Athens Underground Parking Facilities

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ABSTRACT

The purpose of this proposal is to find the most profitable model for the development and the further exploitation of the existing and future dispersed underground parking stations in Athens, constructed at public expense, to evaluate the Public and Private Sector Joint Ventures, as this term remains up to now confusing, and to specify their basic characteristics and their application practices.

In the very early years following the creation of the Greek state, a form of assignment contracts has developed and, especially during the 1960s, special contracts were concluded, boosting the housing development of the country with the construction of apartment houses based on valuable considerations, a model which appeared for the first time at universal level.

Furthermore, during the development of the Community Support Frameworks, Greece was mainly interested in the construction of basic infrastructures and in development projects, based on community and public funds. All bodies involved, of both public and private sectors, were interested in and almost totally focused on the construction and implementation of the above mentioned projects, that followed the typical procedures for the construction of public works.

This short reference is made in order to indicate clearly the quick adjustment of Greece in anything that, according to the public opinion, can contribute in the development of the country and offer multiple and additional benefits for both parties, i.e. for the investor and the user of the project.

1. INTRODUCTION

Late in the ’70s the main problem of Athens was the heavy traffic combined with the “smog”. As a result, new laws and degrees were introduced and the existing ones were amended, regulating issues concerning the car parking, such as:

- Law 960/76. Imposition of obligations for the construction of parking spaces.
- Presidential Degree 697/76. Terms and Conditions for the implementation of parking stations.
- Presidential Degree 720/79. Required parking spaces in cities with a population over 15,000 people.
- Presidential Degree 721/79. Required parking spaces in the Wider Athens Area.
- Presidential Degree 165/80. About terms and conditions regarding the construction of parking station in the Wider Athens Area.

At the same time, the construction of a metro railway system, tram lines or a light rail transit system (LRT) was re-examined. The discussions, proposals and preliminary designs were developed over a period of almost a decade before the implementation of this idea began, and it was finally concluded, ten years later (at 2000 the first phase of the Athens Metro Base Project was commissioned).

At this time, it was widely believed that the long-lasting traffic problem of Athens was finally resolved and that better days were coming for the citizens of Athens, with positive impact on the environment of the capital.
The contradiction of this is the fact that seven years later, the problem still remains, even though we are already in the post-Olympic period, with an attractive and safe metro network that continues to expand in order to serve even more areas of the Athens basin, with the modern Attiki Odos and the Imitos Freeway, with new tram lines across the seaside suburbs of Athens and many freeway interchanges, to mention just a few of the most important improvements and upgrades to the previous urban environment. We could also say that a huge effort was made that has not yet yielded the expected results.

Consequently, the questions that need an answer are the following:

What went wrong? What parameter was not taken into account? What else should be done immediately in order to improve the environmental conditions in Athens without creating an immense and ugly outdoor parking area?

This is a dangerous picture that entails many risks for the citizens of this city and countless material damages due to the lack of free space. We should also take into account the time required for finding a “precious” free parking space, as well as the negative impact on the environment and economical and psychological effects on the residents of this city.

Finally, this immense outdoor parking area would become a kind of barrier, dividing the basic cell of the urban web, which is no other than the neighbourhood, the "identity" of every healthy society, with tragic consequences. This traffic problem in a city that moves like crazy, is becoming a critical problem that should be immediately resolved.

So what would be the most appropriate model for the construction of underground and surface parking areas in Athens? And, finally, which are the parameters of such an important project, for the further enhancement of the environment in the capital, by limiting as far as possible the negative effects resulting from the excessive use of cars, which, according to the latest transportation engineers estimations, correspond to almost (8) million daily trips by more than (2) million of passenger cars inside the Athens basin? How can the passenger cars be removed from the sidewalks which are nothing but obstacles for pedestrians and people with special needs and at the same time destroy trees and the sidewalk slabs, beside the administrative measures that did not yield the expected results? Also, we have to consider how to prevent the parking of passenger cars on narrow roads, causing many difficulties to the passage of other vehicles like ambulances, waste collection trucks, commercial vehicles and even vehicles of public transport.

2. THE EXAMPLE OF ATTIKO METRO S.A.

Attiko Metro is one of the main and essential entities involved in the construction of parking areas along the Athens metropolitan railway route. According to article 9 of Law 3010, FEK A’91/25.04.2002, Attiko Metro can construct transfer stations and parking area, as well as all necessary facilities and access points.

Attiko Metro, on the basis of the powers vested to it by the Greek law, has recently developed an ambitious and dynamic large-scale plan for the implementation of transfer stations, in order to handle the transportation needs of the city as the use of combined transportation systems has become an urgent necessity, i.e. transfer stations between the metro and other public and private transport modes such as buses, tramway, the suburban railway, taxis, passenger cars, motorcycles and bicycles.

This transfer shall ensure the smooth circulation of passengers and provide a safe, quick and reliable method of transportation. At the same time, the unrestricted traffic flow should be assured near the transfer stations as well as the minimisation of any environmental impact related to the accumulation of the transport modes and possibly their uncontrolled parking.

Within this framework and with the purpose to improving the traffic and environmental conditions of the city by reducing the number of vehicles that enter the centre of Athens, Attiko Metro has proceeded to the preparation and implementation of program of studies and to the construction of additional transfer facilities of multiple use.
Taking into account the limited number of available free areas, the construction of transfer stations is designed in a way to facilitate the circulation of the means of public transport, making at the same time provisions for the parking of a sufficiently large number of privately owned vehicles. Before the acquisition of land for the construction of transfer stations and the preparation of the construction designs, Attiko Metro prepares all necessary preliminary designs (traffic impact studies, environmental studies, alternative proposals for architectural solutions, economic-technical feasibility study, investment and viability study etc.). Based on the above mentioned studies, all necessary measures are foreseen so that the construction of each interchange station will enhance the quality of life for the residents of the affected areas.

3. CONCLUSIONS / SUGGESTIONS

At the beginning of this paper, and more particularly in its introduction, we mentioned the way that the previous Ministers of Environment, Regional Planning and Public Works had reacted in the late ’70s, through the enactment of new laws, in order to address the major problem of Athens, which was the traffic congestion combined with the “smog”.

Here lays the critical reason for the failure of innovative at that time laws to address the problem. The legislator had even created a Special Fund (contributory charges) known as “ΕΤΕΡΠΣ” for the Implementation of Regulatory Urban Planning schemes. Unfortunately the use of these funds still remains a mystery.

Regardless of the good intentions of the legislator, the responsible bodies/persons at that time had not taken into account the next step regarding the legislation implementation factor. In other words, they did not define the body that could play the catalytic role in the application of the relevant legislation. The body that would proceed to the acquisition of the appropriate areas for the construction of surface and underground parking areas, a project much more feasible at that time, when there were still available free land plots in the metropolitan area for the implementation of such projects.

Therefore, the solution to the problem requires a body similar to Attiko Metro, with extended responsibilities, that would undertake this large-scale project for the construction of parking areas in order to accommodate all privately owned vehicles, ensuring at the same time the revival of the notion of the neighborhood which can become again the primary cell of the urban web and the enhancement of the environmental conditions in general.

In order to facilitate the acquisition of the appropriate areas for the construction of parking areas, that is essential for the success of the project, and taking into account the lack of available free space, the Greek legislation should grant to the body involved extended authorities in order to propose, in deviation to the normal procedures, and based on its scientific judgment, any modifications to the existing urban landscape, that may include the construction of tall "landmark" buildings as a continuation of underground parking facilities, which shall rise above the surface level.

Such modification should apply to traffic regulations, land usage, increase of the building factor and the of their maximum height. At the same time, the involved body should exploit to the maximum the possibilities offered by the existing legislation regarding the transfer of the plot-to-building ratio. It is now the time to correct the mistakes made in the ’70s and ’80s, but unfortunately at a high price and by adopting a different philosophy about the urban landscape. This is a fact that the Greek state should accept since the traffic problems in the neighborhoods of Athens have reached to a deadlock.

The body that undertakes the construction of the necessary parking areas must have the authority to acquire and to expropriate real estate properties after the completion of all necessary preliminary studies (traffic impact studies, environmental impact studies, alternative proposals for architectural solutions, economic-technical feasibility study, investment and viability study etc).

Of course this vast project will be extremely time-consuming. However, the completion of vast projects, like the Athens metro, is also a time consuming process. This body shall cooperate with other entities, such as Municipalities, investors and businesses, already activated in this field, and shall act as the "driving force". Within this framework, public and private
joint ventures could be promoted, whose meaning, basic characteristics and application practices remain until now confusing. According to the applicable EC provisions, public and private sector joint ventures are divided into the following basic sub-categories:

- Joint Ventures of a purely contractual type, a joint venture based exclusively on contractual relationships and
- Joint Ventures of institutional type, a co-operation between the private and public entities for the creation of a new body or the admission of the private authority to an existing body.

For the construction of parking areas to the difficult region of Athens, a Joint Venture of institutional type is recommended, because it is evident that in this case the public sector’s participation on the business scheme is imperative also for reasons of acceptance by the public. Furthermore, this body can acquire an important experience regarding the exploitation of the relevant service, supported by a private sector partner.

In all member-states of the European Union (E.U.) the public authorities resort to the above mentioned structures, especially for projects such as the management of public services at a local level. As far as the public and private sectors joint ventures are concerned, different terms and models are used such as cooperation model or PPP associative, or joint ventures.

REFERENCES

4. APPENDIX

4.1 The typical method for the construction of Parking Areas and Parking Facilities

**Diagram 1**

- **Parking Stations**
  - Construction Conditions
  - Construction Incentives
  - Construction Under Public Places
  - Overview of the Relevant Legislation
  - Procedures Required for the Implementation of Parking Stations
  - Financing
  - Modification of the Building Factor
  - Overview of the Relevant Legislation
  - Procedures Required for the Determination of the Underground Parking Stations

**Diagram 2**

- **Parking Stations for Buildings**
  - Construction Conditions
  - Overview of the Relevant Legislation
  - Procedures Required for the Implementation of Parking Stations

**Source:** General Secretariat of Public Works

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Law 960/79: FEK 194A'/79 as modified "about the imposition of commitments regarding the implementation of parking stations for buildings and the arrangement of relevant issues".

Presidential Degree 230/93: FEK 94A’ "about the determination of the required number of parking spaces taking into account the nature and the volume of the buildings in the greater region of Athens".

Presidential Degree 165/80: FEK 45A’ "about the terms and conditions for the implementation of parking stations in regions inside the center of the capital".

Presidential Degree 350/96: FEK 230A’ "Determination of the commitments regarding the provision of parking stations in regional cities of the country and in areas not included in the relevant approved plan".

Presidential Degree 3.8.87: FEK 749Δ as modified ‘about the determination of special terms regarding the construction and the configuration of parking stations”.

Ministerial Decision 98728/7722 FEK 167Δ ‘about the specifications for the construction of parking stations for buildings”.

**Source:** General Secretariat of Public Works
Law 960/1979 - FEK 194 A'/25.8.79 as modified by the Law 1221/81- FEK 292 A' "about the imposition of commitments regarding the implementation of parking stations for buildings and the arrangement of relevant issues"

Presidential Degrees in force for the implementation of the law

- Presidential Degrees regarding the greater region of Athens
- Presidential Degrees regarding cities and towns with a population over 15,000 habitants
- Presidential Degrees stipulating special conditions regarding the construction of parking stations in all regions of the country

167Δ' 98728/7722 - FEK Specifications for the construction of parking stations for buildings in all regions of the country

Presidentia
l Degree 230/93: FEK 94A' Determination of the required number of parking spaces taking into account the nature and the volume of the buildings in the greater region of Athens

Presidenti
al Degree 165/80: FEK 46A' Terms and conditions for the implementation of parking stations in regions inside the center of the capital

Presidential Degree 3.8.87: FEK 749Δ' as modified by the Presidential Degree 25.4.89 - FEK 253Δ' Determination of special terms regarding the construction and the configuration of parking stations

Source: General Secretariat of Public Works