Budgets were established and met for this major interior renovation project. We welcome the opportunity to discuss your next project.
Will Carlisle roofs laid sixteen years ago last another sixteen years?

We wouldn't be surprised

They could last a lot longer than that. The earliest Carlisle Sure-Seal installations are already 30 years old and still going strong.

Re-Roofing right now over the old roof. No Disruptions. No Displacement. No Delay. No Problems. 10 year watertight warranty, when installed by Carlisle approved applicator.

Carlisle Universal Roofing Systems- Watertight elastomeric membrane coverings for almost any kind of roof with the advantages of: One source responsibility, low maintenance, durability, stability, clean application and readily available.

Rock Island, Illinois
309/788-8412
619 11th Street

Des Moines, Iowa
515/243-6286
510 S.W. 9th Street
Let us assist you in your overall space planning, work flow analysis and interior design concept. Your result will be a freer, flexible, more efficient environment that changes when you change — with the least disruption and cost.
On The Cover: John Woolson Brooks’ original 1928 interior space study.

Works In Progress

Meredith Corporation office remodeling
A far-reaching and exciting interior redesign establishes a forceful corporate image.

Designing Light, Color and Pattern
Psychological research reveals a fundamental set of interior design concerns.

Experiential Design Considerations
Understanding the special relationships of the built environment that shape our living experience.

Residential Interiors: Housing Models
Housing models for sales purposes derived from architect developed designs.

News
Phase III Expansion For Medical Center

In addition to excellent health care, patients in Rush-Presbyterian-St. Luke's Medical Center's new 8-story addition in Chicago will have the added psychological benefits of a natural atrium environment. Since patient rooms around the atrium face an interior space, a more energy efficient building mass is provided at a lower initial cost and lower overall operating cost.

Both a five-story and three-story atrium will be surrounded by patient rooms. These atriums meet natural light and ventilation requirements as well as provide patients with a restful view of tree and plant filled spaces. The atriums were jointly designed by Hansen Lind Meyer, P.C. and Solomon, Cordwell, Buenz & Associates, Inc. so that three additional floors can be added to the patient towers without relocating the skylight.

Since this was the first time in the State of Illinois that patient rooms have been designed to face an atrium space, Hansen Lind Meyer assisted the City of Chicago in writing new building code requirements for this application.

Visitors and new patients will first experience the atrium space as they step off the elevator on the new fourth floor 'main street' of the hospital. This floor connects with the entire medical center campus. Separate traffic patterns for inpatients, outpatients, visitors, professional staff and supplies as well as the improved proximity between related activities were addressed in the overall design of the new addition.

In addition to 222 replacement beds, the Phase III expansion will incorporate a cancer treatment center, supply, processing and distribution center, 22-room surgical suite and a 34-bed surgical intensive care unit. The long range planning of 2,000,000 square feet calls for the new construction to be integrated with an overall modernization program for this 873-bed tertiary care and medical teaching facility. Over 180,000 square feet will be remodeled in the recycling of existing turn-of-the-century buildings.

Urban Housing Diversifies Downtown

Elsie Mason Manor, a 150 unit, 17-story apartment project developed for The First Baptist Elderly Housing Foundation is slated for addition to Des Moines' resurgent downtown core area. Designed by Brooks, Borg & Skiles Architects and Engineers, the project is constructed on 'air rights', requiring only 1500 square feet a grade for an entrance, service lobby, and stair. The second floor will house the administrative office and support areas as well as a manager's apartment. A community space is also developed along the south at this floor with an adjacent kitchen. Plans call for skywalk system connection into these spaces, ultimately providing convenient circulation throughout the downtown to vital services. The third through seventeenth floors contain the apartments, each a single bed unit with private bath, kitchen and living-dining area. One apartment on each floor has been designed to consider special handicap needs, while all apartments enjoy individual temperature controlled self-contained heating and cooling units. Additionally, the typical floor provides
Own Your Business Phones?

Why not...Why pay forever?

You should know about our phones and our amazing computerized phone system which can save you money!

At last there's an electronic phone system that lets small businesses, or small departments of large organizations enjoy today's most advanced communications features...even if you have as few as 4 phones.

The Intelligent Telephone™

The key, of course, is computerization. Every phone in the Equity System actually has its own built-in micro-computer with an electronic memory. In other words, the phones are "intelligent" with abilities you've always wanted in your system.

Look into these benefits:

☆ SUBSTANTIAL TAX SAVINGS
☆ BUILT-IN COMPUTER INTELLIGENCE
☆ HANDS-FREE INTER OFFICE COMMUNICATION
☆ NO INSTALLATION CHARGE
☆ FAST SERVICE
☆ AN OPPORTUNITY TO MODERNIZE YOUR OPERATIONS

A national sales & service telephone interconnect organization.

Call us for a quote before you buy, lease or rent any business telephone system.

Executone

© A Member of Continental Telephone System
Serving Central Iowa 22 Years

Executone - Central Iowa Inc.
7600 University Ave, Suite B
Des Moines, Iowa 50311
515/274-4737
community space for common usage with balcony access and central laundry and service facilities. The structure is a flat plate reinforced concrete design resting on pile foundations with an exterior finish of precast concrete compatible with the newly constructed and adjacent parking facility.

Library Extends Pedestrian Plaza

Hansen Lind Meyer, P.C. are currently directing construction on a multi-media library located in downtown Iowa City. In addition to relating to the existing architectural fabric downtown, the library is important in the aesthetic termination to the pedestrian plaza area it establishes. The 46,900 square foot structure is designed with expansion capabilities to respond to a minimum of 20 years growth. A two-story brick veneer library, it incorporates operable windows designed for flexible and economical heating and ventilating control. A cable TV studio within the building can also be used for closed circuit TV taping and programming. The main entry lobby, a large meeting room and restrooms are oriented to allow isolation for public use after hours. The $2,700,000 project is targeted for a November 1980 completion.

Corporate Headquarters For Insurance Company

Construction is moving on the new home office building for Continental Western Life Insurance Company near Des Moines Golf and Country Club in West Des Moines. The 65,000 square foot project initially will allow rental space for associated uses.

The H-shaped building’s entrance is located on the upper of three levels, and opens into a large, two-story atrium, with open office areas located on the lower level. Two wings are initially available for tenants, but will serve to provide expansion space for the fast-growing company in their long-range planning. The building has a concrete structural frame and brick masonry exterior, and brick is the major interior wall material.

Major design considerations of Brooks Borg and Skiles, Architects and Engineers, also focus on a number of energy efficient considerations. These include earth berming, thermal mass exterior walls, insulating glass, regressed windows for sun shading, a recirculating variable volume heating and cooling system and variable intensity light switching.

The project is scheduled for completion in the spring of 1981.

Northwestern Bell Renovation

Northwestern Bell Telephone Company will soon begin renovation and conversion of what now serves as a Des Moines equipment facility into overflow office space. The 25,000 square foot project will accommodate both administrative and general offices, training facilities, conference and lounge spaces and equipment testing facilities. Due to the nature of the equipment in the building presently, there are few penetrations in the exterior skin which permit the entrance of natural light. With energy concerns important, new penetrations were minimized and localized by the incorporation of a single skylit atrium. In addition, a new electrical system employs electronic light sensors which mix and balance natural and artificial light to reduce energy consumption. Variable air volume boxes in individual rooms modulate air requirements according to particular needs. The system will facilitate evening, weekend and holiday shut off. Construction is slated for a July 1980 start.
No two Action Office installations are alike. Because no two organizations are alike.

Herman Miller's Action Office system takes its cues from the particular needs of your organization.

- To provide carefully tailored work environments that support a wide variety of tasks.
- To improve communications between individuals and among entire departments.
- To allow a custom appearance that considers both organizational image and employee personalization.
- To position vital work surface, filing, reference and display functions into the zone easiest for people to see and reach — while reducing floor space needs by as much as 20%.

What's more, your Action Office environment will adapt easily to changing work activities and communication patterns — at a fraction of the usual cost. With proper planning, you can affect office reconfigurations for less than $1 per square foot compared to over $20 per square foot for restructuring fixed wall environments.

The Action Office system by Herman Miller. It's more than a place to work. It's a way to work better. Call us today for complete information.

pigott, inc.
3815 ingersoll avenue
des moines, iowa 50312
515/279-8879

iowa's largest furniture systems dealer
planners—consultants—contractors—furnishing systems for the office, health care, laboratory and educational environments
We Specialize in

**CONTRACT CARPETING**

Representing the Major Carpet Mills

**Contract Carpet by Bigelow**

Because of the intrinsic strength of WeldLock and the yarn-dyed process used, 90% of the ordinary problems of contract carpeting are eliminated including color match, sagging and raveling.

The dramatic increase of direct-glue-down installations has resulted in Bigelow developing WeldLock, a superior backcoating system. WeldLock eliminates the need for laminated secondary backing, therefore is not subject to delamination. It locks the tufts into a single primary back, giving tuft-bind strength of 20 lbs., and an edge-ravel resistance three times greater than conventional backing systems.

Stati-Tuft WeldLock is coordinated in color and texture with the Bigelow Stati-Lok Modular Tile System and Stati-Tuft (the broadloom for conventional installations). It offers versatility of product and color coordination in any type of commercial installation, including header ducts.

**Negotiated Bids • Union Men Used on Union Contracts**

**We Have the Experience • You Can Count on Getting a Good Job**

**Home Carpet**

2453 S. W. 9th Street • Des Moines, Iowa 50315
Phone 515/243-2161

*Price subject to change after Oct. 1, 1980 • Price includes basic installation only—Extra Addl.
a NEW 14-year-old roofing system!

Yes, Uniroof is new. New to the United States, that is. But this remarkable single-ply, flexible 20-year roofing system has been used successfully for 14 years... in the moist, tropical climate of the Far East, in the dry blistering desert of the Middle East, in the cold climate of Europe. Uniroof is a unique material made from DU PONT HYPALON® — a premium synthetic rubber which, once laid, stretches with structural movement and resists weathering, smog, ultraviolet radiation, and attack by chemicals.

The Hypalon sheet is bonded at the factory to a fibrous backing sheet, enabling the material to be applied to roof decks with cold, water-based adhesive. Uniroof is ideal for all types of buildings in any environment. It is a complete weatherproof roofing system which is fire retardant, gives great freedom to design, and lends itself to steeply-pitched and flat roofs, for both new construction and reroofing.

Uniroof — a Single-ply, Cold Application:
- has a trouble-free life of more than 20 years
- is not affected by ultraviolet rays or extreme temperatures
- meets all I.C.B.O. requirements
- comes in rolls 3' x 108'
- weighs less than 30 lbs. per square installed
- requires no capital equipment to install
- eliminates material loading problems
- is easily patched if punctured
- has superior reflective qualities
- is available in non-fading colors
- stretches 600%
Meredith Corporation
Office Remodeling

Meredith Corporation, a major publisher whose corporate offices sprawled to occupy the company's original 70-year-old printing plant, considered new quarters in a suburban development. However, historically and strategically tied to the central downtown, they chose the more economical alternative and directed the architect to convert the plant to a modern office facility.

Primary design objectives were to simplify and centralize internal circulation, improve energy efficiency, provide on-site parking and unify the exterior of the building which had undergone several distinct utilitarian additions. Construction was to proceed while maintaining operation within the facility.

In June of 1976, Meredith Corporation retained Charles Herbert and Associates together with Stevenson and Schilling, Consulting Engineers, to assist in designing a renovation program for the existing corporate headquarters building. The broad objective of this program was to upgrade the Locust Street building to a level appropriate to continued use as corporate headquarters for an additional twenty years.

Meredith Corporation's charge to the design group was, briefly, that the building would serve as corporate headquarters for another twenty years, and should therefore be renovated and upgraded to a level appropriate to this continued use. The Architect's agreement with Meredith expanded on this charge and defined four basic planning objectives:

Clear and simple patterns of auto and pedestrian approach to the building must be established.

Corporate departments must be placed properly in relation to one another, to visitor and employee access and to support facilities.
Internal circulation patterns for both people and materials must be direct and responsive to functional requirements. An appropriate level of environmental and architectural quality must be achieved: spaces must be interesting and visually exciting as well as physically comfortable.

Two final objectives were implicit: the design program had to be affordable, and it had to be staged so as to produce the least possible disruption of operations.

Building

The present Locust Street building is a complex comprised of the original building, 80,000 sq. ft. plus a decorative tower, and five or six major additions which spanned a period of some 50 years and increased the total area to nearly 400,000 sq. ft. There are five levels: three office floors of some 57,000 gross square feet per floor, plus a basement and sub-basement totaling over 225,000 sq. ft.

In general terms the building was sound. All phases of construction were carefully designed and built, and maintenance over the years had been more than adequate. On the other hand, a number of deficiencies existed which of necessity were considered for correction before this building could function adequately as a corporate headquarters:

Access to the building and circulation of people and materials within were most awkward. A comprehensible and direct system of entrances, corridors, stairs and elevators, a basic necessity in a building as large as this one, was possibly the most urgently needed planning improvement.

Building mechanical/electrical systems (i.e., lighting, electrical power and telephone distribution, heating and especially air conditioning) had become an expensive maintenance item due to old age.

Walls and partitions within the building defined spaces which often were not responsive to current functional needs. Most of these walls were originally intended to be permanent, and relocation became difficult and costly.

The architectural quality of the building materials and finishes was marginal. The most difficult aspect of this problem is of course age, but there was also a great inconsistency in materials and details: the building strikes one as a large collection of building projects,
each disconnected in time and philosophy from the others. Both inside and out, the building needed unit of form and materials.

The exterior walls of the building were not adequate by today's standards of energy efficiency. Winter heat loss, and more importantly summer heat gain, were excessive, and hence expensive and wasteful of energy. In addition, those walls were a continuing maintenance problem.

**Building Revisions**

The four existing light courts have now been enclosed by the addition of a transparent roof or skylight. Walls around these courts have been removed or have had windows filled in. In addition to providing some additional interior space, this revision added greater visual excitement by providing two- or three-story skylighted areas for interior plantings. Perhaps most important, the courts became reference points to help establish clarity and direction to a revised system of main corridors.

Closely related to the light court revisions noted above, a system of main corridors has been established, and five main exit stairways have been developed. Two of these stairs are new; two result from a complete renovation of existing stairs; the fifth is the existing northeast stair. All of these comply fully with the requirements of the Building Code, including the requirement for an ex-
from stairs directly to the outdoors. It should be noted that corridors on all three office floors are substantially identical, an important consideration in the quest for clarity of the circulation system.

A new main entrance lobby has been developed at the first floor level of the light court immediately south of the tower. Visitors or employees may enter this lobby directly from the new tower entrance, or may approach from the parking structure to the east through a wide corridor bracketed by lounge areas, the credit union, and the Corporate P. R. department. A new elevator serves all floors of the building from this lobby.

Large areas suitable for open plan offices have been developed. Typically, certain offices which will have to be fully enclosed have been grouped along corridors, which will also have to be enclosed to comply with the Building Code. Remaining floor areas will be developed for open planning, with new acoustical ceilings, new lighting, air conditioning and power and telephone systems, new carpet and furnishings. This arrangement, with private offices at corridors and away from the outside walls has several advantages:

A smaller quantity of permanent partitions is required. A perimeter circulation path is possible which can reduce distracting traffic past open plan work stations and can also serve as a buffer zone for the air conditioning system, since temperature control is less critical. Employee resistance to open planning should be reduced because of greater visual contact with the outdoors.

Building mechanical and electrical systems have been upgraded to provide modern, efficient heating and air conditioning, new plumbing fixtures, new lighting and electrical power distribution.

In total, this project has dealt professionally with many of the diverse aspects of contemporary architecture such as adaptive reuse, energy conservation, new technology, historic significance and association, without taking it all too seriously and losing sight of the users and the community.
Designing Light, Color and Pattern

by Joanna Tamer and Mayer Spivack

We are currently consulting to the National Institutes of Health in Bethesda, Maryland regarding the effects of interior design on hospital patients. Our Design Log (see AIA Journal, October 1978) "Specifications for Light and Color" details research, environmental analysis, performance requirements and design specifications for the design of light, color, patterns and textures in the four psychiatric research wings of the National Institutes of Mental Health. Our "Performance Requirements for the Interior Design of the Ambulatory Care Research Facility" offers the architect performance requirements regarding the effects of the sensory (visual, acoustic, olfactory, tactile, kinesthetic) environment on the behaviors (orientation, social interaction, traffic flow, waiting, parenting, etc.) of patients and their companions.

The National Institutes of Mental Health units house patients and staff involved in the research and treatment of the major mental illnesses. In these areas patients reside, mostly indoors, for many months. At the Ambulatory Care Research Facility (ACRF), staff members research and treat severe and/or terminal diseases in volunteer patients on an out-patient basis. To ensure that all the essential behaviors were included in the recommendations for these two different settings (residential and outpatient) Archetypal Place Theory (Architectural Forum, 1973) was taken as the guideline for study.

In consultations on the effects of design on the perception and behaviors of the users, we often find that the environment presents a great deal of information which is of no significance to the user; in fact, much meaningless information interferes with the users' attempts to gain meaningful information from the environment. The following guidelines from work with the NIMH present information on designing environments which reveal meaningful information to users, rather than information that is confusing, conflicting, distorting or disorienting. In settings in which the users may be under stress (hospitals, mental health centers, social service agencies, courthouses, prisons, etc.), it is essential to present clear and meaningful information from the environment.

**Increasing Signal-to-noise ratio in the environment**

The primary issue in designing to reveal meaningful information is the increase of the environmental signal-to-noise ratio. The environment always contains the potential to present 'noise' in the environment rather than 'signal.' Poor lighting can produce veiling reflections on a sign; the reflections are the 'noise,' the sign is the 'signal.' The noise interferes with the signal, causing the user to search for the information. Patterned surfaces can produce 'edge effects,' distracting workers from important visual tasks; again the 'noise' in the environment interferes with the signal. Institutional lighting systems can reveal faces and expressions as 'flat' and without any facial modelling, interfering with the reading of expressions and intent during communication. In settings where stress is high, this environmentally-produced noise is particularly dysfunctional.

**The use of lighting to reveal meaningful information**

All lighting should achieve high quality renderings of
human skin tones and three-dimensional form modelling (faces, expressions) particularly at communication nodes—doorways, path junctions, information booth, reception desks. The careful design of light sources and fixtures can reveal accurate skin tones, rather than the jaundiced coloring created in most institutions by extensive use of fluorescent fixtures, and can reveal facial modelling rather than "flatness."

All illumination systems should be designed to emphasize and reveal the true three-dimensional depth and volume of architectural space. Large, open architectural spaces should seem spacious but not overwhelming in scale. Tunnels and corridors should be carefully designed to avoid distortions in perception which make them appear longer or narrower than they really are. (See Sensory Distortions in Tunnels and Corridors, Hospital & Community Psychiatry, January 1967).

Lighting should reveal floor surfaces with emphasis and fidelity, particularly height variations, slope, texture changes and edges of any kind, so that visually impaired, medicated, handicapped or mentally ill patients, or any persons under stress may receive clear, accurate information for navigation and safety. For the same reason, avoid otherwise arbitrary shadow/brightness contrasts at floor level which might cause one to misperceive changes in character or elevation where there are none.

Aged, mentally ill, heavily medicated or highly stressed patients may tend to hallucinate. The interior environment should be designed to avoid misleading visual information, even at the most subtle levels. For example: in order to prevent unwanted, confusing reflections of one's self approach in glass doors (interior and exterior), lighting must be balanced on both sides of the glass. Lighting in a street entrance must be balanced for brightness against lighting inside, and against variable daytime and nighttime light and weather conditions outdoors.

The use of color and pattern to reveal meaningful information

All colors for furnishings and upholstery must be selected under lighting sources identical to those specified by lighting designers in order to avoid unfortunate color emphasis, cast and metamerism. Similarly, materials which will receive natural light should be selected for good appearance and color constancy under both sources.
PROJECT: ST. LUKE'S HOSPITAL ADDITION, SIoux CITY, IOWA

CONTRACTOR: KLINGER-HOLTZE A JOINT VENTURE

ARCHITECT: HENNINGSON-DURHAM AND RICHARDSON

WE FEATURE:
MODERN HIGH PRODUCTION EQUIPMENT
SKILLED PERSONNEL
ACCURATE FABRICATION
  • STRUCTURAL STEEL
  • REINFORCING STEEL
  • MISCELLANEOUS STEEL
TRUCK FLEET FOR ON TIME DELIVERY
COMPETITIVE PRICING — OF COURSE
LET US QUOTE ON YOUR NEXT STEEL REQUIREMENT.

CALL TOLL FREE IN IOWA
800-352-4986

801 DIVISION ST. • SIoux CITY, IA, 51102
PHONE (712) 252-4181 — TELEX 480145

NATIONWIDE: CALL
800-831-0874

YOUR DEPARTMENT STORE FOR METALS

STEEL SERVICE CENTER
FABRICATORS STRUCTURAL AND PLATE
BARS – MESH ACCESSORIES
MILL SHIPMENT PIPE – TUBING MECHANICAL STRUCTURAL
CONTRACT MANUFACTURING PARTS – PIECES COMPLETE ASSEMBLES
METAL CASTING GRAY IRON & DUCTILE CASTINGS PATTERNS HEATING TREATING
Patterns must be handled with extreme caution. Patterns on carpeting (grids, checks, parallel lines) should be avoided completely, as they tend to generate moire patterns, exaggerated optical/kinesthetic illusions, to block accurate perception of distance, flatness and level, to force traffic to one side or another, to focus obsessive attention; and to encourage locomotion behavior controlled or modified by the pattern.

Avoid patterned floors and walls in any areas where visual tasks are performed (nurse's stations, etc.), as they interfere with natural eye movements in reading and scanning, and cause distracting 'edge effects.'

Contrast (and color itself) is always a stimulus which attracts visual attention. Color and tone contrasts should be selected and placed so as to assist in clarifying and defining volumes, forms, edge changes and planes. Great contrast, either in color or tone, should not occur as an edge or line perpendicular to a movement path at floor level.

Sharp contrasts in the horizontal plane (as along a corridor or wall) should be avoided because they tend to exaggerate perspectives and body movements while walking.

These selected guidelines indicate how subtly interior design can impact on users, particularly on a sensitive population. Work on light and color can eliminate much of the distortion and "noise" in the environment. The issues beyond light and color - acoustics, air quality, orientation, social interaction and more - point to the need for continuing study and design efforts in these areas.

Mayer Spivack and Joanna Tamer, of Spivack Associates, Inc., Newtonville, Massachusetts, are leading consultants in the environment and behavior field. Recently, Spivack Associates has been involved in consulting to state and federal agencies on issues of a new national design policy and its implementation.
Your Pella distributor has additional information on these special fixed units which can expand your design options:

WOOD TRAPEZOIDAL FIXED UNITS—Factory-assembled trapezoidal units are available in custom sizes with frame/sash patterns matching those of Wood Casement and Awning fixed units. Maximum outside frame dimensions are 65" x 73" (1,651 x 1,873 mm); minimum frame dimension is 8" (203 mm). Double glazing panels are available for units with glass areas up to 20 ft² (1.86 m²).

CLAD FRAMES—Shown in section above, these custom-size glazing frames accept glass or Pella Clad Panels. The uniform section at head, jambs and sill is compatible in design and finish with other Pella Clad Products, enabling use of frames above, below and beside windows and doors. They offer significant savings over the cost of Clad Windows; note, however, that Clad Window and Frame glass lines do not match.

Assembled frames can be factory-glazed with standard sizes of single or insulating glass to 60¼" x 74½" (1,530 x 1,902 mm). Outside frame dimension is 2½" (64 mm) larger than glazing material all around. Double or triple glazing panels and Slimshades are not available in Clad Frames. Trapezoidal frames are offered with single glazing or Clad Panels installed.
### SPECIFICATIONS
- **Construction:** Tufted
- **Gauge:** 5/16”
- **Stitches Per Inch:** 8.1
- **Pile Height:** .315
- **Yarn Content:** Berber-style Dupont Antron® III, Nylon
- **Yarn Weight:** 40.00 oz. per square yard
- **Primary Back:** Polypropylene
- **Secondary Back:** Jute
- **Total Weight:** 79.00 oz. per square yard

---

**Maplewood Berber Style**

See The Pinehurst Dealer:

- **Matt Parrott & Sons Company**
  514 Bratnober Street
  Waterloo, Iowa 50704 1-319-234-4621

- **Lakes Furniture Div. of Fagan Furniture of Humbolt**
  Highway 71 West
  Spirit Lake, Iowa 51360 1-712-336-1539

- **Carpet World of Fort Dodge**
  529 1st. Avenue South
  Fort Dodge, Iowa 50501 1-515-576-4176

- **Mason City Tile & Marble**
  1416 18th. Street S.W.
  Mason City, Iowa 50401 1-515-423-3852

Or Call Pinehurst Factory Representative at 22
Delustered Antron III

**SPECIFICATIONS**
- **Construction:** Tufted
- **Gauge:** 5/32
- **Stitches Per Inch:** 6.0
- **Pile Height:** .278
- **Yarn Content:** Berber-style 100% Antron® III, Nylon
- **Yarn Weight:** 34.00 oz. per square yard
- **Primary Back:** Polypropylene
- **Secondary Back:** Jute
- **Total Weight:** 70.50 oz. per square yard

**Willow Haven and Willow Haven Stripe**

For Further Information

**Mathew Carpet Center**  
501 A. Avenue West  
Oskaloosa, Iowa 52577 1-515-672-2544

**BMS**  
304 15th Street  
Des Moines, Iowa 50309 1-515-245-4376

**Fashion Floors of Sooland**  
305 West 7th Street  
Sioux City, Iowa 51103 1-712-252-4382

**Thomas Avenue Carpets**  
824 West Thomas Avenue  
Shenandoah, Iowa 51601 1-712-246-3874

**1-800-228-9447, Nebr. Wats: 1-800-642-8532**
"The time has come when we can knock away the awkward fabric of analogy and study our architecture as a living thing, considering not whether we are filling in the history form correctly, not whether we are producing things to compare with the Parthenon or Chartres Cathedral, but whether the architecture we are making is or is not adding something to the experience of living. That is the only test that is worth anything. Therein is the architect's only absolute and imperishable reason for surviving; for, disappointing in this, the rest of his responsibilities could now all too easily be sapped by planners, structural engineers, industrial designers, and interior decorators...It is time for the architect to take a new and more positive view of his functions, to learn to study not merely minimum requirements, but maximum possibilities; to learn not only how to economize space but how to be extravagant with it; to study the overtones of architecture and the geometrical discipline of space as space: to learn not only to use space but to play with space."

—John Summerson (pg. 217, Heavenly Mansions, "The Vision of J. M. Gandy")
Perhaps the most important objective of environmental design is the creation of places that help people realize their full potentialities as thinking, feeling human beings. This is certainly the objective identified by John Summerson in the quotation on the preceding page as "the architect's only absolute and imperishable reason for surviving"; but it is very hard to achieve this objective today. Architects around the world are under great pressure to respond exclusively to incomplete design criteria: short-term economics, technological and constructional expediency, the ephemeral demands of fads and styles. And architects have relied too much on acts of badly informed self-expression, ingenuity, and intuition. The discouraging results of this kind of design are all around us; and, of course, much of the environment isn't really designed at all.

When we look critically and honestly at the built environment today, considering especially its long range quality and significance, we do not find much that measures up to the best we can imagine and hope for, not much that is as good as it should and could be.

Architects explain that they are free to design only what society wants and that their work can be no more considerate than society allows. While there is truth in this explanation, it is also an abrogation of responsibility. Societies around the world expect architects to provide not only blueprints and constructional expertise, but man-environment insight and leadership as well. Even our confused society expects its architects to provide leadership about supportive environmental conditions and values.
Quality Concrete from our Growing Fleet of Trucks

Serving the Construction Industry

In these times of rising costs and high interest rates we can be of substantial help to architects, building contractors or the home builder. We furnish the specified items at a competitive price and on the site at the time specified. We also stand behind our materials and workmanship, so that the job can stand inspection with confidence. Our reputation is built on our years of customer satisfaction.

we furnish quality construction items and supplies to an impressive number of Iowa builders and contractors

From our warehouse

- REWIRE ROLLS
- RERODS
- INSULATION
- styrofoam
- Expanded Polystyrene
- VISQUEEN
- FIBER EXPANSION JOINT
- CURES & SEALERS
- CEMENTS & LIMES (Bags)
- MORTAR & CEMENT COLORS
- FORM COATINGS
- WALL TIES
- PLASTER PRODUCTS
- Gypsum Products
- Metal Products
- GROUT & HARDNERS
- BONDING AGENTS

Plus many other construction items

CROWN

REDI-MIX, INC.

1108 S.E. 30TH ST. • DES MOINES, IOWA 50317
GENERAL OFFICE 515/263-0202  DISPATCH 515/282-8345

YARD PRODUCTS • BRICK SAND • PEA GRAVEL • LIMESTONE • WE DELIVER OR AVAILABLE AT PLANT
But many of our architects and, unfortunately, many of our architectural schools have failed to develop the solid, re-useable base of theory and design criteria necessary to put them in a position to provide this leadership. Good environmental design, the design of supportive and significant places, depends upon informed response to important and comprehensive considerations.

Places that are genuinely good and right in the broadest sense always provide their occupants with many important opportunities. Consequently, they remain meaningful over time.

A place that is imprintable establishes opportunities for its occupants to imprint and, thus, to realize greater place-possession.

A place that is changeable establishes opportunities for its occupants to make changes as their circumstances and needs change.

A place that contains spatial variety establishes opportunities for its occupants to find support for many purposes and many states of mind.

A place that contains many carefully developed subspaces establishes opportunities for its occupants to realize multi-use; and a place that is organized to be more than just a series of un-related spaces establishes opportunities for even broader interpretation and use.

A place that is organized so that its spaces may be joined or separated establishes opportunities for its occupants to realize large spaces as well as small, and combinations thereof.

A place that collects great amounts of natural light and that also has a system for controlling that light establishes opportunities for its occupants to realize light variation.
A place that is ever-changing because of the way it
gathers in and dramatizes natural light establishes op­
portunities for its occupants to find pleasure and
refreshment in that quality.
A place that has been organized and shaped in
response to its particular, unique physical context
establishes opportunities for its occupant to become
more aware of that context.
A place that builds upon previously valued conditions
or upon significant memories (whether archetypal or
personal) establishes opportunities for its occupant to
find meaning (whether profound or trivial) in that
historical continuity.
A place that achieves all or many of the opportunities
above inevitably has a broad and complex basis.

For many years an unbalanced and limited value base
has caused environmental development to be less than
satisfactory: often unsupportive, constraining, and rigid.
Several prevailing practices have been the instruments
of this.
The man-made environment is usually developed in
large chunks and discontinuously, both in time and
space, as if each piece had to be auspicious and
autonomous, or, at least, as if each had to be done all
at once and for all. This practice has caused tremen­
dous, often fatal, impact on what exists, and has
spawned the habit of not developing the spaces with
the greatest experiential potential, those between
buildings. The meaning that can be provided by the
undesignated, relatively open character of these
spaces is very great and there is no doubt that they
have contributed much, not only to the experiential
richness of many cities (especially some European
cities), but to places at other, smaller scales as well.)
Economic and technological considerations often
dominate the design of the environment instead of
humane development. The experiential character of
places is determined by land-value formulae,
technical convenience, codes, and arbitrary budgets
instead of by careful, thoughtful consideration of the
experiential supports and opportunities that will be
needed as time passes and as circumstances
change.

Architects should strive to provide such supportive
and liberating physical conditions in the built environ­
ment. They should realize that they provide, as they
design, the stages for the many changing activities of in­
dividual lives; and, as they do so, they should remember
that a good stage ALWAYS offers the broadest possible
range of helpful conditions and opportunities.

In other words, whether because of the simultaneous
presence of many people or because of changes that oc­
cur constantly, an experientially supportive environment
must be tightly packed with diversified opportunities and
supports.

Reprinted from "Experiential Considerations in the Design of the
Built Environment." Class notes published by William Klein­
sasser, Spring, 1978. University of Oregon Department of Ar­
chitecture, Eugene, Oregon.

---

To Better
Serve You...

* Expertise in corporate
  Aviation Planning
* New Beechcraft Sales
* Used Aircraft Sales
* Air Charter
* Beechcraft Quality Service
* Excellent Ramp Service
* Avionics Sales Service
  and installation

NEW AND USED BEECHCRAFTS IN STOCK
FOR IMMEDIATE DELIVERY

Ask for a demonstration

Write on your letterhead for our Kit:
"Company Airplanes,
Who Flies Them?"

ELLIOTT BEECHCRAFT
Dept DFH-1A
P.O. Box 100 • Moline, Ill. 61265
The future is in your hands.
You have a unique opportunity to influence the energy future all of us must share. Incorporating energy efficiency in each structure you design will result in substantial cost savings throughout the life of the building. And you'll be making a permanent contribution to the proper use of limited energy resources.

Pressures are mounting for increased government regulation of energy systems and related structural design. Your responsible leadership in this area can help eliminate the threat of additional regulation. And your efforts will create exciting new opportunities for innovative design.
Whoever said paving surfaces had to be dull. Not Marquart. Right now Marquart has Paving Stone on display. It is an attractive paving surface available in design patterns and a variety of colors.

Tested and tried in the European market for thirty years, yet Paving Stone is the new paving surface in our area that’s as strong as it is attractive.

Use long-lasting Paving Stone for driveways, parking lots, patios, pool decks, and sidewalks.

Paving Stone. Another great building block from Marquart Concrete Block Company.
sketches by David Soliday

Residential Interiors: Housing Models

by Bloodgood Architects
The term Interior Architecture, may be an overly formal description to the extremely varied furnishing, decorating and interior design work of many Architects today. Interiors projects fall into two very different types; the more typical commercial and office space outfitting and remodeling, and housing models for residential sales purposes.

Generally, in today's specialized world, speculative housing units themselves have been designed to appeal to a particular target market. The interior design and furnishings must enhance the unit to appeal to the various target markets envisioned as potential buyers. In addition to the standard middle-aged, middle-class executive move-up market which has spawned most of today's suburban single-family houses, demographics now indicate other buyer potentials for home builders. Typical target markets would include couples, singles, older couples, etc., all of whom want to participate in the inflation and tax benefits of new or continued home ownership but who do not want the typical family-oriented suburban single-family house.

Often, we are designing the interior environment to enhance the basically plain as-delivered interiors of model housing units for:

- The empty nestor couple whose family has grown and gone. They are usually looking for a comfortable, settled look that allows their furnishings and collections to look at home in a newer, more contemporary environment.
- The never nested couple, working with two incomes who do not plan on having children in the immediate foreseeable future. They are looking for easy-care, relaxing surroundings with soothing colors in which to unwind after their busy daytime hours.
- The newly nested couple with 1½ children already in existence, who need to move out of their apartment or first, early-married home. They want to be shown a bright environment that develops its interest from color and castoffs reused with imagination instead of money.
- The single (either divorced with a child or two or the never married). They want to be shown the ease of moving into the new housing lifestyle, the economics of making it work on an often limited income.
- The executive family who may be seeking planned unit development alternatives to the typical single family house built and sold one at a time. They need to be shown privacy for different members of the family and good spaces for entertaining their and their children's friends.

Thus, this target market group sets the design goals of merchandised housing units rather than having a known individual for which to design. The way often similar housing units are furnished can give them an appeal which is otherwise not obvious to the various market segments. The older couples want rather formal, well-detailed bookcases and shelving for collectibles plus luxurious wallpapers to give an established value enhancement. Younger families want to be shown built-ins that look as if they could have done it themselves. The goal is to create the interior character that makes each market target group feel right at home within one model. Individual color themes, accessory styles and decorative treatments help all of the shoppers sort out one model from another, easing their potential purchasing decisions.

While most buyers expect to do their own decorating, many will come back to the models again and again to see how details were executed. The interior decorating of each model must make the buyers aware of the easy economical things they can do to make their own home as spacious, convenient and easy to decorate as possible.

The process that guides much residential work can be broadly categorized in the following steps, but realistically there is a lot of give and take and overlapping of steps.

1. Write a detailed program budget of goals of approach.
2. Receive from the owner the contract signed program along with the funds to make the furniture and accessory purchases.
3. Formulate a detailed cost estimate of all moveable items, i.e., purchase, delivery and installation of all furniture, draperies, accessories, art work, and wallpaper (material only). These items are paid for by the architect.
4. Establish costs of all built-ins and fixed items such as light fixtures, shelving, paneling, painting,
carpets, and wall covering installation. These items are normally paid for directly by the builder/owner.

5. Determine where and how you want to purchase, warehouse, ship and install all of these items. It is essential to assemble all of the items in one or two places under the designer's control in such a manner that a running inventory can be maintained. Often a major supplier of many of the items will act as one of the collection points. It is important to get the names of the people you deal with at "the factory". Computer foul-ups or "we didn't receive the fabric in time" are recurring excuses. Be flexible enough to switch to an alternate furniture piece. Antiques, art work, and most accessories are often purchased impulsively. Art fairs and purchases during trips provide sources to inject freshness into the decor to avoid looking too regional.

6. Formulate the materials selection with actual samples; samples that will be available when you want them. Avoid showing the owners items unless delivery time and client schedules coincide.

7. Prepare presentation boards of all colors, fabrics and finishes for the owner's approval. Take careful notes at this meeting and carefully document the owner's approval of each item. Double check this approval with a letter to the owner before placing the orders.

8. Often a percentage of the cost of the furniture must be paid at the time of ordering. Make sure of delivery time at this time. It is very difficult to get a firm commitment on delivery until the order is placed.

9. Installation is like building a full size model in a very short time. Wallpaper, the carpet and the draperies all have to be installed after the carpenters and painters leave. Monitor the work process very carefully. If you and your staff have to work around scaffolds, track through mud and try to get the drywall contractor back for repair on a job that was supposed to have been taken care of a week ago, you will waste a lot of time and most of your design fee. Knowing the inherent difficulties of construction scheduling, the furnishings installation is usually a hectic period of drapery hanging, furniture placement, accessory augmentation and final clean up before the public is given access.

10. Take photographs of every wall of every room as a record of inventory. Make up inventory sheets showing when each piece was purchased and how much it cost. The sales people will find that inventory invaluable in answering the barrage of questions that will come.

Residential housing sales models pose an unusual challenge; inevitably the designer must work for an imaginary occupant. In the end, sales success remains an impartial indicator of a job well done. At the same time, interiors work can be a continuing process. Good design, good planning and attention to detail will provide ongoing, repeat business from satisfied clients. Comprehensive Architectural/Interior service from foundation to pictures on the wall also poses an unusual opportunity for the designer, an opportunity that requires a deft coordination of design, construction and installation efforts.
The savings effected in the foundation system, due to reduced deadloads, was more than enough to offset the cost of using lightweight concrete in the floor slabs and roof."

The above statement, by Robert G. Wade, of the engineering firm of Stevson-Hall & Wade, Inc., expresses one of the principal reasons why lightweight Haydite concrete is so often specified for high-rise construction... weight reduction without sacrificing strength... and at a savings in cost. Other reasons include superior fire rating, improved thermal and acoustic insulation, and more.

For detailed information, see your local supplier, or contact us direct.
Replacement windows

This may be the one most economical improvement you can make to upgrade your building to fuel saving performance.

The no-tear-out method of window replacement, pioneered by DeVAC, is shown below. Only old sash are removed. DeVAC's replacement system integrates exterior covers, window units, and interior trim into a unified application.

1. DeVAC replacement windows are installed inside existing frames.
2. Extruded aluminum covers old wood, steel, or aluminum frames.
3. Closures interlock with new window and are backsealed. Perimeter caulked to masonry to prevent deterioration.
4. Protected, sealed, non-structural Thermo-barrier.

Energy conserving performance is assured by the product design and attention to detail during installation by DeVAC factory trained crews. Appearance of the building can be modernized by the replacement window design. Or the original architectural character can be faithfully maintained; especially important for churches with stained glass and buildings with historical value. Window applications are engineered to best answer the need assessment for each building. DeVAC expertly combines a wide range of versatile standard products, or custom engineers new applications and components to fit the specific need.

Expertise-Experience, Expected from ZEPHYR ALUMINUM PRODUCTS INCORPORATED

NEW CONSTRUCTION OR REMODELING—
Depend on Schneiderhahn's for planning assistance and prompt merchandise delivery.

Cabinets
- SKC
- SKC/Northern Kitchen Kompact
- Postform
- Counter Tops
- SKC

Vanities and Mirrors
- Williams
- Fireplaces
- Western

Built-in Vac Systems
- Nutone

Appliances
- Frigidaire
- Hotpoint
- Built-in Food Processor
- Nutone

Con volatile Barbecue Ranges
- Dacor

Range Hoods
- Broan

Visit our Showroom or call us for specifications on any of these products.

A. A. Schneiderhahn Co.
6111 Park Ave., P.O. Box 10304
Des Moines, Iowa 50306
Telephone 515/244-2541
SPACE and its productive utilization—that’s what the GF Open Plan System handles so effectively... with minimum cost and installation expense—maximum flexibility.

You can specify our products with confidence.

Burlington Block Co.
319/752/5667

Cedar Rapids Block Co.
319/363-0233

Clinton Block Co.
319/242-4051

Design with Concrete Masonry

Coralville Block Co.
319/354-1003
Border to Border....And Then Some
...We’ve Got You Covered

Dick Morgan
Sales Manager

Shirley Hughes

Tom Mahoney

Mike Hazelhuhn

Sioux City Brick & Tile
712-258-6571

United Brick & Tile of Iowa
515-244-3264

Caterpillar Power Systems
Check Out The Economics

Independent, on-site power can be the economical solution to your industrial or commercial needs. And if you want economy plus reliability, check out Caterpillar engines and power systems from Gibbs/Cook. Cat systems are backed by Total Product Support, including design, installation, inspection and maintenance. Features like 24-hour parts availability. And the most modern in-shop service and testing facilities in the Midwest.

Economy. Reliability. Service. You get all three with Caterpillar Power Systems from Gibbs/Cook. Sales and service facilities in Des Moines, Mason City, Fort Dodge and Postville.

YOUR CATERPILLAR DEALER
GIBBS/COOK
...for more than the expected

104th and Hickman Road, Des Moines, 50322 Phone (515) 270-2800
Caterpillar, Cat and CB are Trademarks of Caterpillar Tractor Co.
Nine New Honorary AIA Members

The AIA has selected nine new honorary members for 1980 for making "distinguished contributions to the architectural profession or its allied arts and sciences." Conferred during the AIA national convention in Cincinnati, June 1-4, the awards call attention to successful efforts in dealing with concerns of the natural and built environment - concerns which affect people and the way they live.

Among those cited was Julian B. Serrill, recently retired executive director of the Iowa Chapter/AIA, applauded for developing an effective political action program, formulating a new continuing education committee and seminars, and leading the chapter to a steady growth with a 50 percent increase in corporate members.

New honorary members in addition to Mr. Serrill included:
—Lady Bird Johnson, former First Lady of the United States. Her leadership roles in urban/national beautification and historic preservation have set an example "from which the whole world can learn", noted her nomination for honorary membership.
—Ise Gropius, German-born art and architecture historian, writer and lecturer who has "introduced hundreds of persons to a knowledge and love of architecture" through her books, lectures and tours of the energy-conscious Gropius house in Lincoln, Mass. (the first International style structure in the United States), designed in 1937 by her late husband, Walter Gropius, whose archives she organized;
—Paul Mellon, arts patron, philanthropist and business/foundation executive who, as president (and later board chairman) of the National Gallery of Art, has made "design excellence of the highest order in a building (the gallery's East Building, designed by I.M. Pei, FAIA) dedicated to serving the needs of diverse peoples";
—Mario G. Salvadori, Italian-born structural engineer/educator/writer who has inspired three generations of architects and engineers at Columbia University (where he is professor emeritus of architecture and James Renwick Professor emeritus of civil engineering) and whose series of books on architectural structures has revolutionized the approach of teaching structure to architects and school children nationwide.

On Sale Soon: Architectural Registration Handbook

For the eighth consecutive year, NCARB's hard-cover Handbook will be published as a valuable source of guidance to candidates studying for the Professional Exam (Section B). It is also expected, as in the past, to be a useful reference tool for schools and architectural firms. The largest Handbook yet produced, the new edition will contain all data and documents that comprised the Test Information Packages for the December Exam, as well as a substantial sampling of test items from the Exam itself. A new introduction by last year's Professional Exam Chairman Norman Johnston, of Seattle, Washington, effectively explains and supports both the form and substance of the current exam process. The Handbook will be available through Architectural Record Books in early August.

Legislative Advocate Directs AIA Efforts

James West, a partner in the firm of Nyemaster, Goode, McLaughlin, Emery and O'Brien, has been for several years the legislative council and lobbyist for the AID. He serves also the Iowa Engineering Society, The Consulting Engineers Council of Iowa and the Iowa Medical Society and several trade associations. A lobbyist with multiple clients has an advantage in that he can talk to any legislator about matters of interest to two or more of his clients in a single interview. Mr. West consults with the legislative committees of his client associations frequently and is in almost daily contact with their staff executives. He offers advice on strategy and tactics and is the quarterback for implementing decisions, position papers and desires of Iowa Chapter members.

Mr. West of necessity also leans heavily on 'at home' contacts, one-to-one, by practitioners with their own senators and representatives. He cannot talk to all 150 legislators on each issue. The degree of success of a legislative program is directly proportional to these "at home" contacts and on reports of these contacts to the staff executive. It also relies on the dedication of the legislative counsel in channeling information back and forth between the membership of the client association and appropriate (key) legislators.
Long range planning for a legislative program demands personal acquaintance on the part of Chapter members with their legislators before an issue of direct concern arises.

The Iowa Chapter has come a long way in the effectiveness of its legislative program, but has a long way yet to go. Such things as the Statute of Limitations, the Architects’ Practice Act, Energy Legislation, Architect/Engineer Selection proposals, Life Cycle Cost requirements and the ever present danger of eliminating state registration of practitioners, to name but a few, require constant attention, study and education, by members so that effective influence can be used.

The legislative council is, again, the quarterback. But he needs vitally the aid and support of all the individual members of his client association.

**National Energy Policy Needed Now**

The AIA has called on both major political parties to lead the government and the public toward implementation of an integrated national energy policy based on energy efficiency and conservation.

Testifying at recent hearings of the Democratic and Republican platform committees, AIA First Vice President R. Randall Vosbeck, FAIA, and Executive Vice President David O. Meeker Jr., FAIA, urged both parties to provide “Forceful leadership in adopting appropriate policies and strategies to achieve the nation’s energy policy objectives...to more effectively enlist citizen support.”

Vosbeck and Meeker offered the AIA’s assistance and outlined various approaches toward resolving the energy crisis in the built environment as well as in transportation and industry.

“Possibly the most important leadership challenge before the entire nation is to establish a comprehensive national energy policy for the immediate future and the rest of the 1980’s;” they emphasized.

Efforts by both parties “can be of crucial importance in mobilizing the nation’s resources in this long-term policy challenge,” the AIA spokesmen stressed.

“‘This challenge,’ they noted, ‘remains unmet by our nation, its political leaders and policy-makers.’ Six years after the first U.S. economic shocks due to Middle Eastern oil cutbacks, ‘our country has yet to adjust its energy demand and economy to ever-fluctuating foreign energy costs and supply.’

‘To date,’ Vosbeck and Meeker pointed out, ‘alternative sources of energy remain a relatively minor national policy consideration, improved energy efficiency is largely ignored and long-term national energy initiatives are only now finding widespread policy discussion.’

They said ‘taking proper action on an energy policy that reduces energy demand will save lower-income Americans billions of dollars in future energy costs’—costs that are translated into inflated prices for rent, food and transportation.

“The high cost of imported energy will continue to undermine the stability of American and world economics until appropriate energy policy action is taken,” Vosbeck and Meeker asserted. “In 1972, the U.S. oil import bill was $4.5 billion; in 1979, it was well over $60 billion. By the late 1980’s, annual oil imports are expected to cost over $125 billion.”

The AIA leaders pointed out that much of the nation’s energy dilemma has resulted from “the low national priority given the need for energy efficiency, especially in the built environment, transportation and industrial production processes.”

They said “a major factor in solving the energy crisis is the need to implement energy-conscious building design measures and other energy conservation measures as national policy. These initiatives represent using energy more efficiently, not simply using less.”

Studies by the AIA have concluded that “by improving the design of new buildings and through modification of older ones, approximately 20 percent of the current total U.S. energy use could be saved,” they told both groups.

“Energy efficiency is the cheapest, environmentally safe and most productive way of getting more energy,” they said. This means:

—more energy-efficient designed buildings, which requires implementation of building energy performance standards (BEPS) “to establish energy performance standards as initiatives to improved design and technology;

—more efficient and available public transportation;

—more efficient and energy-conscious design components in building construction;

—rebuilding urban centers, emphasizing urban energy conservation and retrofitting the existing stock of buildings.

To facilitate a coordinated and comprehensive national energy policy, basic strategies should be expedited by federal, state and local governments that include initiatives in building and urban design, transportation and industry, they said.

The AIA’s specific policy recommendations for the built environment include:

—utilizing not only the most efficient equipment and systems for heating, cooling and ventilation in design, but also employing total design strategies for energy consciousness;

—taking advantage of passive solar design elements in the siting of buildings;

—supporting solar design and equipment facilities for commercial, industrial and residential structures;

—developing incentives to stimulate building design and retrofit modifications, especially passive solar design;

—starting the phased implementation of BEPS immediately;

—establishing educational training for student architects/engineers in energy-efficient technology and design at colleges and universities.
Sweeney & Assoc.
400 5th St. • West Des Moines, IA. 50265

- PARKER Mirrors & Washroom Equipment
- HALSEY TAYLOR Water Coolers & Modular Wall Systems
- SLOAN Flush Valves
- STERN WILLIAMS Terrazo Mop Sinks Shower Receptors Drinking Fountains

"Buck" Sweeney
Mike Sweeney

phone 515/274-2050

Need windows?
We can supply and install the windows you need. Our staff of specialists custom design replacement window and entrance systems to fit your structure. Call one of our sales representatives collect today. 319-364-7000 Cedar Rapids, 800-222-5235 Des Moines

IOWA ARCHITECTURAL PRODUCTS, INC.
801 33rd Ave. S.W., Cedar Rapids, Iowa 52404
Commercial windows and entrance systems Free estimates and design planning.

In Iowa

CONTRACTORS STEEL CORPORATION
is your local FENESTRA Distributor
Complete Inventory of FENESTRA
STEEL DOORS, FRAMES and HARDWARE

Now contractors, architects and owners can buy Standard and custom door and frame products from a single source ... FENESTRA/LOCKHART.

Fenestra, a leading producer of STANDARD products for more than 70 years, has acquired Lockhart Manufacturing Co., a 20 year old firm with a well-earned reputation for quality Custom Doors, Frames, and Flush Glazes Entrance Systems.

- FAST DELIVERY TO YOUR JOB SITE
- REMODELING DOOR & FRAME PACKAGE
  Easy to replace old wood or metal doors with Fenestra's new Remodel Door & Frame Package

CONTRACTORS STEEL CORPORATION
1901 Easton Blvd. • P.O. Box 1696
DES MOINES, IOWA 50306

Phone 515/265-6123

FENESTRA
DIVISION OF THE MANSON GROUP, INC. (MICHIGAN)
FREE PENNSYLVANIA 1980
Highest Energy Saving • No Maintenance Window Beauty

Here's the inside story of the newest and most beautiful window combined with superior quality.

An Astounding Development

Frames and sash of Poly Co windows are made of extruded Special Formula Poly Vinyl-Chloride—a polymer, not a plastic. This Special Formula high impact PVC is chemically inert, thus will not react with acid or alkaline solutions.

- R value as high as 3.85
- U value as low as .26

1. Unique multi-chambered construction provides strength, dimensional stability; dead air locked in chambers guards against temperature fluctuations.
2. Double weatherstripping with resilient acoustical material seals out noise, drafts and dust.
3. Triple insulated 3 millimeter glass with two full 1/8" dead air space between lites.
4. Special Formula PVC frame and sash are virtually indestructible.
5. Non binding cam lock pulls sash firmly closed or ejects for opening.
6. Operator works under screen with arm attached to channel in sash.
7. Heavy duty aluminum bronze hardware.
8. Snap-in glazing spline allows dry glazing without removing sash.

Fabricated by
Trilite Co.
BOX A • RIPPEY, IOWA 50235
PHONE: 515/436-8246

Originals in Custom Storage

By St. Charles
Fashion Kitchens

Our storage systems can be used for many innovations...in offices, work areas, banks...in commercial and professional innerspaces everywhere. Our design interpretations derive the utmost efficiency from every work and storage area, combining functional beauty with St. Charles quality.

*Variations are limitless...executives, lawyers, doctors...technicians, artists...whoever your clients may be, they will enjoy this new dimension in comfort and efficiency.

*All are available in the familiar textured furniture steel, or the very new plastic laminate easework.

Also Distributors for
Dwyer Compact Kitchens

Negley Design & Sales Company
3839 MERLE HAY ROAD • DES MOINES, IOWA

Phone 515/276-5500
Plyroof... a good name to work with.

Single-ply roofing is here to stay. And so are we.

We may have the first single-ply roof in the U.S.

Plyroof™ membrane roofing systems may sound new, but it's from a well-established company—the Plymouth Rubber Company. In the rubber and plastic fabrication business since 1896, one of our materials—neoprene—has been at work on a single-ply roof for more than 15 years—very successfully. It could be the first. That's one of the reasons we support up to a 10-year warranty.

Our range of materials is the most complete.

Plyroof materials have a wide range up to the sophisticated elastomeric membranes which include our Plyseal™ EPDM systems and Plyshield™ Neoprene. That translates into a Plyroof system for virtually any structural design you will ever encounter. They are all readily available from our Massachusetts operations, and our new Nashville, Tennessee facility with capacity to meet the growing demands of the single-ply roofing industry.

Our field support is the most up-to-date.

We have recently completed expansion of our Technical Service Program and are in the process of doubling our district sales management force conveniently located throughout the United States. The result is one of most comprehensive combinations of field technical assistance and localized sales management you will find anywhere for the single-ply roofing industry.

See for yourself.

For complete details write or call:

Ther-mo-co Products Company, Inc.

1848 Fuller Rd. W. Des Moines, la 50265
515/225-9211

TM - Registered trademarks of Plymouth Rubber Co., Inc.
THE WALL PEOPLE

SWANSON GENTLEMAN

STOUFFER'S FIVE SEASONS CONVENTION CENTER
CEDAR RAPIDS, IOWA
LEO PEIFFER AND ASSOCIATES • ARCHITECTS
KNUTSON CONSTRUCTION CO. • GEN'L CONTRACTORS

SINGLE RESPONSIBILITY CONTRACT
FURNISH AND INSTALL MODERNFOLD OPERABLE WALLS.