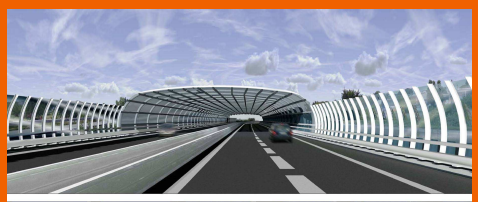
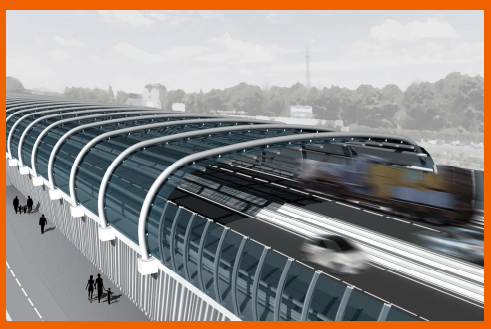
In Progress

MINFRA – Provv. Interr. OO.PP. Lombardia e Liguria – Riqualificazione SP 46 Rho-Monza





Contractor: GLF Grandi Lavori Fincosit SpA- Collini Lavori SpA– ICG srl
Beneficiary **:** Milano Serravalle – Milano Tangenziali SpA
Works: Requalification of SP46 Rho-Monza with motorway characteristics, from the end of the Milan North North (artificial tunnel) to the bridge over the Milano-Varese railway line (included), corresponding to the sections 1 and 2 of the "Preliminary design of the road system adduction to the existing A8/A52 motorway system – Rho-Monza"
***Services awarded*:** Executive Project - Safety and Coordination Plan
***Contractor*:** Progin SpA
***Period*:** 2011 - 2012
***Works Value*:** 153.387.300,00 €
***Classes and categories*:** Ig, IIIc, VIb, IXb, IXc
***Works Status*:** Executive Project in progress

The project of the new infrastructure extends for a total length equal to km 6+719.53 and represents the adjustment to the section type A1 (urban motorway) of the stretch of the SP 46 from the bridge over the railway Milano-Varese to the intersection A52/SS35. A significant structural work-arch bridge – is overlooking the entire intersection and represents the new path alongside the SS35, up to the junction of Paderno Dugnano, which is redrawn, as well as the junction of Bollate. From here on, the project involves the construction of a trench to give the continuity to the "Balossa" Park and the construction of two tunnels to connect the present natural territorial. Finally, working on new airbase, the project develops the embankment up to the bridge over the railway including Milano-Varese, which is the common term with "Baranzate" stretch and for which it is already in an advanced stage of implementation. The proximity to the main town and the tertiary-industry specialization that characterizes the area in which it develops the SP46 Rho-Monza did not completely lose the natural character of the area, which remains still visible in the streams of "Groane." In a territorial framework thus conformed, the "Groane" Park and the other local parks of municipal interest (PLIS), which occupy almost entirely suburban agricultural areas, are playing a prominent role and constitute in fact, vast areas protected, no longer available to settlement expansion and assuring the continuity of the ratio, already reduced, including settlements and free soil. The degree of urbanization, the state of congestion and the residual dynamics settlement ongoing, make the area affected by the project of upgrading and redevelopment of the SP46, particularly sensitive and delicate from the environmental point of view. The final design was developed with the objective of improving the technical and functional characteristics of the works and to optimize manufacturing processes, minimizing interference with traffic and the surrounding area. In addition, it takes into consideration the guidelines and the requirements expressed by the local authorities and by the instructions provided in the approval process. Finally, it explores the environmental aspects, with the objective of containing the impacts during construction and operation, and it adopts technical-architectural solutions targeted to the aesthetic quality and to the inclusion of landscape works. The most significant work of the entire project for the aesthetic and structural expression, is the arch bridge of a light of 225 m., consisting of an arch which subtends the deck by steel hangers, while the foundations consist of piles with a diameter of 1500 and with a length of 19 m. each. The deck consists of predalles sheet of 5 mm with welded and reinforced concrete slab of 25 cm. The beam of the deck consists of a circular tube by 5000 of dia with internal warping made by angular beams of 120x12 and 180x15 where are bolted decking ribs IPE 650 and tubular struts of 457 dia., for the attack to the longitudinal beam/ribs of the deck. The arch consists of twin-spar of tubular having a dia of 2050 joined together by Hmax 42.50 spacers. Another significant work is the phonic tunnel of 262 m long which is foreseen of an embankment between walls, since it crosses an urban area, the final project has provided for a transparent cap covering in order to limit the noise to the close buildings and to ensure transparency to the road surface. The development of the final design has led to the elaboration of a solution which could take care of the aesthetic, environmental and functionality aspect of the work. In fact, it has provided a solution achieved with designed matrix shuttering among the walls and with transparent glass covering with integrated solar panels. The whole project deepens and improves the salient aspects already present in the preliminary draft based on the tender. In particular, the geometry of the road axis has been optimized, ensuring full compliance with the current technical standards, and it has accurately identified and defined all the works required for the minimum road platform containment, such as walls, bulkheads, etc.; it has been possible to identify the rainwater collection tanks and consequently, it has been possible to define all the additional elements necessary for an efficient and functional water treatment disposal from the platform. In particular, the depth acoustic and geological surveys study has allowed the definition of a viable and efficient environment proposal. More specifically, the acoustic carried out for determining the climate sound "ante operam" have allowed to reach the precise definition and the functional sound protection interventions, reducing the values under the standard limits of all receptors impacted. In the context of SIA, all interventions for landscaping and environmental works - aimed at improving the integration between the infrastructure itself and the surrounding area, characterized by high population density areas, and alternate with interstitial agricultural areas, which are subject of environmental protection, have been identified and developed. The proposed interventions implement and develop the various requests of the competent local authorities arisen during the Preliminary Services Conference, achieving a significant positive impact, both on the environmental impact during the work operation, and on the ability of integration between infrastructure and landscape, reaching the double objective of minimizing the negative externalities and to ensure the proper connection of the environment work, without compromising the land areas still available, which play an important ecological corridor role.