

Summit on Purdue

Fayetteville, North Carolina

Design/Build: Construction Systems, Inc.
and SHARPE Architecture

The Summit on Purdue is a three-story office building located in the business sector of Fayetteville, North Carolina. One of the governing factors influencing the design of the building was the owners' request for flexible, attractive and most importantly, affordable office space. A multi-story building with an open floor plan was decided on relatively early in the design process, making use of combined mechanical chase-ways and vertical conveyance systems. Keeping common areas such as hallways and lobbies to a minimum was also a major design consideration, thus maximizing leasable floor space.

Because of the desire to start construction, prior to completion of the design for the interior spaces, a design/build approach was chosen. Construction Systems, Inc., working in conjunction with SHARPE Architecture, served as both the design team and general contractor. This relationship allowed for permitting and construction of the "shell" building, while the owner secured tenants and began the process of designing the interior environments. Design considerations and regard for construction sequencing, resulted in a plan arrangement with a central "utility core" housing stairs, elevator, mechanical and common spaces, surrounded by inherently open and flexible office space.

The summer of 2003 saw notable rainfall for much of the South, including the city of Fayetteville. Despite record



Photos Courtesy of Marc Lamkin Photography/Design

amounts of precipitation, the building was completed within a nine-month period, due in part to several time saving construction techniques. The pre-engineered metal building manufacturer partnered with the structural engineer in order to fast-track the conventional steel package. The steel structure was designed in such a way as to allow for "panelized" wall construction, which expedited the dry-in time of the building. Finally, a demountable wall system was chosen for the project's interior partitions, giving the owner ultimate flexibility of the plan, as well as providing quick completion of the interior space.

Exterior finishes consist of split face masonry units, pre-cast concrete elements, brick veneer and EIFS cornice work, topped with a standing seam metal roof. The split faced CMU serves to "anchor" the building to the site, while the standard sized brick veneer generates a more personal sense of scale. Pre-cast concrete window lintels and "buff" colored brick detailing provide horizontal accents which help break up the large facades of the building. A pre-formed EIFS cornice molding and standing seam metal roof crown the building with a distinct, regal look.

Design parameters set early in the design/build process provided a project outline that was met with outstanding success. Interior common spaces were limited to less than 16% of the total building area. Careful manipulation of the materials palette allowed for an exterior appearance that is refined and classical while keeping the costs low. Utilization of a demountable wall system gives the owner ultimate flexibility of the interior space, regardless of the number of tenants. Presently, the owners have sold and/or leased approximately 85% of the office space and are contemplating another similar project in the near future.



MANUFACTURERS/SUPPLIERS

DIV 07: Metal: Fabral; **Membrane:** Carlise Sureweld.

DIV 08: Glass and Glazing: Arch Aluminum and Glass.

DIV 10: Demountable Wall System: Precision Walls, Inc.

DIV 13: Pre-Engineered Building: Butler Manufacturing.

EXTENDED PRODUCT INFORMATION

Glass and Glazing: Arch Aluminum and Glass.
See advertisement on page 33.

DESIGN/BUILD

CONSTRUCTION SYSTEMS, INC.
6205 Raeford Road
Fayetteville, NC 28304
www.csiol.com

DESIGN/BUILD

SHARPE ARCHITECTURE
1131-A Military Cutoff Road
Wilmington, NC 28405
www.sharpe-architecture.com

FILE UNDER

OFFICE
OF040532
Fayetteville, North Carolina

CONSTRUCTION TEAM

GENERAL CONTRACTOR: Construction Systems, Inc.

6205 Raeford Road, Fayetteville, NC 28304

STRUCTURAL, ELECTRICAL & MECHANICAL ENGINEER:

McFadyen O'Briant Consulting Engineers

3808 Park Avenue, Wilmington, NC 28406

CIVIL ENGINEER: Moorman, Kizer, Reitzel, Inc.

115 Broadfoot Avenue, Fayetteville, NC 28305

MECHANICAL & PLUMBING UPFIT ENGINEER:

Cheatham & Associates, P.A. Consulting Engineers

4806 Shelley Drive, Wilmington, NC 28405

SPRINKLER: Associated Sprinkler Co., LLC

206 E. Seneca Road, Greensboro, NC 27416

GENERAL DESCRIPTION

SITE: 1.38 acres.

NUMBER OF BUILDINGS: One; Office building shell with
uplifts.

BUILDING SIZES: First floor, 8,103; second floor, 8,151; third
floor, 8,293; total, 24,547 square feet.

BUILDING HEIGHT: First floor, 14'; second floor, 14'; third
floor, 14'; total 55'4" to peak of gable.

BASIC CONSTRUCTION TYPE: New/Type II-B, Sprinklered.

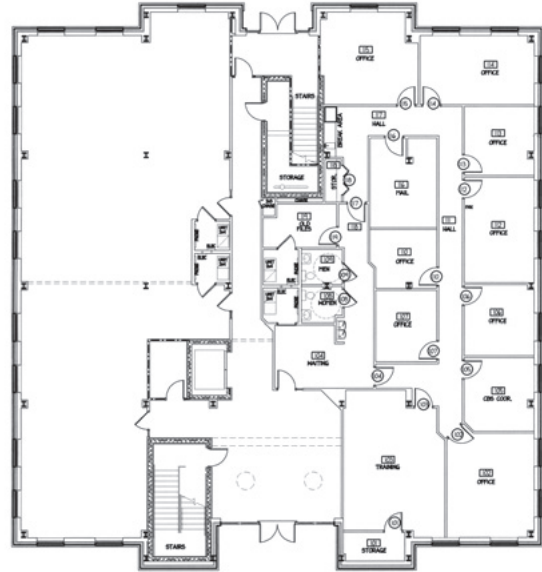
FOUNDATION: Concrete.

EXTERIOR WALLS: Pre-engineered building, panelized
brick system, CMU, EIFS.

ROOF: Metal, membrane.

FLOORS: Carpet, tile.

INTERIOR WALLS: Demountable wall system, gypsum.



FIRST FLOOR PLAN

SUMMIT ON PURDUE

Date Bid: Nov 2002 • Construction Period: Feb 2003 to Oct 2003 • Total Square Feet: 24,547

| C.S.I. Divisions (1 through 16) | COST | % OF COST | SQ.FT. COST | SPECIFICATIONS |
|---------------------------------|------------------|-------------|----------------|--|
| BIDDING REQUIREMENTS | 154,993 | 7.99 | 6.31 | Supplementary conditions. |
| 1. GENERAL REQUIREMENTS | — | — | — | 1 — |
| 3. CONCRETE | 106,318 | 5.48 | 4.33 | 3 Formwork, reinforcement, accessories, cast-in-place, curing, precast, cementitious decks & toppings, grout. |
| 4. MASONRY | 205,998 | 10.62 | 8.39 | 4 — |
| 5. METALS | 232,232 | 11.97 | 9.46 | 5 Materials, fastening, structural metal framing, joists, decking, cold formed metal framing, fabrications. |
| 6. WOOD & PLASTICS | 22,176 | 1.14 | 0.90 | 6 Rough carpentry, architectural woodwork. |
| 7. THERMAL & MOIST. PROTECT | 103,487 | 5.33 | 4.22 | 7 EIFS, fireproofing, membrane roofing, joint sealers. |
| 8. DOORS & WINDOWS | 144,875 | 7.47 | 5.90 | 8 Metal doors & frames, wood & plastic doors, special doors, entrances & storefronts. |
| 9. FINISHES | 217,645 | 11.22 | 8.87 | 9 Metal support systems, gypsum, tile, acoustical treatment, resilient flooring, carpet, painting. |
| 10. SPECIALTIES | 114,268 | 5.89 | 4.66 | 10 Fire protection, partitions, toilet & bath accessories. |
| 11. EQUIPMENT | — | — | — | 11 — |
| 12. FURNISHING | — | — | — | 12 — |
| 13. SPECIAL CONSTRUCTIONS | — | — | — | 13 — |
| 14. CONVEYING SYSTEMS | 42,882 | 2.21 | 1.75 | 14 Elevators (1). |
| 15. MECHANICAL | 396,599 | 20.43 | 16.16 | 15 Fire protection, plumbing, HVAC. |
| 16. ELECTRICAL | 199,013 | 10.25 | 8.10 | 16 Basic materials & methods, medium voltage distribution, service & distribution, lighting, electric resistance heating. |
| TOTAL BUILDING COST | 1,940,486 | 100% | \$79.05 | |
| 2. SITE WORK | 157,688 | | | 2 Demolition, preparation, earthwork, paving & surfacing, utility piping materials, water distribution, sewerage & drainage, ponds & reservoirs. |
| LANDSCAPING & OFFSITE WORK | — | | | — |
| TOTAL PROJECT COST | 2,098,174 | | | (Excluding architectural and engineering fees) |

UPDATED ESTIMATE TO JUNE 2004: \$84.39 PER SQUARE FOOT

DCD Subscribers: Access this case study and hundreds more for instant date and location calculations at www.dcd.com.