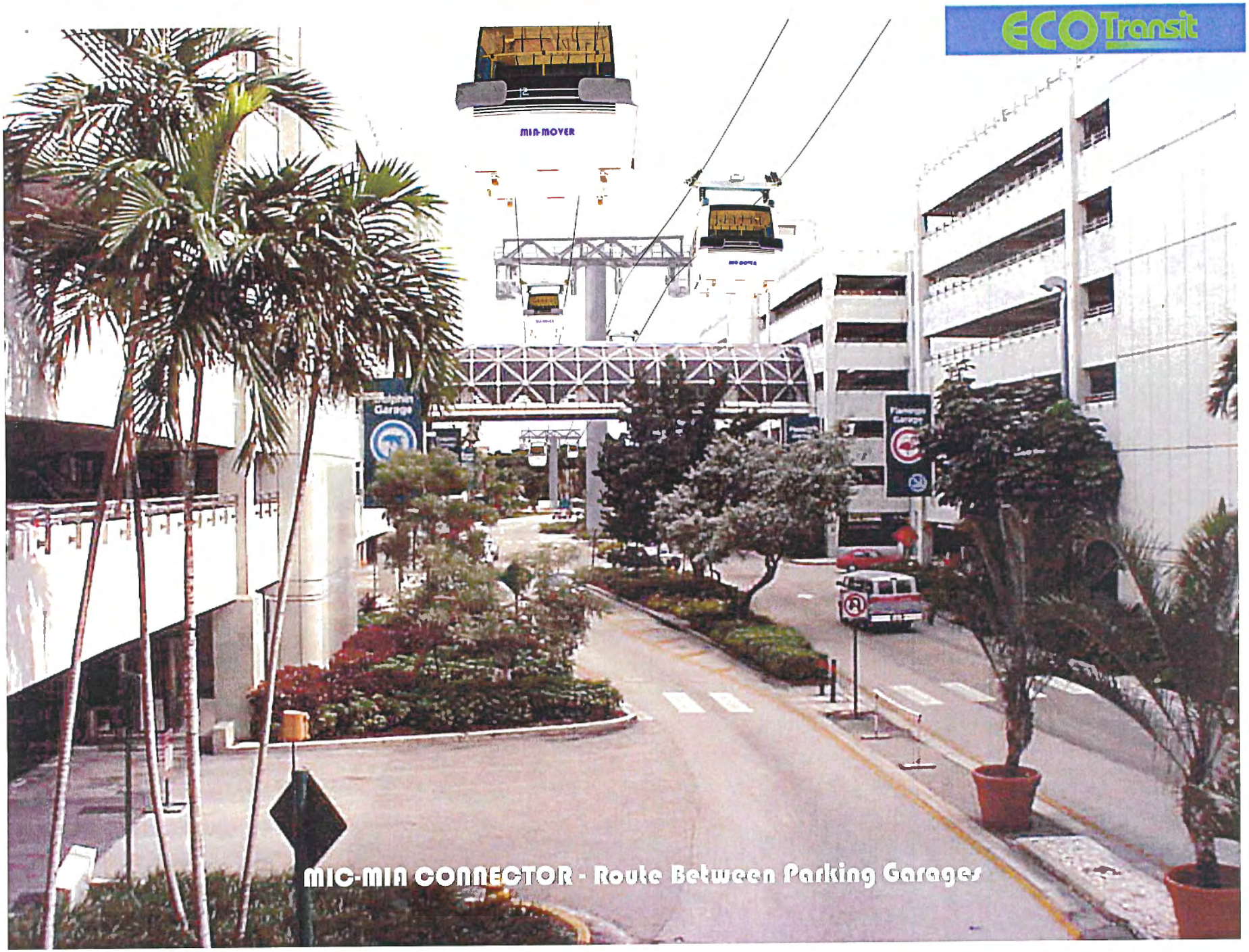
ECO-Transit
1390 S. Dixie Highway, Suite 1205
Coral Gables, Florida 33146

AERIAL TRAMWAY PEOPLE MOVER

MIC-MIA CONNECTOR
MIAMI INTERNATIONAL AIRPORT


ECO Transit
MIA-MOVER
MIC-MIA CONNECTOR - Route Between Parking Garages

COMPANY INTRODUCTION

ECO-Transit, Inc. is a company whose mission is to promote, develop and operate Aerial Tramways, often referred to as "Gondolas" or "Cable Cars", to provide point-to-point, public transport in environmentally sensitive locations, tourist destinations and urban environments. This need for cost effective, responsible, non-polluting and user friendly People Movers becomes more urgent each day as our roadways become more clogged, our air becomes less breathable and our planners run out of viable economic options to solve our public transport problems.

It is the intent of the company to identify opportunities for the utilization of aerial cable technology in: 1) National Parks and other environmentally sensitive areas to lessen the impact of vehicular and pedestrian traffic by providing controlled access, 2) tourist and resort destinations to provide access to specific attractions, 3) urban areas to provide short-haul public transit and to link with existing mass transit modes, 4) airports and intermodal centers to provide passenger connector lines to the terminals and facilities. ECO-Transit has full engineering and development capabilities to take these projects successfully from the planning stage through construction to implementation.

The use of Aerial Tramways as a means for public transport dates back over 100 years, as necessity was the mother of invention, and mountain villages in Europe, which could not connect by road, connected themselves by Aerial Cable Cars to overcome the obstacles presented by topography and mother nature. Since that time, civilization has installed over 25,000 tramways, or lifts, around the globe, which range from small single seat chairlifts to impressive aerial trams with 180 passenger cabins. It is a little known fact within the transportation community, that aerial cable lifts around the world have the capacity to transport almost 20 million passengers per hour, which is more passengers per hour than all the airlines and railways combined.

Although the primary use of aerial cable lifts has traditionally been for skiing and recreational purposes, recent advances in both standard mono-cable and double mono-cable (DMC) technology have significantly increased cabin sizing, cabin stabilization and system passenger carrying capacity resulting in a range of carrying capacities from 2,000 passengers per hour for tourism applications to 10,000 passengers per hour for dual cableway mass transit systems. This range of system capacities can be delivered by Aerial Tramway People Movers typically at a cost that is only 30% to 40% of the cost of Elevated Guideway People Movers, such as Metro Mover. This performance can be achieved with the same high safety levels as the, now, prohibitively expensive APM's, and with much higher levels of reliability and system availability.

With cost effective, safe, and eco-friendly Aerial Tramway technology, ECO-Transit is well positioned to take advantage of the coming trend in public transportation, which will

mandate greater fiscal accountability for public spending on mass transit and include government incentives for private investment on transportation infrastructure in the U.S. In his speech given on March 11, 2002 to the American Public Transportation Assoc., Transportation Secretary Norman Mineta said: "A high priority for the United States Department of Transportation will be to strongly encourage private sector investment in future public transportation projects to supplement the shortfall of public funds."

The Principals of ECO-Transit, Inc. are three highly regarded professionals in the fields of transportation planning and business development, Allen Harper and John Spillman of Coral Gables, Florida and Roger Gardner of Denver, Colorado. Our Engineering Director is D. Mark Doman, PE, a noted aerial tramway engineer and former automotive design engineer.

The Chairman of ECO-Transit, Allen Harper, is currently Chairman of EWM Realty, Inc., one of the largest real estate brokerages in South Florida and Owner of American Heritage Railways, Inc., which operates two tourist oriented, historic railroads: the Durango and Silverton in Colorado and the Great Smokey Mountain Railroad in North Carolina. Mr. Harper has served as a Director on the Tri-County Rail Authority, a State owned commuter railroad and has been Chairman of the Board for 2 terms. He has also served as a Director of Florida East Coast Industries, Inc., a railroad, real estate and telecommunications company, based in St. Augustine since 1994. In 2001, Mr. Harper was appointed by Governor Bush to serve on the Miami-Dade Expressway Authority Board (MDX).

The President of ECO-Transit, John Spillman, is currently Chairman and President of Innovative Transportation Strategies, Inc. Mr. Spillman, a long time resident of Miami, has an impressive resume of planning and implementing transportation projects for over 30 years including the Miami-Dade Metro Rail and Metro Mover projects. Mr. Spillman has been involved in all phases of transportation system development in locations worldwide, including Los Angeles, San Diego, and Bangkok dealing with a broad range of transportation modes and technologies. He is a member of the Board of Governors of the Greater Miami Chamber of Commerce and is the Chairman of the Greater Miami Aviation Alliance.

The Executive V.P. of Eco-Transit, Roger Gardner, is currently President of RG Consultants, Inc. and former President of Leitner Lifts USA, Inc., one of the largest aerial tramway engineering and manufacturing companies in the world with over 8,000 aerial cable lift installations worldwide. Mr. Gardner has 30 years of experience in the aerial tramway and resort development business; he has worked for 3 different international tramway companies and has designed and operated resorts in Colorado, California and Korea. He is an acknowledged expert in the development of aerial tramway projects and the development of resort amenities and tourist attractions.

The Engineering Director of ECO-Transit, D. Mark Doman P.E., was, most recently, Chief Engineer of Leitner Lifts USA, Inc. with responsibility for the design and certification of all tramway projects in the U.S. and Canada. Mr. Doman has 28 years of experience in the automotive design, roller coaster design, and aerial tramway industries. Previous to his employment with Leitner Lifts, he worked with Ford Motor Company in research and development and Arrow Dynamics in mechanical engineering and project management. He is a participant on ASC (ANSI) B77, Standards for Passenger Aerial Tramways Committee.

This professional management team is committed to the realization of the ECO-Transit business mission to promote, develop and operate Aerial Tramways as public transport systems in a responsible and profitable manner. Eco-Transit will be active in the formation of strategic partnerships, both public and private, to implement its business plan and achieve profitability for its partners and investors.

MIA-MOVER

Miami International Airport

AERIAL TRAMWAY PEOPLE MOVER
MIAMI INTERNATIONAL AIRPORT

GENERAL DESCRIPTION

The traditional methods of connecting Intermodal Transportation Centers to airport terminals have been by fleets of shuttle busses, or by fixed, elevated guideway people movers; the former method representing relatively low up-front costs with high O&M costs over the years and the latter representing very high up-front costs with lower O&M costs. Shuttle buses are passenger unfriendly, environmentally unfriendly, and the choice of last resort; whereas, automated people movers represent state of the art planning for the passenger experience, for the environment and for the lessening of traffic gridlock. Thus, a desirable solution for MIA would be to combine the low initial cost of a bus system and the low on-going costs of a modern people mover system, while providing a high quality passenger experience and a unique ambiance for the Miami Airport.

Such a solution exists with an *Aerial Tramway People Mover System*, which combines high tech People Mover technology with tried and tested Cable Car technology. Traditionally, *Aerial Tramways* have provided efficient, safe and reliable transportation for resort areas and mountain communities in need of low to medium capacity transport systems. In the past, this low to medium system capacity and low individual vehicle capacity characteristic prevented this transport class from being considered for urban transport and airport applications but, with recent technical developments allowing larger vehicles (up to 40 passengers) and very high system capacities (5,000 to 10,000 passengers per hour), transportation planners are now taking a hard look at this innovative technology. Forward thinking airport administrators at several International Airports are now evaluating *Aerial Tramway People Movers* for their connector needs.

For the MIC-MIA Connector there are several possible alignment and configuration solutions for an *Aerial Tramway* system, ranging from a single line, straight-in through the parking garages alignment with multiple stations and moving walkways to a dual line alignment to the North and South Terminals with a "Y" station and multiple terminal stations. There are also several other possible solutions for the routing as well as these two examples. The cost of the straight-in configuration would be approximately $60 million and the cost of the "Y" configuration would be approx. $130 million. These costs represent substantial savings over a Fixed Guideway system.

The second above solution offers the highest level of functionality and redundancy for the MIA MOVER *Aerial Tramway* and originates at the Miami Intermodal Center (MIC)

from a Central Station with 2 separate, redundant Lines – one Line running to the North Terminal and the other Line running to the South Terminal, through a common Midway Station at the site of future airside terminal expansion. Both Lines transport passengers with their baggage, passengers with disabilities and employees in comfortable 40 person cable cars, at 15 miles per hour, to a strategically located Midway "Y" station, where the lines pass through and then split: one to the South Terminal and one to the North Terminal.

The North Line and the South Line have 2 independent cable sections each: one section between the MIC Station and the "Y" Station and one section between the "Y" and the Terminal Stations. Each of these 4 cable sections has it's own motor room, and each of the 4 motor rooms has 3 independent drive systems: 1) Primary DC electric drive (100%), 2) Auxiliary diesel/torque converter drive (100%), 3) Evacuation diesel/hydrostatic drive (25%). The primary and auxiliary drives are for 100% capacity and speed, full time operation; the evacuation drive is for bringing the vehicles back to the stations in the event of failure of both the primary and auxiliary drives. As an option, 2 completely separate, primary DC electric drives can be installed in each motor room for each of the 4 cable sections for extreme redundancy. Also, as an option, the auxiliary drives can be remotely located diesel/generator sets instead of the motor room located diesel engines.

The cable loops constantly run at 15 miles per hour, propelled by the drives, through three-stage planetary gearboxes, designed specifically for aerial tramways. The gearboxes turn large diameter drive sheaves, or bullwheels, that are rubber lined to impart traction and rotary motion to the steel cable loops, called haul cables. The steel cable loops have a replacement life of from 15 to 20 years of operation. The vehicles are attached to the haul cables, when traveling on-line, by 4 spring loaded grip devices that attach and detach from the cables at each station.

A station cycle consists of the vehicle entering the station mechanisms at 15 mph, being automatically detached from the cable, being stabilized and gradually decelerated to the unloading speed of 40 feet per minute, having the doors open automatically for passenger unloading and then being conveyed from the unloading platform, through the station, to the adjacent loading platform. After stabilized passenger loading and automatic door closing, this same vehicle is then gradually accelerated in the station to 15 mph and is automatically re-attached to the cable for transport to the next station. During this station cycle, passengers can either remain in the car to pass through to the next station or they can de-board the car for transfer or final destination.

The North Line and South Line have 4 Stations situated at the MIC, at the "Y", at the East ends of the Terminals, and at the West ends of the Terminals, where they connect to the existing moving walkways. Passengers can board and de-board in both directions at all Stations; passengers can make transfers at the MIC and "Y" Stations. This

configuration offers great operational flexibility and redundancy for the Airport and MIC transportation and operations management.

The redundancy feature of having 2 *Aerial Tramway* Lines service the MIC and MIA, addresses several back up operational scenarios: Scenario 1 involves the unlikely breakdown of one of the Lines between the MIC and the "Y" Station, which, with a single fixed guideway system, would strand all of the passengers. But, with 2 separate aerial tramway Lines, each with a separate drive system, if one Line does break down or needs troubleshooting, the passengers for both the North and the South Terminals would simply board the remaining operating Line from the MIC and either pass through the "Y" Station in the same vehicle, if it is the proper line, or de-board and transfer to a vehicle of the Line to the other Terminal. This can be done since each line has 2 sections, and a breakdown on one section will not affect the operation of the other section.

Scenario 2 involves a breakdown of either one of the Terminal Lines from the "Y". Passengers would come to the "Y" on one of the MIC Lines and then either pass through or transfer on the one operational Terminal Line. Passengers arriving at the correct terminal would carry on as normal; passengers arriving at the wrong terminal would continue to the proper terminal via moving walkways.

Scenario 3 involves a person that mistakenly gets on the wrong Line. Normally, a passenger will board either the North Line or South Line, depending on their destination, but, in the event a passenger does board the wrong Line, they have the opportunity to de-board at the "Y" Station and transfer to the proper line.

This description of the "Y" Station layout illustrates the high levels of reliability and flexibility that can be achieved with a dual system with independent sections. As stated earlier, there needs to be further studies and discussions between DAC and ECO-Transit to determine the matrix of airport requirements and aerial tramway capabilities to see what would be the best fit in terms of alignment and system configuration.

There are many examples worldwide of Aerial Tramway Systems being used as People Movers as their primary function, albeit primarily at resort locations and at low to medium capacities. These systems have been proving their cost effectiveness, safety, and reliability for many years in limited public transport use. What is clear, is that Aerial Tramway Technology has advanced in the last 10 years to the point where it is now being considered by urban transport and airport planners around the world as an equal partner for inclusion into the planning and bidding process. The same cable technology that ECO-Transit is proposing for the Miami Airport has made the short list for the Hong Kong International Airport's proposed new People Mover System. This system will link up with one of the City's subway stations and will provide direct access to the terminals. The MIC-MIA Connector is a prime candidate to consider and evaluate the merits of an Aerial Tramway People Mover.

AERIAL TRAMWAY PEOPLE MOVER
MIAMI INTERNATIONAL AIRPORT

SYSTEM FEATURES

- **AFFORDABILITY** – For the same system passenger transport capacity, an Aerial Tramway People Mover is approximately 1/3 the cost of an elevated guideway people mover system.
- **SAFETY** – The safety factor for an Aerial Tramway in an urban environment is extremely high compared to a guideway system with a high voltage third rail. There has never been a personal injury or death in over 300 years of combined operations on the exact type of aerial tramway system proposed for Miami Airport.
- **CAPACITY** – Aerial Tramway People Movers deliver capacities of up to 5,000 passengers per hour per direction for single systems and 10,000 passengers per hour as redundant systems, which meets and exceeds the capacities of any fixed guideway systems.
- **RELIABILITY** – The reliability factor for an aerial Tramway with its standard, redundant centralized drive system and redundant lines is much greater than that for the single fixed guideway system with non-redundant individual drives in each vehicle. When one vehicle stalls on the guideway, the whole system must stop.
- **FREQUENCY** – Typical headways for the vehicles on Aerial Tramway People Movers are 20 to 40 seconds, versus 60 to 180 seconds on Fixed Guideway Systems
- **FLEXIBILITY** - Tramway system passenger capacity can be adjusted incrementally from 25% to 100% by adding or subtracting vehicles from the line. This process is easily performed by one employee and is fully automated from the control station
- **REDUNDANCY** – Aerial Tramways offer the highest level of redundancy of any of the people mover systems. Each centralized drive of each line section has 3 separate drives; additionally, as an option, the primary electric drives of each section can be duplicated. This higher level of redundancy is achieved at the same 1/3 cost of a fixed guideway system.

- **STANDARDIZATION** – There are no new or prototype parts or systems for the Tramway proposed for MIA; all of the components are standard industrial components. For example, the most critical component, the gripping devices used to attach the carriers to the cables, have been manufactured for over 20 years with total production of over 200,000 units.

- **CONSTRUCTION TIME** – The total project completion time including system design, engineering, manufacturing, installation and commissioning is less than 24 months for an Aerial Tramway versus 3 to 5 years for a comparable fixed guideway installation.

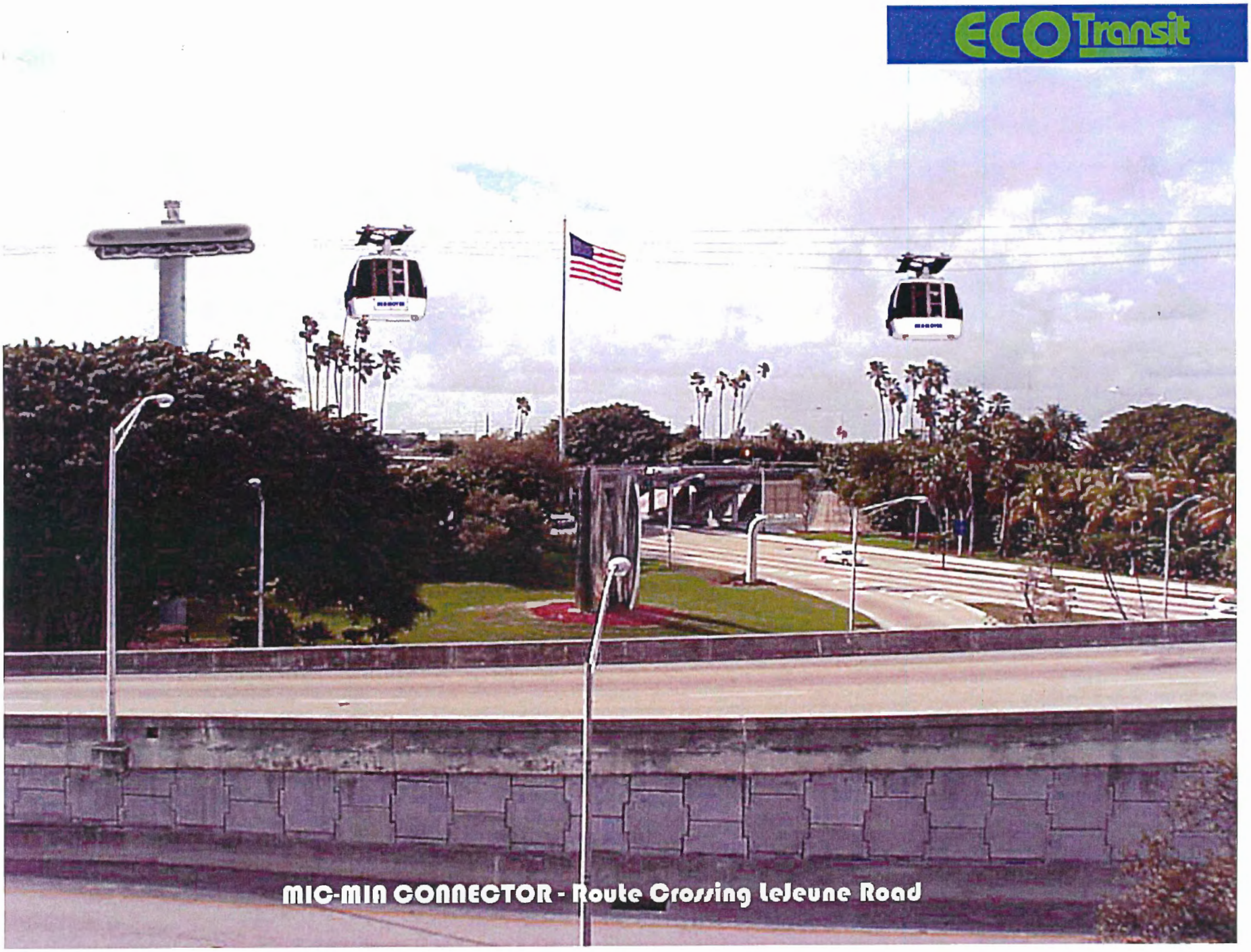
- **AUTOMATION** – The Aerial Tramway People Mover has total system automation including testing, startup, normal operation, auxiliary operation, tensioning, braking, cadencing, door opening/closing, safety systems, weather monitoring, etc. Boarding and de-boarding are monitored remotely with passenger assistance from station attendants.

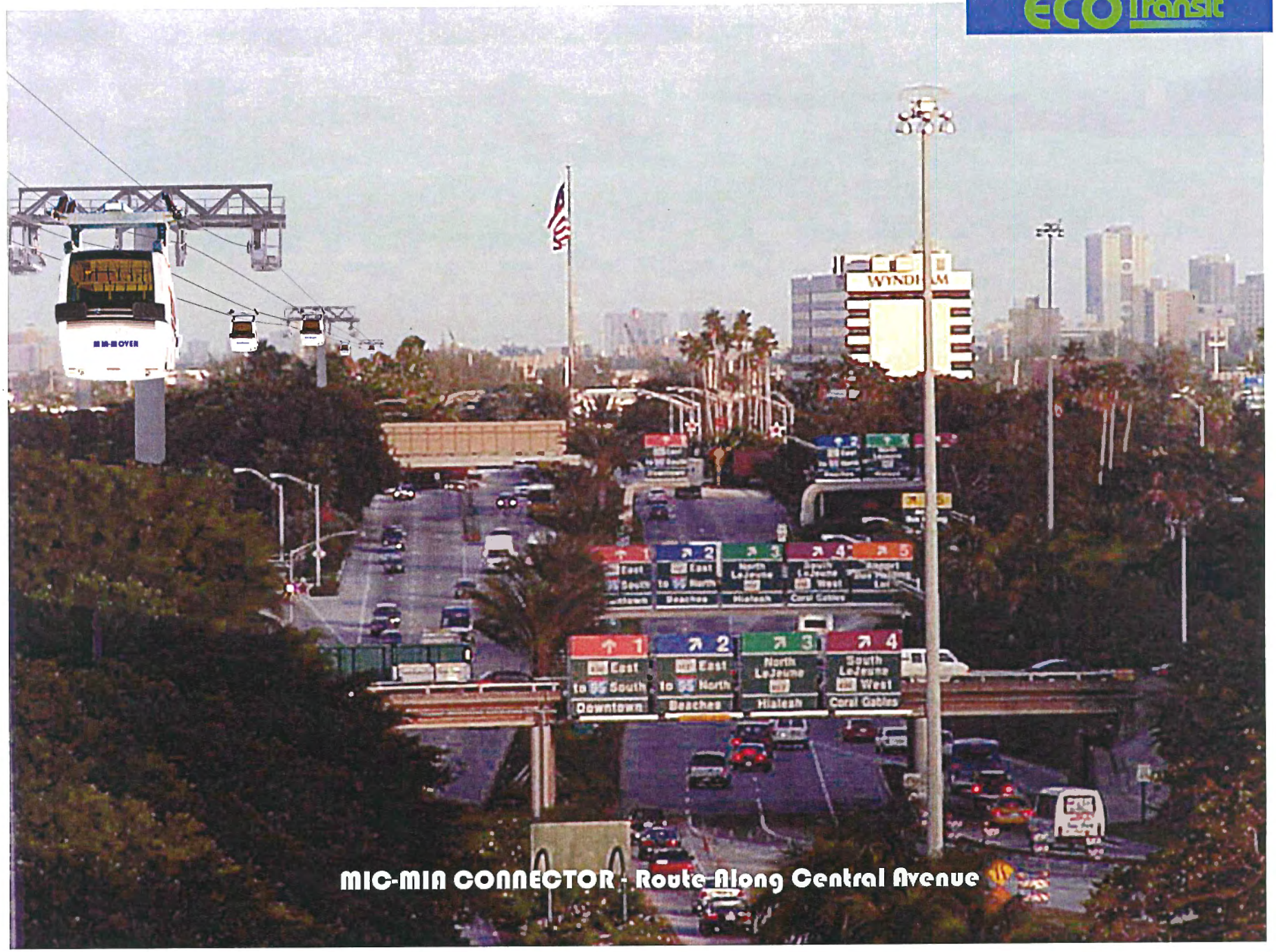
- **AMENITIES** – The Aerial Tramway vehicles are very spacious and modern with perimeter seating and baggage/ standing area in the center floor area. The cabins are either aluminum or fiberglass with wrap around tinted lexan windows and can be equipped with lighting, heating, air conditioning, ventilation, music system, intercom system, and closed circuit TV. The vehicles are fully ADA compliant.

- **MAINTAINABILITY** – Most of the components of the aerial tram system are standard off the shelf parts that will be stocked on-site. All subsystems have standard prescribed maintenance intervals and the maintenance procedures are well known within the industry with thousands of qualified technicians.

- **AESTHETICS** – Aerial gondola systems combine the aesthetic qualities of lightweight structures with cabins that float through the air. The uniqueness of the application at the Miami Airport would certainly become a trademark and selling point for the airport.

MIA-MOVER PHOTO SIMULATIONS

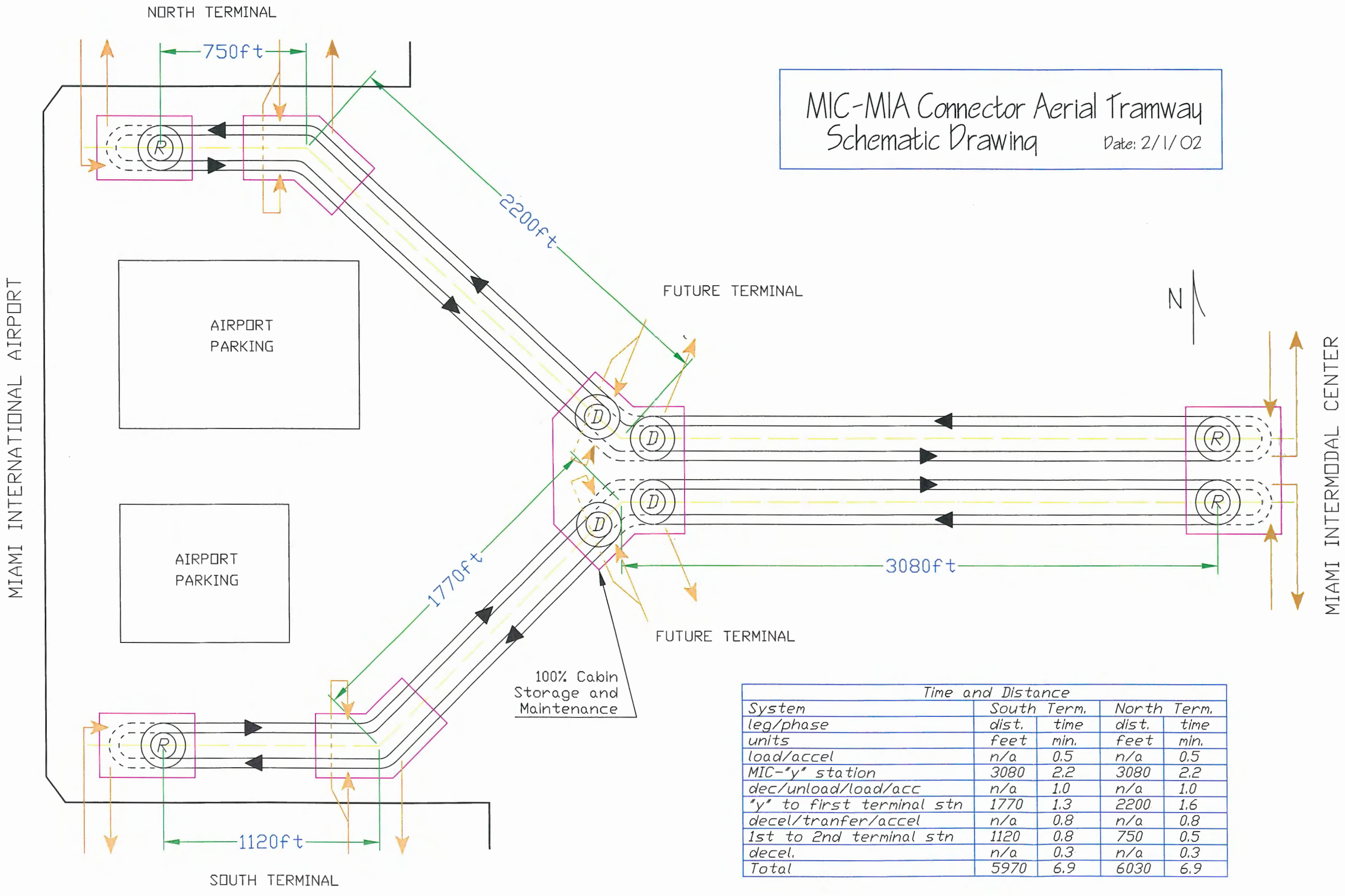

ECO Transit
MIC-MIA CONNECTOR - Route Crossing LeJeune Road


ECO Transit
WYNDHAM
1 East to South Downtown
2 East to North Beaches
3 North LeJeune Hialeah
4 South LeJeune West Coral Gables
MIC-MIA CONNECTOR - Route Along Central Avenue

MIA-MOVER DRAWINGS

MIC-MIA Connector Aerial Tramway
Schematic Drawing

Date: 2/1/02



Time and Distance				
System	South Term.		North Term.	
leg/phase	dist.	time	dist.	time
units	feet	min.	feet	min.
load/accel	n/a	0.5	n/a	0.5
MIC-"y" station	3080	2.2	3080	2.2
dec/unload/load/acc	n/a	1.0	n/a	1.0
"y" to first terminal stn	1770	1.3	2200	1.6
decel/tranfer/accel	n/a	0.8	n/a	0.8
1st to 2nd terminal stn	1120	0.8	750	0.5
decel.	n/a	0.3	n/a	0.3
Total	5970	6.9	6030	6.9

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PEOPLE MOVER CRITERIA

GENERAL CRITERIA	SYSTEM TYPE		
	Shuttle Busses	Fixed Guideway People Mover	Aerial Tramway People Mover
High system capacity	2	3	3
Low capital cost	3	1	3
Low operating cost	1	3	2
Low maintenance cost	2	2	3
Spare parts availability	3	2	3
Long operation life	2	3	3
Travel distance < 2 miles	2	2	3
Travel distance > 2 miles	3	3	2
High travel speed	2	3	2
Short headway	1	2	3
Short travel time	2	3	3
Multiple stations	3	2	2
Existing roadway interference	1	2	3
Exclusive R.O.W.	1	3	3
Redundant drive systems	2	2	3
Redundant lines/guideways	1	2	3
Transport baggage/supplies	2	3	3
Automated system	0	3	2
Cooling/Heating/Lighting	3	3	2
Compact terminal stations	3	2	2
15% grade operation	2	1	3
Snow/ice operation	1	1	3
Wind/rain operation	3	2	2
Convenient evacuation	3	2	2
Adjust system capacity	3	2	3
Operate in both directions	3	2	3
Ability to phase system	3	2	2
Standardized system	3	2	3
Relatively simple system	3	2	2
Ability to make curves	3	2	1
Safety factor	2	3	3
System availability factor	2	2	3
Non-polluting	1	3	3
Minimum storage/maint. area	2	1	3
Short construction time	3	1	2

SUITABILITY RATING: 0 – NONE 1 - LOW 2 - MEDIUM 3 - HIGH