

Introduction

Good morning. My name is Enzo Groisman and I am the founder of Green Road. I am forty years old and I am a Civil Engineer graduated from the National Technological University – Paraná Regional Faculty. I am from Villa Clara, a small town in the centre of the province of Entre Rios, and I am currently living in Paraná, the capital city of Entre Rios.

I am the chief of my company, Green Road, which is focused on recycling car tires and marine plastics, transforming those materials into eco-friendly asphalt and offering solutions using them to solve problems related with roads.

The headquarters of Green Road are located in Villaguay, a city which is also in Entre Rios, thirty kilometres away from the city where I was born, and last year I expanded my company to Paraná, by opening a new branch and a recycling plant in the industrial park of the city, to be able to offer our sustainable solution to much more cities all around de province and the country, which is my principal objective. You can contact us by sending an email to greenroad@hotmail.com or by making a phone call to (0343) 455-142.

The problem I would like to address is repairing with our eco-friendly asphalt the broken streets all around the Historic District of Paraná. It is, in my opinion, the most iconic landmark of the city, since it is full of memorable buildings, full of history, where most people of the city transit its busy streets every day, and welcomes people from all over the country. This is why, I consider having streets in excellent conditions absolutely necessary in the Historic District of Paraná.

Well, I have organised the presentation this way:

- Company Description
 - Markets and Services
 - Company Organisation
 - Company History
- Project Development
 - Tour round the landmark
 - Problem Statement
 - Project Description

Firstly, I am going to give a description of Green Road, giving an explanation of the markets and services we offer, after this, how our company is organised, and finally, the history of Green Road for you to know it since its beginning.

In the second part of this presentation, what comes is the project development. I am going to begin by giving you a tour round the Historic District. After the tour, I am going to state the problem of

the broken streets full of potholes, and to end the presentation, I am going to give you a project description, which will let you see why Green Road is the most qualified company to carry out the plan presented in this call for tenders.

Company Description

Markets and Services

Green Road's principal service is transforming plastics that end up in the ocean and tires, into eco-friendly asphalt and modular panels to make roads, which are produced by us in our recycling plants. This asphalt will be then used by us to pave roads, streets, highways, etcetera, and repair broken roads or potholes. In the specific case of plastics, I would like to mention that at least 8 million tons of plastic end up in our oceans every year, which is why we are in contact with different NGOs, focused on cleaning the oceans. We buy them the plastics they collect in order to help them continue doing their wonderful work and we give those plastics a second life really useful for all of us.

I would also like to mention that our asphalts, help reduce acoustic pollution compared with conventional asphalts and avoid almost the 1.6 millions of tons of CO₂ issued in the production of standard pavement.

My company offers its services in a provincial level, however, I am expecting to reach and expand Green Road to a national level in a near future.

Green Road works only with state agencies, since they are responsible for the maintenance of the roads all around the province. We have all the machines needed to do our work, that's why the provincial or municipal government does not have to worry about this.

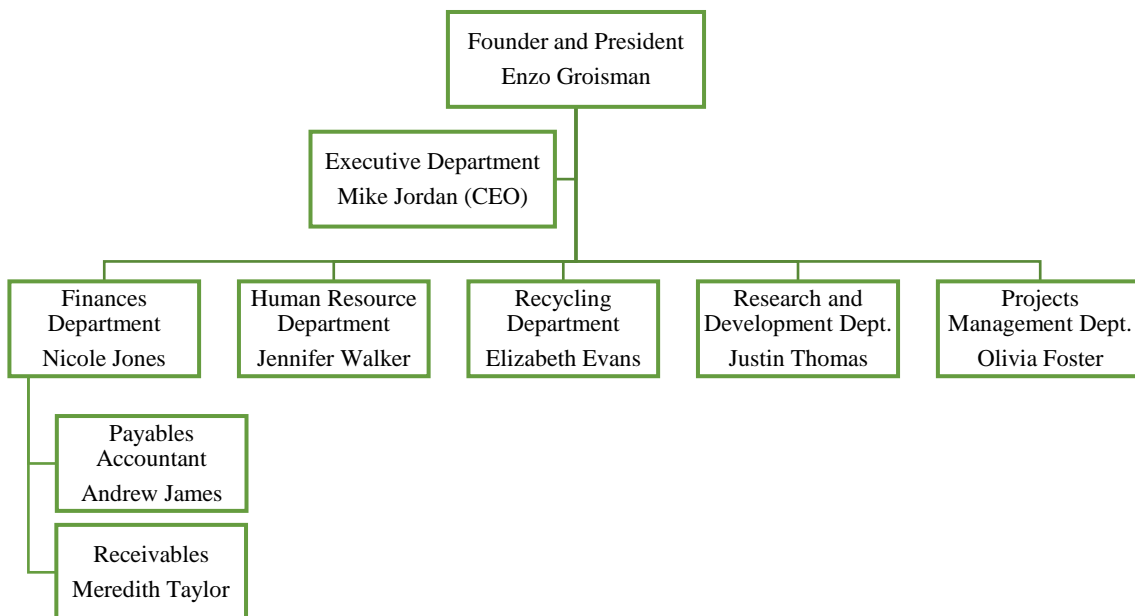
I am going to attach a few images of some things we do in Green Road:





Company Organization

Now, I am going to give a brief description of my company organization after the following organizational chart:



I (Enzo Groisman) am the founder and president of Green Road. I am in charge of the organizational aspects of my company, important public relations, and choosing the best departments managers for Green Road. Nevertheless, I delegate many tasks referred to business strategy and policy, to my Chief Executive Officer, Mike Jordan, a great leader and my right hand, who is constantly keeping himself in touch with all the departments of my company.

Nicole Jones is the supervisor of the Finances Department, whose mayor function is assessing short term and long term capital requirements, such as salaries, improvements in the recycling plant, acquisition of new machines, etcetera. This department is divided into the payables and receivables account. Andrew James is responsible for paying the bills and the salaries of the employees, who work in the recycling plant, the manpower carrying out our projects on the streets, and all the people involved in the different departments, while Meredith Taylor is the one

in charge of supervising the incoming payments. Also, both of them are responsible for recording every transaction done in their department.

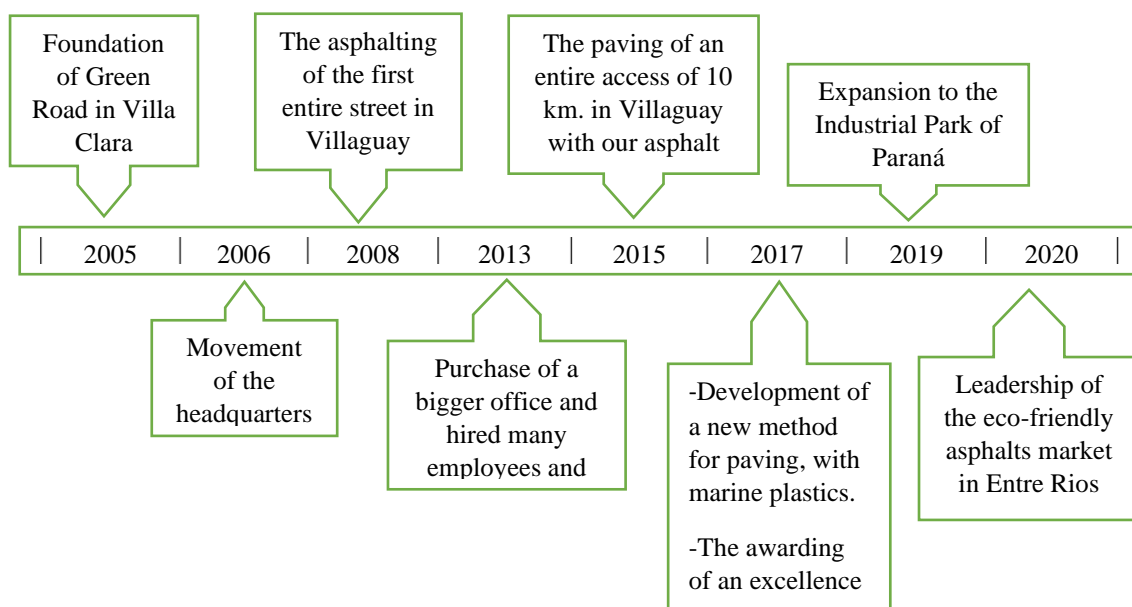
Jennifer Walker is my Human Resource manager, who deals with the recruitment of skilled, and experienced manpower according to the vacant positions of the different departments, where the recycling plant is where more personnel is constantly required due to the increased use of our eco-friendly asphalts all over the province. .

The Recycling Department, whose chief is Elizabeth Evans, is responsible of buying our raw materials, plastics and tires. In the case of plastics, they are bought to the NGOs previously mentioned, and the tires are got from different garbage dumps since it has been reported that around 130.000 tons of tires are thrown away. The plastics are brought by the NGOs using trucks they have, to the recycling plant located in Villaguay, which is where our headquarters are. The tires are collected from garbage dumps near the recycling plants by my workers, and then brought using our trucks to the recycling plant in Villaguay. In case we are working on a project which is nearer to Paraná rather than to Villaguay, the plastics and the tires are brought to the recycling plant located in Paraná. By the time our raw materials are on the recycling plant, the workers begin with the recycling process. After the process is finished, the asphalt and the modular panels are brought using our trucks to the construction site, which is coordinated by the Projects Management Department.

Justin Thomas is the manager of the Research and Development Department, whose purpose is to do research into new technics to make eco-friendly asphalt and any other solutions related to the pavement of streets, roads, highways, etcetera.

Finally, Olivia Foster, is in charge of the Projects Management Department, where every project is analysed whether it is feasible or not. Olivia is also responsible for carrying out those projects previously mentioned, coordinating the manpower, and the needed resources, such as the machines the company has, as well as the asphalt and the plastic modular panels produced in the recycling plant, which are brought to the construction site by our workers using trucks right after the recycling process is finished.

Company History



Green Road was founded by me, Enzo Groisman, in the year 2005 after I graduated as a Civil Engineer in the National Technological University – Paraná Regional Faculty. I started out by repairing potholes in a few streets in my town, Villa Clara, with asphalt made of old car tires on my garage, which was already a project developed by me in the university while I was still a student. I had a small office in my house, without hiring any employees yet.

I moved to Villaguay in 2006 to expand my business and I opened a new office in the centre of the city, rented a small recycling plant in the city outskirts and hired a three workers to help me with my small projects.

In 2008, the first big project from the municipal government came to us, asphaltting an entire street using asphalt made of recycled car tires. It took a year until finishing it, it was very comforting.

Three years later, I bought bigger machines and a vehicle, and opened a bigger recycling plant to offer our services to more cities in the closeness of Villaguay. My company became widely recognised in the area.

In 2013 I bought an old building and divided my company into five departments and hired my CEO, Mike Jordan.

One of our biggest challenges came up in 2015, when we were hired to pave the 10 kilometres access to Villaguay, which took as a year and a half.

The moment when Green Road became recognised all around the country, was in 2017 when my research and developments manager, Justin Thomas found out that marine plastics could be used to create plastics roads. He contacted different NGOs focused on cleaning the oceans to give a solution to all the plastic extracted from there. We won an excellence award in Buenos Aires the same year for Justin's solution to marine plastics.

In 2019 I expanded Green Road to Paraná, the capital city of Entre Rios, specifically to the Industrial Park where we have an enormous recycling plant and most of our machines used to do the paving.

Today, Green Road leads the market related to sustainable solutions to the asphaltting of roads in the province of Entre Rios, which I have to recognise that is a small market yet, but I hope it will become much bigger in a few years in order to make our World a better place to live.

Project Development

Tour round the Historic District of Paraná

This is the map of the Historic District of Paraná:



It covers the area demarcated by the streets 25 de Mayo, Córdoba, Alameda de la Federación, Colón, and San Juan.

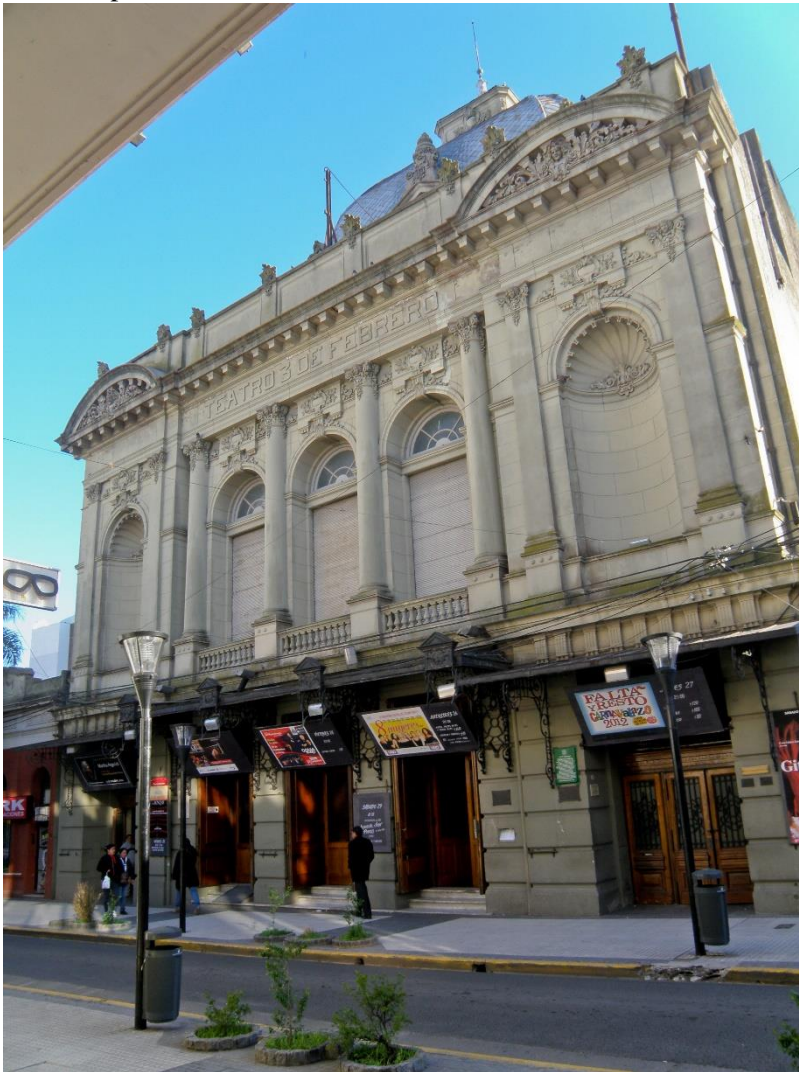
As you walk up by 25 de Mayo Street, one of the main landmarks of the Historic District of Paraná can be seen by your right, the Nuestra Señora del Rosario de Paraná Cathedral and by your left, the main square of the City, the 1° de Mayo Square:



If you continue walking on the same street, you will see in faced corners, the City Hall of Paraná on your right, and the Jose Maria Torres School, on your left, which was the first school founded in Paraná by Domingo Faustino Sarmiento:



This is a picture of the 3 de Febrero Theater:



Opposite to the recently reconstructed, Alvear Square, we can see the San Miguel de Arcangel Church:



I will end this tour by showing the Government Palace of Entre Ríos, which is opposite to the Mansilla Square:



Problem Statement

Description of the scenes that help picture the problem

On this first picture, we can see a pothole in Corrientes Street, one of the main streets of the Historic District of Paraná.



This image was taken by me, it is a pothole in 25 de Mayo Street which has been this way for more than year, meaning a danger for everyone who transits this busy street every day:



Potholes means a difficulty for people with reduced mobility when trying to cross a street:

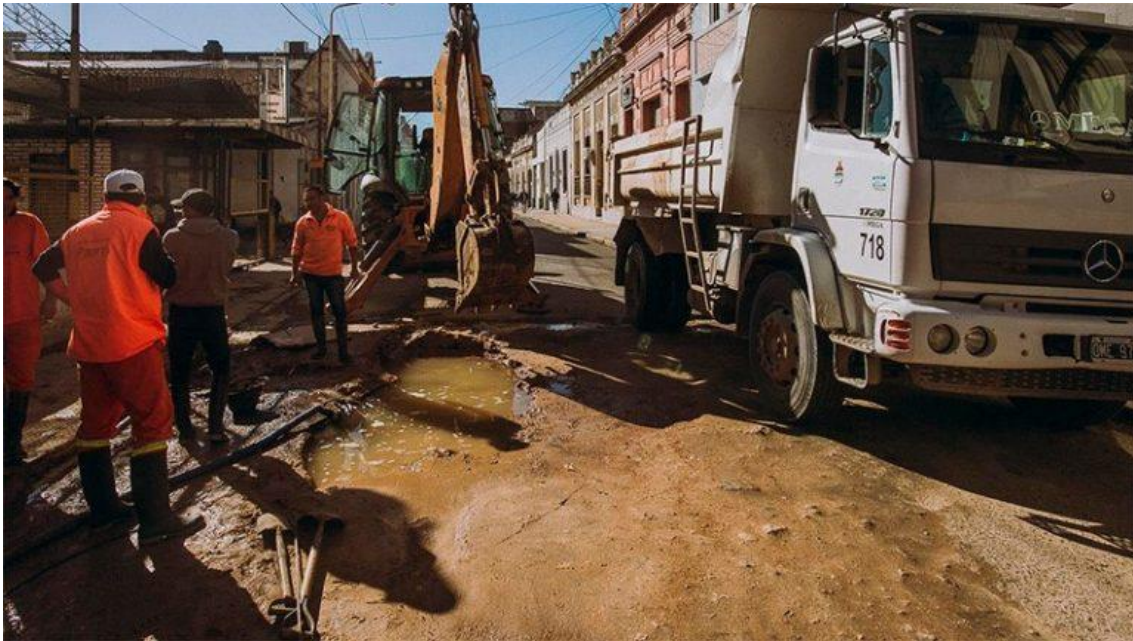


The following picture is a great illustration of what is going to continue happening if all potholes are not repaired:



It happened a few months ago in Andres Pazos Street, near Corrientes Street, in the middle of the Historic District of Paraná.

This last picture, makes me conclude that it seems that an accident must happen before the pothole is repaired:



Analysis of the factors that give rise to the problem

It is a well-known fact that Paraná is a city which is full of potholes wherever you look at. Now I am going to analyse why this does happen in order to give a quick solution to this problem.

One of the mayor causes of the rise of potholes in Paraná is the excavations movements, the tectonic plates movements, which are both unavoidable, and any other action which involves moving the soil.

However, most of the streets in the historic district of Paraná have been poorly planned, which cannot be ignored. This is why intense rainfalls, or leaks in the city pipes, which is a problem that involves the entire city, make water enter into the ground under the pavement, and together with intense traffic through the streets, potholes are given rise.

Even though that most of the causes which give rise to the potholes on the streets are related with unavoidable natural conditions, there is a need of maintenance of the streets highly affected by those conditions, which is something that everyone can see that has not been happening.

Project Description

In this last part of the presentation, I am going to give you, divided into two stages and a contingency plan, every step which will be taken in order to solve the problem of the potholes dispersed all around the historic district.

Stage I

We will begin by doing an inspection of the state of the streets enclosed between the streets 25 de Mayo, Cordoba, Alameda de la Federacion, Colon, and San Juan. This will be done in order to identify the potholes dispersed in the Historic District, and to have a panorama of what we will be facing.

Before beginning with the repair, the recycling plant will be set in motion to start producing the eco-friendly asphalt and the plastic modular panels needed to carry out this project.

Stage II

After we have all the potholes identified and a general state of the streets enclosed in the Historic District of Paraná, we will begin with the repair.

As security is a fundamental concern in Green Road, we will begin by fencing in every pothole which will be repaired.

In case of isolated potholes, we will begin by cleaning the surface we will be working on, then we will pour our eco-friendly asphalt made of tires or marine plastics on the pothole, and after that, we will compact the surface in order to have a flat termination. Finally, we will cover the surface of the pavement with sand to avoid it from sticking to the car tires while it is still fresh. In these procedures previously mentioned, no machines are needed.

The other possible scenario is that at least an entire block of the street is full of potholes and completely destroyed. Repairing each pothole is not a viable solution, so we propose paving the entire block again using a new constructive technique we have discovered. It consists of hollow modular panels made of plastic from the oceans, which are embedded like “Legos”, removable depending on the needs, with easy access to the electricity cables, phone cables, and water pipes. We will begin by closing off the entire street, then removing the old asphalt using our machines,

and finally, we replace the removed pavement with our plastic modular panels, which is much cheaper and quickly than the other solutions that involve using conventional asphalts.

Contingency Plan

The only two adverse situations we may face are a day with high temperature and a rainy day. However, as in Paraná temperatures are not higher than 45°C, this will not be a problem, because what may happen is that at high temperatures the asphalt will deform itself, giving rise to deformations which have consequences on vehicle traffic, but we cannot avoid the possibility of a heavy rain. In that case, our working team will not be able to work on the streets, but we can make use of that lost days by increasing the production of asphalt and modular panels for Paraná by having more manpower on the recycling plant.

Conclusion: why should you choose us?

From its start, Green Road has proven to be a sustainable, efficient and a reliable company, achieving the best results in each of our projects, and continuing developing new constructive technics.

By choosing us, you will not be only saving money because our asphalts are much cheaper than conventional asphalts, you will be also helping the environment and those NGOs trying to clean the oceans around the world.