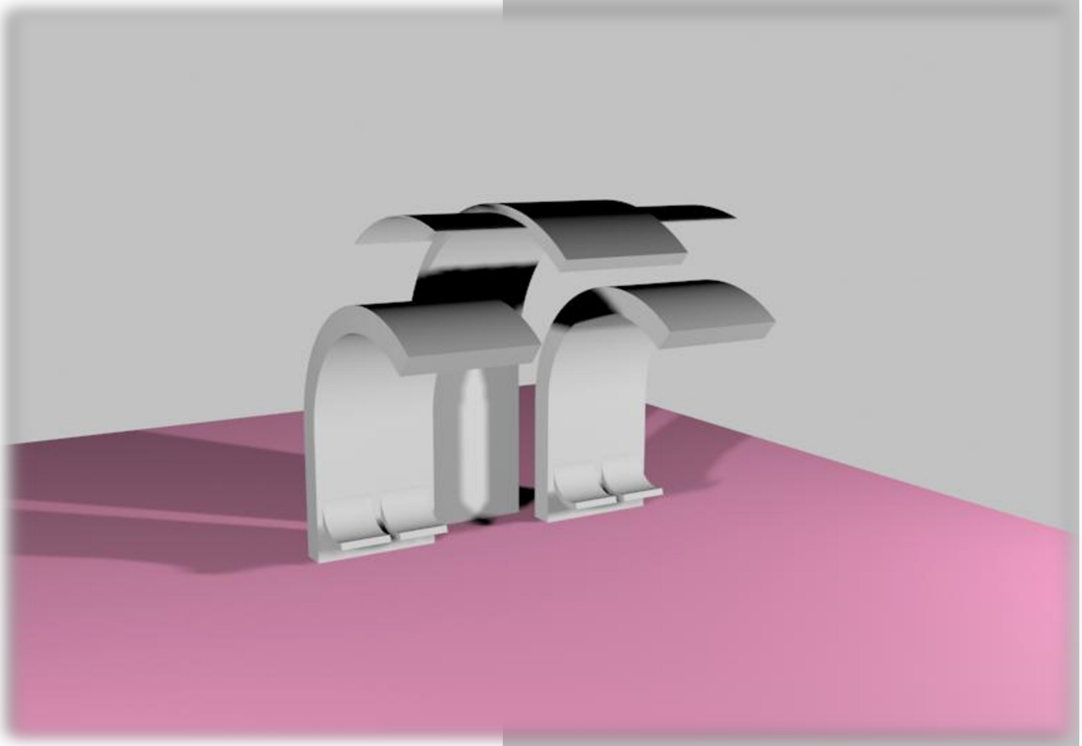
AKTO
Art and Design College

Distance Learning
Product Design: BUS STOP



Student: Antigoni Pagona

Teacher: Mr. N. Vlachos

Date: 07-06-2013

Introduction

A bus shelter concept is very unique as we do not think about structures like these every day. I like the idea that even the simplest structures that commuters use every day can be redesigned to create structures that are visually appealing as well as keeping the commuter safe and happy. We as individuals do not think that they are necessities but rather take them for granted. From this point forward you will see what steps I have taken to create a shelter that illustrates the needs of individuals as well as mind set I had when developing this solution.

Collect Information Step:

A bus shelter is a structure built for the benefit of people waiting for a bus. They are a necessity for older people and the handicapped.

1. The basic function of a bus stop is for shelter. It is to shield people from the elements as well as surrounding traffic sometimes.

2. Typically a wait at a bus stop is around from 5 minutes to an hour.

3. The basics I like about bus stops are that they help keep you dry during rain. As well as that, they are built to last rather than temporary.

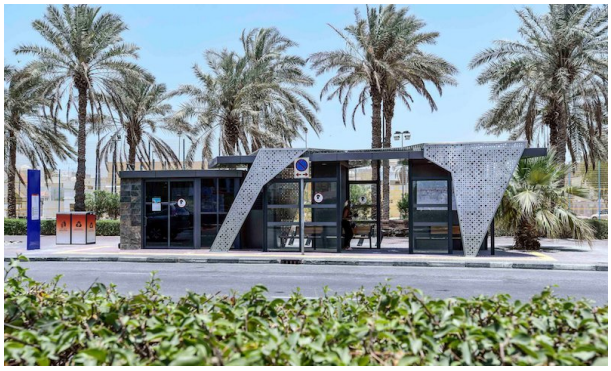
Bus stops infrastructure ranges from a simple pole sign, to a rudimentary shelter, to sophisticated structures. The usual minimum is a pole mounted flag with suitable name/symbol. Bus stop shelters may have a full or partial roof, supported by a two, three or four sided construction. Modern stops are mere steel and glass, although in other places, such as rural Greece, stops may be in stones or wooden.

For operation purposes there are three kinds of stops: Schedule stops (where buses should stop even no one is there); request stops (where some vehicles will stop only on request); and hail and ride stops (where buses will stop anywhere on road upon request).

Here below are some of the existing bus stops:

- **In France, Paris:**

- **In Dubai:**



- **In Greece, Athens:**

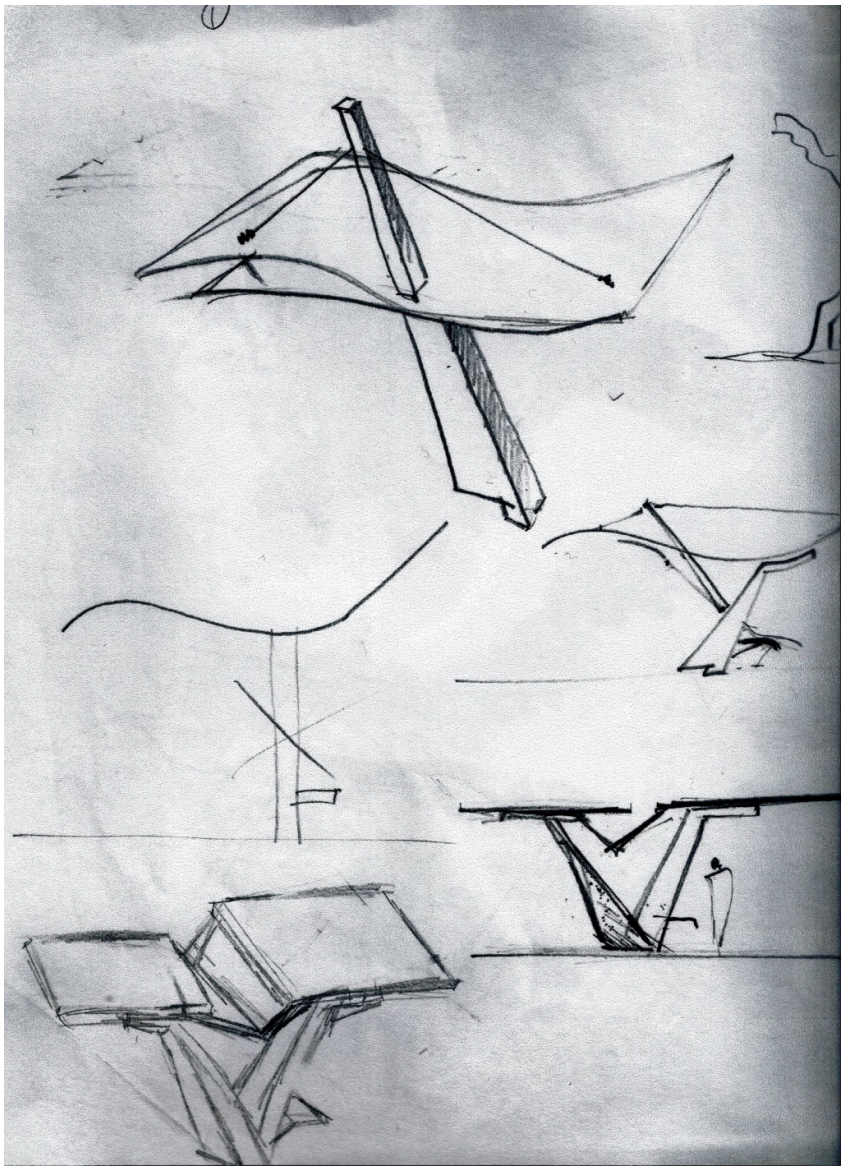
Brainstorming Ideas Steps:

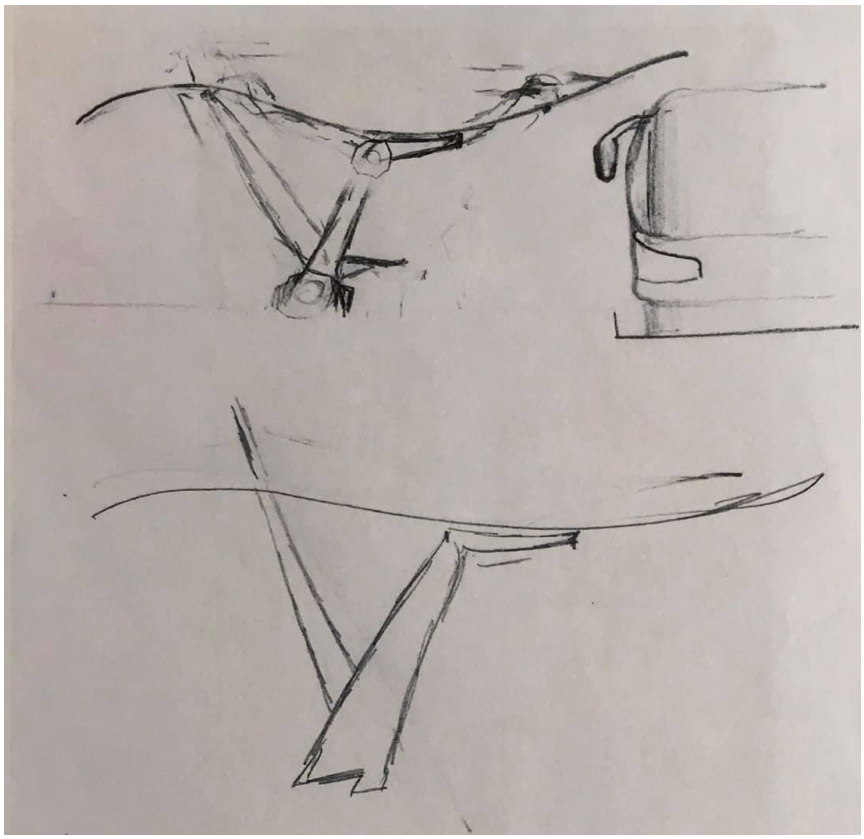
- Brainstorming - A similar process undertaken by a person to solve a problem by rapidly generating a variety of possible solutions.

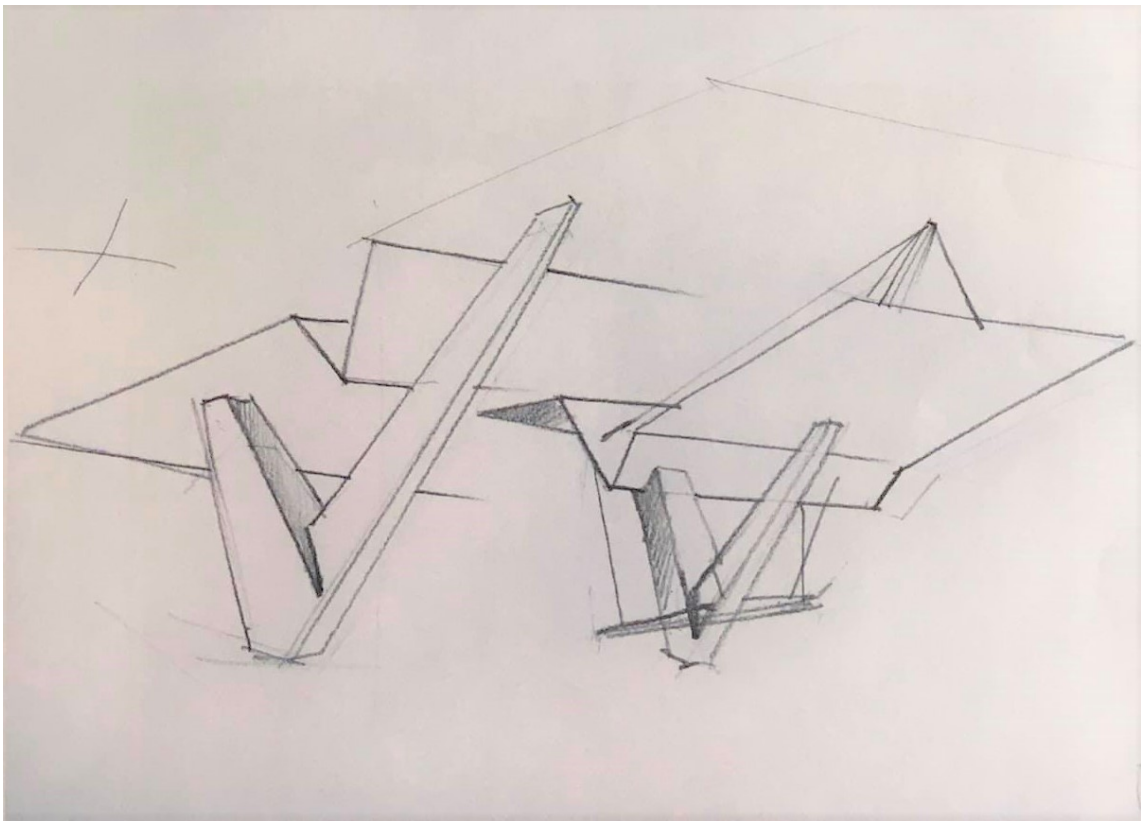
- In this step I had to create multiple variations of a bus stop from which I would choose the most relevant to the environment and community.

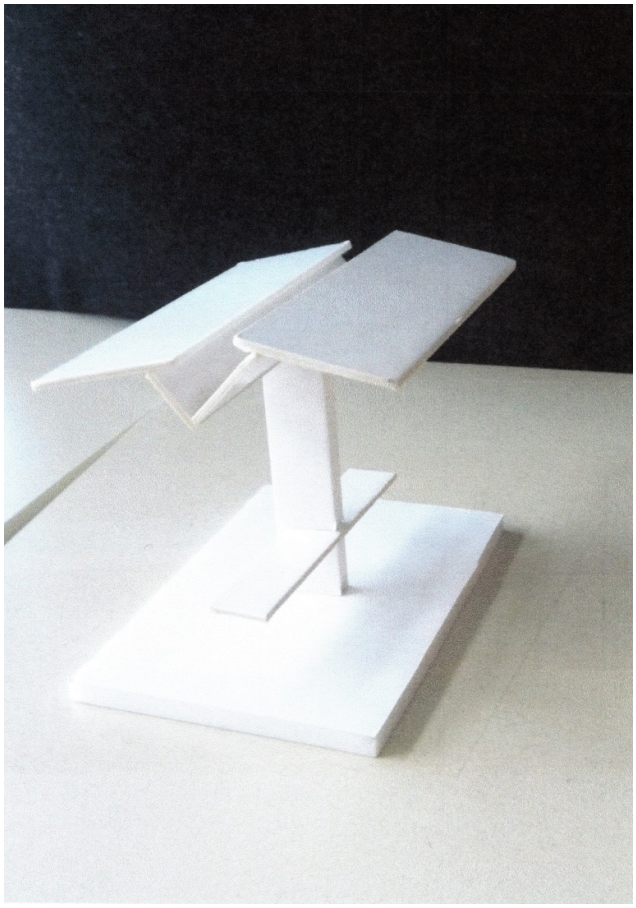
1. 1st idea - I wanted the bus to remind the sea so I tried to make the roof to look like a wave.

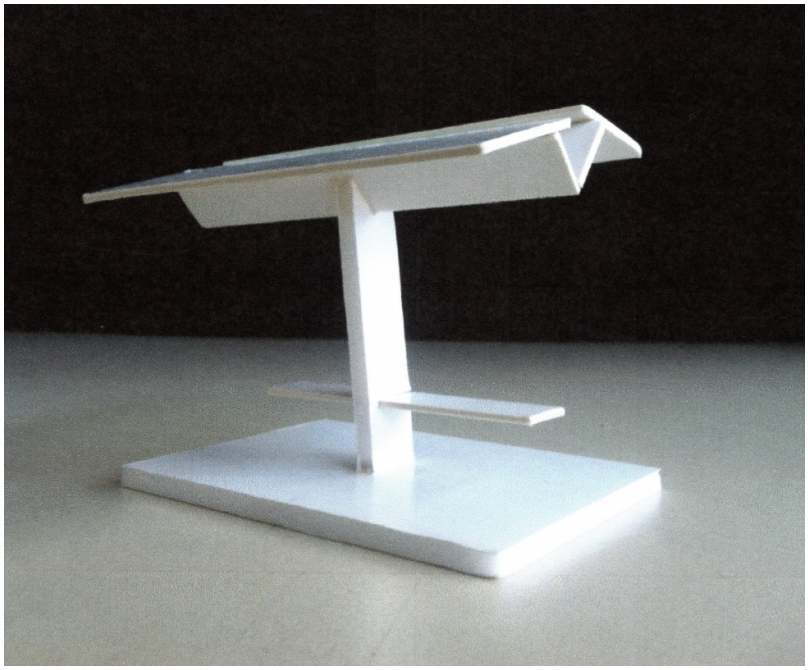
   Here below are some of my sketched*s and the model I made.







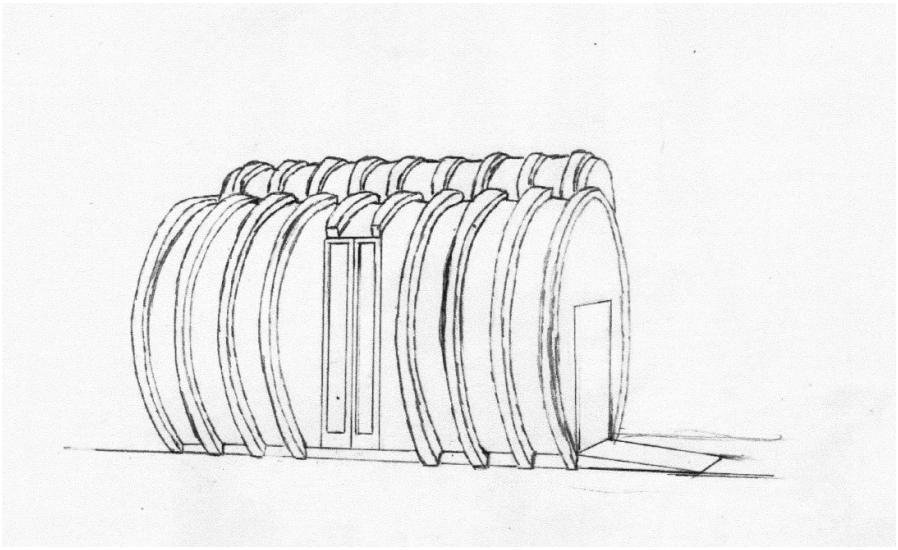


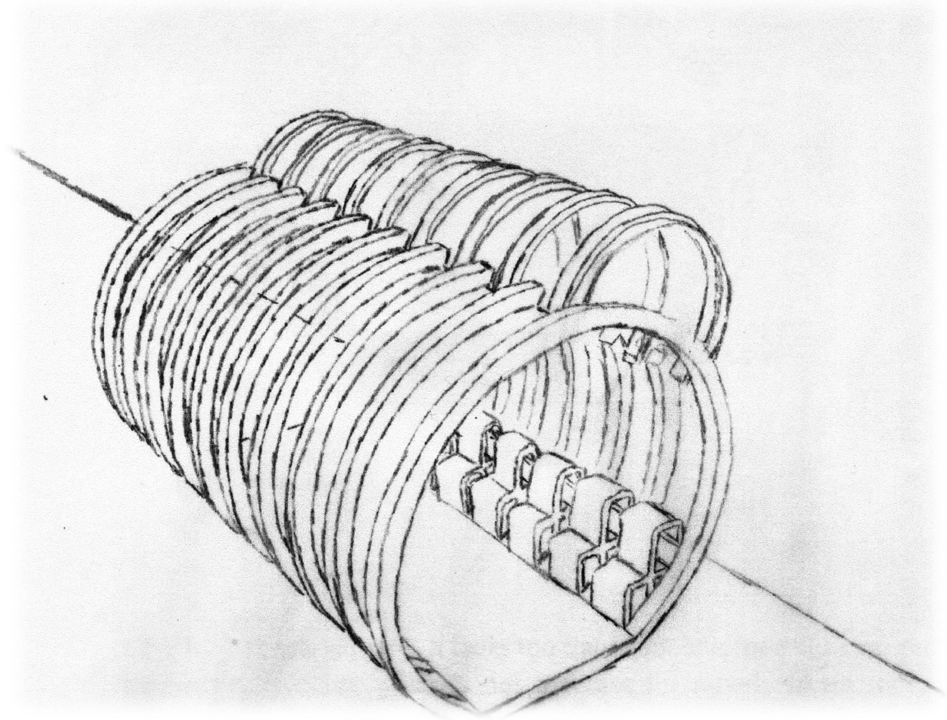


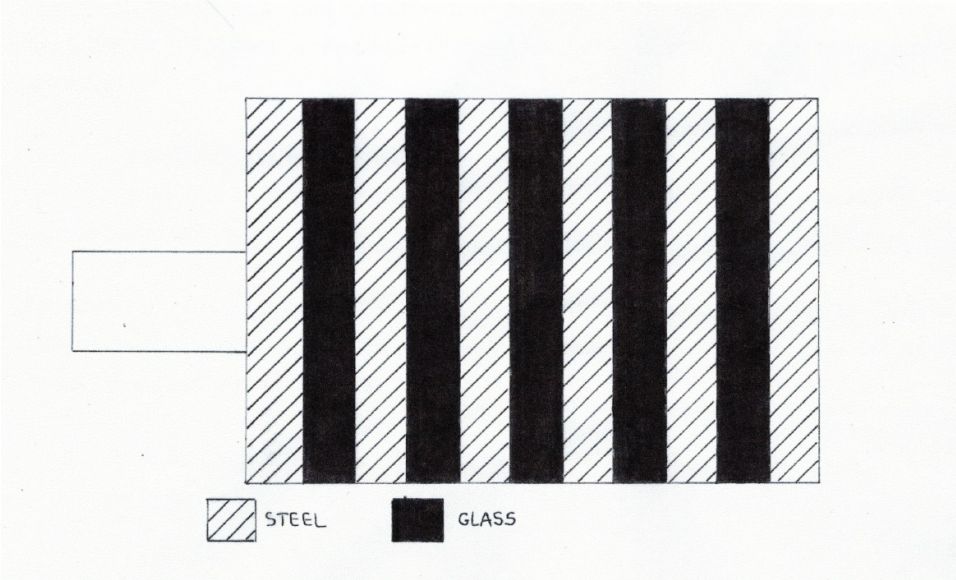
I had to drop that design because the roof is similar to the roof of the electrical train station in Faliro as you can see in the picture below:

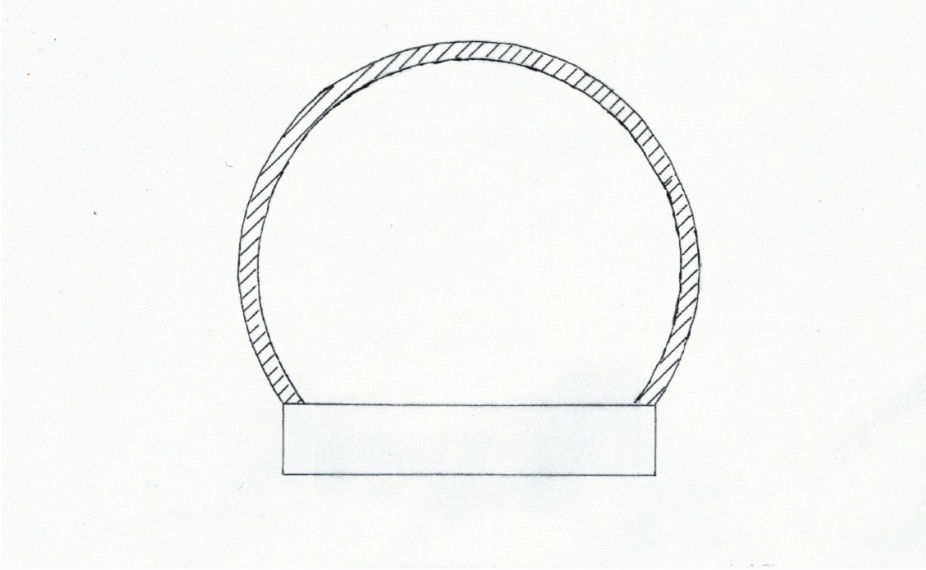
2. 2nd idea - I wanted that the bus stop to be a shelter from the heat and the rain so I tried to see if a closed bus stop would work (where the people would be inside) like in Dubai where bus stops are with air-conditioning.

   Here below are my sketches of that idea:









I had to drop that idea too. It looks too claustrophobic for a bus stop and it needs big area to be built which is not the case for Athens where there are tiny sidewalks.

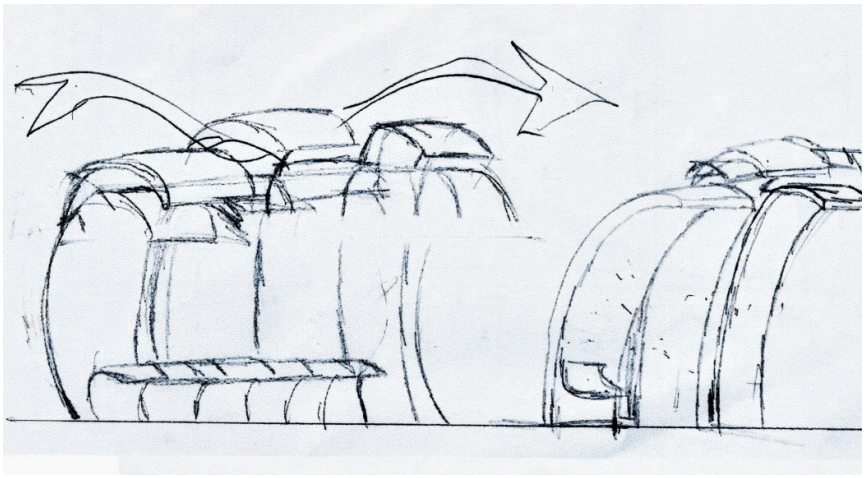
- Throughout these step I had to brainstorm on which form the bus stop would take. I had pondered on it for some time until I realized for a kind of semi-circular shape would look awesome.

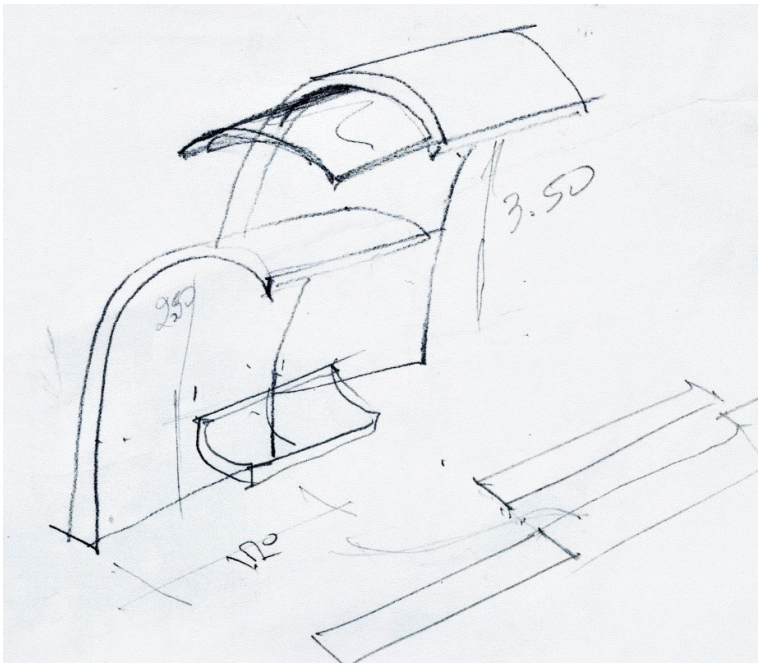
- I wanted a creative design that would remind the sea. What I wanted to see, in this bus stop, are dolphins: **a mother protecting those little ones**. I put chairs on the two shorter panels.

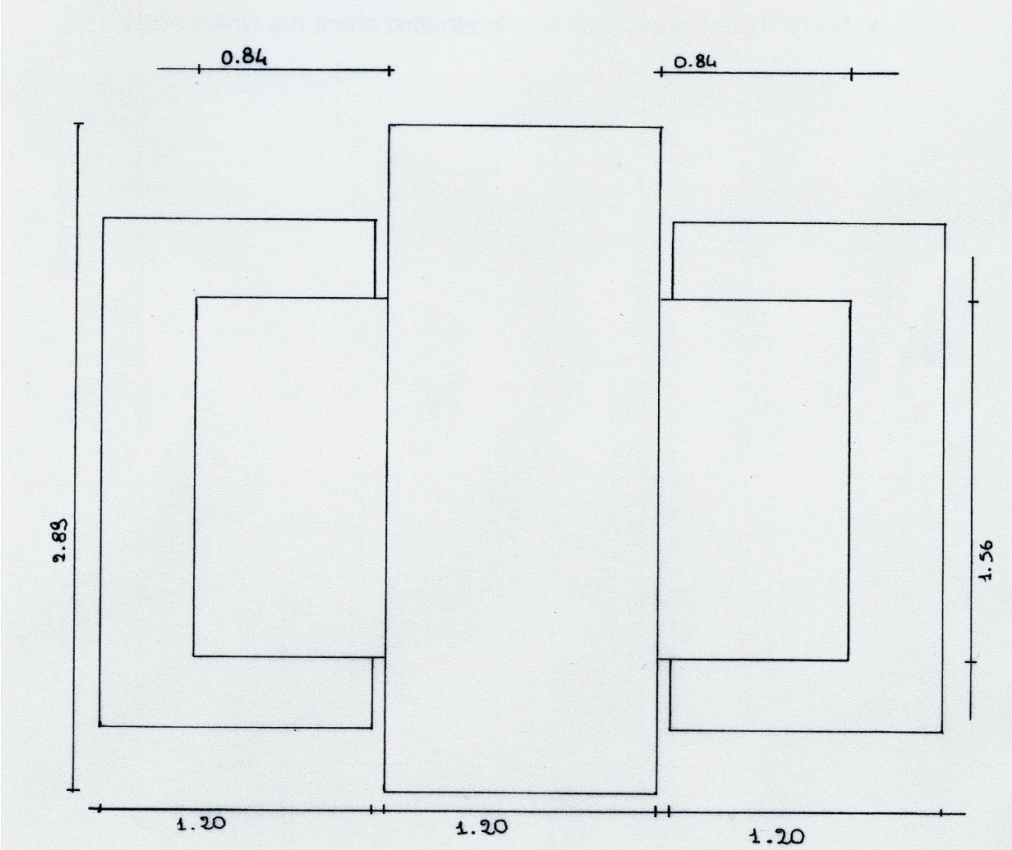
- The materials I plan on using are consistent with what we use today in Athens's bus stops. I plan on using on the taller structure steel and glass, an on the two shorter panels I decided to put concrete.

Final design

- Here below are the first sketches of my final design:



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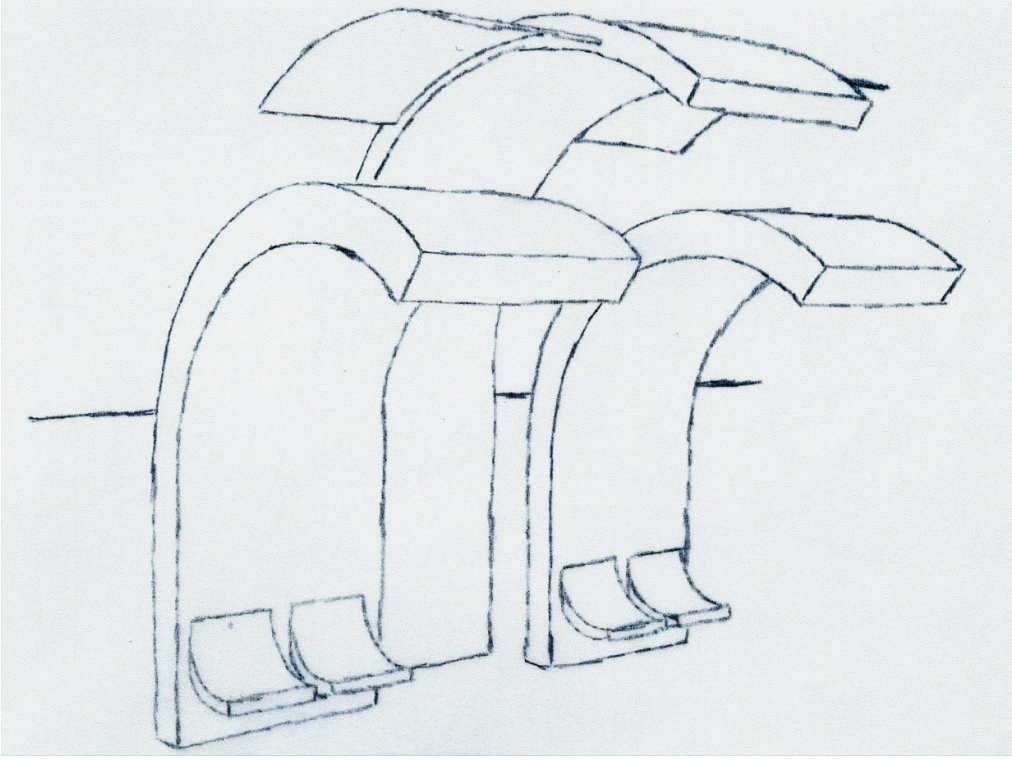
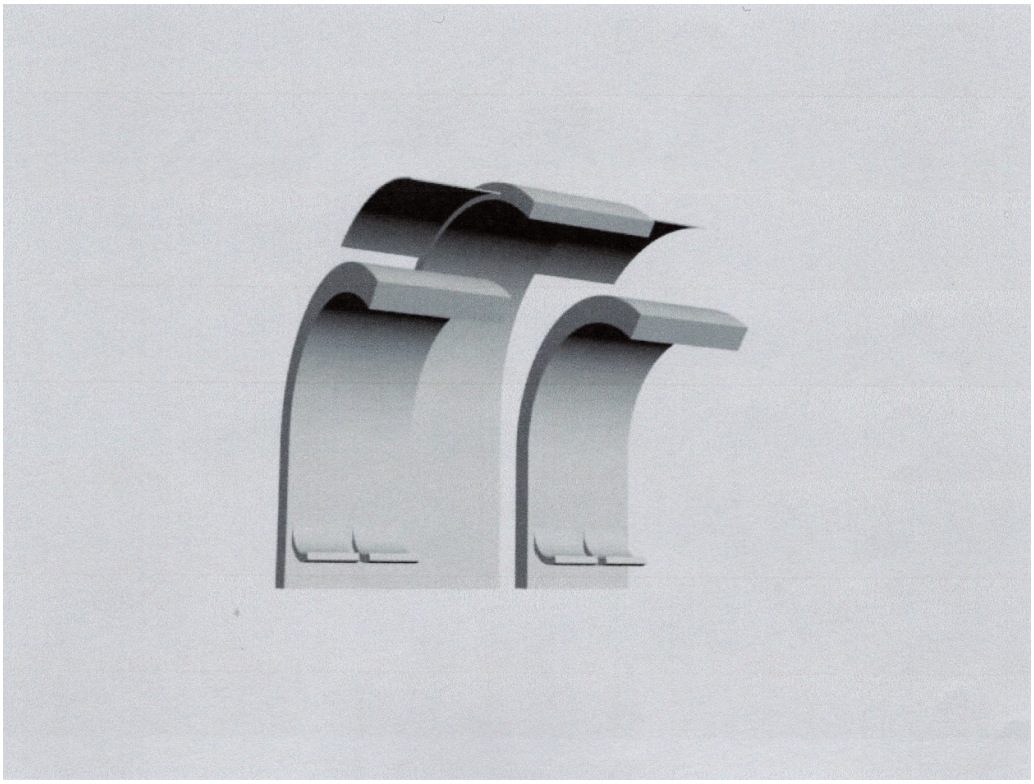
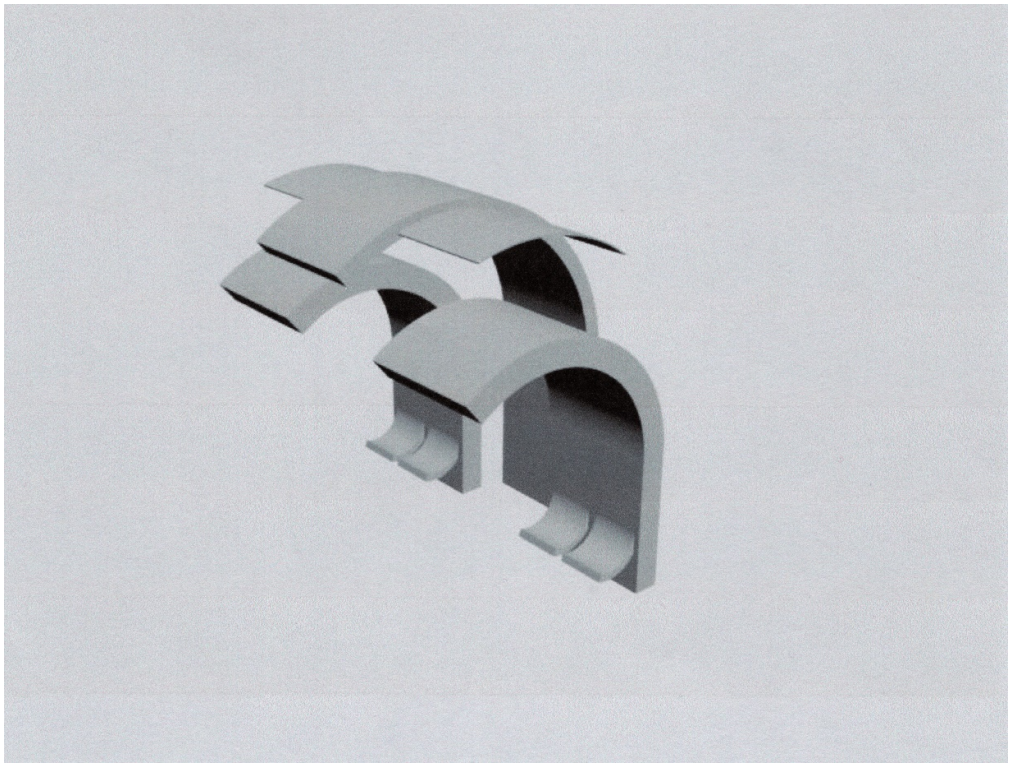
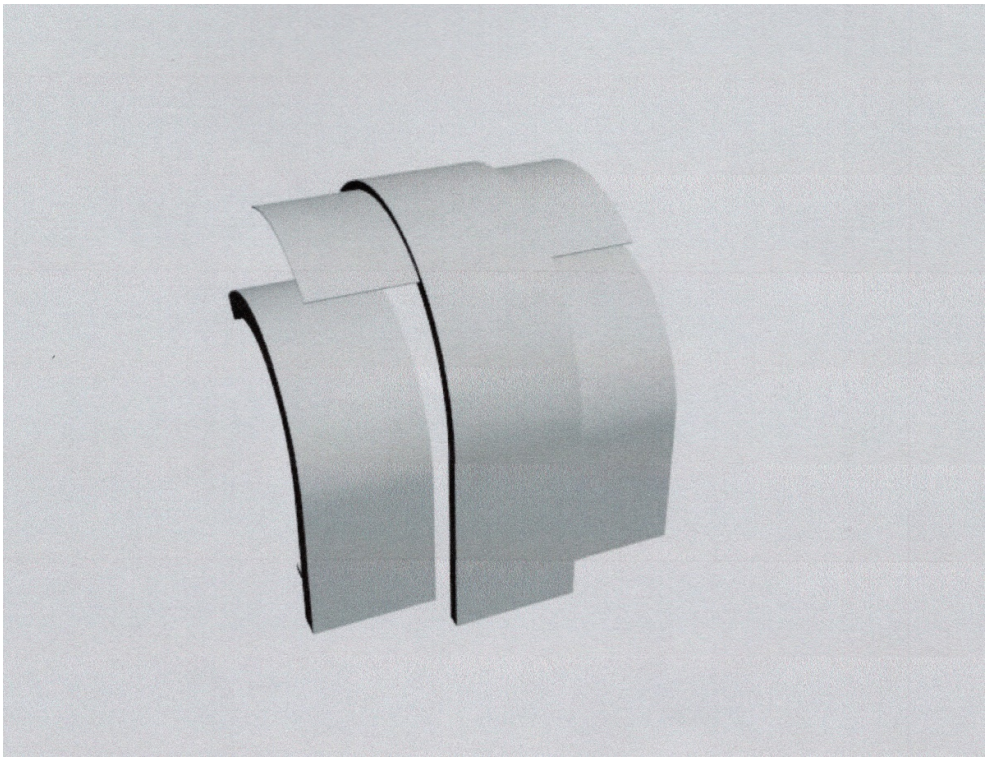
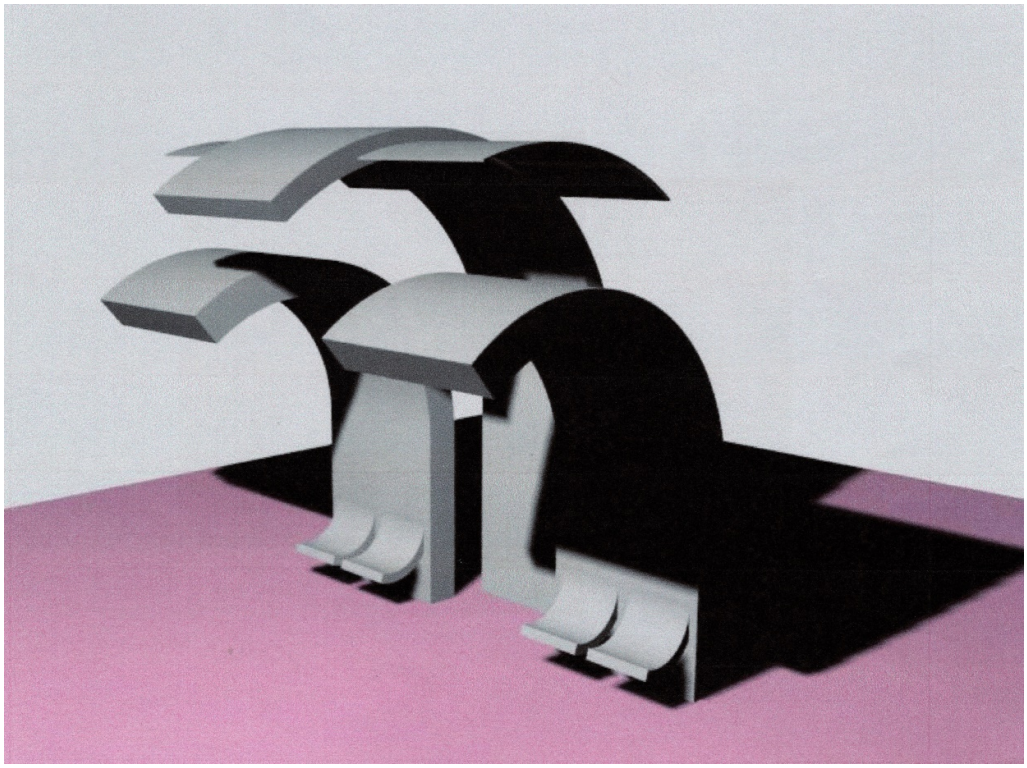


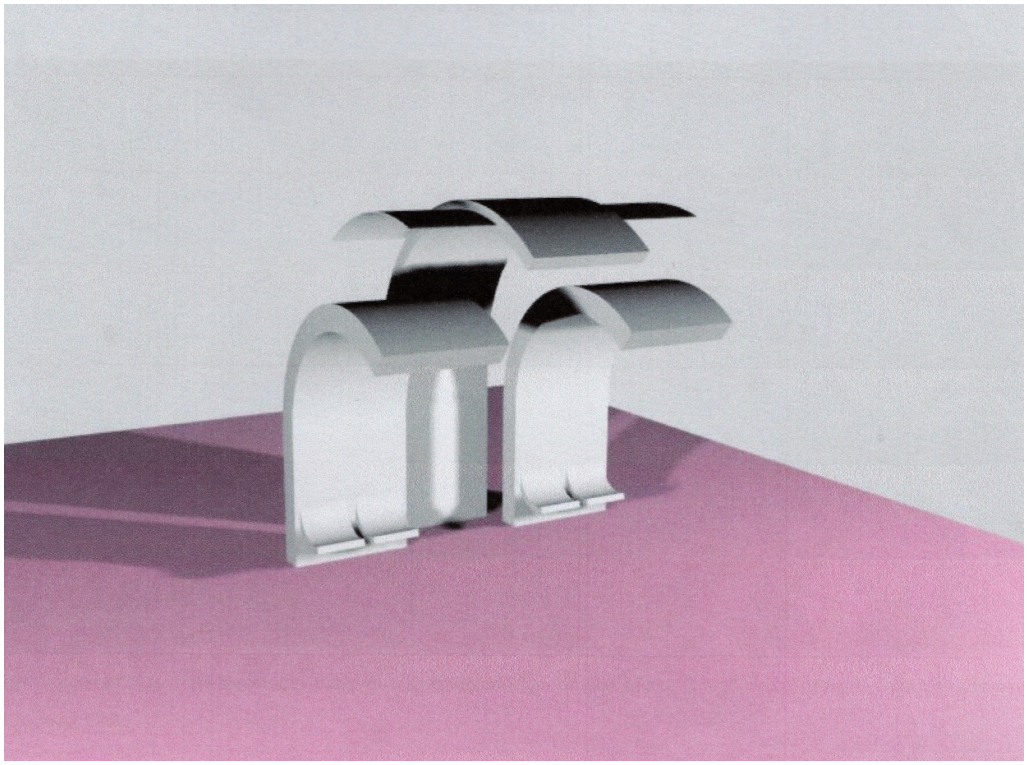
- Here below are some pictures of that bus stop made in 3Ds Max

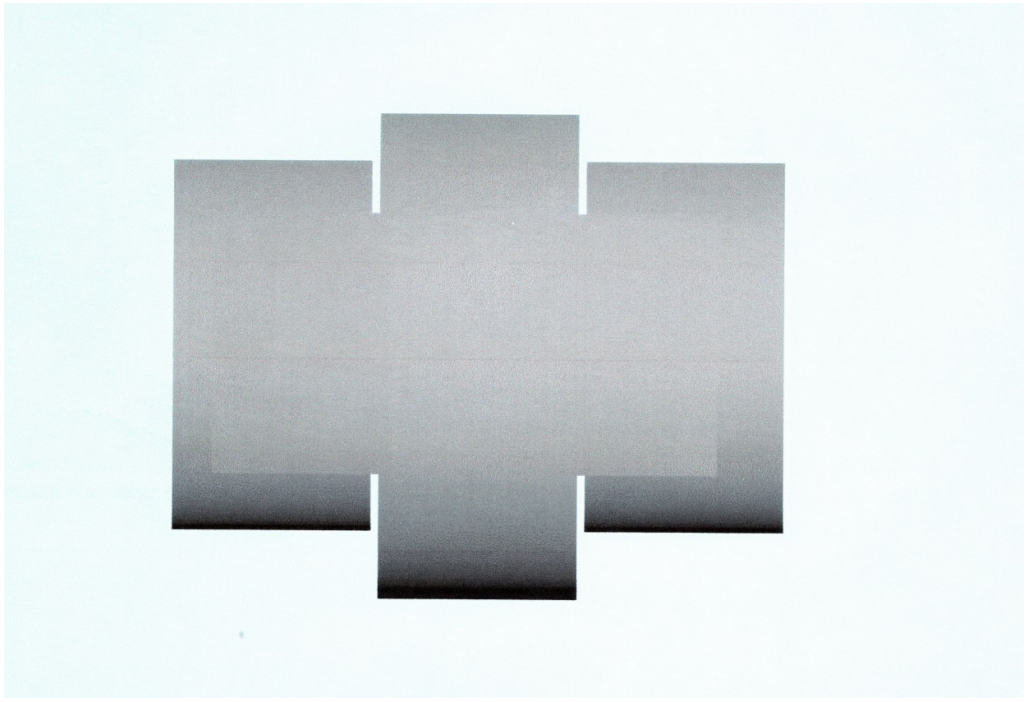




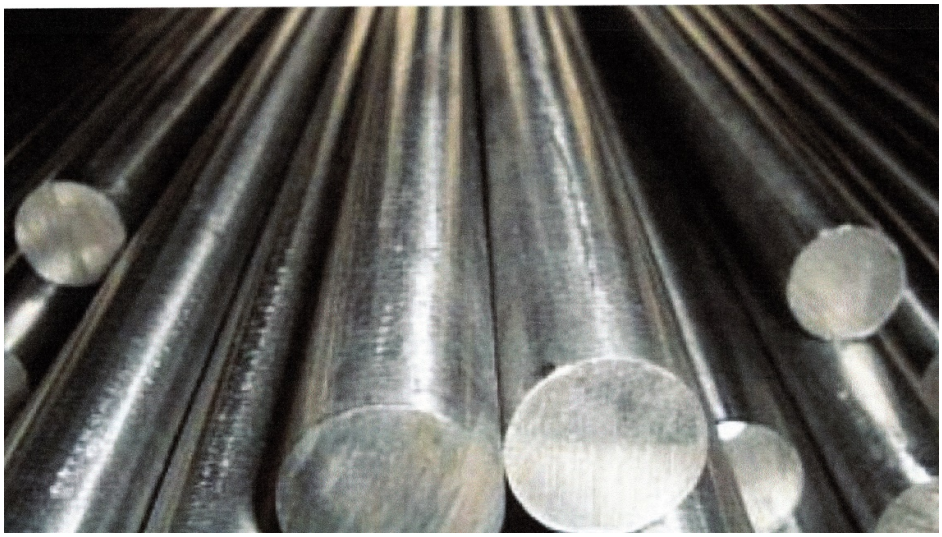






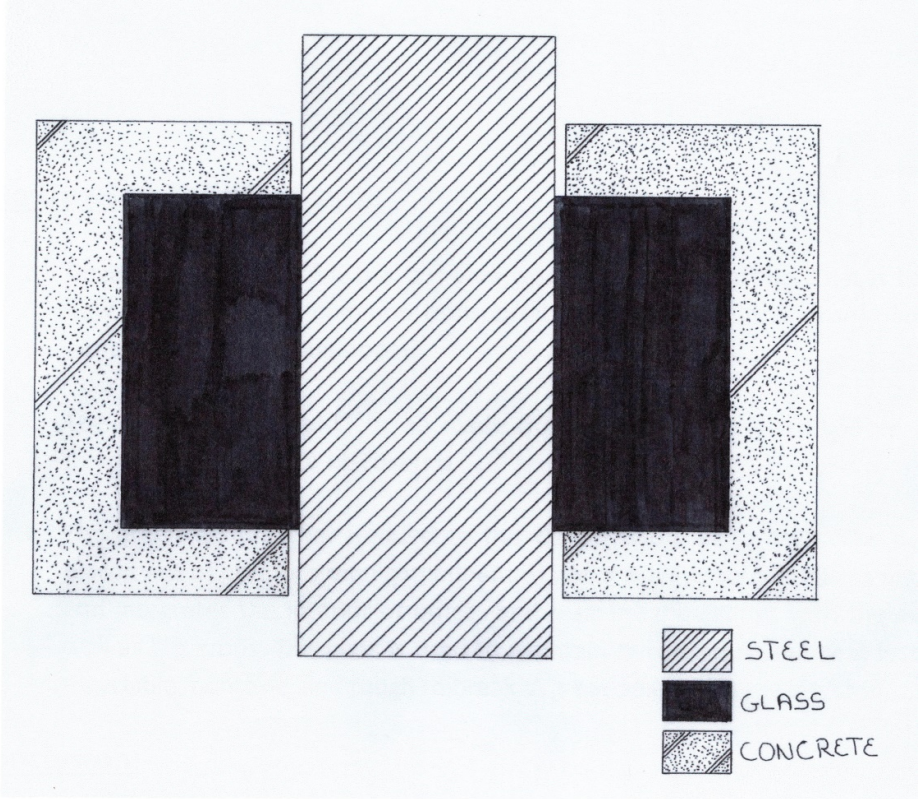


- Here below are the materials I am thinking of using:



Steel is one of the main products used in the construction of bus stops. I was wondering if I should choose something else.

Concrete is another material that I decided to use in the construction of this bus.



This top view shows in which section the materials will be used.

The Develop Solutions Step

1. Developing solutions for this bus stop was an easy task for me. That is because of how much I use the common transportations every day. In a sense, I know what people want from a bus stop.

2. The chairs were created to be made from concrete and there will be place for people to stand and to be covered.

3. The green feature that I added to this design is the glass itself. The design and placement of glass is a vital component of green architecture. It allows natural light and integrates the interior of offices and residential buildings with the exterior as well as bus stops. This glass is used to maintain temperature and heat loss. Glass is recyclable, non-toxic, and tough to break. A great addition to my bus stop.

Conclusion

I would like to say that this project was one that makes you think of others the most. Bus stops are taken for granted most of the time but when designed to help a community they can be turned around that is beneficent to all. We as individuals have to make a better future for the generations to come. We have to show them that life is about doing your best not only for yourself but for others as well.