

# next floor

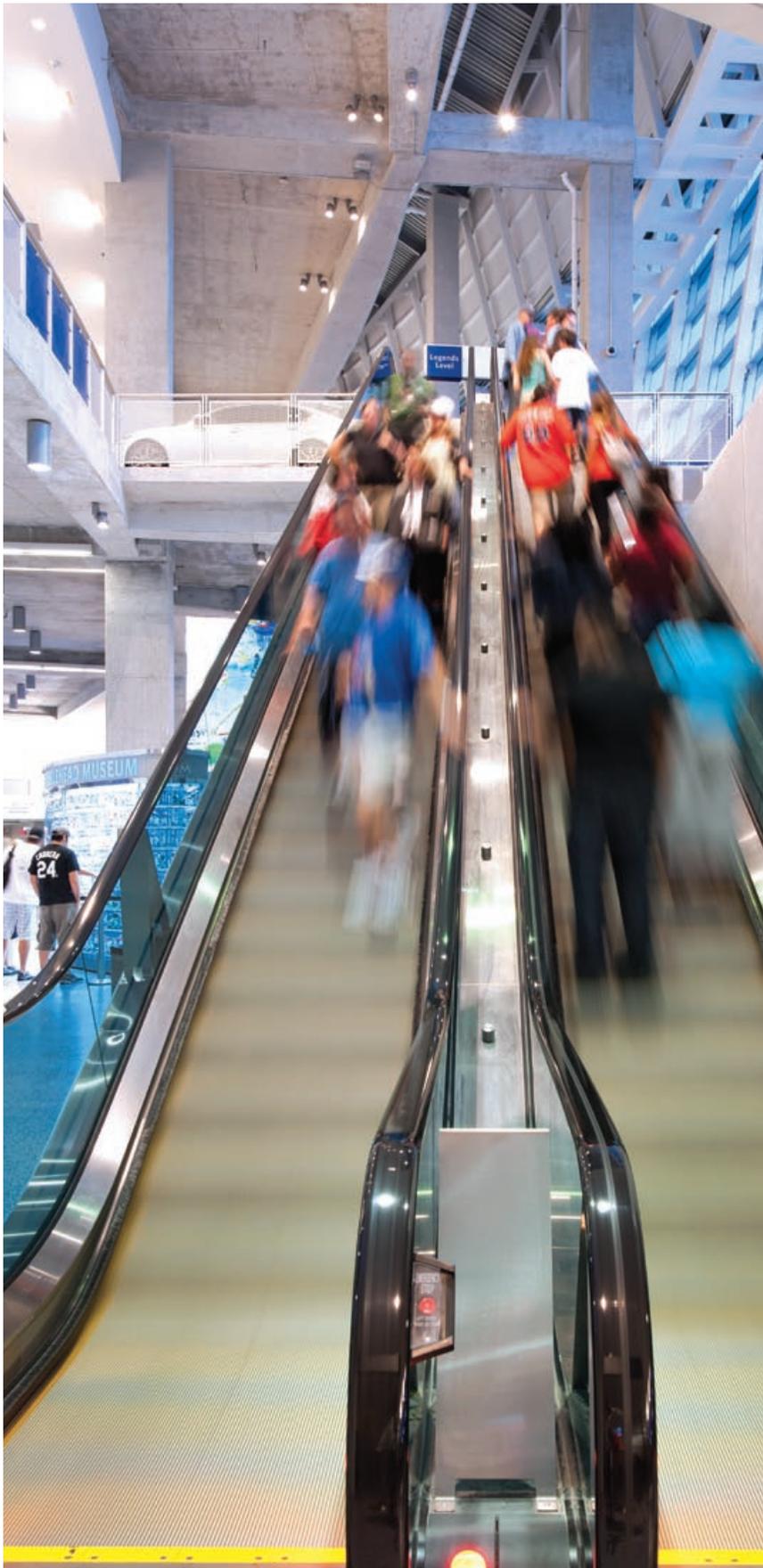


Art. Technology. Nature.

Building owners and architects are creating new environments that blend flexibility, performance, innovation and sustainability, which appeal to the lifestyles of tenants, visitors and sports enthusiasts.



**Schindler**



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Cover photo: Marlins Park in Miami, Florida. Photo above: Schindler escalators efficiently move the heavy traffic of sports fans as they enter and exit the ballpark. Photo credit: Ben Tanner Photography.

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# Adaptability



No two buildings are the same. Commercial office structures, whether low-rise, mid-rise or towering skyscrapers, need to stand out to remain competitive in diverse geographic markets. Sports stadiums must adapt to a wide range of climates. Airports have to accommodate the ever-shorter connection windows facing passengers as they move through constantly expanding terminals. Building owners and managers are finding new ways to meet the needs of tenants and visitors for convenient, reliable mobility with innovative technology. At the same time, building operators and owners are working to achieve higher levels of sustainability and environmental compatibility.

Today, technological and service frameworks are being introduced that offer sufficient flexibility to accommodate the special requirements of each building and even each tenant. In everything from automobiles to thermostats, and our own Schindler elevators, escalators and moving walks, we are seeing the introduction of intelligent products that “learn” and adapt to the needs of users. In this issue of *Next Floor*, we’ll see how building owners are combining these sophisticated technologies with local geographic features to achieve a competitive marketing advantage.

Schindler is also leading the way in supporting our customers’ focus on sustainability with innovative solutions and advanced technology. Our escalator systems are reducing energy costs by placing the escalator in stand-by mode when not in use. Our Power Factor 1 regenerative drives capitalize on an elevator’s kinetic energy to return power to a building’s electrical grid. Schindler’s exclusive PORT elevator destination control is helping developers construct greener buildings and owners modernize older structures to become more energy efficient. We have even joined a project called Solar Impulse that has developed a revolutionary aircraft using only sunlight for power. It is a partnership which affords us the opportunity to explore new technologies that will help us achieve cleaner mobility in the future.

Schindler is dedicated to helping our customers embrace change by providing the products and services that will deliver a smooth ride to the next floor, while advancing the technologies that will take us to a higher level.

A stylized, handwritten signature in black ink, consisting of several overlapping, sweeping lines that form a unique, abstract shape.

Jakob Züger  
Chief Executive Officer, Americas

This isn't your traditional or "retro-style" baseball park. Instead, Marlins Park is very much a blending of concepts ... the marriage of Miami Deco style with the feel of the local Little Havana neighborhood, the interaction of land and water, beach and city, and the mix of pastels with splashes of vibrant color. The immediate visual impact is one of sculpture, a sense of fluidity and contemporary if not futuristic architecture.

# Marlin Art





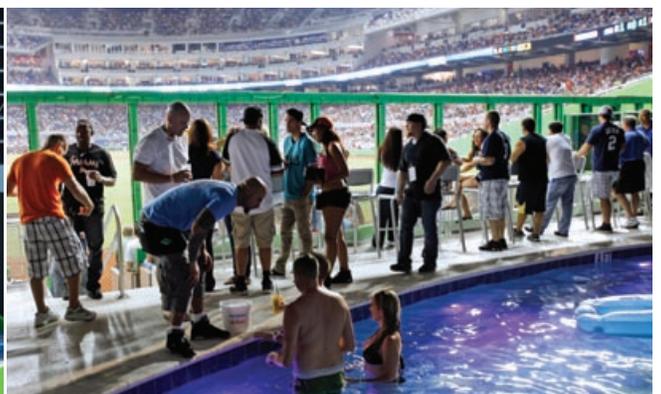
Fans enjoy a game at Marlins Park, shown with the retractable dome closed. Photo credit: Ben Tanner Photography (unless noted otherwise).

### Not your father's ballpark

Compared to other stadiums in the Major Leagues, Marlins Park is the third smallest, seating 37,442 fans. Completed just in time for the 2012 baseball season, the stadium has a retractable roof and separate retractable glass panels that offer a view of the Miami skyline two miles distant. The playing surface is natural grass, and in the outfield, large glass panels contribute abundant natural lighting, even when the roof is closed. In center field, a bright colored, animated home run sculpture called the “Marlinator” stands 75 feet high, and celebrates home runs with leaping marlins and a dazzling, laser light show.

Amenities abound, including 45 luxury suites, premium seating areas and a free trolley service to shuttle fans from the downtown area and the neighboring train station. Marlins Park is also home to a high-energy nightclub, and if this isn't surprising enough, patrons will find a swimming pool inside the club, complete with changing areas, lockers and towel service. Dubbed the Clevelander after the iconic South Beach hotel of the same name, the nightclub offers food and beverages, a DJ and entertainment. The poolside bar and grill is available on game days for individual private events for corporations, social groups and friendly gatherings. ▶

Photo far left: The Miami Marlins team logo. Photo center: The Marlins home run sculpture in center field. Photo right: Fans can enjoy a dip in the pool inside the Clevelander nightclub. Photo credit: AP Photo/Wilfredo Lee.



Palm trees grace the exterior of Marlins Park.



- ▶ Another surprise is found behind home plate in the presence of two saltwater aquariums with a combined capacity of 1,050 gallons that serve as backstops. Aquariums as backstops? The answer is bulletproof glass further protected by impact-resistant, crystal-clear polycarbonate panels that deflect the impact of foul balls, leaving the resident sea creatures especially grateful.



One of the saltwater aquariums is located behind home plate. Photo credit: Living Color Aquariums photo by Francis Yupangco.

Marlins Park is a stadium comfortable in the company of art and sculpture. For example, walkways at the west entrance are paved with colorful tiles to form what kinetic-op artist creator Carlos Cruz-Diez calls “Chromatic Induction.” A reproduction of a Joan Miró mural adorns a wall behind home plate; there is a mixed media work titled “Play Ball!” by artist Kenny Scharf near the team store; and a reprint of “The Manager” by pop-artist Roy Lichtenstein graces the main concourse. There is even a Bobblehead Museum featuring a dizzying array of baseball figures.

### **The grass field was just the beginning**

Bringing a baseball park focused on the future into harmony with its natural surroundings required truly innovative thinking. It began with setting a goal of achieving LEED® (Leadership in Energy and Environmental Design) Gold Certification, an accomplishment that would make Marlins Park the only Major League Baseball stadium to attain this distinction.

The expression of the park’s compatibility with its native environment begins with palm trees and extensive plantings that surround the park exterior and is further reflected in the stadium’s natural grass playing surface. Low VOC (volatile organic compound) paints, coatings



and materials were used in the stadium construction with the bulk of construction-related waste recycled. Marlins Park received special recognition from the U.S. Green Building Council, which is the LEED® certifying agency, for the use of recycled sneakers as a major ingredient in flooring materials used throughout the stadium.

Water conservation measures will save approximately 6 million gallons each year, and advanced controls for lighting and electrical systems will reduce energy consumption by 22 percent. A unique white membrane lines the retractable roof to reflect sunlight, keep the stadium cooler when the roof is closed and decrease the load on air conditioning.

It would be easy to describe Marlins Park as a study in contrasts ... a unique baseball stadium that is an unexpected collection of art, technology and nature. But it is more than that. It is the culmination of a vision that there can be an interaction between sport, science and the environment to create an engaging experience that elevates the game of baseball to the next level.

LEED is a registered trademark of the U.S. Green Building Council.



Mixed media artwork located on the Promenade Level entitled, "Play Ball!" by artist Kenny Scharf.

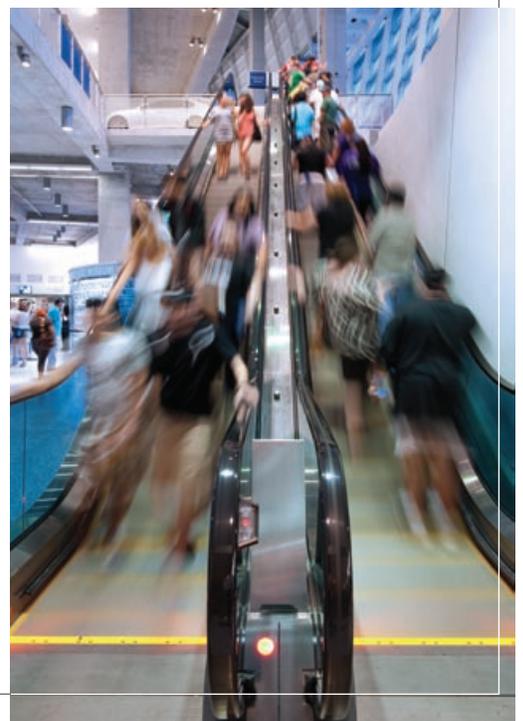
## Fast Facts

|                          |   |
|--------------------------|---|
| Construction cost        | \$634 million   |
| Seating                  | 37,442  |
| Playing surface          | Bermuda Grass   |
| Left field line          | 344 feet  |
| Left-center power alley  | 386 feet  |
| Center field             | 418 feet  |
| Right-center power alley | 392 feet  |
| Right field line         | 335 feet  |
| Elevators                | 7 Schindler 400AE machine room-less traction<br>1 Schindler 500A mid-rise traction<br>1 Schindler 330A hydraulic and 1 geared freight |
| Escalators               | 10 Schindler 9300AE   |

## Schindler at Marlins Park

Marlins Park, like other sports stadiums, has special requirements for moving people. Since escalators are required to accommodate very heavy traffic as fans enter and depart Marlin Park, these 10 Schindler 9300AE escalators were specially built to handle two times ANSI step loading requirements. Designed for outdoor applications, they feature blue glass balustrades in keeping with the Marlins' team colors. Marlins Park has three levels, and one of the escalators has a 113-foot rise. It was delivered in four modular sections with two cranes needed to set the truss.

Fans, of course, do not want to miss a minute of the action when moving within the stadium, so the seven quiet and smooth Schindler 400AE machine room-less traction elevators, a custom Schindler 500A mid-rise traction elevator and a Schindler 330A hydraulic elevator were all prewired for TV monitors. A five-year Schindler maintenance contract is in place to keep all of the equipment in top working order. ■

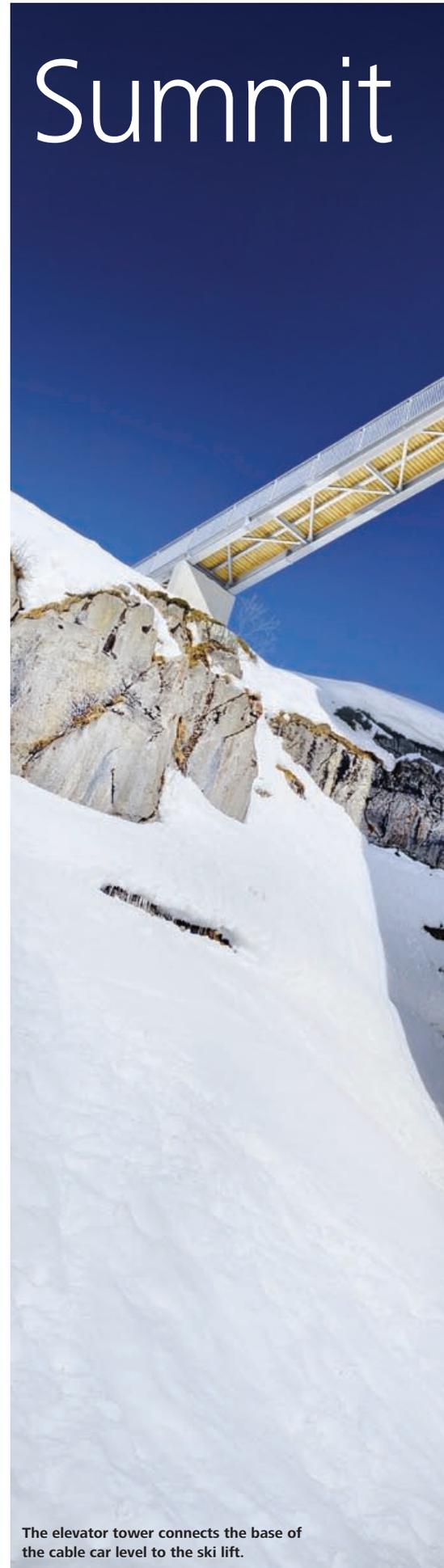


# Rise to the Summit

Melchsee-Frutt is a small mountain resort village nestled at a height of 6,561 feet in the heart of central Switzerland.



Like most Swiss alpine resorts, the views in both summer and winter are breathtaking. A picturesque chapel graces the shore of the deep blue Melchsee Lake. Surrounding mountains are draped in brilliant white snow in winter. The Melchsee-Frutt village is a popular family vacation spot offering a children's zoo, play areas, campfire sites and various themed footpaths. A car-free winter sports area, Melchsee-Frutt is home to downhill and cross-country skiing, tobogganing and hiking.



The elevator tower connects the base of the cable car level to the ski lift.



Photo below: The view from the glass-enclosed elevator car atop the tower is breathtaking.



### **By car and bar**

Access to Melchsee-Frutt village is by cable car and by T-bar to the ski area. In 2009, when the resort managers decided to modernize both systems, they considered ways to reduce the inconvenience of reaching the T-bar, which is located higher up the mountain from the cable car station. One suggestion was to construct an elevator inside the mountain, but this was proven to be too costly. Then Xander Seiler, CEO of the Melchsee-Frutt Bahnen (cable railroad) had an idea for a slim tower that would rise vertically 118 feet from the base of the cable car level to the ski lift with a foot bridge connecting the tower to the mountain. The final touch would be a round platform at the top providing a fantastic view of the valley and surrounding mountains. The idea was brilliant, but the logistics presented a challenge. ▶

► **The road ahead**

The materials for the construction of the tower traveled the very narrow road from nearby Stoeckalp to Melchsee-Frutt. Every inch of space was required for the tractor-trailer to make the trip. Nearing the 6,000-foot level of Melchsee-Frutt, the truck encountered winds as high as 80 miles per hour and these same winds confronted the crew constructing the tower, not to mention temperatures below freezing.

Schindler was selected to construct a panoramic elevator that would make its home inside the tower. In the summer, the sun's rays are so strong atop Melchsee-Frutt that tinted glass with 60 percent radiation protection had to be used to prevent the elevator car interior from becoming uncomfortably warm. Schindler customized the elevator entrance and specially designed the car for winter sports. A hidden threshold was designed that would trap snow or pebbles that might otherwise block the elevator doors. Solid strips surrounding the base of the car interior avoid damage from ski boots, and additional handrails help prevent skis from scratching the windows. A unique treatment to the elevator car ceiling is designed to resist aging from the effects of sun and weather. Given the remote location of the tower, there are no telephone lines available, so instead of an emergency phone inside the elevator, a special GPS system was installed.

**At the top**

Xander Seiler speaks favorably about Schindler and the tower project. "In the past, if visitors wanted to return from the ski runs to the village, they had to walk a long way or climb over a hill with all their equipment to reach the village. Both routes were very tiring. Now that we have the new elevator, skiers can reach the village quite easily. We've achieved an important target in our modernization program, and, together with the new cable cars and the new Hotel Frutt Lodge and Spa, we are ready for all of our visitors here at our small but sweet ski resort." ■



Photo left: Open grates in front of the elevator help collect snow and debris from passenger's ski boots.  
Photo right: The elevator tower is designed to resemble a candle in the snow.

## Fast Facts

Elevator **Schindler 5400**

Capacity **20 persons with skis**

Capability **500 persons per hour**

Total height **118 feet**

Ski range **7,398 feet to 3,540 at base**



# Higher Education



Serving the changing needs of students is the cornerstone of Strayer University, an institution focused on the special requirements of adult learners since 1892.

**F**ounded as Strayer's Business College 120 years ago in Baltimore, Maryland, by Dr. S. Irving Strayer, the college initially taught farmworkers looking to move to office jobs the business skills they would need to make the transition. As early as 1904, Strayer University started to branch out, opening a campus in Washington, D.C. This first expansion became symbolic not only of Strayer University's willingness to expand geographically but academically as well. During the 1930s, Strayer University received approval to grant college

degrees, initially in accounting, and over the course of time added health care management and a Master of Science degree. More recently, Strayer University has added graduate degree programs in education and public administration as well as an MBA.

### **Adapting to change**

Today, adult learners demand convenience and educational services, courses, and certificate and degree programs that fit busy work schedules. With a long history of bringing academic courses

to businesses and government agencies, Strayer University is doing the same for its scholars. Students come to Strayer University for day, evening and weekend courses delivered via the Internet and offered at more than 96 conveniently located campuses in 23 states. Strayer University is regionally accredited by the Middle States Commission on Higher Education, the same organization that accredits Princeton, Georgetown and other nationally recognized universities.

As part of its forward-looking vision, Strayer University acquired the Jack Welch Management Institute in 2011, named for the legendary chairman and CEO of General Electric. Welch is involved in formulating the curriculum, and the program brings an Executive MBA to Strayer University's degree offerings.

### Managing convenience

Even with the challenge of managing 96 campus facilities, Strayer University maintains a focus on energy conservation. For example, Strayer University recently installed an energy-efficient Schindler 3300 machine room-less traction elevator at its South Raleigh, North Carolina, campus. According to Trisha Chitwood of the Weiser Companies, the building manager, "With the Schindler 3300, we were able to decrease our building's electrical consumption and remain under budget. Working with Schindler has been a fantastic experience, and we certainly recommend their energy-efficient products."

Mike Black, project manager for Strayer University, adds, "The University was pleased to be part

of incorporating a "green" design element into our new South Raleigh campus facility. The uniqueness of this particular installation was the Schindler 3300 elevator. The benefit of a traction elevator, as opposed to a more traditional hydraulic piston elevator, is the elimination of hydraulic fluid. The selection of the Schindler 3300 also provided additional floor space surrounding the elevator core by eliminating a machine room and other traditional equipment such as hydraulic pumps."

Strayer University clearly embraces change in how it brings its curriculum to its students and in how it applies technology in pursuit of a higher level of sustainability. ■

This Schindler 3300 traction elevator delivers smooth, quiet performance in keeping with its academic setting.





In 1853, the city of Seattle, Washington, was named for Chief Seattle, head of the Native American Duwamish tribe. In 1854, at the age of 74, the aging chief gave a speech in which he pleaded for ecological responsibility as a demonstration of respect for the environment. His entreaty finds continuing expression today in the city of Seattle's emphasis on sustainability, a focus that has earned it a reputation as a "Green City."

**B**ut Seattle's story is also a study in survivability and adaptability, as it has traversed a series of economic booms and busts to become the largest city in the Pacific Northwest of the United States and one of the most prosperous.

### **Changing times**

Early in Seattle's history, it was known for its movement of timber. As a port city, it became a hub for the Pacific Northwest forest industry in serving foreign countries as well as the rest of the U.S. with a growing demand for lumber. With the advent of the Klondike Gold Rush in the late 1890s, the city again became a booming transportation center for supplying miners in the

Yukon and Alaska with food, clothing and equipment. As the hunt for gold declined, the city found abundant new life in shipbuilding during World War I but then suffered deeply during the Great Depression.

The arrival of The Boeing Company during World War II created yet another boom for Seattle, one that lasted beyond the post-war years as Boeing transitioned from military to commercial aircraft. Most recently, the city has become home to technology industries that encompass telecommunications, biomedical products, software and electronic retailing among others.

# Sustainable Seattle



The back of this uniquely decorated Fender Stratocaster guitar celebrates Seattle's native son, the legendary rocker Jimi Hendrix. Photo credit: Stephen Brashear/AP Images for Hard Rock International.

While Seattle is well known for its ability to adjust to changing economic conditions, it also has embraced changes in entertainment. It heralded the emergence of vaudeville, stimulated the growth of jazz and, as the birthplace of Jimi Hendrix, has earned itself a place in rock history. Seattle features its own opera and ballet companies, along with more than 100 theatrical production companies. Museums and art galleries abound, and for sports enthusiasts, Seattle offers the Seattle Mariners Major League Baseball team and the Seattle Seahawks in the National Football League, along with minor league ice hockey, soccer and basketball teams. ▶



One Union Square is the first building in Seattle to install Schindler's PORT Technology.



Photo left: Two banks of Schindler elevators flank One Union Square's office directory.  
Photo center: A passenger uses a PORT device to select his destination floor.  
Photo right: Schindler's advanced ECOLINE variable-speed escalator technology at work at One Union Square is another first for the city of Seattle.



## ECO friendly

The emphasis on sustainability that characterizes Seattle is readily apparent in its commercial development. One Union Square, owned and managed by Washington Holdings in the heart of the city, is a 36-story building completed in 1981. It received Energy Star Awards in 2005 and 2009 and was LEED® certified in 2009 by the U.S. Green Building Council. The first building in Seattle to install energy-saving Schindler PORT Technology on its 13 elevators, it recently installed two Schindler 9300AE escalators with the ECOLINE Premium option, another first in the city. This highly advanced system dramatically reduces power consumption compared with previous models by reducing escalator speed to a crawl when empty. A sensing device anticipates the arrival of passengers, and gradually and smoothly increases speed until the escalator is empty again.

According to Rick Mock, director of facilities for Washington Holdings, “We’re always looking for ways to increase the sustainability features of our properties, so when we decided to replace two of our four escalators with Schindler 9300AE escalators, we specified the optional ECOLINE system. We anticipated a change in local building code that would allow variable-speed equipment. But instead of waiting, we elected to apply for a code variance, which was approved once the building inspectors saw the escalator’s ECOLINE system in operation. You might say we were something of a test case. It’s been more than a year, and the system has performed extremely well. I actually applied an amp probe to the unit and was able to quantify a 60 percent reduction in amperage when the escalator enters the crawl speed. Needless to say, that adds up to measureable energy savings. Any escalator I install in the future will certainly include this variable-speed technology.”

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## Fast Facts

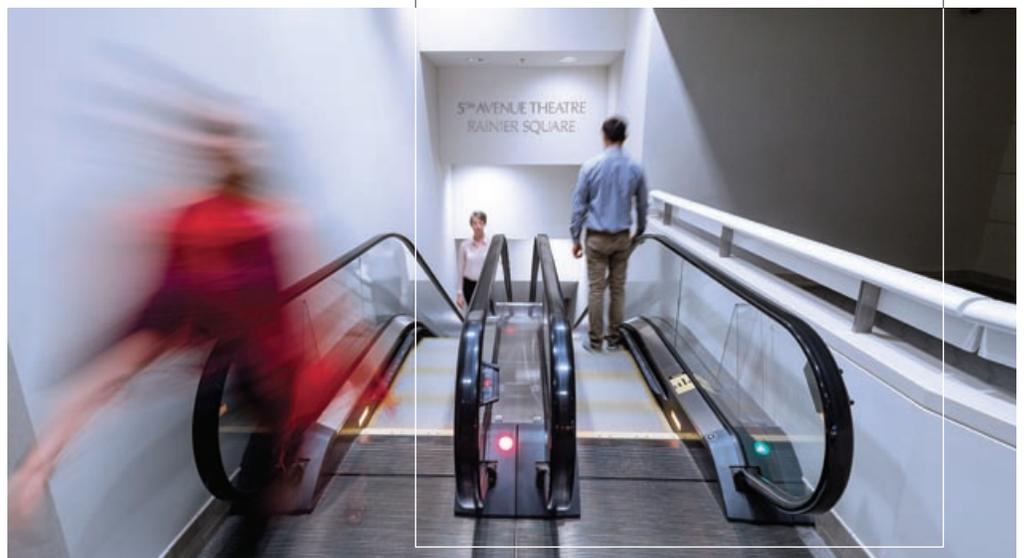
|                                      |
|--------------------------------------|
| Multi-tenant Class A office space    |
| 36 floors above ground and two below |
| Completed in 1981                    |
| 657,531 square feet                  |
| Building height: 456 feet            |



Rick Mock, director of facilities for Washington Holdings.

## Sustainability at One Union Square

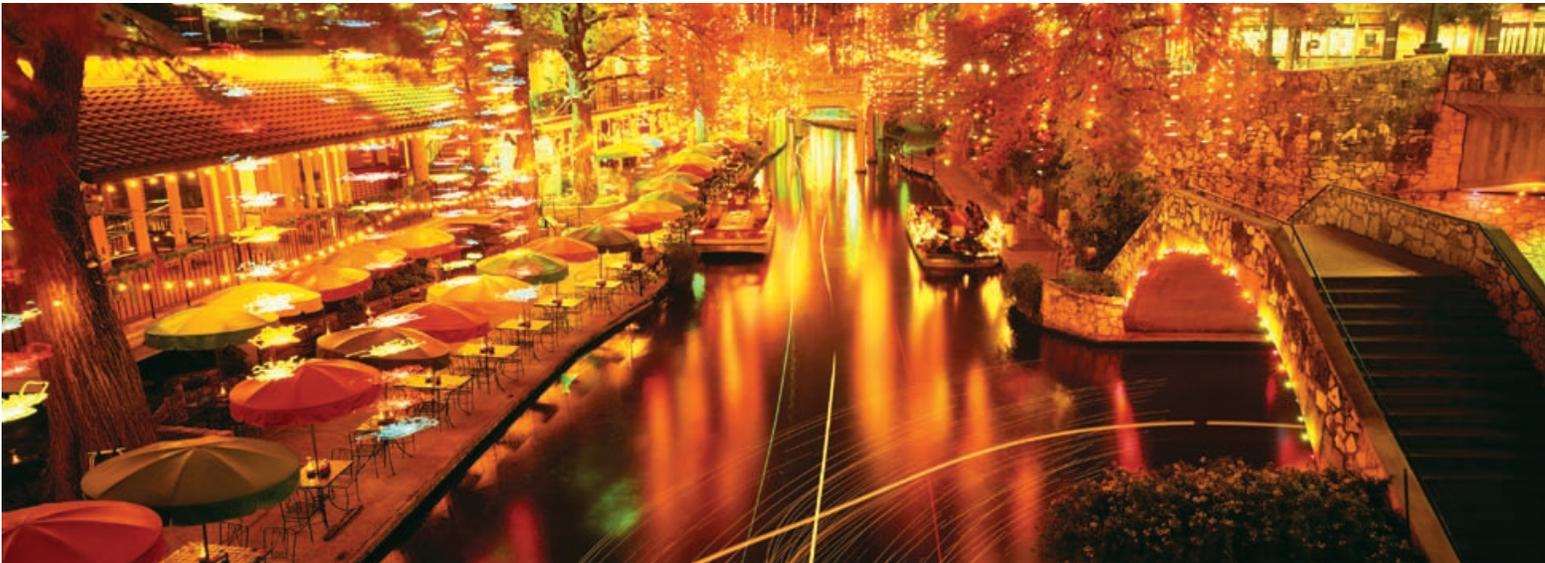
Through advanced ventilation and lighting systems, energy consumption has been reduced by 7.5 million kWh annually — or enough energy to power 650 homes every year. Recycling and composting efforts are diverting 480 tons of materials from regional landfills. That’s enough material to fill the cargo space of 1,000 SUVs. One Union Square has an Energy Star rating of 91, placing it in the top 10 percent of all buildings in its class. ■



The small group of Spanish explorers had been traveling north from Mexico and was about 150 miles into what is now Texas. They had been searching for a suitable place to make camp and found a location near an Indian village along a river. It was June 13, 1691.



# The River Winds Through It



Photos above, left and right: Two views of San Antonio's River Walk at night.

The Franciscan chaplain of the journey suggested that they name the place for Saint Anthony of Padua because it was his feast day. The Spanish general leading the expedition agreed with the friar and also gave the river the same name ... San Antonio. *Vayamos con el río, let's go with the river!*

## **Vibrant presence**

San Antonio is a city alive with energy. As Texas' second-largest city and the seventh most populous in the United States, San Antonio experienced steady growth since its founding with much of its residential development attributed to the immigration of large numbers of German families during the 1800s. Today, it has become a magnet for tourism and is host to a range



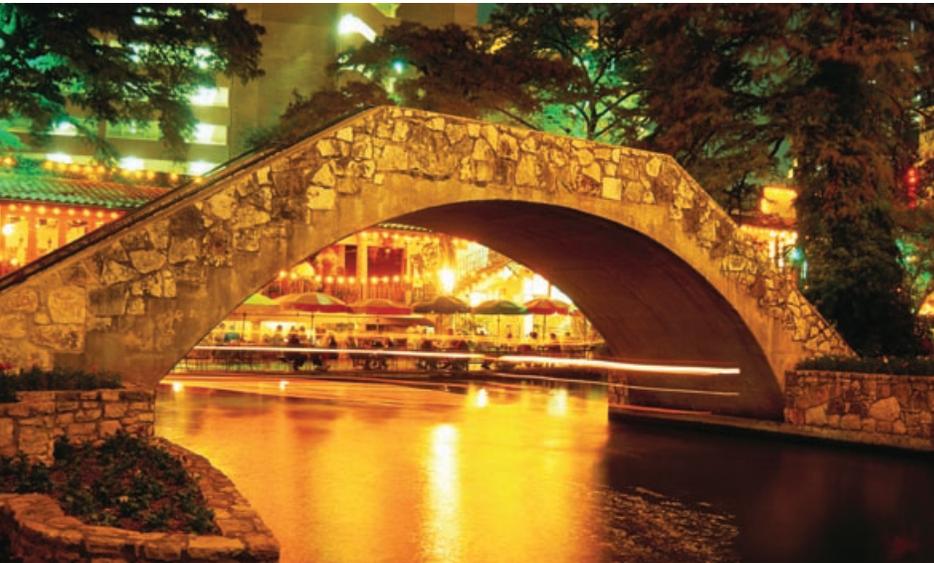
Photo above, left: Constructed in 1720, San Antonio's historic Mission San Jose is called the "Queen of the Missions." Its imposing stonework framed by gracefully curved arches is representative of the Spanish architectural style. Photo above: Originally named Mission San Antonio de Valero, the Alamo served as home to missionaries and their Indian converts for nearly 70 years.

A major tourist attraction is the River Walk, a series of walkways along the San Antonio River that extends through the heart of the city. The River Walk is lined with hotels, shops and restaurants, and connects pedestrians to attractions like the Alamo, the San Antonio Museum of Art, the Riverside Mall, Arneson

River Theater and HemisFair '68, site of the 1968 World's Fair. A heart-shaped islet in the middle of the river is dubbed Marriage Island and, as its name implies, hosts more than 200 weddings each year. Visitors who would prefer to float rather than walk can take a sightseeing boat along the river as it winds and curves through the city and under bridges that connect the opposing banks.

### Vital endeavor

In 1921, the San Antonio River flooded the city. To ensure the future viability of the city, city fathers developed plans for controlling the flow of the river by constructing two dams, one upstream and the other downstream. In 1929, a local architect, Robert Hugman, submitted designs for a river walk, but it wouldn't be until 1938 when funds were finally allocated for the "San Antonio River Beautification Project." In 1946, the first restaurant, The Casa Rio, was opened along the river and today is one of the River Walk's landmarks. ▶



A walkway offers visitors the perfect afternoon stroll along the river.

of commercial enterprises, most notably health care, financial services and defense industries. The city is home to military bases that include Fort Sam Houston, Randolph Air Force Base, Brooks City-Base and Lackland Air Force Base. The four-time NBA champion San Antonio Spurs make their home here, along with entertainment venues like Sea World San Antonio and Six Flags Fiesta Texas.



- ▶ In addition to restaurants, hotels competing for visitors found the River Walk to be an ideal location. Hotel entrances could be accessed from the River Walk as well as the street one level above. With pedestrian traffic separated from auto traffic, guests can enjoy a relaxing stroll along the river as well as easy access to the plazas and attractions above.

Thanks to innovative modular construction techniques, the Hilton Palacio Del Rio was constructed in just 202 working days in 1968 by Zachary Construction Corporation, the original builder and current owner.



### **Visionary technology**

The Hilton Palacio Del Rio is situated on the River Walk and conveys a contemporary, hacienda-style ambience. The 22-story hotel, constructed in 1968, offers 485 guest rooms with private balconies and a full complement of amenities. Corporate guests have access to 25 meeting rooms, along with 27,000 square feet of function space. Meeting facilities are located on both the fourth floor mezzanine level and the 22nd floor.



Robert Thraikill, general manager of the Hilton Palacio Del Rio.

Providing guests convenient access to the River Walk, street level, their guest rooms and the two meeting levels was the responsibility of the hotel's four Westinghouse passenger elevators, which had not been updated since 2000. According to Robert Thraikill, the Hilton Palacio Del Rio's general manager who supervised a \$35 million renovation of the facility, "We wanted to be certain that we could provide our guests with the most advanced and efficient elevator system on the market, and ensure we would successfully compete with other, newer hotels along the River Walk. We conducted an extensive competitive review and Schindler, the company that had been maintaining our elevators, was of course included because we were quite pleased with its service performance.



“After completing our thorough evaluation and analysis, we decided Schindler’s PORT Technology would provide our guests with the very best experience. The system is tremendous, and the improvement in efficiency is dramatic. Guests simply enter their destination floor into one of the PORT devices and are directed to the elevator that will take them there with the fewest stops and in the shortest time. The PORT Technology will allow us to expand the system going forward

at our own pace. We can add card readers or RFID scanners and even incorporate elevator requirements into room access “key” cards when we’re ready.”

**Perfect together**

San Antonio’s River Walk is a striking example of our ability to control the forces of nature, while at the same time celebrating the beauty our natural environment can bring to commercial development. It is a testament to the adaptability of a city to its geography and offers

a model of compatibility that is inspiring other cities across the United States and as far south as Mexico.

The Hilton Palacio Del Rio is also serving as a model by adapting to the needs of its guests through the application of an advanced system like Schindler’s PORT Technology. It is the first installation of its kind in San Antonio and one that is sure to lead to others in the city and the region. ■

**Fast Facts**

|                             |   |
|-----------------------------|---|
| River Walk length           | about 5 miles   |
| River Walk extension        | \$279 million development project that will extend the River Walk to 13 miles by 2014 |
| San Antonio population      | 1.3 million   |
| Annual San Antonio visitors | 26 million  |
| City area                   | 412 square miles  |



# Green Takes Flight



The city of Portland is framed by Mount Hood in the distance.



Oregon's majestic landscape shows Crown Point overlooking the Columbia River.

Portland, Oregon, is considered to be one of the greenest cities in the United States. It mirrors a respect for the environment that permeates throughout Oregon, a state with a remarkably diverse geography.

Oregon stretches from its western coastline along the Pacific Ocean through timber forests and the Cascade Mountains in its central portions to desert areas near its eastern border with Idaho. Portland, Oregon's most populous city, is located in the northwestern corner of the state. Originally incorporated in 1851, it became a commercial center thanks to its access to both the Pacific Ocean via the Willamette and Columbia rivers and the fertile agricultural lands that lay to its south. At its start, with fewer than 1,000 inhabitants, Portland was home to a sawmill, a newspaper called *The Weekly Oregonian* and a hotel.

Photo below, top right: A neon sign proudly announces Northwest Portland's Old Town with its famous water tower seen in the background. Photo below, middle left: The Royal Rosarian Foundation float passes through the streets during Portland's annual Rose Festival Parade. Photo below, bottom right: Washington Park Rose Garden is one of the oldest and most popular parks in Portland. Photo credit: Portland Parks & Recreation.



There is another aroma that can be enjoyed in Portland by visiting its more than 40 breweries, believed to be more than any other city in the world. The prevalence of breweries can be traced back to the late 1800s but grew dramatically in the 1980s when the consumption of beer was permitted on microbrewery property. This abundance of breweries and delight in the consumption of the frothy beverage has added another distinction to Portland as perhaps the best city in the United States to enjoy happy hour. ▶

### Of roses and beer

Portland is known as the "Rose City," thanks to 20 miles of rose-bordered streets. This preoccupation with roses led to the creation of The International Rose Test Garden, a 4.5-acre plot that 500 varieties and 7,000 rose plants call home. As the oldest continuously operating rose test garden in the United States, it receives rose plantings from across the globe to be tested for color, fragrance and a range of other attributes.



► **An economy takes off**

Portland has come a long way from having a sawmill as its only business. With an excellent location and business-friendly city government, it has grown continuously and drawn major corporations from a wide range of industry sectors, including Intel, Nike, Freightliner Trucks, Adidas, Columbia Sportswear and Leatherman Tools, to name just a few. Portland offers businesses excellent marine shipping facilities, interstate highway access, intercontinental rail services and an outstanding air terminal.

Completed in 1940, the Portland International Airport was the successor to an airfield that was originally constructed on nearby Swan Island in 1927 and dedicated by the legendary aviator Charles Lindbergh. Since that time, the airport has undergone several expansions and continuous improvement. Today, Portland International Airport serves nearly 14 million passengers a year — or 90 percent of Oregon’s air travel. The airport also is responsible for the movement of 95 percent of the state’s air cargo.

**On the move**

Schindler maintenance plays a key role in keeping both passengers and cargo on the move. In 2006, Schindler was awarded the maintenance contract for all of the airport’s 108 elevators, escalators and moving walks. There are currently five full-time elevator technicians dedicated to the airport who work two shifts during the week, covering 7 a.m. to 11 p.m., Monday through Friday, with a crew of technicians designated “on call” during weekends.

The Port of Portland has instituted a true preventive maintenance approach to the facility, and the Schindler technicians who implement this are vital to its daily operations. Technicians are encouraged to identify and replace critical components as needed. An improvement in reliability is allowing the service technicians to focus on preventive maintenance rather than fixing non-working equipment.

The airport’s new corporate headquarters building, which sits above a 3,000-space long-term parking garage, is LEED Platinum Certified, the highest distinction awarded by the U.S. Green Building Council for energy efficiency and sustainability. Of course extensive energy-saving measures are at work inside the terminal as well.



## Fast Facts – Portland International Airport

Annual passengers: nearly 14 million

Elevation above sea level: 30 feet

Aircraft operations: 200,000+

Original cost: \$1.6 million

Annual cargo moved through airport: nearly 220,000 tons

Units under Schindler service: 108 elevators, escalators and moving walks

Photo below, left: The Portland International Airport is the busiest in Oregon. Schindler moving walks speed air travelers to their departure gates. Photo credits: Q. Tseng Photography, airliners.net. Photo below, middle: Inside the terminal, strategically located video panels display flight information. Photo below, right: Nearly 14 million passengers are served annually at Portland International Airport.



### A series of firsts

Schindler has installed 10 Schindler 500A elevators at the airport parking garage, two 400AE elevators in the corporate headquarters, along with a freight elevator and 14 moving walks in the airport, 12 of which have the ECOLINE full auto-stop/auto-start feature. Portland International Airport is the first in North America to have moving walks with this energy-saving capability that stops the moving walk when not in use and starts when it senses pedestrians approaching.

### The view ahead

The city of Portland knows where it's going and what the future will look like. Its commitment to adapting to the needs of its citizens for expanding services while preserving the environment is tangible and has become a model for other cities to follow. While many energy-saving programs deliver cost-saving benefits, for Portland this isn't the only justification. This is a city that sees sustainability as the right thing to do — and a key investment in preserving the natural resources that have made it grow and prosper. ■



A dedicated team of Schindler technicians keeps Portland International Airport on the move.



## Where the Red and Gold Rush

Creative design, advanced technology and the five-time Super Bowl champion San Francisco 49ers will all find a home in the new Santa Clara stadium currently under construction.

The 1.85 million-square-foot, 68,500-seat stadium will feature open pedestrian plazas, commercial community space, a 49ers team store and a 49ers Hall of Fame.

The stadium is functionally designed to create a building that can be used for a wide range of events, including professional and college football, soccer, motocross, concerts and civic events.

### Technology showcase

Santa Clara Stadium will incorporate a range of sustainable technical features, including solar panels, a “green” roof that reduces heating and cooling energy requirements, water-conserving plumbing fixtures, sophisticated building control systems and recycled materials. In addition, it will offer stadium-wide Wi-Fi capability, mobile connectivity,

IPTV (Internet Protocol Television), and colossal high-definition video boards measuring more than 13,000 square feet.

Schindler will also be contributing to the stadium’s list of sustainability features with advanced mobility systems in the form of 25 elevators, 18 of which are Schindler 400AE machine room-less units, and 38 Schindler 9300AE escalators. The Schindler 400AE elevator system uses high-efficiency AC gearless machines to reduce energy usage and Power Factor 1 drives that regenerate energy back into the building’s electric system, where it can be used to power lighting, air conditioning or other equipment. The elevator cabs are equipped with energy-efficient



Photo above, top: An artist’s rendition of the completed Santa Clara Stadium. Photo above: The Schindler escalators will highlight the team colors of the San Francisco 49ers. Photo top and above credit: HNTB.

compact fluorescent lighting. Planned for completion by the 2014 NFL season, Santa Clara Stadium will kick off a new era for the San Francisco 49ers and usher in the next generation of sports stadium design. ■

# next news



## SCHINDLER MARINE TO EQUIP NEWEST ROYAL CARIBBEAN CRUISE SHIPS

Two new cruise ships, commissioned by Royal Caribbean International, the world's second-largest cruise operator, are the first of a new generation of ships. Schindler Marine will supply each ship with 16 passenger elevators, including six scenic designs, 13 service elevators, three dumbwaiters and three platforms for disabled passenger access. Schindler Marine's specialist engineering team has been working on the project for over a year, developing fully customized solutions to fulfill Royal Caribbean's requests. The ships will each carry more than 4,100 guests.

## SCHINDLER CHOSEN SOLE SUPPLIER FOR LANDMARK BUILDING IN CHINA

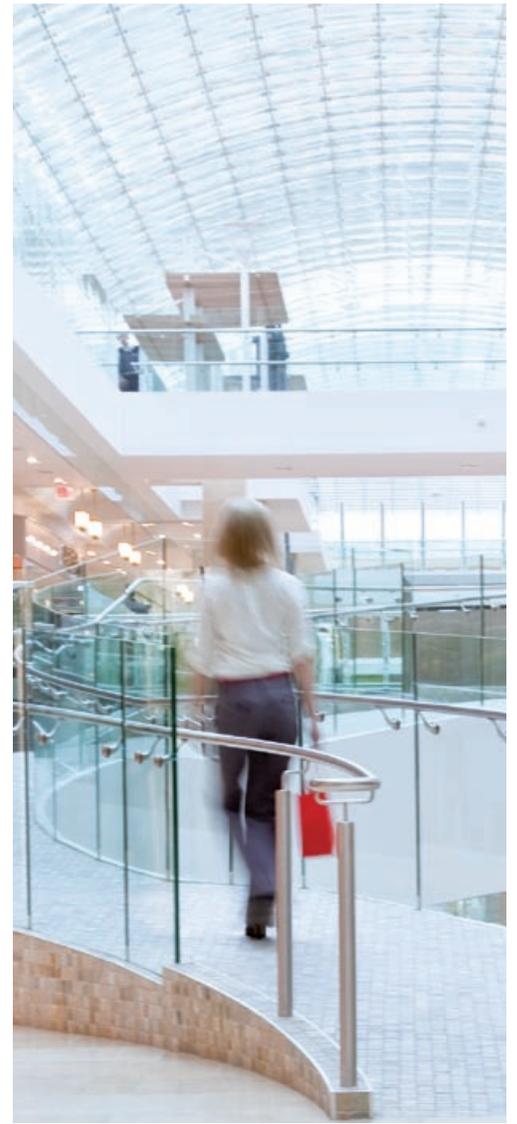
Schindler China has been awarded a major contract for vertical transportation in a mixed-use building in the HuaQiang central business district of Shenzhen, China. The contract with Shenzhen Guang Hai Investment Co., Ltd. includes the installation and maintenance of 26 Schindler 7000 elevators, six Schindler 5400AP high-capacity passenger elevators and 14 Schindler 9300AE escalators. As the only elevator and escalator partner involved in the project, Schindler is solely responsible for vertical transportation. The building will contain office, residential and hotel space.

## SCHINDLER SELECTED FOR HARBOR PROJECT IN SYDNEY, AUSTRALIA

Schindler will supply 106 elevators for a new waterfront development in Sydney known as Barangaroo South. The elevators have an A-rating for energy efficiency, according to the measurement standard VDI 4707, developed by the Association of German Engineers, and will be equipped with Schindler's advanced PORT Technology, which takes passengers to their destinations quickly and efficiently. Schindler is supplying elevator systems for three office towers in the development's commercial hub. The contract includes 78 Schindler 7000 high-rise elevators, as well as 28 Schindler 5500 elevators. The Schindler 7000 elevators will employ Power Factor 1 regenerative drives that feed excess power back into the building's electricity grid.

## SCHINDLER GERMANY SIGNS HISTORIC CONTRACT

Schindler will equip the new satellite building of Terminal 2 at Munich Airport with 50 elevators, 56 escalators and up to 20 moving walks. This is the largest single order for Germany's leading elevator manufacturer. Since Terminal 2's opening in 2003, it has been equipped with Schindler systems throughout. When complete, the improvements will allow the terminal to handle up to 11 million more airline passengers every year. Work on the satellite building, which will become operational in 2015, is scheduled to begin early in 2013.



## When getting ahead means slowing down

From top to bottom, the Schindler 9300 Advanced Edition escalator integrates style, strength and safety, as well as energy efficiency. When passenger flow is sporadic, the Schindler 9300AE escalator with ECOLINE can slow to crawling speed to deliver significant energy savings. Sensing a passenger's approach, the escalator gently resumes normal operating speed. In addition, the Schindler 9300AE has an optimized drive system that can reduce nominal motor power use by as much as 27 percent over older models.

Schindler is the #1 escalator company in North America with award-winning manufacturing in Clinton, North Carolina. Learn more about the Schindler 9300AE escalator by visiting our website or contacting your local Schindler representative today.

[www.schindler.com](http://www.schindler.com)



**Schindler**