

The Florida State Road 7/US 441 Sustainable Corridor Study

Regional Plan Association

Table of Context

Acknowledgements	2
I Summary of Major Interventions	4
II Decoding the DNA of The State Road 7/US 441 Corridor	6
III Toward a Sustainable Corridor Strategy	10
IV “Green Infrastructure” Issues for the Region	12
V Other Representative Strategies	16
VI Some Additional Case Study Sites	19
VII Transportation	22
VIII Implementation	26

Acknowledgements

This project was funded by The Lincoln Institute of Land Policy. Significant in-kind contributions were made by the South Florida Regional Planning Council and the co-sponsoring organizations listed below, both in terms of staff time and hard costs. The project would not have been possible without the generous contributions of time and effort by the participating municipalities of The State Road 7/U.S. 441 Collaborative. The principal organizers of the event were Robert Lane, Regional Plan Association and David Dahlstrom of South Florida Regional Planning Council (SFRPC). Jean Scott, a consultant on livable community design, also helped design and implement this project as a partner with RPA, the FAU Joint Center for Environmental and Urban Problems, and the SFRPC.

Project Team

Regional Plan Association

Robert D. Yaro, President
Robert N. Lane, Director of Regional Design Program
Jeffrey M. Zupan, Senior Fellow for Transportation

Lincoln Institute of Land Policy

Armondo Carbonell, Senior Fellow

South Florida Regional Planning Council

Carolyn Dekle, Executive Director
Julia Trevarthen, Assistant Director
David Dahlstrom, Senior Planner
Ping Chang, Principal Planner
Rhonda Noah, Chief Administrative Manager
Robert Daniels, Principal Planner

Florida Atlantic University's Joint Center for Environmental and Urban Problems

James Murley, Director
Pat Bryk, Executive Assistant to the Director
MaryBeth Burton, Research Associate

Designers

Patrick Condon, James Taylor Chair of Landscape Architecture at the University of British Columbia
Daniel J. Marchel, Senior Research Fellow, Design Center for American Urban Landscape, University of Minnesota
Ian Lockwood, Senior Transportation Engineer, Glatting Jackson Kercher Anglin Lopez Rinehart Inc.

Participating Municipalities

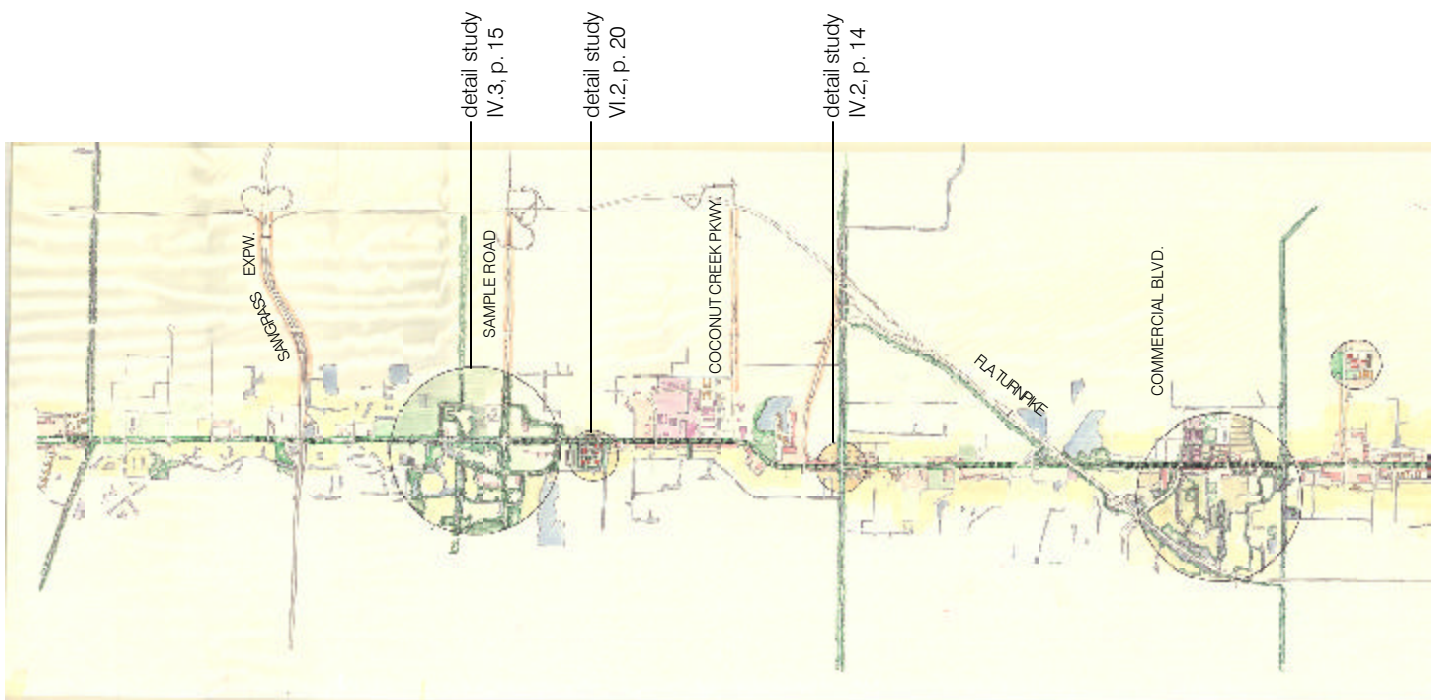
City of Margate - Robert Meehan
City of Lauderdale Lakes - Fernando Leiva
City of Lauderhill - Earl Hahn and Heather Cuniff
City of Plantation - Rachael Bach
City of Hollywood - Jaye Epstein and Jose Papa

County Agencies

Broward County Transit - Spencer Stoleson and Mike Ronscavitz
Broward Metropolitan Planning Organization - Bruce Wilson and Enrique Zelaya

I. Summary of Major Interventions

- Re-conceive the entire State Road 7/US 441 corridor as a neighborhood and community-friendly place with a design speed of between 30 and 35 miles per hour capable of supporting multiple modes of mobility.
- Create in selected locations concentrations of mixed-use activity with distinct neighborhood identity.
- Re-integrate the larger man-made and natural systems, and in particular, the underlying green infrastructure of canals, retention/recharge basins and aquifer.
- Create a differentiated experience in which sections of the road has discrete identities and are part of a larger suburban landscape of differentiated neighborhoods and place-based experiences.
- Create locations along the corridor for approximately 25,000 new units of new housing.
- Celebrate and optimize the entrepreneurial potential of dynamic and growing new-immigrant population.



Overall Corridor Planning Framework Diagram

Creating a Planning Framework for the State Road 7/ US 441 Corridor

It is an essential part of the planning framework to avoid conceiving of the corridor study area as a zone of uniform dimension on either side of the right-of-way. The roadway must be thought of as an integral part of a larger suburban fabric that includes natural and man-made systems that may extend for some distance into the larger suburban context. In some places, the planning framework diagram may be a relatively uniform and narrow strip, but in other places it may include a connection to some destination, development or resource that is quite remote from the corridor.

For example, the way in which the State Road 7/ US 441 functions as a roadway can only be understood by drawing it in relation to the two major parallel highways – the Florida Turnpike and I-95 as well as in relation to the hierarchy of the numerous intersecting neighborhood roads that helps define the boundaries between existing neighborhoods. Another example of the larger planning framework is the system of canals and retention basins that is ubiquitous in this region. The design of the road and the developments along it will have a profound impact on storm water run-off and levels of non point-source pollution. To the extent that canals and water resources can be linked to create a greenway network, this will impact how Route 7 functions for pedestrian mobility.



II. Decoding the DNA of the State Road 7/US 441 Corridor

A superficial, first impression of the Route 7/441 corridor is that it is simply “more and more of the same” -- beating out a steady rhythm of dead or dying malls, marginal retail uses, and auto-rated activities -- the very image of the “stripped out strip”. But on closer examination, it is apparent that different sections of the road function differently. The road is not uniformly lined with small-scale retail. There are large industrial park areas – a mixture of warehouses and flex industrial buildings; there are public utility facilities such as telecommunication facilities, power generation and a major landfill, at the northern end of the corridor is a major institution – the Northwest Medical Center in Margate.



The “Strip”



Typical neighborhood street

The corridor also changes in terms of density. There are large areas of open space at the north end of the corridor. Contrary to first impressions, there is a significant amount of multi-family housing, mostly in the form of five and six story apartment buildings, particularly in the area of Lauderdale Lakes. Finally, there is a kind of rhythm and scale to the retail activity itself. Periodically, there are concentrations of what would be considered neighborhood-scale convenience retail—a dry cleaners, a small grocery store, a branch of a bank, a local coffee shop or ethnic restaurant. None of these uses are destinations for a catchment area of any size. Rather, various segments of the road are functioning as the “local downtown” for an adjacent neighborhood.

These differentiations along the corridor suggest an essential strategy for the road: to begin to more carefully define and then to articulate the identities of the road segments and the neighborhoods behind. Just as the close examination of the corridor begins to reveal its underlying differentiation, so might a close examination of the surrounding residential fabric reveal a similar pattern of discrete neighborhoods with their own identity. It is possible to rethink the corridor not as a continuous and uniform strip, but as a series of neighborhoods linked by a common road. The fact that there are occasional community facility uses as well, such as day care centers, supports this notion.

A detailed mapping of existing land uses, in combination with extensive consultation with neighborhood stakeholders and landowners would begin to identify potential “places of identity” along the corridor. These modes would all have their own identities, but would probably share certain essential attributes including:

- Mixed-use
- Higher density
- Multi-story construction
- Various strategies for parking
- Pedestrian and transit-friendly circulation

We have used the metaphor of “decoding the DNA” of the strip to describe this process of understanding, at a fine-grained level, the characteristics of the different sections of the road and how these relate to the adjacent neighborhoods.



Typical apartment buildings

Decoding the DNA of the State Road 7/US 441 Corridor

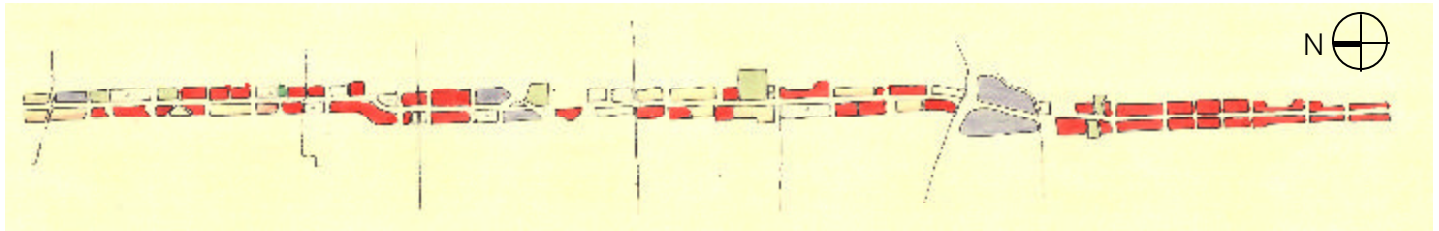


Diagram 1. Movement Network

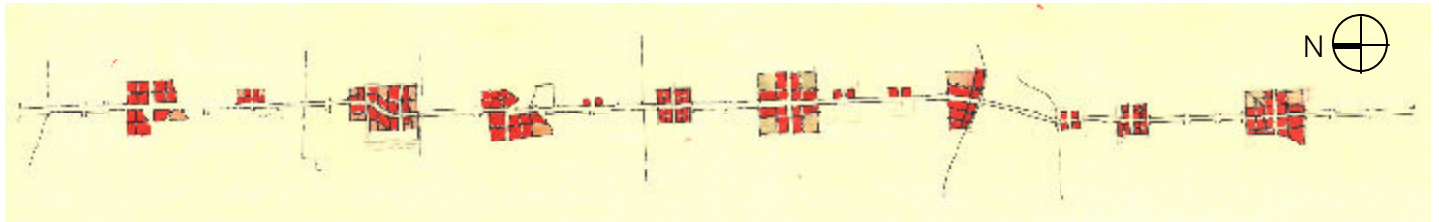


Diagram 2. Existing Landuse Character and Distribution

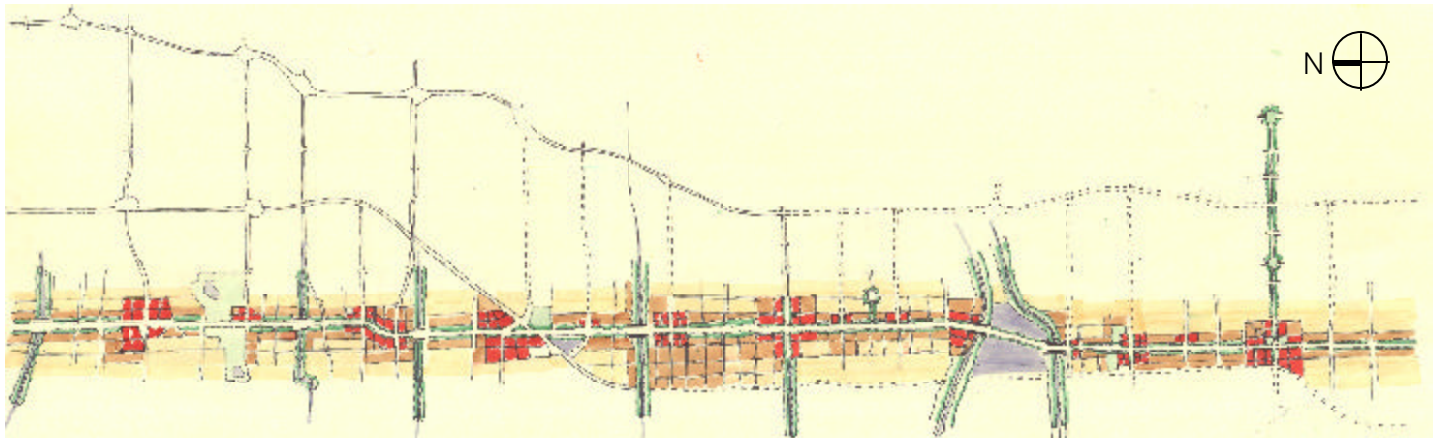


Diagram 3. Redistribution of Land Use to Foster New Development Forms

Diagram 1. Movement Network

State Road 7/US 441 is currently considered to be a regional arterial road, providing long distance travel for motorists. This designation has resulted in a northern end that has six through-lanes and plans that expand the road from four to six lanes at the southern end.

Arterials link the road to the nearby freeway and tollway at one mile intervals. Between the arterials, local areas are accessed by residential and smaller collector streets. Several areas of State Road 7/US 441 contain awkward frontage roads or commercial access.

Local residents repeatedly pointed out that State Road 7/US 441 extends from Key West to Maine. While this is an interesting distinction, the team suspects that there are extremely few motorists using it for this purpose. Instead, we believe that the road is used as a local arterial, providing for short trips between nearby areas. The adjacent freeway and tollway appear to be better options for long distance trips.

Recent vehicle counts suggest that total volumes are actually decreasing. Consequently, we suggest redesigning the road as a four lane urban arterial with a highly local identity, while allowing the through traffic enough room to move.

An underutilized feature of the study area is the network of canals which transect State Road 7/US 441, which offer another form of connection to surrounding areas.

Diagram 2. Existing Landuse Character and Distribution

Commercial and retail development dominates the entire length of the study area. There are instances of apartment complexes or institutions such as the hospital, but they have minimal impact on the overall impression of the corridor.

At the south end, street-front commercial buildings and smaller parcel sizes are filled with locally owned businesses that reveal the presence of various ethnic groups. At the north end, parcels are larger, setbacks are greater, and development tends to be more recent. Some of the strip malls in this stretch also have a strong ethnic presence.

Significantly, many of the larger parcel developments (Hollywood Supermall, strip malls, the flea market, even a defunct Home Depot!) seem to be struggling or empty. Local participants suggested that the “hot” auto-oriented retail stores have moved west into newer corridors, where newer housing has attracted residents with greater incomes. We are left with a question: has the era of large retail magnets ended on State Road 7/US 441?

Diagram 3. Redistribution of Land Use to Foster New Development Forms

While we were asked to look at a number of specific landuse and design situations, the team felt that resolving these site problems was not enough to address the underlying problem of a shifting market for this corridor. Instead, we focused on a new distribution of land uses that sets up possibilities for the next generation of transit, livability and development. This new pattern has several components:

a. Consolidate Retail/Business/Residential into Activity Centers.

These centers would become identifiable places where commercial, retail, residential and institutional uses are mixed in a highly walkable environment. Centers could have various sizes and characters:

-Large Centers: where S.R. 7 crosses arterials that lead to the freeway or tollway (most traffic).

-Middle Centers: where a critical mass of housing, jobs or retail exists between large centers.

-Small Centers: where a limited amount of retail serves local customers.

b. Reallocate “in-between” areas to create variety in the road, land uses and spatial types.

Newly available parcels between activity centers could be redeveloped as housing, institutions or open space.

These “in-between” areas could also adopt a more extensive vegetation strategy to create a green corridor or water features along the road.

c. Link to surrounding neighborhoods

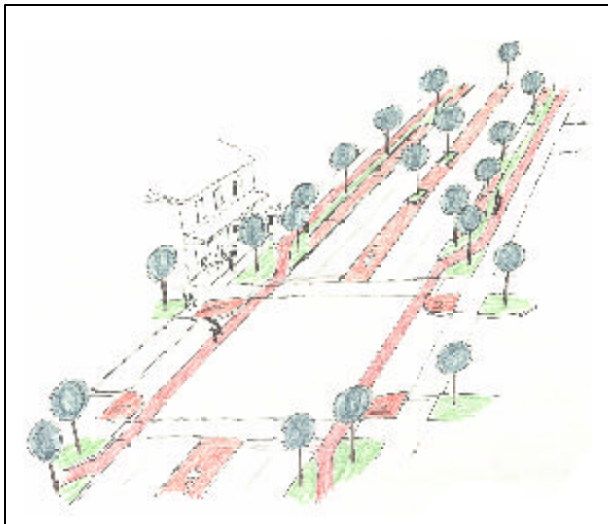
Public connections on State Road 7/US 441 should denote entries to unique areas, such as the “octagon” neighborhood near Hollywood Supermall or the Antenna Field park. Canals should be marked by public parks and trails, redevelopment facing the water, or road and signage design that marks their presence.

For the purposes of illustrating this approach, the design team has selected a number of sections to illustrate. Ultimately, a community-based planning process must be initiated to reveal the boundaries and characteristics of a more differentiated State Road 7/US 441 landscape.

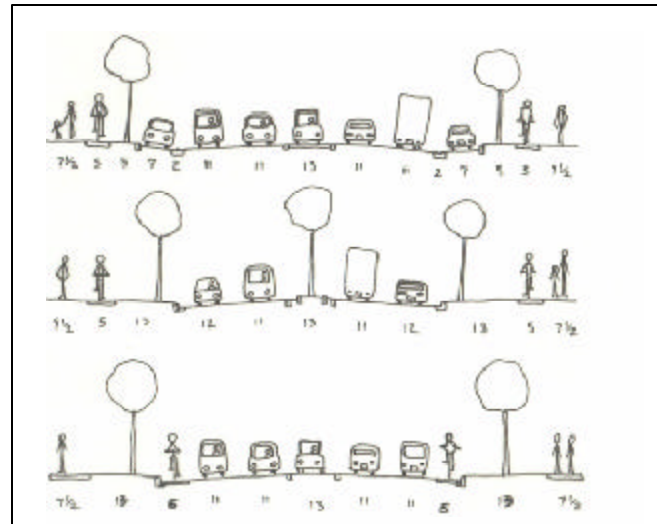
III. Towards a Sustainable Corridor Strategy

The foundations of any corridor redevelopment initiative must include new housing and a new sectional strategy for the road that would have these major features.

- 1.** The section should be better suited the type and volume of motor vehicles using it. It would include one lane in each direction, a dual left turn lane, and parking on both sides.
- 2.** On-street parking should be provided for access to businesses, which is clearly needed.
- 3.** The center-turn lane should be a different material to provide a feeling narrowness to reduce speeding.
- 4.** Crossing distances should be shorter for pedestrians.
- 5.** Protected bicycle lanes would encourage cycling by even vulnerable cyclists who won't use the typical unprotected lanes. They have several other advantages such as reduced door opening problems, better access to businesses, and keeping the road narrower to reduce speeding.
- 6.** A community-friendly speed limit of 30 mph would reduce collision frequency and severity and be better suited for the area than high speeds (i.e., 35 mph and higher).
- 7.** More opportunities for trees would provide much needed shade and beauty to the street.



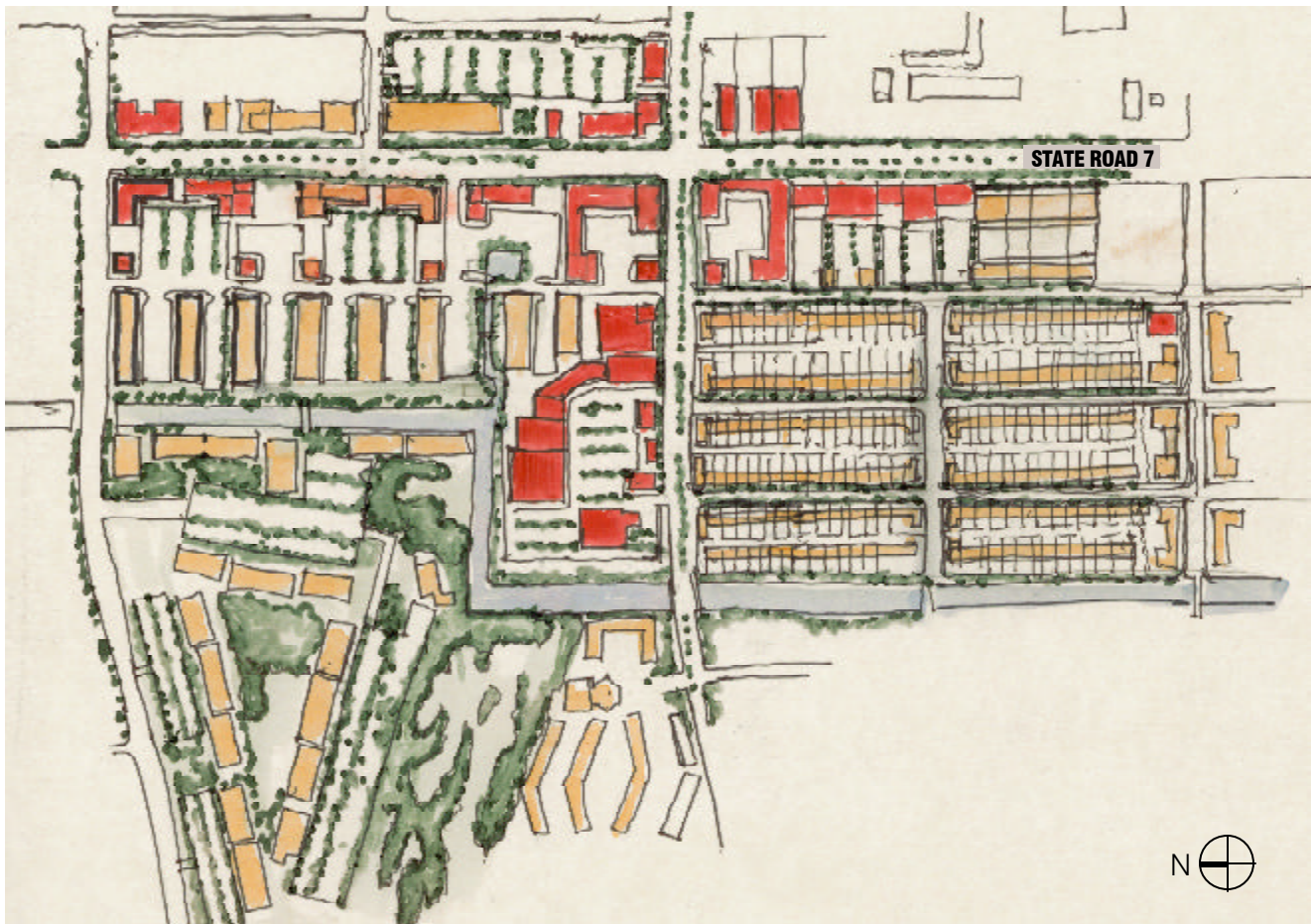
Sustainable Corridor Strategy - Perspective Sketch



Sustainable Corridor Strategy - Sections

Livable Cross-Section for State Road 7

- Design Speed 30 mph
- Four Motor Vehicle Lanes
- Protected Cycle Lanes
- Street Trees
- Narrow Pedestrian Crossings
- On-Street Protected Parking



Detail Study III.1, New, Higher-Density Mixed - Use Node

It is not unreasonable that as many as 50,000 new residents could be located along this corridor. The 25 miles of corridor takes in 2,500 acres of land (at an average width of four acres) which at a density of 10 units per acre (minimum threshold for good transit) accommodates 25,000 units or at 50,000 people (two persons per unit). This is a very rough analysis and there may be potential for more or less housing depending on land uses. The important thing would be to build enough high-density nodes on the corridor to provide good walkable districts and bus destinations. Some of the characteristics of the new residential nodes such as that shown in Detail Study III.1 would include the following:



Concentrated Mixed-Use Node - Precedent

1. Townhouses on completely owned or "fee simple" lots rather than in townhouse condominium complexes.
2. Parking in streets and on lanes.
3. Net density goal of about 25-30 units per acre.
4. Drop in parking standard to one per unit.
5. Allowance for rental units in lower floors of townhouses (or stacked townhouses) would add density and increase housing opportunity for moderate-income earners.
6. Street-front commercial with mixed use on floors above. Parking would be a combination of on-street parking in front and more on a back lane or alley.

IV. “Green infrastructure” issues for the region.

South Florida has a very unique natural circumstance. It is, in essence, a sprawling city on a lake. The lake is the ubiquitous pool of water that emerges every time you dig a hole even a few feet deep. This water is best understood as a continuous and linked pool flowing through the soil. This lake is apparent in canals, in lake Okeechobee and in the vast Everglades. Less apparent is when this lake flows out to the sea through the soil or through the canal system that (in some ways) supports this flow.

In the past fifty years, the years of dramatic urbanization in South Florida, this lake has been affected by an incomplete understanding of how this underground lake operated. Vast areas were paved over while other parts of the system were canalized. The result has been a gradual draining and degradation of this vast freshwater lake, the same lake that makes life in South Florida conceivable at all.

But the good news is that policy makers have become much smarter. Regional and multi-party governmental agreements have produced strategies for saving the vast lake. This initiative represents North America’s first and most important attempt to intelligently manage and protect a vast stationary fresh water resource. The strategy has many parts, but one part is particularly germane to the State Road 7/US 441 corridor project: the influence of urban redevelopment on water resources.

The strategy proposes that in the course of rebuilding the corridor, every opportunity should be taken to restore the natural function of the land, and thus restore and protect this vital underwater lake. Simple and cost effective strategies exist for this. Whenever redevelopment occurs in the corridor (and beyond for that matter), storm water and habitat best management practices (BMPs) should be included. It is beyond the scope of this report to provide a comprehensive list. However, these would likely include: infiltration parking lots, green roofs or slow release roofs, infiltration storm drainage systems, bioremediation swales, an expansion of wetland areas wherever possible, and an expansion of the objectives of the greenway plan to incorporate habitat and water resource protection objectives.



Unimproved Canal



Drainage Canal

We do not anticipate that these changes will necessarily add cost to redevelopment. In fact, it is more likely that both short term and long term, and both on site and off site costs will be reduced. It will require a change in attitude towards our urban landscape however, and a corresponding set of management changes by those charged with the care of the urban landscape (homeowners and public staff). It is these human factors that may prove hardest to change.



Typical Canal



The Underground lake

1. The Canal System.

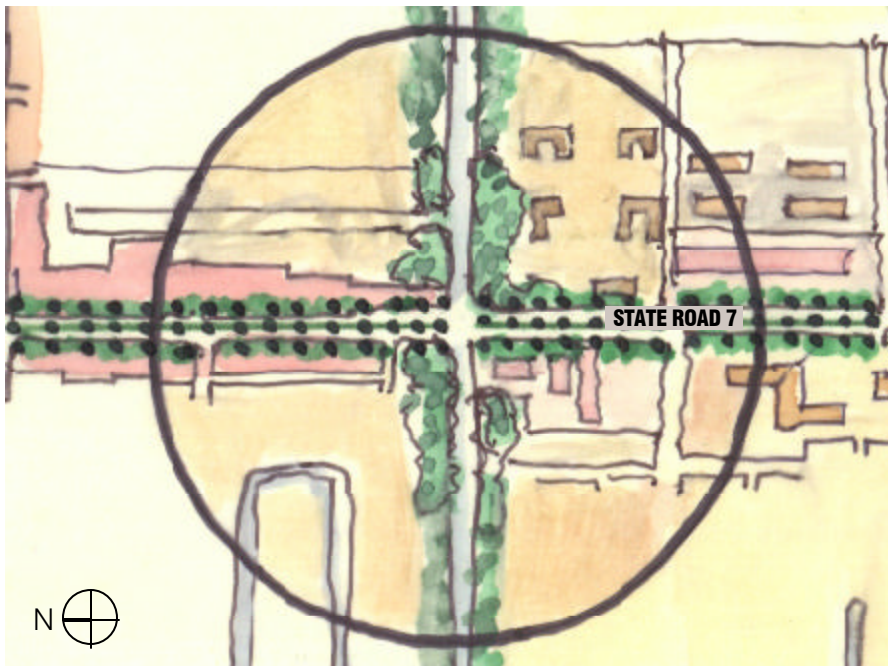
The canal system is a huge and often mis-treated resource for the region. This system, left over from times when agriculture reigned supreme in this and now used primarily as a destination for urban runoff, are increasingly a citizens' only direct connection with the treasure of South Florida: water. When the vast majority of the population of South Florida lived within a mile of the ocean it is understandable that the canals would seem rather unimportant. But increasingly population is many miles from the shore, and the roads connecting them to the shore are a daunting gauntlet of congestion during most hours of the day. In this context it seems obvious that the economic vitality of the corridor is enhanced if these potentially great improvers of "quality of life" are returned to their rightful role: as recreational and habit corridors. Perhaps the biggest drag on the economic vitality of the area results from a declining quality of life. The canal system offers the greatest and cheapest way to reverse this trend.

2. Canal Crossings

There are a number of places where this important canal system crosses State Road 7/US 441. In every case this crossing is ignored. A first step in the process of revitalizing the corridor would be to celebrate these important intersections and gateways. They provide an excellent opportunity to provide some definition to this sprawling and seemingly endless corridor. An emphasis on the canal crossings could provide a means to break up the long corridor into definable community sections. This definition and gateway function can and should be enhanced by linking these points to greenway recreational opportunities on the canal itself. Nothing is more inviting on a hot day than a stroll or bike ride down a cool (or at least cooler!) shaded waterway. It is also possible to enhance these waterways with habitat areas that would encourage waterfowl and other birds to inhabit these spaces; enriching recreational experience while enhancing species diversity in the region. This will not be easily achieved. The canal system has a long history of being treated as a utility only. The utility has resisted all attempts to date at expanding the scope of activities allowed on the system. But the possibility of a low cost or no cost enhancement to the economic vitality of the region is too important to ignore. This element of the plan is a high priority and should be pursued immediately.



Canal Crossing



Detail Study IV.2, Intergration of Corridor Landscaping With Canal System

3. Areas of Green

In certain parts of the corridor there are remaining areas of green. These last remnants of the farm landscape should be preserved and enhanced for recreation. The entire Route 7/441 corridor is dramatically under served for recreation. Should the estimate of 50,000 new people on the corridor itself prove correct that would lead to a need of at least 150 acres of new recreation space. The plan identifies a few locations where we feel that there are unique and possibly temporary opportunities to obtain this space. A few examples are illustrated. The location at intersection of Route 7/441 and Atlantic Boulevard is an example.

The opportunity still exists to make this uncomfortable space that is presently dominated by office type buildings and road infrastructure into a community heart for existing and future residents. All that would be required would be to acquire a few key parcels, take better advantage of existing parcels already in public ownership (road right of ways in particular) and begin a significant tree planting and habitat enhancement project. We identify this and the couple of other recreation spaces shown on the plan not to suggest that these are the only opportunities on the corridor. They certainly are not. They are merely examples of what could be done and at very low cost.



Detail Study IV.3, Integration of Remaining Open Space on the Corridor

V. Other representative strategies.

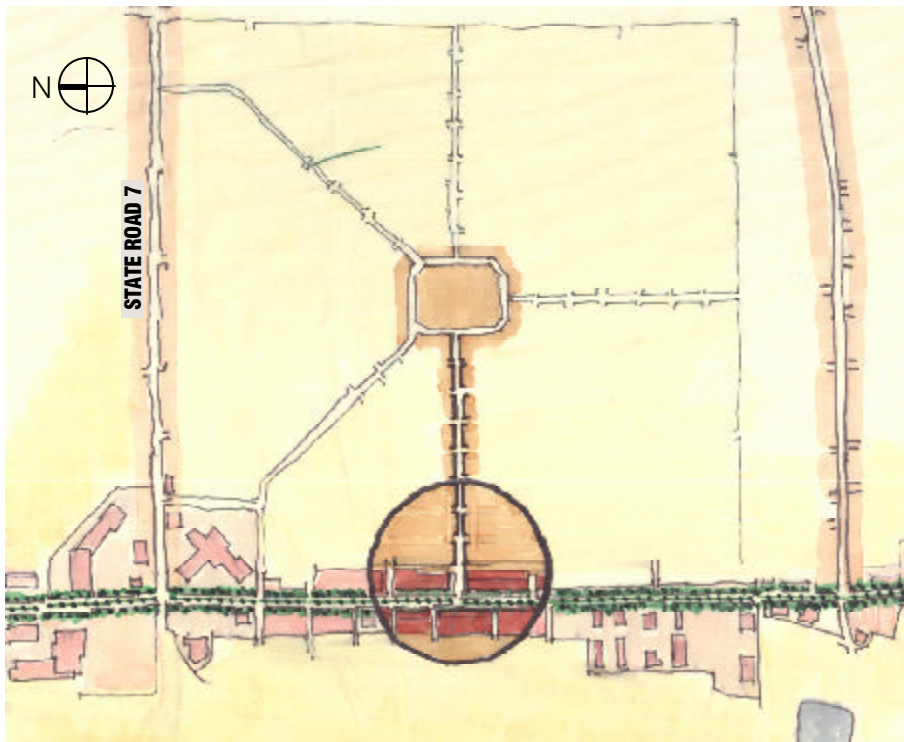
Link to Neighborhood Street Patterns

Each of the adjoining neighborhoods has its own idiosyncratic street pattern. While it may not be apparent at first, it is likely that there is both a physical and formal hierarchy of roads, as well as a hierarchy derived from neighborhood experience. Within the pattern there are roads that by virtue of their scale, location or the connections they make either to other roads or to neighborhood resources, function as local collectors, or entrance ways, or through-connectors. This hierarchy can then be articulated at the intersection with State Road 7/US 441, creating a gateway or some other opportunity for neighborhood “marking” and place-making. To demonstrate this, the design team selected a neighborhood that had a very distinctive and transparent geometry and identified places where important roads in that pattern connected to State Road 7/US 441



Neighborhood Street Geometry

A similar process of discovery and articulation of “teasing the hierarchy” out of the sprawl and reflecting it along the corridor could be replicated for the length of the corridor. These roads could also become the focus for pedestrian and traffic-calming improvements within the neighborhoods making it possible for more residents to walk to retail or community facility resources along State Road 7/US 441

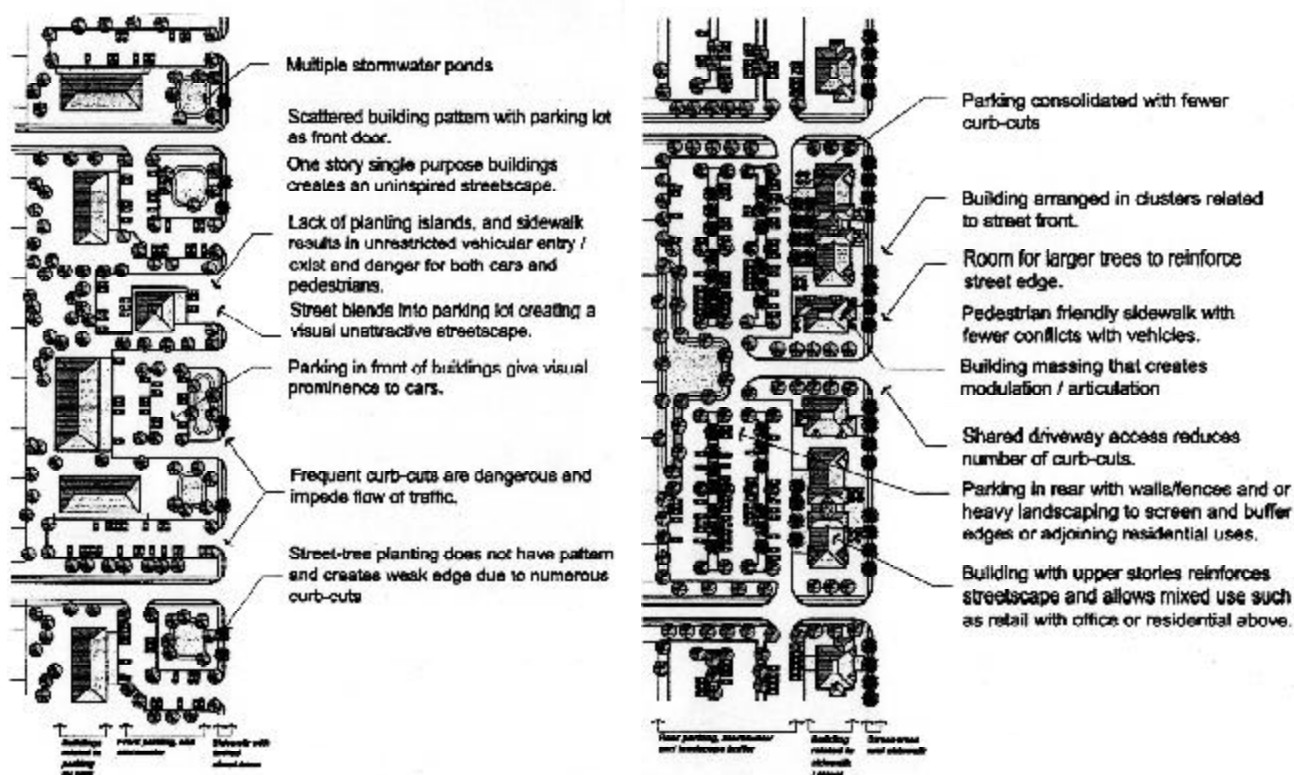


Detail Study V.1, Exploit the Hierarchy in the Underlying Geometry of the Neighborhood Street

Design Guidelines For Local Centers

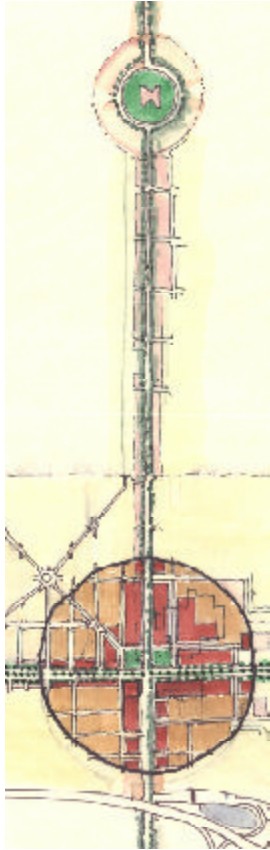
As noted above, there are existing concentrations of multi-family housing adjacent to the corridor. We have also suggested the corridor should become the focus for an additional 25,000 dwelling units over the next 20 years. In these locations, the already existing pattern of multi-family housing should be extended to the roadway corridor. In these locations, State Road 7/US 441 would become a high-density (25 to 30 du/acre) street where small apartment buildings would create a clearly defined street-wall. The ground floors of these buildings would contain retail or professional office uses. Design guidelines would assure a varied but high-quality architecture.

The recently adopted design guidelines for the City of Miramar area a good precedent. The new buildings would be not only to create a new street edge for State Road 7/US 441 but would be sited so that they integrated the existing apartment complexes which are, at present, cut off from the corridor. Collectively, the buildings will create a new pedestrian network enabling large numbers of residents to walk to the corridor. These residential concentrations will also support transit.



Miramar Design Guidelines Corridor-Supporting Development

Connect to Destinations in the Larger Context



Articulate Connections to Significant Destinations Away From the Corridor

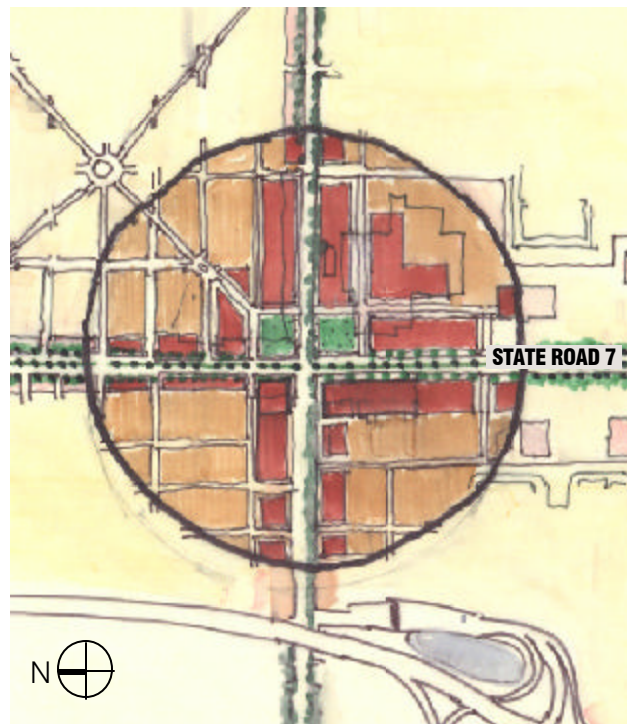
In some locations, there are opportunities to make connections to destinations or points of interest that are some distance from State Road 7/US 441. Two of the workshop case study sites raised this issue. The first was the so-called “Gravity Entertainment site” (see more extended discussion below). If this site develops as a film studio complex with a regional or even international identity, as its promoters hope, then some ancillary theme retail or commercial support could locate at the intersection of State Road 7/US 441 and Oakland Park Boulevard which connects to the new facility.

Another case study site with larger context connections is the Hollywood Super mall site at State Road 7/US 441 and Hollywood Boulevard. While the existing intersection of State Road 7/US 441 and Hollywood Boulevard has no special identity, the larger planning framework reveals that this is a significant intersection because of the local importance of Hollywood Boulevard, which connects to “downtown” Hollywood and the ocean beyond. At an intermediate distance is the office complex at Presidential Circle. The redevelopment of the Hollywood Super mall site must recognize the role of this intersection as a major gateway. The site planning diagram suggests a public open space of some kind as a complement to the open space at Presidential Circle.

There are no obvious opportunities to extend the surrounding residential street patterns into the Super mall site. Nevertheless, the site should be broken down using an “edge and core” strategy. The center of the site which can be reserved for a larger commercial use, while the new perimeter parcels can be of a depth that supports smaller and intermediate scale mixed-use development. The architecture in this zone would articulate the Hollywood Boulevard-State Road 7/US 441 gateway, and help frame the new open space at this corner.



Hollywood Supermall



Detail Study V.2, Gateway Development at the Hollywood Supermall site

VI. Some additional case study sites

1. Lauderhill Mall (K-Mart) Site, Lauderhill

In this study, the K-Mart site was combined with an obsolete “antenna farm” and a few adjacent strip developments to form a larger site. The site would be used for a park-oriented residential development. The park spaces would extend from the street to the nearby canal, linked together with water features. The development would use a connected grid of streets with all of the park frontages being public. The sizing of the parks and the placement of the houses would result in plenty of community “ownership” over the parks and consequently a safe place for community interaction and enjoyment. A portion of the site would be arranged for business/light industrial uses whose backs would back onto the backs of the first blocks of housing, effectively creating a change in land use mid-block. Changing land uses mid-block is always a good idea, except when it involves parkland or other public spaces. The density of the houses would be higher near the main street and lower at the interior of the development. There would be a pedestrian bridge over the canal to link the various developments, schools, and parks. The resulting development would greatly enhance the choice and number of available housing units in the area, provide needed park land at an appropriate scale, add beauty to the main street, and provide more customers for the area’s businesses.



Desolate Antenna Farm in Lauderhill

K-mart & Antenna Parks Neighborhood

Notes:

- *Bring Park up to Main Street*
- *Celebrate water in Park*
- *Tow Houses and Low Rise near Main Street*
- *48' Lots with Main House, alley-loaded garage & flat*
- *Expanded Business Park*
- *Mini-Circles & Raised Intersections for Traffic Calming Purpose*
- *Pedestrian Bridge to Adjacent Schools*
- *Lots of Eyes Watching park*



*Detail Study VI.1,
Mixed Use Redevelopment at
K-Mart/ Antenna Farm Site*

2. Northwest Medical Center

The hospital's site is hampered greatly by the grossly oversized and curved multilane road that bisects it. The smart place for the road is along the water feature and it needs to be two lanes in that location. This would better suit the safety needs of the adjacent residential area and be a whole lot more pleasant for pedestrians, cyclists, and motor vehicle users traveling to and from their houses. It would also connect well with the rest of the water resources nearby and be a pleasant place for hospital employees to stroll and eat lunch. The hospital site would



Northwest Medical Center

then be connected and whole. Consequently, the parking areas and internal circulation systems could be redesigned for better scale and orientation. They would also be safer, more aesthetically pleasing, and hold more cars. The reconfigured site can also accommodate plenty of future development in a number of scenarios without having to go offsite or retrofit the site much further. Ultimately a parking garage could be added to serve in the final build-out scenario. The multitude of roads/aisles that currently parallel the main road in front of the hospital are redundant, confusing, and a waste of space and are removed in this proposal.



*Detail Study VI.2, Parking, access and open space rationalized
Northwest Medical Center*

Northwest Medical Center

- Public Waterfront Parkway
- Expanded Canal
- Additional Surface Parking
- Shaded Parking and Street
- Parking Ailes Perpendicular to building faces
- Expansion Potential
- Remove Reduntant Streets
- Unified Site/campus

3. “Gravity Entertainment” site, Lauderdale Lakes

The movie studio site consists of a huge building in the middle of a parking lot, next to some vacant land. A gas station was cut out of the corner of the site next to the intersection. The unfortunate placement and awkward footprint of the building made the site difficult to work with. The gas station on the corner is removed and replaced with a hotel with shared access to the site. The hotel, on the corner, would greatly improve the aesthetics of the now ugly intersection and help correct the rather suburban lack-luster look of the site. Expansion areas were planned in the “cut-out” corners of the large building’s footprint. Not much else would fit or make sense in these areas and expansion needs are inevitable. A variety of housing units were planned on and next to the vacant piece of land, which would reinforce the identity of the site as a place.

VII. Transportation

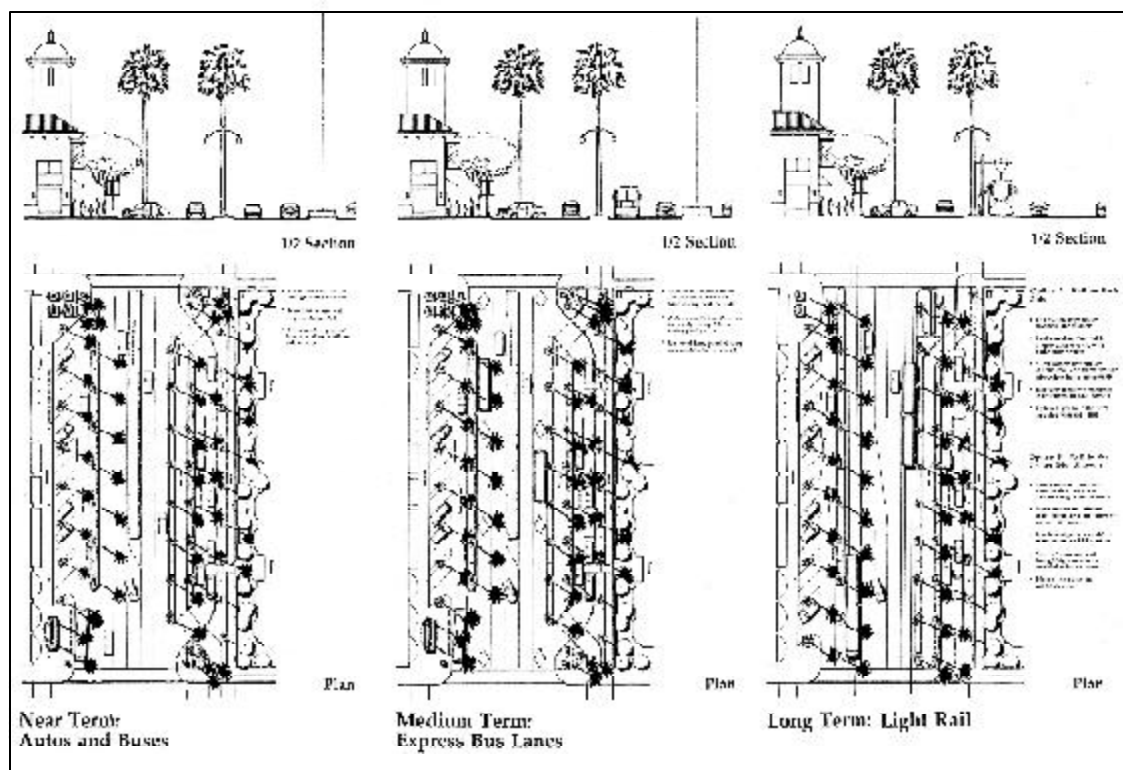
Transportation and Land Use Factors

It is axiomatic that transit and land use is mutually supportive. In general, there is higher transit use in areas of higher population density. More people living near one another not only means more potential riders, but also tends to suppress auto ownership levels, lead to greater traffic congestion, and more walkable environments, all of which contributing to more transit use. Similarly, higher employment densities usually translate to higher transit use because more jobs can be served conveniently by transit.

Analysis of these relationships have resulted in guidelines regarding the type and service levels of transit service that can be effective deployed as a function of population and employment densities.¹ These thresholds related population density to bus service frequency and conclude as follows:



Palm Canyon Drive Adaptive Boulevard Concept, Cathedral City, CA (Tung and Bottomly)



With respect to population density:

- 10-minute headways or 120 buses per day in each direction can be supported by residential densities of 15 dwellings per acre, equivalent to about 9,000 persons per square mile.
- 30-minute headways or 40 buses per day in each direction can be supported by residential densities of 7 dwellings per acre, equivalent to about 4,000 persons per square mile.
- 60-minute headways or 20 buses per day in each direction can be supported by residential densities of 4.5 dwellings per acre, equivalent to about 2,500 persons per square mile.

With respect to employment concentrations:

- 10-minute headways (defined as above) require employment concentrations found in areas of about 20 million square feet of contiguous floor space.
- 30-minute headways require employment concentrations found in areas of about 10 million square feet of contiguous floor space.
- 60-minute headways require employment concentrations found in areas of about 5 million square feet of contiguous floor space.

These thresholds were applied in the SR 7/US 441 corridor as a diagnostic tool to gain a “first cut” sense of the whether the bus service in the corridor operates as might be expected. Broward County Transit's (BCT) #18 route operates on SR7/US441 throughout the length of the corridor, and coincidentally, is BCT's busiest, serving about 10,000 riders daily. Population densities in the corridor vary widely, with about one-half of the contiguous areas with less than 4,000 persons per square mile, with most of the remainder either in the 4,000 to 7,000 range or the 7,000 to 12,000 range. These densities suggest that the corridor can support a bus route of better than every 30 minutes, but less than every 10 minutes. In fact, the #18 route operates at about 15-minute headways from about 6am to 9pm, suggesting that the route operates about as expected.

But there are other factors other than population density that affect transit use in the corridor, both positively and negatively.

Corridor factors affecting ridership positively:

- **Lower than average income levels in the corridor.** The corridor has many contiguous tracts with income levels considerably lower than the county-wide average. In these areas, auto ownership levels are likely to be lower, leading to higher transit use.
- **Concentrations of older people.** Heavy concentrations of residents over 65 years of age occur in segments of the corridor, particularly in Plantation. These areas it can be expected that there would be higher transit use, although many residents here use the community-based services rather than the regular route BCT routes such as the #18.
- **Low auto ownership.** This is largely related to income and age of residents described above. Areas of high concentrations of auto-less households are found in the corridor in the Plantation area.

Corridor factors affecting ridership negatively:

- **Low employment concentrations.** The corridor has few areas of more than 4,000 jobs per square mile. The low level employment concentration described above of about 5 million square feet of floor space is equivalent to 15,000 to 30,000 jobs per square mile. This suggests that the 15-minute headway service of the #18 is attributable to the relative high population density in the corridor, and not to the level of employment density.
- **Proximity and ease of reaching bus stops on foot in the corridor.** The corridor is largely characterized by commercial development contiguous to SR7/US441, with residential development behind it. It is often difficult to negotiate the walk to bus stop locations, since walking routes through the commercial development are either unavailable or at best, informal. Sidewalks are frequently absent even on cross-streets to SR7/US441. These difficulties undoubtedly lower the attractiveness of use bus transit.
- **Quality of amenities for bus riders at bus stops.** The poor quality and in many cases the absence of shelter from heat or rain, no seating, lighting or bus service information is more likely to repel rather than attract bus riders.
- **Service frequency.** Despite the reasonable level of bus service of 15-minute headways, it would be desirable to increase the frequency of service even further the #18. Research suggests that below about 12-minute headways riders no longer use a timetable to meet the transit service, but rather arrive at the transit stop at random, knowing their wait is likely to be quite short.
- **Slow bus service.** Unless given preferential treatment to avoid traffic congestion, buses are inherently slower than their automobile competition. This is the case in the corridor.

The above factors affecting bus use, including the basic population density issue, can offer a “check-list” of suggested approaches for increasing bus service as follows:



A Transit Stop With Amenities

Recommendations

Greater concentrations of housing near SR7/US441. Higher population densities located a short walk from the highway would provide a source of many new riders. These could be located at some of the sites where large tracts are available at former mall sites. For further details, see the urban design recommendations emanating from the Lincoln Institute/RPA charrette.

Easier walking environments between existing residential concentrations and the highway. The creation of attractive footpaths through existing commercial developments and the installation of sidewalks at cross-streets.

The installation of full-service bus stops and shelters throughout the corridor. In a 1998 Broward County study of the corridor,² an inventory of the amenities at each of the 126 bus stops in the corridor from Griffin Road north to Sample Road found that over two-thirds had no shelter and almost one-third had no place to sit. As a first step to increase bus ridership in the corridor the installation of these amenities should occur, with priority given to high ridership locations. These amenities should include lighting, schedule information kiosks in addition to the most critical features of shelter and seating. While there is a program in installation of bus shelters within the jurisdiction of Plantation, the shelters do not provide for all the important features, especially lighting and bus service information.

Speeding bus service. While it would be desirable to give buses some exclusive treatment to bypass traffic congestion, in this corridor the frequency of bus service could not justify giving over roadway capacity for the exclusive use of buses. As bus volumes build from the implementation of the steps above, it might be possible for buses to pre-empt traffic signals at major intersections to prevent them from having to wait as long at traffic signals. While not a direct help to speed buses, the installation of bus bays at bus stops would prevent buses from slowing other traffic and provide a safer boarding area.

System-wide improvements. Many other means of increasing bus ridership are more generic to the entire BTS system. These include attractive fare policies that include the use of employer-supported transit fare reduction sanctioned through federal legislation, newer rolling stock, better marketing, more attractive connections both in a service and facilities sense, and targeting approaches to new markets, such as to new job concentrations, and shopping malls. It was beyond the scope of this report to examine how well such improvements are being pursued on the BTS system.

There has been from time to time an interest in pursuing some type of rail transit initiative in the corridor. The thresholds for ridership for such services to be justifiable are high, and the densities and land use designs in the corridor are well below any that could justify such rail service in the foreseeable future. It would be best if Broward County concentrated its current efforts on improving the existing bus service.



Full Service Bus Station Make a Place

VIII. Implementation

A. Overview

The Workshop's Design Team is proposing a number of innovative strategies that will transform the SR 7 / US 441 Corridor into a more functional, livable and productive place. But if these strategies are to move beyond the discussion phase, a well thought through implementation plan must be prepared and put into effect. Our goal is to stimulate public discussion on how best to move forward with this strategy; in this sense, this report represents the first, and not the last word on this issue.

To translate these ideas into action will require the creation of an implementation strategy involving new forms of cooperation between 13 municipalities, Broward County, the Florida Department of Transportation, the South Florida Water Management District (SFWMD) other county, regional and state agencies and the Seminole Nation. The South Florida Regional Planning Council (SFRPC) and The State Road 7 / US 441 Collaborative could play a pivotal role in coordinating these efforts, and providing long-term direction and support to this project. A key to success of all these efforts will be the creation of effective means to involve property owners, business and community leaders and other stakeholders in this process.

It is important to note that most of these steps can be carried out by existing agencies under existing statutes, provided that they find new vehicles for cooperation. It may also be desirable or necessary, however, to create new public entities, to take on very specialized responsibilities for financing or building key public improvements in the corridor or redeveloping bypassed and derelict areas.



B. Building on existing institutions

As noted above, the new State Road 7 / US 441 Collaborative could serve as the central coordinating body in this implementation process. The Collaborative is a voluntary body consisting of 13 municipalities and Broward County. The SFRPC, FDOT, MPO and SFWMD serve as ex officio members of the Collaborative. To transform the whole 25-mile highway corridor in Broward County, the Seminole Nation should be encouraged to join the Collaborative. It may be appropriate for member communities to enter into an inter-local agreement (under section 163 of Florida's municipal code) to give the Collaborative additional standing and authority.

The Cooperative should continue to be staffed and coordinated by the Regional Planning Council, which could be funded for this purpose by the state Department of Community Affairs, FDOT or other agencies. Its first major task should be to complete a Highway Corridor Management Plan, (which could be drafted by SFRPC staff and consultants) identifying key capital investments, a management and phasing plan, institutional responsibilities, and changes in municipal plans and regulations required to implement the management plan.

As a part of this plan, SFRPC would complete detailed demographic and real estate market forecasts to establish 10- and 20-year growth targets for the area. In addition, early action projects would also be identified and implemented, to create tangible and highly visible evidence of the potential this process will have to transform the corridor.

C. Promoting consistency between local and regional strategies

The Cooperative should coordinate a "voluntary consistency" review process in which each municipality and regional and state agency would affirm that its plans, regulations and investment strategies are consistent with the management plan.

California's San Diego County Association of Governments (SANDAG) has successfully carried out a similar self-certification process to implement the county's growth management plan. Building on this experience, as part of this implementation process a detailed action plan would be developed, identifying a time line and the role of each agency, community and developer in implementing the plan.

Each community would also prepare small area or neighborhood plans for key locations in the corridor, including Neighborhood Infill and Redevelopment Areas. These plans would provide detailed guidelines for new activities in the corridor, including permitted mixes of uses, and site design and signage standards. Developer Agreements could also be adopted in designated locations to coordinate public and private investments in these areas.

Finally, each community would adopt a capital facilities program designed to implement its share of the larger management plan. State agencies would also take steps to make their actions consistent with the Corridor Management Plan. FDOT, for example, would modify its access management permitting and capital investments in the corridor to conform with the Management Plan.



D. Promoting minority enterprises and community economic development

The SR 7/ US 441 Corridor contains a growing share of Broward County's expanding minority, immigrant and Native American communities. All of these groups are heavily represented in the ethnic shops restaurants and services that line the highway.

Areas with concentrations of these activities function as a virtual “incubator” for the next generation of businesses, and are, in effect the first rung on the economic ladder for entrepreneurs from these communities. It is essential, therefore, that steps be taken to preserve and promote continuation and expansion of these businesses. It might be possible, for example, for Broward County to provide below market loans or grants to minority-owned businesses in the corridor. Retail space could also be developed that could be marketed to these businesses. Special zoning districts could be adopted to help retain family businesses and to promote flea markets and other activities that cater to the needs of these communities. Steps could also be taken to legitimize jitneys and van services serving these communities. This would provide new venues for small-scale entrepreneurship, while at the same time providing improved transit services to communities in which automobile ownership rates remain low.

E. Reclaiming blighted and bypassed areas

A major goal of this effort is to revitalize the large number of “dead malls” and empty shops that line the SR7 / US 441 Corridor. Several cities in the corridor, including Plantation, Davie, Lauderdale Lakes and Margate already have Community Redevelopment Agencies (CRAs) that could assemble these sites, clear them and relocate remaining businesses and residents to more successful locations in the corridor. Some of these sites could be immediately redeveloped for new uses, including residential or mixed-use commercial districts or “auto service parks.” Other sites could be “land banked” until the market required land for new residential or commercial development. CRA's could also cooperate with cities in the creation of Transfer of Development Rights (TDR) or Purchase of Development Rights (PDR) programs to facilitate this process, by relocating development potential from areas with less development potential to areas deemed to be suitable for more intensive development.

The existing CRA's should demonstrate the value of redevelopment efforts in the corridor in the first years of this implementation process, and other communities should then consider establishing their own CRA's to conduct similar efforts.

F. Monitoring and promoting on-going implementation

The Collaborative should identify annual milestones to measure progress in implementing the Corridor Management Plan. In addition, periodic evaluations should be made of progress in implementing the Management Plan, and the plan itself should be updated at least every five years.

G. Financing

This process will require major investments by both the public and private sectors over a generation or more. The Corridor Management Plan should include a detailed financing strategy, and the process of developing the Plan should include steps to gain concrete commitments to the effort. Potential funding sources could include:

- **Florida DOT**

FDOT is proposing to spend hundreds of millions of dollars upgrading the corridor. These funds could be redirected to constructing the new roadway configuration proposed by this workshop. State and Federal Transportation funds could also be used to finance sidewalks, bikeways, landscaping, parking and other improvements proposed here. Federal TEA-21 transportation funds could also be committed to this effort. TEA-21's TCSP (Transportation and Community Systems Preservation), CMAQ (Congestion Management and Air Quality) and Transportation Enhancement funds could be utilized to fund various elements of the program.

- **Tax Increment Financing**

Florida law allows use of TIF financing in designate CRA and Urban Infill areas. Under this approach, the increment in tax dollars resulting from redevelopment of an area is devoted to the public improvements required to implement the plan.

- **Business Improvement Districts**

Across the country and elsewhere in Florida (including the Miracle Mile in Coral Gables, the Galt Ocean Mile in Ft. Lauderdale and others), BIDs are providing private funding for support of capital investments and maintenance activities needed to improve the appearance or functionality of business districts. Under the BID model, property owners voluntarily tax themselves to finance these activities.

- **Transportation Management Associations**

TMA's serve some of the same functions as BIDS, but their focus is on transportation investments and services. One or more TMA's could improve parking, support additional public transportation service, or other activities.

- **State Housing Funds**

The State of Florida has initiated several programs to expand production of mixed-income housing. These funds could be devoted to the proposed housing development in the corridor.