BETAR - Consultores, Lda.

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Corporation form

Limited liability company

Registered capital 2.100,000 Euros

Board of Directors

- José Tiago de Pina Patrício de Mendonça, Master in Civil Eng. Luís Miguel Plá de

Magalhães Villar, Civil Eng.

Administrative staff: Turnover (2023)

Other technicians:

Total: Graduates:

Permanent personnel

4.168.637 Euros

Main associations

- APPC - ASCP

46

33

8

5

- CMM

Certifications

NP EN ISO 9001:2000, certified by LUSAENOR



BETAR Consultores is part of the Betar Group, which was established in 1988. The firm stemmed from Betar Estudos e Projectos de Estabilidade Lda. (established in 1973), in order to render autonomous, the bridge design sector which at the time registered a significant expansion as a result of the undergoing modernization of Portugal's road network. Its aim, besides that of bridge design, is to provide consultancy engineering services for all work stages. For this purpose, the firm has strongly invested in technological modernization, acquiring sophisticated hardware and software for analysis, calculation, drawing and information processing. No less important was its investment in training and preparation of its technical staff.

Main expertise

- Bridges and viaducts structural design
- Road design
- Engineering consultancy
- Project coordination
- Bridges and Viaducts Management System

Services

- Project design of roads, railways, bridges and viaducts
- Reinforcement, repair and widening design projects of bridges and viaducts
- Project design and Coordination of multidisciplinary teams of roads and
- Road and railways assets' inspection
- Assistance in the management of bridges
- and viaducts
- Special studies on structural engineering Project revision
- Tenders' preparation and elaboration of contract's conditions

Significant last works

Road Bridges' detailed design:

- New Kassuende bridge over the Zambezi River in Tete, (1581m, span 135m, balanced cantilever method). Mozambique
- New bridge over Zambezi River in Caia (2376m, span 137.5m, cantilever
- method), Mozambique Conceptual design of the KaTembe bridge in Maputo (cable stayed bridge, 700m, span 350m, crossing total extension 2700m), Mozambique
- Developed design and Construction Tender documents and Supervision of 4 bridges in Sofala Province and 5 bridges in Manica Provinces, Mozambique (2011/15)
- 2 new bridges in Camama, Luanda, Angola
- Marão Highway A4/IP4 Amarante/ Vila Real, viaducts: V4 (195m) and V5 (220m) (cantilever method), V6, V7, V8, V9, V10
- 11 viaducts located in the highway Litoral Oeste, bridges with one or two geminated decks, pre-fabricated beams in "I" or"U" cross-section, max span 39.5m (2009/10)
- Highway East-West connecting Port de Ténès / Wilaya de Chlef (22km, 2x3 traffic lanes), 14 viaducts, 17 upper and under passages. Algeria
- Bridge over Vale de Teixeira stream (452m)
- Bridge over Fonte Boa stream (452m)
- Viaduct over Moita stream (546m)
- Viaduct over Santo Estêvão stream
- Tender design project for the Carregado's crossing over the Tagus River (bridge 963.5m, access viaduct 9139m)
- A1 highway 42 upper passages in
- composite steel/concrete deck solutions New Portela's bridge over Mondego
- River (189.2m, composite steel/concrete deck)
- Penacova's new steel bridge over the Mondego river (147m, span 80m)
- VICEG pedestrian bridge in Guarda (steel arch solution)

Railway Bridges' detailed design projects:

New railway bridge over Umbeluzi river (360m, span 60m, incremental launching method), Goba line, Mozambique

- New Shire river steel railway bridge (165m, span 65m, incremental launching), Malawi
- 3th place in the conceptual design contest for the new railway bridge over Douro River for Metro do Porto
- New Balaka bridge, Malawi (2019/20)
- Railway viaduct of Alcaíde, Beira Baixa
- Ferradosa railway bridge (376m, span 112m) and viaduct, Douro line, repair and strengthening
- Conceptual design of 8 bridges for the TGV line Poceirão/Caia
- Replacement of rail bridge decks in the Ressano Garcia line, Mozambique and in the Limbe/ Nkaya line, Malawi
- Cubal river's railway bridge, Benguela, Angola
- Replacement of railway network due to the construction of the Moamba Major dam, 7 railway bridges, Ressano Garcia

Widening and rehabilitation (repair and strengthening) of bridges:

- A8 highway Bridge over Loures River (composite steel/concrete solution connecting the 2 original decks, 192m, span 57m)
- EN115 pk 6+800, Sancheira bridge (270m)
- EN355-1 masonry international bridge over Erges River in Segura
- Steel bridge over Arade River in Portimão (331.4m)
- Steel bridge in Abrantes over Tagus River (368m)
- Steel bridge in Chamusca over Tagus River (756m)
- Steel bridge of Belver over Tagus River, EN244 pk 85+540 (180m)
- Açude bridge and access viaducts over Mondego River (2344m)
- Ponte de Lima bridge (250m, span 58m) A1 highway, viaduct over Vouga River (990m)
- A8 highway Loures/ Maleira viaduct of Lousa (122m) and Murteira (260m) Angeja bridge over Vouga River (260.6m)
- São Jorge Órgãos bridge, Santiago Island, Cape Verde

Assets' inspection:

Bridge, gantries, retaining walls and assets inspection (principal inspection, special, underwater, routine, inventory); more than 4500 bridges already rated

Design project of Tunnels by cut&cover or top&down methods:

- Av. República Tunnel, Lisbon
- Av. João XXI Tunnel, Lisbon
- Tunnel under the Bela Vista green park, extension of the EUA Avenue, Lisbon
- Tunnel under the José Queiroz square. Lisbon
- Unlevelling of the Elísio Moura Avenue,
- (Coimbra beltway)
 Design Project of Roads and Railways:
- Rehabilitation road sections Quelimane/ Nicoadala/ Namacurra (70km), Zambezi Province, OPCR framework, Mozambique
- Urban road network requalification, Igreja Av., Cardeal Av., Angola Av., Maputo, Mozambique (20km)
- Livingstonia road section (52km) and rehabilitation of 4 bridges, Malawi
- Detailed design 4 bridges and road accesses in the road section Balantyre/ Kameza/ Clock Tower, Malawi
- Remodelling and widening of the road junction in Area 18th, Lilongwe, Malawi (2019)
- Detailed design project of IP2 motorway East bypass of Évora (12.8km), 3 unlevelled road junctions, 3 viaducts, 3 upper passages to the railway line (2023)
- Detailed design project of the motorway connecting Bragança to Puebla de Sanábria (24km), Portugal-Spain (2022/24)
- Detailed design project of the motorway in Póvoa do Lanhoso

Design Project of harbours:

- Emergency repair of Pemba Wharf, Cabo Delgado, Mozambique
- Repair of the port quay in Pemba, Mozambique
- Rehabilitation of the TCC8 port quay in the Port of Beira, Mozambique
- Inspection of the container terminal of the Port of Leixões

Onsite supervision of works:

- Rehabilitation and upgrading ok Nkaya/ Chipala railways (210km), and Luchenza/ Limbe railways (44km), Malawi
- Railway access to MFC industry, Liwonde, Malawi
- Reconstruction of Licungo's bridge and road accesses between Malei/ Maganja da Costa, Zambezia, Mozambique



BETAR performs design projects in Portugal, Mozambique, Angola, Malawi and Brazil where it has physical offices. It also performs design projects already built in Senegal, Burkina Faso, Cape Verde, among other countries.