

**ZACHAR**

**design**

# Profile

Zachar design s.r.o. was founded in 2006 in Slovakia to provide our clients professional on time service. We have got many years of experience with design of post tensioned structures. Roland Zachar – founder of Zachar design s.r.o. was working as structural engineer for Matthew Consultants ltd (now Walsh, leading consultancy in UK for design of post-tensioned structures) for more than 3 years and for Structural Systems Middle East (post-tensioned subcontractor located in Dubai, UAE) as design manager and business development manager for Oman and Bahrain also for more than 3 years. Our project portfolio is large and includes residential, commercial, retail and industrial buildings, dormitories, hotels, hospitals, car parks etc. Our projects are situated in 7 countries around Europe and Asia. Many of our projects are located in prime locations such as bank of River Thames, Oxford Street, City of London or center of Oslo. Our office is in Nové Zámky, Slovakia located within 2 hours drive to 3 international airports (Bratislava – Slovakia, Budapest – Hungary and Vienna – Austria). There is also direct train connection from Nové Zámky to cities like Berlin, Prague or Budapest. This allows us to meet our clients regularly in their offices based on our client's requirements same as if we would be located in country where they are operating in. Zachar design s.r.o. can offer to the client full package design and detailing of post-tensioned structures and reinforced structures or production of general arrangement drawings. Our company is also sales representative for Tycsa strands for Czech Republic and Slovakia, what can be useful, when the projects are located in these countries.



*Roland Zachar*  
Founder of Zachar design s.r.o.

# Tottenham Hotspur F.C., London, UK



This new world class 61,000 seating capacity stadium is going to be the largest club ground in London. There will be also NFL games played. It will cost estimated £750m which will be the most expensive stadium in the country. We have done design for most of level 1 and part of level 3 phase 1 on this project. Slab depth was generally 275mm or 325mm with spans up to 11.5m. Design program was very tight. There was lots of coordination with precast components supported by our pt slabs to make sure there is no delay on site. Whole level 1 was designed for decompression.



# New National Museum, Oslo, Norway



The new National Museum with approximately 54,600 m<sup>2</sup> is going to be one of the biggest museums on the planet. This iconic building is going to host art, architecture and design under one roof. It is located in city center right next to the City Hall and new modern Aker brygge area.

Our scope of work was to design all level 3 post-tensioned slabs and beams. Part of this level is big terrace area and rest of the level is supporting 3 more levels. Design of this level was very complex due to varying loads, slab depth, spans and slab levels. Maximum spans are up to 17m.



# Aldgate Place E1, London, UK



Project is situated in the City of London. It is in walking distance from Tower of London or Tower Bridge. Our scope of work was to design post tensioned slab and beams for 5 blocks in 3 buildings. Height of the 5 blocks was ranging from 10 to 25 levels. Design was done according to BS8110 using Ram Concept and RAPT software. Totally we have designed 60 post-tensioned levels. The floors are typically 225mm or 250mm thick apart from the balcony area which is typically 190mm deep. Spans are up to 9.5m.



# Kentmanni 6, Tallinn, Estonia



This modern residential and commercial building was planned to be the dominant structure in the urban space and complete Rävala puiestee. It consists of 3 blocks. The tallest block is 14 storeys high.

Block A&B generally has 16.3m long post-tensioned beams with size of 1.2m wide and 0.6m deep. Beams are supporting 200 / 250mm deep post – tensioned slab.

Block C slab is a 200mm deep post-tensioned flat slab with spans up to 8.0m.

Design was done according to Eurocode 2.



# River Walk, London, UK



This residential project consists of 2 blocks located beside Tate Britain on the north bank of the river Thames in the heart of Westminster. Block A is 17 levels high and block B is 7 levels high. Typical slab depth is 200mm deep with banded edge beams 275mm deep in some areas. Spans are generally up to 8.0m with extra dead load of 2.7kN/m<sup>2</sup> and live load of 2.3kN/m<sup>2</sup>. Edge load along the curved edges is 6.0kN/m. Design was done according to Eurocode 2 and TR43 second edition.



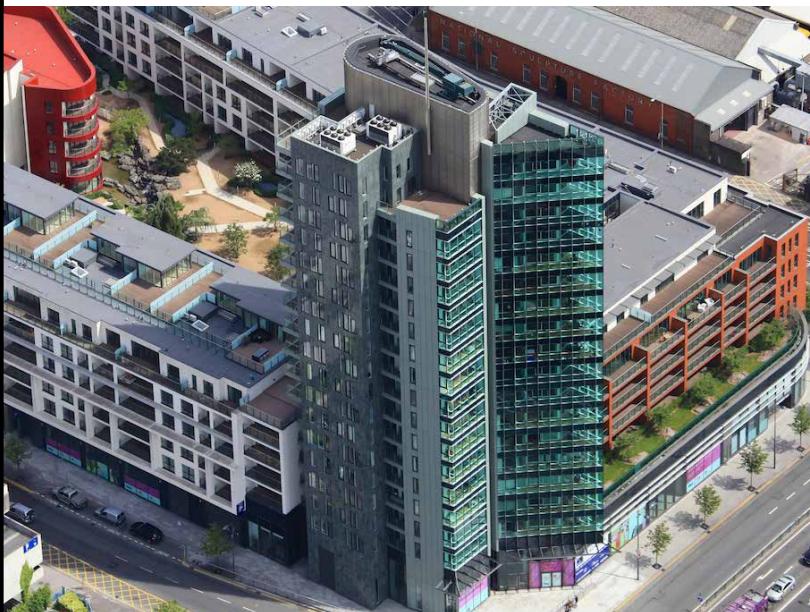
# Nine Elms Point, London, UK



It is residential-led development in Nine Elms, London SW8 on the south bank of the river Thames. Our scope of work was to design a post-tensioned podium slab in between the residential towers and all post-tensioned transfer beams supporting above residential buildings with total of 645 flats. The podium slab was 900mm deep with drop panels 1.35m deep spanning 16.5m. Beams are typically 1.95m deep and 2.0–6.0 m wide. Podium was designed to take extra dead load of 15.0kN/m<sup>2</sup>, live load of 5.0 kN/m<sup>2</sup> and number of point loads approx. 800kN.



# The Elysian – Eglinton St., Cork, Ireland



The Elysian is a mixed-use building at Eglinton Street in Cork, Ireland. The complex includes a Japanese garden. It consists of a number of connected 6–8 storey buildings, with landmark 17-storey tower. This tower is tallest storeyed building in Ireland. Our scope of work was to design post-tensioned transfer slabs and transfer beams supporting residential blocks above them.



## Saffron square, London



## The Atlas, London, UK



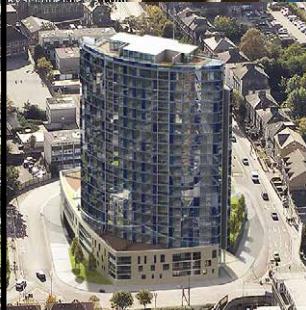
## Parking house for Kulturhus, Stjørdal, Norway



## Al Mazaya, Seeb, Oman



**Island, London, UK**



**Opal 3, Leeds, UK**



## Olsrød Park, Tolvsrød, Norway



## Mariehöjd, Umeå, Sweden



## G.D. Residency and Foreign Affairs, Dubai, UAE



## 61 Oxford Street, London, UK



## TNQ capitol way colindale, London, UK



## Whiston hospital, Prescot, UK





**ZACHAR DESIGN, s.r.o. | Forgáčova bašta 7, 94001 Nové Zámky, Slovakia**  
**tel: +421 35 381 2708 | email: [office@zachar-design.com](mailto:office@zachar-design.com) | [www.zachar-design.com](http://www.zachar-design.com)**