.

Manufacturers can develop much more effective means of communication with various roofing institutes, as well as their sales representatives or distribution centers.

The networking process has proven to be effective in the making of various products, and can prove its effectiveness when utilized to communicate technical data during the '90s.

CONCLUSION

Enhanced and effective communication, while ensuring quality installations, will help to concentrate our effort in generating new and other meaningful data that can be ef-

fectively utilized within the industry.

As we concentrate on developing data that is intended to improve the quality of the roofing system, we must always search for better means to communicate the results of our findings to ensure its use. Learning from other fields and implementing what technology is made available today to serve tomorrow's communication is a positive step into the future.