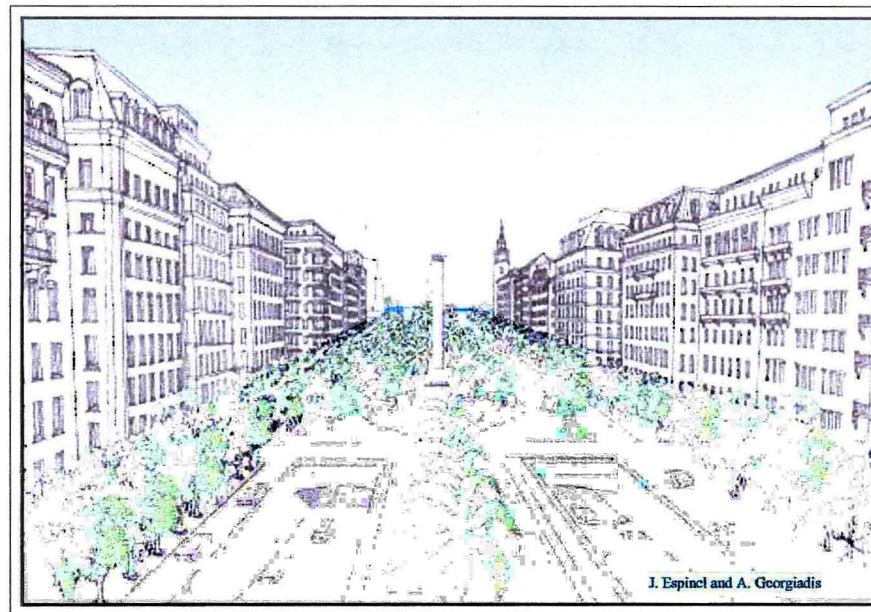


Miami Urban Watch Alternative to I-395



Developed by Miami Urban Watch

Coordinated by the Center for Urban and Community Design at the University of Miami

Evaluated by Glatting Jackson & Associates Inc.

October, 2002

Executive Summary

A complex issue: Rebuilding Interstate 395 (I-395) involves far more than traffic planning, engineering or aesthetic matters. I-395 is a complex issue with substantial local and regional socio-economic ramifications affecting everyone in the County.

Conflicting objectives: A major conflict between State, County and City objectives lies at the core of the problem. On the one hand, the Florida Department of Transportation (FDOT) wants to widen I-395 in order to correct existing operational deficiencies and provide access to the Port of Miami via a proposed tunnel from Watson Island. On the other hand, I-395 creates substantial social, economic and urban problems for downtown Miami and is a major obstacle to its revitalization. Widening I-395 would aggravate existing conditions, create problems for projects such as the Performing Arts Center and significantly slow down future development. The lack of a concerted, well balanced and comprehensive effort to address this conflict is one of the main reasons why little progress has been made

Pressing needs: This conflict is magnified by the time sensitive and pressing nature of these opposing interests. The Port of Miami, one of the County's most important economic engines, has critical access problems that need to be resolved very soon in order to maintain its competitive edge. Downtown Miami's revitalization is an essential condition for improving Miami's economy and ability to compete regionally. It is also crucial to the success of the Performing Arts Center now under construction. Revitalizing South Florida's urban cores and creating higher density residential mixed-use communities where people can walk or use public transit to get to work is a necessary step for reducing traffic congestion and implementing cost-effective mass transit systems. It is also a key strategy for controlling suburban sprawl, preserving our environment, making better use of available resource and attaining regional sustainability.

A search for a new alternative: Plans for rebuilding I-395 have been on hold for the past eight years because of a lack of funding and considerable



Traffic gridlock throughout Miami



Horrific conditions beneath I-395



I-395 prevents downtown's integration



The Performing Arts Center under construction will be severely blocked by I-395



The Port of Miami has critical access needs



Abandoned properties along I-395



FEC tracks prevent taking down I-395



Executive Summary

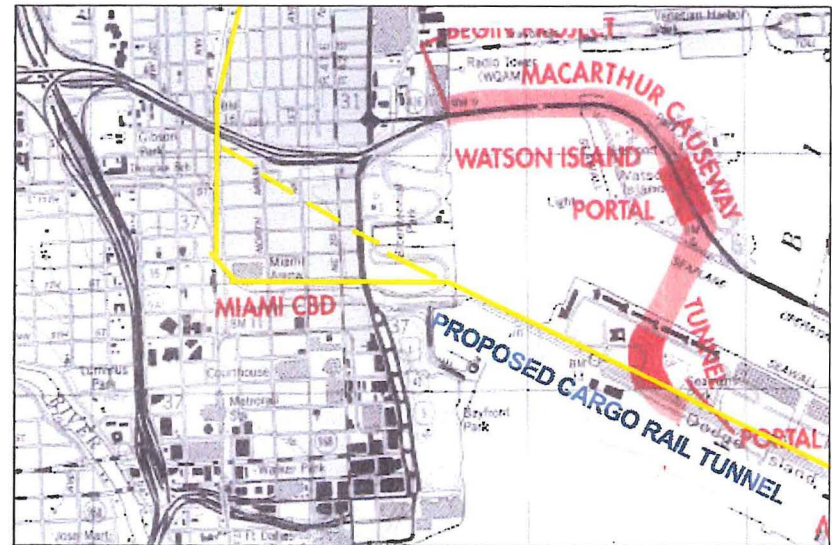
opposition by downtown communities such as Overtown, according to FDOT officials. With a host of new projects slated for downtown Miami and the interest for creating a lively mixed-use community, the opposition to FDOT's elevated alternative has increased. Keeping this project on an indefinite hold is in no one's interest and would be very costly for the City, the County and the Port. A solution must be found that addresses the full range of issues and balances conflicting objectives. This solution appears to lie more in the range of below ground options than elevated alternatives.

An obstacles to this search: The FEC tracks running along NW 1st Avenue to the Port of Miami severely limit the range of below ground alternatives. In order to bring I-395 to ground level, the structure must first clear the FEC tracks by 23.5 feet, according to FDOT. Considering 1) the limited distance available between the tracks and the point where the structure would reach the ground, and 2) that the grade of the structure as it ramps downwards cannot exceed a certain percentage, this condition places a very high constraint on what actually can be done. And yet, the FEC tracks provide very little service to the Port. Within the last five years service along these tracks has dwindled from one train per day to one train per week. Considering downtown Miami's growth, it is highly unlikely that this service will increase in the future. Meanwhile, the FEC tracks create a no-man's land that isolates Overtown from the rest of the city. They also generate a corridor of blight along their path and diminish the stature of important landmarks such as the Freedom Tower.

A need to question current assumptions: Under these conditions, it is reasonable to question the validity of the clearance requirement, and raise questions about the FEC tracks and broader Port access issues. Does the minimal service these tracks provide justify limiting the possibility of finding an effective solution I-395's reconstruction as well as keeping Overtown in its present isolated state? Can the FEC right-of-way be put to better use by building a commuter light rail line along this route? Considering that the proposed truck tunnel from Watson Island to the Port is far over budget and appears to be at a stand still, would not the Port of Miami be better served if



The FEC tracks provide little service, isolate Overtown and limit solutions to I-395



Watson Island-Port of Miami Tunnel and Proposed Cargo Rail Tunnel Alignment

Executive Summary

instead of the truck tunnel a cargo rail tunnel were built along the FEC's right-of-way, as a recent Port transportation study recommends?

These questions suggest that the I-395 issue is far broader than it would first appear. Furthermore, that to solve this problem we must approach the issues in a comprehensive and well coordinated manner, beginning by reviewing the validity of current assumptions about I-395, the FEC tracks and other forms of access to the Port.

A need to look at the whole picture: Because I-395's redesign has far reaching implications regarding a wide range of urgent issues, it should be on the front burner of City and County decision makers. A process must be put in place that gathers the input of all relevant players and stake holders, clarifies objectives, balances needs and creates a comprehensive plan of action. A debate on this matter is urgently needed if we are to make significant headway in dealing with the crucial transportation and urban problems before us.

Intent of proposal: The intent of this proposal is to present a design strategy for resolving the conflict between the above mentioned objectives, as well as to show how much can be gained by stepping out of the box and dealing with the whole picture. Its overall aim is to spark discussion about issues that have long been ignored or inadequately addressed.

Premises: The proposal begins from the premise that: 1) FDOT's Preferred Alternative, an elevated structure similar to, but wider than the existing expressway fails to address critical urban revitalization issues, presents far too many problems for future projects in the area, requires a disproportionate investment in right-of-way land that would essentially be buried beneath the structure, and has major public opposition. For these reasons, it is highly unlikely that it will ever be implemented. 2) A no-build alternative or a continuing delay on this project is out of the question. With every day that passes, the problems we are facing become more acute. Everyone loses under these circumstances; and 3) A solution that balances all relevant interests and objectives can best be found with the range of depressed or underground options – not elevated alternatives. The sooner everyone recognizes this, the faster we will be able to get underway in ad-

ressing this problem and seeking the necessary funding.

Characteristics: Referred to as the Miami Urban Watch Alternative, the proposal presented here calls for replacing I-395 with a boulevard and an underpass beneath its median for through traffic to Watson Island and Miami Beach. Apart from solving apparently incompatible objectives, its principal advantages are: 1) It heals festering conditions in Overtown and Park West; 2) It completely transforms the downtown area and turns blighted land into productive high revenue bearing property; 3) It creates new land that can accommodate a variety of mixed uses including the Art and Science museums; and 4) It provides an appropriate urban setting for the Performing Arts Center and integrates this site with Bicentennial Park. Two key features of the proposal need to be highlighted here:

1) The project is designed to be implemented in stages that can be financed as separate packages. The first of these stages, building the boulevard alone, can be implemented at a very low cost within the next three to five years as part of a public works program. 2) A great deal of land in a prime location will be recuperated when I-395 is torn down. Subtracting the value of this land from the construction cost, the total cost of this project is far less than expected.

Assessment: This alternative is considered viable by Glatting-Jackson & Associates, a prominent traffic planning firm based in Orlando. FDOT still has reservations about the proposal, particularly in so far as the FEC track crossing. **The MPO has commissioned yet another study to reevaluate the pros and cons of the Miami Urban Watch Alternative vs. FDOT's preferred option, and to explore other alternatives. However, the window of opportunity to get this project underway is closing quickly. Prices are soaring in the area. Purchasing right-of way land may become prohibitive if it is not done soon. Two steps can be taken immediately to advance this project: 1) Conducting an economic impact study and an analysis of potential funding sources. 2) Purchasing required right-of-way land. Doing so will not preclude other alternatives and would be a win-win situation for all. This action alone would send a clear signal to property owners and developers that Miami is firmly** pal advantages are: 1) It heals festering conditions in Overtown and Park

Problem Formulation

UNDERLYING PROBLEM

DOWNTOWN MIAMI REVITALIZATION NEEDS AND OBJECTIVES

Improve socio-economic conditions
Eliminate blight and reduce crime
Increase productivity and revenues
Improve image and attract business
Create residential/mixed-use community
Enhance Performing Arts Center area
Enhance/Integrate Bicentennial Park
Create pedestrian friendly environment
with a strong identity and sense of place

TRANSPORTATION AND PORT OF MIAMI NEEDS AND OBJECTIVES

Eliminate I-395 operational deficiencies
Accommodate new traffic demands
Improve access to Arena and other sites
Resolve Port of Miami access problems
Resolve I-395 ramp access problems

I-395

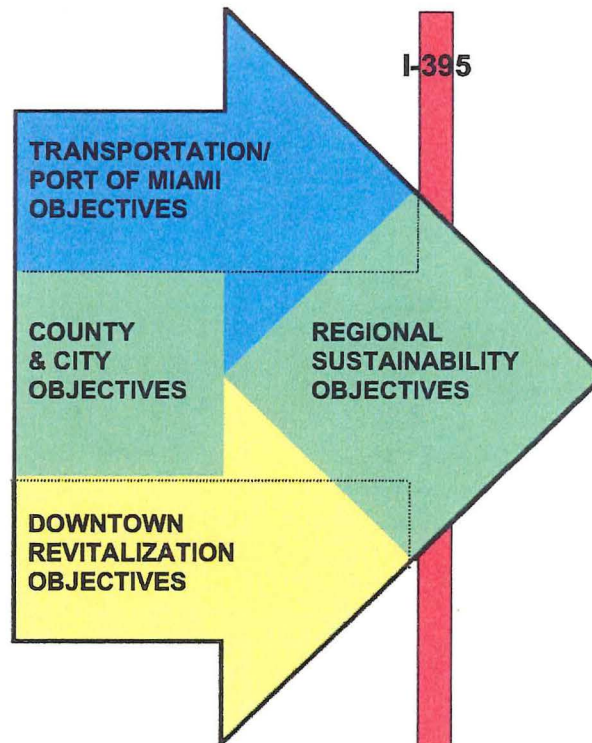
A CRITICAL TRANSPORTATION LINK
BUT A MAJOR OBSTACLE TO DOWN-
TOWN MIAMI'S REVITALIZATION

CONFLICTING OBJECTIVES

EXISTING I-395 PLANS PIT CITY OF MIAMI REVITALIZATION NEEDS
AGAINST TRANSPORTATION AND PORT OF MIAMI OBJECTIVES
ISOLATED AND FRAGMENTED EFFORTS ARE INSUFFICIENT TO ACHIEVE DESIRED CONDITIONS
THE RESULT IS AN INTRACTABLE , NO-WIN SITUATION FOR ALL

Solution strategy

REALIGN OBJECTIVES AND INTEGRATE EFFORTS TOWARDS A COMMON GOAL



BY:

**ESTABLISHING A TASK FORCE COMPRISED OF ALL RELEVANT PLAYERS TO ADDRESS ISSUES AND GUIDE THE PROCESS
CREATING A MULTI-DISCIPLINARY TEAM COMPRISED OF TRANSPORTATION AND LAND USE PLANNERS,
URBAN DESIGNERS, ECONOMISTS AND OTHER PROFESSIONALS TO CARRY OUT THE WORK
AND
RETHINKING ALL PREVIOUS ISOLATED SOLUTIONS AND FUNDING STRATEGIES
SETTING GOALS TO BRING ABOUT A DRAMATIC CHANGE IN THE SHORTEST TIME POSSIBLE
DEVELOPING A COMPREHENSIVE PLAN OF ACTION THAT SATISFIES CITY OF MIAMI, MIAMI-DADE COUNTY,
TRANSPORTATION, AND PORT OF MIAMI OBJECTIVES, AS WELL AS BROADER REGIONAL SUSTAINABILITY CONCERNS**

Part II

The Miami Urban Watch Alternative

Motivation

Local issues: The Miami Urban Watch Alternative is motivated by the following considerations: 1) I-395 is one of the principal reasons for the blight and desolation of the Overtown-Park West-Omni area; 2) little progress can be made in downtown Miami's revitalization as long as this structure remains in place; and 3) we need to take swift and effective action to bring about a dramatic change in the urban and socio-economic conditions of this area for several important reasons:

For years, neighborhoods like Overtown and Park West have languished in a state of neglect, blight and desolation. Despite all the talk about Miami's revitalization during the past ten years, little if anything has changed. Empty lots overgrown with weeds and used as dumping grounds abound here. So do highly deteriorated or abandoned buildings. Streets are badly in need of repair. Pressing socio-economic and urban problems in this area including one of the highest poverty and crime rates in the county, remain unresolved.

Miami is the poorest city in the United States. There is no doubt that one of the main causes of this problem is the fact that a large tract of land in the heart of the city lies totally unproductive and drains available resources. The spectacle of downtown Miami's urbanscape drives away tourists, potential investors and businesses that could bring thousands of new jobs to the area. Both the City and the County have been losing millions of dollars in revenues and will continue to do so for years if effective action is not taken soon.

The Performing Arts Center is under construction in the Omni and is scheduled to open in the fall of 2004. A great deal is riding on its success, including the future of the companies that will make the Center their home. Yet the area around the Center is as desolate as ever. The approach to the Performing Arts Center and the space beneath I-395 is still as forbidding. As of June, 2002, there were no concrete plan for improving conditions in its vicinity. Considering that it takes at least a year and a half to prepare a set of plans for an area improvement project and an equal amount of time for their implementation, it appears that when the Performing Arts Center



A dumping ground doubling as a playground in Overtown



Empty lots and dilapidated housing in Overtown

Motivation

opens, it will do so in a less than favorable environment. In the meantime, cities like Miami Beach, Fort Lauderdale and West Palm Beach have made major strides in their urban revitalization efforts. Their urban cores are thriving. Well shaded, pedestrian friendly streets lined with shops, restaurants and cafes, attract thousands of people while Miami's downtown streets remain deserted. Taking advantage of, and enhancing their river front, cities like Fort Lauderdale are attracting new high end development that will increase their revenue base. Meanwhile, Miami's Bicentennial Park overlooking Biscayne Bay remains isolated and used mainly by vagrants. Biscayne Boulevard, Miami's premier thoroughfare is lined by parking lots, deteriorated or abandoned buildings and a gas station. Under these conditions, Miami cannot compete with other cities in terms of attracting high-end business activities and residential development.

County and regional issues: For the past twenty years development towards the west has been the predominant trend in Miami-Dade County and the South Florida region. According to the Governor's Commission for a Sustainable South Florida, this trend cannot continue. We have run out of land, encroached far into the Everglades and destroyed valuable natural resources. We have endangered our water supply and seriously jeopardized the sustainability of the region. Because low density suburban settlements provide relatively low tax revenues, they do not generate sufficient funds to pay for the construction of new schools, roads, sewer, energy, and water supply systems. Since the automobile is the prevalent of transportation in the suburbs, the more we expand towards the west, the greater the burden we place on our roads and highways. This is one of the major reasons for the traffic congestion and increasingly long commutes people are facing. Expanding mass transit is considered by some to be one of the more viable solutions to this problem; however, mass transit does not work well in low density, spread out areas such as Miami-Dade County. As South Florida's population increases in coming years, the question is: how are these daunting problems going to be resolved?



A sad and dangerous place for children



FEC tracks with Miami-Dade's Government Center in background

Motivation

According to the Governor's Commission for a Sustainable South Florida and the Florida Planning Council, the most viable alternative is to redirect development towards the east where the infrastructure is already in place, by revitalizing South Florida's decayed urban cores. Creating more compact, mixed use communities where people are less obligated to use their cars and can walk or use public transportation to get to work is the key to solving a wide range of problems, particularly the traffic congestion we are facing. This is the fundamental point of the Eastward Ho! Initiative and the underlying idea guiding the planning process in places from Stewart to Fort Lauderdale. The longer we wait to initiate this process in Miami, the more difficult it will be, and the longer it will take to resolve our broader long range problems. The question is: Why is Miami taking so long to get underway?

Many reasons have been given for Miami's failure to take effective action in revitalizing its downtown area. Among these: conflicting political interests, government corruption, lack of funds, lack of a comprehensive plan of action, lack of coordination between the many government levels and agencies involved in the downtown area – each with its own set of objectives that often conflict with others; and the lack of effective mechanisms to bring these groups to the table and work towards a common goal. But one of the main reasons why little has happened, is because no one has taken on the challenge of addressing the major infrastructure problems that have the greatest impact on downtown Miami. Every study and charrette that has ever been done for the downtown area has deliberately avoided dealing with "the two white elephants in the room". That is, Interstate 395 (I-395) and the Florida East Coast Railway, FEC tracks to the Port of Miami. Until the City, the County, the Port and FDOT address this issue in a realistic and comprehensive manner, little progress will be made in downtown Miami revitalization efforts, despite the best intentions.

One of the broader aims of the Miami Urban Watch proposal is to highlight



FEC tracks near I-395 with Overtown in background



A "street" near the FEC tracks

Motivation

issues that have long gone unaddressed. Its underlying argument is that downtown Miami's revitalization cannot advance unless Miami takes swift and decisive action on I-395 and the FEC tracks to the Port of Miami. We cannot wait until 2015, the target date set by the Florida Department of Transportation, FDOT, to rebuild I-395. Miami is already far behind cities like Fort Lauderdale and West Palm Beach in its urban revitalization efforts and losing what little competitive edge it still has left. Overtown conditions are as bad as ever. How much longer are people going to have to wait to see a minimal improvement in their quality of life? The Performing Arts Center is scheduled to open in the fall of 2004 or at the latest in 2005. Considering that it takes at least one year to develop working drawings and obtain bids for even the most minimal project, and at least two years to carry out construction work, it appears that we won't even be able to provide a half decent environment around Miami's "premier" cultural landmark, unless we take strong and immediate action.



View of the FEC tracks towards Wynwood



Typical street in Park West



Abandoned lots and buildings in Park West

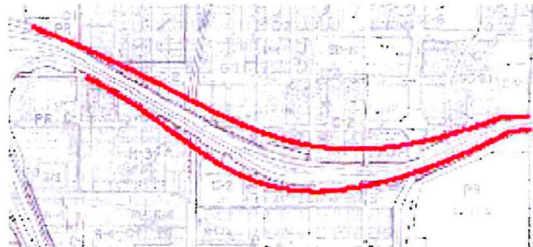
Factors affecting I-395's redesign

- **Transportation and Port of Miami issues:** I-395 deficiencies must be corrected, additional traffic must be accommodated. If the proposed Watson Island-Port of Miami is built, Port traffic will run along this route and must also be accommodated.
- **Downtown revitalization issues:** Downtown Miami has major urban and socio-economic problems that have gone unaddressed for years. There is a major effort underway to change this situation, but I-395 presents a substantial obstacle to this pursuit.
- **Time constraints:** Downtown Miami's revitalization is not proceeding fast enough. Development along I-395 is on hold waiting for a decision about the reconstruction of this expressway. This is having a significant effect on Miami's economy and may jeopardize the future of the Performing Arts Center and the Port of Miami. A determination on this matter needs to be made as quickly as possible.
- **Downtown traffic congestion:** There is substantial traffic congestion around I-395's on and off ramps. This will increase when the PAC opens. A temporary solution to Port access problems is still years away. How is downtown traffic going to be managed from 2004 to 2010?
- **FEC tracks to Port:** Running under I-395 at NW 1st Ave. the tracks present a major clearance problem for any attempt to bring down I-395. However, the tracks do not provide significant service and their future use is under consideration. This issue must be examined as part of a broader plan for the area and in relation to alternative proposals for building a tunnel to the Port.
- **Performing Arts Center:** To provide adequate conditions for the PAC's opening, the area around it must be improved by 2004. Every effort needs to be made to reduce the impact of future construction on this institution.
- **Potential flooding and evacuation problems:** Miami's high water table, hurricane conditions, evacuation needs, and the proximity of this project to Biscayne Bay, present a special challenge to this project.
- **Underground utilities:** A six foot main running across NE 13th Street to the Pump Station at Bicentennial Park must be considered.
- **Soil contamination:** Some of the properties along NE 13th Street may be contaminated. The cost of decontaminating the land and how this is actually going to be done needs to be considered.
- **Bicentennial Park:** A major park at the edge of the Bay, this property has been neglected and underused for years. One of the reasons for this is the fact that I-395 cuts the park off from the Omi. A way must be found to integrate the Performing Arts Center area and the park.
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Conditions I-395's redesign should meet

- **Transportation, Port of Miami and downtown revitalization objectives:** Any solution must establish a balance between conflicting objectives. It should also help advance each sector's agenda.
- **FEC track conflict:** The overall plan should provide a way to resolve this problem in a productive way for all parties affected by this issue.
- **Environmental justice for Overtown:** The plan should tear down as many "walls" as possible enclosing Overtown, open the neighborhood towards the Bay and provide new ideas for its economic development.
- **Downtown traffic problems:** The proposal should include a short range plan of action to solve current I-395 access problems and accommodate traffic increase during the next four years.
- **Performing Arts Center and Bicentennial Park:** The integration of these two sites is a key condition for activating the area, providing PAC attendees with after-performance options and revitalizing the park. Any proposal should demonstrate how this will be accomplished.
- **Help resolve new museum site conflict:** Locating art and science museums in Bicentennial Park would reinforce the cultural character of the district. However, this would take up much of Bicentennial Park. The plan can and should resolve this problem by recuperating land beneath I-395.
- **Costs:** Project cost should be reasonable in comparison to other alternatives and provide a high benefit to investment ratio.
- **Funding:** The plan should identify viable funding sources as part of a broader economic study detailing the economic impact of the project on land values and revenues in the area.
- **Implementation plan:** The proposal should include a clear plan of action to resolve all identified problems with specific goals to be met by agreed upon dates.
- **Implementation time frame:** Implementing the project in a relatively short time is an essential condition in this case. This project should be underway within the next year or two. Its initial phase should be finished by the time the Performing Arts Center opens.

A look at possible alternatives



Wider elevated structure

Appr. Cost: \$135 million



Section

Note: This is FDOT's Preferred Alternative to be implemented in 2015.

Pros: Works well from a traffic planning and engineering perspective. Construction costs are relatively low.

Cons: Creates major problems for new downtown projects and is an obstacle to downtown Miami's revitalization. Thirteen year implementation time frame is too long. Right-of-way costs are disproportionately high and would be buried beneath structure. Downtown communities and City of Miami officials oppose this alternative.

Conclusions: It is highly unlikely that this proposal will ever be implemented. This alternative should no longer be considered.



At-grade only thoroughfare

Appr. Cost: \$50 million

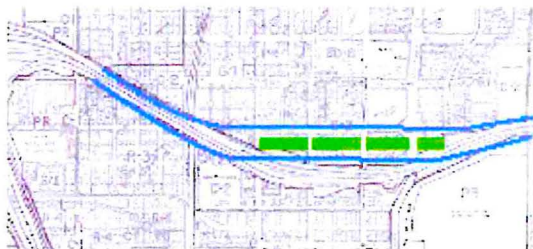


Section

Pros: Simple and economical to build. Does not present flooding or maintenance problems.

Cons: Cannot handle the amount of traffic currently on I-395, let alone projected increases. Would create major tie ups at intersections and slow down traffic. As a major truck route, it would defeat downtown Miami's revitalization objectives.

Conclusions: Everyone including FDOT agrees that this is a highly unrealistic alternative that does not deem further analysis.



At-grade and below-grade section

Appr. Cost: \$190 million



Section

Note: Below grade section is an open cut that can be covered at various points with a landscaped slab as funds become available.

Pros: Resolves conflict between traffic planning and urban revitalization objectives. Increases productivity and urban quality of the area. Increases revenues. Enhances Performing Arts Center and helps integrate Bicentennial Park.

Cons: It is more complex and expensive to build. Principal objections to this alternative stem from FEC track crossing issues.

Conclusions: Of the three alternatives, this one balances conflicting objectives best. If the FEC track conflict can be resolved, and a reasonable funding strategy can be put in place, it is the most viable alternative.

Conclusions about the potential of possible alternatives

1. FDOT's Preferred Alternative for rebuilding I-395, a wider elevated structure may work well from a traffic planning and engineering perspective, but it fails to address critical downtown revitalization issues and would worsen existing conditions. Scheduled to be built around 2015, this project would hold up development on properties along I-395 for years because of right-of-way issues. By the time right-of-way land can be purchased, its cost would be prohibitive and higher than the estimated cost of the structure. The money used for this purchase would be buried beneath the structure and would have no urban or socio-economic redeeming value. FDOT's proposal would open wounds that have yet to heal in Overtown and have a major negative impact on Overtown residents and current revitalization efforts. It would also negatively affect the Performing Arts Center and efforts to revive Bicentennial Park. FDOT's proposal has been on hold for the past seven years because of opposition to this project by downtown residents. This opposition has increased dramatically in recent years. Prominent City of Miami officials have taken a strong stand against this project. Under these conditions, it is highly unlikely that FDOT's Preferred Alternative will ever come to fruition. Continuing work on this option is a waste of tax payer money. Reevaluating this proposal makes no sense because the problem is not of an engineering or traffic planning nature. Its fatal flaw lies in the fact that it is unacceptable to the downtown community. The proposal should immediately be shelved.

2. Concerning at-grade alternatives to I-395, running a sealed-off expressway through the middle of the downtown area is totally out of the question for obvious reasons. A boulevard by itself could never handle the amount of traffic on I-395. It would be filled with trucks traveling to and from the Port. With at least six traffic lights, such a boulevard would create major delays to traffic along this route and bring about major tie ups at key intersections. An at-grade only proposal, therefore, should not be given further consideration.

3. The only alternative for I-395 that can deal with both transportation planning and urban revitalization objectives is a combination of an at-grade

boulevard and a depressed section for through traffic. The depressed section should not be referred to as a tunnel. In fact, it would be impractical and extremely expensive to design it as such. The most practical and economically viable alternative is to build an open-cut roadway that can be gradually covered with a "slab" or some other type of structure, at various points or everywhere along its route as deemed desired and feasible. The "slab" could be landscaped and designed for a variety of recreational purposes. This is what the Miami Urban Watch Alternative is about.

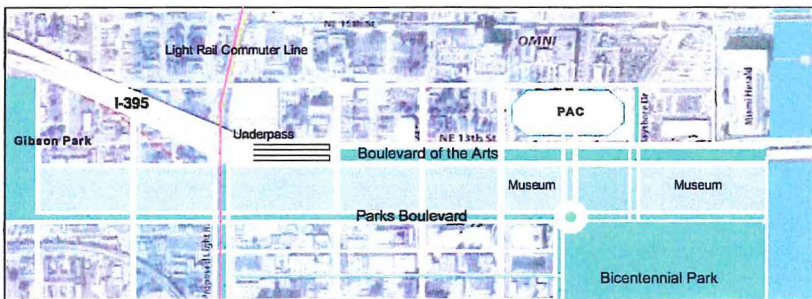
4. One of the most critical concerns about I-395's reconstruction is that it must be readily implemented in the shortest time possible. Furthermore, that the first phase of the project – the short term plan of action – must be initiated within a year, in order to avoid creating unfavorable conditions for the Performing Arts Center, as well as to improve traffic and environmental conditions in the area by the time the Center opens. A second key concern is that the project must be economically feasible. Moreover, the initial phase of the project should not require a high investment. Funds for this part of the project must be readily available.

5. Given the above considerations, this project should not be developed and implemented by FDOT alone through a traditional implementation and funding process. What's needed here is a partnership between City, County and State agencies, with alternative funding sources such as the one that has been used in cities like Seattle to build projects in a very short time at a lower cost. (According to planning officials in this city, FDOT is actually part of the problem, not the solution). The reason for this is simple: Federal funds are now extremely limited. FDOT projects have to go through a lengthy approval process that often takes years. Purchasing right-of-way land can only be done after the project has achieved a certain level of development and met federal funding conditions. It could take anywhere from five to ten years before this could be achieved. Considering the fact that land values in the area are increasing dramatically, to a point where they could make the project prohibitive, right-of-way land must be purchased immediately. This could not be done as an FDOT project.

Characteristics of the Miami Urban Watch Alternative

Characteristics: The proposal calls for replacing I-395 with a 200-foot wide boulevard and a six-lane underpass beneath its median. The proposed boulevard would be lined by residential and office buildings with commercial facilities at the ground level. Following the example of Barcelona's Las Ramblas, or Miami Beach's Lincoln Road, its landscaped median would include, promenades, exhibits, cafes, book and flower stalls. The proposal also calls for replacing the FEC tracks by a light rail line towards Little Haiti and Aventura running above I-395 at its crossing. Nevertheless, it presents other options should this not be immediately possible.

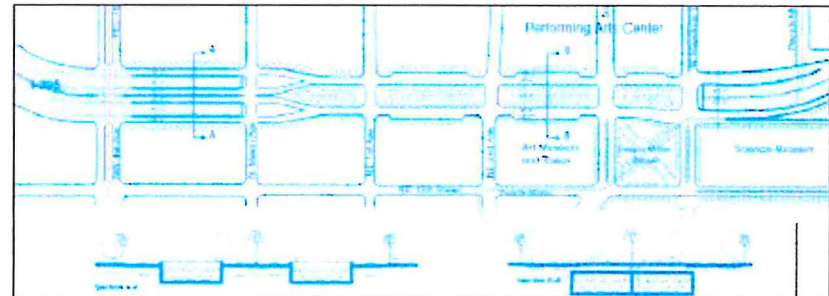
Effect on downtown Miami's urban fabric and Bicentennial Park: This alternative creates six new city blocks on the south side of the boulevard between NW 1st Avenue and Biscayne Bay. Two of these sites can be used for the Miami Art and Miami Science museums. This resolves the problem of satisfying museum area requirements without sacrificing much recreational land from Bicentennial Park. Together with a new plaza similar to New York's Grand Army plaza at the entrance to Central Park, this plan opens the Performing Arts Center to Bicentennial Park. It also integrates the museums, the Performing Arts Center and the park into a major cultural-recreational complex by the Bay. A fundamental element of this plan and an important outcome of taking down I-395 is the creation of a second boulevard linking Gibson and Bicentennial Park. This new thoroughfare will play a key role in opening and helping revitalize Overtown.



The Boulevard-Underpass urban concept



View of Boulevard-Underpass Alternative looking east from NW 1st Avenue



Aligned with NE 13th St, the boulevard extends as far as N. Bayshore Drive



The boulevard's median can include restaurants, a farmer's market and bookstalls

The proposal as part of a comprehensive vision for the area

The Proposal as Part of a Broader vision for the area: A project of this nature has a major impact on adjoining areas and touches on a number of questions presently under discussion: How can we accelerate Overtown's revitalization? How can we accommodate the Art and the Science museums on Bicentennial Park without taking away too much recreational land? How can we make a more productive use of the Miami Arena? Such a project also raises opportunities that would not be available with the Elevated Alternative for I-395. Showing what these opportunities are, as well as the problems that can be solved by eliminating the existing structure, is an important part of the argument for the Boulevard-Underpass Alternative. For this reason, this proposal deals not only I-395's redesign, but also with its major area of influence as part of a comprehensive vision for this part of downtown Miami. This plan includes:

- Recommendations to build a light rail, elevated line from the Metrorail, Arena station towards the Design District and Little Haiti along the FEC right-of-way.
- Recommendations to build a major commuter hub at the Arena Station and a new City of Miami, City Hall with World Trade Center offices on the site of the Miami Arena.
- Recommendations to establish water bus and taxi service from Bicentennial Park to other parts of the county.
- A plan for integrating the Performing Arts Center, Bicentennial Park, and the art and science museums into a cultural-recreational complex.
- Preliminary design guidelines for the blocks lining the boulevard and the proposed Miami Art Museum site.
- A proposed "Great Basin" at Bicentennial Park where people can stroll along the water's edge, dine on floating restaurants, ride on paddle boats and visit historical ships.

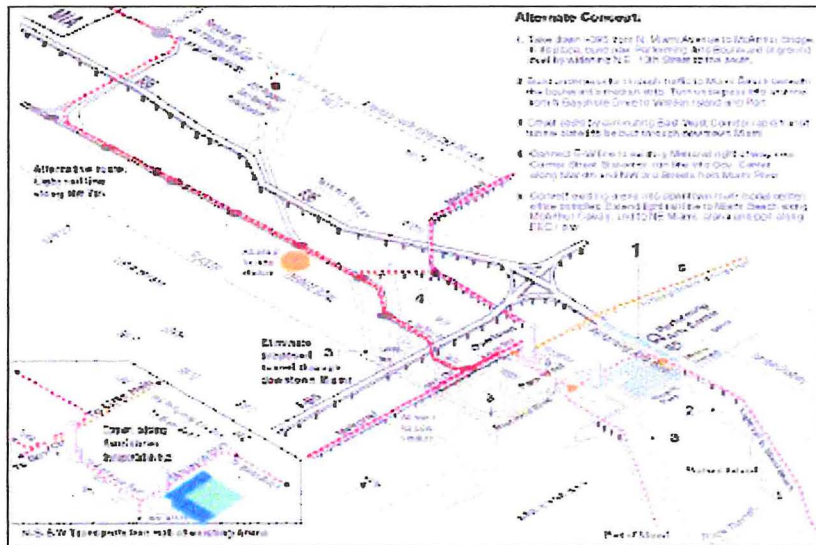
Benefits of the broader Boulevard-Underpass plan:

- Improves downtown Miami's transportation network and provides an out-of-view route for Port bound trucks.
- Eliminates the festering, crime prone conditions along I-395's path and repairs downtown's urban fabric.
- Creates a new economic engine at the Miami Arena site for Overtown and Park West's revitalization.
- Turns blighted land into productive property suitable for high-end residential/mixed-use development.
- Provides an appropriate setting for the Performing Arts Center and conveys a positive image of Miami.
- Creates ample sites for the Miami Art and the Miami Science museums.
- Eliminates the barrier between the Central Business District and the Performing Arts Center District.
- Opens the Performing Arts Center to Bicentennial Park and Biscayne Bay.
- Increases City and County revenues.
- Can be initiated in two to three years with a relatively modest investment.
- Provides a basis for developers to plan new investments in the area.
- Places City government in the heart of Miami and conveys a strong

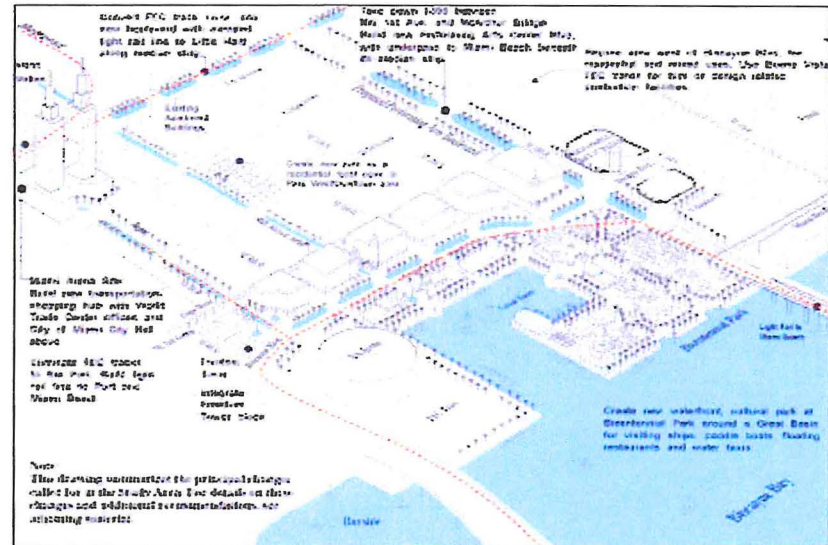
The proposal as part of a comprehensive vision for the area



Water bus service from Bicentennial Park reduces downtown traffic congestion



Replacing FEC tracks with a light rail line fills a need and solves I-395 problem



A "Great Basin" at Bicentennial Park for paddle boats and floating restaurants



New transit hub and office complex on Miami Arena site helps revitalize Overtown

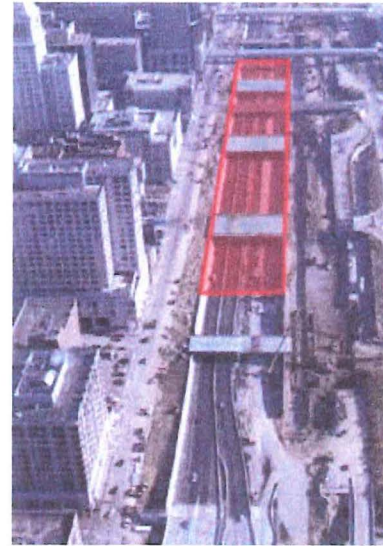
Underpass characteristics and precedents

Technical characteristics and precedents: It is important to understand that the proposed underpass is not a tunnel, but a depressed roadway covered by a landscaped structure. This makes a major difference in the way it is built, ventilated and maintained; as well as in how it meets special requirements such as emergency access, potential fires and other hazards. It also affects costs, clearance requirements and whether the project can be implemented and financed on an incremental basis.

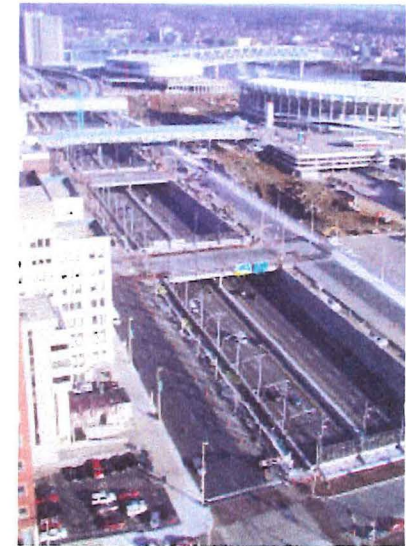
A tunnel is usually buried deep beneath the ground and is designed to carry extremely high loads. Because most tunnels are relatively long, they require special ventilation, drainage and other support systems. After the devastating fire in the Mont Blanc tunnel, they must now be designed with special fire resistant walls, emergency shelters and a host of other safety provisions. But such tunnels are radically different in scale and complexity from the underpass proposal presented here. The Mont Blanc tunnel is approximately 11.6 kilometers in length and burrows through the French and Italian Alps about five thousand feet below the mountain top at its mid point. As in the case of other Alpine tunnels where major fires and accidents have occurred, this is a major engineering undertaking.

The depressed roadway in the Boulevard-Underpass Alternative will be three to four city blocks long. The covering structure will be about six to eight feet in depth. Covering the structure will require special ventilation, safety and drainage features; but in this, it does not even begin to approximate the systems required in major tunnels. Moreover, the covering structure will carry comparatively minimal loads and can be left open in some points for ventilation and access. This is a matter of detailed design.

The adjoining illustrations provide a good example of the Boulevard-Underpass concept. It is interesting to note Fort Washington Way was left open for years; but it is now in the process of being covered as shown in the top left hand photo. The area above will have a variety of uses, including recreational activities.



Fort Washington Way, a depressed freeway in Cincinnati is now being covered



A Barcelona boulevard with a depressed open freeway in the middle



A Harvard University underpass preserves the integrity of the campus



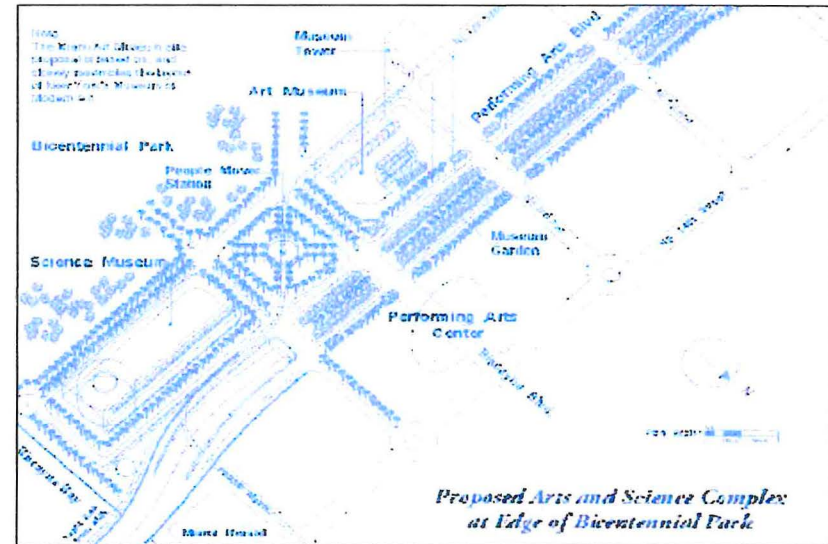
Museum sites and buildings lining the Boulevard

The Proposed Museum Sites: This proposal calls for building the Miami Art Museum and the Miami Science Museum on recuperated land after I-395 is taken down. The Science Museum would face Bicentennial Park. The Art Museum would be located across the boulevard from the Performing Arts Center. As the most valuable property of the newly created blocks, the art museum site presents a special challenge: Economic objectives call for making the most out of this site by building a tower overlooking the park. Such a structure, however, would block the Performing Arts Center. To solve this problem and provide both the museum and the City of Miami with a revenue base, a volumetric plan similar to New York's Museum of Modern Art is proposed here. Designed around a sculpture garden facing the Opera House, The Miami Art Museum would occupy the first six to eight stories of the block. A tower similar to the one designed by Cesar Pelli for New York's MOMA would be incorporated into the design at the west end of the site to avoid intruding on the Opera House's view of Bicentennial Park.

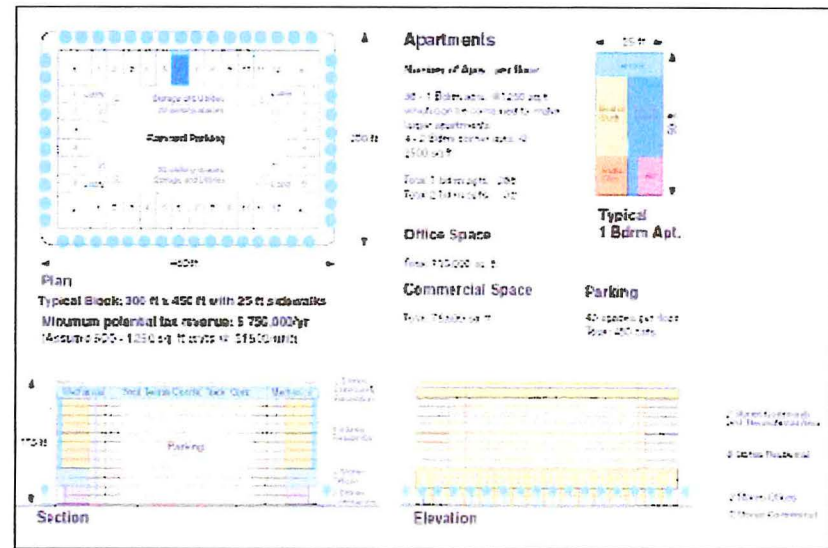
Buildings Lining the Boulevard: Buildings on either side of the boulevard would include shops and restaurants at ground level, two floors of office space and eight floors of residential space. Designed and built as part of a unified plan for new city blocks, these buildings would be served by ample parking cores.



Examples of buildings lining the boulevard



The plan offers ample sites for the art and science museums near the PAC



Design guidelines for buildings lining Boulevard

A Menu of alternatives

The Boulevard-Underpass Alternative highlighted in this study is one of several possibilities within the range of at-grade plus below ground alternatives for resolving the I-395 issue. These possibilities include building:

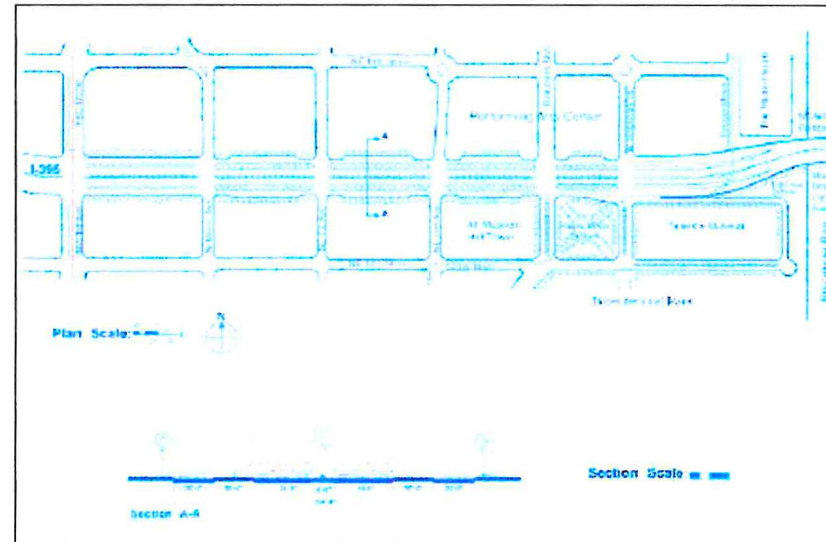
- 1) A boulevard with a depressed, uncovered roadway in the middle;
- 2) A boulevard with an underpass between NE Miami Avenue and N. Bayshore Drive;
- 3) A boulevard with an underpass between NE 1st Avenue and N. Bayshore Drive;
- 4) An boulevard with a short underpass between NE 2nd Avenue and N. Bayshore Drive.

Some of these options are more desirable than others; but any of the above alternatives satisfies one of the most important goal of this project: taking down I-395.

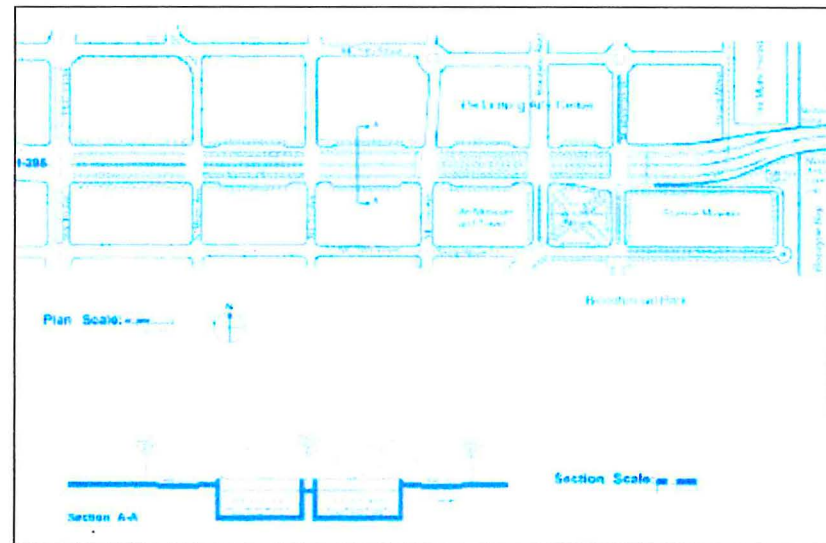
These alternatives are not mutually exclusive and can be thought of as part of a menu that can be combined in several ways. For example, the project can begin with the boulevard alone. Subsequently, a depressed roadway can be built in its median, and covered only at certain points, i.e., the vicinity of the Performing Arts Center. As additional funding becomes available, other parts of the depressed roadway can be covered.

It is important to note that throughout most of the construction process, I-395 structure will be untouched. Traffic can flow in the same way as it does today. This point is discussed further in the "Implementation Strategy" section of this proposal.

The cost estimate prepared for this study has been structured to provide a basis for determining the cost of the boulevard independent of the underpass.



An at-grade Boulevard alone at a fraction of the cost of the Elevated Alternative



An at-grade boulevard with an underpass from NE 2nd Ave. to N. Bayshore Dr.

Implementation and Costs

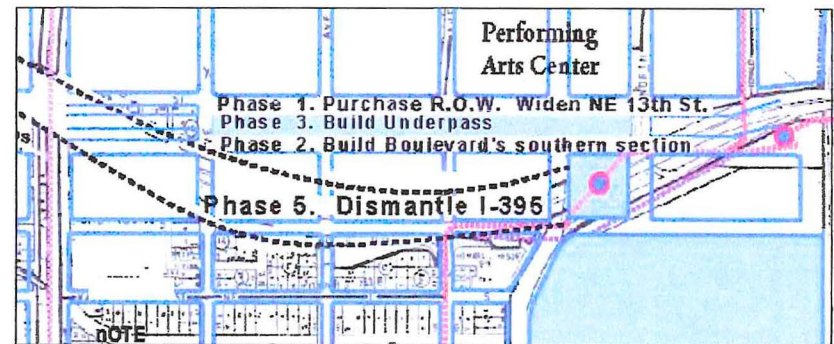
Implementation: This project is designed to be implemented in phases that can be financed as separate packages in a joint City, County, State and Federal effort. The initial part of the project is limited to building most of the boulevard and can be carried out as an independent project. Building the underpass, its access ramps and taking down I-395 can be done later.

Boulevard costs: Based on FDOT data, the cost of building a six-lane boulevard with 15 ft. wide sidewalks, landscaping and lighting is approximately \$3.5 million. Assuming right-of-way land is purchased before the end of 2003 at \$100/sq.ft. (In April 2002 land sold for \$80/sq. ft.) the cost of purchasing approximately 200,000 sq. ft. of right-of way land is approximately \$20 million. The cost of building the boulevard is approximately \$23.5 million.

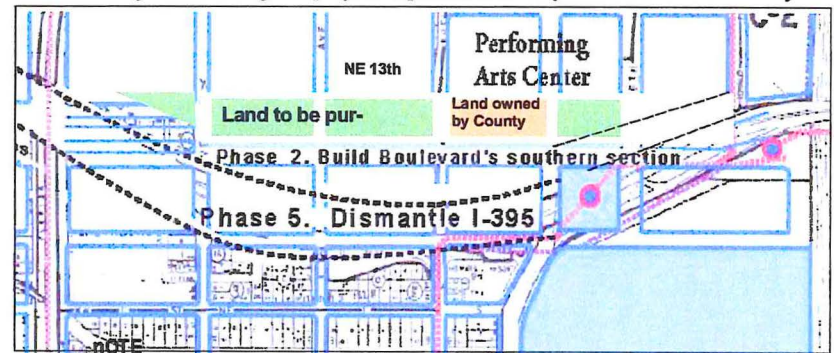
Implementation: The Boulevard can be built as a public works project within the next two to five years, without touching or disrupting I-395. Implementing this phase of the project alone would immediately rehabilitate the blocks between NE 13th and NE 14th Streets from Biscayne Blvd. to N. Miami Ave. and bring about a considerable change in the area.

Funding: Funds for purchasing right-of-way land can be obtained through an *Infrastructure Finance and Innovation Act*, (TIFIA) loan to be repaid when I-395 is taken down. Boulevard construction costs can be paid for through city and/or county bond issues.

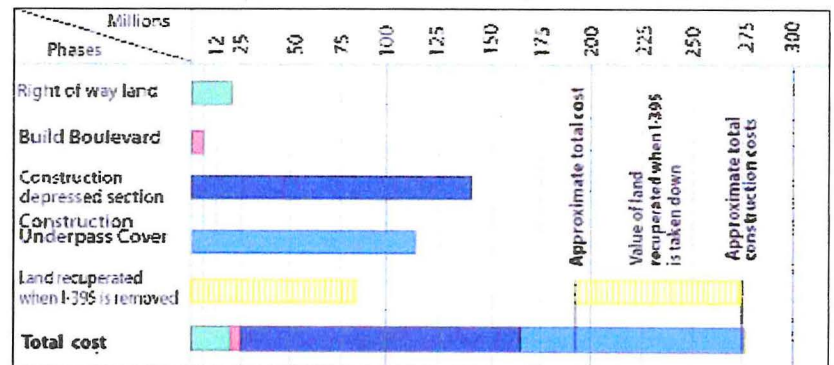
Total costs: The cost of building a six-lane, 120 ft. wide underpass (about 25% wider than most six-lane tunnels) and taking down I-395 is approximately \$241.5 million. The cost of building the boulevard and the underpass is approximately \$273 million. However, since a substantial amount of land will be recuperated once I-395 is taken down, the market value of this land ten to fifteen years from now has to be factored into the equation. The value of the recuperated land when I-395 is taken down is estimated to be approximately \$84 million. Subtracting this amount from the \$273 million, the total cost of the Boulevard-Underpass Alternative is approximately \$189 million. This number can be lowered considerably by narrowing the width of the underpass to 100 feet, a number more consistent with standard underpass/tunnel design dimensions, or by reducing the length of the underpass by one block.



Financing and building this project in phases is the key to its economic viability



Purchase land between NE 13th Street and I-395 for Boulevard right-of-way

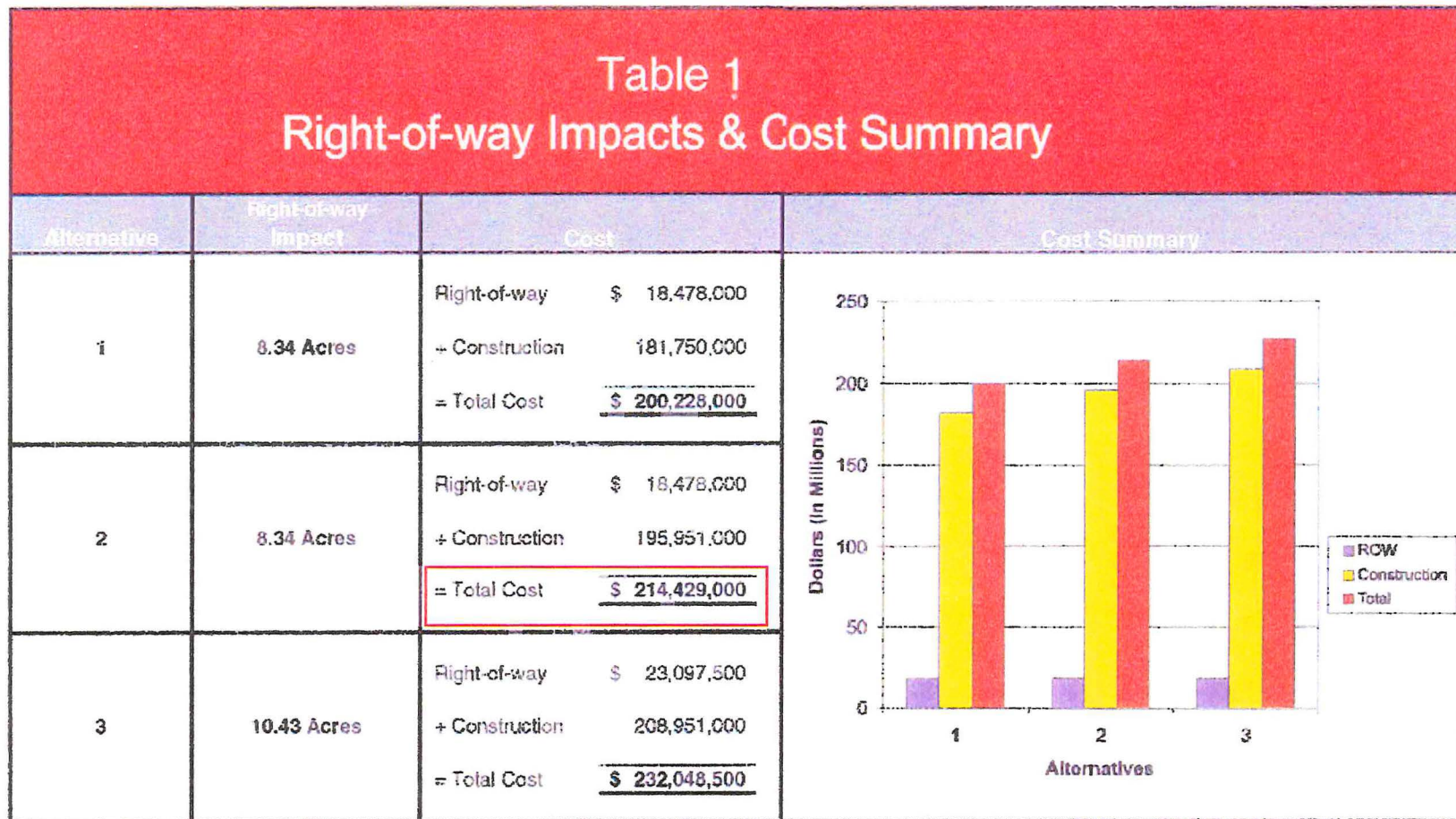


Summary of Boulevard-Underpass Alternative Costs

FDOT Cost estimates for earlier Boulevard-Underpass proposals

FDOT estimated the costs of three variations of the Boulevard-Underpass Alternative in a February 1999 document entitled: An Evaluation of Proposed Alternatives for the Reconstruction of I-395. The following table

from this document shows the construction estimates plus right-of-way costs for each of these alternatives. The Modified Urban Watch Alternative developed by FDOT is based on Alternative 2.



This table shows that the cost of any of these alternatives is below the \$250 million range, according to FDOT's own estimates.

Miami Urban Watch Cost Estimate P. 1

Assume 120 ft Underpass

Phase 1-3 Construction of Boulevard Only

Item Description		Estimated Quantity	Unit Price	Total
Clearing and grubbing		6 acres	\$7,000/ac	\$ 42,000
6 lane Blvd., 5ft. sidewalks, lights, mobil., sign. regular drain.		4 miles	\$4,375,000/mile	\$ 1,750,000
Additional 10ft of sidewalk area on either side	1750 ft x 2 x 10ft =	35,000sq ft	\$3/sq ft	\$ 106,000
Landscaping and irrigation median and sidewalks	1750ft.x120ft =	210,000sq ft	\$2/sq ft	\$ 420,000
Additional lighting			10% blvd. Cost	\$ 175,000
Additional signalization, Signage and Pavement marking			10% blvd. Cost	\$ 175,000
Additional drainage			10% blvd. Cost	\$ 175,000
Sub-total				\$ 2,843,000
Contingencies			15% of sub total	\$ 427,000
Right of Way Costs (Cost per sq.ft based on 2/27/02 land sales information.		App. 200,000 sq. ft	Av. \$100/sq ft	\$ 20,000,000
<u>Total cost of at-grade boulevard construction and right-of-way</u>				<u>\$ 23,270,000</u>

Phase 4-6 Construction of underpass, ramps and demolition of I-395

Item Description		Estimated Quantity	Unit Price	Total
Modif. to exist. struct. (new ramps) NW 3 rd -NW 1 st Ave.	250'x1000ft =	250,000 sq ft	\$ 60/sq ft	\$ 15,000,000
Tunnel approach section NW 1 st Ave. – N. Miami Ave.	120'x 600ft =	72,000 sq ft	\$200/sq ft	\$ 14,400,000
Cut and Cover tunnel N. Miami Ave-N.Bayshore Dr.	2000'x120ft =	240,000 sq ft	\$400/sq ft	\$ 96,000,000
Underpass approach from MacArthur Bridge	120'x 800ft =	96,000 sq ft	\$200/sq ft	\$ 19,200,000
Retaining walls		18,000 sq ft	\$32/sq ft	\$ 576,000
Flood Walls		58,200 sq ft	\$30/sq ft	\$ 1,746,000
Street decking		3,250 sq yds	\$300/sq yd	\$ 975,000
Demolition existing structure	4,500 x 200ft =	900,000 sq ft	\$10/sq ft	\$ 9,000,000
Sub Total				\$ 156,897,000

Miami Urban Watch Cost Estimate P. 2

Sub Total from previous page			\$ 156,897,000
Lighting	2x FDOT estimate		\$ 600,000
Signalization, signs and pavement markings	FDOT estimate		\$ 750,000
Drainage	20% of sub total		\$ 31,393,400
Contingencies	20% of sub total		\$ 31,393,400
Mobilization	10% of sub total		\$ 15,967,000
Utility relocation			\$ 4,000,000
Additional right of way	8,000 sq. ft	\$80/sq.ft.	\$ 640,000
<u>Total cost of Underpass construction</u>			<u>\$ 241,640,800</u>

Total Boulevard-Underpass Implementation Costs

Total cost of at-grade boulevard construction	\$ 23,270,000
Total cost of underpass construction	\$ 241,640,800
Approximate cost of decontaminating land	\$ 8,000,000
<u>Total cost of Boulevard-Underpass construction, ROW and site decontamination</u>	<u>\$ 272,910,800</u>

Minus value of recuperated land when I-395 is taken down

Amount of recuperated land beneath I-395: Approximately 562,000 sq. ft.	\$ 84,300,000
Value of land: 562,000 sq.ft. @ \$150/sq.ft	
(Above figure is based on hypothesis that by 2012 land values near PAC will have increased by at least 50%)	

Total Boulevard/Underpass Alternative Costs after factoring in cost of recuperated land

Total cost of Boulevard-Underpass Alternative construction:	\$ 272,910,800
Minus value of recuperated land:	— \$ 84,300,000
<u>Total Cost after factoring in cost of recuperated land:</u>	<u>\$ 188,610,800</u>

Objections to the Miami Urban Watch Alternative

At the beginning of the study, meetings were held to identify objection to this proposal or any other potential problem. Participants at these meetings included: FDOT, Miami-Dade County and City of Miami officials; civic, cultural and community organizations; and firms working on related projects. The following were the major issues and specific problems identified during these meetings:

FEC tracks to the Port: This was considered to be the most critical factor affecting the outcome and viability of this project. FDOT argued that any proposal to bring down I-395 had to comply with a 23.5 feet clearance requirement between the underside of the proposed structure and the FEC tracks running parallel to NW 1st Avenue. This condition together with the limited distance between the FEC tracks and the point where I-395 would meet the ground places severe constraints on most options. As noted earlier, FDOT's own proposal required depressing the tracks at a very high cost.

Potential Flooding Problems: FDOT officials pointed out that, due to its location, the underpass could have severe flooding problems and negatively impact Miami Beach's evacuation under hurricane conditions.

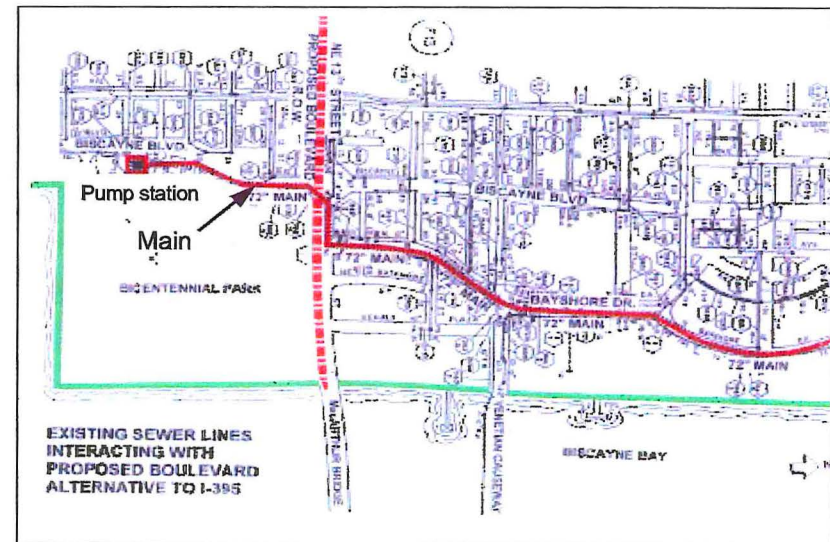
Conflict with 72" Main: County engineers noted that a 72" pipe connecting to the Pump Station at Bicentennial Park crosses NE 13th Street near Biscayne Boulevard. This pipe would obstruct the underpass.

Contaminated land in the vicinity of the proposed underpass: A number of potentially contaminated sites were identified within the boundaries of the Boulevard-Underpass proposal. Decontaminating this site could be extremely expensive.

Costs: Considering that there are no available funds for I-395 and the Boulevard-Underpass was more expensive than the Elevated option, FDOT and MPO officials argued that this was an economically unrealistic proposal.



A clearance of 23.5 feet is required between the tracks and I-395



Path of 72" main

Response to FEC track crossing concerns



Currently used at most once a week, the FEC tracks provide little service to the Port, yet they create a no-man's land along their path and limit solutions to I-395

Response to FEC track crossing concerns

The FEC track problem: According to FDOT and MPO officials, the FEC railroad tracks running along NW 1st Avenue to the Port of Miami provide an indispensable service to the Port. The tracks are required in case of an emergency. If trade is initiated with Cuba, they will play a very important role in the shipment of goods from Miami. As such, they must be viewed as a fixed condition. Any proposal for bringing down I-395 must comply with the 23'-6" clearance requirement above the tracks. In fact, the FEC tracks actually provide minimal service to the Port. During the last two years alone, service has dwindled from one small train per day between midnight and dawn, to one train per week, according to Port officials. Considering the inevitable growth of the downtown area and the fact that the FEC tracks cut across a minimum of five major thoroughfares in the downtown area, including Biscayne Boulevard, it is highly unlikely that cargo service can be significantly increased along these tracks. Doing so would create major congestion/traffic delay problems in the area and increase the possibility of accidents in downtown Miami. The People Mover running along NE 2nd Avenue would block double stacked container trains.

Meanwhile, the FEC tracks cut dozens of city blocks into irregular pieces that are difficult to develop or build upon. Badly maintained and strewn with refuse, the FEC corridor projects a blighted image that reflects negatively on Miami. It also limits the integration and enhancement of sites such as the Freedom Tower block, and degrades this important landmark. Moreover, the FEC tracks create a no-man's land along NW 1st Avenue that together with I-395, I-95 and Metrorail essentially close off and isolate Overtown from the rest of Miami. There is no question that the FEC tracks are a major obstacle to downtown Miami's integration and revitalization. To resolve Overtown problems and provide environmental justice to the residents of this neighborhood, this problem needs to be addressed.

No doubt, a major port requires rail access; but no city that aspires to world class status can have a cargo railroad running through its downtown area. Dealing with this conflict has been put off for too long. It will inevitably have



The FEC tracks scar downtown Miami and degrade important landmarks



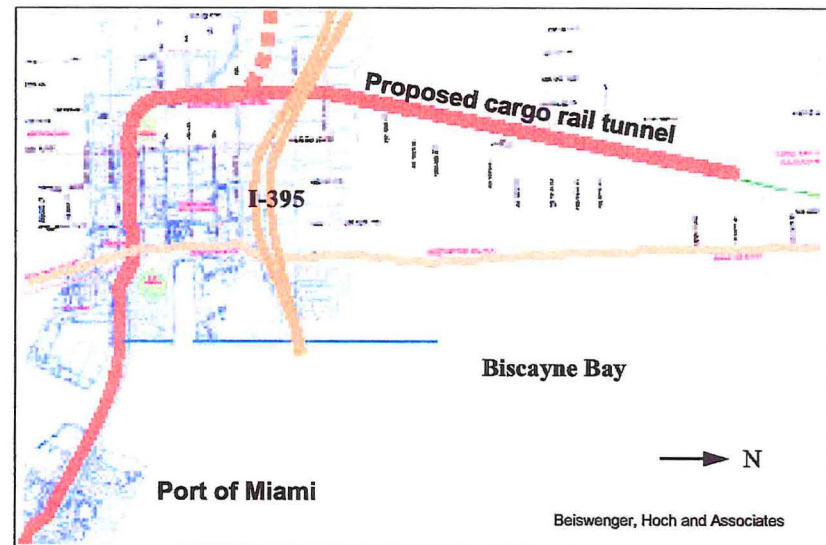
I-95, I-395, Metrorail and the FEC tracks isolate Overtown from the rest of Miami

Response to FEC track crossing concerns

to be resolved once and for all some time in the future. We might as well do it now while we still have some degree of flexibility. There is before us a once in a life time opportunity to deal with a number of major problems with a single comprehensive plan. To do this, we need to look at the other components of the problem.

The Port tunnel issue: In resolving the FEC track problem we need to step back and take a look at the problem of long term viable access to the Port. There is no question that the Port's access needs have to be resolved very soon. Given its location just across the Bay from downtown Miami and the fact that trucks leaving the Port have to maneuver through narrow streets to get to an expressway, the Port cannot move cargo with the speed that's required. If a solution to this problem is not in place, at the most, ten years from now, it may not be able to compete with other ports in South Florida, .

Building a truck tunnel from Watson Island to the Port has been considered one of the most viable solution to the port access problems and has been under study for several years. However, at the present, this project is almost at a stand still. It is arguable whether it can or should go ahead. Due to the relatively short distance between Watson Island and the Port, and the fact that the tunnel must go down at least sixty feet to clear the North Channel, the project is very complex. The tunnel's grade in some places exceeds 6.5%, - a very high slope for trucks. In addition, since the tunnel is in an area of high flood risk, any water that gets into the tunnel would have to be pumped out from a considerable depth. The projected cost of this tunnel is already close to \$ 1 billion. As a result of 9/11, additional bomb proof and escape features will have to be incorporated into the tunnel. This could easily take the cost far beyond the \$1 billion mark. Even if funding were found for this project, it would not necessarily solve the Port's access problem. Trucks would have to go onto I-395, a heavily traveled route. With the multiplicity of new projects in the downtown area and Watson Island, it is highly likely they would encounter or cause major congestion along this route. In any case, the Port would not have consistent service.



Proposed cargo rail tunnel to the Port

A cargo rail tunnel: The most viable proposal for solving the Port's long range access needs is a cargo rail tunnel such as the one discussed in the September 2000, Port of Miami access improvement study by Beiswenger, Hoch and Associates. This tunnel would follow the FEC or the CSX track right-of-way. While it would be longer than the Watson Island tunnel, building this tunnel would not present the problems of the truck tunnel. The advantage of this project is that it would provide unimpeded cargo rail access to the Port 24 hours a day. The cost of this tunnel is estimated to be approximately \$700 million, a lower figure than the current cost of the Watson Island tunnel. The fact that a considerable amount of money has already been invested in the Watson Island tunnel study, that it has already gone through much of the approval process, and that trucking unions would be opposed to the rail tunnel are among the reasons why this proposal has not been given the consideration it deserves.

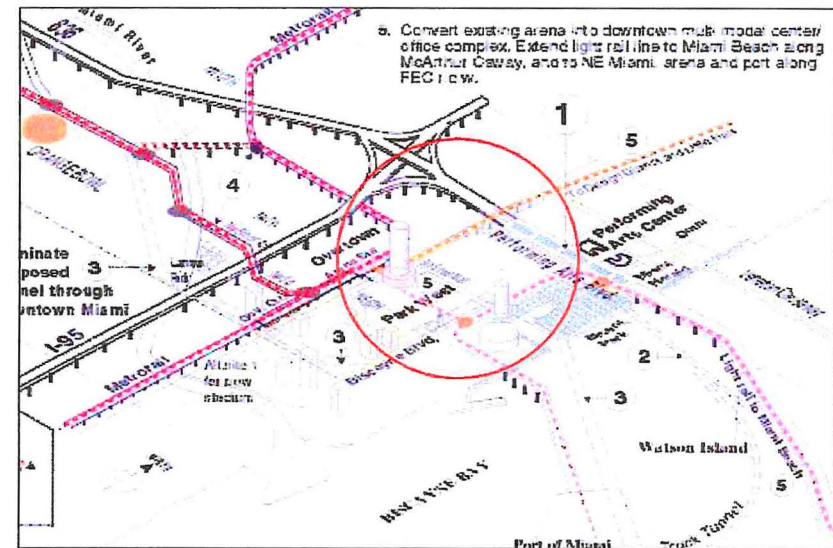
Response to FEC track crossing concerns - Alternative 1

Yet this proposal would not only solve the Port's access needs, but also resolve the I-395, FEC track crossing problem by doing away with the need for the at-grade railroad tracks.

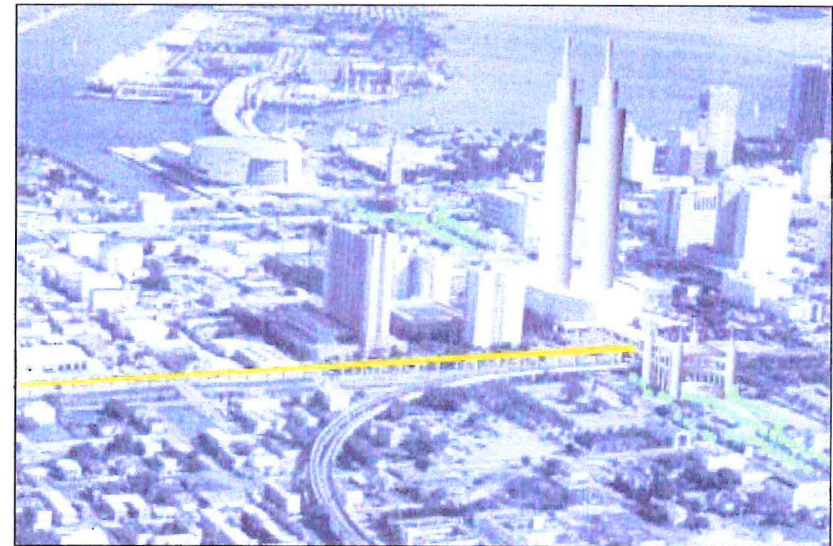
The following alternatives are based on the premise that the issue of I-395 should be addressed as part of a comprehensive plan that takes into account the above issues. Moreover, that existing FEC track conditions are subject to change and therefore the clearance limitation should not be immutable.

Alternative 1. This proposal calls for replacing the tracks with a light rail commuter line from the Metrorail Arena Station towards Little Haiti and other points along the northeast corridor. Crossing above I-395 at their intersection, this line would resolve the clearance problem and open the door to a host of possibilities for I-395's redesign. This idea is consistent with current studies for the FEC track corridor, as well as with statements by transportation officials about the need for a commuter rail line to serve the NE corridor and the consideration that the FEC right of way is the most logical place for this line.

Replacing the cargo tracks with a commuter line not only helps resolve existing traffic problems; but also gives rise to new possibilities for revitalizing downtown Miami and making better use of existing resources such as the Miami Arena. By joining the light rail line to Metrorail at the Arena Station, a new and highly active transportation hub would be created in the Park West-Overtown area. This hub could be charged with additional energy by building a new office complex on the site of the Miami Arena that could house the World Trade Center and a new City of Miami City Hall. This complex would provide hundreds of jobs for people in the area and dramatically change the social, economic and urban fabric in Overtown and Park West. By moving City Hall to this area, the City would demonstrate a strong commitment to revitalizing downtown Miami, establish a presence where there is none at the moment, and free a substantial amount of land in Coconut



Initial idea: Light rail commuter line running above I-395 at their crossing



New transit hub, makes better use of Miami Arena site and helps revitalize Overtown

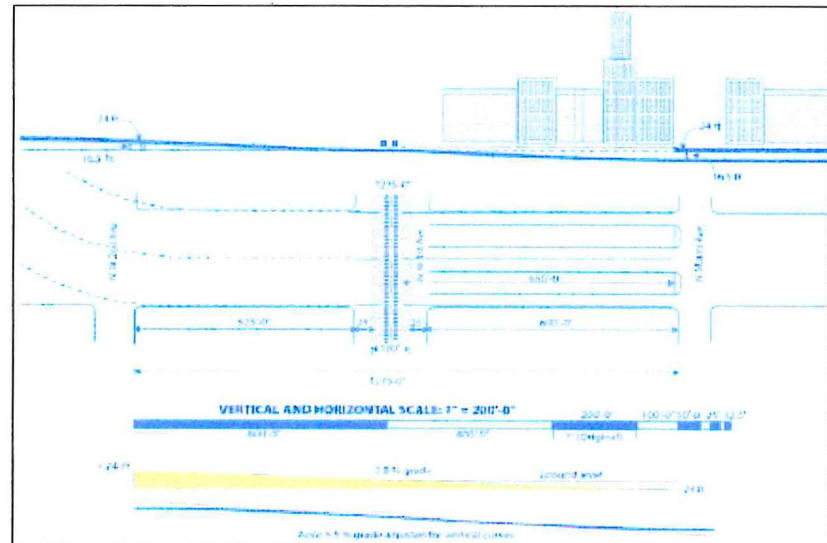
Response to FEC track crossing concerns - Alternative 2

Grove for better and more revenue producing uses.

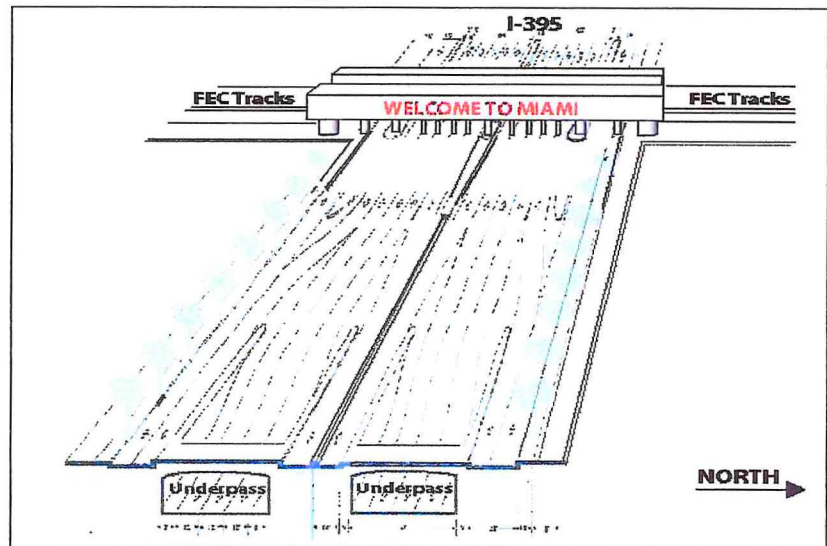
Alternative 2: Given the possibility that a decision about the future use of the FEC right-of-way may not be made any time soon, this option calls for taking down I-395 west of the FEC tracks and creating a well-guarded, at-grade crossing for the once-a-week train to the Port. Similar to a tollbooth plaza, the crossing would be designed as a portal to downtown Miami. This alternative would not be implemented for at least eight to twelve years and is viewed as a temporary measure while a more viable solution to the Port's access problems is implemented.

According to Glatting Jackson, Inc. the firm retained to evaluate this proposal, the at grade crossing works. The following are among the key conclusions of their report.

- Alignment of Proposed Boulevard is well within FDOT Guidelines.
- Weaving and merging operations are feasible and safe.
- Design speeds are appropriate for the function of proposed alternative.
- The at-grade Crossing at the Port Railroad Line is safe.
- Train delay will affect less than one percent of population.
- Traffic capacity of an at-grade Intersection on SR 836 is more than adequate.
- Vehicle storage space at signalized intersection on SR 836 is adequate.
- Access to the surface street system is greatly superior in the Boulevard Alternative.



At-grade crossing for the once a week train to the Port



View of provisional I-395 - FEC tracks at-grade crossing looking west

Response to FEC track crossing concerns - Alternative 3

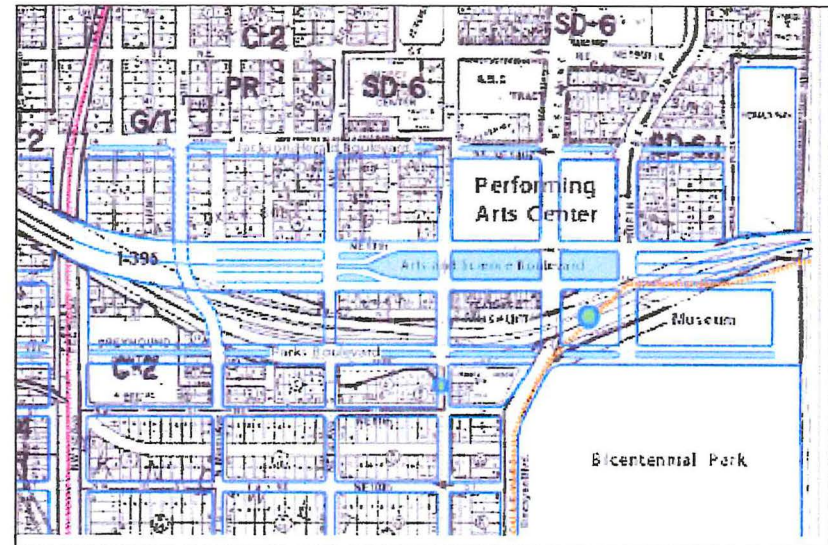
Alternative 3: This alternative responds to FDOT's concerns about the at-grade railroad crossing proposed in Alternative 2. This option would keep I-395 in its current position above the FEC tracks. I-395 would be brought down east of the tracks, arrive at ground level in the vicinity of N. Miami Avenue, and turn into an underpass just before NE 1st Avenue. The profile of this alternative is almost identical to FDOT's tunnel alternative T-6.

Despite the shorter length of the underpass, this alternative still accomplishes the major revitalization objectives for the downtown area. The second boulevard connecting Gibson and Bicentennial Park remains in place. So do the sites for the museums. The Performing Arts Center still opens up towards Bicentennial Park. There is little question, that even with a reduced underpass, investment in this project is more than justified.

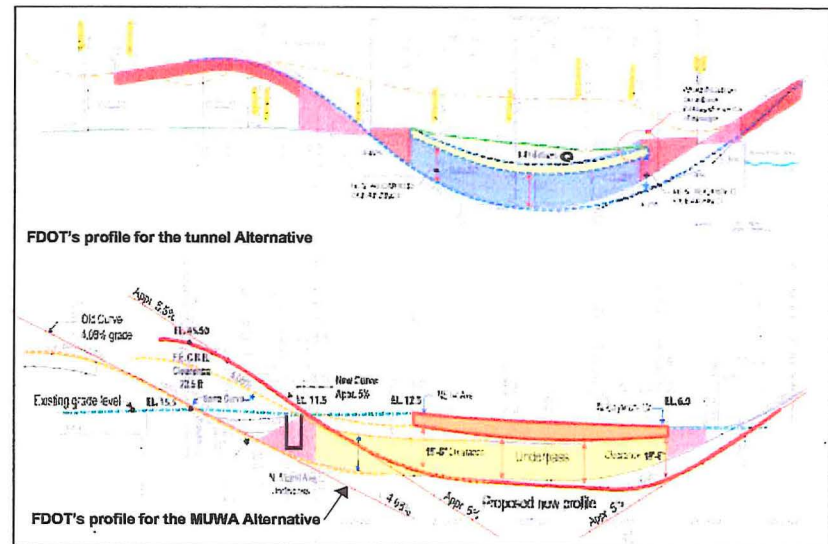
In addition, the proposal presents several advantages:

- 1) The cost of building the underpass is considerably reduced.
- 2) The amount of right-of-way land required is also reduced.
- 3) As the distance between the I-95/SR 836 Interchange and the underpass increases, weaving and merging conditions improve.
- 4) It responds to DDA plans and FDOT concerns about NW 1st Avenue.

The proposal's main shortcoming is that I-395 would block N. Miami Avenue. This would require rerouting traffic unto NW 1st Avenue. Otherwise, North Miami Avenue would have to run below I-395 at their juncture. This entails an additional cost. But this expense is more than offset by savings in the cost of the shortened boulevard's underpass. Considering the dilapidated conditions and number of empty lots along N. Miami Avenue, this proposal would not cause significant disruption in the area.



A shorter underpass fulfills the proposal's objectives and has several advantages



The revised concept is consistent with FDOT's own profiles for a depressed option

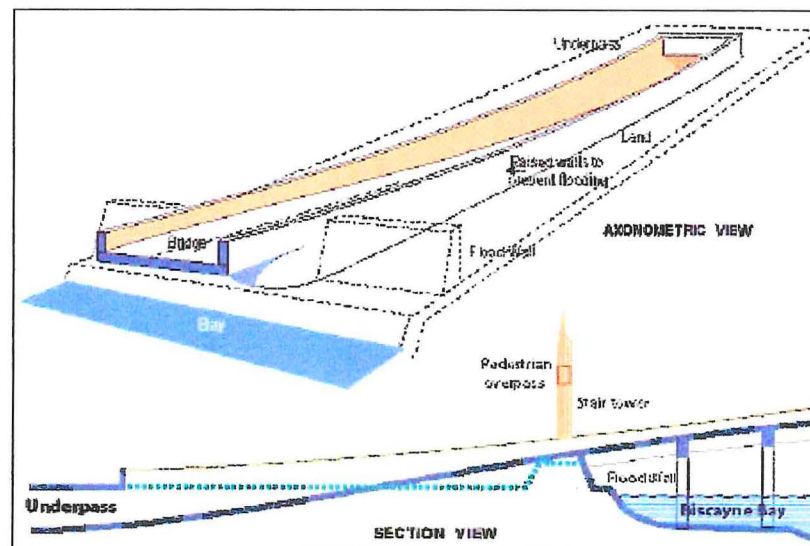
Response to other concerns

Potential flooding problems: In locations such as the one where the underpass would be built, potential tunnel flooding problems are solved by building a raised portal at a tunnel's entrance above the flood line. This is how the Watson Island – Port of Miami tunnel would address this issue. In the case of I-395, the section the MacArthur Bridge at the edge of the bay can be turned into part of that portal. By building floodwalls on either side of the bridge's base to the required height, potential flooding problems can be averted.

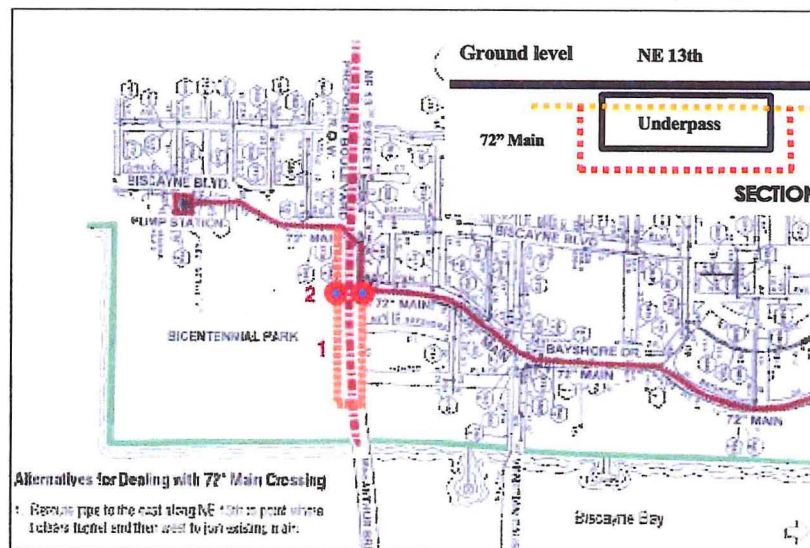
72" main: There are three ways by which this problem can be addressed. One is by running the pipe between ground level and the top of the underpass. Another is by rerouting the line towards the east to a point where its crossing no longer affects the underpass. The third alternative is by sinking the pipe beneath the underpass at NE 13th Street. Costs and implementation issues will determine the best option.

Contaminated land: This issue affects not only the proposed underpass, but also, other projects including the Elevated Alternative. To reduce limitations on future development, this issue should be addressed promptly and in a comprehensive manner by all pertinent entities. According to an official from the Department of Environmental Resource Management (DERM), it is difficult to determine the cost of decontaminating the land along the proposed underpass without further study. Nevertheless, since this item is primarily a matter of excavating and taking away contaminated land, its cost should not be as high as if the land had been decontaminated and put back in place. Based on previous DERM experience, this amount may be in the \$8 to \$10 million range. State and federal funds are available to assess and assist in cleanup efforts.

Cost: The cost analysis included in this study shows that when land values are factored into the equation, the difference in costs between the Elevated and the Boulevard-Underpass Alternative is considerably reduced. Because the Boulevard-Underpass Alternative can be carried out in phases with a variety of financing options, arguably, it has a better chance of being implemented than the Elevated option.



Potential flooding problems can be averted with a raised portal and adjacent flood walls



The problem with 72" Main obstructing the underpass can be addressed in several

Miami Urban Watch Alternative vs. FDOT's Preferred Alternative

Functionality: The Elevated Alternative has been under study for a considerable time; therefore, it should present few, if any functional problems. The Miami Urban Watch Alternative is in its early stage of development and, according to FDOT, still presents problems, particularly at the FEC track crossing. These problems can be resolved in one of two ways: 1) Through negotiation with the FEC railway to build a much needed light rail line to the northeastern part of the county. Since the line would cross above I-395, the railway crossing issue would cease to exist. 2) Through a more detailed design study of the FEC crossing.

Impact on downtown Miami's urban environment: Considering that the Elevated Alternative is similar to, but wider than the existing structure, this solution promises little in terms of repairing Miami's urban fabric and is likely to worsen social and economic conditions in the area. The Miami Urban Watch Alternative would dramatically improve Downtown Miami's urban landscape and help create a lively, mixed-use, pedestrian-friendly community.

Technical and other environmental considerations: From a technical perspective, the Elevated Alternative is a relatively simple project. However, its construction will disrupt travel along I-395 for several years. The Miami Urban Watch Alternative may not be as simple as the Elevated option. However, it is not as complex as a tunnel boring project. The initial phase - building most of the at grade boulevard - is comparable to a street improvement project that would have little, if any impact on I-395 or the surrounding area. Building the underpass with a cut-and-cover system is similar to the kind of work that is routinely done when building a skyscraper's foundations. Covering the trench would be similar to laying a first floor slab. The design would take into account the high water table conditions in this area and incorporate the required drainage system. As different from complex projects such as Boston's "Big Dig" the proposed underpass would be built through a relatively open and unobstructed area. Construction staging and hauling extracted materials from the site would be a relatively straight forward process.



The Elevated Alternative: A structure similar to, but wider than the existing I-395



The Boulevard-Underpass Alternative: A dramatically new urban environment

Miami Urban Watch Alternative vs. FDOT's Preferred Alternative

Implementation feasibility: the Elevated Alternative has been on hold for the past eight years because of opposition to this project by the downtown community. This opposition has grown in recent years and it is likely to increase further. For this reason, it is doubtful whether this alternative can ever be implemented. But even if public opposition were to decrease, Miami would have to wait ten to fifteen years before the Elevated Alternative gets underway. This would significantly slow-down current revitalization efforts and create major traffic problems around the Performing Arts Center when construction begins.

On the other hand, for a relatively modest investment on the part of the City of Miami and Miami-Dade County, implementation of the Miami Urban Watch Alternative can be initiated within a year or two as part of a public works program. This would 1) send a strong message to the development community that Miami is serious about revitalizing the downtown area; 2) significantly improve Miami's urban core in a relatively short time; and 3) increase the productivity of the area and generate revenues far sooner than expected.

Costs: According to the FDOT, the cost of building the Elevated Alternative is approximately \$57.5 million in 2002 dollars. This figure will increase if construction is not initiated within the next ten years. The cost of purchasing approximately 318,424 sq.ft. of right-of-way land (figure provided by FDOT), assuming an average cost of \$120/sq. ft. multiplied by a factor of 2 is approximately \$76.5 million. This assumes that the cost of land in the area will have risen by at least 20% of the current \$100/sq.ft. estimated market value in five years. Once the Performing Arts Center is built, property owners will be more resistant to selling land than they may be now. Properties will have to be obtained through an Order of Taking. According to FDOT officials, the market value of the land has to be doubled when doing a cost estimate to account for legal procedures. Excluding utility relocation and environmental cleanup expenses, the total cost of the Elevated Alternative is approximately \$134 million. Considering the \$189 million approximate cost of the Boulevard-Underpass Alternative, the difference between the two proposals is about \$55 million.

However, in looking at this figure several points should be considered: 1) the \$76.5 million spent on right-of-way acquisition for the Elevated Alternative would be lost beneath the structure. 2) Right-of-way funds for the Miami Urban Watch Alternative will be totally recuperated when I-395 is taken down. 3) New revenues generated by this alternative have not been factored into the equation. 4) The \$55 million difference can be viewed an investment in creating a new public space in Miami and helping to revitalize the downtown area.

Broader economic issues: While the Elevated Alternative creates jobs only during its construction, The Miami Urban Watch Alternative creates jobs, not only during its construction, but also after the project is finished with the construction of new buildings along the boulevard and its vicinity. The Elevated Alternative does not increase the productivity of land adjacent to its footprint, nor does it generate new revenues. The Boulevard-Underpass Alternative increases the productivity and value of properties in the area. It also recuperates a large amount of land buried beneath I-395 and turns it into revenue producing property.

Funding: Experience of cities such as Portland, Oregon shows that transportation needs can be solved more economically, efficiently and far quicker than expected if, instead of relying exclusively on the federal transportation funds to cover most of a project's expenses and going through the long approval process this entails, a city or a county seeks a variety of funding sources and partnerships at a local and regional level to get a project off the ground. The Boulevard-Underpass Alternative has been designed with Portland's experience and funding strategy in mind. Right-of-way land can be purchased with a TIFIA loan to be paid back when I-395 is torn down and the land is sold. Building the boulevard can be financed with City of Miami or Miami-Dade County bonds. As different from the Elevated Alternative which is solely a transportation project, the Boulevard-Underpass Alternative is both a transportation and an urban revitalization project. This can open the door to additional funding sources for the underpass that would not be available for the Elevated Alternative.

Miami Urban Watch Alternative vs. FDOT's Preferred Alternative

FDOT's Preferred Alternative (Elevated Structure) Total Costs

Construction cost: (Based on information furnished by FDOT consultants)	\$ 57,590,298
ROW acquisition: Purchase approx. 318,424 sq ft. (Fig. provided by FDOT) @ \$ 120/sq.ft. x 2	\$ 76,421,760

(The above figure is based on the following assumptions: 1) FDOT would not be purchasing r.o.w land before 2010.

2) The average cost of r.o.w land at the time of purchase will be at least \$120/sq.ft

3) Properties would have to be purchased by Eminent Domain.

4) Under Eminent Domain, the r.o.w. market value of the land must be doubled to account for litigation and other expenses
According to FDOT.

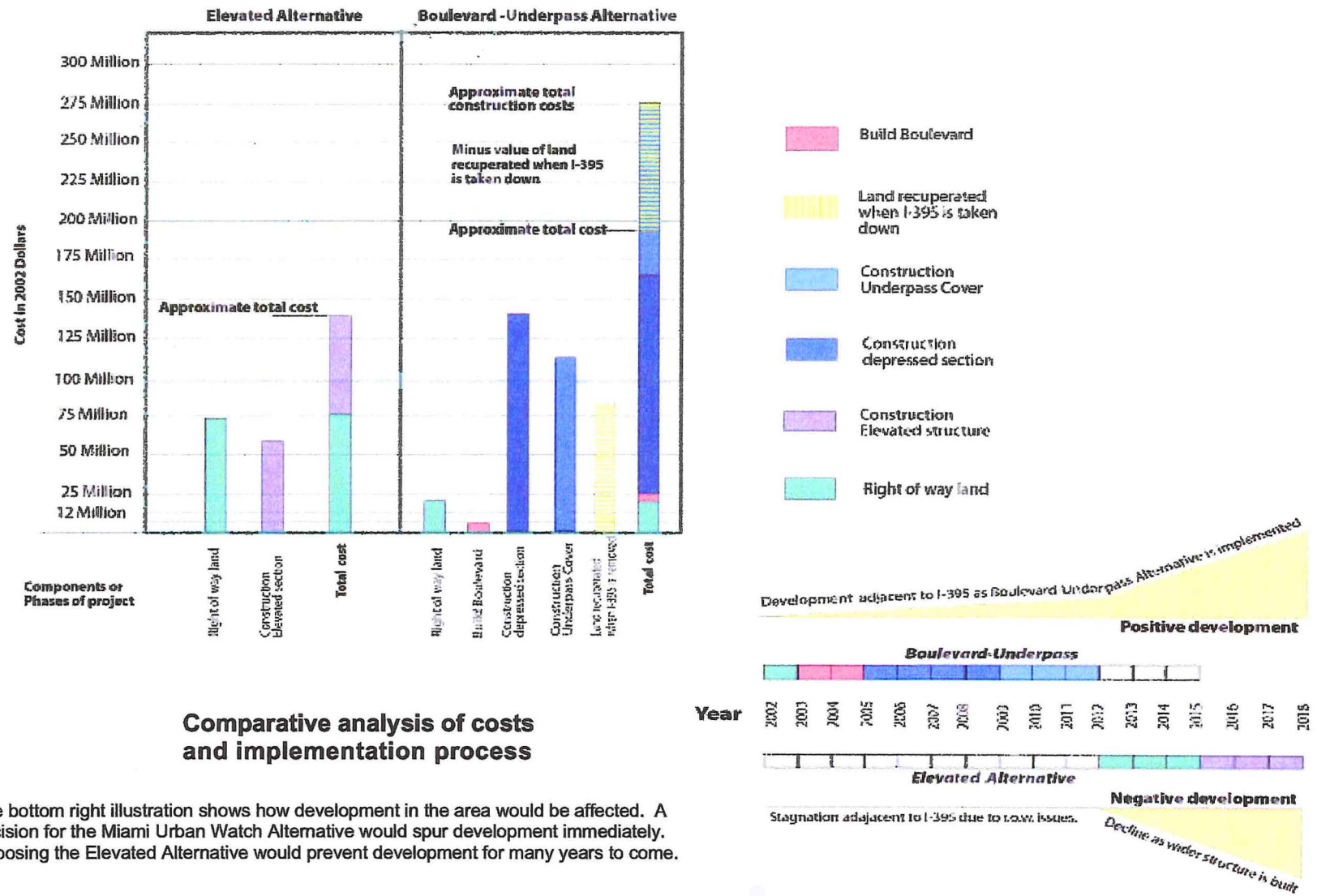
Potential Utility relocation and soil decontamination costs. (Assuming work would begin by 2010)	\$ 4,000,000
	<u>\$138,012,058</u>

Total cost:

Cost difference between the Preferred Alternative and the Boulevard-Underpass Alternative

Total Miami Urban Watch Alternative costs after factoring in cost of recuperated land	\$ 188,610,800
Total cost of the Elevated Alternative:	\$ 138,012,058
	<u>\$ 50,598,742</u>
<u>Difference:</u> (This amount can be viewed as an investment in revitalizing the downtown area)	

The Miami Urban Watch Alternative vs. FDOT's Preferred Alternative



Conclusions and general recommendations

Conclusions: Glatting-Jackson's assessment of the Miami Urban Watch Alternative demonstrates that this proposal works from a traffic planning point of view. The study as a whole shows that this proposal is far superior to the Elevated Alternative in terms of addressing a broad range of issues particularly downtown revitalization concerns. The adjoining cost estimate and comparative economic analysis demonstrates that this is not only an economically viable option, but also provides far more value for the investment. In terms of implementation, the Boulevard-Underpass Alternative can be initiated far sooner than the Elevated Option.

A key point that emerges from a detailed cost analysis of both the Miami Urban Watch and the Elevated Alternatives is that land values, particularly in a downtown environment, play a pivotal role in the final cost of these proposals. The Elevated Structure may be cheaper to build, but the costs of purchasing right-of-way land in the distant future more than doubles the cost of this project. Considering the fact that this land will be buried beneath the structure, this proposal does not make for a wise investment.

The Miami Urban Watch Alternative may be more expensive to build, but the value of the land recuperated once I-395 is taken down lowers this amount considerably. Additional socio-economic benefits and revenues generated by turning blighted land along I-395's path into highly productive property, offset construction costs even more. As a whole, the Miami Urban Watch Alternative provides a higher return on the investment. It generates more jobs; creates new public spaces where there is now a barren area; dramatically changes the character of the area, and provides a major boost to downtown Miami's revitalization.

The principal problem with the Miami Urban Watch Alternative arises from its relationship to the FEC track crossing, according to FDOT. This study shows that the FEC track crossing is a debatable issue that needs to be looked at in the light of broader Port access issues. Furthermore, it provides at least two viable solutions to deal with this problem. One of these alternatives leaves I-395 as it is above the FEC tracks and complies with

FDOT clearance conditions. The profile of this last variation is almost identical to FDOT's profile for its Tunnel Alternative (T-6). This option was carefully scrutinized in FDOT's 1994 study and was chosen as one of two semi-finalists for further study, out of eighteen possibilities. Would this alternative have made it as far if its profile were flawed?

This study argues that FEC track problem is not just a design issue. It is also a matter of transportation and urban development policies and priorities that need to be addressed in the very near future as part of a comprehensive plan for downtown Miami and future access to the Port. Should a decision be made to include a light rail line towards the northeast along the FEC right-of-way, the I-395 – FEC track crossing issue would cease to exist.

General Recommendations: To achieve a well-balanced and successful environment, transportation, land-use planning and urban design have to be carried out in unison. So do the efforts of local, city, county and state agencies. Many of the problems we have in Miami today are due to the fact that these activities are undertaken independently of each other without a comprehensive plan of action or with little coordination between the various levels of government. This needs to change if we are going to make any headway in dealing with Miami's urban and transportation problems.

Considering that the reconstruction of I-395 is a complex issue that incorporates both transportation and urban planning and design matters, the overall recommendation of this report is that future work on I-395 be carried out, not by a single agency, but by a special team comprised of transportation and land-use planners, urban designers, engineers and economists. Considering the impact of this project on a wide range of interests in downtown Miami's revitalization, a blue ribbon panel or special committee should be established to oversee the process. This group should include City of Miami, Miami-Dade County and FDOT officials, as well as civic and business leaders, representatives of institutions, community groups and other inter-

Specific recommendations for immediate action

ests in downtown Miami's revitalization.

Much discussion will have to take place about I-395 and related issues before a final decision is made on this matter. Nevertheless, a number of important decisions to advance this project can be made immediately, independent of the broader debate:

- Commission an economic impact/benefit analysis of the pros and cons of taking down I-395. This study should address a variety of issues ranging from land values and potential revenues to job creation benefits. It should also explore alternative funding sources and new financing strategies. This search should not be limited to I-395 construction issues. Instead, it should look for funding sources that encourage cooperation between different entities in solving problems such as those of downtown Miami and the Port in an integrated fashion.
 - Enlist the help of the Governor, state legislators, senators and congressmen in dealing with the totality of this issue, not just I-395, by emphasizing the importance of this project to South Florida's economy.
 - Eliminate the Elevated Alternative from further consideration. It may work well from an engineering perspective, but it presents major urban revitalization problems and has little to no chance of being implemented.
 - Limit further work on I-395 to alternatives that combine at-grade and below-grade sections. Evaluation criteria should include not only transportation concerns, but also urban environment issues. Submit these alternatives for public discussion.
 - Purchase right-of-way land along NE 13th Street as soon as possible. This is a critical step in keeping this project alive. Land values in the area are rising very quickly. There may still be a possibility of negotiating land deals without having to go through the eminent domain process. If this purchase is not made soon, the land may become too expensive. New initiatives by property owners may block further work.
- Taking step will send a clear message that City and County officials are fully committed to revitalizing the area. This will immediately spur development.
- Purchasing right-of-way land should be done by the City or the County. Doing this through FDOT would take too long. The \$20 million land cost can be financed through a TIFIA loan to be repaid once I-395 is taken down. This is a win-win situation for all involved. If for some reason this project does not come to fruition, design guidelines can be developed for the properties and they could in turn be sold to developers as in the case of Baltimore's downtown redevelopment or New York's Battery Park City at a considerable profit. Doing this would give the City and County the ability to assure that the type and quality of buildings in the area would meet the highest design standards.
 - Create a sub-committee comprised of representatives from the City and County, Florida East Coast Railway, Tri Rail, and the Port of Miami to discuss and make a determination on the I-395 – FEC right-of-way issue.
 - Include the construction of the proposed boulevard as part of the public works projects to be financed with bond issues.
 - Authorize a soil contamination study of the area along I-395. This should provide a clear picture of the extent of the contamination, the task at hand, how long it would take and what would be its cost.
 - Authorize the development of a short-term plan of action to address existing traffic and environmental problems in the vicinity of the Performing Arts Center.
 - Authorize a more detailed analysis of underpass construction and engineering issues.
 - Authorize a more detailed study of the boulevard's design and its relationship to the Performing Arts Center, Bicentennial Park and the museum sites.