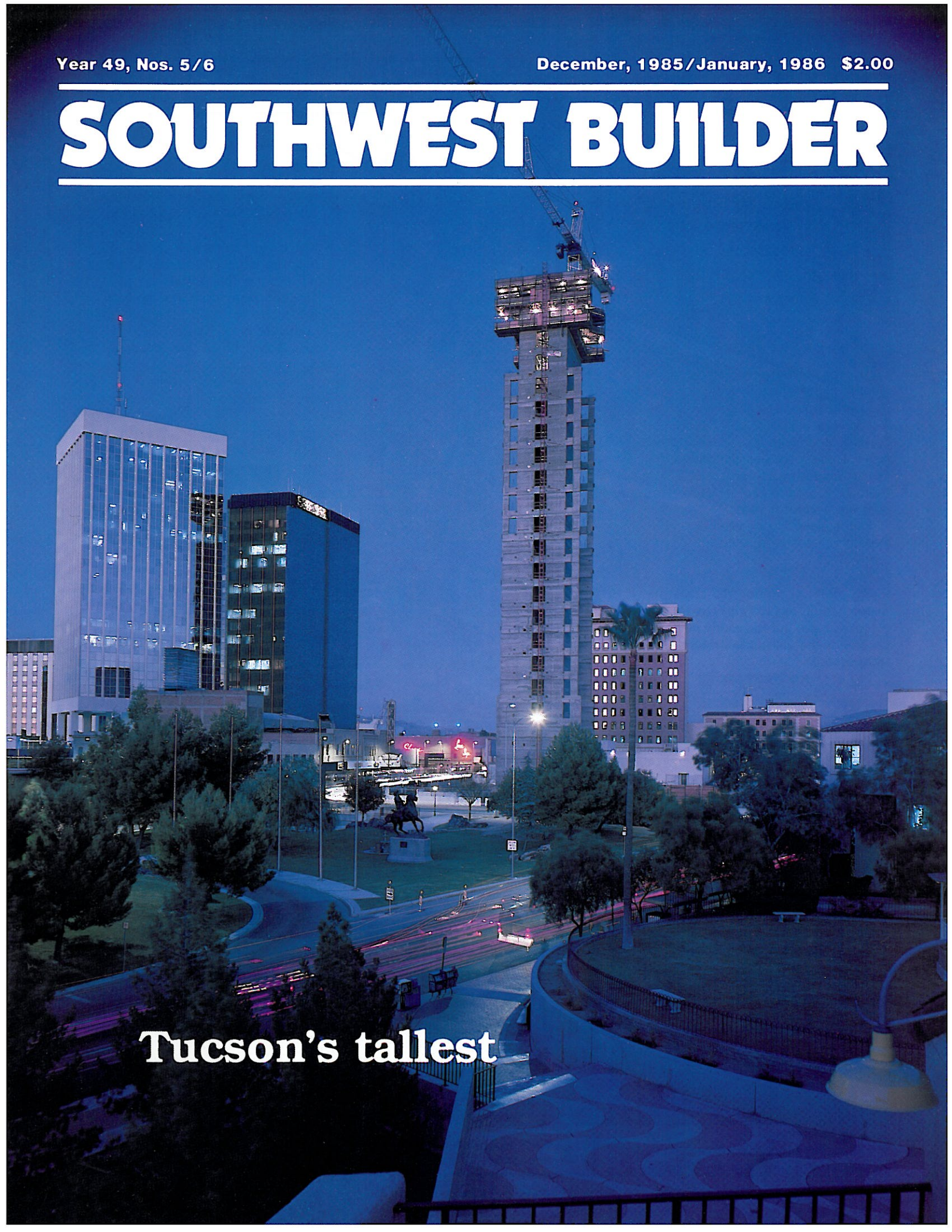


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SOUTHWEST BUILDER

A nighttime photograph of Tucson, Arizona, featuring the tallest building under construction. The building is a tall, slender structure with a grid-like facade, illuminated by construction lights. A large crane is visible at the top. To the left, a modern glass skyscraper stands prominently. The foreground shows a park area with trees, a statue, and a road with light trails from passing vehicles. The sky is a deep blue, and city lights are visible in the background.

Tucson's tallest

BUILDING

Tucson's tallest

After a rain, desert flowers seem to grow and bloom almost over night. A slipforming technique made Tucson's tallest building seem to shoot up that fast, but, unlike the desert flower, this building is here to stay.

On the downtown streets of this rapidly growing Sunbelt city, Tucson, local residents stop and stare skyward at a 23-story column of concrete. In August, it shot up like a desert flower. Now, it casts its slender shadow over nearby buildings, some of which were built from native adobe long before Arizona became a state.

The newcomer to Tucson's skyline is the central core for United Bank Tower, which, when completed next summer, will be the city's tallest building. Its dramatic presence among the city's many historic buildings exemplifies the rapid progress mankind has made in improving building construction materials and techniques.

The core was built by M. M. Sundt Construction Co. using a modern construction technique called slipforming. Using slipforming to construct concrete building cores was pioneered in the West by the firm.

Sundt Corp., M. M. Sundt's parent firm, is the construction manager/general contractor for the United Bank Tower project.

Slipforming is a rapid method of forming and placing concrete, using hydraulic jacking units to raise a specially-constructed form at the vertical rate of one floor (approximately 12.5 feet) per day.

Conventional concrete forming techniques for such an application involve the more time-consuming process of placing a floor at a time, then stripping the forms and moving them upward for the next pour.

Concrete building cores usually contain the elevators, elevator machinery, stairways, and spaces for mechanical and electrical systems. Restrooms and freight elevator lobbies also may be located in the core.

Like many modern construction techniques, slipforming was developed as a



Slipforming the tower's core took approximately one month and used a total of 2,400 cubic yards of concrete.

way to save money. Using the unique system to create a solid structural core often results in a substantial savings in total project construction time — which can mean hundreds of thousands of dollars saved by the owner in interim project financing costs. Slipforming also can reduce the overall tonnage of structural steel required for a project, for further savings.

M. M. Sundt is one of only a few companies in the country experienced in slipforming concrete building cores. To date, the firm has built more than 25 slipform projects, most of them for high-rise office buildings in Arizona, Colorado and Texas. M. M. Sundt also has used the technique to construct a variety of industrial facilities, as well as missile silos for the United States government.

Once the project begins, it generally takes about three weeks to build the custom wood and steel form, then one day to “slip” each floor of the structure.

Two shifts are used on the typical Sundt slipform job. During the day shift, crews place and finish the concrete. They also place horizontal reinforcing steel and blockouts for door openings and for use by mechanical and electrical trades. At night, preparations are made for the next day's pour, including setting the hardware which will be



Some 330 tons of reinforcing steel was used in the core.



Slipforming is a far safer building method since the form is built as a semipermanent structure, the form is moved upward as a unit carrying with it work decks, ladders, handrails, etc.

necessary for anchoring floors to the core, placing the vertical reinforcing steel, cleaning up, and performing maintenance work.

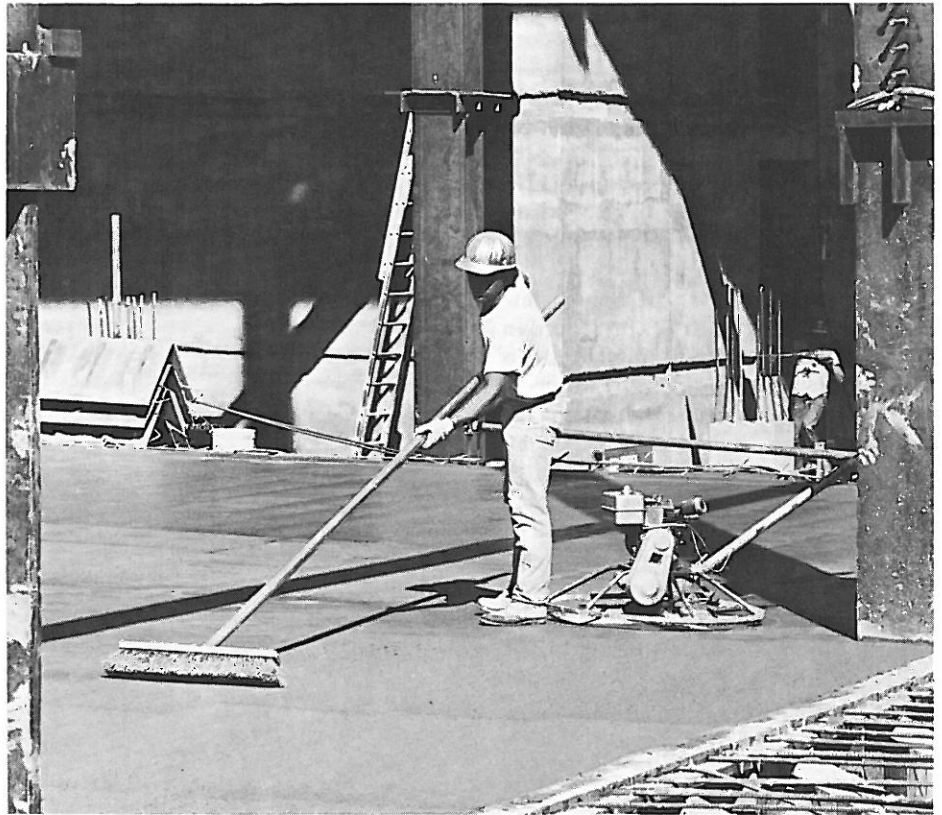
Exacting quality control measures are an important part of every M. M. Sundt slipform job. Often lasers, water levels and transits are used in combination to guide the form and keep it level. In addition, periodic samples are taken of the concrete as it is placed to ensure that it meets all specifications.

Another important benefit of slip-forming is enhanced safety. Since the form is built as a semipermanent structure, scaffolds, work decks, ladders, handrails, and even the form are not dismantled and reassembled for each floor's construction cycle, but move upward as a unit, eliminating many potential safety problems.

"Slipping" of United Bank Tower's core began Aug. 5 and took approximately one month to complete. A total of 2,400 cubic yards of concrete was used to construct the core, along with 330 tons of reinforcing steel.

Currently, workers are erecting the structural steel framework for the building. That task is scheduled for completion in January.

The building's exterior will be a unique combination of glass and granite. The rose-tinted glass was only available



Two shifts were used on this slipform project.



Currently workers are erecting the structural steel framework for the building.

from a manufacturer in Belgium. The granite was quarried in Finland and finished to the project's specifications in Italy.

Four sides of the octagonal building will have horizontal bands of flame-treated and polished granite alternating with bands of the rose-tinted glass. The opposing four sides will consist only of the glass. The horizontal mullions separating the glass from the granite will be of a slate-blue color often found on neighboring historic buildings.

United Bank Tower is the first phase of the Tucson City Center complex, a joint venture of Venture West Group, Inc., and Reliance Development Group. The \$150 million development eventually will span three contiguous blocks of downtown Tucson.

United Bank Tower, designed by C.W. Fentress and Associates, Architects, of Denver, Colo., will provide 230,000 square feet of additional office space to downtown Tucson.

Founded in 1890, Sundt Corp. is the parent firm for a diversified group of construction companies. In addition to M. M. Sundt Construction Co., subsidiaries include Sundt Industrial Contractors, Inc., Escon Incorporated, Albuquerque Gravel Products and C. R. Fedrick.