IN FOCUS: Los Angeles, USA

Creating a more connected and resilient Los Angeles

Everyone deserves access to jobs, clean air and public facilities. In Los Angeles, California, our work on a range of major public transportation and infrastructure projects is helping communities to redress past imbalances and create a more equitable and resilient future.

The Los Angeles metropolitan area is a global economic hub, with annual GDP close to USD 1 trillion thanks to a range of industries.

This economic success has come with social challenges, however. Heavy reliance on road transportation has resulted in high levels of harmful air pollution. And insufficient public transit infrastructure has meant that not everyone has equal access to education, jobs, services and recreation areas.

City, county and state planners are addressing these challenges by developing new infrastructure – and Skanska is playing a key role.

In Los Angeles County, leaders are prioritizing the extension of the public transit system. Since 2014, we have been working to deliver the Regional Connector Transit Corridor Project for the Los Angeles County Metropolitan Transportation Authority (LA Metro). While the county has an extensive public transit network, there have long been gaps in the Downtown area which have forced travelers to make multiple changes on long journeys and have left key city locations unserved.

As the managing partner of the Skanska-Traylor Bros joint venture, we are delivering a 3.1-kilometer (1.9 mile) light-rail extension that will reconfigure the transportation system, add capacity and ease congestion not only on Downtown roads but throughout the region.

The project consists of three new light-rail stations created in the Downtown area at depths of between 12 and 34 meters (39-111 feet). Once opened in 2023, the Regional Connector will allow commuters to take a single trip from Azusa in the mid-northeast of the county to Long Beach in the south, and from East Los Angeles to Santa Monica on the coast, saving around 20 minutes on the trip. This will provide residents of all backgrounds with easier access to jobs, the Downtown district and to beaches.

We are also working on the LA Metro Purple Line Extension Project. This project extends the Purple Line heavy-rail subway system westwards from its current terminus at the Wilshire/Western station to the Mid-Wilshire area of Los Angeles. The entire project, consisting of three phases, will have seven new stations, extending the line to Beverly Hills, Century City and Westwood. This will provide access not only to jobs but also to some of the city's most famous museums, universities and cultural attractions.

As the managing partner in the Skanska-Traylor Bros-JF Shea Construction joint venture, we are delivering Phase 1 of the project, a 6.3-kilometer (3.9 miles) extension that will include three new stations in the cities of Los Angeles and Beverly Hills. This part of the extension runs under some of the county's most trafficked boulevards, and our teams have been particularly focused on minimizing disruptions for residents and commuters.

The project is remarkable for the technical solutions we have pioneered. While such an extension to the line was first proposed nearly 40 years ago, it was not feasible at the time due to the challenges of working under the La Brea Tar Pits. These natural heavy-oil reserves create hazardous work conditions, with factors such as groundwater issues and explosive gas. Our work has involved not only addressing these oil and gas deposits but working with paleontologists to document and preserve significant fossil finds that date back to the last Ice Age. Phase 1 of the extension is expected to open in 2024.

Slightly to the east of Downtown Los Angeles, we delivered the Sixth Street Viaduct Replacement Project in 2022. Working in a joint venture with Stacy and Witbeck, our work involved building a new 1 kilometer viaduct bridge concept envisioned by Los Angeles-based architect Michael Maltzan. The original viaduct was built in 1932 and demolished in 2016 due to seismic instability. The new bridge features 10 pairs of sculptural arches as well as 388 hangers. The largest bridge project in LA history, it is 12 meters wider than the old bridge at around 30 meters.

The new bridge, which opened in July 2022, enhances the lives of Los Angeles residents by connecting the community of Boyle Heights to the city's thriving Arts District. Unlike its predecessor, it features dedicated bike and pedestrian lanes, encouraging both physical exercise and bicycle commuting. The space under the bridge will also undergo a remarkable transformation, as the City of Los Angeles plans to convert a section into 5 hectares (12.3 acres) of public park.

Work on these projects follows Skanska's successful 2016 delivery of the Expo Light-Rail Transit Phase 2 Project, which connected Downtown Los Angeles with Santa Monica.

As Los Angeles continues to grow and as city leaders increasingly look at ways to improve infrastructure and the built environment, we look forward to continuing to be the construction company of choice on projects that help shape a healthier, more sustainable and more prosperous City of Angels.

Sixth Street Viaduct Los Angeles USA

IN FOCUS: Nice-Middleton Bridge, Maryland/Virginia, USA

Crossing the Potomac, safely and comfortably


Nice-Middleton Bridge Maryland/Virginia USA

A good bridge does a lot more than link two points – for one, it creates a better experience for travelers. Designed and constructed by a Skanska-led joint venture, the Nice-Middleton Bridge near Washington DC has significantly reduced traffic queues while also removing the fear factor for drivers making the crossing.

Until recently, crossing the Potomac River on US Route 301 was a stressful affair. The old two-lane bridge stretching between Maryland and Virginia was not designed for today's traffic volumes, resulting in long delays at peak times such as holidays. What's more, the 82-year-old bridge's lack of lane shoulders, its relatively low safety barriers and its height 38 meters above the Potomac left many feeling giddy and nervous as they drove across.

That changed in October 2022 with the opening of the new Governor Harry W. Nice Memorial/Senator Thomas "Mac" Middleton Bridge, also known as the Potomac River Bridge. Designed and constructed by a Skanska-led joint venture for the Maryland Transportation Authority, the modern four-lane bridge has eliminated traffic delays while also providing a far more pleasant experience for those anxious about heights or driving across bridges. The concrete bridge was delivered two months ahead of schedule and on budget, with the customer praising the construction and design process, and cooperation with our team.

Our joint venture signed the project contract in January 2020, with work starting that March. From the earliest design stages, we worked to ensure a safe and efficient construction process. For example, the bridge was designed to use similar structural elements across its span, enabling the same form systems to be used repeatedly without major modifications. Another creative and innovative solution – using barges, a tower pump on the water and an on-site concrete batch plant to create a seamless concrete delivery system – set us apart during the bid process. An experienced and strong team was also key.

The new USD 463 M bridge spans 3 kilometers (1.9 miles) and has a clearance of 41 meters (134 feet). It carries two 3.7-meter (12.1 feet) lanes of traffic in each direction with 60-centimeter (2 feet) shoulders on each side, allowing maintenance and emergency access.

A modern electronic toll-collection system eliminated the need for the old toll plaza, which caused significant delays. Other features include a concrete barrier between lanes of oncoming traffic and the ability to divert traffic to the other side of the median in the event of an accident. The traffic control system includes lane-use signals with dynamic messaging to control traffic. The bridge has a design lifespan of 100 years, 25 years more than the original requested design life.

IN FOCUS: Gottorps Hage, Malmö, Sweden

Family-friendly, comfortable and less climate impact

People around the world are looking for ways to reduce their impacts on the environment and live more sustainably. At Gottorps Hage, south of Malmö, Sweden, our 14 new terrace houses provide families with comfortable homes as well as a way to reduce their energy bills and carbon footprints.

The Gottorps Hage terrace houses have been designed and built to minimize their climate impact, including using renewable heating and electricity.

The first step was to design the houses to be as energy efficient as possible, using 55 percent less energy than the standard set by the Swedish housing authority. Features include ventilation heat reuse, low-consumption faucets and showers, energy-efficient windows and low-impact white goods.

Next, we minimized climate impact during construction through measures such as using low-carbon building materials and efficient transport to site. The frame of each terrace house uses timber rather than concrete, due to the lower climate burden of wood. Concrete is used only in the foundation slab, and a low-carbon variety was used: a large proportion of cement was replaced with slag, reducing carbon emissions by 34 percent.

For insulation, we used Swedish glass wool, which has half the climate impact of stone wool and a high proportion of recycled glass. The insulation basically comprises cell plastic with reclaimed materials that reduce climate impact by up to 90 percent.

All equipment on site was fueled with HVO100, a renewable diesel produced from waste products.

The city plan specified brick as the main component for the façade. We selected hollow bricks that are fired with biogas, reducing the climate impact by 30 percent compared with normal bricks.

As part of our efforts to reduce the impact of construction, no waste was sent to landfill.

Reduced energy demand

Finally, each terrace house has efficient solar panels on its south-oriented roof, designed to maximize the surface area available for power generation. The resulting energy is fed back into the grid, resulting in a lower power bill. Each house generates 8,500 kWh per year; heating is provided using biogas.

As with all our new homes in Sweden, the terrace houses at Gottorps Hage will be certified according to the high standards of the Nordic Swan Ecolabel, confirming that they are built to allow for low energy consumption and with carefully selected materials to ensure minimal harm to the environment and people's health.

The project consists of 14 terrace houses and 24 freestanding homes built around an attractive central common garden. It is the first in a series of developments we have planned in the Bunkeflostrand district outside Malmö, that will eventually deliver 550 new homes. This includes 300 apartments and 250 single-family houses.

Work building the homes started in 2021 and the project is due for completion in April 2023. The 38 homes were released to the market in 2021 and quickly sold out. By the end of 2022, around 30 home buyers had moved in, with the remainder due to move in during 2023.

IN FOCUS

The future is flexible

For ROCKWOOL, a family business formed in Denmark 85 years ago, reoccupying the office as soon as it was safe to do so after the pandemic was a top priority.

"We are flexible, but at the same time we are a family company, so we believe in human connection – that by being in the office you are more creative, you can react more quickly and ultimately be more effective," says Ewelina Płocieniczak, Head of ROCKWOOL GBS.

The mineral wool products manufacturer leased 5,600 square meters (60,000 square feet) during 2019 at Nowy Rynek in Poznań, western Poland, an award-winning mixed-use project that Skanska successfully divested in 2022 to Eastnine for EUR 121 M (SEK 1.3 billion). ROCKWOOL secured a further 880 square meters during 2022.

The extra space enabled ROCKWOOL to tailor its workspace to improve productivity and employee well-being. The company utilized its own soundproofing insulation to reduce unwanted noise. Silent rooms and phone booths have been installed for employees seeking quiet spaces to work. There are dedicated rooms for yoga and mindfulness, while a brainstorming space encourages teams to stand rather than sit while they discuss ideas. Snooker and table-tennis tables offer an opportunity to brainstorm in an informal setting.

"We divided the space to take away any feeling of being in a factory, but we also wanted to promote more creative methods of being productive," Płocieniczak says. "One of the big lessons from the pandemic was the degree to which circumstances change, so the office really needs to be flexible and agile – it must adapt as we change."

Her observation mirrors the trends that Skanska is seeing in the market. The leasing market is competitive, but we are seeing patterns emerging for post-pandemic tenant demand. Companies are highlighting the importance of modern, sustainable and flexible premises with an increased focus on wellness and amenities, to bring employees back to the office. This is a good fit with Skanska's property portfolio.

Building D, the latest building in the Nowy Rynek complex environmental features resulted in it receiving WELL Health & Safety and LEED Platinum certifications. It is expected to obtain WELL Core & Shell certification in the future. The building also impressed the jury of the Polish Green Building Council's 2022 Green Building Awards, who presented it with the Best Certified Ecological Building award.


Nowy Rynek Poznań Poland

The ultra-modern space at Nowy Rynek has been a key factor drawing teams back to the office, Płocieniczak says. The building is powered by 100-percent renewable energy and uses climate-smart features such as low-speed ventilation, chilled beams, LED lighting, energy-efficient cooling (free cooling), and gray- and rainwater systems. The building boasts facilities for cyclists and its roof is home to hives containing some 30,000 bees.

Each week, the company's well-being ambassador leads a mindfulness session or guided meditation for between 20 and 40 employees. These sessions began with just two attendees immediately after the pandemic and have grown steadily ever since. The initiative is part of a broader drive by ROCKWOOL to utilize its office as a place to boost employee well-being.

"Well-being is hugely important to us – and I don't just mean work-life balance or playing sports, but how you deal with your workload and any stress you feel from it," concludes Płocieniczak.

IN FOCUS: 1550 on the Green, Houston, USA

Breathing easy with a reduced carbon footprint in Houston

At home or at work, we all have the right to pure, clean air. Our 1550 on the Green development takes office air quality to new levels, while delivering a reduced environmental footprint courtesy of features such as low-carbon concrete.

Now under construction in downtown Houston, 1550 on the Green is due for completion in late 2023. Externally it resembles six separate towers ranging in height from 12 to 28 floors. Internally it provides 35,000 square meters (375,000 square feet) of contiguous space, much of it overlooking the city's Discovery Green urban park.

Designed by the New York office of Danish architectural firm Bjarke Ingels Group, the development features a distinctive side core with the elevators at the rear, opening up the central core.

The project team used Skanska's Embodied Carbon in Construction Calculator (EC3) planning tool to calculate emissions for the main construction materials, and reduce climate emissions from materials by around 34 percent so far. The biggest reductions come from the choice of concrete and rebar.

Lower levels of embodied carbon

A strategic procurement process enabled the use of concrete with lower levels of embodied carbon. Such concrete was used in foundations, the superstructure, basement and garage. This was achieved through close coordination with the subcontractor and supplier who substituted some of the cement in the concrete mix with fly ash. The suppliers have produced environmental product declarations (EPDs) for these products.

While air quality has long been seen as vital for well-being and good health, it has taken on extra relevance in the wake of the Covid-19 pandemic. For people to return to offices after working remotely, they must feel the air they breathe is safe.

1550 on the Green provides a range of features to create this trust. While the heating, ventilation and air-conditioning systems in conventional buildings recirculate much of the air already inside, the system at 1550 on the Green brings in 30 percent more fresh air than a typical Class A office building. This also helps to reduce and eliminate the number of airborne pathogens.

Additional clean air measures include bipolar ionization and air filtration to reduce pathogens. The building will feature demand-control ventilation and district cooling, plus 100-percent air exchange per hour if required.

1550 on the Green is pursuing LEED Platinum and WELL Platinum certification. The completed development will be occupied by tenants including global law firm Norton Rose Fulbright US LLP.