

# *Miami-Dade Bicycle Parking Plan*



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# Project Objective

- Develop recommendations for new and improved bicycle parking facilities at Metrorail stations, park-and-ride lots, and other transit hubs





# Project Methodology

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- Task 1: Literature Review
- Task 2: Flyer Development and Distribution
- Task 3: Survey Development
- Task 4: Bicycle Count and Facility Inventory
- Task 5: Data Collection
- Task 6: Data Analysis
- Task 7: Review of MDT Plans
- Task 8: Review of Bike Locker Management Process
- Task 9: Final Report



# Stations and Park-n-Ride Lots

- All 21 Metrorail Stations are included in the study
- 10 Park-and-Ride Lots/Transit Hubs are also included in the study:

1. Golden Glades
2. Hammocks Town Center
3. SW 152 St. Busway
4. MDCC South Campus
5. Coral Reef P-n-R



6. Cutler Ridge Busway
7. Harris Field
8. Metrobus Downtown
9. 72 St. and 88 Ave.
10. Sunset Strip



# Findings from Peer Review

- Atlanta/MARTA
  - Unlimited bicycle access to rail
- San Francisco/BART
  - BART Bicycle Advisory Task Force; Bikes on BART Rules
- Long Beach/Bikestation®
  - Premier bicycle valet transit center
- New Jersey Transit
  - Short and long-term bicycle parking for almost 2000 patrons; "Tiedowns" for bikes on trains
- Portland/Tri-Met
  - Extensive bicycle component of Comprehensive Plan with specific Bicycle Parking Guidelines





# Product Reviews

- Bicycle Lockers
  - Due to security concerns, only reviewed products by manufacturers that have responded with security-enhancing innovations
- Bicycle Racks
  - Focused on Inverted U racks and Rolling Racks
- Bikestation® concept
  - Guarded valet bicycle parking system





# American Bicycle Security Company

- Model 302
  - 2 door/2 bicycle capacity
  - \$1,150 plus shipping/unit
  - Safety-View security window
- Model 301V (lower right)
  - 1 door/1 bicycle
  - \$809/unit
  - For limited space





# Creative Pipe: CS and eLocker

- eLocker (above)
  - High tech bike locker
  - 2 door/2 bicycle unit
  - \$1800-2,500/unit
- CS Series (below)
  - Perforated sheet metal sides and door
  - 2 door/2 bicycle unit
  - \$1,350/unit







# Cycle-Safe: Pro-Park Lockers

- Pro-Park
  - 2 door/2 bicycle capacity
  - Price depends on # of lockers in row; ranges from \$850-1,000 per bicycle
  - Security view windows





# Bicycle Racks



- Cycle-Safe

- Inverted U
- 2 bikes/unit
- \$95/unit



- Dero

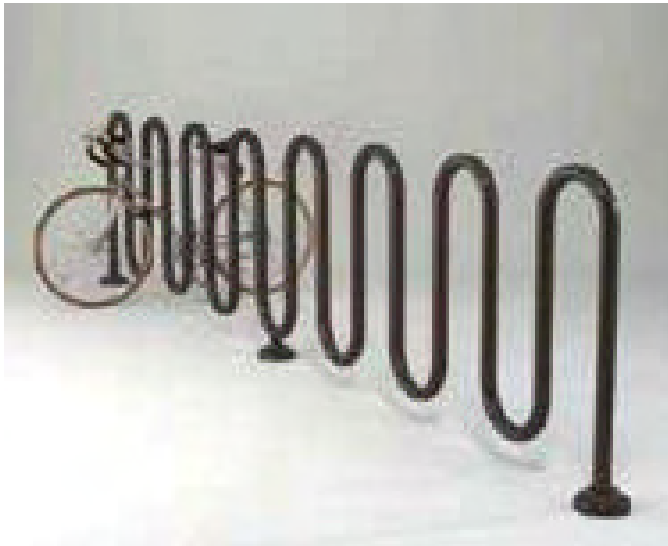
- Rolling Rack
- 11 bikes/unit
- \$430/unit

- Dero

- Hoop rack-inverted U
- 2 bikes/unit
- \$58-75/unit

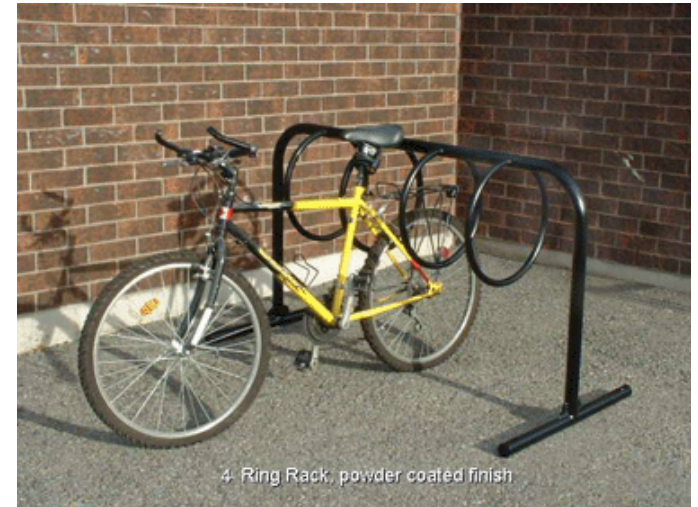


# Bicycle Racks, continued



## Madrax

- HD Winder
- 15 bikes/unit
- \$589/unit



## Bike-Up

- Ring Rack
- 6 bikes/unit
- \$270/unit



## Bike-Up

- Maximin Vertical
- 10 bikes/unit
- \$1,000/unit





# Bikestation® Concept

- Bikestations are basically secure valet bicycle parking facilities integrated into transit hubs
- Combine bicycle parking with other services, such as repair shops, changing and shower rooms, and bicycle rental
- Three currently in operation
  - Long Beach, Palo Alto, and Berkeley
- Built in cooperation with the Bikestation Coalition;  
[www.bikestation.org](http://www.bikestation.org)







# Bicycle Counts

First Bicycle Count: 127

Second Bicycle Count: 121

Third Bicycle Count: 125

Locker Renters: 53 current

Most Popular Stations:

- Coconut Grove
- Dadeland North and South
- South Miami
- Okeechobee
- Hialeah



Dadeland North Metrorail Station bike rack



# Current Conditions

- 6 of the 21 stations have no bicycle racks
- Of the 15 with racks, 8 do not have sufficient space to meet demand
- Many racks are traditional “wheel-bender” type racks
- Only one of the ten park and ride lots has a bike rack
- Of the 246 lockers at Metrorail stations, 135 are damaged, of which 92 are deemed not rentable





# Photo Log: Dadeland South







# Photo Log: South Miami







# Photo Log: Coconut Grove







# Photo Log: Hialeah







# Photo Log: Okeechobee





# Photo Log: Vizcaya







# Photo Log: Dr. M.L. King





# Survey Findings

- 72 surveys were completed
- 15 survey respondents also participated in brief interviews
- 79% of respondents combine bicycling and transit 4 or more days per week



- 73% of respondents are commuting to work
- Over 40% also take their bicycles aboard Metrorail and 18% also use the bikes-on-bus program





# Survey Findings, cont...

- Over half of respondents live within 2 miles of a rail station
- Primary reasons for combining bicycling and transit: exercise, save money, and close proximity to station
- Vast majority were male



- One third of respondents reported they do not have access to a car
- Over half were over the age of 40
- 35% earn less than \$20,000 per year, while 21% earned over \$70,000



## Survey Findings, cont...

- 82% indicated that more bicycle parking is needed and 81% said more secure parking is needed
  - 76% stated that having parking visible by security personnel was important to very important
  - 72% stated that covered parking was important to very important
  - 71% reported that it was important for stations to have both short and long-term bicycle parking





# Survey Finding, cont.

- Data collected during survey can be used for marketing and promotion
  - For example, people who combine bicycling with transit generally fall into two market segments:
    - Those earning under \$20,000/year who bicycle to save money and due to limited access to a car
    - Those earning over \$70,000/year who bicycle for exercise, to avoid traffic and for the environment
  - Improvements can also be marketed as a response to the needs and recommendations of the users, and a representation of public involvement



# Recommendations

- Bicycle Parking Needs- Lockers
  - Remove current lockers, except at Dadeland North
  - Invest in high quality, secure lockers that provide security personnel access to view contents without compromising bicyclists' property
  - When possible, place within station area so only patrons have access
  - Place within sight of security post



# Recommendations

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- Bicycle Locker Management
  - Better lockers will be best improvement
  - Investigate available technology
    - Data tracking
    - Electronic key dispensing
    - Scan cards
    - PINs
  - Centralization of management, security and maintenance responsibilities





# Recommendations

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- Bicycle Parking Needs- Racks
  - Remove all wheel-benders and damaged racks
  - Replace with Inverted U racks
  - Locate racks undercover
  - Locate racks within sight of security post
  - Place signs indicating location of bicycle parking



# Recommendations

- Bicycle Parking Needs- Cost and Funding
  - Cost: Depends on products selected
    - Short term parking cost (without installation labor costs) will range from \$6,500 to \$15,000 with shipping and will provide 280 more rack spaces
    - Long term parking cost (without installation labor costs) can range from \$125,000 to \$225,000 with shipping and will provide 198 lockers spaces



# Recommendations

- Funding
  - TEA-21 Enhancement Funds
  - FTA Transit Enhancement Funds
  - CMAQ funds
  - Hazard Elimination Funds
  - Other Surface Transportation Program funds
- Recouping the cost
  - Investment in bicycle parking will be mitigated in fare box revenue and locker rental fees over time





# Recommendations

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- Bicycle Parking Policies
  - Role of Security Personnel
  - Future Stations
    - Bikestations Feasibility
    - Signage
    - Minimum standards for bicycle parking at Stations and Park-n-Ride lots
  - Connectivity to Metrorail and Metrobus
  - Bikes on Metrorail Policies
  - Data Tracking of bicycle use
  - Promotion of Bicycling



# Any Questions?

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