

Industry Sector Mobility Division

Erlangen, May 15, 2009

Competence in mobility: Siemens to equip new metro link to New Delhi airport

One-stop signaling systems, electrification and baggage logistics for safe and convenient traveling

Delhi Airport Metro Express Private Ltd. (DAMEPL) has placed orders with Siemens Mobility calling for the equipment of the Airport Metro Express Line in New Delhi. Under the terms of these orders, Siemens is to supply the signaling and interlocking technology, electrify the 23-kilometer line and install a baggage handling system. The entire package is worth a total of around EUR 34 million. The work on these individual systems is due to be completed by July 2010, so that the Airport Express will be up and running with a fast and convenient airport connection in time for the Commonwealth Games in New Delhi in 2010.

With a total length of 23 kilometers and six stations, the Airport Metro Express Line in New Delhi will establish a link between New Delhi Railway Station, Indira Gandhi International Airport and the city district of Dwarka.

One part of the Airport Express Line will run at grade, another part with one metro station will be elevated, while the rest of the line will be built underground to form a high-speed section serving five stations. All six stations will be fitted with platform doors that will open and close automatically when the trains arrive and depart. Running at a top speed of 120 km/h, the Airport Express will support high passenger capacities between the airport and the city. To enhance the level of convenience even further, air passengers will be able to check in at two of the city airport terminal stations (CAT). The baggage will be taken directly to the airport onboard the metro and then merged with the Airport Baggage Handling System.

Siemens is equipping the line with the latest signaling technology. The scope of supply includes the LZB 700 M continuous automatic train control system, Sicas ECC type electronic interlockings, Vicos OC 501 operations control system and also LED signals and switch machines. Thanks to

automatic train protection system (ATP) and automatic train operation (ATO), safe and smooth operation can be guaranteed even during operation at short headways.

As part of the overall contract, Siemens Mobility is also to supply a traction power supply system with a rating of 25-kV alternating current for complete electrification of the line, while the metro stations will be fed with 33-kV alternating current via a medium-voltage ring. Both of these power supply systems will feature Sitras 8DA gas-insulated switchgears. The power supply systems will also ensure maximum availability due to their redundant design. A catenary system will provide the overhead contact line on the open sections of line over a total of seven kilometers of track. For the 16 km tunnel section, a fixed roof conductor rail will be installed. The entire power supply system will be monitored and controlled by a Scada system.

The Sibag Train baggage handling system from Siemens Mobility will offer passengers an added convenience: travelers to the airport will be able to check their baggage in at the metro stations at New Delhi City Airport Terminal Station and Shivaji Stadium City Airport Terminal Station. There they will be able to pick up their boarding cards, get on the Airport Express and ride to the international airport. Upon arriving, they can then go straight to the security check and proceed to their departure gate. Independently of this, the baggage which they checked in at the metro station will arrive at the airport, where it will be fed into the existing baggage handling system, taken through the automatic security check and loaded onto planes according to their respective flight destinations. To ensure seamless baggage transport from the station to the airport, the baggage car of the train will also be equipped with a conveyor system. An automatic container loading mechanism located on the station platform will automatically load the containerized baggage through the door and onto the conveyor in the car. When the train enters the metro station, the container system will be aligned precisely to the loading door of the baggage car. Passenger boarding and container loading happen simultaneously and very quickly to shorten station dwell time for the train. The whole process will be controlled fully automatically and accurately by Sibag Train.

This press release comes with a photo which you can view at:

<http://www.siemens.com/mobility-pictures/Sibag-Train>



Sibag Train from Siemens Mobility uses an automatic feeder system on the station platform to load the containerized baggage through the car door and onto a conveyor system in the baggage car.

The **Siemens Industry Sector** (Erlangen, Germany) is the worldwide leading supplier of production, transportation, building and lighting technologies. With integrated automation technologies as well as comprehensive industry-specific solutions, Siemens increases the productivity, efficiency and flexibility of its customers in the fields of industry and infrastructure. The Sector consists of six Divisions: Building Technologies, Drive Technologies, Industry Automation, Industry Solutions, Mobility and Osram. With around 222,000 employees worldwide Siemens Industry posted a profit of EUR3.86 billion with revenues totalling EUR38 billion in fiscal year 2008 (ended September 30).

www.siemens.com/industry

The **Mobility Division** (Erlangen, Germany) is the internationally leading provider of transportation and logistics solutions. With its "Complete mobility" approach, the Division is focused on networking the various modes of transportation in order to ensure the efficient transport of people and goods. "Complete mobility" combines the company's competence in operations control systems for railways and traffic control systems for roadways together with solutions for airport logistics, postal automation, traction power supplies and rolling stock for mass transit, regional and mainline services, turnkey systems as well as forward-looking service concepts. www.siemens.com/mobility