



Geotechnical & Structural Engineering Services
Design – Consulting – Technical Innovation

Committed to Excellence in Civil Engineering Works

Civil & Structural Engineering



Services

Structural Design

- Front End Engineering Design, FEED.
- Detailed Structural Engineering.
- Structural Assessment
- Structural Restoration and Rehabilitation
- Value Engineering
- Construction and Management Support
- General Structural Engineering Consulting
- Legal Structural Engineering Consulting

Peer Review

- Structural Peer Review.
- Seismic Peer Review
- Third-Party Check

Expert Witness

- Failure Mode and Effect Analysis
- Risk Evaluation
- Legal Consulting and Litigation Support

Constructability Review

- Constructability Review before Bidding
- Constructability Optimization of Existing Projects under Construction
- Constructability Consulting for Projects under Design Process
- Design of Construction Stages
- Development of Erection Plans

Technology Transfer

Lectures-Seminars

- Lecturing on New Structural Technologies.
- Lecturing on Detailing and Application of Codes.

Knowledge transfer

- Joint Venture with Managers on PPP and Design-Build Projects
- Joint Venture with Contractors on PPP and Design-Build Projects.

GeoStatic LTD

Civil & Structural Engineering Branch

Projects – Steel Industrial Buildings

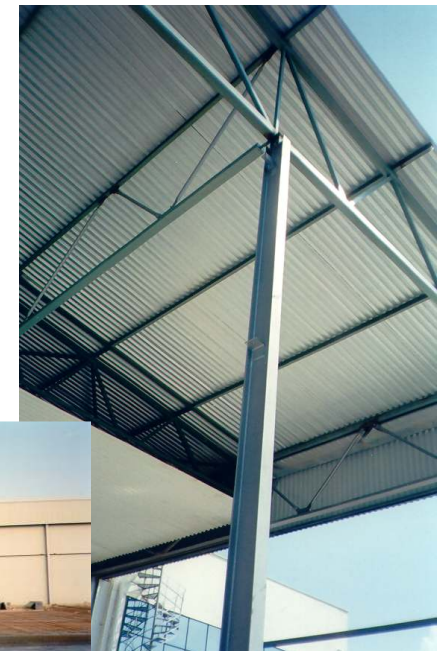
Structural design and constructional detailing of a new one-story steel building with 36.0m span and 48.0m long and extension of the existing steel complex industrial facility with a 30.0m by 12.0m bay, by strengthening and increasing the span, for the *Balakanakis Bros L.t.d.* in Argos, Peloponisos, Greece.

Owner: Balakanakis Bros Ltd

Architect: Balakanakis Studio

Steel Fabricator: Xanthos Steel Stuctures Ltd

Completion: 2002



Structural evaluation of the existing building, design of a new steel roof as well as design of a steel story addition of approx. 200 m² based on a strengthened story of an existing reinforced concrete structure for *Nikolaidis L.t.d.* in Ioannina, Greece.

Owner: Nikolaidis Ltd

Steel Fabricator: Xanthos Steel Structures Ltd

Completion: 2002



Structural estimation (in purposes of bid), preliminary, final structural design and constructional detailing of one-storey industrial building with 49.0m clear span, 15.0m clear height of the column, 4500m², used as freezing facility for fishes, with special floors resisting up to -30 C° for *Amasa S.A.* in Sindos, Thessaloniki, Greece.

Owner: Amasa S.A.

General Contractor: Midelkos-Amakat Ltd

E.O.R. for civil eng. works: Midelkos Ch

Steel Fabricator: Vemekep S.A.

Completion: 2003-2004



Structural cost estimation, preliminary, final structural design and construction detailing of steel industrial facility, used as logistics center of fruits and vegetables, of 10.000m² with interior spaces of 950 m² offices, 1500m² electromechanical corridors and 500m² machine rooms for *Limpatsis S.A.* in Mesovouni, Thiba, Greece.

Owner: Limpatsis S.A

General Contractor: Midelkos-Logikon Ltd

E.O.R. for civil eng. works: Midelkos Ch

Steel Fabricator: Vemekep S.A.

Completion: 2003-2004



Structural optimization, final design and constructional detailing of steel industrial building with 40.0m span and 110.0m long, used as paper factory, with additional external 200m² offices for *SalcoPaper S.A.* company in Sindos, Thessaloniki, Greece.

Owner: Salco Paper S.A

Architectural design: Dinamiki A.T.E. Arambatzoglou

Engineer of record: Dinamiki A.T.E. Arambatzoglou

General Contractor: Domotechniki S.A

Steel Fabricator: Domotechniki S.A

Completion: 2004



Structural assessment of an existing reinforced concrete structure and design of a new steel building 16.0m by 54.0m on the reinforced concrete structure for *Senekis L.t.d.* in Sindos, Thessaloniki, Greece.

Owner: Senekis Ltd

General Contractor: MidelkosLtd

Steel Fabricator: Midelkos Ltd

Engineer of record: Midelkos Ch.

Completion: 2005-2006



Structural design of an industrial steel building of about 1.200m² with 10 ton capacity traveling cranes and about 200m² interior office spaces for *Frost L.t.d.* in Sindos, Thessaloniki, Greece.

Owner: Frost Ltd

General Contractor: MidelkosLtd

Steel Fabricator: Meteko S.A.-KES

Engineer of record: Midelkos Ch.

Completion: 2007-2008



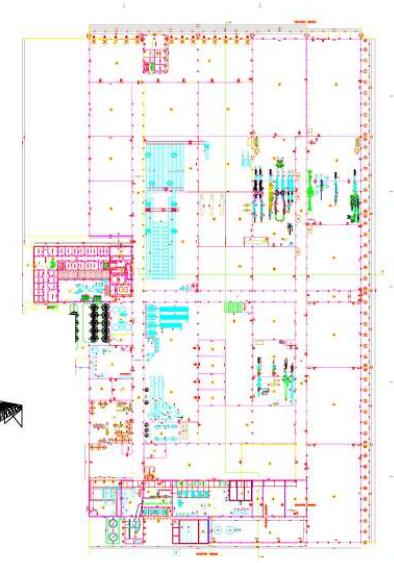
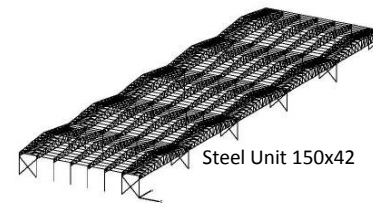
Structural verification of the existing steel structure and design of a new product line, in extension, developing a plant with a total area of 41.400sqm. The construction is a complex building composed by units of 150,0 m x 54.0 / 42.0m (with a transversal span of 30.00m and in longitudinal direction of 54.0m / 42.0m). A check was performed for the additional action of the snow to the valleys and further a seismic verification was carried out for the units. The building is based in a seismic zone of 0.24g and serves the well-known industry of Greek Cheeses.

Owner: Kollios S.A.

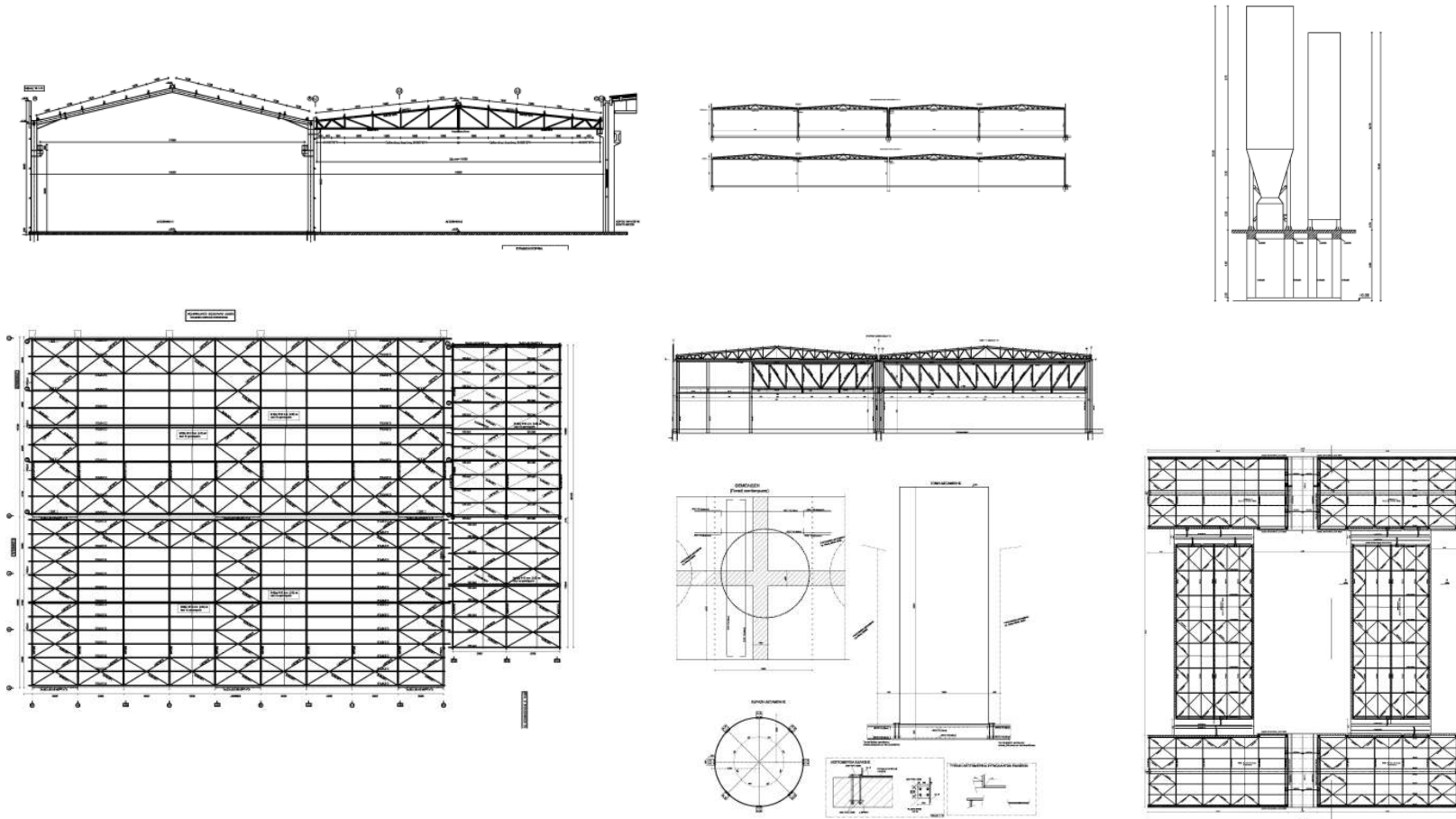
General Contractor: MidelkosLtd

Engineer of record: Midelkos Ch.

Completion: 2008-2010



In the framework of collaboration with general contractor Midelkos Ltd, in the period 2007-2009, we analyze and design a great number of industrial facilities, aprox. 30.000sqm, mainly extensions of existing buildings, with spans between 18.0m-32.0m, as well as a number of special industrial facilities as machine bases, cranes, towers, special industrial freezing floors, etc.



Projects-Multistorey steel-composite buildings

Structural optimization and redesign of a new three story residential building with two stories of steel structure and a basement of reinforced concrete. Detailing of the structure and supervision of the hole project.

Owner: Papagioanis I & Konstantinidou A
Hortiatis region
Engineer of record: Noulis & Partners
Completion: 2002-2004



Structural design of a new three story office building with central span of 13.0m of about 600m² area with two stories of steel structure and one story from steel embedded in reinforced concrete, forming the basement.

Owner: EKO S.A.

Architectural design: Karfopoulou E

Mechanical design: Samaras & Partners

Engineer of record: Varis Ath.

Completion: 2007-2008



Constructional design, detailing and supervision of a composite steel-concrete 3 story residential building with pilotis, and basement, in Polichni region of Thessaloniki, Greece.

Owner: Eeleftheriaids D.

Steel fabricator: Vassilas Ltd

Engineer of record: A.S.Anastasiadis

Completion: 2004-2006



Structural analysis and design of steel industrial building with about 3000m² area for logistics use and a statically independent 2strory with a basement steel-composite building of about 1.300m² area.

Owner: K.L.T S.A.

Architectural design: Karfopoulou E

Mechanical design: Samaras & Partners

Engineer of record: Varis Ath.

Completion: 2007-2008



- Structural design of a new two story parking building developed on a grid of 8.0*8.0m of about 1.200m² area with two stories of steel structure and another one story, at the basement, from steel embedded in reinforced concrete.

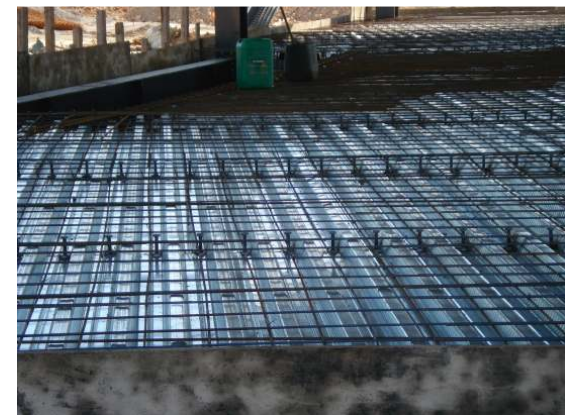
Owner: Papoutsoglou Ltd

Architectural design: Karfopoulou E

Mechanical design: Samaras & Partners

Engineer of record: Varis Ath.

Completion: 2007-2008



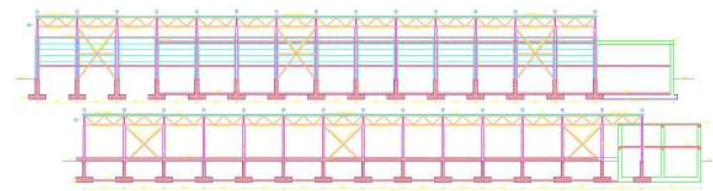
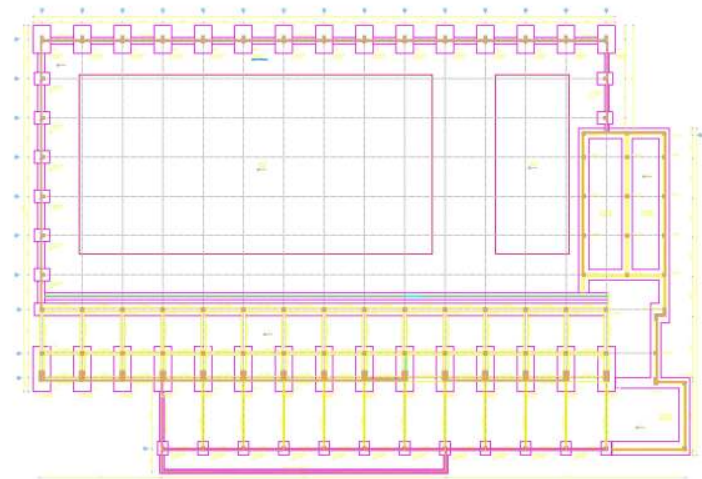
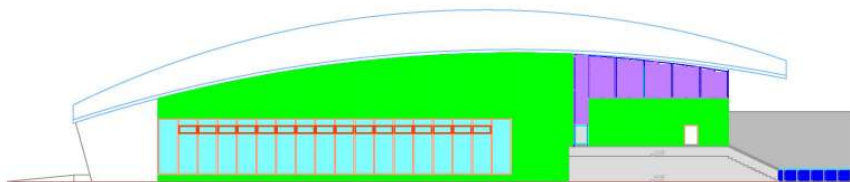
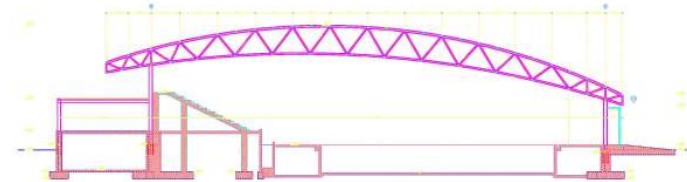
Preliminary structural analysis and design of a closed swimming pool with a clear span of 56.0m, of about 4.600 m² free space for different athletically events. The design contains the steel exterior shell, the reinforced concrete foundation and the basement as well as the tiers of the stadium.

Owner: Municipality of Lagadas, Thessalonikis

Architectural design: Chatzopoulos o, Chatzisava D & Associates

Mechanical design: Christoforidis & Associates

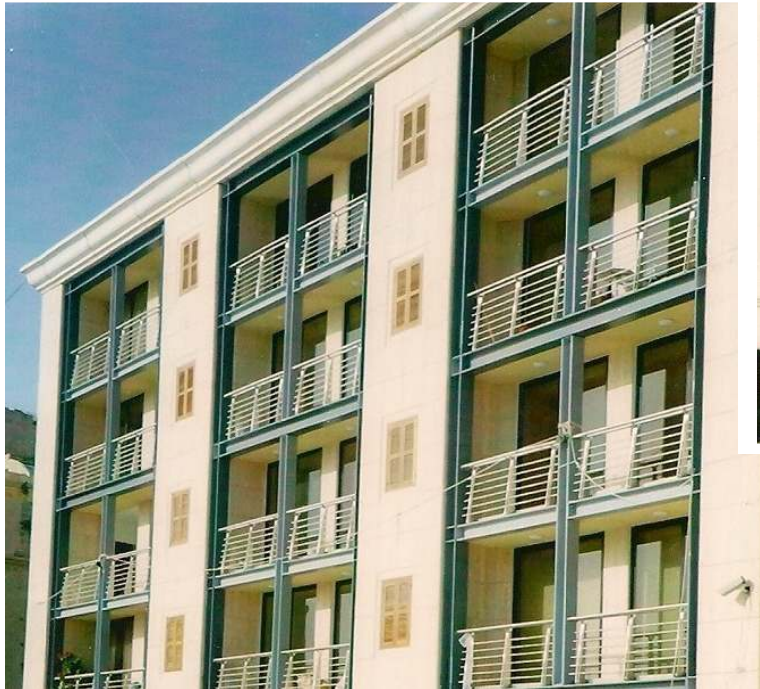
Completion: Bidding



Structural optimization , comparison with different solutions, cost evolution and structural design of steel residential building with 5 stories and basement of about 1300m² in Cyprus.

Architectural design: Vassiliou D & Partners

Completion: 2007-2008



The complex is composed by 5 buildings, (3 finished at present moment). Each building has Basement (used for garage)+Ground Floor+Mezanin+5 Stories plus Penthouse. The structure is composed by composite steel-concrete frames, with a central reinforced concrete tube. The composite beams are constructed by reinforced concrete plates and castellated beams with circular openings

Beneficiary: S.C. Modatim Investment S.A.

Architecture: S.C. Andreescu & Gaivoronsci S.R.L.

Structural design: S.C. H.I.Struct S.R.L. si SC Maison Styl SRL

Earthquake detailing consultant: M.Mosoarca, A.S.Anastasiadis

Completion: 2008-2013



Constructional design, detailing and supervision of a steel suspended structure from an rc floor creating an intermediary space of about 1000m². All the structure is suspended from the reinforced concrete plate, existing rc columns and some parametrical rc walls.

Owner: Mexil S.A.

Steel fabricator: Kizketilis L.t.d.

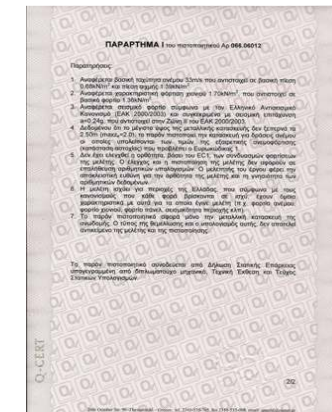
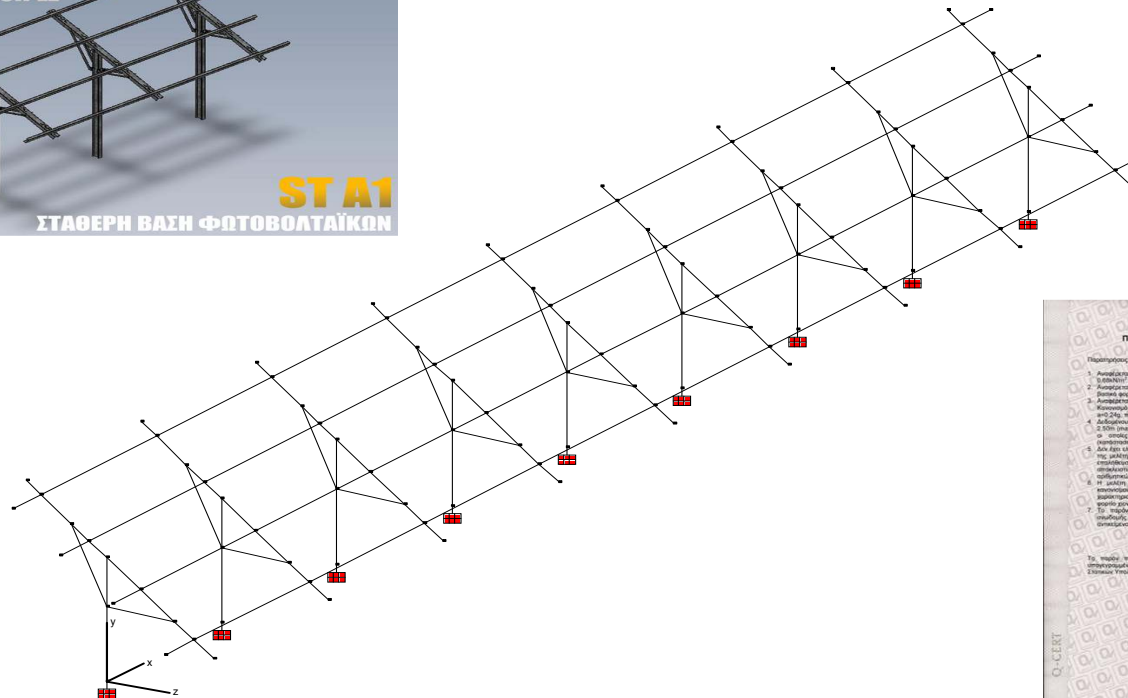
Engineer of record: Sklavenitis D

Completion: 2008-2009

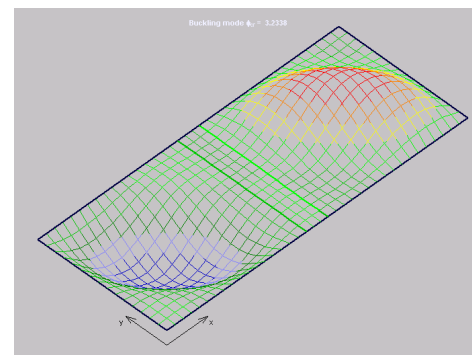
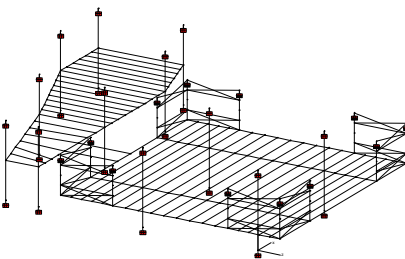
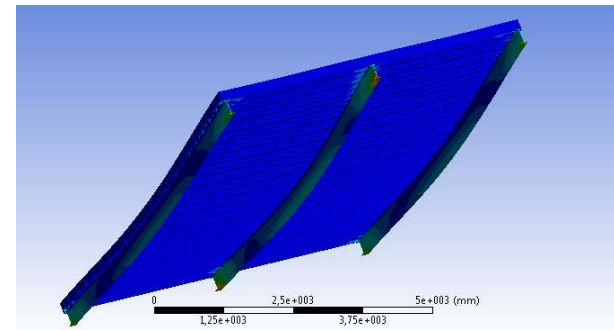
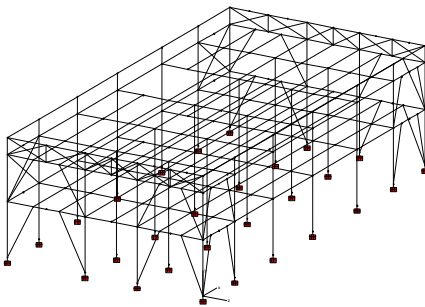
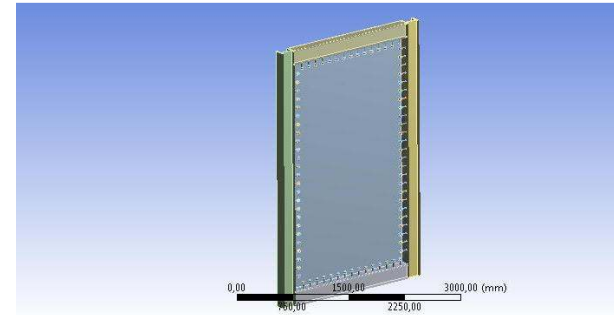
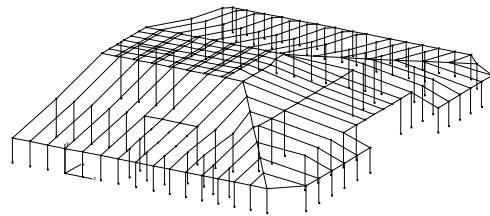


Structural design of photovoltaic supporting steel structure with a proposal of alternative foundation systems as a function of local geotechnical conditions.
Investigation of alternative solutions.

Owner: Koutsikos O.E.
Steel Fabricator: Koutsikos O.E.
Certification: QMSCERT / TUV HELLAS
Completion: 2011-2012



A significant number of projects, acting as a principal engineer, peer reviewer or as a subcontractor for other firms, concerning structural analysis and design of steel or steel-concrete structures, are provided. There were performed studies for complete structures or isolated elements.



Projects-Braced cuts, steel scaffolds, staircases, steel in art

Structural design of steel collars in a top down construction methodology in order to support flat slabs for the development of 5 stories basement and 5 upper stories in a building with parking and residential usage.

Steel fabricator : Tsitsimakas Steel structures

Geotechnical contractor: Themeliodomi S.A.

Completion: 2007



Structural design for retaining the walls of deep excavation in some of our projects or for general contractors, in collaboration with geotechnical engineers, when there is a need due to high level of gravitational forces of the adjacent buildings.



Design of different scaffolding solutions using steel elements.



Design of different staircases and façade closures solutions using steel elements.



Consulting and Structural design for the development of a “steel tree”, for the period of Cinematograph festival, carrying glass elements. A slender structure constructed adjacent to sea suffering from abrupt winds.

Owner: Ministry of Macedonia and Thrace

Architectural design: Tsasis D

Steel fabricator : Voghiatzoglou Steel structures

Completion: 2008



Projects- Rehabilitation of building structures

Consulting and Structural design for the transformation of the unused space of 400m² under a wood roof to a luxury office of the CEO. Using steel elements we change the structural system creating free space with a central span of approximately 13.50m.

Owner: Papistas Office, Vari Attikis

Architectural design: Vassiliou D & Partners

Completion: 2006-2007



Consulting and Structural design for the transformation of the unused space filled with rubble, in front of the building, in a three story subterranean space with suspended swimming pool and playrooms.

Owner: ***, Panorama, Thessaloniki

Architectural design: Vassiliou D & Partners

Completion: 2007



Structural rehabilitation of an old residential building constructed in 1925, protected by law, to a new small office consecrating the exterior shell and developing a new steel structure which support elastically the exterior façade.

Owner: Vamvakos, Sindos

Architectural design: Vassiliou D & Partners

Completion: 2008-2009



Structural rehabilitation of an old residential traditional stone building protected by law, using irreversible and ecological solutions such as steel, wood and stone elements.

Owner: Ioannidis, Tsotili Kozani

Architectural design: Vassiliou D & Partners

Completion: 2008-2009



Structural rehabilitation of an old residential traditional stone building, protected by law, to a luxury hotel using irreversible and ecological solutions such as an interior steel skeleton supporting elastically the parametrical stone walls. The building is in a highly traditional protected area.

Owner: Dimou Ltd, Kastoria

General contractor: Akrolithos A.T.E.

Architectural design: Goutzimanis Architects

Engineer of record: Anastasiadis, Soxopoulos

Completion: 2009-210



The project rehabilitation consists of structural plan, which considers the strengthening of the basement, ground floor and upper floors. The intervention consists in using four steel tubes in order to carry out the seismic actions. In the same time, by bracing the timber floors, rigid horizontal diaphragms were created.

Beneficiary: SC Eco Trust SRL

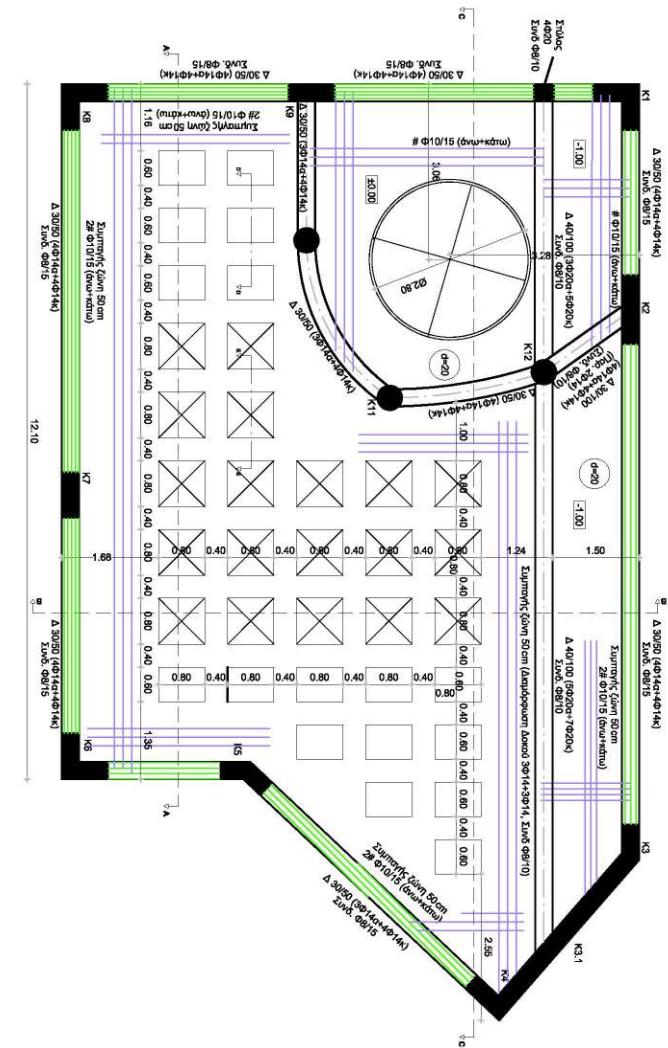
Architecture: SC Arhitecture Design SRL - Architect Constantin Ciocan

Structural design : S.C. H.I. Stuct S.R.L. si SC Maison Style SRL

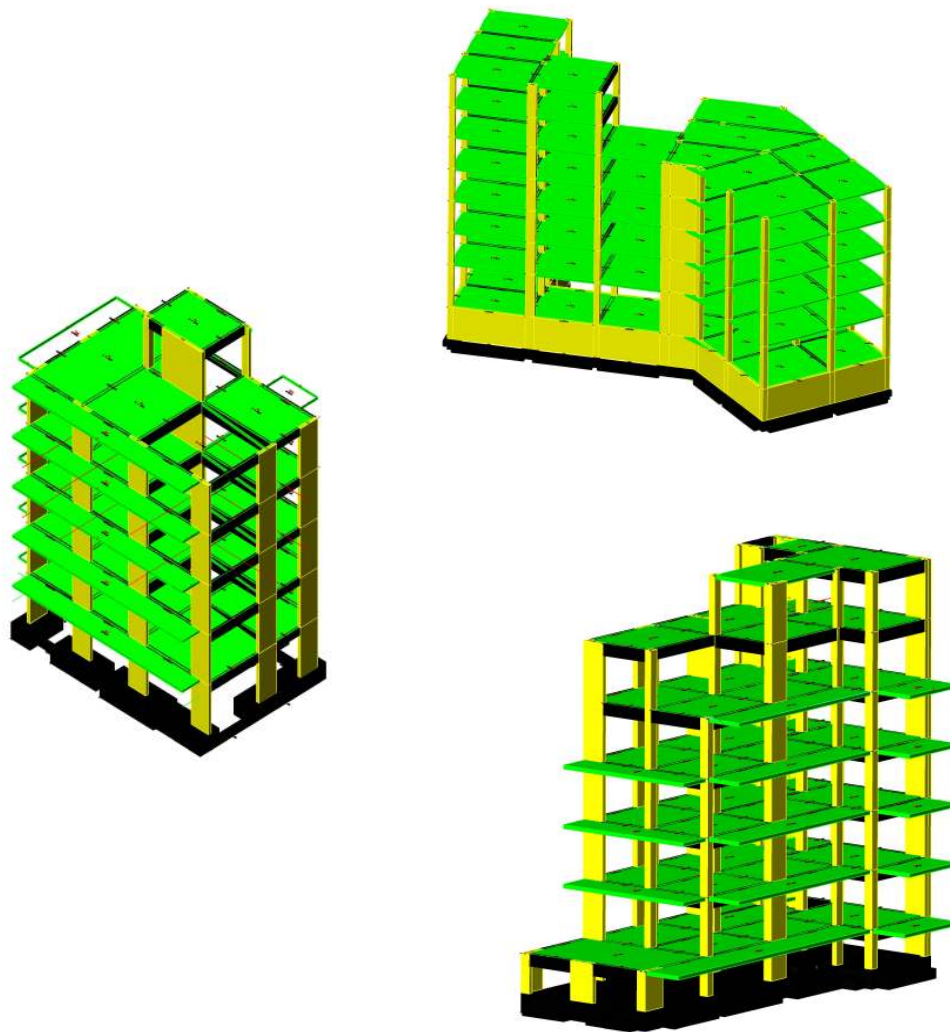
Earthquake consultant : M.Mosoarca, A.S.Anastasiadis

Completion: 2008-2009





A significant number of projects, acting as a principal engineer or as a subcontractor for other firms, concerning structural analysis and design of reinforced concrete building structures are provided. Furthermore, we also have designed a significant number of tanks, for swage, fireproofing, as well other projects of civil engineering works (r/c foundations for machines, retaining walls, etc)



Projects-Strucutral Assesment and Consulting

Structural surveying, quality control and assessment of a 6 story reinforced concrete building in the central Thessaloniki region.

Owner: ***, Thessaloniki
Client: Nikoulis Architects
Completion: 2002

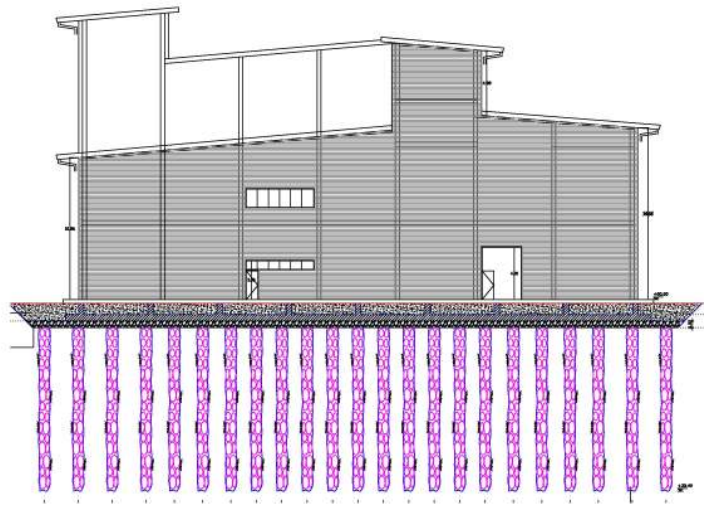


Participation in the framework of collaboration with I.Xanthos-Steel Structures Ltd, which was the leader, in technical consulting for construction problems arising in steel arches and frameworks used for the construction of *Driskos Tunnel* (the longest tunnel in Greece), 2002.

Participation in the framework of collaboration with I.Xanthos-Steel Structures Ltd, which was the leader, in technical consulting for the checking of structural design and also resolving constructional problems of the New klinker production unit of *Titan S.A. Cement Company* in Thessaloniki, Greece, 2002.

Developed an innovative methodology for the evaluation of seismic vulnerability of existing reinforced concrete multi-storey buildings and applied this methodology in some cases in the city of Thessaloniki, Greece. The method is also valuable for the earthquake insurance purposes and was presented in different national and international conferences, 2003.

Structural consultant and supervisor, in collaboration with Histruct and Themeliodomi S.A., for the implementation of Romanian and European codes, in the geotechnical design for the construction of the *Physical Refining and Biodiesel Plant* of the Biomart Energia S.A. at Bucharest, 2005.



Structural screening and strength assessment of 2 story reinforced school in highly seismic zone, constructed in '90s. Different seismic scenarios were produced and proposals for a feasible rehabilitation were made. In the near proximity of the school of about 800m there is a seismic fault.

Owner: Municipality of Thermaikos, Thessaloniki Region



Structural screening and strength assessment of 2 story reinforced school in highly seismic zone, constructed in 80's. Different seismic scenarios were produced and proposals for a feasible rehabilitation were made. . In the near proximity of the school of about 100m there is a seismic fault.

Owner: Municipality of Thermaikos, Thessaloniki Region



Our office has undertaken, in collaboration with Mr. Kastanidis I, Arch Eng., the Rapid Visual Screening of a multi-storey reinforced concrete building constructed in the 70s, situated in Delfon region, Thessaloniki. Based on the observed failures, we prepare a study for the repair of critical components by applying the EN 1504.



Projects-Legal Technical Consulting

Our implementation in many phases of a project, from the early conception to the final construction, lead us to occupy with some legal issues regarding civil engineering works.

A significant number of technical expertises, in the framework of the Court of Thessaloniki, mainly concerning ascertaining of structural deficiencies, structural assessment of building structures as well as contractual disputes was executed.

Technical consultancy, to law firms, private persons and contractors, regarding drafting of contract documents, drafting or readaptation of technical specifications, has been provided.



Technical Consulting on the behalf of the “1997 Thessaloniki, European Capital of Culture” and Greek Ministry of Finance verifying more than 500 projects of different type for the disputes and claims against the Project Managers. This was the first Mega-Project in Greece.



Valuation for the Mortgage Service of the Greek Ministry of Finance, department of Thessaloniki, acting as an expert accredited from the Court of Thessaloniki



**“Based upon `3L` virtues: Lore, Liability and Loyalty,
We are Committed to Excellence making easier our complex world”**

GeoStatic Ltd

***GeoStatic LTD, Reg. No.: 09868532 / UK.
Company registered office: DEPT 400, 61 PRAED STREET LONDON W2 1NS
London ♦ Athens ♦ Thessaloniki***

Athens Branch: 29 Dionysiou Str., 131 22, Ilion, Attica, Greece. ♦ **T:** +30 210 52 38 127 ♦ **F:** +30 210 57 11 461

Thessaloniki Branch: 10 T. Papageorgiou Str., 54631, Thessaloniki, Greece. ♦ **T:** +30 2310 230 529 ♦ **F:** +30 2310 261 287

www.geostatic.eu