

# AVIATION INFRASTRUCTURES



Colas puts its know-how into action for your **airport infrastructure** projects. From refurbishing airfield pavement to more complex design and build, your projects can all benefit from the strength of the Colas Group's longstanding expertise, backed by a global network.







# Colas, your partner for aviation projects

**The Colas Group provides extensive airside capabilities and expertise on all aspects of airport pavement construction.**

Our specialist aviation teams deliver comprehensive solutions, including full construction of runways, taxiways, and aprons, resurfacing and strengthening of airfield pavements, and ancillary civil engineering works. We have a long history of successfully delivering projects within limited airfield possession periods, and our expertise enables us to provide clients with certainty of delivery within required timescales. Colas has more than 80 years' experience of implementing transport infrastructure projects including large-scale aviation programs.

**The result: reliable infrastructure for safe operation.**

## OUR CORNERSTONES

Colas knows that each project is unique. This is why the Group can build the best, tailor-made offer to meet your specific needs, based on three cornerstones:

### **Safety first**

Colas fully understands the requirements of operating within an airside environment. Our safety policy meets the high standards of airport security requirements. To ensure such a high level of safety and security, we provide all the resources our teams need. We also **train** and **monitor** our teams, along with our selected suppliers and subcontractors.

### **Reliability**

Providing the right resources means that we need to **anticipate** and script any hazards and risks on the project. Our teams, materials and equipment are in a permanent state of readiness, which helps guarantee optimized costs and planning.

### **Experience**

With more than **80 years** of project experience, Colas has already faced and resolved every issue that can possibly occur. Our **worldwide** network is our wealth and our strength: in all possible configurations and environments, we have built up a practical culture of results.



**Bangkok, Thailand:  
Construction of the third runway**

- Geotechnical expertise required for hydraulic backfill
- 800,000 sqm of ground improvement
- 800,000 tonnes of asphalt pavement



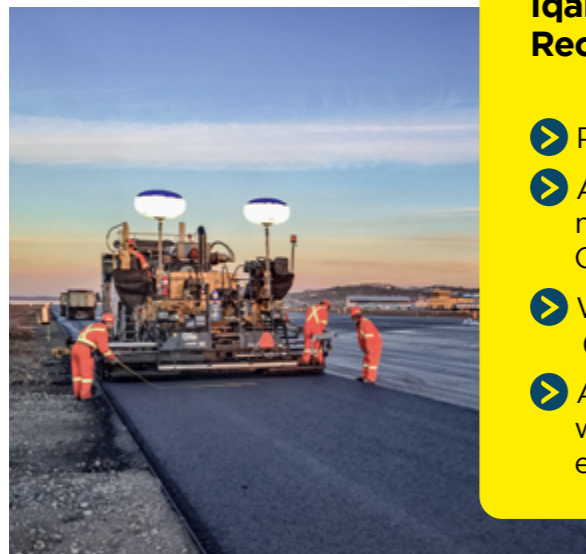
**Luxembourg, Luxembourg:  
Runway reinforcement**

- Air traffic maintained during the project: works performed at nights
- Runway operational every morning at 6:00 AM
- Milled asphalt partially recycled



**Iqaluit, Canada:  
Reconstruction of the entire airport**

- Private-Public Partnership
- Ability to work in remote location (supply of materials only possible between July and October)
- Works under challenging weather conditions (-50°C in windy conditions)
- Air traffic maintained during the project: works performed at night, runway operational every morning



**Agadir, Morocco:  
Runway reinforcement**

- Widening and reinforcement of the aircraft parking lot; reinforcement of the runway and taxiway and creation of shoulders
- Work under air traffic in staggered threshold on the 2 extremities and slot between 12:00 AM and 6:00 AM for the central part



**Los Angeles Int, USA:  
Construction of taxiway Papa**

- New cross-field taxiway to connect the north and south halves of the airport
- Paving both P-401 HMA and P-501 PCC
- All removed asphalt and concrete were recycled on this and other LAX projects



**Cork, Ireland:  
Runway reconstruction**

- Design & Build contract
- Main runway reconstruction, a new Electrical Sub-Station and a new Hold Baggage Security screening system
- ILS and lighting renewal







## OUR STRENGTHS

Whether it be for your reinforcement projects, providing diagnostics and structure design, but also for your complex projects, providing design and financial engineering, Colas delivers comprehensive and fitting answers to all your needs. Choosing Colas guarantees you tailor-made solutions and a whole range of services to efficiently complete your project:

- **Design and execution of airport infrastructures:** construction, renovation, rehabilitation, extension, widening and resurfacing of runways, taxi-ways, aprons, etc.
- **Equipment and materials logistics:** manufacturing and securing construction materials, thanks to a business network across more than 50 countries and a fleet of mobile plants, including in remote locations.
- **Working at live airports:** procedures developed to ensure that construction activities do not compromise the operational capability of airport assets. Experience within limited airfield possession periods and required timescales.
- **Ancillary works:** Signal, lighting and marking; water drainage and energy transport.

## OUR GUARANTEES

- **Project management:** experienced project managers and specialist in-house airport construction teams mobilized.
- **Customized sizing:** detailed planning and efficiencies to ensure that the resources mobilized to the work are correctly sized and numbered.
- **Cost and planning optimization:** a permanent state of readiness to secure the works and develop risk contingencies.
- **Quality and durability:** compliance with international standards (ICAO), solutions fitting the local environment.
- **High technical performance:** key products and innovative solutions, with support of the Colas Campus for Science and Techniques.
- **Energy efficiency:** Use of renewable energies, vehicle fleet shifting towards low carbon solutions (electric, green hydrogen, biogas, hybrids, etc).
- **Low carbon products, techniques and solutions:** cement and low carbon hydraulic binders, reduced temperature of asphalt mixes, in-place recycling.





## ORLY: AN EXTRAORDINARY PROJECT AT PARIS-ORLY AIRPORT

**Colas teams have rebuilt runways 3 at Paris-Orly airport (30 MAP): a technical, logistical and environmental tour de force.** The completion of this extraordinary project involved the complete repair of runway 3, with the recycling of 300,000 tonnes of materials, including 200,000 tonnes reused in the new runway. It was the first time that an airport runway was deconstructed and rebuilt using 2/3 of the original materials, and crushed on-site with the proper dust control.

Colas teams installed three open-air plants (two mobile hot-mix asphalt plants and a mobile concrete batch plant) on the perimeter to process the old slabs, thus avoiding endless convoys and limiting the environmental impact of the site. At the height of the works, 650 to 800 people worked on site and more than 150 pieces of equipment and other heavy goods vehicles were used: splitters, planers, demolition shovels, bulls, graders, scrapers, finishers, feeders etc.

**60 meters wide for runway 3**

**185,000 square meters of demolished concrete slabs**

**15 km of draining trenches constructed**

**700,000 square meters of stripped topsoil**

**210,000 tons of asphalt paved**

**USD 145M total budget**

**18 weeks of works**

**2,450 tons of CO2 equivalent saved, i.e. -40% compared to a traditional solution**





## CSR COMMITMENTS

➤ Shape an **exemplary culture of ethics and compliance**

➤ Offer our **customers and users solutions** that meet the challenges of **sustainable development** in local communities

➤ Roll out a **low carbon and biodiversity strategy** to **preserve the planet**

➤ Build a **responsible supply chain** rooted in **sustainable performance**



➤ Promote **circular economy solutions** to preserve **natural resources**

➤ Foster a **stronger health and safety culture** to **protect lives**

➤ **Attract, develop and retain** talent through **managerial excellence**

➤ Reduce the **impact** of our activities to **bolster acceptability**

# #ColasConnectsUs

Colas, a subsidiary of the Bouygues Group, has one mission: to imagine, build and maintain sustainable transport infrastructure. Backed by a network of 800 construction business units and 3,000 material production units in more than 50 countries on five continents, the Colas Group's 55,000 employees act locally to connect communities and foster exchanges for today and tomorrow. Colas' ambition is to be the world leader in innovative, sustainable mobility solutions. In 2020, consolidated revenue at Colas totaled €12.3 billion (55% outside of France).

Contact :