INTRODUCTION

Albuquerque, the largest city in New Mexico, has a population approaching 500,000. The city is nestled between the Sandia Mountains on the east and the mesas and volcanoes on the west. The Rio Grande wanders through the agricultural, residential, and commercial areas of the city on its way from Colorado to the Gulf of Mexico. Sunshine is enjoyed for 78% of the year. Into this scenic area thousands of visitors come each year — some to take a holiday, others to attend a conference.

The number of visitors (those requiring overnight accommodations) arriving in Albuquerque to participate in exhibitions, seminars, workshops, trade shows, etc., has shown a steady 10% increase over the last several years. In order to maintain this growth and provide opportunities for as many groups as may wish to enjoy the city and its environs, one of the principal locations for these activities will be expanded and renovated. The existing Convention Center will be remodeled and an extensive expansion will be built on the site in downtown Albuquerque.

The Albuquerque Convention Center expansion has been a subject of discussion for about 6 years. Many designs have been presented for the chosen site as well as schemes for other sites throughout the city. The 1985 Master Plan serves as the point of departure for the final site selection, building design and space use program.

The goals of the Center are to encourage and promote the growth and enhancement of the entire community and the area surrounding the Center; to provide a positive national identity for Albuquerque as a nucleus of conventions, trade shows, conferences, and the visitor industry; to give the citizens a locale for exhibitions, consumer events, etc.; to provide revenue for the city and assistance to the economy of the entire metropolitan area and thereby to the state; and to focus the city's leadership in entertainment, recreational, and consumer activities within the context of the city's relationship to the community and the state.

The expansion and remodeling of the Albuquerque Convention Center is budgeted at $37,500,000.00 (estimated construction cost at midpoint in the construction process). An additional $1,500,000.00 has been budgeted for furnishings and special equipment. The breakdown (estimated) is as follows:

- Parking Structure: 6,900,000.00
- Eastside extension: 26,300,000.00
- Remodeling existing: 1,800,000.00
- Westside extension: 2,500,000.00

Remodeling plans for the existing convention center, included as a later phase, cover everything from the lighting, sound, and HVAC systems to the improvement/construction of more performance, office, and storage space. The existing kitchen will remain and be remodeled to facilitate selected services to the extant Center; however, the main kitchen will be in the expansion.
THE TEAM

The Convention Center project team is composed of Stevens, Mallory, Pearl & Campbell, P.A. Architects (project management, architecture, design and production); Holmes, Sabatini, Eeds Architects (project management, architecture, and design); Uhl & Lopez Engineering (electrical); Boyle Engineering Corp. (civil/structural); Bridgers & Paxton Engineering (mechanical); Johnnie Gillespie, ASID (interior design); Parking Dynamics (parking); Campbell, Okuma, Perkins & Associates (landscape); Professional Construction Consultants (cost estimating); and Lashober & Sovitch (kitchen planning).

Those responsible for the design are the following: Principal-in-Charge — C. Robert Campbell, AIA, SMP&C; Project Manager — Glenn H. Fellows, AIA, SMP&C; Assistant Project Manager — Jess T. Holmes, AIA, HSE; Design Consultants — William Q. Sabatini, AIA, HSE, and George C. Pearl, FAIA, SMP&C; Project Architects — J.E. Van Weaver, AIA, SMP&C; Stephanie A. Degen, AIA, SMP&C; Patricia Hancock, AIA, SMP&C; and Technical Architect — Zoltan John Nagy, AIA, CSI, SMP&C.

The architectural firms of SMP&C and HSE have extensive major project experience. SMP&C has been a continuing influence in the southwest for over 44 years. SunWest Bank, Southwest Community Health Services, Mountain Bell, Albuquerque Public Schools, the City of Albuquerque, and the University of New Mexico are among the many clients whose projects have benefitted from SMP&C's expertise.

C. Robert Campbell, AIA, has more than 20 years experience in the management and coordination of large-scale complex projects, specifically in the areas of cost control, value engineering, scheduling, and coordination of work forces, as well as all phases of architectural design. George C. Pearl, FAIA, well known and respected for his appropriate designs rendered in a Southwestern context, is responsible for programming and design within the firm.

The Albuquerque firm of Holmes, Sabatini, Eeds was formed in 1984. Prior to establishing HSE, Jess T. Holmes worked with JMA, Architects and Engineers, in Las Vegas, NV, as Principal and Director of JMA's Convention Center Planning Division. Holmes' design experience includes various convention centers and hotels, airports, and other public facilities. William Q. Sabatini, AIA, was employed by JMA, where he was responsible for programming and design, and at HNTB as Senior Design Architect, where he programmed and designed projects nationwide.

THE PROJECT

The Convention Center expansion scheduled for completion in 1990, will almost triple the existing exhibit space; the addition of the new conference rooms and corridors brings the total area to more than 105,000 square feet (SF) of combined exhibit space.

The design of the expansion emphasizes the separation of the delegate and service functions. The new main entrance delineates the southwest edge while the service entrance faces north with truck access/egress on the north and east. This new entrance will be fronted by a public plaza, which leads to the east into a drop-off point for public transit, thus alleviating current traffic congestion. Direct pedestrian access will also be provided at a new entry on the west side of the existing Second Street. A new public entrance, to be created on the west within the present Civic Plaza space in a later phase, will be in a two-level addition that will bridge Third Street and meet Civic Plaza at grade. Pedestrian and vehicle access will be maintained on Third Street, passing underneath the entry addition. The entrances on the east and west facades of the existing Center will be maintained.

Convention association support space (4,200 SF) is provided overlooking the exhibit floor. More than 11,000 SF of storage and support area plus concessions and public facilities are included on the mezzanine level. Also incorporated on this level are 13 conference rooms (28,700 SF) and a major conference room complex subdivisible into five rooms (14,000 SF total).

The Albuquerque Convention and Visitors Bureau will gain an additional 8,700 SF of office space, convenient to both existing and new facilities and accessible to the public during "off hours" without opening major portions of the Center.

Design issues of specific concern in the expansion project include the following: flexibility; entrances; toilets; concessions; graphics; services; floors/ceilings; utilities; and staging/storage.

The 109,000 SF exhibit hall will be column-free to allow unobstructed interior vehicular circulation, the display of large equipment, and unlimited flexibility of booth layout. The booth spaces are designed on a 10' x 10' planning grid to accommodate convention industry standards. As many as 700 10' x 10' booths can be installed at one time. The exhibit hall can be divided into two units through the use of operable panels. Circulation pathways are designed to follow the perimeter of the exhibit halls, with entrances and exits at the corners and additional exits in the center of each side.

Graphics will be freely used throughout the complex. Signage in the present center will be redesigned to match that used in the new spaces. Entrances, exits, toilets, and concession areas will be identified; event-specific signage will direct delegates to aisles, rows, and products as appropriate.

Service vehicles will utilize aircraft hangar doors at the east and north loading dock areas. Full vehicular access to the exhibit floor is provided directly from street level. Various public streets allow traffic to move easily into the loading areas, guided by appropriate signage.

Flexibility is essential in ceiling height design for exhibit areas. The minimum height is 30'; an additional roof structure of depth of 15' will allow display of items and equipment, e.g., boats and airplanes, cranes, etc., requiring a height of 45'. Neither lights nor fixed equipment will hang lower than the bottom of the structural support system. Unlimited floor loading characterizes the exhibit floor, which will be constructed of a thick slab of heavily reinforced concrete on grade. No utilities or other systems that might restrict use will be placed on, within, or underneath the floor.

Food service to all areas will be provided by a new kitchen located on the same level as the exhibit hall and conference complex. Additional storage areas near the conference and exhibit spaces eliminate the transport of food. Snack bars located on the perimeter of the facility will provide service during breaks and other times as necessary.

New audio-visual, sound, and communications systems will be installed; closed circuit television systems and video security systems will be placed throughout the new facility. A central control room to monitor and control AV, sound, communications, and security is included in the design.

Acoustics will be designed as appropriate for meeting and exhibit spaces that may be subdivided by acoustical partitions. The main public lobbies will be acoustically enhanced as well since events will be hosted in these spaces. The operable partition walls used to divide the main exhibit hall and conference room complex will be carefully chosen to provide the highest degree of sound isolation.

The design of heating, ventilation, and air conditioning systems will require a complete and thorough analysis of the existing systems. The new HVAC systems

With this new facility, Albuquerque will become more competitive with Phoenix, Tucson, Denver, San Antonio and Dallas within the southwest region.
will be operated from a computerized central area and provide independent control of all areas. The new HVAC will be designed to facilitate the use of a portion or all of the equipment as needed, as well as to allow for proper balance and compatibility with the existing. Additionally, the engineers are designing an underground chilled water thermal storage tank system for use during peak load conditions. The resulting energy savings are expected to be $110,000 per year.

New power and lighting are required throughout the existing facility to ensure greater control, flexibility, and monitoring. A two-source system (set-up/takedown and show lighting designed for the new exhibit hall) is planned for the meeting rooms and the existing facilities as well. Emergency back-up systems for all power, lighting, and HVAC will be installed.

Telephone, intercom, sound, and natural gas, and 110V and 220V power — will be supplied from exterior walls, overhead catwalks, and utility drops. Water, 480V power, and sewer will be accessible from lockable boxes within the protective surrounds of the exhibit hall columns. A fluorescent lighting system provides adequate light for set-up/take-down, while High Intensity Discharge lighting will illuminate the hall during shows. Block switching allows discretionary lighting, a source of considerable savings in electricity.

The entire project will meet ANSI-117.1 standards for handicapped access.

A critical feature of a successful convention center facility is the provision of adequate staging and storage space. Exhibitors operate on a time-sensitive schedule, imposed by the facility management and their own employers. Often set-up and take-down are each to be accomplished in 36 hours or less; consequently, an adequate staging area is essential to allow offloading prior to set-up. The staging area near the loading dock also provides on-site storage for shipping crates and vehicles. Immediate access to these items facilitates efficient removal of the exhibit and reduces the down-time for the facility.

The new 16,000 SF ground level conference room lies to the west of the exhibit hall across a concourse which becomes usable exhibit space when the area is opened up to the exhibit hall. The conference area is divisible into six independent meeting rooms of equal size; more than 1600 delegates can enjoy a catered dinner in this area or 200 in each small room. The area, also designed on a 10' x 10' grid, will have a 14' ceiling and reinforced floors with some utilities in place. The concourse plus the conference area adds 22,000 SF of exhibit space. Ample storage for fixtures, furniture, and equipment will be provided adjacent to the meeting rooms.

The new entrance to the southwest of the expansion will be accentuated by stepped elements composed of green-tinted glass within a similarly tinted framing system. The glass will form an apex above the center of each entry, rise above the roof level, and continue on to join the skylight that highlights the public spaces and connects the existing Center and the expansion. The entry block is further delineated by recessed decorative elements at the roof line extending on either side of each glass apex. Interior lobbies and circulation splines will be daylighted through this system of continuous skylighting.

The expansion will complement the existing building, respecting the height, color, and massing of the latter. Exterior sur-
Albuquerque Convention Center

Rendering by
Sneary Christensen 1988
(aerial perspective from the southeast)

Project Architects:
Stevens, Mallory, Pearl & Campbell, P.A.
Holmes, Sabatini and Eeds
face materials will be smoother and softer than those of the existing Center to provide a friendly pedestrian streetscape. A base of finished precast concrete will extend upwards 8' and be topped by preformed, metal honeycombed, smooth sandwich panels, which will cover the facade of the entire expansion, exclusive of the parking structure. A horizontal band of metal panels with a recessed vertical design adorns the midportion. The panels will be factory painted to match the concrete base and coordinate with the existing structure.

The interior finishes of the exhibit areas will be of exposed sealed concrete (floor) and painted drywall. The lobby will feature granite floors, while the meeting rooms will be carpeted. An acoustical wall treatment will be incorporated in the exhibit halls and meeting rooms. Wall and accent colors will be neutral and harmonious to avoid clashing with the association and convention colors and those of individual exhibitors.

The southern elevator housing, projecting above the roof line of the parking structure, will mirror the stepped design elements of the major entrances to the exhibit hall, while serving as a focal point for the east portion of the site.

ACCESS/EGRESS

The 746-car, four-level parking structure located to the east of and adjacent to the new exhibit hall will be designed with level, linear bays to provide a favorable image when approached by oncoming traffic. Color, texture, and articulation of the concrete spandrels are intended to complement the entire facility and yield a unified design. Planters will be installed at the third and fourth levels to offer visual relief and maintain a sense of scale. The automobile entrance will be from the Marquette leg of the Grand Avenue overpass; exiting will be onto First Street and the new Urban Boulevard via a helix located at the southeast corner of the parking structure.

Trucks will enter the Center from First Street on the north. The loading dock and truck ramp, located below the parking levels, will be protected from the elements by the structure itself. A truck bridge will convey vehicles over Urban Boulevard to the exit streets.

The provision of access to the new exhibit halls and parking structure required the relocation of the Tijeras Avenue overpass farther to the south, the change of Tijeras into a street access route for the main entrance on the southwest, and the creation of Urban Boulevard between Second Street and Broadway, south of and adjacent to Tijeras. Southbound First Street, discontinuous within the Convention Center, picks up again from Urban Boulevard and ends at Copper. Second Street and Grand Avenue (westbound) are unchanged. A second-level closed pedestrian link connects the old and new portions of the Center as it passes over Second Street. The link, illuminated by the skylight that joins the new exhibit hall and the existing Center, will house administrative offices and support facilities.

The lobby/public space opens from this area, continues through the present Center, and terminates in the entrance to be built over Third Street.

Meeting rooms will be located on either side of the second-level lobby within the Third Street entry. Exceptional views of Civic Plaza and downtown will be featured in this entrance area, which permits direct access between the entire Convention Center complex and Civic Plaza.

CONCLUSION

Albuquerque has long debated the need for a Convention Center expansion and new exhibit halls. Some say that the existing one is not fully booked and the present hotels are able to handle current use. Others counter that an expanded Center and new flexible exhibit areas will attract larger conferences and exhibitions thereby creating the need for more hotel rooms and services. The proposed Albuquerque Plaza mixed-use development will assist in meeting the need for additional overnight accommodation. The project includes a hotel with meeting spaces designed to complement the Convention Center. Albuquerque Plaza will be built on the current site of the Mt. Bell State Headquarters Building, which is scheduled for demolition in March 1988.

The northeast corner of Albuquerque Plaza will lie diagonally across Third Street from the current Convention Center. An arcade will convey pedestrians from this entry point either to the hotel entrance or to the retail areas of the plaza. Arcades, street trees, and landscaping are featured along the Tijeras Avenue, Copper Avenue, and Fourth Street facades as well. The new hotel in Albuquerque Plaza will have 450 sleeping rooms and 20-25 meeting rooms. The two highest towers to be built on a single site in New Mexico are planned: office tower (20 floors, 336' total height); hotel tower (21 floors, 280' total height).

With the expanded capability previously described, Albuquerque can attract national and international conventions and exhibitions expecting more than 8-10,000 delegates as opposed to 2500 now. (The former figure refers to the number of persons that could be seated in a plenary session.)

Albuquerque will thus become more competitive with Phoenix, Tucson, Denver, San Antonio, and Dallas within the Southwest region.

The space requirements of the majority of the national exhibition/trade shows fall within the 150,000 SF range. Among the types of organizations whose regional and national conventions could not have been easily hosted in Albuquerque prior to the expansion are the following:

- Solid Waste Management conference/exhibitions — requiring space and height and unlimited floor loading for large equipment, vehicles, and demonstrations.
- Aircraft and pleasure boat shows — requiring extra height in display area and wide door access.
- Religious conventions — requiring extensive floor seating.
- Kitchen and bath exhibitions — requiring floor space for displays.
- Medical meetings and computer shows — each requiring space for equipment.
- Armed Services reunions — requiring meeting rooms and floor seating.

Larger and more diverse as well as a greater number of smaller groups can be accommodated in the new exhibit halls due to the size, ceiling height, location of services, floor loading capabilities, and direct off-street access/egress to the halls. The following are among the organizations that have committed to use the facility after completion in spring 1990.

<table>
<thead>
<tr>
<th>Year</th>
<th>Organization</th>
<th>Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>Automotive Parts Rebuilders Association</td>
<td>2,400</td>
</tr>
<tr>
<td>1990</td>
<td>Western Shrine Association</td>
<td>14,000</td>
</tr>
<tr>
<td>1990</td>
<td>SW Consortium of Indian Headstart Program</td>
<td>750</td>
</tr>
<tr>
<td>1991</td>
<td>American Society of Plant Physiologists</td>
<td>1,500</td>
</tr>
<tr>
<td>1991</td>
<td>American Farriers Association</td>
<td>1,000</td>
</tr>
<tr>
<td>1992</td>
<td>International Electric and Electrical Engineers (IEEE)</td>
<td>10,000</td>
</tr>
<tr>
<td>1992</td>
<td>American Camping Association</td>
<td>1,200</td>
</tr>
</tbody>
</table>

In addition to satisfying those groups requiring large spaces, organizations needing hundreds of exhibit units or a number of smaller exhibit halls and conference areas can be accommodated as well.

The following data are derived from a 1984 feasibility study prepared by Gladstone and Associates. The expansion and remodeling of the Convention Center as planned and the addition of first-class sleeping rooms could increase the potential total number of potential sponsors of single events, who might consider Albuquerque as a site, from 508 to 820. The number of bookings in this range (4,000 — 5,000 delegates) could reasonably increase by 61% with the new facilities. The number of delegates Albuquerque can currently
host is about 22,500 (local and visitors), which could increase to 36,900. According to national surveys of convention facilities, delegates spend about $140/day over an average of 3.8 days, contributing more than $500 to the community. Albuquerque, now in the 22,500 range, should receive $11.5 M (million) annum. When the number of delegates increases to 36,900, the revenue earned is $18.8 M. Exhibitors spend $150-155/day over a period of 4.5-5 days. Based on a maximum of 700 exhibit booths and 2 people per booth (1400) the total generated from exhibitors alone is more than $1 M/event. The average amount spent/day by delegates and exhibitors including service contractors is $787/4-day stay. (Note: These calculations are based on all delegates spending the same amount of money per day. In reality, the cost of sleeping rooms should not be included in the daily expenses for local delegates.)

A further rule of thumb among facilities managers is that every $20 M the community generates results in $60 M in revenue (or 3:1). The City and the businesses which will benefit from the activity generated by the expanded Center look forward to its completion in spring 1990.

THE FUTURE

The site immediately north of the new exhibit halls is the projected location for future expansion. The addition of a new 73,600 SF exhibit hall would provide continuous exhibit space of 206,000 SF, which could also be used independently of the hall currently being designed and constructed. HVAC, electrical, and utility systems installed in the new exhibit areas and conference/meeting rooms currently in progress will be designed to allow future expansion.

B.L.D.

The author would like to thank the following individuals for their assistance in writing, preparing this article: Jerry Bedford, (Director, Sales and Marketing, Albuquerque Convention and Visitors Bureau); Jess T. Holmes, AIA (Holmes, Sabatini, Eeds); and C. Robert Campbell, AIA, and Glenn H. Fellows, AIA (Stevens, Mallory, Pearl & Campbell).

Barbara L. Daniels is in Business Development at Stevens, Mallory, Pearl & Campbell, Architects. A long time preservationist and editor in New Mexico, she maintains an active interest in the revitalization of downtown Albuquerque. Daniels was the creator of the quarterly Preservation New Mexico and served as Editor for two years. She edited the APT Communiqué for over 10 years and continues to consult on the preparation of periodicals. Currently a member of AIA committees at both the local and national levels, she is involved in the promotion of architecture and preservation.
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