THIRD GUADARRAMA TUNNEL

UNVEILING AND OPENING TO TRAFFIC OF THE THIRD GUADARRAMA TUNNEL ON THE AP-6 MOTORWAY

- This new tunnel, with a length of 3,148 metros, has three Madrid-bound lanes and 13 escape galleries connected to the other tunnels.

- This new infrastructure provides significant and immediate improvement for Madrid-bound traffic.

- The third tunnel has some of the most advanced tunnel operation and management facilities, be they mechanical (ventilation and fire-fighting), electrical (distribution and lighting), communications and control (closed circuit TV cameras, SOS posts, etc).

- The opening to traffic of this new tunnel and the remodelling of the first in 2007 conclude the range of works projects awarded to the Castellana concession (an Iberpistas-Abertis subsidiary), involving a total investment of 480 million euros over the course of six years:

  - Two new toll motorways: the AP-61 (San Rafael-Segovia) and the AP-51 (Villacastín – Avila).

  - Increasing the capacity of the A-6 motorway between the M-50 and Villalba.

  - Increasing the capacity of the AP-6 motorway between Villalba and the San Rafael junction, including the third tunnel under the Sierra de Guadarrama mountains and the construction of a third lane.
**Madrid, 30 March 2007.** The third of the tunnels that takes the AP-6 Villalba-Adanero toll motorway under the Sierra de Guadarrama hills was officially opened to traffic today. This motorway is managed by *iberpistas*, the motorway concessionaire that forms part of the *abertis* group. The new tunnel was opened to traffic at a simple inauguration ceremony attended by representatives of the toll motorway sector.

This third tunnel forms part of the road corridor linking Madrid to the north-west of Spain. Its construction lies within the framework of a range of actions whose aim is to increase the traffic capacity of this corridor and which has involved an investment of 260 million euros.

1.- The widening from 3 to 4 lanes of the A-6 between the M-50 and Villalba. The new lanes have been operational since December 2005. The total investment in this project stood at 70 million euros.

2.- Increasing the capacity of the AP-6 toll motorway, from 2 to 4 lanes, between Villalba and the Valle de los Caídos junction. The investment in this section reached 30 million euros.

3.- New roadway and widening to three lanes between the Valle de los Caídos junction and San Rafael, also incorporating the third tunnel, that will operate with Madrid-bound traffic. This project has also involved increasing the San Rafael toll station from 8 to 23 lanes. The total investment in this project was 160 million euros.

The opening of the third tunnel means the virtual conclusion of the construction projects awarded to *castellana* –an Iberpistas subsidiary– in 1999 and has meant a total investment of 480 million euros over the last six years. In addition to the aforementioned corridor capacity increase projects (260 million euros), *castellana* also built two new toll motorways: the AP-61 (San Rafael–Segovia), in service since April 2003, and the AP-51 (Villacastín–Avila), in service since November 2002. The construction of these two new motorways involved an investment of 220 million euros.
**Improved safety**

The 3,148 metre-long third tunnel has three lanes and 13 connecting galleries between tunnels, alternating seven pedestrian ones with six for service and emergency vehicles. It has implemented the standards set in the Spanish safety requirements for tunnels and highways and meets the European Tunnel Safety Directive.

It also boasts all manner of management facilities, both mechanical (ventilation and fire-fighting), electrical (hook-ups, transformation, distribution and lighting centres), and communications, safety and control (closed circuit TV, automatic incident detection, SOS posts, loudspeakers and radio communications). Noteworthy too is the fact that the tunnel has mobile phone and radio cover.

During the construction process, all prevention, emergency detection, evacuation and intervention protocols were tested. All this has been developed into an Action Manual which also includes common recommendations and regulations, as well as the experience of Iberpistas, a pioneer in emergency action protocol systems.

All actions and services are run from an integrated management system at the San Rafael Control Centre, permanently manned 24 hours a day by qualified personnel with the required technical resources to enable them to mobilise their own and external resources (fire department, ambulances, tow trucks, etc.).

**Three tunnels and a integrated management system unique in Spain**

As a result, the Sierra de Guadarrama now has three tunnels operated under a single system designed to improve customer safety and traffic fluidity. This is Spain’s first road infrastructure to operate a three-tunnel management system.

The first tunnel, opened in 1963, was the first toll route in Spain and initially allowed for traffic in both directions. After the opening of the Villalba-Adanero motorway, it became Madrid-bound only, as it was
incorporated in the side of the motorway heading for the Spanish capital. 1972 saw the opening to traffic of a second tunnel for La Coruña-bound traffic.

The important increases in traffic volumes since the end of the 1980s began to cause congestion, especially at the end of the 1990s, which began to record more than 100 hours a year with saturation-grade service levels and delays over the weekend.

Since then, iberpistas has worked and allocated the necessary resources to provide its customers with the highest service levels and care.

This road corridor is characterised by highly seasonal traffic, with delays concentrated mainly at the weekends and on holidays, with the critical points at tunnels and viaducts, something that made any road-widening project unviable. There is a severe demand imbalance in traffic flows of users leaving and returning to Madrid, with percentages of 75%-25%.

Thus, as part of the general project, it was decided to build a third tunnel, so that the first could be used on a reversible basis (in either direction), depending upon traffic requirements. This will provide a significant boost for capacity for many years in this corridor which, in the future, will be declared a Natural Park. This fact makes it likely that any possible future infrastructure work will be severely restricted.
Environmental impact

The third tunnel construction project has been carried out in close collaboration between the Spanish Ministry of the Environment, the Departments of the Environment of Madrid and Castilla y León and castellana, with regard to both the design of the routing and the proposal for corrective and compensatory environmental measures.

The likelihood of the Sierra de Guadarrama being declared a Natural Park in the future has clearly marked the development and execution of all the construction projects.

Thus, the works project and execution were balanced in terms of cuttings and embankments, without producing a surplus of landfills. A detailed analysis has also been performed of the location of provisional landfills, auxiliary installations and works accesses, to reduce their impact on the surroundings; the canalisation of the river Gudillos was carefully carried out and waste collection barriers were arranged for hydrological protection. During the execution of the works, all required acoustic protection measures were adopted. The project has also involved the prolongation of the northern and southern mouths of the tunnels.

With regard to the protection of flora and fauna, all vegetation recovery measures were performed, as was the placement of nesting boxes and the implementation of bird protection devices on high-voltage power lines.