Berlin Central Station – Lehrter Bahnhof

On the site of the historic Lehrter Bahnhof Europe’s largest station is being constructed: This is where an east-west and a north-south InterCityExpress railway line intersect, combined with suburban and underground railway lines. The north-south track runs in a tunnel 15 m below ground level, passing below the Spree and the Tiergarten. The east-west track is located 10 m above street level.

The central design principle of the Lehrter Bahnhof is the prominent emphasis of the existing railway tracks in the urban landscape. Large filigree glass roofs as well as two bridging office buildings translate this principle with architectural means. In the central area of the station cross, which rests on a building socle, the ceilings of all levels are equipped with large openings, allowing daylight to penetrate as far as the underground platform levels, simultaneously ensuring a clear spatial orientation. Barrel vaults characterize the station hall located in a tunnel. The columns of these „vault tables“ are all centrally located on the platforms respectively between the railway tracks. The formal character of the cross vault ceilings in the north-south platform hall is also continued on the level above.

The 321 m long glass roof of the east-west hall is constructed as a lattice shell of almost square net elements varying in dimension, which are stiffened with steel ropes. In the south the roof surface is covered with photovoltaic modules. The glass roof construction was initiated simultaneously east and west of the north-south intersection. The first roof truss was mounted on February 1st, 2002, and two other trusses should follow each week. Work continued around the clock in three shifts, because the glass roof had to be completed for the date of the relocation of the railway tracks in June 2002. In order to keep this date, the roof was shortened by approximately 110 m on request of the client, resulting in a termination of the construction works before the original date. In this form the train station would only remain a torso.

1 http://www.gmp-architekten.de/2projects/lbb/lbb.htm
Berlin Lehrter Bahnhof

Berlin Hauptbahnhof – Lehrter Bahnhof is the provisional name of Berlin's new central station, scheduled to open in 2006. The new station will be the largest rail transportation hub in Europe. It occupies the site of previous stations called Lehrter Bahnhof; however, when it opens it will be renamed Berlin Hauptbahnhof (Berlin Central Station).

The original Lehrter Bahnhof (Lehrte Station) opened in 1871 as the terminus of a railway linking Berlin with Lehrte, near Hanover, which later became Germany's most important east-west mainline. The station later became the endpoint for trains to and from Hamburg with the closure of the nearby Hamburger Bahnhof (Hamburg Station). In 1882, with the completion of the Stadtbahn (City Railway, Berlin's four-track central elevated railway line, which includes both local and mainline services), just to the north of the main station, a smaller interchange station called "Lehrter Stadtbahnhof” was opened to provide connections to the new line. This station later became part of the Berlin S-Bahn.

Following heavy damage during the Second World War, limited services to the main station were resumed, but then suspended in 1951. In 1957, with the railways to West Berlin under the control of the communist East German railways, the Lehrter Bahnhof was demolished. Lehrter Stadtbahnhof, however, continued to serve as a stop on the S-Bahn. In 1987 the station was extensively renovated to commemorate Berlin's 750th anniversary.

After German reunification it was decided to improve Berlin's railway network by constructing a new north-south mainline, to supplement the existing east-west Stadtbahn. Therefore this became the logical - if not the most convenient - location for a new central station.

(Article at http://www.answers.com/topic/berlin-lehrter-bahnhof continues in detail with following informations:
Lehrter Station History
Specifics regarding Lehrter City Station (1884 to reunification in 1990 and beyond until demolition 2002)
Specifics regarding Central Station - Lehrter Station construction (mid 1990s - 2006) and plans to officially open station for the World Cup Games in Summer 2006.)

2 http://www.answers.com/topic/berlin-lehrter-bahnhof