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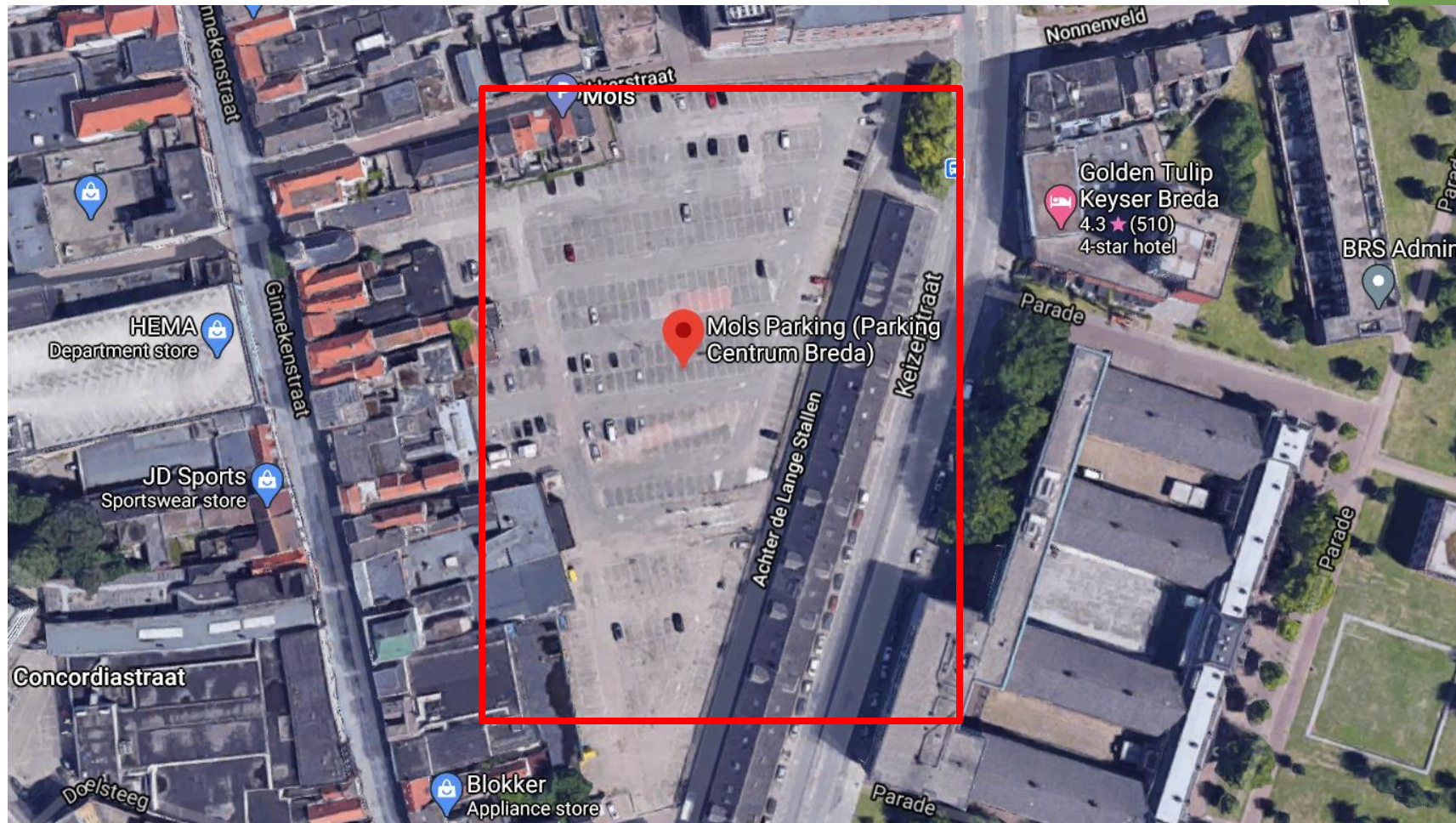
Description of the plan

Breda center is a wonderful place, with a beautiful mix of historic buildings and shopping facilities. Somewhere in the middle of this there is an empty patch of asphalt. Both from the air and when walking past it is not a good-looking site and this seemed like a perfect area for us to implement something new that is not an eyesore.

Our plan is to get rid of the big parking lot that there is now and make it into nice and good-looking park which can accommodate places for kids to hang around and have fun, and pop-up stalls.

Further east from our location there are some beautiful buildings surrounded by nice big patches of grass and trees. This gives a very nice feeling when you walk through it. Sadly, in the current situation the greenery does not extend further into the city center. Our plan will also help connect the greenery to the east with the city center.

Location: Mols Parking, Breda, the Netherlands



The plan could easily be implemented in other underutilized parking areas

SWOT Analysis

Strengths

- Close to the Center
- Under Utilized
- Close to other green areas
- Right next to another parking
- Plenty of shops close by

Opportunities

- Not a lot of greenery to the west
- Little drainage due to asphalt
- People want it changed
- Current situation lowers ground value

Weaknesses

- Surrounded by 'meh' looking buildings

Threats

- Current owners not keen on change
- Not a popular area



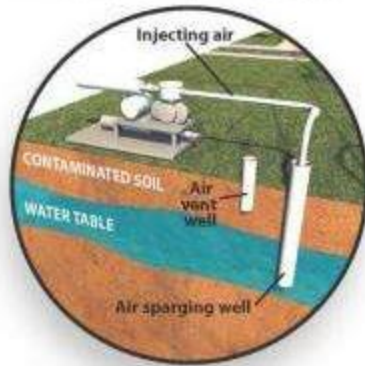
Aim

► The aim is to create a livable, eye catching place with a lot of greenery; to make the Mols area attractive for Breda citizens, to make the area visited. Moreover, we want to implement different facilities, such as shipping containers with food and drinks, it will be sustainable, citizens will be provided with job opportunities, and investors will have revenues from them. Also, there is going to be a kids playground with musical swings, so even more families with children will visit the area. We also want to create a space where people living nearby can have a community garden, so they will gather, communicate with each other and plant. All these factors will make the area and the houses nearby rising in price, which is a huge benefit.



Ways to clean the soil

Air sparging, involves injecting air into the soil or groundwater, causing the contaminants to evaporate into a gas.



The **soil vapor extraction** method applies a vacuum to soil to collect contaminated vapors



Air stripping is a method in which contaminated groundwater is collected and filtered through a machine called an air stripper.



Enhanced biodegradation
Certain microorganisms in the soil feed on contaminants through a naturally occurring process called biodegradation.



Phytoremediation
Trees and other deep-rooted plants absorb contaminants in soil

Surrounding Parking Facilities

Our plan involves the removal of a pretty big parking area near the Breda city center. The molsparking is rarely full to its capacity, but it can hold up to 400 cars.

If we want our plan to succeed there need to be enough parking spaces in the surrounding area to cover the amount of parking spaces lost by implementing our plan.

We have compiled a list of nearby parking facilities and their distance away from the Molsparking.

▶ Houtmarktpassage

Distance: -

Capacity: 130 cars

▶ Chasseparking

Distance: 500 m

Capacity: 630 cars, 10 charging spots, 12 handicap spots

▶ Chasseveld

Distance: 660 m

Capacity: 675 cars, 13 handicap spots

▶ Q-park Breda center

Distance: 360 m

Capacity: 360 cars, 4 handicap spots

▶ Parking Concordiastraat

Distance: 200 m

Capacity: 455 cars, 4 charging spots, 5 handicap spots

▶ Parkeergarage De Barones

Distance: 450 m

Capacity: 510 cars, 10 charging spots, 6 handicap spots



Impact of implementing of our plan

- ▶ Creating green park instead of parking lots, lead to more fresh air in the neighborhood
- ▶ Providing job possibilities
- ▶ Social interaction
- ▶ Hangout place for adults and children alike



History Molsparking

- ▶ Start: Garden
- ▶ 1436-1817: St. Joost Chapel
- ▶ 1515-1810: St. Joost Graveyard
- ▶ 1713-1863: Ruitersballen
- ▶ 1875: Sawmill and Working class houses
- ▶ 1884: St. Joost School
- ▶ 1890: Onze-Lieve-Vrouwe-Hemelvaart church
- ▶ 1910-1972: Milk Factory
- ▶ 1967: Demolition of the church for parking area.
- ▶ 1972: Demolition of the Milk Factory

After all the changes of function, after 1972 it stayed a parking area . Since that time a team of archeologists have dug through the ground underneath the molsparking and have found little of value that could hinder building plans in the future

Economics Costs

The Parking area consists of pavers and asphalt, both would need to be removed to make room for soil. The only precedent we found was for demolition costs in the USA. When converted from Imperial to Metric and from Dollars to Euro's we get the following numbers:

It would cost an average of 17,- Euros per square Meter for asphalt removal (incl. debris disposal). Pavers cost around 13,- Euros per square Meter.

The soil that would be placed instead of the asphalt and pavers costs an average of 36,1 Euros per cubic Meter.

The total area is +/- 9.960,- square Meters.

Considering that we'll need around +/- 20,- cm of topsoil.

This would all amount to +/- 1.992,- cubic Meters.

The soil would cost around +/- 71.911,- Euros

The destruction if we assume that asphalt and pavers are both 50/50 would be +/- 149.400,- Euros.

For the costs the children play structure can cost somewhere between 9.000,- Euros and 14.000,- euros.

A normal swing structure would cost around 2.000,- Euros, so the musical swings would be more expensive than that.

Planting a tree could cost somewhere between 50,- and 170,- Euros excluding working costs.

Additional Costs

- ▶ **Power:** Whilst there are already lampposts in the current area, It would need more lights for it to be a safe area at night. The shop and lavatory could both be fitted with Solar panels to power their own electronics.
- ▶ **Sewage:** The plan is for this area to become popular for families and individuals to visit. If the kids want to spend an afternoon with their friends on the playground the parents and children would need a lavatory. A public bathroom situated in the area would need sewage and plumbing.
- ▶ **Waterways:** The aforementioned lavatory would need access to water. The shops would also need to have access to water.
- ▶ **Fencing:** When the parents are not looking, we want the children to be as safe as possible. Since there are roads situated right next to the park, for the safety of the children and peace of mind for the drivers, the park will be fitted with a fence with access points that are situated at the walking paths. For safety reasons, the fence will be 1 to 1,25 meters tall, so that children can't vault over them, but in case of emergency adults can jump the fence and help children do the same.

Economics Revenues

With the removal of parking spots there will be less direct income the land owners
Getting rid of the ugly parking lot and replacing it by a beautiful and walkable park will increase the land value though, which is very beneficial for the surrounding shops. This is very useful when looking for funding. Raising the popularity and value of the area will draw more people and customers to the area, indirectly increasing the turnout for all the shops in the vicinity.

The plan has other plans to make money aswell. On the park there will be a couple of shipping container-esque shops which can house outlets, temporary bars, pop-up shops and food trucks. These can be hired out for a pretty sum. This will be the main income of the area and also fund the further development of the area if the need arises.



Master Plan



Hireable Container Shop
Fitted with solar panels



Benches



Fencing



Lavatory



Walking path