

ALESSANDRO NAVACH

SENIOR STRUCTURAL ENGINEER

GENERAL INFORMATIONS

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Place/date of birth ROME, APRIL 18th,1976

CAREER OVERVIEW & KEY SKILLS

Structural Engineer with 8 years' post graduate experience (1 year UK experience) - chartered Engineer in Italy in the register of engineers of Rome.

7 years experience in seismic analysis and design of structures according to eurocodes and Italian regulations with an engineering consultancy in Italy. Projects worked on include: commercial and residential buildings, airport control towers, steel towers in seismic areas; Seismic retrofitting of buildings. Conversant in all common materials (especially steel and RC). In London since January 2015 analysing and designing RC steel and composite structures according to eurocodes and BS. Projects worked on include: High rise residential and commercial buildings, stadiums

KEY SKILLS

- Very strong analytical skills
- Analysis and Design of steel and RC structures
- Analysis and Design of high rise buildings (mostly RC)
- Analysis and Design of new built structures in seismic areas
- Performance assessment and seismic retrofitting/strengthening of existing structures in seismic area
- Analysis and Design of commercial and residential buildings
- Analysis and Design of steel and RC towers
- Seismic analysis of structures (response spectrum, pushover)
- Conversant with Eurocodes + UK annexes and Italian regulations

EDUCATION AND PROFESSIONAL TRAINING

2012

Università degli studi La Sapienza, Roma -Course for Safety on building sites according to Italian regulations, D.lgs 81/2008

2009

Chartered engineer - Register of engineers of Rome province (Ordine degli ingegneri di Roma Matr.30705 A)

2005

Università degli studi La Sapienza, Roma - **Master of science in environmental engineering**
GPA: 110/110

2004

Mandatory Military service - Italian air force- infantry (363° corso VAM)

ADDITIONAL DETAILS

LINGUAGES SKILLS

ITALIAN		mother tongue
ENGLISH	read	C2
	written	B2
	spoken	B2

SOFTWARE SKILLS

FEM structural analysis softwares -----

Midas GEN
SAP 2000
Strand7
AMV MasterSAP
Ram concept

CAD softwares-----

Autodesk AutoCad,
ProgeCAD

Software GIS -----

ESRI ArcINFO

Software for geostatistical analysis-----

MultiGEO, Geovariance ISATIS

Microsoft OFFICE EXCEL, WORD, POWERPOINT, ACCESS

Programming languages: VBA

PROJECTS

ROBERT BIRD GROUP
SENIOR STRUCTURAL ENGINEER

jan. 2015 - to present

Alternative steel roof solution for stadium redevelopment (Cap. 50.000 circa) (confidential)

Place: London

Year 2015

Services: Structural engineering

Description: The service included the study and design of an alternative roof solution to be included in the full redevelopment of a 50.000 capacity football stadium.

Stage: fee proposal for structural engineering services

My role: analysis and design of alternative roof steel structures



21 Moorfield

Place: London

Year ongoing

Services: Structural engineering

Description: The project consist in the demolition of the existing buildings and the constructions of two new buildings (east and west) directly above London underground Moorfield Station.

The East Block consists of a 16 storey steel braced frame, with typically a 60m square form floor plate. The West Building is a smaller eight storey development with an L-shape plan.

Steel members form the lateral bracing and vertical supporting systems. . The superstructure floors are to be constructed utilising steel framed composite construction.

Stage: C, D

My role: Full analysis and design of the west building

Nova East

(new-built - commercial - 18 stories)

Place: London

Year: 2015

Services: Structural engineering

Description:

The Nova East building is part of The Nova Victoria scheme, a large mixed use regeneration scheme.

The Nova east building has 18 above ground storeys and host offices and retail areas..

The superstructure floors are to be constructed utilising steel framed composite construction. The typical floor maximum dimensions in plan are approximately 53m x 44 m, with an area of approximately 1500m². There are several major assets that are adjacent to or under the proposed building.



The structure of the building include a lateral bracing RC core. The superstructure floors are to be constructed utilising steel framed composite construction. Supported on a steel system of columns and transfer beams and trusses. Single story high transfer structures are

required to bridge over existing assets.

Stage: C

My role: Analysis and design of vertical load supporting system - columns and transfer structures (steel)



Vauxhall sky gardens (new-built - mixed commercial, residential - 35 stories)

Place: London

Services: Structural engineering

Year 2015

Description: The project comprises a 35 storey high rise mixed commercial and residential tower with 2 double storey sky garden levels at level 8 and 35, connected by a single storey raised courtyard to a 8 storey low rise tower. The typical floor of the 35 story tower is approx 600 sqm. The typical floor of the lower 8 story building is approx 500 sqm. The structure is entirely RC. The lateral stability is provided by a central RC core and outriggers. The horizontal elements are RC slabs

Calculations carried out : Static (vertical and wind loads). Strut and ties for transfer structures

Stage: D, E, F, construction

My role: lateral analysis, design of columns and transfer structures, Design review of slabs and core (RC)



Construction of helix residential towers building at 2 trafilgar way, canary wharf (new-built - mixed commercial, residential - 34 stories)

Place: London

Year 2015

Services: Structural engineering

Description: The project includes the design of 2 residential towers: tower A is a 28 story RC building. Each story is appr. 530 sqm. : tower B is a 34 story RC building. Each story is appr. 640 sqm. The lower levels of the towers host commercial activities

The lateral stability is provided by a central RC core and outriggers. The vertical system is made up of RC post tensioned flat slabs and cast in place RC columns

Calculations carried out : Static (vertical and wind loads). Strut and ties for transfer structures

Stage: C, D

My role: lateral analysis, design of columns and transfer structures, Design review of slabs and core (RC)



Construction of new control tower of douchanbè airport (new-built)

Place: Dushanbè, Tajikistan

Services: Structural engineering APD, PRO, DCE (according to French regulations)

Years: 2012 - 2013

Description: The project includes the design of 3 independent structures: the tower (Height: 40 m), the lower room (1 story), the footbridge connecting the tower to the existing building.

The tower and the lower rooms stand on a RC mat connecting the head of 16 piles 20 m long. The tower support 2 Operating rooms. the extension of each room is 120 m² |

Materials: steel (tower and upper rooms, footbridge); RC (lower room and pile cap)

Stage: APD, PRO (C to F)

My Role: Full analysis and design of superstructure and pile cap according to the eurocodes (Seismic loads according to Tajik regulations) (steel)



Structural/architectural/system retrofitting of "IL CASOLARE E LA SERRA" for the accommodation of a multipurpose centre for disability (refurbishment)

Place: Reggello (FI), Italy

Client: Istituto degli Innocenti

Services: preliminary, final design (according to Italian regulations)

Dates: 2009-2010

Description: two story mansion (year of built approx 1800) of approx. 350 m² per story. Materials: masonry (stones and mortar).

Stage: preliminare, definitivo (A to E)

My Role: Full analysis and design of superstructure and foundations according to Italian regulations (masonry)



Construction of new control tower and ENAV spa office building (new-built)

Place: Airport "S. Anna", Crotone, Italy

Services: preliminary, final, detailed design, Site direction

Dates: 2005-2009

Description: The structure is made up of a two story office building and a 35 m high tower supporting 2 topmost rooms. The structures is made of RC frames and walls, the topmost rooms excluded, which consist of steel frames. Each of the 2 story of the building is approx. 500 m² (total extension 1000m²). The topmost room are approximately 60m² each.

Stage: Stage: preliminare, definitivo, esecutivo (A to construction)
My Role: Full analysis and design of superstructure and foundations according to Italian regulations (steel and RC); ; assistance to site supervision and safety coordination



Demolition old control tower/Construction of new control tower (new-built)

Place: Airport "Punta Raisi" Palermo, Italy

Client: ENAV SpA

Value of works: € 19.500.000,00

Services: preliminary, final, detailed design, Site direction

Dates: 2008-2009

Description: The project includes 3 independent structures. A 40m high tower, 2 adjoining 4-story buildings (the first building hosting offices, the latter hosting various equipments related to the tower). The extension of each story of building 1 is approx 620m². (total extension 2500m²); The extension of each story of building 2 is approx 240m².

The topmost rooms of the tower, and the above-ground level of the 2 buildings consist of steel frames. The stem of the tower, the basements of the buildings and the shallow foundations are made up of RC.

Stage: Stage: preliminare, definitivo, esecutivo (A to F)

My Role: Full analysis and design of superstructure and foundations according to Italian regulations (steel and RC)



Construction of new control tower and ENAV spa office building (new-built)

Place: Civil aviation Airport, Lampedusa Italy

Client: ENAV SpA

Value of works: € 4.973.346,25

Services: preliminary, final, detailed design, Site direction.

Dates: 2005-2010

Description: The structure is made up of a two story office building and a 35 m high tower supporting 1 topmost rooms. The structure is made of RC frames and walls, the topmost rooms excluded, which consist of steel frames. Each of the 2 story of the building is approx. 550 m² (total extension 1100m²). The topmost room is approximately 65m².

Stage: Stage: preliminare, definitivo, esecutivo (A to construction)

My Role: Full analysis and design of superstructure and foundations according to Italian regulations (steel and RC); assistance to site supervision and safety coordination



Temporary Dislocation of ENAV spa office (new-built)

Place: Airport "Fontanarossa", Catania, Italy

Client: ENAV SpA

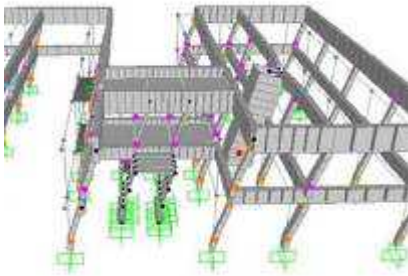
Services: preliminary, final, detailed design, Site direction

Dates: 2007-2009

Description: the project include 2 prefabricated modular buildings (1 story) sheltered by 2 steel structures built in place. The total extension of the 2 shelters is approx 500m² each.

Stage: Stage: preliminare, definitivo, esecutivo (A to construction)

My Role: Full analysis and design of superstructure (steel) and foundations according to Italian regulations



Seismic and functional retrofitting of ENAV office building

(refurbishment + new-built)

Place: Airport "Fontanarossa", Catania, Italy

Client: ENAV SpA

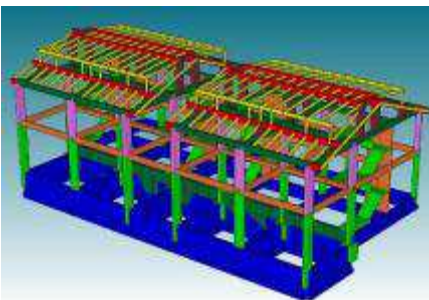
Services: preliminary, final, detailed design, Site direction

Dates: 2008-2009

Description: the project includes: the seismic retrofitting of a 2 story existent building (refurbishment), a new 2 story building adjoining to the existent one. The 2 buildings are structurally independent. The extension of each story of the building to be retrofitted is approximately 500m²; Each story of the new building is 200m² each. The total extension of the operation is approximately 1400m². All the structures are made in RC.

Stage: Stage: preliminare, definitivo, esecutivo (A to construction)

My Role: Full analysis and design of superstructure an foundations according to Italian regulations (RC)



New residential buildings (new-built)

Place: Riano, Rome, Italy

Services: final, detailed design

Description: the object of the project is the realization of semi-detached houses of various size. 4 different solutions were carried out. The biggest solution consists of a 2 story (+attic) building (4 families villa). Each story is approximately 400m². The extension of each apartment is approx 200m on 2 levels (+ an attic). The structures are made of RC (excluded the roof that is in Glulam)

Stage: Stage: preliminare, definitivo, esecutivo (A to F)

My Role: Full analysis and design of superstructure an foundations according to Italian regulations (RC, timber)

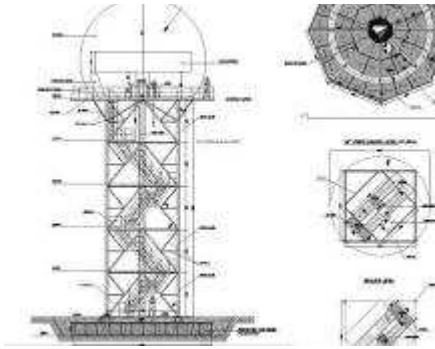
Update of the Air navigation control system, Airport "Orio al Serio".

Place: Bergamo

Services: working site director (civil works)

My role: working site director (civil works)

Dates: 2010-2011



Design of 5 steel towers to support radar installations for flight assistance

Services: final design

.Data: 2011

Description: Dimensions: height 20m (without Radome); plan: 3m x3 m

Stage: Stage: preliminare, definitivo (A to F)

My Role: Full analysis and design of superstructure and foundations according to Italian regulations (steel)

ISPRA (MINISTRY OF THE ENVIRONMENT OF ITALY) JAN 2005 - MAY 2007
ENVIRONMENTAL ENGINEER (GIS AND GEOSTATISTICAL ANALYST)

Priolo (SR)

Clean up plan

Activity: Evaluation of in situ contamination of marine sediments by Geostatistical and GIS analysis of geo-referenced data

La Spezia

Clean up plan

Activity: Evaluation of in situ contamination of marine sediments by Geostatistical and GIS analysis of geo-referenced data

Genova

Clean up and dredging plan

Activity: Evaluation of in situ contamination of marine sediments by Geostatistical and GIS analysis of geo-referenced data

Napoli,

Clean up plan

Activity: Evaluation of in situ contamination of marine sediments by Geostatistical and GIS analysis of geo-referenced data

Venezia - Porto Marghera channels

Clean up and dredging plan

Activity: Evaluation of in situ contamination of marine sediments by Geostatistical and GIS analysis of geo-referenced data

