STADIUMS & EVENTS: ACCESS, DISPLACEMENT AND PARKING

The stadiums are urban equipments that, due to their characteristic of use, represent a challenge for access and parking issues. The intense concentration of demand in a short period leads to the need to establish specific operational projects, responding to each challenge with consistent modeling.
The issues range from vehicle traffic to welcoming and managing crowds of pedestrians, with different origins and a single destination: spending a few moments of pleasure at an event.
Receiving them inappropriately is the right method of losing customers, making these moments of arrival and departure, crucial for the customer to evaluate the experience, fluid and safe.
We have a wide range of services provided in cities such as Curitiba, Belo Horizonte, Rio de Janeiro, for which we have reorganized the arrival schedules, designed the parking, including the control elements, analyzed the flow of crowds within the established standards (at the World Cup we use the FIFA standard) etc. with excellent results.

Services:

- Qualitative and quantitative analysis of current flows and processes, and their growth prospects.

- Vehicle Classification and Counting
- Analysis of traffic signal programming at the intersections of the surroundings.
- Macrosimulation of traffic: Calculation of the number of trips of internal vehicles generated by the enterprise.
- Modeling the surroundings using Meso / Micro traffic simulation software.
- Traffic capacity studies for the road system in the stadium's area of influence.
- Sizing of ticket booths and vehicle access controls to parking lots and fans, using stochastic simulation software, SIMUL8, suitable for queuing modeling and process simulation.
- Analysis and current diagnosis of the flow of crowds inside the stadium.
- Static and dynamic modeling of crowd flow in the accesses, corridors, stairs, ramps and exits of the stadium.
- Static and dynamic modeling of crowd flow at public transport terminals and on the sidewalks of the surrounding road system and evacuation procedures.
- Simulation of evacuation procedures in emergency situations.
- Study of pedestrian flow capacity and increased comfort and safety.
- Road projects around the stadium:
  - Cadastral Planialtimetric Survey
  - Basic and Executive Geometry Project.
  - Basic and Executive Signaling Project.
  - Study and Project to optimize the capacity of parking spaces.

- Operational Transport and Transit Plan **for event days** :
  - Changes in traffic and their consequences on the surrounding road system.
  - Quantitative and location of traffic signs.
  - Quantitative, function and location of traffic agents.
  - Location of loading and unloading areas for buses and taxis .
  - Treatment for the arrival and departure of pedestrians to the stadium.
  - Schedule of activities for days of events.
  - Timetable of the special bus lines for each scenario (estimated audience) studied.