Thessaloniki, 03.05.2011

STARS Mid-term Visit

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City/University : Thessaloniki, Aristotle University of Thessaloniki (A.U.Th)
Project name (if any) : buS sTops Aimed to be Really Safe (STARS)

1. Project proposal

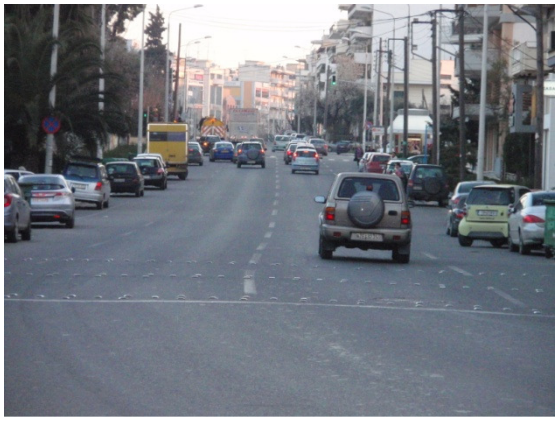
Taking into account the level of road safety in Greece as well as the special attention that has to be paid in areas such as bus stops and school facilities our idea aims to secure public transport passengers when they are waiting to get on the bus and also pupils that cross the street to use the public transport. On the one hand we will manage to control vehicle speeds and on the other had we will try to reduce the amount of road accidents in the study area.
Our main idea is to implement a speed management project using tools such as rumble strips and road painting. In a few words, before reaching the bus station five rumble strips will be applied on road surface covering a distance of 12 m. which means 3m. distance between two rumble strips. Five meters afterwards, on the road surface ahead of the bus station a 'BUS STOP' tag will be painted to inform the drivers of the bus station.

2. Site to be treated

Firstly, we decided that we should take into consideration the risk of waiting public transport at bus stops in Thessaloniki. In the past many accidents have taken place that included passengers who were about to get on buses.

So we chose a road part across the Georgiou Papandreou ave. and between the roads Themistokli Sofouli str. and Ploutonos str. The study area is about 100 m. length, 4 lanes of 3,3 m. each one (usually the right lane is used as a parking lane especially in night hours) and there is not any traffic lights.

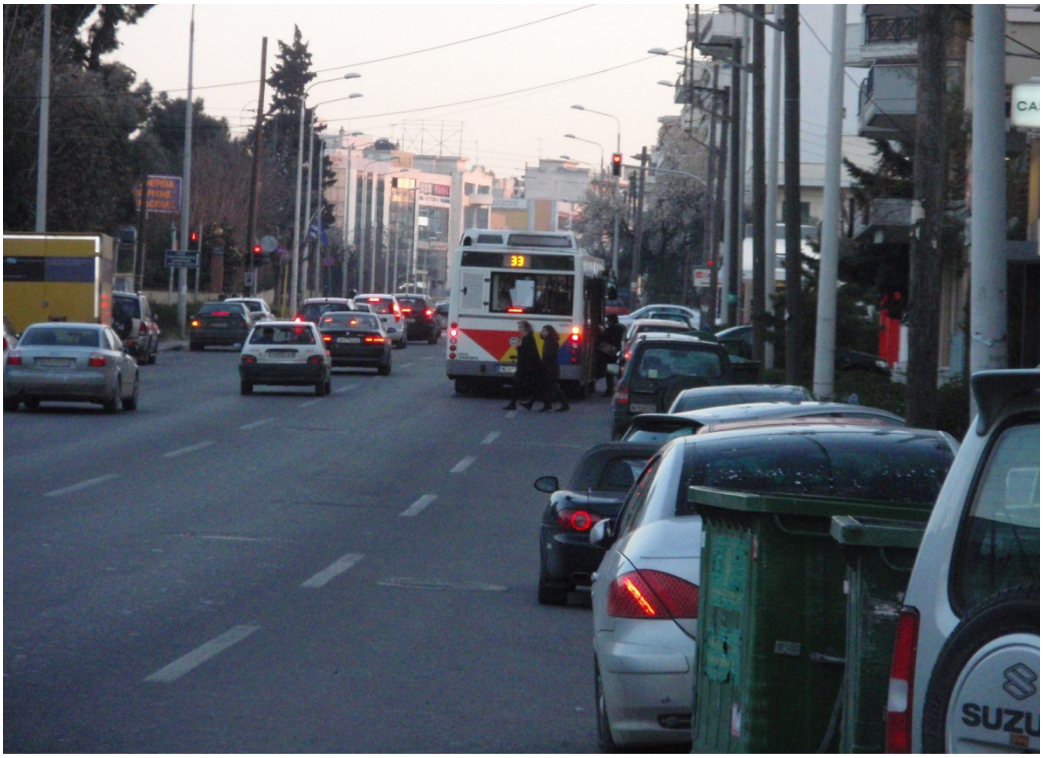
Our focus on the specific area was due to the fact that the area includes school land usage, 'insecure' and unsafe bus stop, and other speed management infrastructure tools such as cats-eye whereas high speeding of vehicles and wide road infrastructure that subconsciously allows speeding in that area. Besides, the authority who has the administrative responsibility of the specific road part was the municipality of Thessaloniki who was at first willing to help us implement our project.



Study Area

Speed Radar

Implementation point



Public Transport arriving at bus stop

Bus Stop

The 14th High School in our study area

3. Content visit

In the evening of 18th April, Mr. Daoud landed in Thessaloniki's Airport. Next morning we had a small meeting with Mr. George Dimarelos, executive representative of Thessaloniki's municipality in Transport sector. Mr. Dimarelos agreed on our project and will do his best to give permission from our municipality to our team in order to implement our project. Mr. Dimarelos is a young transport engineer who is in line with our innovative ideas.

Mr. Koutoulas, Mr. Dimarelos, Mr. Papoutsis

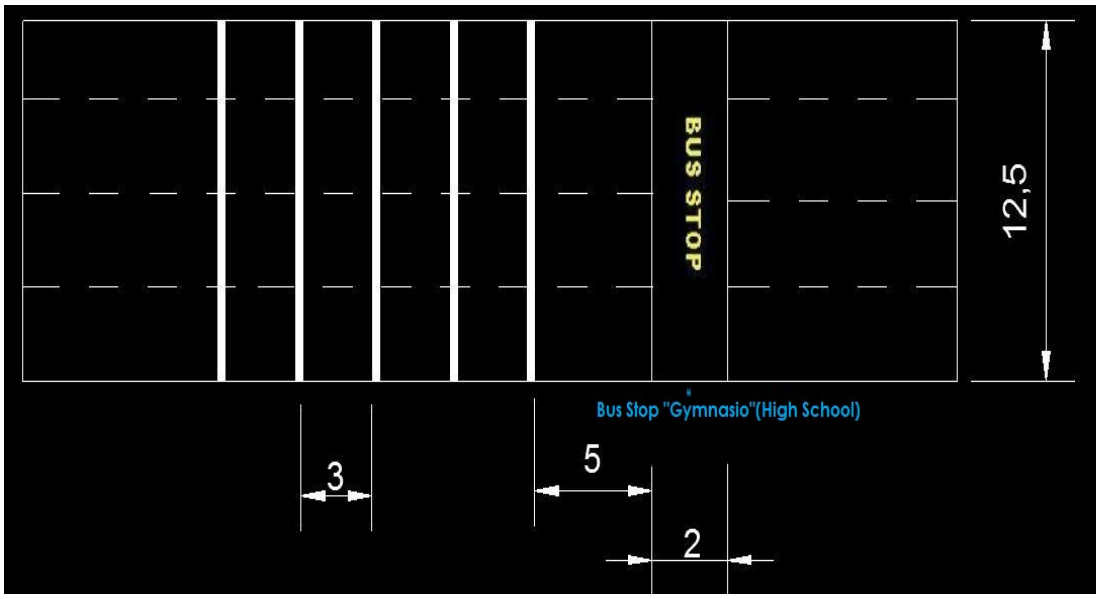
Mr. Daoud, Mr. Dimarelos, Mr. Papoutsis

Just afterwards, we visited the site where the project will be implemented. We highlighted the hot spots of our project and explained to Mr. Daoud our planning while trying to specify the time plan.

We also had a visit in the Hellenic Institute of Transport followed by a short brainstorming between the team, Mr. Daoud and Mr. Korakidis, a colleague who also took part in the Brussels camp. We exchanged ideas, answered questions and some doubts and analyzed our thoughts concerning the project. Unfortunately, Prof. Mr. Giannopoulos, Director of CERTH/HIT, had an urgent professional matter in Athens so he couldn't meet us even If he would like to. It is worth mentioning that Mr. Giannopoulos contribution to our effort is significant because of his financial and moral assistance as the Head of CERTH/HIT.
So, our professional meetings were done and it was a perfect moment to have a lunch since there was plenty of time until Mr. Daoud takes off to Brussels!

4. Implementation process

Our idea comes with the installation of rumble strips and road painting like the design below:



The plan comes as follows: Across Papandreou str. and just after Sofouli str. five pieces of rumble strips will be placed in a distance of 3 meters amongst each pair. Subsequently, in front of the bus station called "Gymnasio"(=High School) the road surface will be painted with the label 'BUS STOP' to indicate that a bus stop exists there. This label will be about 1,5 meter high and 5-7 meters wide.
The project will be implemented during night hours and according to our forecasts, it will take about 4 hours in order to be finished. We have to corrupt circulation during the establishment of the equipment.

5. Next steps

After the implementation of our project we should proceed to the evaluation phase. This consists of speed measurements taken in two positions as the picture below:

As we can see in the picture above, there are two measurement points. The left one is just after the Sofouli street in front of the High School. Near this point there is a speed radar that shows the speed of the vehicles crossing Sofouli street heading east. The second measurement point is opposite of the case study bus stop. From this point we could collect speeds from the vehicles moving on Papandreou Street. Fortunately, there is speed data concerning the current case coming with deep analysis. Some days before the beginning of the project implementation the team will collect speed measurements from the study area. After the implementation of our idea we will be able to take again some measures concerning the status a-posteriori.

Another way for indicating project's effectiveness is by measuring the number of accidents in the study point concerning pro-project period and compare it with post-project period. This is harder due to the fact that it takes a long period of time to reach a result.

Our team could also elaborate a study about the cost-benefit analysis of our idea. This study could include the financial costs comparing them with the social and further economic benefits sourcing from the project.