sonneville

IMPROVING RAILWAY TRACKS WORLDWIDE

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SONNEVILLE'S EXPERTISE MEETS HIGHEST REQUIREMENTS

GLOBAL SUPPORT

Sonneville AG is the worldwide system provider of the slab track system Low Vibration Track (LVT). Railway companies, contractors and manufacturers are assisted in all stages of projects so they can carry out slab track installations based on the LVT-System on schedule and in line with the highest quality standards.

From the early stages of project design through manufacturing of the LVT supports to the successful implementation in railway tracks, Sonneville offers consultancy services in design and quality control, machinery for local block production as well as track installation tools around the world.

PHILOSOPHY

Sonneville is committed to providing enduring and sustainable modern track technology. In close cooperation with clients and contractors, Sonneville develops project-specific solutions. Experience and know-how, combined with state-of-the-art technologies, result in high quality slab track systems with outstanding durability and cost efficiency as well as vibration attenuation and structure-borne noise reduction.

HISTORY

Sonneville was incorporated in 1981 as Sonneville International Corporation (S.I.C.) to pursue the worldwide development of the track system originally designed by Roger Sonneville. Starting in the 1960s, Roger Sonneville together with SBB developed one of the first slab track systems in the world based on a bi-block tie design for ballasted track and equipped with elastic components to achieve the necessary resiliency in the concrete track. Since then, this system has evolved from the original dual block to today's booted single block system LVT.

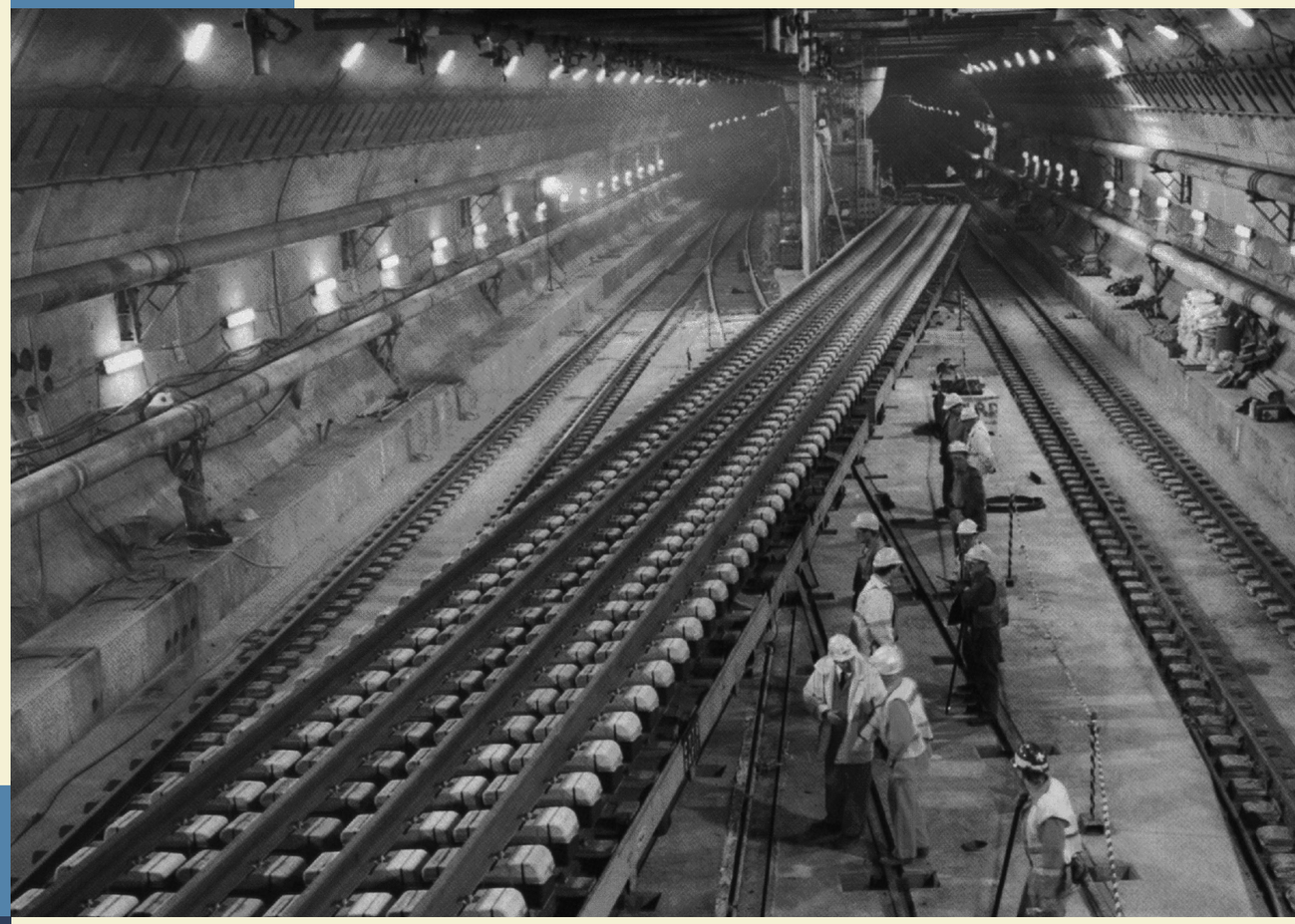
By virtue of a new management team and the company's integration in the Swiss Vigier group in 2009, Sonneville AG has further increased its worldwide activities in the slab track business. A highly experienced team of railway engineers develops innovative and sustainable designs for the LVT-System to meet any environmental and technical requirement at the most economical solution.

GLOBAL

CHANNEL TUNNEL

ENGLAND – FRANCE

PIONEER



Line: London – Paris
Length of LVT slab track: 100 km / approx. 310'000 supports
Design axle load: 22.5 t
Design speed: 200 km/h
Traffic: Passenger and freight trains

The Channel Tunnel between England and France is the first large-scale project using the LVT slab track technology. After the start of revenue service in 1994, the LVT-System has accumulated more than 2 billion gross tonnes so far. With up to 453 trains per day and 110 – 120 million gross tonnes per year, the Channel Tunnel is one of the most frequented railway tunnels in the world. The LVT-System meets the requirements even under heavy loads and in the severe tunnel environment.

CORE COMPETENCIES

CUSTOMISED DESIGN OF THE LVT-SYSTEM

SONNEVILLE'S SERVICES

- Long-standing experience in the slab track industry
- Detailed design of LVT slab track
- Development of customised solutions
- Rental of local production machinery and equipment
- QM / QA
- Supervision of LVT installation
- Experience in working on large-scale projects in different cultural environments
- Worldwide network of partners and agents providing a high level of flexibility and direct contacts to meet the customer's requirements
- Vibration analysis
- ISO 9001 and ISO 14001 certified

PRODUCTS

Sonneville AG is known for its innovative solutions, which are easy to implement and fully adaptable to the customer's demands. Due to the technology used, the LVT-System stands for effective vibration attenuation and a very economical installation procedure. Different designs and support variations are available to satisfy all requirements within the different projects, no matter if a tunnel requires a trafficable slab track system for rubber tyred rescue vehicles or a sophisticated turnout construction needs to be equipped with the LVT-System.

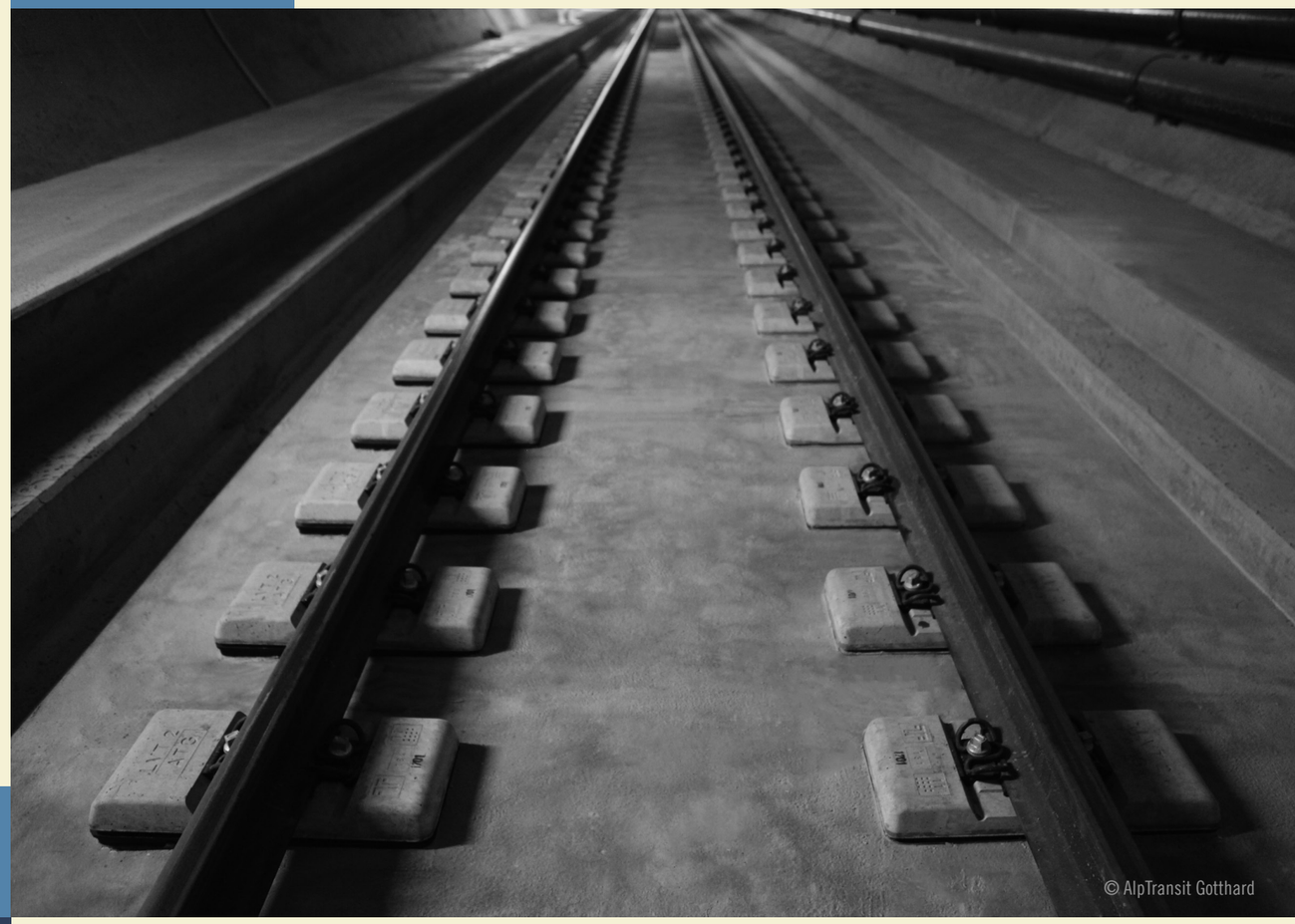
The LVT-System has proven to be the perfect application for slab tracks with various demands, irrespective of whether it is a high-speed track where highly accurate track geometry is needed or a railway line in an urban area, where vibration attenuation is of primary importance. Whether it is heavy haulage, high speed or metro lines – the system's low need for maintenance is always decisive.

INNOVATION

GOTTHARD BASE TUNNEL

SWITZERLAND

EUROPE

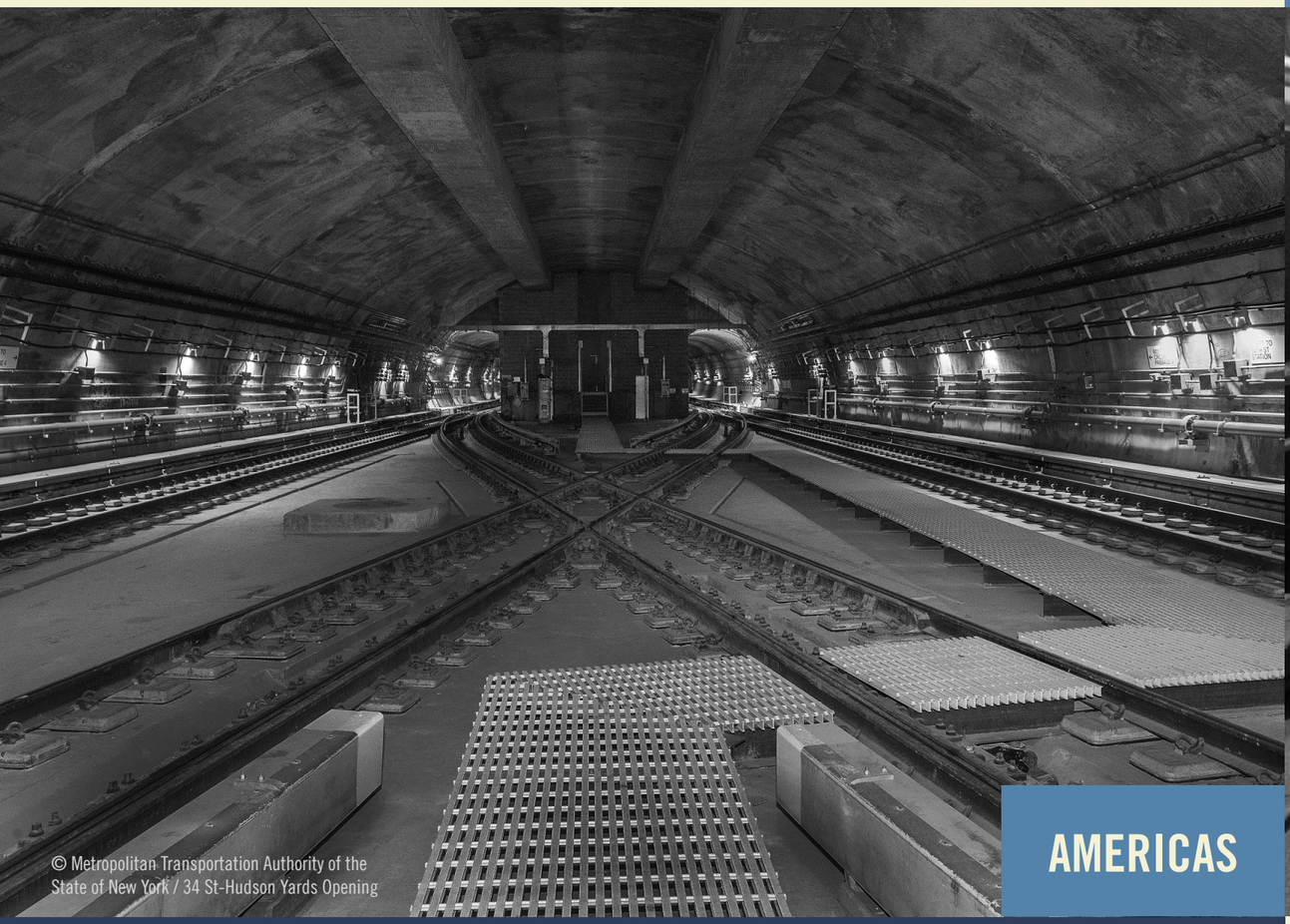

© AlpTransit Gotthard

Line: Zurich – Milan
Length of LVT slab track: 114 km / approx. 380'000 supports
Design axle load: 25 t
Design speed: 250 km/h
Traffic: High-speed and freight trains

In the Gotthard Base Tunnel, the longest railway tunnel in the world, the tracks are equipped with the LVT-System to meet the demanding requirements of the project. Due to the dense geology around the tunnel and the over 2'000 m high mountains, the temperature in the tunnel stays above 40 °C with high humidity. The LVT-System is designed to withstand these conditions as well as daily loads of 0.5 million gross tonnes. The tracks in the Gotthard Base Tunnel are the most precise in the world, used by high-speed trains of up to 250 km/h and freight trains, ensuring maximum durability and availability.

LINE 7 EXTENSION NEW YORK

USA



© Metropolitan Transportation Authority of the State of New York / 34 St-Hudson Yards Opening

AMERICAS

Line: Flushing Line New York
Length of LVT slab track: 4.8 km / approx. 13'000 supports
Design axle load: 19 t
Design speed: 90 km/h
Traffic: Metro

LVT is installed in almost all major metro networks throughout the Americas. Besides the above project in New York, where LVT has been selected as the preferred system for plain tracks and special trackwork, the LVT-System is extensively used in Chicago, San Francisco and Los Angeles. Also Brazil and Peru have recognised the benefits of the LVT-System, which is in service in the metros of Rio de Janeiro, Salvador de Bahia, Porto Alegre and Lima.

INCHEON METRO LINE 1

SOUTH KOREA

ASIA

Line: Line 1 Incheon
Length of LVT slab track: 61 km / approx. 195'000 supports
Design axle load: 17 t
Design speed: 80 km/h
Traffic: Metro

Nearly 50% of all LVT slab track installations are found in Asia, especially in Korea and Hong Kong. As the sizes of cities are rising so does the demand for an economical slab track system that effectively reduces noise and vibration. With the LVT-System these requirements can be met perfectly.
The LVT HA system even allows a replacement of light mass-spring systems resulting in significant cost reduction and higher installation rates.

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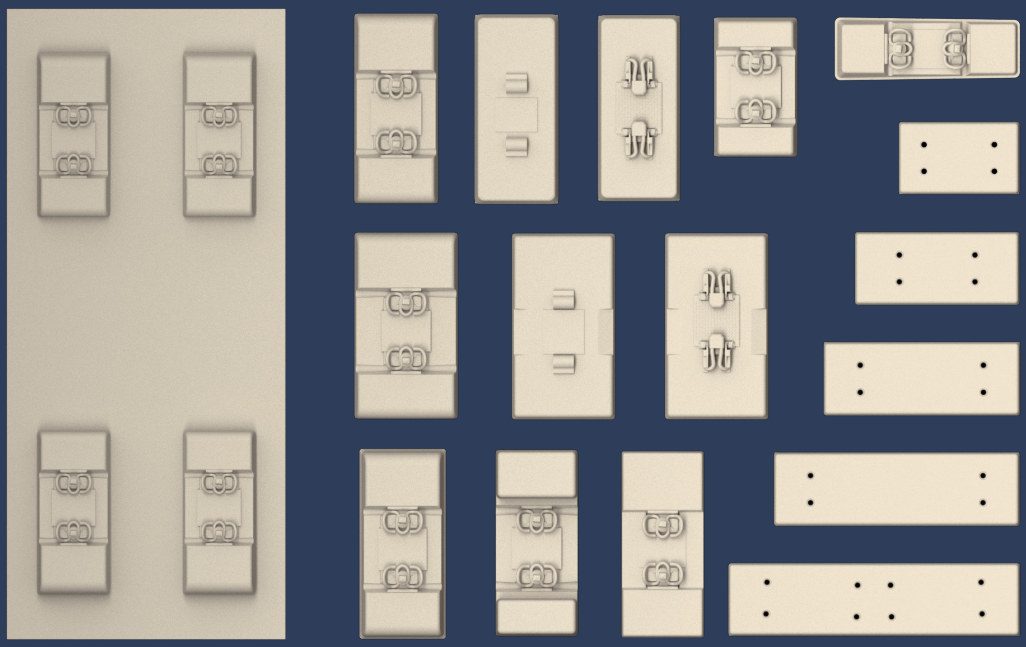
SONNEVILLE CONNECTS PEOPLE



SONNEVILLE AG
INDUSTRIEZONE 2
3225 MÜNTSCHEMIER
SWITZERLAND
TEL +41 58 909 28 00
MAIL@SONNEVILLE.COM
WWW.SONNEVILLE.COM

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