



Friends of the Underline



Kingdom of the Netherlands



Report ThinkBike Miami 2015

A co-creative work session with Dutch and local experts in Miami. January, 12th-15th 2015.

Contents

- Introduction page 5
- Outline workshop page 6
- The Dutch context page 7
- The Underline project page 11
- The Network page 13
- Detailed designs page 19
- Marketing and influencing behavior page 41
- Conclusions page 45

Introduction

Through a multi-city initiative called “ThinkBike Workshops”, the Royal Netherlands Embassy in Washington, DC has invited experts of the Dutch Cycling Embassy to set up workshops in several US cities to discuss possibilities how to increase the use of the bicycle.

These ThinkBike workshops bring together Dutch bike experts, local politicians, planners, advocates, engineers and business people in each city to plan and discuss how it can become more bike-friendly by applying aspects of the Dutch approach. Teams consisting of Dutch experts and a mix of local experts convene for several days during which they will survey the cities by bike and discuss in workshop format how streets, intersections and whole neighborhoods can be improved for optimal bicycle use. Topics of discussion at the workshops will also include bike safety, bike commuting, biking to school, bike parking, bikes and public transport, law enforcement, etc. The workshops consist of a kick-off session, open to the general public, followed by the workshops behind closed doors and conclude with a closing session, also open to the public, where the recommendations will be presented by the teams.

From January 12-15, 2015, the ThinkBike workshops were held for the second time in Miami. After a successful session in 2010, Miami-Dade County hosted another workshop this year that was dedicated to the transformation of the Underline, Miami’s longest linear park, which stretches 10-miles from Brickell to Dadeland underneath the Metrorail.



Outline Workshop

Objectives of workshop

- Exchange ideas on the role of cycling and related policies
- Reflect on objectives of Miami's Underline Project, the 10 mile path parallel to metroline
- Explore applicability of Dutch concepts and designs in Miami in an existing situation
- Propose an appropriate mix of interventions and policies (based on both US and Dutch experiences) to strengthen the position of cycling in Miami
- Connections to the main destinations (network planning and urban design)
- Connection to local shops and enterprises
- Connection public transport and cycling

Working format workshop

- Two teams brainstorm and discuss specific design assignments, explore the study area by bicycle, and subsequently elaborate the assignment into
- Street plans showing major choices
- Conceptual designs of cross sections
- Visual impressions of how the public space will look
- Reference examples
- Argumentation for choices made
- Discussion of communication approaches and implications for policy development by both teams.



Dutch consul Nathalie Olijslager, mayor Carlos A. Gimenez and Erik Tetteroo with a Dutch wooden Bough Bike.

Dutch context

The Netherlands has a long history of facilitating and promoting cycling. A turning point in the Dutch mobility approach was the early 1970's. The oil crisis at that time and the cry for a safer infrastructure by cyclists, urged the Dutch government to take the position of the cyclist as an important and valuable road user serious. It became the start of a paradigm shift for providing a better bicycle infrastructure, encouraging the bicycle culture and freeing more federal and local budgets to make this happen.

Nowadays, the Netherlands is considered to be the world's "number one" cycling country: in modal split: 27% of all trips are made by bike. The Dutch bicycle infrastructure (both in quantity and quality) and the Dutch bicycle policy have become an integral part of the Dutch transport policy as a whole as well as in cities and urban planning designs.



Dutch context – a cycling city

Almost all Dutch cities have a high quality bike infrastructure that makes bicycling – and its relevant health, environmental and economic benefits – so prevalent. The Dutch cities of Groningen and Zwolle currently have the highest cycling rates with percentages around 50%. How a city can become a cycling city is shown in a short movie about Groningen:

<http://www.streetfilms.org/groningen-the-worlds-cycling-city/>



Dutch context – bicycle highways

To facilitate longer commuter trips we've realised more bicycle highways. Fast cycling routes, a recent phenomena, connect residential, work and shopping areas in the different towns and cities. They are **fast, direct, comfortable** and **safe routes** over **longer distances**. Cyclists are given as much priority as possible. By realizing fast cycling routes, the City Region wants to encourage commuters to cycle more frequently.



RijnWaal Pad (Arnhem-Nijmegen)

Dutch context compared to Miami

To get a better understanding of the similarities and the differences, it helps to compare Miami Dade to the Dutch metropolitan region of Rotterdam-The Hague (MRDH). Both have about 2.5 million inhabitants and consist of about 30 municipalities. However, the land use and the density differ a lot: MRDH is four times as dense as Miami. And its origin dates back to the Middle Ages, when street patterns were designed for horses and carriages. Quite different from the planning in Miami that was designed for car use in the 1950's. Right now both regions struggle with traffic congestion on their roads, but where the city center of Miami is still packed with cars, you see pedestrians and cyclists in the Dutch shopping streets.



Miami



The Hague

The Underline Project

The Underline is a partnership project between Friends of the Underline, Miami Dade County Transit, PWWM, MPO and the Parks dept. This is a vision to transform the underutilized land below Miami's MetroRail, from the Miami River to Dadeland South Station, into an iconic linear park, world-class urban trail and living art destination.

The Underline will connect communities, improve pedestrian and bicyclist safety, create hundreds of acres of new green space with restored natural habitats, encourage a healthy lifestyle, provide an easily accessible place to exercise, create a mobility corridor that integrates transit, car, biking and walking, provide a 10-mile canvas for artistic expression, attract development along US1, and generate significant economic impact.

An important part of the project is to transform the current small 'M-path' into a safe, comfortable and direct cycling route. This was the assignment for the ThinkBike Workshops. The teams visited the sites twice. Prior to the workshops, a group of local cyclists and the Dutch experts made an orientation cycle trip from Miami downtown up until South Miami Station so the Dutch experts could get a feel of the study areas. During the workshops the two different teams visited their respective study areas again for a more in-depth research.

While one team focussed around Brickell Station, from Miami River to Vizcaya, the other team studied the area from Douglas Road Station, University and Miami South Station.



“Why”

The network & the city

Underline cycling highway

The Underline provides an excellent opportunity to develop a cycling highway. Because of the already existing linear infrastructure, there is a right of way available along the whole proposed route. This right of way forms an excellent opportunity to develop a top quality cycling highway consisting of several unique elements:

- A non-stop (or very few stops) route, where cyclists will have the right of way at most intersections. The Underline provides very clear distinctions for road users, in particular for the prioritized cycling route. At major intersections there is ample space available to build overpasses (or underpasses) for cyclists, which not only provide non-stop routes for cyclists but also increase the car traffic throughput;
- Feeder to the Underline train stations. By building the cycling highway it will be easier for commuters to reach the Underline train station, increasing the ridership of the Underline;
- Comfortable route, by creating a smooth tarmac pavement for the Underline cycling highway for a comfortable and easy ride ;
- Attractive: a cycling highway is attractive to potential users because of its appeal: nice and attractive surroundings, social safety and adequate lighting along the entire route.

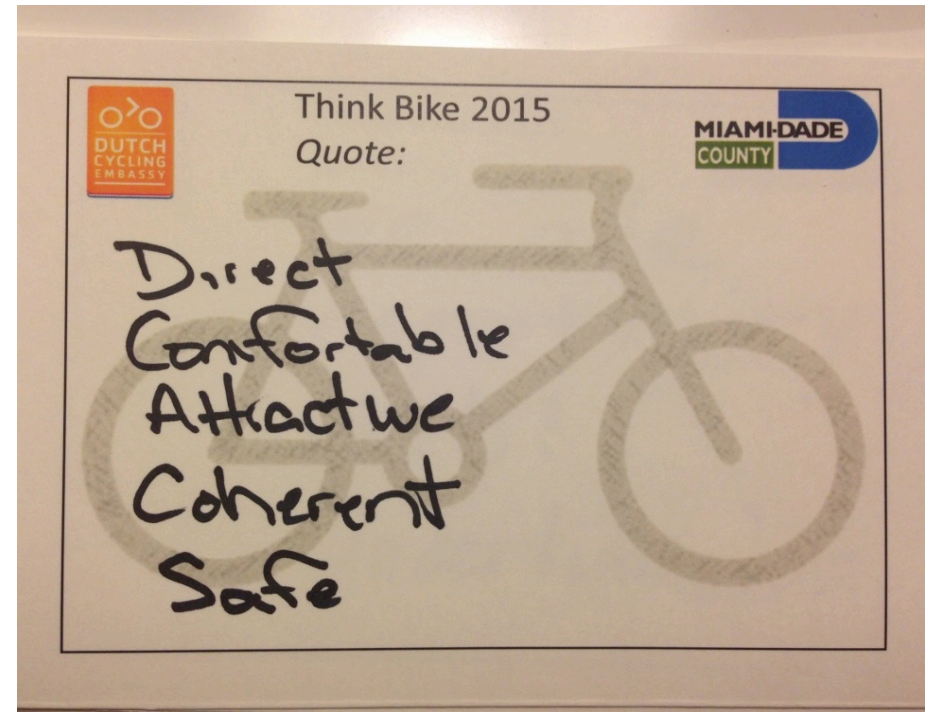
Dutch examples



Five requirements

The five essential requirements for a successful bicycle highway are applicable on all three levels at the Underline: network connectivity, neighborhood and junctions. They are:

- *Safety*
 - > The cyclist needs a safe traffic environment;
- *Directness*
 - > The route needs to be as short as possible and easy to ride;
- *Coherent*
 - > The network needs to be coherent; without missing links;
- *Attractive*
 - > The routes need to be attractive: low air pollution, social safety (the paths should be well lit and well maintained), nice surroundings, etc.
- *Comfortable*
 - > The pavement needs to be smooth and even.

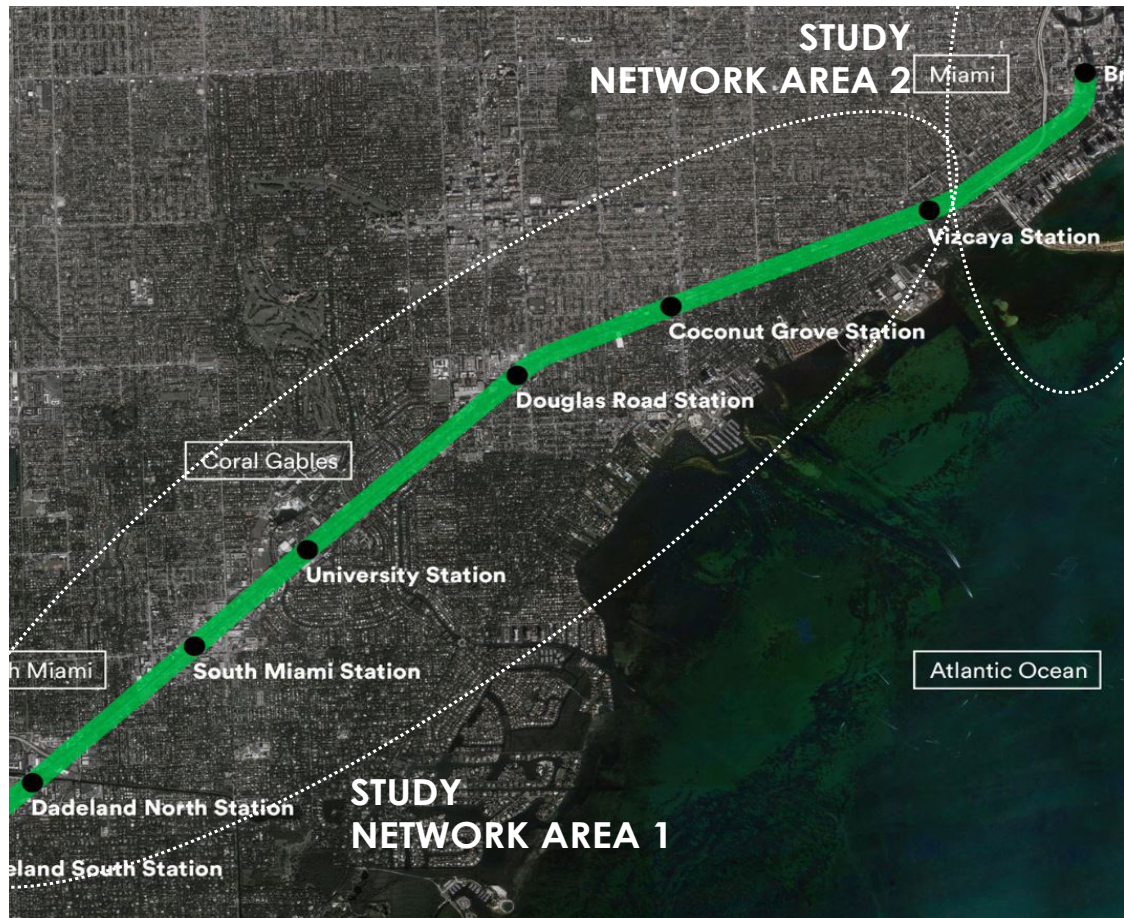




“What”

Detailed designs

Study areas for detailed designs



Integrated network Brickell

Brickell is one of the fastest growing neighborhoods of the greater Miami area. It is an attractive living and working environment which attracts thousands of visitors daily. Most of the visitors and inhabitants are currently travelling by car, because there are few alternatives available.

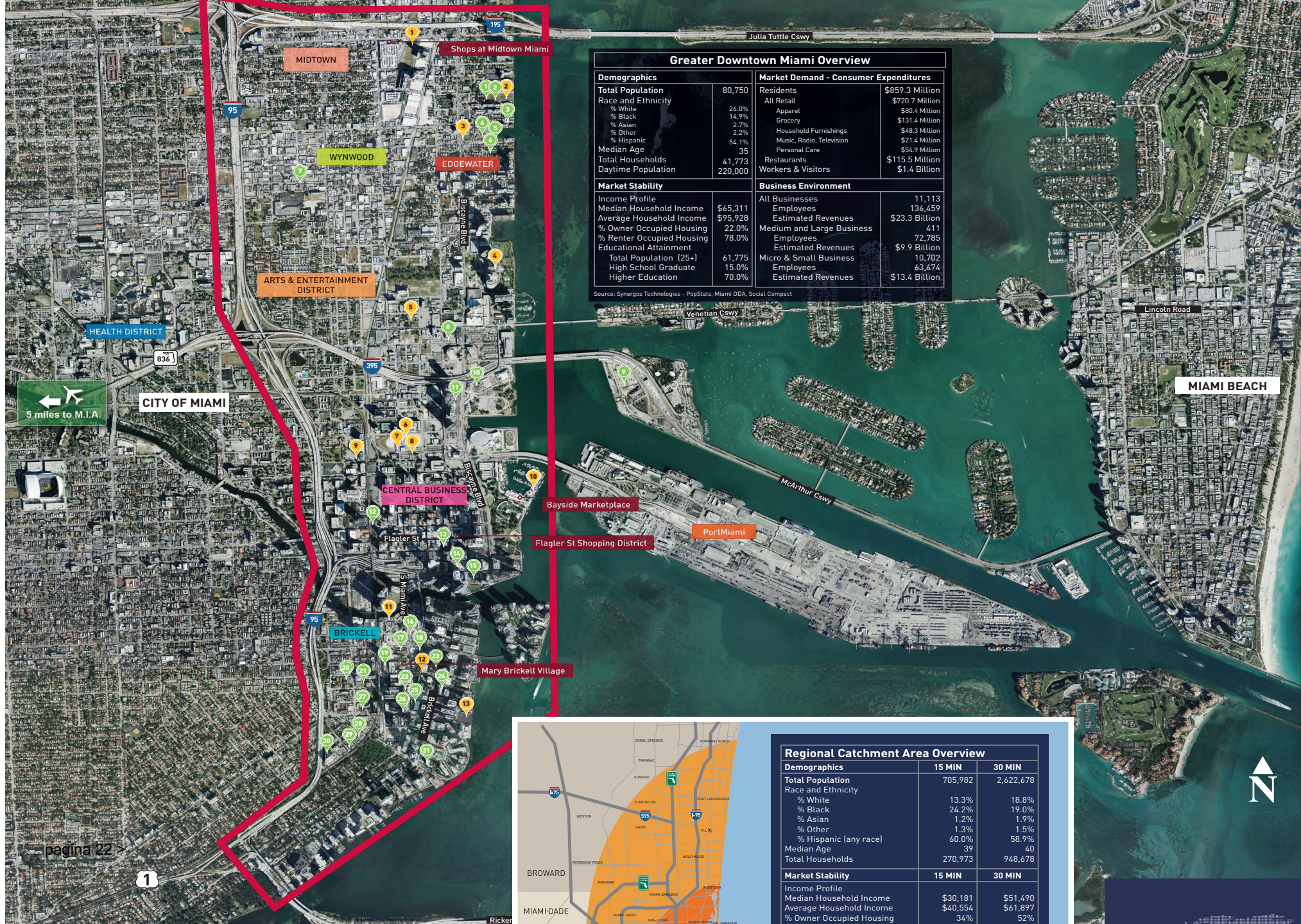
The ThinkBike team has identified numerous opportunities to increase the accessibility and attractiveness of Brickell by introducing active transport. The Underline plays an important role in this.

Brickell is located on the southern part of the greater Downtown Miami area and is separated from downtown Miami by the Miami Rivier. By extending the Underline cycling route over the Miami River an active travel corridor will be created between Brickel and Downtown Miami.

In Downtown Miami, a new rail service will be introduced in the near future, which will connect Miami to Palm Beach and further to Orlando. By connecting the Underline to the intercity station it will be possible to travel by bike to the station: a perfect modal shift. In the Netherlands up to 70% of train passengers ride their bikes to the train station. By extending the Underline over the Miami River a 1,5 mile connection will be created, allowing Brickell residents and workers to travel by train and bike to their destinations.

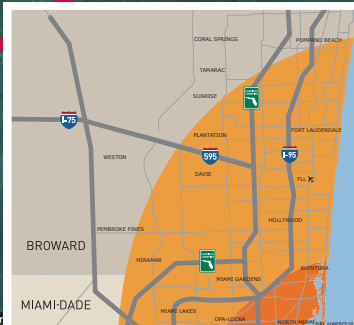
By extending the Underline even further, alongside the right of way of the still to-be-built intercity service, Brickell can be connected to Midtown. Midtown hosts a wide array of cultural facilities. By extending the Underline, Brickell and Midtown will be connected by a 3 mile active travel corridor. Residents of Brickell will be able to ride a bike, take a stroll or jog to midtown using the Underline.

Additionally, the so-called ‘millenials’ may prefer Brickell as a place to live. They value active travel and a sustainable city more than previous generations. By providing a coherent network of cycling facilities the area of Brickell and the greater Miami downtown area will be much more attractive for this population group.



Greater Downtown Miami Overview			
Demographics		Market Demand - Consumer Expenditures	
Total Population	80,750	Residents	\$859.3 Million
Race and Ethnicity		All Retail	\$720.7 Million
% White	26.0%	Apparel	\$80.4 Million
% Black	14.9%	Grocery	\$131.4 Million
% Asian	2.7%	Household Furnishings	\$48.3 Million
% Other	2.2%	Music, Radio, Television	\$21.4 Million
% Hispanic	54.1%	Personal Care	\$54.9 Million
Median Age	35	Restaurants	\$115.5 Million
Total Households	41,773	Workers & Visitors	\$1.4 Billion
Daytime Population	220,000		
Market Stability		Business Environment	
Income Profile		All Businesses	11,113
Median Household Income	\$65,311	Employees	136,459
Average Household Income	\$95,928	Estimated Revenues	\$23.3 Billion
% Owner Occupied Housing	22.0%	Medium and Large Business	411
% Renter Occupied Housing	78.0%	Employees	72,785
Educational Attainment		Estimated Revenues	\$9.9 Billion
Total Population (25+)	61,775	Micro & Small Business	10,702
High School Graduate	15.0%	Employees	63,676
Higher Education	70.0%	Estimated Revenues	\$13.4 Billion

Source: Synergos Technologies - PopStats, Miami DDA, Social Compact

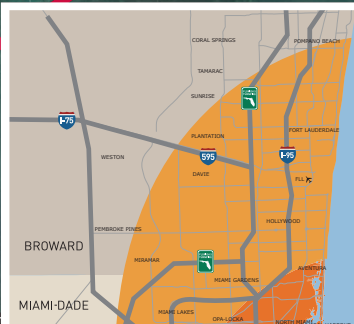


Regional Catchment Area Overview		
Demographics	15 MIN	30 MIN
Total Population	705,982	2,622,678
Race and Ethnicity		
% White	13.3%	18.8%
% Black	24.2%	19.0%
% Asian	1.2%	1.9%
% Other	1.3%	1.5%
% Hispanic (any race)	60.0%	58.9%
Median Age	39	40
Total Households	270,973	948,678
Market Stability	15 MIN	30 MIN
Income Profile		
Median Household Income	\$30,181	\$51,490
Average Household Income	\$40,554	\$61,897
% Owner Occupied Housing	34%	52%





Greater Downtown Miami Overview			
Demographics		Market Demand - Consumer Expenditures	
Total Population	80,750	Residents	\$859.3 Million
Race and Ethnicity		All Retail	\$720.7 Million
% White	26.0%	Apparel	\$80.4 Million
% Black	14.9%	Grocery	\$131.4 Million
% Asian	2.7%	Household Furnishings	\$48.3 Million
% Other	2.2%	Music, Radio, Television	\$21.4 Million
% Hispanic	54.1%	Personal Care	\$54.9 Million
Median Age	35	Restaurants	\$115.5 Million
Total Households	41,773	Workers & Visitors	\$1.4 Billion
Daytime Population	220,000		
Market Stability		Business Environment	
Income Profile		All Businesses	11,113
Median Household Income	\$65,311	Employees	136,459
Average Household Income	\$95,928	Estimated Revenues	\$23.3 Billion
% Owner Occupied Housing	22.0%	Medium and Large Business	411
% Renter Occupied Housing	78.0%	Employees	72,785
Educational Attainment		Estimated Revenues	\$9.9 Billion
Total Population (25+)	61,775	Micro & Small Business	10,702
High School Graduate	15.0%	Employees	63,674
Higher Education	70.0%	Estimated Revenues	\$13.4 Billion
Source: Synergos Technologies - PopStats, Miami DDA, Social Compact			



Regional Catchment Area Overview		
Demographics	15 MIN	30 MIN
Total Population	705,982	2,622,678
Race and Ethnicity		
% White	13.3%	18.8%
% Black	24.2%	19.0%
% Asian	1.2%	1.9%
% Other	1.3%	1.5%
% Hispanic (any race)	60.0%	58.9%
Median Age	39	40
Total Households	270,973	948,678
Market Stability	15 MIN	30 MIN
Income Profile		
Median Household Income	\$30,181	\$51,490
Average Household Income	\$40,554	\$61,897
% Owner Occupied Housing	34%	52%

ThinkBike Workshop Miami 2015

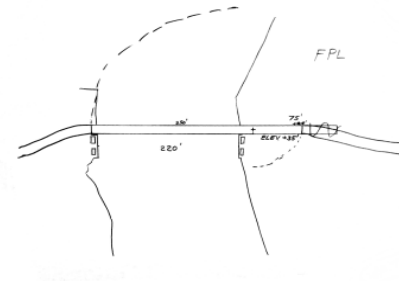
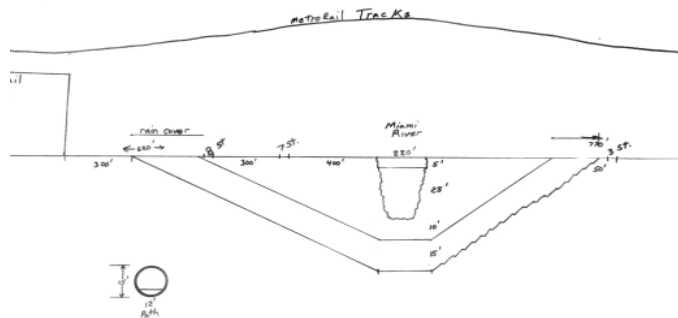
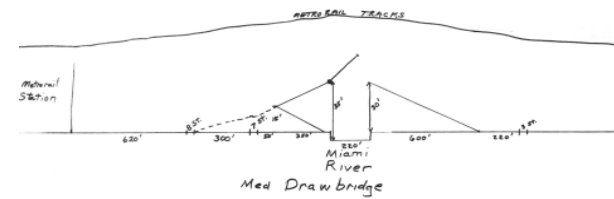
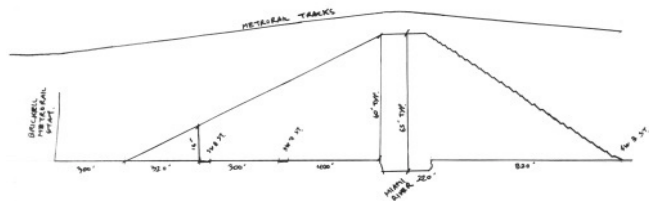
Brickell cycling route (overview)



Douglas Station



Bridge over Miami River (4 concepts)



ThinkBike Workshop results



Visuals and Recommendations

During the workshops, the teams worked hard on designing and discussing the possible new layout and connections. Drawings were made in different ways: from simple pencil sketches to high end computer renderings. They all give an impression of the possibilities and the potential of the various Underline components, such as Douglas, Ponce Circle, University, Gables and South Miami Stations. In the following pages some of the designs are shown. To compare it with the current situation, we have pasted the old and the new visuals (if possible) on top of each other. The results are inspirational! Let the work begin!



Bridge over Miami River



Before – after Vizcaya

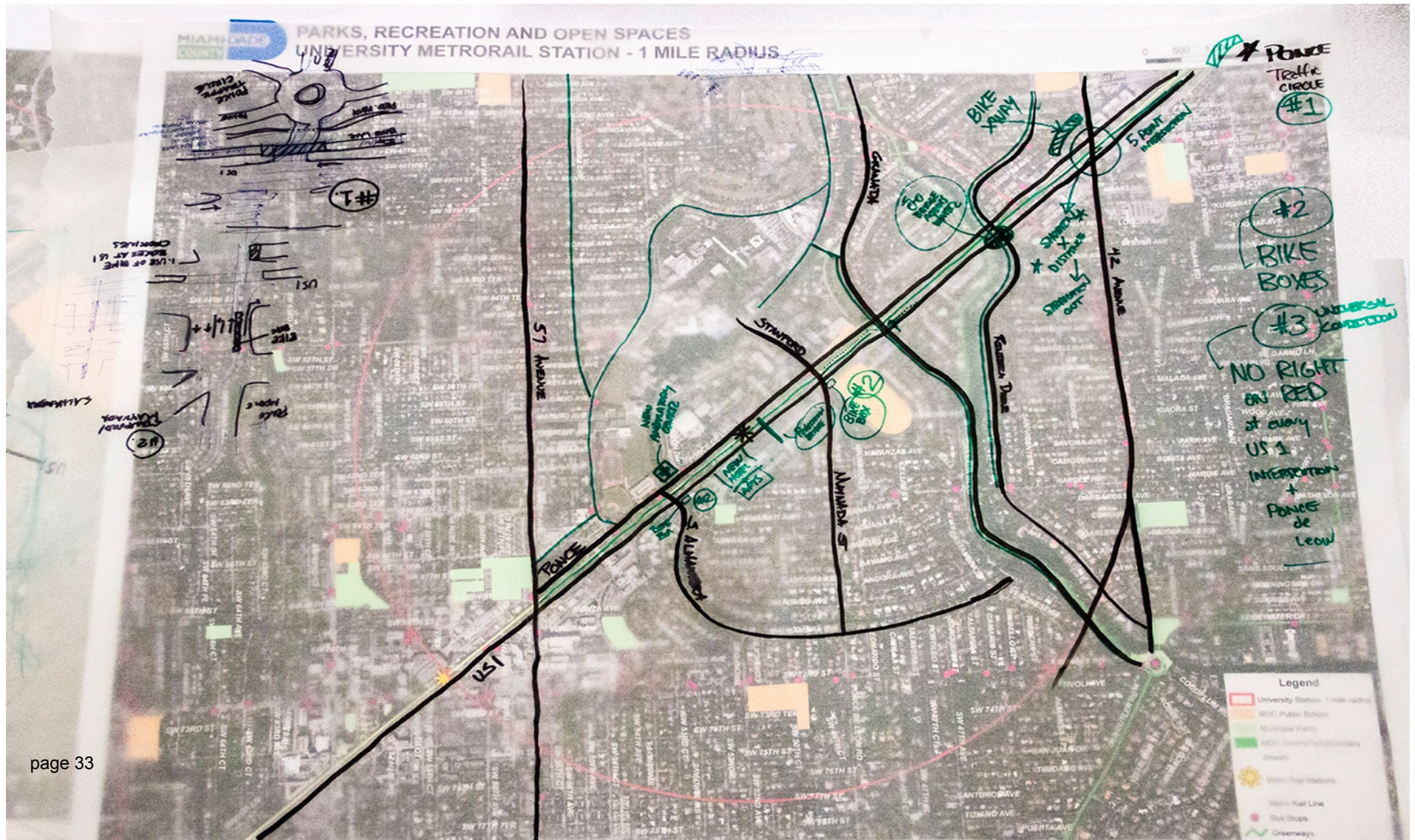


Douglas

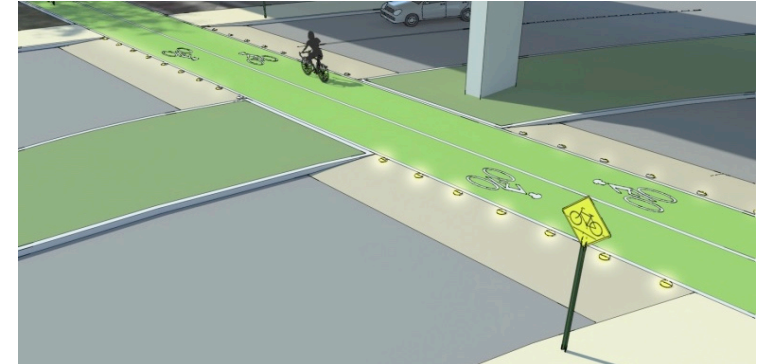
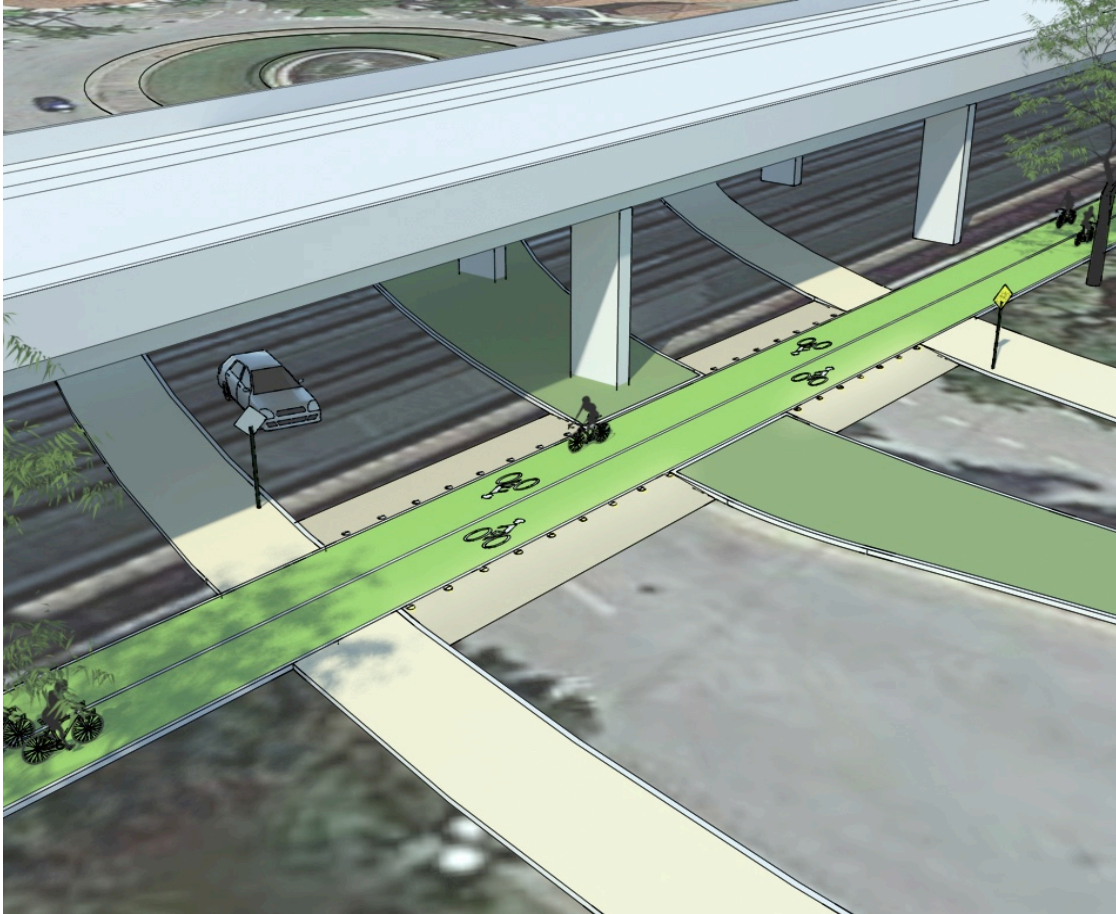




University Station



Ponce Circle crossing



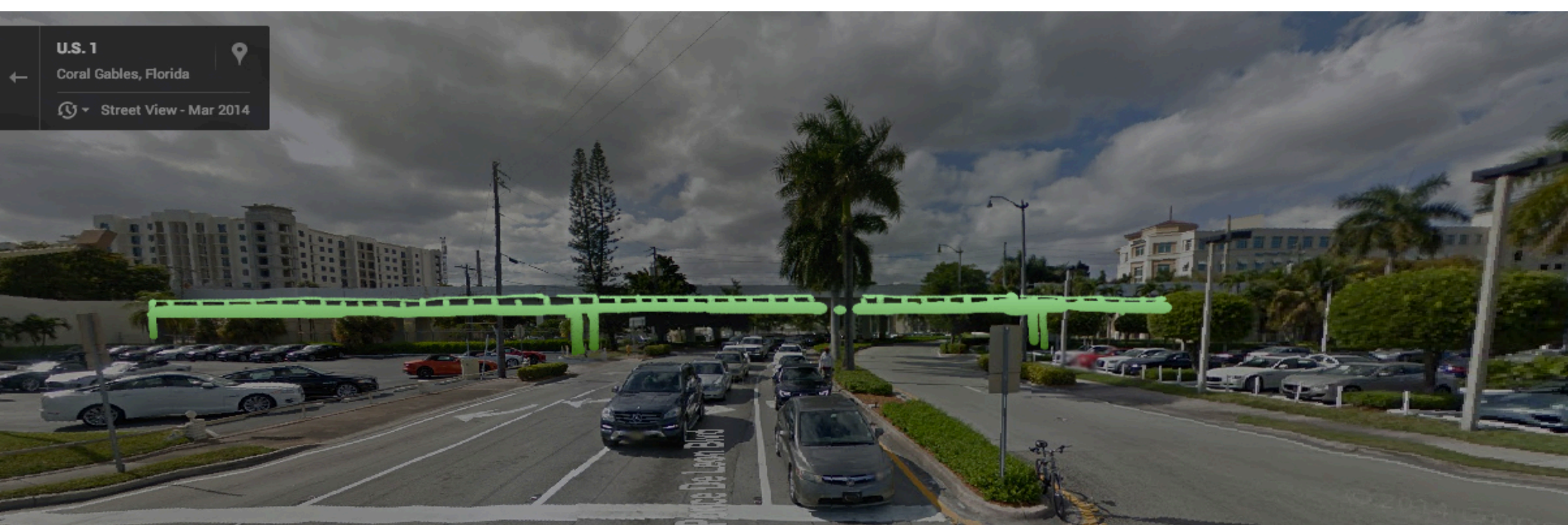
Elevated crossing with flashing lights



← U.S. 1
Coral Gables, Florida
📍
🕒 Street View - Mar 2014

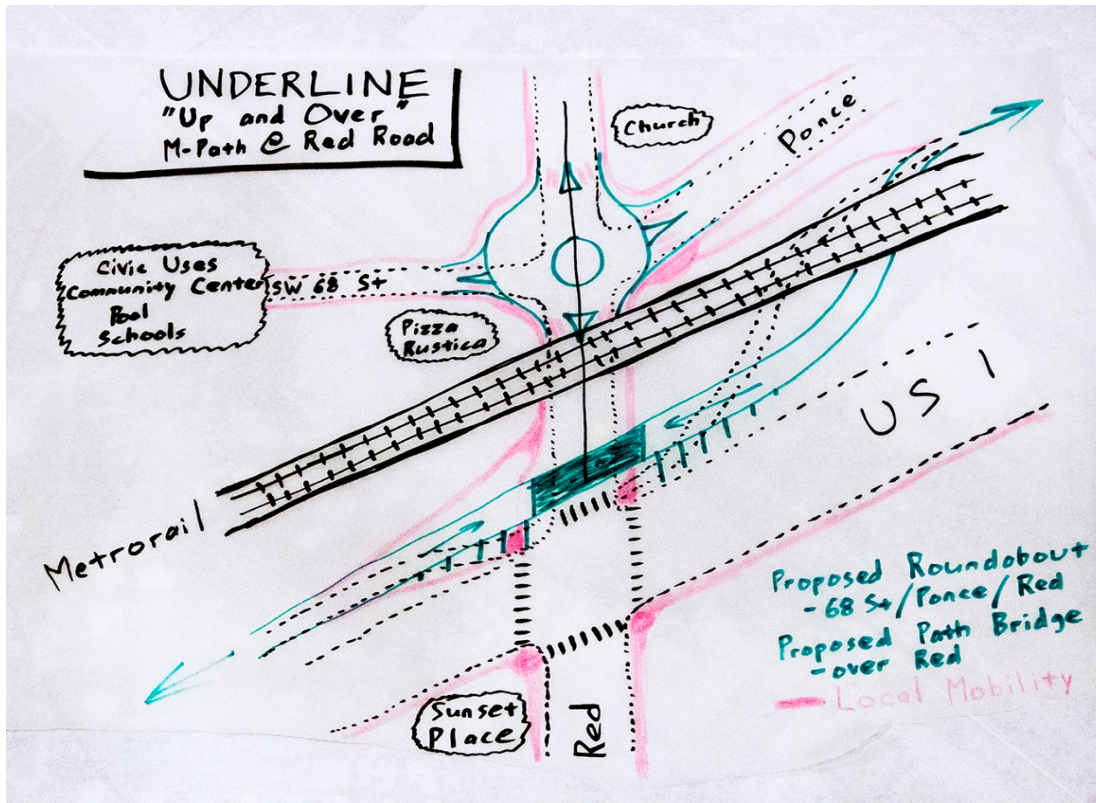


← U.S. 1
Coral Gables, Florida
📍
🕒 Street View - Mar 2014





South Miami Station



Before – after South Miami Station



“How”

Marketing & influencing behavior

Marketing and influencing behavior

Since the start of the Underline project, MDC and Friends of the Underline have done much work to promote and communicate the ideas and goals. This effort pays off: the Underline has been both in the public and political spotlight and gets a lot of support. This creates a good momentum to realise the transformation of the small M-path into a high class cycle path as soon as possible.

The next important step is to promote cycling in general in order to get more people on their bikes. To convince them that cycling can be fast and safe and is an easy way to commute. That cycling is for daily use. That cycling is fun. For everyone!



Influence Behavior

Challenges and Solutions

Biking Obstacles:

- Safety
- Infrastructure gaps
- Car culture
- Heat
- Not familiar with traffic rules

Biking Opportunities:

- Efficiency
- Speed
- Cost Savings
- Freedom
- Rules - Education

Use motivation:

- Rewarding
- Status
- Competition
- Feedback
- Scarcity
- Consistency
- Standards
- Social Proof
- Commitment
- Framing

Ways to Influence Behavior

Incremental Steps with measurable goals

- Promote short trips with catchy slogans:
3 Mile Ride? Take your bike
- Educate:
Rules of The Road
- Tell Stories:
Vignettes about locals who bike, it's for everyone
AND Show and share progress
- Make it sexy & fun:
Feature local celebs and trendsetters

Remove resistors:

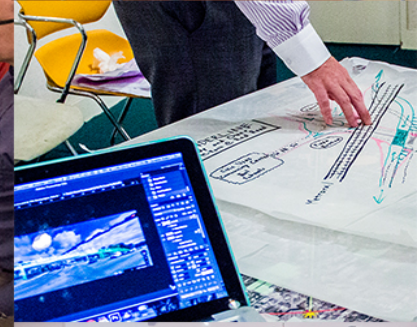
- Remove scepticism
- Counter loss aversion
- Fear of the unknown
- Foot between the door
- Facilities
- Freedom of choice
- Self-belief
- Disrupt, then reframe

Conclusions

As a result of this ThinkBike Workshop, we come to the following recommendations for Miami:

- The context in Miami is quite different from that in The Netherlands. Simply copy-paste won't work, but consider our best practices as inspiring and teachful.
- The Underline project can be regarded as a sample or pilot project. Use the transformation of the basic M-path to a high class cycle path as a catalyst for new bicycle infrastructure.
- Use the Dutch experience and knowledge, that was built up in the last forty years. To become a cycle city you need to do more than designing infrastructure. Implementing requires bicycle facilities, adapted urban design and influencing behavior.
- It's great to experience the political and societal support in Miami. Keep the good things in position!





Think Bike Workshop Miami

January 12th – 15th 2015



Erik Tetteroo
tetteroo@appm.nl
@eriktetteroo



Tonny Bosch
tbosch@movemobility.nl



Sjors van Duren
svduren@destadsregio.nl
@sjoess



Dutch Cycling Embassy

- > www.dutchcycling.nl
- > info@dutchcycling.nl