Strategic Corridor Study (Phase 1)

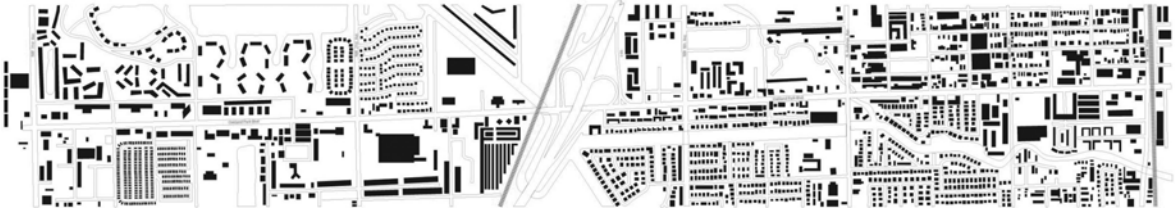
Oakland Park Boulevard

Broward County, Florida

Florida Atlantic University
College of Architecture, Urban and Public Affairs
Broward Community Design Collaborative

Florida Department of Transportation District IV

9 November 2009



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Contents

Glossary

This report contains many acronyms. To assist the reader, they are compiled here for easy reference:

AASHTO	American Association of State Highway and Transportation Officials
BCDC	Broward Community Design Collaborative (CAUPA)
BCLUP	Broward County Land Use Plan
BCTD	Broward County Transportation Department
BOCC	Broward County Board of County Commissioners
CAUPA	College of Architecture Urban and Public Affairs (FAU)
CBDG	Community Development Block Grant
CDG	Broward County County-wide Community Design Guidebook
CIP	Capital Improvement Project
CNU	Congress for the New Urbanism
CRA	Community Redevelopment Agency
CSD	Context Sensitive Design
CSS	Context Sensitive Solutions
DRC	Development Review Committee
EPA	Environmental Protection Agency
FAR	Floor Area Ratio (equals the total building area divided by the land area)
FAU	Florida Atlantic University
FDOT	Florida Department of Transportation
FGBC	Florida Green Building Coalition
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
ITE	Institute of Transportation Engineers
LEED	Leadership in Energy and Environmental Design
MPO	Broward Metropolitan Planning Organization (Broward MPO)
MSA	Metropolitan Statistical Area
PIP	Public Involvement Plan
PRD	Broward County Planning and Redevelopment Division
ROW	Right of Way
SFRPC	South Florida Regional Planning Council
SR-7	State Road 7 (US 441)
TAZ	Traffic Analysis Zone
THOR	Broward County Transit/Housing Oriented Redevelopment initiative
TIF	Tax Increment Financing
TOC	Transit Oriented Corridor
TOD	Transit Oriented Design; Transit Oriented Development
ULDC	Broward County Unified Land Development Code
USDOT	United States Department of Transportation
VUA	Vehicular Use Area

Project Background

Current trends in transportation and urban planning highlight better coordination between transportation and land use for the purpose of reducing carbon emissions, encouraging sustainable mixed-use and transit oriented development, enhancing economic opportunity, providing a range of housing options, and fostering a sense of place.

The Florida Department of Transportation (FDOT) District 4, the Broward County Transportation Department, and the Broward Metropolitan Planning Organization are conducting the Oakland Park Boulevard Corridor Study in cooperation with the City of Oakland Park and the City of Wilton Manors, municipalities along the corridor.

The purpose of this Study is to create a Strategic Corridor Plan that promotes the development of transit access infrastructure and to develop a planning strategy for implementing a vision for transit- and housing-oriented redevelopment for the Oakland Park Boulevard Corridor. The Study Area (the Study Corridor) is approximately 3.5 miles long and includes approximately ¼-mile (one-quarter mile) north and south of Oakland Park Boulevard between NW 31st Avenue (on the west) and Dixie Highway/Florida East Coast (FEC) Railroad (on the east). Portions of the City of Oakland Park's CRA Plan and the Broward County Entertainment District overlap the study area. The corridor is a state owned roadway within the jurisdiction of the municipalities of Oakland Park and Wilton Manors.

The Oakland Park Boulevard Corridor Study will link FDOT's Modal Development efforts with the Broward County Transportation Department's transit planning and the Transit/Housing Oriented Redevelopment (THOR) initiative, a multi-disciplinary strategy from the Broward Metropolitan Planning Organization. The THOR strategy incorporates transportation, housing, corridor design and planning, economic development, urban design, and redevelopment for the purpose of protecting existing neighborhoods by directing future growth along transit corridors consistent with local, state, and federal practices.

This Study incorporates the following:

1. Corridor Redevelopment Plan containing recommendations for Broward County Land Use plan amendments and revisions to land development codes where appropriate and strategies to achieve goals for economic development and housing, including affordable and workforce housing options.
2. Options for right-of-way or easements for bus and pedestrian infrastructure (shelters, sidewalks, streetscape), transit stations and potential park-and-ride facilities that support transit on Oakland Park Boulevard.

Recommendations address transit oriented and pedestrian design issues and coordination along the corridor; needed transit supportive infrastructure such as sidewalks, bicycle facilities, crosswalks, access, etc.; and, changes to future land uses and land development regulations to enhance transit use.

The Plan required the participation from Florida Department of Transportation (FDOT), Broward MPO, Broward County, the abutting municipalities (Oakland Park, Wilton Manors) and local stakeholders. The Study participants were committed to assuring that opportunities for public involvement were available throughout the duration of the Study for public agencies, stakeholders, property owners, business interests, and community groups. This Public Involvement Plan (PIP) identified the specific mechanisms utilized to ensure the involvement of vested stakeholders.

The process consists of five overlapping tasks.

1. Signed Memorandum of Agreement between the parties to commit to work together on this Plan.
2. Data collection and analysis.
3. A series of public meetings and workshops to gather input from key stakeholders.
4. Development of a planning strategy to implement a future vision for the corridor.
5. Implementation of the Plan.

The Study outlines a multi-disciplinary collaborative process to develop a Planning Strategy with a set of solutions. To arrive at a community consensus on the Planning Strategy, the Study process proceeded along two tracks:

- a public involvement process to identify community issues and to review the proposed solutions for the area; and,
- a technical track to gather and analyze corridor data for use in developing proposed recommendations.

Early on, the public and technical tracks overlapped to provide a series of informational meetings to educate the community, equalizing the knowledge level for project participants, and providing for informed discussion. For the remainder of the project, the activities of the technical team provided information for the public to review.

As the Study progressed, the Scope of Work evolved to address concerns or issues raised throughout the study process. This includes recommendations for areas outside the scope, specifically segments of the corridor east of Dixie Highway to US-1.

Towards Sustainable Livable Local Communities

The notion of the street has been regarded throughout it's approximately 8000 year history as a functional passageway for transporting people and goods. The various requirements and conditions for street design were schematized by Lillebye (2008)[1] to include traffic functions (pedestrians, cars, bicycles, public mass transport); functional offerings (commerce, service, culture, catering); social conditions (demography, environment, climate, crime, and culture); and physical form (geometry, character, vegetation, and furniture). Street use is shaped both by actual use and attitudes. Generally, the notion that the street has potential significance as an architectural element of urban form has gained considerable ground as reflected in the growth and spread of movements such as the "New Urbanism", and Smart Growth.

Sustainable urbanism and other similar environmental and holistic planning and design approaches have particular relevance today as the world faces unprecedented increases in the cost of fuel combined with measurable environmental degradation and the unpredictable effects and costs of climate change. What is known is that the design decisions we make today will affect the way we live well into the future. Greenhouse gas (GHG) reduction is the common measure of sustainable practices. The Broward Metropolitan Planning Organization anticipates that a shift to transit service removing close to 6000 automobile trips on Broward County trafficways by 2015 will result in a reduction of over 32,000 metric tons of CO_2E annually.[2] A localized effort to achieve sustainable urbanism must also address the unique characteristics of geography and climate. Subtropical Sustainable urbanism focuses on re-establishing and reinforcing the feeling of connection between the built environment and the natural environment in the context of Southern Florida.[3]

The Florida Department of Transportation (FDOT) developed Transit-Oriented Development Design (TOD) Guidelines to assist local governments and agencies in promoting and implementing land development that is supportive of transit investment. These guidelines are intended for areas situated within one-half mile of existing or planned transit facilities. They include a matrix linking transit modes with gradations of urban density and intensity. For the purposes of this study the transit modes proposed for the corridor include: local bus and express bus. The development of future transit modes following Broward County's 2035 Long Range Transportation Plan (LRTP), to include premium transit such as bus rapid transit (BRT) or light-rail along the Study Corridor, requires further technical evaluation. Intercity transit along the FEC corridor is also considered. Urban density and intensity ranges to support these transit modes were compared with existing land use and zoning criteria within a ½ mile of the corridor.

Some of the issues addressed here extend well beyond the scope of the project study area and are regional in nature. These broader issues can be viewed through the lens of the corridor that is the subject of this report. The primary challenge that frames the context of this study involves the need for a broadly based effort to cross jurisdictional boundaries in order to provide the necessary depth and clarity of the local context to better inform decision making, enhance funding opportunities, and implement a

functioning transit supportive and context sensitive physical environment that will ultimately improve the mobility choices and quality of life for Broward County's residents.

This pilot study, for the Oakland Park Boulevard corridor, engages the community and challenges all levels of government to work together toward designing a sustainable future for Broward County. The physical environment of our communities, from our transportation infrastructure to the form and structure of our real estate development, provides the working model for building sustainably through the THOR redevelopment initiative.

Context sensitive design for transit supportive land-use

Design is understood as both a process and a product.[4] As such, context-sensitive design is responsive to the unique attributes of an existing environment as much as it contributes to the creation of context. Decisions by a property owner, a neighborhood, a municipality, or county, have fundamental implications that shape the context for transportation and land development affecting not only Broward County, but the whole South Florida region.

The Broward County County-wide Community Design Guidebook ("the CDG") introduced a localized strategy for context-sensitive design for redevelopment and better coordination among five design practices: transportation, urban design, landscape, architecture, and environmental graphics. The CDG is a strategic planning tool for achieving context-sensitive design solutions by combining recognized best practices across disciplines with local knowledge. The Demonstration Areas in the CDG explore the design flexibility and planning strategies needed to implement locally appropriate and sustainable design solutions across diverse contexts throughout Broward County. Elements of the CDG are being reviewed for amending the County's Land Development Code, Access to Trafficways, and Site Plan Requirements, providing criteria pertaining to optional roadway design guidelines.

The recommend practice of the Institute of Transportation Engineers ("ITE") and the Congress for the New Urbanism ("CNU"), known as *Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities* (CSS), is one of the foundational documents for the THOR program and this pilot study. In transportation design, CSS evolved from the introduction of Context Sensitive Design ("CSD") in 1998[5] to a set of strategic principles, qualities, and outcomes developed by the American Association of State Highway and Transportation Organizations ("AASHTO")[6] to assess whether design activities meet goals for sustainable livable communities. Subsequent to this, the US Department of Transportation ("USDOT") Federal Highway Administration ("FHWA") and the Environmental Protection Agency ("EPA") sponsored the development of recommended practices by the ITE and CNU.

Additional references include the *Broward County Community Design Guidebook Codification Final Report: County Components*, prepared by HDR (March 2008); the

Development Without Displacement Handbook, prepared by the FAU/FIU Joint Center for Environmental and Urban Problems and the 1000 Friends of Florida (August 2000); and the USDOT Policy Statement on Integrating Bicycling and Walking into Transportation Infrastructure.

The AASHTO and FHWA Report on the Context Sensitive Solutions Strategic Planning Process discusses four core principles for implementing CSS in transportation processes, outcomes, and decision making:

1. strive toward a shared stakeholder vision to provide a basis for decisions;
2. demonstrate a comprehensive understanding of contexts;
3. foster continuing communication and collaboration to achieve consensus;
4. exercise flexibility and creativity to shape effective transportation solutions, while preserving and enhancing community and natural environments.[7]

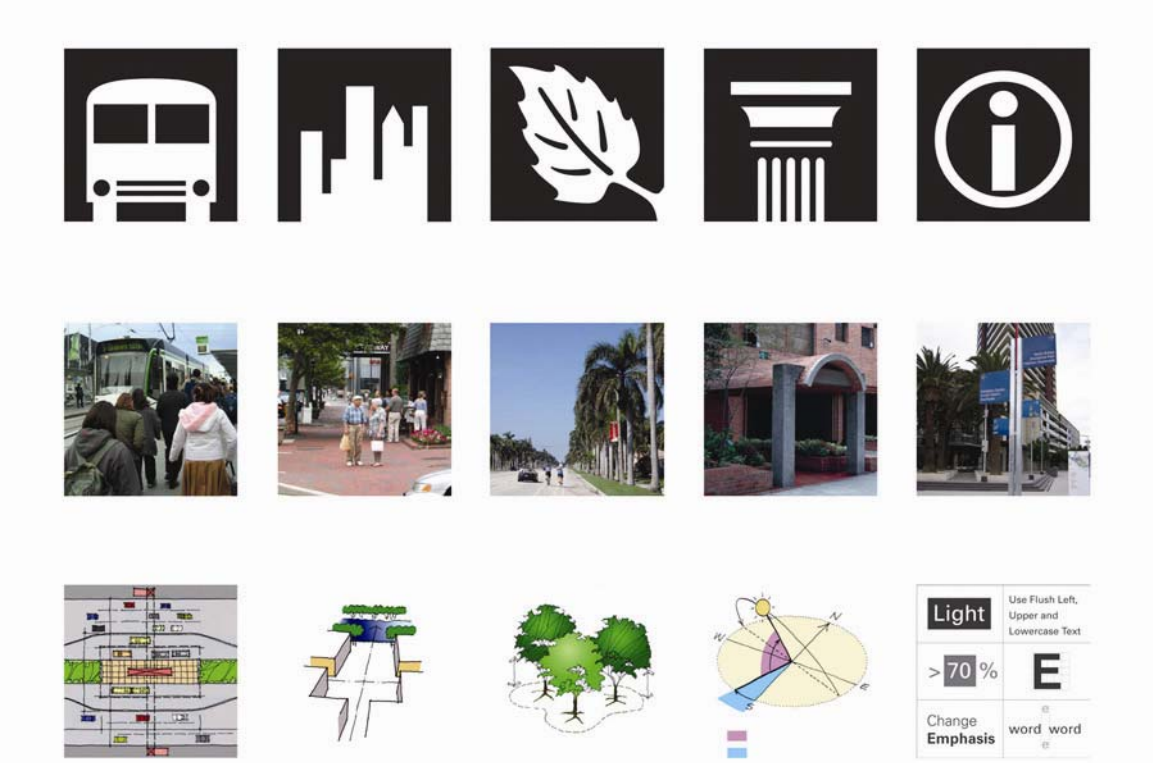


Fig 1. The CDG's five design practices: Transportation, Urban Design, Landscape, Architecture, Environmental Graphics. Source: Broward Community Design Guidebook: Anthony Abbate, Brian Black, Aron Temkin, Jay Archer, and Matthew Weber.

The Federal Transit Administration (FTA) evaluates all projects applying for New Starts funding in order to prepare annual Congressional budget recommendations. The FTA evaluates the justification and financial commitment for each project. Five criteria contribute to the project justification rating:

1. Mobility improvements;
2. Environmental benefits;
3. Operating efficiencies;
4. Cost effectiveness: and
5. Transit-supportive land use

This pilot study examines a segment of the Oakland Park Boulevard corridor and adjunct unincorporated areas to test strategies for developing transit-supportive land use.

Context sensitive design and sense of place

"*Creating a sense of place makes a distinction between style and design. It's not about giving something motif, using a certain color palette or building in a specific genre. A local sense of place emerges when designers take their cues from the climate, the weather, the environment, and the human culture of a place.*" [8]

The CDG identifies three contexts: (1.) the environment (climate, land, and ecosystems); (2.) transportation (forms and systems); and (3.) the community (local history, culture, and society);

and four general criteria for assessing context appropriate design activity:

1. connection with the natural landscape;
2. use of indigenous, local materials;
3. design for local climate;
4. integration of multiple modes of transport.

Coordinated design in each of the 5 design concentrations must be guided by a set of overriding principles developed through a community design process. In the case of the Oakland Park Boulevard study area, this process builds upon previous studies and is complemented by the engagement of the Florida Atlantic University College of Architecture, Urban, and Public Affairs, through its Broward Community Design Collaborative, and additional public outreach and community participation.

Work produced in the graduate level architectural design studios in response to conversations with, and feedback from, the community have been distilled to a set of typological urban design and development guidelines. These typologies reflect the proposed uses and densities to be served by mass-transit and multi-modal transportation as well as the forms of public space and urban redevelopment designed for human comfort under local conditions of geography and climate.

Public Involvement Process

The pilot study involved the community in various and significant ways. Working with the Broward County Environmental Protection and Growth Management Department and the municipalities of Oakland Park and Wilton Manors, a public workshop, lectures,

presentations, the open studio, and community scorecard events, were organized. Concurrent engagement in a "community conversation" process involving on-site visits, dialogue with community residents and business owners was conducted.

The public workshop consisted of a corridor design inventory. The inventory is an essential part of the community design process because it involves an assessment of the physical environment by the community. The inventory includes categories for each of the five design practices described in the CDG. Further, the inventories provide for assessing priorities for action to improve the physical environment within the study areas.[9] It is important to note that community attitudes are in constant flux and are influenced by myriad and complex factors, including the cost of fuel, the cost of housing, age, employment, social perceptions, and personal lifestyle preferences.

Work produced by the students was presented and exhibited at two scorecard events hosted within the participating municipality and at the County's Governmental Center where community reaction and feedback was collected and tabulated.

Project Management Team members attended business and neighborhood meetings to listen and record community concerns and answer questions. The public outreach and participation process is viewed as part of a continuum of dialogue and communication that began with previous studies, current parallel efforts and initiatives, and future refinements and implementation. The philosophy of the public engagement is based on the notion of a "bottom-up, top-down community conversation" involving open dialogue and "learning" from the community, as well as from leading design professionals and best design and engineering practices. Ongoing dialogue is expected to continue as the process evolves toward implementation.

The community involvement significantly shaped the conceptual approach to the corridors as well as the approach to the design of proposed scenarios for future transit/housing oriented redevelopment.

Oakland Park Boulevard Corridor Study Area

The pilot study area is multi-jurisdictional, spanning East and West Oakland Park Boulevard from Dixie Highway on the east to NW 31st Avenue on the west. The study area involves the City of Oakland Park, and the City of Wilton Manors. The recommendations apply to the study area (Oakland Park Boulevard from NW 31 Avenue to Dixie Highway) as well as to an area of Oakland Park Boulevard extending east to NE 18 Terrace.

General Project Issues and Findings

The Project Management Team developed a set of general issues and findings for the THOR corridor study areas which are addressed throughout this study.[10] In addition to this, two Community Design Inventories were conducted at public workshops for each

study area on 26 January 2008 where these issues and findings were verified or expanded.

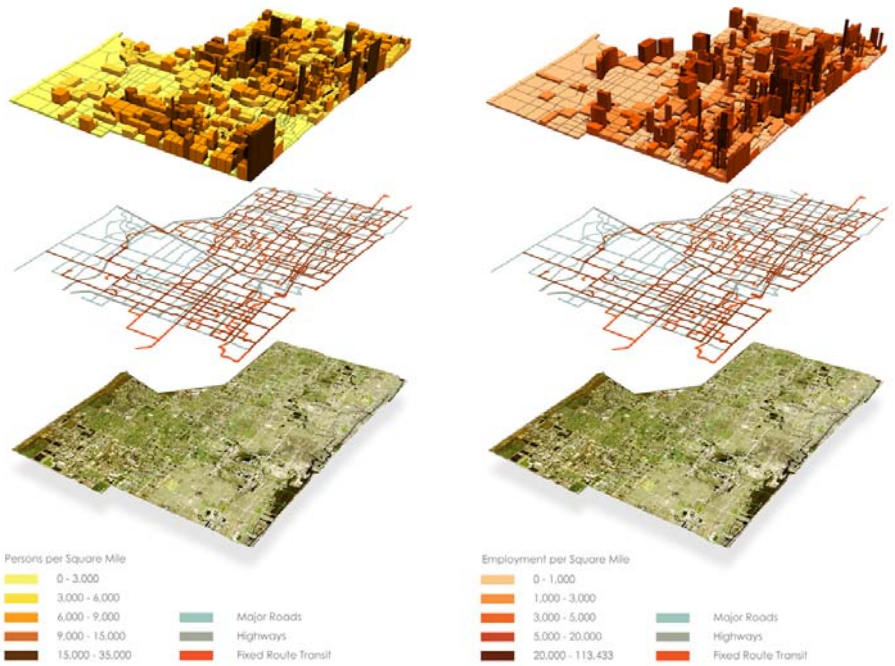


Fig 2a,b. Variations in residential (left) and employment (right) population density across Broward County. Source: FAU Broward Community Design Collaborative: Anthony Abbate, Rainer Oberndorfinger, and Matthew Weber.

Fig 2c. Note the concentrations of population density along Oakland Park Boulevard (shown in red) by Traffic Analysis Zone (2006). Darker colors indicate higher densities. Source: Broward County Growth Management Section, Planning and Redevelopment Division, Environmental Protection and Growth Management Department.

Fig 2d. Note the concentrations of employment density along Oakland Park Boulevard (shown in red) by Traffic Analysis Zone (2006). Darker colors indicate higher densities. Source: Broward County Growth Management Section, Planning and Redevelopment Division, Environmental Protection and Growth Management Department.

Planning Issues

The issues and findings developed by the Project Management Team supported by the community input received are outlined as follows:

1. Focus on parking, especially shared with pedestrian access to lot and to transit;
2. Residential rentals;
3. Mixed use opportunities;
4. Identify shelters approved for stimulus package funding;
5. Development at Prospect Road in Oakland Park is less noticed;
6. Possible renaming of Dixie Highway within Oakland Park and Wilton Manors to increase local feeling;
7. Need to restore neighborhoods where industry exists;
8. Small bus shelters good for dealing with narrow right of ways;
9. BCT bus and articulated bus;
10. Pedestrian and bikes;
11. Park and ride;
12. Feasibility of parking structure vs. surface parking;
13. Art institute;
14. Creative-industrial uses;
15. Transit transfer station at Powerline Road;
16. Gateway to Wilton Manors and Oakland Park;
17. Preserve green areas, natural areas, and parks.

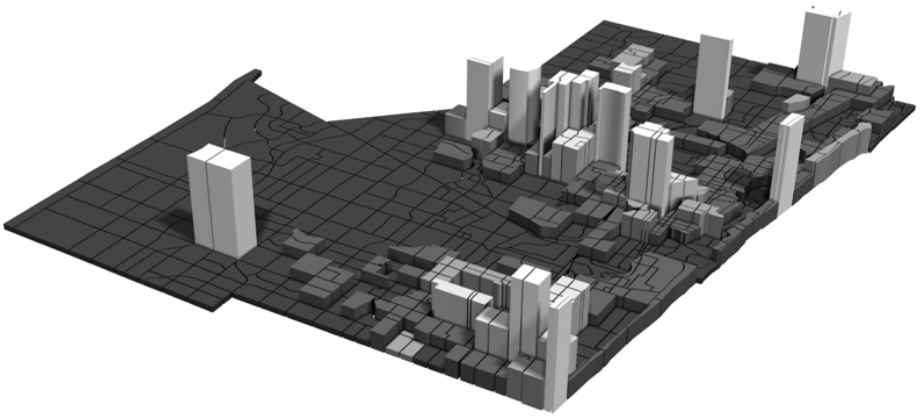


Fig 3a. Number of households with zero vehicles per square mile in Broward County. Areas with 800 or more households without vehicles are shown in light gray. Areas with less than 150 households without vehicles are shown in dark gray. Note the concentration along the Oakland Park Boulevard corridor. Source: FAU Broward Community Design Collaborative: Anthony Abbate, Rainer Oberndorfinger, and Matthew Weber.

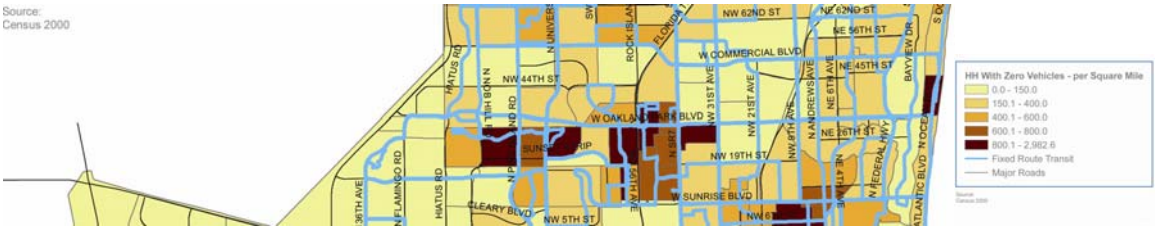


Fig 3b. Households with zero vehicles along Oakland Park Boulevard by Census Tract (2000). Darkest color indicates highest concentration (between 800.1 and 2982.6 households per square mile). Source: Broward County Growth Management Section, Planning and Redevelopment Division, Environmental Protection and Growth Management Department.

Enhancing existing neighborhoods

This study examines redevelopment scenarios that provide additional housing units while maintaining the integrity of neighborhoods predominantly comprised of single family homes. Improvements to the transportation system, while providing the infrastructure to support more housing options, can help single family neighborhoods reduce their carbon footprint and improve the quality of life with access to local goods and services.

According to a 2001 study conducted by Parsons Brinckerhoff, property value impacts tend to be highly localized around transit facilities, in particular for commercial uses located around rail stations.[11] The THOR initiative envisions redevelopment activity consisting of a combination of new mixed-use development, revitalization, and rehabilitation of existing structures intensified around transit nodes. The THOR strategy of relating land use to improved forms of transit is intended to reduce emissions and provide more sustainable redevelopment opportunities for existing residents and business owners, enhancing value to local stakeholders and ultimately to all residents in the surrounding areas. Sites along existing corridors that have exhausted their economic life-cycle, are underutilized, or vacant, may have potential for reinvestment and redevelopment, provided all factors are in place, specifically a dedicated investment in transportation infrastructure, including pedestrian and mass-transit improvements combined with changes in land development regulations to permit mixed-uses and higher densities.

Broward County's real estate market has been impacted by the recent downturn in the global economy indicated by high levels of unemployment, increased rates of foreclosures, and the tightening of credit markets.[12]

Investment in transit-oriented development and multi-family housing infrastructure and redevelopment should redirect costs from automobile amenities including parking facilities toward public amenities and services that benefit the existing surrounding neighborhoods, including uses and occupancies that stimulate pedestrian trips, reinforce a sense of community and support accepted crime prevention strategies to improve natural surveillance, access control and territorial reinforcement.

Transportation

Transportation is the single most important determinant of urban form.
The way we get around determines the way we live. – Alex Marshall, The Way Cities Work

Context sensitive transportation and redevelopment is considered to be the key to creating a better quality of life and a sustainable long-term development pattern for the Broward County. The County's Community Design Guidebook envisions a distribution of uses and densities that are scaled and appropriately linked to a variety of transportation modes. Highest densities would be linked with various forms of mass transit. Lowest densities, including single family residential districts, would be served predominantly by vehicular modes. Pedestrian and bicycle enhancements are needed in all areas regardless of density. However, a review of transit-oriented redevelopment nationwide[13] indicates that attracting the necessary redevelopment to achieve these goals requires a long-term and dedicated investment in infrastructure as well as changes in land-use and density to support mass-transit.

Urban strategy for reducing VMT and GHG

The future form of the region can comfortably accommodate future growth through the redevelopment of vacant or underutilized shopping centers into properly designed pedestrian privileged centers that include a variety of housing options, local retail, offices, cultural facilities, public health and neighborhood services, accessed by a multi-modal transportation network. Broward County's CDG and THOR provide a strategic multi-scaled and multi-disciplinary design approach for achieving reductions in vehicle miles travelled (VMT) and greenhouse gas (GHG) emissions. The idea is to design redevelopment to support reductions in the frequency and length of trips we take in a car, encourage healthy walking, and enhance community and civic life within a subtropical urban context by expanding and improving access to alternative modes of transportation within and between pedestrian privileged centers.

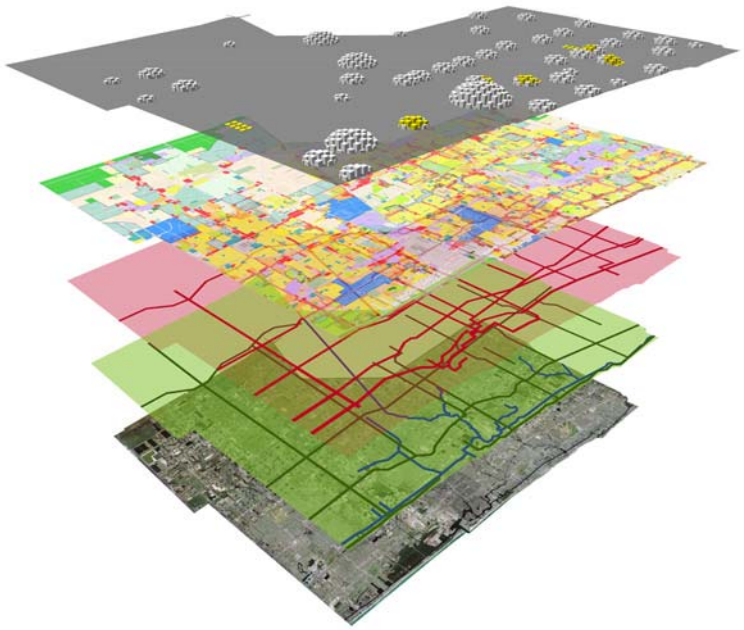


Fig 4. The County Quilt-Net envisions county-wide redevelopment as a network of context sensitive pedestrian-oriented centers connected by local and regional transit. Source: FAU Broward Community Design Collaborative: Anthony Abbate and Alex McManus.

The County's CDG and THOR initiative aim to improve access to transit, local recreation, services and commercial activities within walking distance from existing single family neighborhoods.[14]

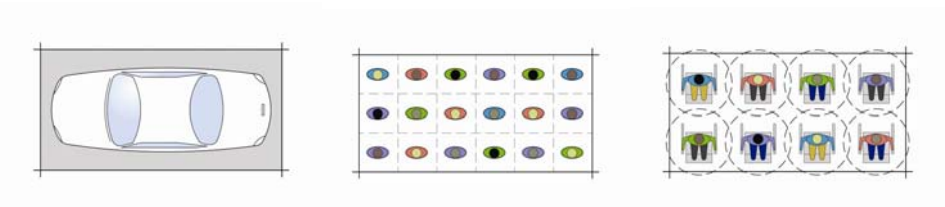


Fig 5. Number of cars, persons, and persons in wheelchairs per area of a standard parking stall. Source: FAU Broward Community Design Collaborative: Anthony Abbate and Matthew Weber.

These initiatives also promote more efficient use of existing land area. Cars require large areas of pavement which are generally impermeable, increasing local heat-island effect, affecting drainage capacities and aquifer recharge. High volumes of pedestrians can move around on more permeable surfaces that take up less area. Further, pedestrian areas require plantings for shade which reduce the heat island effect. A parked car requires 180 square feet. That is more than 8 times more area than a person in a wheelchair needs, or about 18 times more than a person walking needs.

Fig 6. Five minute walks charted within ¼ mile radii. Source: FAU Broward Community Design Collaborative: Anthony Abbate and Matthew Weber.

By creating centers linked by mass transit where pedestrian movement is prioritized over automobiles, more land may be dedicated for regenerating natural landscapes, parks, urban agriculture, and ecological systems.

County corridors and transit-oriented development

The existing corridor structure and land use distribution in Broward County generally provides the basis for three possible forms of transit-oriented development. These can be described diagrammatically as Corridor, Node, and Feeder. The "Corridor" diagram represents a "traditional main street" pedestrian-oriented development pattern along the trafficway corridor on each side of the right of way ("ROW"). The "Node" diagram represents a concentration of transit-oriented development around a transit stop or transit hub on a trafficway corridor. The "Feeder" diagram envisions pedestrian-oriented developments along a local ROW that intersects with a trafficway corridor at a transit stop or hub. Even with the most conservative population growth projections, it is likely that Node and Feeder patterns of transit-oriented redevelopment can sufficiently accommodate future growth county-wide. In the case of the subject corridors, the community input and the context analyses both indicate that Node and Feeder forms provide more realistic scenarios for implementation.

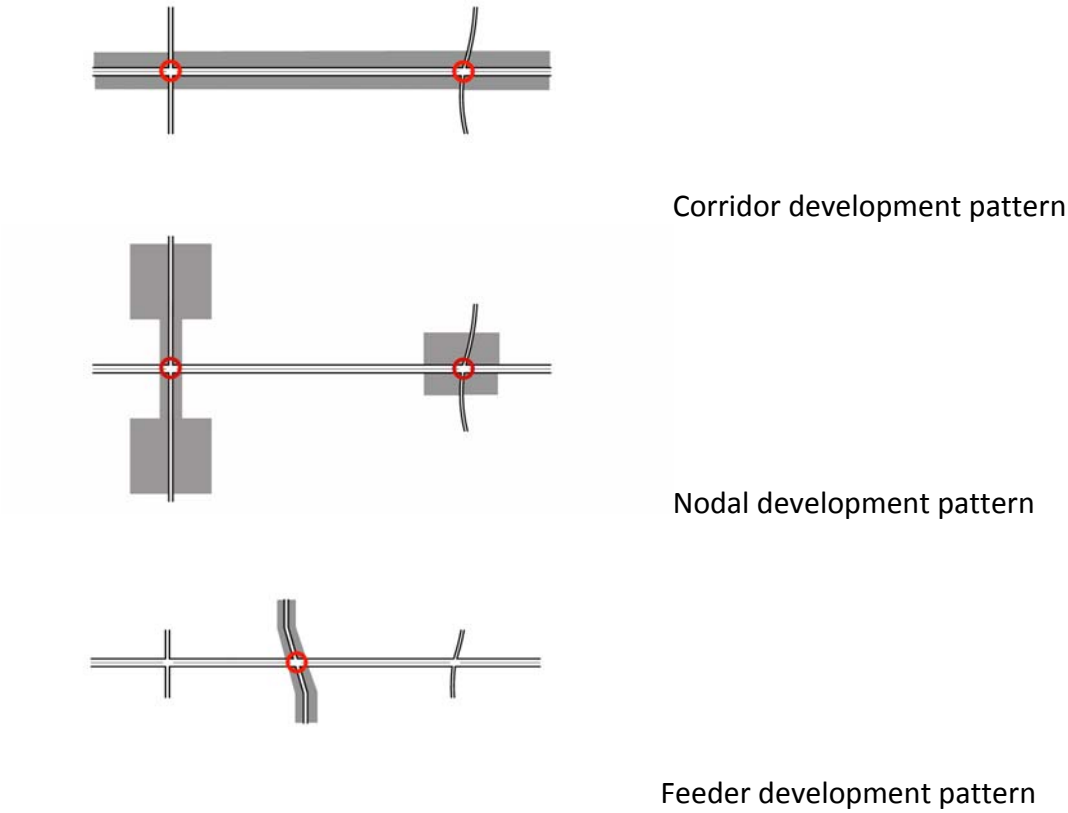


Fig 7. Possible patterns for transit-oriented development on a corridor in Broward County.
Source: FAU Broward Community Design Collaborative: Anthony Abbate, Matthew Weber, Alex McManus.

Results of the Public Involvement Process

Community Design Inventory

The Oakland Park Boulevard Corridor Community Design Inventory was conducted at a public workshop held on January 24, 2009. The study area was subdivided into 6 sub-areas:

Sub-area 1: Oakland Park Boulevard, east and west of Dixie Highway Intersection
Sub-area 2: Dixie Highway, north and south of Oakland Park Boulevard Intersection
Sub-area 3: Oakland Park Boulevard, east and west of Andrews Avenue Intersection
Sub-area 4: Oakland Park Boulevard, east and west of Powerline Road Intersection
Sub-area 5: Oakland Park Boulevard, east and west of NW 21st Avenue Intersection
Sub-area 6: Oakland Park Boulevard, east and west of NW 31st Avenue Intersection

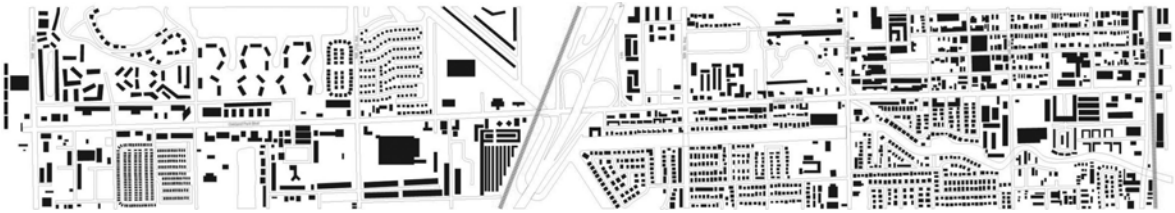


Fig 15. Figure-Ground of the Oakland Park Boulevard Corridor study area from NW 31 Avenue to Dixie Highway. Interstate 95 bisects the area at midpoint. FAU School of Architecture (Spring 2009).

The assembly of 36 persons was divided into groups assigned to each sub-area. A summary of the Community Design Inventory may be found in Appendix 'B'.

The elements consistently assigned the highest priority were in the area of transportation and landscape and included repairs, upgrades and addition of transit (bus stops) and trees for shade. A majority assigned high priority to improvements to sidewalks and pedestrian paths, crossings, crosswalks, and the addition of new bicycle routes, parks, and green spaces.

High priority was also assigned by a majority to improvements to and addition of street lighting, urban furniture, residential condominium and apartment uses; architectural improvements to public entrances, building facades, building relation to neighbors, the addition of canopies for weather protection. A high priority was also placed on repairing or improving the condition, maintenance, and scale of signage.

With regard to parking facilities, the general consensus was that parking needs to be better organized or consolidated. In some cases, for example at Oakland Park and Dixie Highway, the groups recommended removal of parking or relocation to on-street or alley parking. In others, for example at Oakland Park and Powerline Road "too many driveways" were observed and the group recommended that "parking lots should be combined into larger ones."

Specific Area Plans and Redevelopment Schemes

A community assembly and exhibit was held on February 24, 2009 at the Oakland Park Municipal Complex at which students exhibited 11 hypothetical area plans illustrating a range of transit supportive strategies. Community feedback concerning the highest ranked Oakland Park Boulevard Corridor Specific Area Schemes included favorable ratings for development of nodes or centers, significant emphasis on increasing the amount of plantings for shade and greenery, subtropical urban design strategies including public breezeways, landscaped plazas and courtyards, water features, dedicated pedestrian and bicycle routes, management of parking and parking facilities and a limited amount of additional residential density surrounding new public spaces.[15]

The Oakland Park Boulevard Corridor lends itself to nodal and feeder development forms of TOD. Nodal redevelopment would be appropriate at the intersection with Andrews

Avenue. Feeder development would be appropriate at the following corridors that intersect with Oakland Park Boulevard: Dixie Highway/FEC, Powerline/NW 9th Avenue, and NW 31 Avenue. The community is interested in new forms of mixed-use development, and the redevelopment master plan for Downtown Oakland Park would be supported by a strengthened pedestrian linkage to transit on Oakland Park Boulevard.

The highest scores received for the top ranked scheme (see Fig. 16, below) included comments received from the community for the following features:

- Use of green space
- Water park and greenbelt, business off of the main corridor
- Local natural ecosystem, waterfront, picnic area, business center
- Welcoming feel
- Bicycle and pedestrian ways, use of landscape, wide sidewalks, circle at intersection
- Different parks for uses, including bikeway, green spaces, and circles

The lowest scores received for this scheme included comments that it is “beautiful” yet “impractical,” “too dense,” and contains “too much mixed-use.”

Fig 16. Preferred area plans. Plan detail of the highest rated scheme (Oakland Park Boulevard and NW 31 Avenue) from the first community scorecard event. Note the predominant pedestrian circulation (indicated in taupe) is off of the main corridor; pedestrian access to transit facilities is enhanced through the use of water features and shade trees; pedestrian and bicycle access is provided to nearby waterways. A circular form with corresponding crosswalk design creates a coherent urban space at the intersection with NW 21 Avenue.
Source: FAU School of Architecture,Gregory Hoffman, Francisco Martinez-Agullo. (Spring 2009)

The second ranked scheme (see Figs. 17a., and 17b. below) received favorable comments for the following:
- Bus pullouts
- Focus on waterway
- Use of parking structure

- Sustainable components
- Green spaces, use of river, bike paths

Fig 17a. Preferred area plans. Plan of 2nd ranked scheme (Oakland Park Boulevard at Andrews Avenue) from the first community scorecard event. The scheme features redevelopment of existing industrial uses and commercial shopping centers with mixed uses; predominant pedestrian circulation off of the main corridor; and enhancement of the accessand use of existing waterways and landscapes. Source: FAU School of Architecture, Brian Collins, Alan Dritenbas. (Spring 2009)

Fig 17b. Plan detail of 2nd ranked scheme (Oakland Park Boulevard at Andrews Avenue) illustrating bus pull out and pedestrian crossing configurations. Crosswalks are aligned with pedestrian passageways and entrances while continuous overhangs provide shelter at redevelopment sites fronting each transit facility. Source: FAU School of Architecture, Brian Collins, Alan Dritenbas. (Spring 2009)

The third ranked scheme (See Figs. 18a., 18b., and 18c. below) received favorable comments for the following:

- Good use of small sites on Oakland Park Boulevard
- Environmental treatments
- Shade and green
- Bus shelters

Fig 18a. Preferred area plans. Plan detail of 3rd ranked scheme (Oakland Park Boulevard between Andrews Avenue and NW 9th Avenue) from the first community scorecard event. The scheme features mixed uses on small parcels; predominant pedestrian circulation off of the main corridor; and enhancement of the access and use of existing waterways and landscapes. Source: FAU School of Architecture, Carlos Caceros and Jennifer Snyder. (Spring 2009)

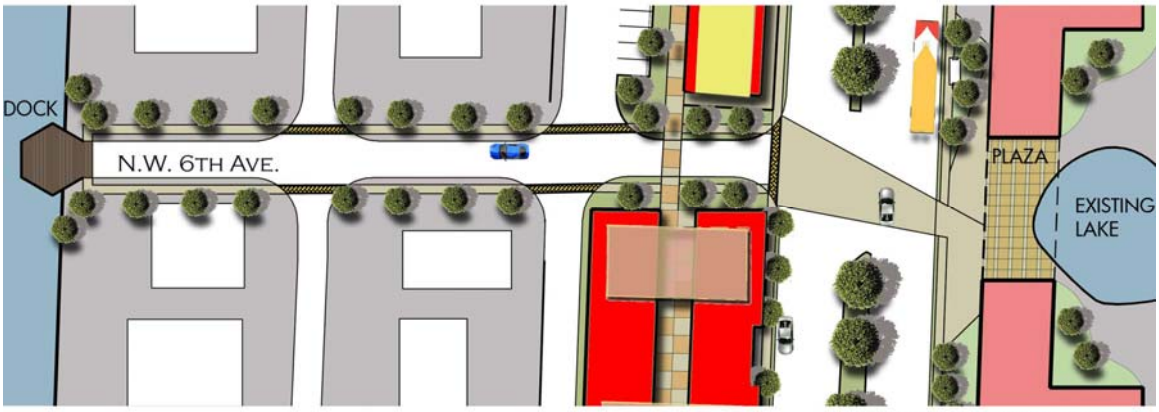


Fig 18b. Detail of the pedestrian and public space enhancements connecting existing waterways. Source: FAU School of Architecture, Carlos Caceros and Jennifer Snyder. (Spring 2009)

Fig 18c. Detail of bus shelter design for the City of Oakland Park. Source: FAU School of Architecture, Carlos Caceros and Jennifer Snyder. (Spring 2009)

Municipal Redevelopment Schemes

A final community assembly and exhibit was held on April 21, 2009 at the City of Oakland Park Municipal Complex. Students exhibited 21 hypothetical urban redevelopment projects based on context-sensitive transit-oriented design concepts developed in the area plans.

Strategies were illustrated for enhancement and revitalization on the Wilton Manors side of Oakland Park Boulevard, between I-95 and Andrews Avenue, were presented, along with potential enhancements to improve access from the "Wilton Manors Publix Hub" to a possible rail-bus link at the Dixie Highway/Florida East Coast (FEC) intersection.

The City of Oakland Park's Downtown Mixed Use District Regulations and Design Guidelines[16] provides creating a new zoning category, including district design guidelines and development regulations to "foster smart growth and economic development" with a "focus on transit, bicycle and pedestrian orientation." Within the plan are seven sub-areas. Sub Area 1 (Boulevard Commercial) extends from NE 10 Avenue to NE 15 Avenue on the north side of Oakland Park Boulevard to a depth of one block to NE 32 Street. Sub Areas 5 (Dixie Mixed Use), 6 (Residential Office Buffer), and 7 (The Neighborhoods) extend further towards the core of the redevelopment area, known as Park Place. The CRA Plan and the District Regulations are generally congruent with the County's THOR initiative. The mixed use design guidelines include criteria on urban form, architectural design, streetscaping, landscaping, and signage.

The Oakland Park Community Redevelopment Agency (CRA) Plan also identifies a number of proposed capital improvements within the study area (at Dixie Highway, including the approaches situated south of Oakland Park Boulvard at the Middle River Bridge, Andrews Avenue, and at NE 6 Avenue) including traffic signal improvements,

special pavements, upgrades to utilities, crosswalks and landscaping.[17] Additional building height and density are provided under Section 24-269 Additional Building Height Program. Three additional stories may be added within Sub Area 1, and two within Sub Area 5 subject to land aggregation requirements of at least one entire city block. Parking requirements include minimum of 2 spaces per dwelling unit. Shared parking is not reserved.

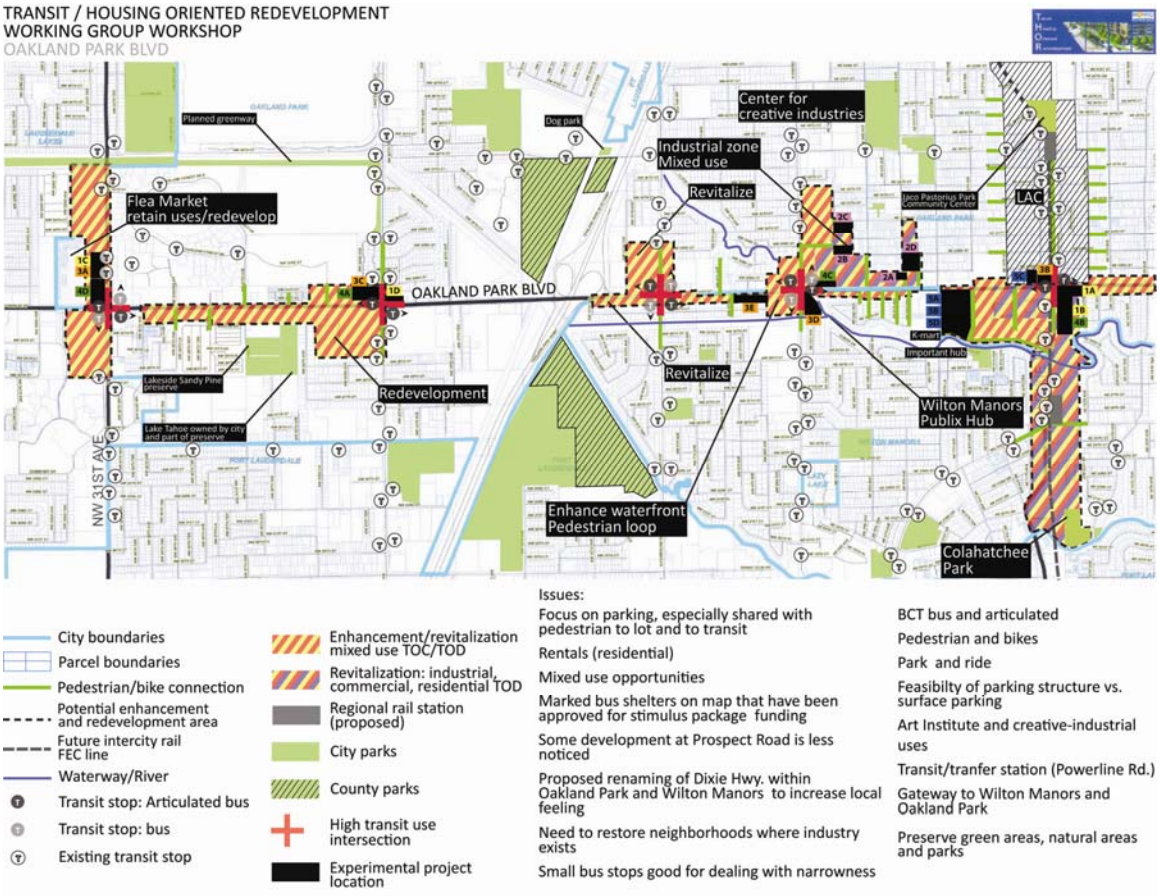


Fig 19. Strategic Area Plan developed at the Project Management Team charrette. Source: Broward Community Design Collaborative, Kevin Cruz and Anthony Abbate. (Spring 2009)

A selection of features from the highest rated schemes are presented in the following illustrations (See Figs. 20 though 25). Additional typological elements extracted from the student work were used to develop illustrations of recommended practices. (See Figs. 26 through 32).

Fig 20. Transit shelter and corridor shade structure. Source: FAU School of Architecture, Greta Carbo. (Spring 2009)

Fig 21. Continuous pedestrian shelter structure bridges public and private spaces. Source: FAU School of Architecture, Greta Carbo. (Spring 2009)

Fig 22. Underutilized parking lot becomes the site for transit oriented redevelopment. Source: FAU School of Architecture, Joanna Reyes. (Spring 2009)

Fig 23. Corridor median converted to BRT station. Source: FAU School of Architecture, Joanna Reyes. (Spring 2009)

Fig 24. Adaptive reuse of big-box construction with activation of the water's edge. Source: FAU School of Architecture, Brian Collins. (Spring 2009)

Fig 25. Adaptive reuse of small industrial properties through introduction of retail, restaurant, and work-live residential uses. Source: FAU School of Architecture, Francisco Martinez-Agullo. (Spring 2009)

Oakland Park Boulevard Corridor Recommendations

The general context-sensitive design recommendations for the Study Area created by students at the FAU School of Architecture provided case studies of the application of the various context sensitive and transit supportive planning principles applied to a sub-tropical urban context.

The schemes developed by students demonstrate varying levels of success yet the community response to them reflects a common theme that the most acceptable design decisions for sustainable physical environments are shaped by responsiveness to (subtropical hot-humid) climate conditions.

The recommendations that follow are based on community input, technical analyses, a survey of best practices, and a critical review of existing regulations and policies. The recommendations are organized according to the following categories: (1.) General (policy, land use, zoning, and development regulations), and (2.) Local (design guidelines).

1. General Recommendations

1.1. Provide zoning incentives and facilitate improvements to existing properties as well as new development that are pedestrian and transit supportive. Incentives may include density bonuses, mixed-use, and transfer of development rights (TDRs).

Adopt zoning ordinances to require the dedication of land by easement or deed pursuant to the requirements of Broward County Transportation to provide for fully accessible bus shelter facilities on Oakland Park Boulevard, Dixie Highway, Andrews Avenue, NW 9th Avenue, NW 21 Avenue, and NW 31 Avenue.

Shelter type	Characteristics		
	Roof canopy extension	Length	Minimum ROW
SMALL	4′	14′	5′
SMALL EXTENDED	4′	28′	5′
MEDIUM	7′	14′	10′
MEDIUM EXTENDED	7′	28′	10′
LARGE	15′	20′	20′

Table 1. Broward County bus shelter dimensional characteristics. Source: Broward County Transportation Department, February 2009.

1.2. Continue to review and revise land development policies and municipal regulations to facilitate a wider range of neighborhood and commercial property enhancement initiatives. Development policy must also accommodate smaller scale development in order to provide opportunities for small and local business participation, such as the small industrial property owners in Oakland Park and Wilton Manors. All scales of redevelopment must support sustainable design practices and development models. Further, local jurisdictions must be willing to permit innovative strategies for adaptive reuse, vertical mixed-use, and infill development.

1.3. In order to facilitate implementation of transit oriented development and meet carbon reduction goals, county and municipal development management and approval policies must be reviewed for consistency. The multi-jurisdictional nature of review, approval, and inspection processes presents a challenge for municipal and county agencies to develop a unified set of criteria, including adoption of BCT and FDOT District IV transit facility and pedestrian access guidelines. As jurisdictions agree to share a common goal to implement THOR, they must agree to develop a consistent regulatory framework to permit its effective implementation.

1.4. All municipal and county agencies involved in development review must agree to a common and coordinated process in order to deliver predictable, fair, and cost effective development review and approval procedures. A countywide audit of the development

review process among all jurisdictions is highly recommended with an aim toward improving efficiency and consistency of interpretation. Provide an inter-agency tracking system to improve coordination and communication, and streamline project filing and review timelines.

A core principle of Smart Growth is to "make development decisions predictable, fair and cost effective."[18] Conflicting priorities that typically arise in multi-jurisdictional regulations and review processes must be resolved in order to simplify development review and provide the incentive for economic development and redevelopment. Real development costs include intangibles that can't be predicted such as the volatility of construction materials, labor, and real estate markets. The cost for playing out conflicting requirements among different agencies is significant, involving additional time, specialist design consultants, and in most cases legal counsel. Soft costs associated with navigating county and municipal review and approval processes measurably affect the affordability and ultimate financial viability of a project regardless of its size and scope. The longer reviews and approvals take, the more financial risk is associated with the project. Clear and consistent public information and guidance across all jurisdictions is needed to provide a clear and unambiguous process for all development, especially smaller scale projects that are only feasible with modest budgets.

1.5. Provide higher density land-use within THOR areas, extending ½ mile from the transit nodes on the corridor at NW 21 Avenue and NW 31 Avenue, approaching gross densities of 10-35 DU/ac with FARs of 2.0 to 3.0 and employment densities between 50 and 200 jobs/acre. These indicators would support a variety of enhanced transportation modes.

1.6. Develop and implement municipal zoning requirements to provide for public access and enhancement of waterways.

1.7. Develop and implement municipal zoning requirements providing for the feasible architectural integration of transit facilities in new development and redevelopment projects.

1.8. Introduce the following permitted uses in industrial zones: commercial, residential, and mixed-use.

1.9. Fund the development of shared public parking facilities to support the pedestrianization of areas targeted for redevelopment.

1.10. Prioritize projects that meet carbon reduction goals and transit-oriented redevelopment objectives through performance based criteria such as those required for FGBC, LEED-ND (in development), or Green Globe certifications.[19]

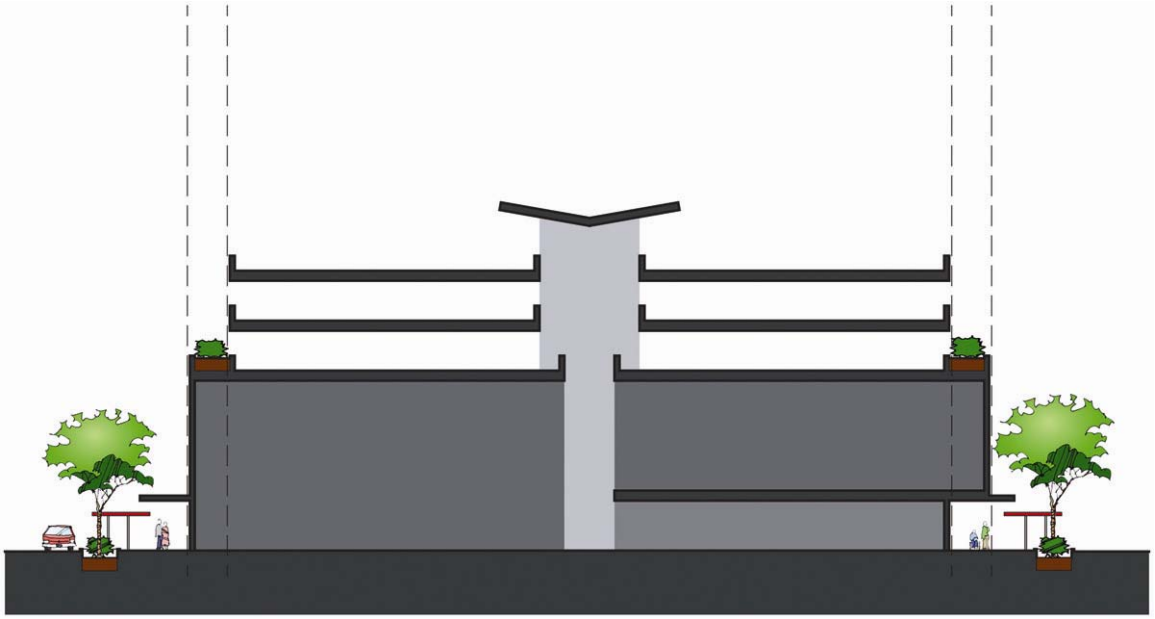


Fig 26. Transit facilities integrated into perimeter at ground floor of full block redevelopment scheme. (Cross-sectional view also shows elevated parking and an internal atrium for ventilation and natural light). Source: FAU Broward Community Design Collaborative, Alex McManus and Anthony Abbate (2009).

Fig 27. Transit facilities integrated into a corner at ground floor of an urban redevelopment scheme. (Street view also shows elements of green design including bio-swales, solar shade screens, pedestrian priority). Source: FAU Broward Community Design Collaborative, Alex McManus and Anthony Abbate (2009).

1.11. The existing ROW presents a constrained condition along the Oakland Park corridor. Generally, the public desire to implement bicycle lanes and transit facility improvements will present challenges both in terms of the physical restraints and the capacity to accommodate additional modes and trips. Additional study is needed to determine the extent to which more efficiency can be achieved on the corridor by introducing more permanent modes of mass-transportation such as Bus-Rapid Transit, or light rail.

1.12. Update the Broward County Transportation Department (BCTD) transit facility guidelines to include universal accessibility, improved pedestrian access, and integration of the County's Public Art and Design program to create an enhanced visual environment and to promote tourism and economic vitality through artistic design of public spaces.

1.13. Restrict the supply of parking to encourage transit usage.

2. Local recommendations

Locally applicable best practices and must be verified against the particular context and constraints on a case by case basis. A strategic pubic investment in the transit and pedestrian infrastructure will facilitate private investment in redevelopment in areas with the capacity for enhanced transit. An example of a potential sequence for transit supportive and pedestrian oriented redevelopment is shown in Figure 32.

2.1. Station locations should strategically address ease of access and safe pedestrian routes for transfers as well as opportunities for pedestrian oriented redevelopment. The transit facilities at the following locations have the highest intensity of transit usage: NW 9 Avenue, Andrews Avenue, and Dixie Highway. The following locations appear to have redevelopment potential, based on local demand: Dixie Highway, NE 6 Avenue, NW 31st Avenue.[20] Transit facilities at these locations should provide at a minimum: shortest possible transfer walking distance, seating, sun and rain protection, trash disposal, wayfinding and transfer information.

2.2. Introduce the following permitted uses in existing industrial zones: restaurant, retail, art gallery, work-live residential.

2.3. Reduce the required on-site parking minimums set forth in the local land development regulations. For example, the municipalities of Oakland Park and Wilton Manors require 2 parking spaces per single family dwelling unit. Wilton Manors requires 2.7 spaces per unit for multi-family dwellings with more than 11 units, whereas the City of Fort Lauderdale requires 1.2 spaces per unit.

2.4. Update pedestrian circulation requirements to establish pedestrian priority in new development. Currently the off-street parking requirements are prioritized both in terms of scope and extent of the regulations.

2.5. Update landscape regulations to establish requirements for shading the pedestrian circulation areas and reducing the heat-island effect. Currently the landscaping requirements emphasize buffering and other aesthetic aspects of vehicular use areas (VUAs).

2.6. Design guideline plans for the THOR areas should take into account the nature of building and living in a sub-tropical climate. Local historical patterns of development and design are instructive in demonstrating the qualities of a permeable urban fabric, and a localized, bio-climatic approach to the design of public spaces.

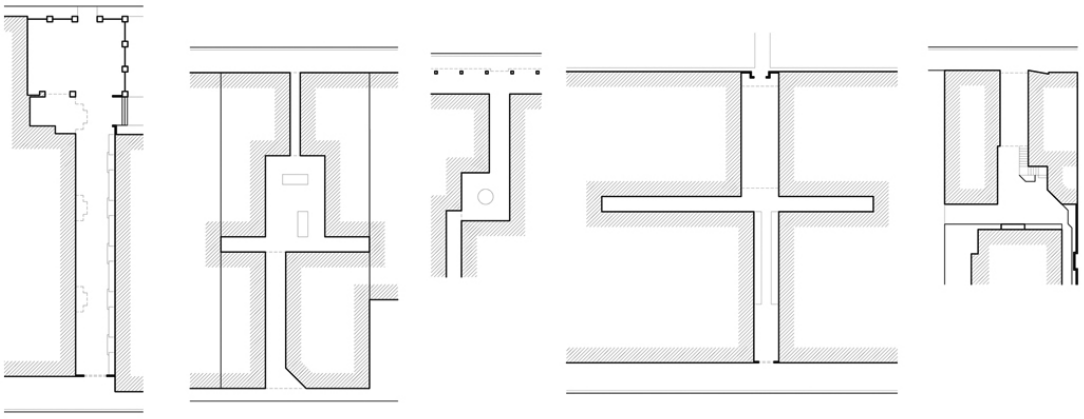


Fig 28. Permeable urban fabric suited to hot-humid climate on the Las Olas Boulevard corridor consisting of cross-block pedestrian passageways (breezeways, paseos), private open spaces, small plazas, and courtyards. These are accessible to the public and designed to provide natural ventilation and a comfortable outdoor pedestrian environment between the corridor, parking, and transportation facilities. Source: FAU Broward Community Design Collaborative, Anthony Abbate and Matthew Weber (2008).

2.7. Design for pedestrian priority to enhance mobility, safety, and convenience. Context Sensitive Solutions and FDOT's Transit Oriented Development Guidelines provide general guidance, however specific localized principles that solve the problems of providing weather protection, outdoor thermal comfort, and circulation, such as those found in the CDG[21] or the FGBC Green Development Reference Guide[22], must also be applied.

2.8. To properly address local climate considerations, transit shelters must at a minimum provide shade and permit cross ventilation. Depending on the size of the shelter, additional climate features should include effective rain protection, positive drainage, splash mitigation at the curb, landscaping, and solar power. Solar shading and air circulation patterns can be determined via simulation to verify design performance requirements.

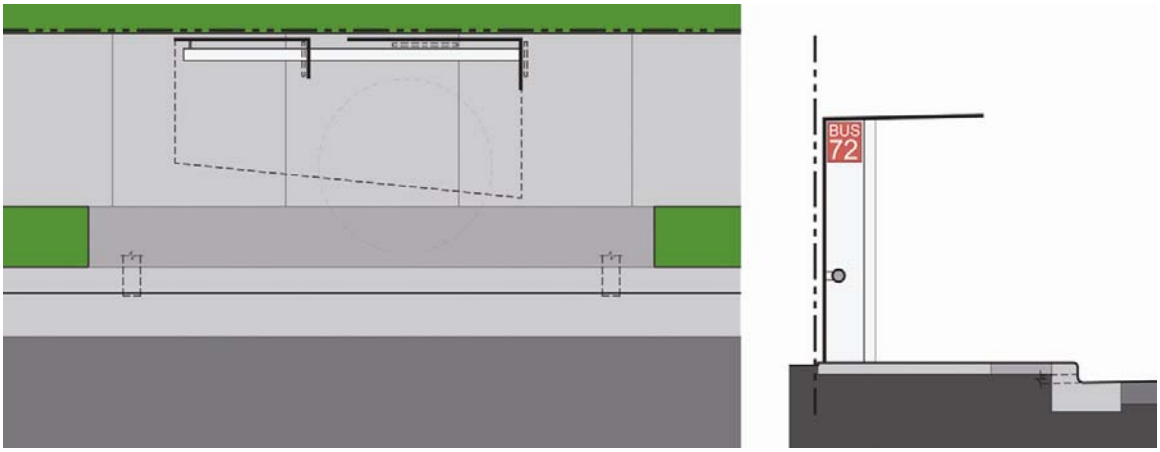


Fig 29. Minimal transit shelter to fit an existing ROW width of 6.5'(Plan shown at left and section at right). Source: FAU Broward Community Design Collaborative, Alex McManus and Anthony Abbate (2009).

2.9. Sustainable urban design principles for hot-humid climates encourage the flow of breezes; provide elements for rain protection and shade along pedestrian paths and sidewalks; encourage abutting canopies on parcels that share common frontages; provide for a permeable building organization pattern with accessible breezeways and courtyards that serve as integral parts of the site circulation system; take into account the gradual optical transition from shaded protected environments to intense natural daylight; discourage the use of unsustainable materials that are manufactured to simulate other materials; encourage the integration of gardens and natural vegetation; encourage building orientations that maximize southern and northern exposures while minimizing heat gain from eastern and western exposures; incorporate innovative design of storm water management systems; incorporate facilities for users of transit and bicycles; and, incorporate architectural and urban wayfinding elements.

2.10. Encourage innovative design for housing types suited to a broad range of needs. Mixed use occupancies should include child day care and adult day care; health and human services; public safety and security services; as well as commercial occupancies such as locally owned and managed cafes, restaurants, markets, beauty and hair salons, florists, stationers, dry cleaners, consignment shops, bakeries, and other neighborhood uses.

2.11. Organize and educate the local business and neighborhood communities in support of THOR and improved transit.

Fig 30. Accessible crosswalk typology with at grade surface treatment at the curbed median and pedestrian signalization integrated with street signage. Note placement of vertical poles within the landscape zone of the ROW so as not to interfere with the pedestrian route. Source: Broward County CDG, Pembroke Road (between SR-7 and the Florida Turnpike), Miramar Demonstration Area, Anthony Abbate and Alex McManus (2007).

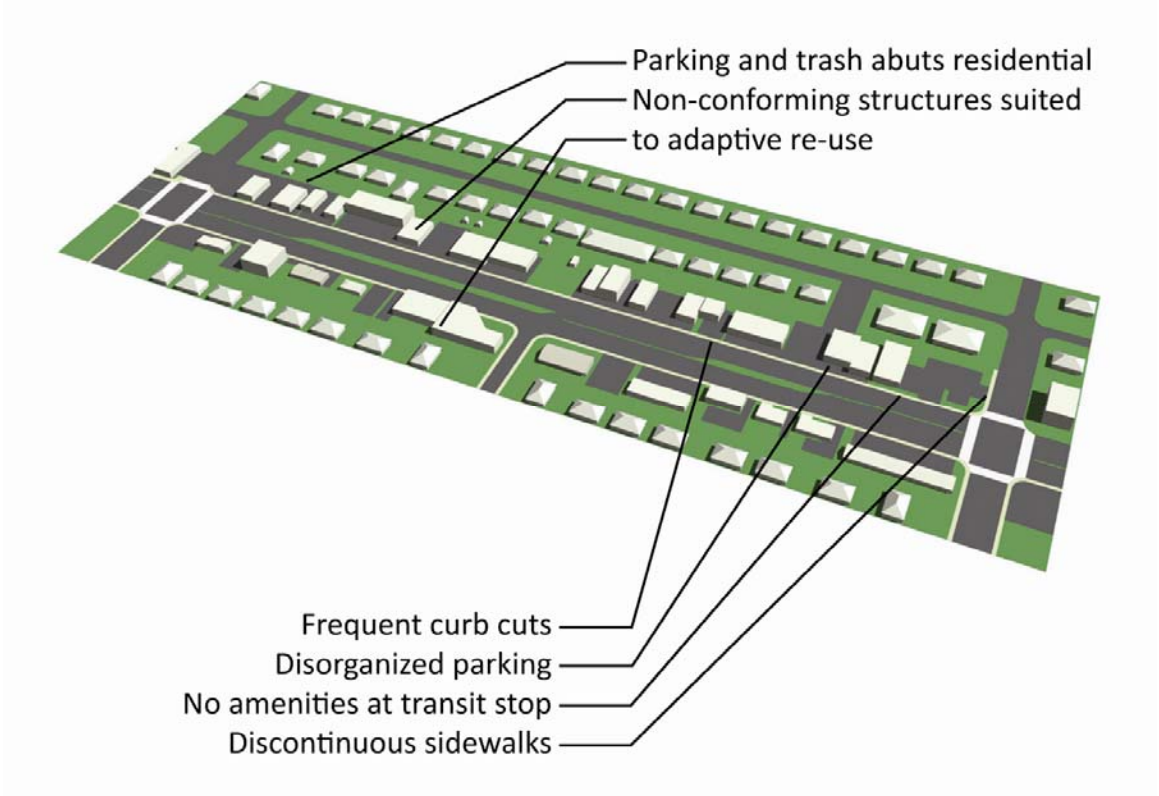


Fig 31. Generic pattern of corridor development under current land use designations. Multiple curb cuts combined with constrained right of way and narrow commercial frontages with minimal buffer to adjacent residential. Source: Broward County CDG, Pembroke Road (between SR-7 and the Florida Turnpike), Miramar Demonstration Area, Anthony Abbate and Alex McManus (2007).

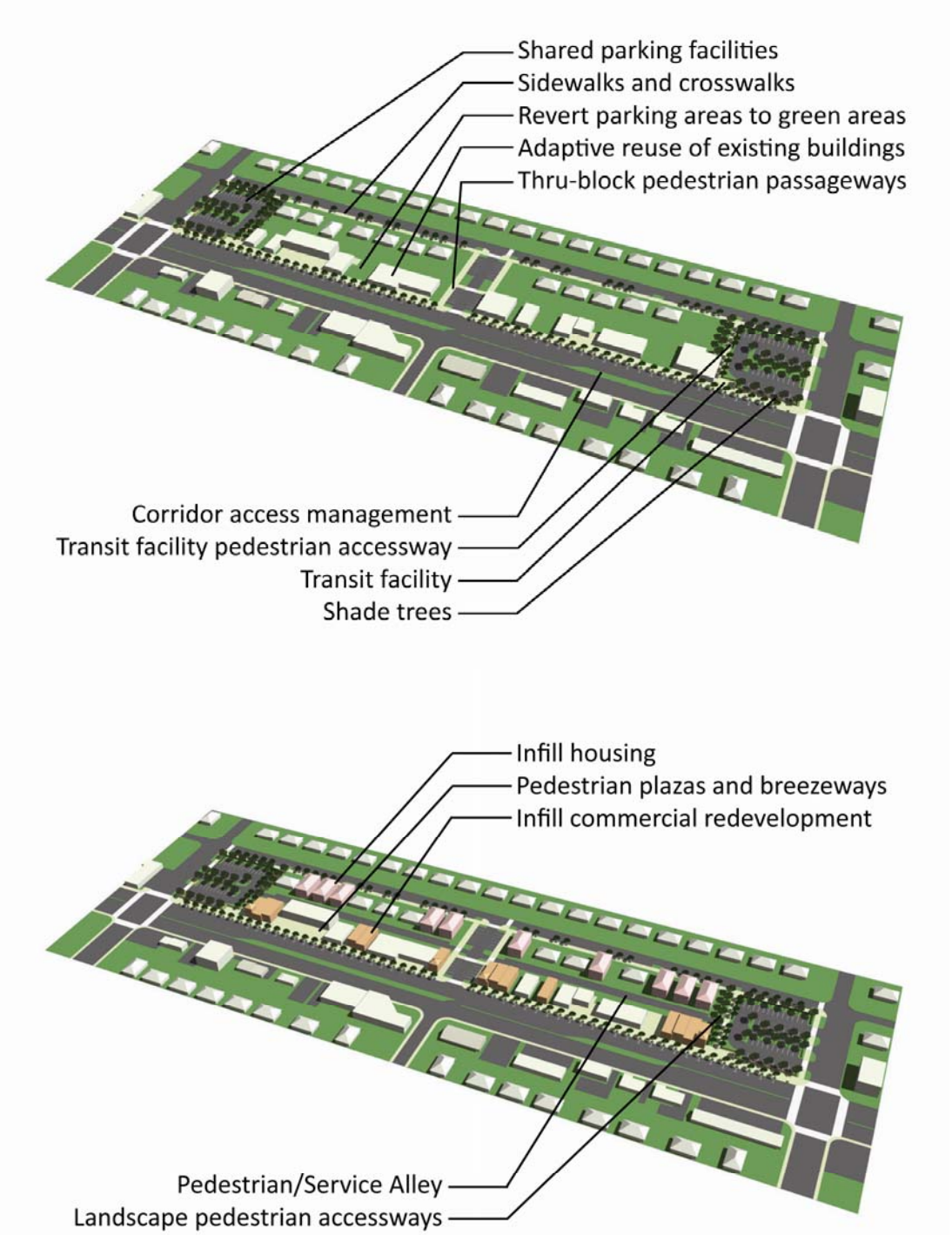


Fig 32. Proposed pattern of phased transit-oriented infrastructure and redevelopment. Shared parking coordinated with roadway access management (top).Full block redevelopment scenario illustrates multi-family residential fronting the interior residential street and mixed-use commercial/residential on the corridor (bottom). Source: Broward County CDG, Pembroke Road, Miramar Demonstration Area, Anthony Abbate and Alex McManus (2007).

References

From Bus Shelters to Transit Oriented Development: A literature review of Bus Passenger Facility Planning, Siting, and Design. Florida Planning and Development Lab. Florida Date University.

Transit Oriented Development Design Guidelines, Florida Department of Transportation

Transit Facilities Guidelines, Florida Department of Transportation

Hindrichs, Dirk, and Klaus Daniels, Eds.; plusminus 20°/40°latitude (Stuttgart: Edition Axel Menges) 2007.

Kwok, Alison, and Walter Grondzik; The Green Studio Handbook (Oxford: Elsevier) 2007.

Leupen, Grafe, Kornig, Lampe, DeZeeuw; Design and Analysis (Rotterdam: 010 Publishers) 2000.

McDonough, William and Michael Braungart; Cradle to Cradle: Remaking the Way We Make Things (New York: North Pointe) 2002.

Endnotes

[1] Einar Lillebye. "The architectural significance of the street as a functional and social arena." In Jefferson, C., Rowe, J., and Brebbia C. (eds.) *The Sustainable Street: the environmental, human, and economic aspects of street design and management*. (London: WIT Press) 2001. Pp.3-44.

[2] Based on the annual greenhouse gas (GHG) emissions per passenger vehicle of 5.46 metric tons CO_2E/vehicle/year. The calculations of GHG reductions are for the section of Oakland Park Boulevard between NW 31st Avenue and University Drive with a 10% mode split (transit, walking, bicycling). The calculations are an example of the reductions that are possible by removing automobile trips. Broward Metropolitan Planning Organization Federal Assistance grant application for the EPA's "Climate Showcase Communities Grant Program." 22 July 2009.

[3] Anthony Abbate. *Subtropical Sustainable: A context sensitive design approach to redevelopment in Broward Count.* Broward Community Design Collaborative at Florida Atlantic University. 2008. pp.7-8.

[4] Ibid. p.5

[5] The basic concepts of context sensitive design emerged from the May 1998 joint conference "Thinking Beyond the Pavement." The Maryland Department of Transportation, State Highway Administration, AASHTO, and FHWA.

[6] Context Sensitive Solutions. Center for Environmental Excellence by AASHTO. http://environment.transportation.org/environmental_issues/context_sens_sol/ Retrieved 06.21.2008.

[7] Center for Transportation and the Environment. North Carolina State University: *Results of Joint AASHTO/FHWA Context Sensitive Solutions Strategic Planning Process Summary Report.* "Results of Participatory Strategic Planning Session on Mainstreaming CSS," Core Principles. March 2007. p.6 Retrieved 06.21.2008. http://environment.transportation.org/pdf/context_sens_sol/portlandsummary_final_050107.pdf

[8] Anthony Abbate. "Preface: Sense of Place." *Broward County County-wide Community Design Guidebook*. Broward County Board of County Commissioners. Planning Services Division. July 20, 2007. A.5.1.

[9] Community Design Inventory Summary Matrix: Oakland Park Boulevard. School of Architecture. February 2009.

[10] THOR Core Team/Working Group, Issues List – General Themes, March 2009.
[11] Parons Brinckerhoff. *The Effect of Rail Transit on Property Values: A Summary of Studies.* Research carried out for Project 21439S, Task 7. NEORail II, Cleveland, Ohio. 21 February 2001.
[12] Michael Huneke and Sheldon Riles, *Broward County Market Summary and Residential Market Summary; Central Broward County Office Market Summary, Retail Market Summary, and Industrial Market Summary*. See Appendix "B". 2009.
[13] Transit investments must be accompanied by a level of commitment by local governments to allow multi-use development at density levels to support the move toward better transportation options including mass transit. "The more permanent those transportation options are, i.e. rail, the more at ease consumers feel and the more investment comes." Jon Zemke, *Investing in Transit*. Metromode e-magazine. (Detroit: Issue Media Group, LLC). 15 November 2007.
http://www.metromodemedia.com/features/InvestTransit0045.aspx
[14] Empirical research indicates that the average person in South Florida can walk comfortably outdoors on a warm humid day for 5 minutes, covering a distance of approximately 1300 ft, or about 1/4 mile. That distance would traverse an area of more or less 6 acres, or 24 houses at 4 units per acre, 60 townhouses at 10 units per acre, or 150 apartments at 25 units per acre. Higher densities requiring space for moving and parking between 120 cars to 300 cars within an area of a 5 minute walk, or 240 to 600 in the space of a 10 minute walk create unsustainable, unattractive, even intolerable, environments. Source: FAU School of Architecture. March 2008.
[15] Oakland Park Boulevard Scorecard Results, Florida Atlantic University School of Architecture. March 2009.
[16] City of Oakland Park, Florida. Community Redevelopment Area (CRA) Plan. Appendix B. Downtown Mixed Use District Regulations and Design Guidelines (Draft) 4 Nov 2005.
[17] Ibid., Proposed Capital Improvements related to Redevelopment Concept Plan, Item 1.a. Reconstruction of the intersection of Oakland Park Boulevard and Dixie Highway (p.78), Item. 6. South Dixie Highway Gateway (p.80), and Item 25, Major Intersection Improvements (p.85).
[18] Smart Growth Principles, Smart Growth Network.
http://www.smartgrowth.org/about/principles/default.asp
[19] FGBC is voluntary statewide certification system for land development, high rise, commercial, and residential projects. Visit www.floridagreenbuilding.org for more information. LEED is an national certification system developed by the US Green Building Council. Visit www.usgbc.org for more information. Green Globe is an international certification system supported by Earthcheck Science for communities and companies. Visit www.ec3global.com for more information.
[20] Results of Community Scorecard tabulations for the Oakland Park Boulevard Corridor Study, Schemes 1A (Oakland Park Blvd. and Dixie Highway), 1C (Oakland Park Blvd. and NW 31st Avenue), and 5A (Oakland Park Blvd.and NE 6th Avenue), each received the highest possible score of 5 on a scale of 1 to 5.
[21] The Broward County County-wide Community Design Guidebook may be downloaded from
http://www.broward.org/planningservices/upi00117.htm
[22] The Florida Green Development Designation Standard for land development guide may be downloaded from http://www.floridagreenbuilding.org/files/1/file/GreenDevComplete_v6.pdf

Appendix 'A'

Existing and Proposed Facilities: Transit Facility Inventory

The recommendations are based on an analysis of walking distances for bus transfers along existing routes, based on scaled map measurements, data provided by FDOT (Carlock and Zetinger. "Bus Study: Oakland Park Boulevard and Powerline Road." April 2, 2009), and an inventory spread sheet developed by Broward County Transportation Department ("Oakland Park and Wilton Manors Stops." May 13, 2009).

The following factors were considered in determining recommended locations:

1. Proximity to the nearest intersection;
2. Length of crosswalk;
3. ROW width;
4. Bus length and required distances from intersection;
5. Crosswalk location;
6. Number of daily boardings (indicated as "Daily Riders" on the inventory image sheets)
7. Number of transfer options at each location;
8. Minimum walking distances between facilities;
9. Existing structures, buildings and curb cuts to parking and VUAs;
10. Trafficway lane configurations;
11. Width of medians, if any;
12. Adjacency to landscaped areas;
13. Adjacency to service areas and trash disposal areas.

The following factors were not considered:
1. Existing storm drainage conditions abutting the facility;
2. Existing natural shading conditions at the facility.

A photographic survey was undertaken between March and July 2009 to identify sites for transit facility improvements on the Oakland Park Study Corridor, between NE 20th Avenue and NW 31st Avenue.

Existing stop locations are indicated on aerial photographic maps. In addition to the existing stop locations, recommended locations for near-side and far-side facilities are indicated.

The organization of the photographic information on the following pages is as follows:
1. Street level images of each stop with Stop Identification numbers from Broward Transportation Department inventory indicated.
2. Aerial photographs, downloaded from Google™ Earth, were used for clarity in locating existing and recommended facilities.

Stop **2642**: NW 31 Av Eastside (Northbound) *Daily Riders: 95*

Stop **2904**: NW 31 Av Westside (Southbound) *Daily Riders: 42*

Stop **2140**: W Oakland Pk Bl Northside (Westbound) *Daily Riders: 133*

Stop **2664**: NW 31 Av Westside (Southbound) *Daily Riders: NA*

Stop **5482**: W Oakland Pk Bl Southside (Eastbound) *Daily Riders: NA*


Stop **1018**: NW 31 Av Eastside (Northbound) *Daily Riders: 12*

See map on following page.

Existing Stops

Recommended Stop Locations
- Near-Side (min.)
- Far-Side (70')
- Far-Side (100')

Intersection of Oakland Park Blvd. and NW 31st Ave. 282 Daily Riders

Base photographic aerial image source: Google Earth. Google (2009), Lead Dog Consulting (2009), Europa Technologies (2009), Tele Atlas (2009). Dec 2005, Eye alt. 1225 ft. Retrieved on 05.18.2009.

Stop **2605**:W Oakland Pk Bl Northside (Westbound) *Daily Riders: 29*

Stop **1019**:W Oakland Pk Bl Southside (Eastbound) *Daily Riders: 55*

- Existing Stops

Recommended Stop locations

- Near-Side (min.)
- Far-Side (70')
- Far-Side (100')

Intersection of Oakland Park Blvd. and NW 29th Ave. 84 Daily Riders

Base photographic aerial image source: Google Earth. Google (2009), Lead Dog Consulting (2009), Europa Technologies (2009), Tele Atlas (2009). Dec 2005, Eye alt. 1225 ft. Retrieved on 05.18.2009.

Stop **4186**: NW 21 Av Eastside (Northbound) *Daily Riders: 19*


Stop **5334**: NW 31 Av Westside (Southbound) *Daily Riders: 15*


Stop **2139**: W Oakland Pk Bl Northside (Westbound) *Daily Riders: 79*


Stop **1024**: W Oakland Pk Bl Southside (Eastbound) *Daily Riders: 26*

Stop **3781**: NW 31 Av Westside (Southbound) *Daily Riders: 80*

Stop **3915**: W Oakland Pk Bl Northside (Westbound) *Daily Riders: 19*

See map on following page.

Intersection of Oakland Park Blvd. and NW 21st Ave. 235 Daily Riders

Base photographic aerial image source: Google Earth. Google (2009), Lead Dog Consulting (2009), Europa Technologies (2009), Tele Atlas (2009). Dec 2005, Eye alt. 1225 ft. Retrieved on 05.18.2009.

Stop **2120**: W Oakland Pk Bl Southside (Eastbound) *Daily Riders: 5*

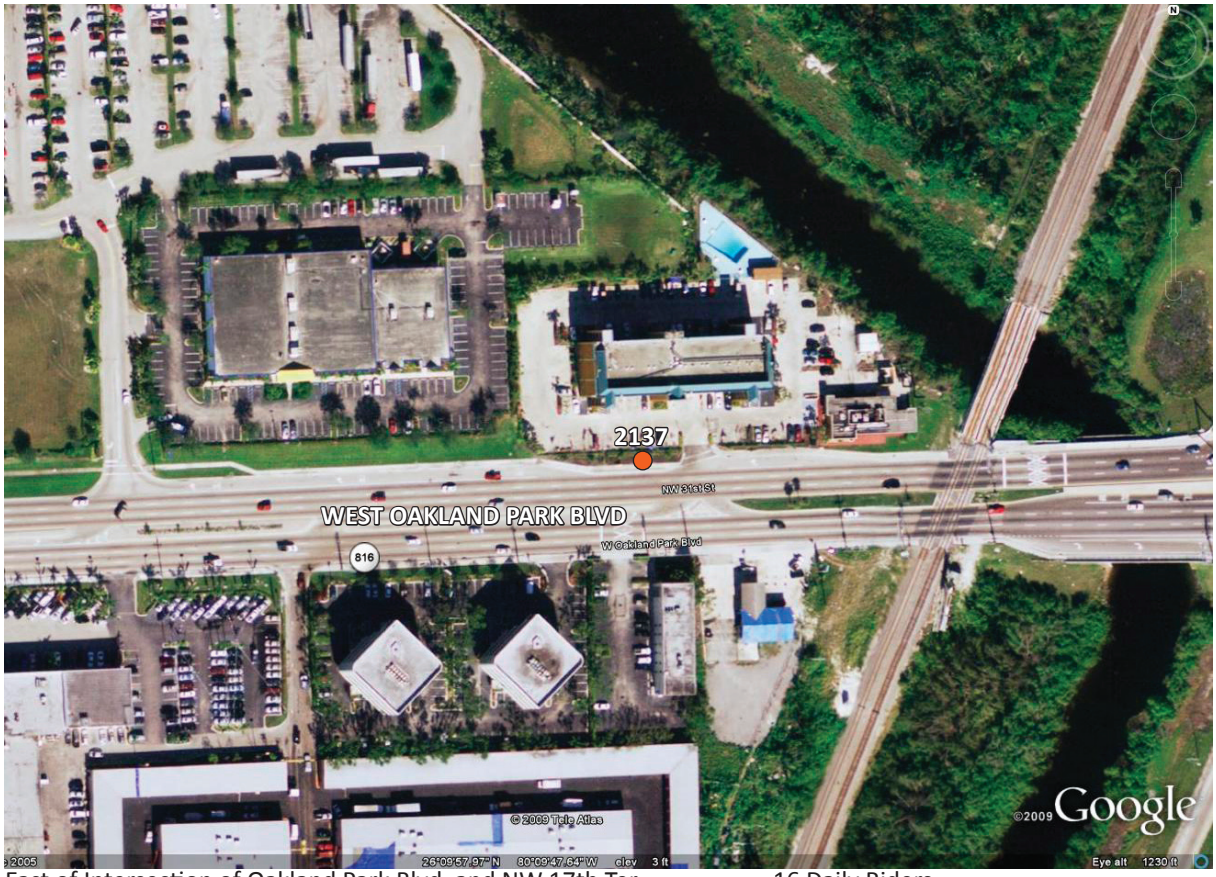
Stop **2119**: W Oakland Pk Bl Southside (Eastbound) *Daily Riders: 41*

Stop **2603**: W Oakland Pk Bl Northside (Westbound) *Daily Riders: 15*

Intersection of Oakland Park Blvd. and NW 17th Ter. 61 Daily Riders

Base photographic aerial image source: Google Earth. Google (2009), Lead Dog Consulting (2009), Europa Technologies (2009), Tele Atlas (2009). Dec 2005, Eye alt. 1225 ft. Retrieved on 05.18.2009.

Stop **2137**: W Oakland Pk Bl Northside (Westbound) *Daily Riders: 16*



- Existing Stops

Recommended Stop Locations
- Near-Side (min.)
- Far-Side (70')
- Far-Side (100')

East of Intersection of Oakland Park Blvd. and NW 17th Ter. 16 Daily Riders

Base photographic aerial image source: Google Earth. Google (2009), Lead Dog Consulting (2009), Europa Technologies (2009), Tele Atlas (2009). Dec 2005, Eye alt. 1225 ft. Retrieved on 05.18.2009.

Stop **5414**: NW 9th Av Eastside (Northbound) *Daily Riders: 131*

Stop **1190**: NW 9th Av Westside (Southbound) *Daily Riders: 39*

Stop **1100**: NW 9th Av Eastside (Northbound) *Daily Riders: 76*

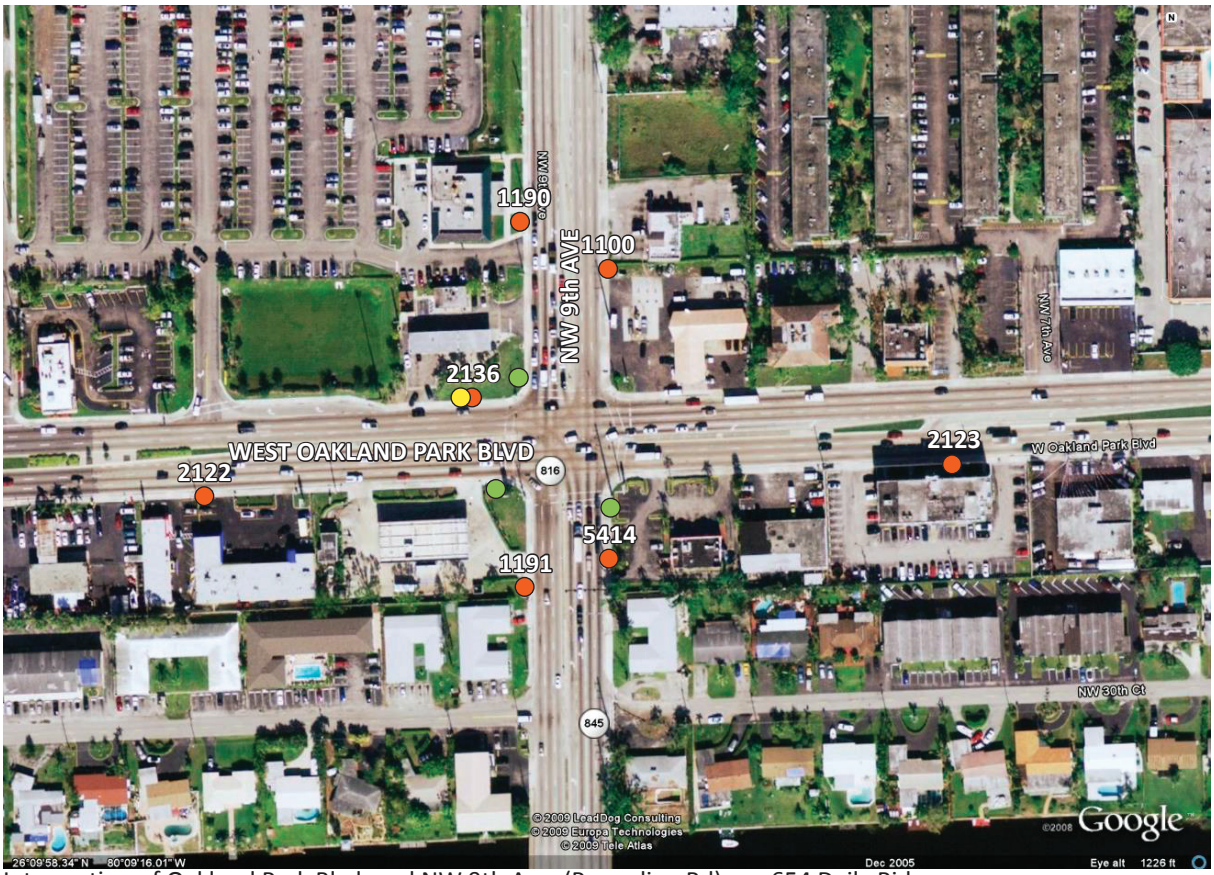
Stop **2136**: W Oakland Pk Bl Northside (Westbound) *Daily Riders: 200*

Stop **2122**: W Oakland Pk Bl Southside (Eastbound) *Daily Riders: 35*

Stop **2123**: W Oakland Pk Bl Southside (Eastbound) *Daily Riders: 71*

Stop **1191**: NW 9th Av Westside (Southbound) *Daily Riders: 102*

See map on following page.



Existing Stops

Recommended Stop Locations
- Near-Side (min.)
- Far-Side (70')
- Far-Side (100')

Intersection of Oakland Park Blvd. and NW 9th Ave. (Powerline Rd). 654 Daily Riders

Base photographic aerial image source: Google Earth. Google (2009), Lead Dog Consulting (2009), Europa Technologies (2009), Tele Atlas (2009). Dec 2005, Eye alt. 1225 ft. Retrieved on 05.18.2009.

Stop **1994**: N Andrews Av Eastside (Northbound) *Daily Riders: 80*

Stop **2509**: N Andrews Av Westside (Southbound) *Daily Riders: 36*

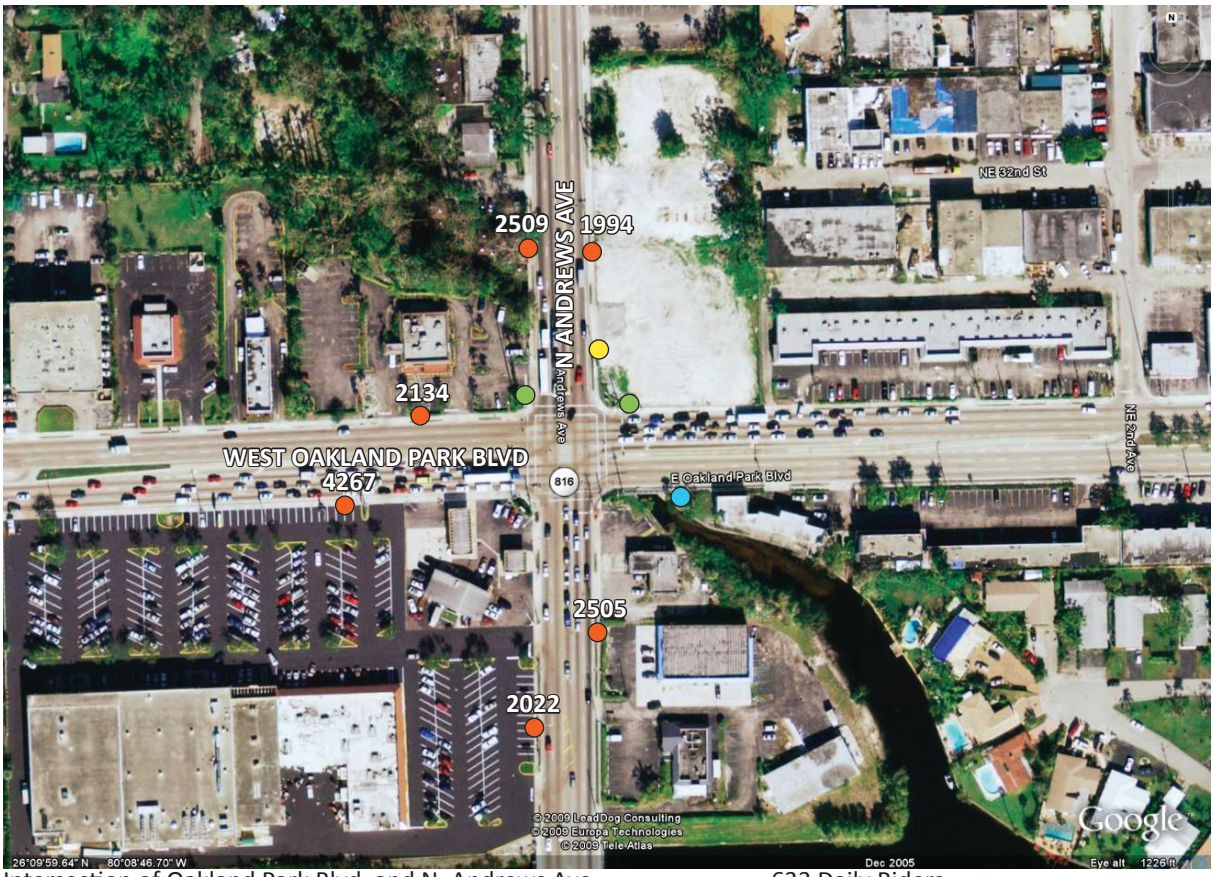
Stop **2134**: W Oakland Pk Bl Northside (Westbound) *Daily Riders: 174*

Stop **4267**: W Oakland Pk Bl Southside (Eastbound) *Daily Riders: 81*

Stop **2022**: N Andrews Av Westside (Southbound) *Daily Riders: 98*

Stop **2505**: N Andrews Av Eastside (Northbound) *Daily Riders: 64*

See map on following page.



Intersection of Oakland Park Blvd. and N. Andrews Ave. 633 Daily Riders

Base photographic aerial image source: Google Earth. Google (2009), Lead Dog Consulting (2009), Europa Technologies (2009), Tele Atlas (2009). Dec 2005, Eye alt. 1225 ft. Retrieved on 05.18.2009.

Stop **4274**: W Oakland Pk Bl Northside (Westbound) *Daily Riders: 41*

Stop **2126**: W Oakland Pk Bl Southside (Eastbound) *Daily Riders: 20*

- Existing Stops

Recommended Stop Locations

- Near-Side (min.)
- Far-Side (70')
- Far-Side (100')

Intersection of Oakland Park Blvd. and NE 6th Ave. 61 Daily Riders

Base photographic aerial image source: Google Earth. Google (2009), Lead Dog Consulting (2009), Europa Technologies (2009), Tele Atlas (2009). Dec 2005, Eye alt. 1225 ft. Retrieved on 05.18.2009.

Stop **4391**: N Dixie Highway Eastside (Northbound) *Daily Riders: 97*

Stop **3636**: N Dixie Highway Westside (Southbound) *Daily Riders: 20*

Stop **4271**: W Oakland Pk Bl Northside (Westbound) *Daily Riders: 145*

Stop **2129**: W Oakland Pk Bl Southside (Eastbound) *Daily Riders: 47*

Stop **1965**: N Dixie Highway Westside (Southbound) *Daily Riders: 80*

Stop **5235**: W Oakland Pk Bl Northside (Westbound) *Daily Riders: 22*

Stop **2130**: W Oakland Pk Bl Southside (Eastbound) *Daily Riders: 15*

Stop **3984**: N Dixie Highway Eastside (Northbound) *Daily Riders: 45*

See map on following page.

Existing Stops

Recommended Stop Locations
- Near-Side (min.)
- Far-Side (70')
- Far-Side (100')

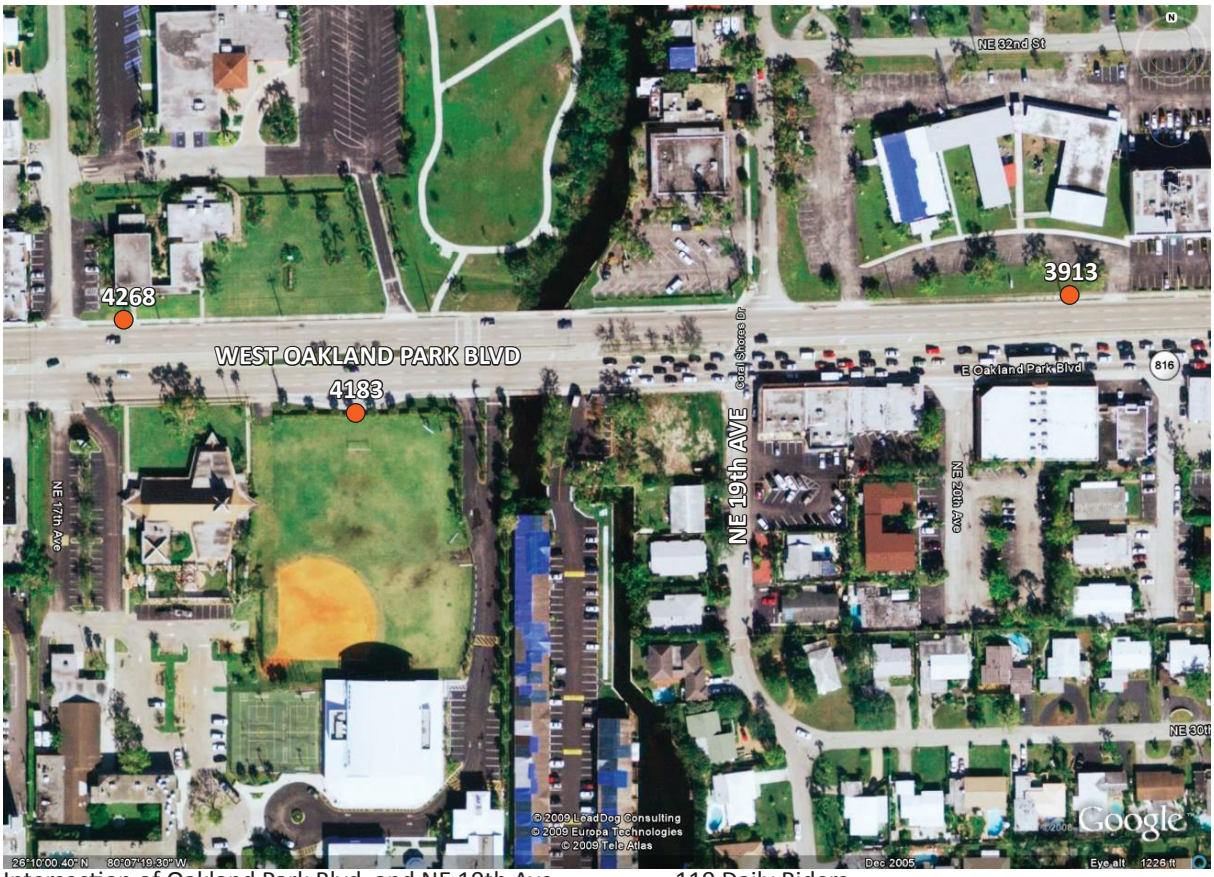
Intersection of Oakland Park Blvd. and N. Dixie Hwy. 471 Daily Riders

Base photographic aerial image source: Google Earth. Google (2009), Lead Dog Consulting (2009), Europa Technologies (2009), Tele Atlas (2009). Dec 2005, Eye alt. 1225 ft. Retrieved on 05.18.2009.

Stop **4183**: W Oakland Pk Bl Southside (Eastbound) *Daily Riders: 7*

Stop **4268**: W Oakland Pk Bl Northside (Westbound) *Daily Riders: 9*

Stop **3913**: W Oakland Pk Bl Northside (Westbound) *Daily Riders: 103*



- Existing Stops

Recommended Stop Locations
- Near-Side (min.)
- Far-Side (70')
- Far-Side (100')

Intersection of Oakland Park Blvd. and NE 19th Ave. 119 Daily Riders

Base photographic aerial image source: Google Earth. Google (2009), Lead Dog Consulting (2009), Europa Technologies (2009), Tele Atlas (2009). Dec 2005, Eye alt. 1225 ft. Retrieved on 05.18.2009.

Appendix 'B'

Broward County Market Summary

Michael Huneke and Sheldon Riles, Broward County

Market Study Recommendations

Although the recent economic downturn has hit the real estate markets hard, there are still opportunities for new development and redevelopment. A market study and economic analysis of several development scenarios served to identify the opportunities on the Oakland Park Boulevard corridor. The study suggests that larger development sites (larger than 5 acres) can be profitable given higher allowed densities and the right mix of uses. Analysis also suggests that smaller development sites (less than 5 acres) may provide more economically feasible redevelopment opportunities if approached from a business owner / operator scenario interested in remodeling or adaptive re-use. Municipalities should continue dialogue with business owners and developers to learn of their interest in development and remodeling, to define what may be keeping owners and developers from building or making improvements, and to encourage joint-venture opportunities. Based on the discussions with business owners and developers, municipalities may want to consider the following recommendations to encourage investment during the current economic downturn, and set the stage for future development when economic conditions improve:

1. Review development codes and regulations making amendments where warranted to help facilitate adaptive re-use or remodeling.

2. Increase threshold levels for remodeling without triggering the requirement to bring the entire project up to current codes.

3. Consider regulations to limit the application of current codes to items that address health, safety and welfare issues for remodeling or changes of use.

4. Apply regulations that allow stepbacks /height transitions to neighboring commercial and residential properties

5. Conduct market research studies for specific areas along the corridor to help identify business opportunity.

6. Pursue Land Use Plan amendments (TOD or TOC) to steer future density to appropriate areas along the transit corridor.

7. Create mixed use zoning districts that establish the regulatory categories (dimensions, uses, compatibility) that allow economically feasible redevelopment opportunities.

8. Consider incentive programs to further encourage redevelopment, such as: density bonuses, parking reductions, shared parking, and expedited permitting.

9. Develop an advertising and marketing program to relay new codes and regulations to potential developers and business owners.

Market Summary (Large Development)

A 12.47 acre site along Oakland Park Boulevard served as the basis for evaluating several development scenarios to determine economically feasible large-scale redevelopment approaches. The analysis demonstrated that redevelopment of the site was economically feasible, taking into account criteria such as the mix of land uses, site density and scale, parking configurations, and compatibility with the surrounding area.

Existing codes and regulations allow for single-use commercial development, with surface parking areas and low densities. The economically feasible development scenario assumes a Land Use Plan amendment to a mixed-use designation as a Transit Oriented Corridor (TOC) or Transit Oriented Development (TOD). Such designations take into consideration the accessibility to transit, and the relation among the transportation, housing, and commercial (retail / office) uses.

The scenario consists of a five to six story mix-used development, with a five story parking structure. The ground level is dedicated to retail uses, levels two and three are office space, and levels four through six are for residential use. The study takes into account the cost for acquisition and development, current market conditions and demands, and a recommended developer return.

Please see development scenarios below for development mix and square footage, building costs, suggested component mix, Net Operating Income (NOI), and the percentage return for each of the components for a given Rate of Return (IRR). Overall, the financial analysis suggests that redevelopment is economically feasible with the adequate size and scale of development, the appropriate land use designation, suitable zoning codes and regulations, and product demand.

Market Summary (Small-Medium Development)

The majority of the Oakland Park/Wilton Manors study area is made up of small to medium sized parcels. To determine economically feasible redevelopment approaches, a 2.28 acre site in the area of Andrews Ave. and Oakland Park Blvd. served as the basis for analysis of two scenarios types.

Scenario One: A developer assembles parcels, constructs a building or buildings, and leases the space. Under this scenario, rental income is the main source of revenue determining return on investment. To achieve sufficient return on investment to justify new construction, the development would require five to six story buildings with structured parking.

Several factors combine to reduce the economic feasibility of Scenario One. Financing could be difficult due to current market conditions and negative absorption rates in the area. Existing land use and zoning regulations also could complicate the development approvals for a project of this scope; height and density could raise questions about compatibility with the nearby neighborhoods.

One way to reduce the risk to investors is through regulatory revisions including land use plan amendments, such as a Transit-Oriented Corridor (TOC) designation, to allow for a mix of uses by right, requirements for transitions to residential areas, and indicators for neighborhood compatibility.

Scenario Two: A developer divides the 2.28 acre site into smaller parcels and offers them for sale to individual business owners who run their businesses from within newly-constructed or renovated buildings. This scenario uses business income as the main source of revenue to determine return on investment. Model business plans for several types of small businesses served as a foundation for determining building sizes, surface parking requirements, building costs, expenses and sales revenue. Below is a chart summarizing the different types of businesses, sales, expenses, and return on sales.

SITE SUMMARY

	Pet Store	Book Store	Dollar Store	Donut / Ice Cream Shop
Gross Sales	$143,800	$1,204,071	$390,600	$52,217
Variable Expense %	28%	77%	50%	23%
Fixed Expense %	32%	15%	35%	30%
Net Cash Flow	$43,254	$90,060	$44,324	$10,276
Monthly Break Even Point	$5,326	$70,873	$22,785	$1,695
Return on Sales	30%	6.9%	11%	20%

Scenario Two suggests that adaptive reuse, remodeling and small-scale redevelopment on small- to mid-size parcels may offer an economically reasonable approach to revitalizing the area. Localized marketing studies and business plans are necessary to better estimate sales revenue for proposed businesses.

Broward County Residential Market Summary

Summary:

The residential market has been one of the hardest hit markets in the economic meltdown. With foreclosure at an all time high, the residential market in Broward County for the 1st quarter of 2009 has shown small signs of improvement. Average rental rates in Oakland Park and Wilton Manors are around $1,238.00 unit/month, with 1,694 available units for rent as of April 18, 2009.

Broward County's residential vacancy rates have shown a slight decrease from 5.43% in the 4th quarter 2008 to 5.26% in the 1st quarter 2009.

Residential Market Report 1st Quarter 2009:

Market	Total # of residential addresses*	Vacant	Average Rental Rates/Unit (per month)
Broward County	836,513	5.26%	$1,385

Key Note:

All information gathered comes from Housing and Urban Development (HUD). HUD has entered into an agreement with the United States Postal Service (USPS) to receive quarterly aggregate data on addresses identified by the USPS as having been "vacant" in the previous quarter.

Figures are from the 4th quarter of 2007 to the 1st quarter of 2009.

Data is broken down into county, and city.

* Residential addresses: shall be defined as all addresses that USPS has recorded in their database. Addresses are perceived to be vacant after not receiving postal service for 90 days (3 months).

See following page for additional information about vacancy rates in subject areas:

BROWARD COUNTY RESIDENTIAL VACANCY RATES

	Total # of residential addresses in Broward County	Total # of residential addresses vacant more than 90 days in Broward County	Percentage of residential vacancy in Broward County	Percent change from quarter to quarter
4th Quarter 2007	826,269	37,491	4.54%	———
1st Quarter 2008	826,695	37,707	4.56%	0.02%
2nd Quarter 2008	826,476	39,744	4.81%	0.25%
3rd Quarter 2008	833,600	42,832	5.14%	0.33%
4th Quarter 2008	701,595	38,113	5.43%	0.29%
1st Quarter 2009	836,513	43,996	5.26%	-0.17%
Average	808,525	39,981	4.96%	0.12%

OAKLAND PARK RESIDENTIAL VACANCY RATES

	Total # of residential addresses in Oakland Park area	Total # of residential addresses vacant more than 90 days in Oakland Park	Percentage of residential vacancy in Oakland Park	Percent change from quarter to quarter
4th Quarter 2007	24,279	1,078	4.44%	———
1st Quarter 2008	24,422	1,122	4.59%	0.15%
2nd Quarter 2008	24,365	1,166	4.79%	0.19%
3rd Quarter 2008	24,764	1,243	5.02%	0.23%
4th Quarter 2008	24,758	1,204	4.86%	-0.16%
1st Quarter 2009	25,383	1,155	4.55%	-0.31%
Average	24,662	1,161	4.71%	0.02%

WILTON MANORS RESIDENTIAL VACANCY RATES

	Total # of residential addresses in Wilton Manors	Total # of residential addresses vacant more than 90 days in Wilton Manors	Percentage of residential vacancy in Wilton Manors	Percent change from quarter to quarter
4th Quarter 2007	7,292	600	8.23%	———
1st Quarter 2008	7,292	639	8.76%	0.53%
2nd Quarter 2008	7,292	693	9.50%	0.74%
3rd Quarter 2008	7,729	789	10.21%	0.70%
4th Quarter 2008	7,731	748	9.68%	-0.53%
1st Quarter 2009	7,774	792	10.19%	0.51%
Average	7,518	710	9.43%	0.33%

Central Broward County Retail Market Summary

Summary:

As other retail markets continue to show signs of weakening, the Broward County retail market for the 1st quarter of 2009 remained relatively flat. New lease rates have decreased $0.68 from the 3rd quarter of 2008 to the 1st quarter of 2009, and retail rental rates have experienced a modest reduction. Retail profits have gone from 3.4% in 2007, to 0% in 2008, to -6.0% in the first quarter of 2009. As companies and firms continue to downsize additional space is added to an already over supplied market.

New construction has slowed in the last 12 months, with minimal new starts since last year. There is currently 1,275,224 SF in Broward County under construction with 450,000 SF scheduled to be delivered in the 4th Quarter of 2009.

Overall vacancy rates have increased to 7.20%, an increase of 0.2% from the 4th quarter of 2008.

Landlords continue to offer incentives to retain tenants in the form of rent relief through rent reductions and delaying of rental payments.

Retail Market Report 1st Quarter 2009:

Market	**# of Bldgs**	**Total SF**	**Vacant %**	**Net Absorption** (SF)	**Under Construction** (SF)	**Market Rent (**PSF)
Study Area	50	4,180,911	7.20%	(54,070)	500,000	$18.93

Key Notes:

The information gathered comes from market review studies conducted by: Colliers Abood Wood-Fay, CB Richard Ellis, and Cushman & Wakefield. All percentages and dollar amounts presented in the summary are weighted averages from each of the three sources above.

Figures are derived from the 1st quarter of 2009.

Approximate boundaries for the study areas were: Cypress Creek Rd to the North, Florida Turnpike to the West, Broward Blvd. to the South, and Atlantic Ocean to the East.

Central Broward County Office Market Summary

Summary:

The Broward County office market has followed the same trend as other markets with the greatest decline being in the Class A space, which has seen a rental rate decrease in new leases of $1.35 PSF during the last year. With the tightening of the credit market, the Broward County office market has continued to show signs of weakening in the 1st quarter of 2009. Despite showing a positive gain in the last quarter of 2008, absorption has resumed its negative trend in the 1st quarter of 2009, vacancy rates have continued to rise, and rental rates have fallen.

New construction has fallen nearly in half over the last year with a total of 241,787 SF of office space currently under construction in Broward County. Factors including corporate downsizing and changing growth expectations have contributed to the markets deterioration.

Overall vacancy rates have increased to 15.87%, which represents a 2.07% increase from the 4th quarter of 2008.

Office Market Report 1st Quarter 2009:

Market	# of Bldgs	Total SF	Vacant	Net Absorption (SF)	New Construction (SF)	Class A Rent (PSF)*	Class B Rent (PSF)**	Class C Rent (PSF)***
Study Area	29	2,114,978	15.87%	(47,934)	65,000	$28.73	$23.37	$18.50

Key Notes:

The summary contains information from market review studies conducted by: Grubb & Ellis, Colliers Abood Wood-Fay, CB Richard Ellis, and Cushman & Wakefield. All percentages and dollar amounts presented in the summary are weighted averages from each of the four sources above.

Figures are derived from the 1st quarter of 2009.

Approximate boundaries for the study areas were: Cypress Creek Rd to the North, Florida Turnpike to the West, Broward Blvd. to the South, and Atlantic Ocean to the East.

* Class A: Space can be characterized as buildings that have excellent location and access, attract high quality tenants, and are managed professionally.

** Class B: Building space has good locations, management, and construction, and tenant standards are high. Buildings should have very little functional obsolescence and deterioration.

*** Class C: Building space is typically 15 to 25 years old but is maintaining steady occupancy.

Central Broward County Industrial Market Summary

Summary:

In the 1st quarter of 2009, the Broward County industrial market continued to slow down as a result of the ongoing economic downturn. As home foreclosure and unemployment numbers continue to rise, Broward County's industrial vacancy rates are at an all time high, net absorption rates are negative, and new construction has hit its lowest point in years.

Currently, 666,842 SF of industrial space are under construction in Broward County, representing a decline in new construction from a year ago of 2 million SF and no new construction in 1st Quarter 2009. Average rental rates from the 4th quarter of 2008 to the 1st quarter of 2009, have decreased from $7.49 to $6.72 PSF for warehouse distribution center space and from $11.34 to $10.31 PSF for flex industrial space (see definitions below).

Overall vacancy rates have increased to 9.18%, an increase of 0.88% from the 4th quarter of 2008.

Industrial Market Report 1st Quarter 2009:

Market	# of Bldgs	Total SF	Vacant	Net Absorption (SF)	New Construction (SF)	Rent W/D (PSF)*	Rent Flex (PSF)**
Study Area	708	20,438,888	9.18%	(258,663)	0	$6.72	$10.31

Key Note:

The summary contains information from market review studies conducted by: Grubb & Ellis, Colliers Abood Wood-Fay, CB Richard Ellis, and Cushman & Wakefield. All percentages and dollar amounts presented in the summary are weighted averages from each of the four sources above.

Figures are derived from the 1st quarter of 2009.

Approximate boundaries for the study areas were: Cypress Creek Rd to the North, Florida Turnpike to the West, Broward Blvd. to the South, and Atlantic Ocean to the East.

* Warehouse/Distribution Centers (W/D): Facilities that are usually smaller than a firm's main warehouse and are used for receipt, temporary storage, and redistribution of goods.

** Flex Industrial Space: A single-story industry-type building that's generally 25-100 percent office space. Ceiling heights are 14 to 16 feet, depth is between 70 to 120 feet, and parking ratio is usually four to one.

Appendix 'C'

Public Involvement Summary
Project Research Team - Public Involvement Process Report
Charlene Burke, Sub-consultant

This report is an update for Period 3 of the Public Involvement Plan (PIP) process for the Oakland Park Boulevard Corridor Study. Efforts are ongoing between the study team, stakeholders, Project Management Team, and the public. This coincides with aspects of design and implementation being finalized by the study team for the corridor vision and the Urban Design Concept Plan.
The FAU School of Architecture has completed its four-month Open Studio series on April 10, 2009. The series informed stakeholders about progress of the Study and engaged participants in the development of a variety of design scenarios. FAU has also completed its public lecture series with informational presentations on best practices, transit-supportive development, community design, and redevelopment topics.

Outreach presentations on the THOR Oakland Park Blvd Corridor Study have been given to more than a dozen key neighborhood and civic associations and private sector stakeholders. This resulted in the collection of more than 100 surveys. In addition to outreach presentations, eight individual and small group interviews were conducted. In providing up-to-date information and resources to stakeholders and residents communication continued to be maintained via websites, e-mail notifications, municipal newsletters, direct calls and mailings, press releases, flyers, public service announcements, and community bulletin boards.

In conjunction with the studios, lecture series, presentations and interviews the Community Design Assembly and Score Card Event was held on April 21, 2009 from 5:00 to 8:00 p.m. at the Oakland Park City Hall. Approximately 45 community residents, stakeholders and partner agency participants were in attendance. Partners welcomed all and the FAU-BCDC reviewed the highest rated study area student design scenarios based on stakeholder and resident ballot scores.

As part of the Assembly and Score Card Event a weeklong exhibit and scorecard event was featured in the main lobby of the Oakland Park City Hall from April 21 to April 28, 2009. All twenty-one final projects for the FAU School of Architecture student design scenarios were displayed with a ballot box that allowed the public to view, rate, and comment on the updated student work consisting of context sensitive Transit Housing Oriented Redevelopment prototypes (speculative redevelopment project models). At the close of the week community feedback was compiled and tabulated and results were provided to the Project Management Team to advance the corridor vision and Urban Design Concept Plan.

The Study participants were assured that ongoing opportunities will be made available throughout the Study for public agencies, stakeholders, property owners, business interests, and community groups. As such, ensuing public participation in the study will address specific issues and concerns raised. The County and municipal partners organized and scheduled meetings with key neighborhood and civic associations and businesses.
Another feature of the week-long community input and score card event was a one-hour lecture, *Place Making with Form Based Codes*, held on Friday, April 24, 2009 at the City of Oakland Park City Hall. The lecture supplemented public outreach conversations and offered an understanding of the various types of form-based codes and their specific uses and advantages in comparison to traditional Euclidean zoning. The lecture was coordinated by the County and Florida Department of Transportation in cooperation with the Smart Growth Partnership.

Critical Tasks completed for April 21, 2009 Community Design Assembly and Score Card Event, and Form-Based Codes lecture included:

1. Media
   1.1. Press releases and public service announcements
   1.2. City of Wilton Manors: event flyers and information to HOA/civic associations in study area along corridor via e-mail notification, direct calls and mailings, press releases, public service announcements, and community bulletin boards
   1.3. City of Oakland Park: as above, plus website, municipal newsletter
   1.4. Broward County and FAU-BCDC: web pages and documents
   1.5. Print media: Pelican, Sun-Sentinel Gazette, Broward APA, Corals of Oakland Park HOA, Oakleaf, Oakland Park City Manager

Fig. D.1 Hypothetical Area Scheme receiving the highest public rating (score of 5) at first public exhibit and Scorecard Event. G. *FAU School of Architecture: Hoffman, F. Martinez-Agullo. February 2009.*

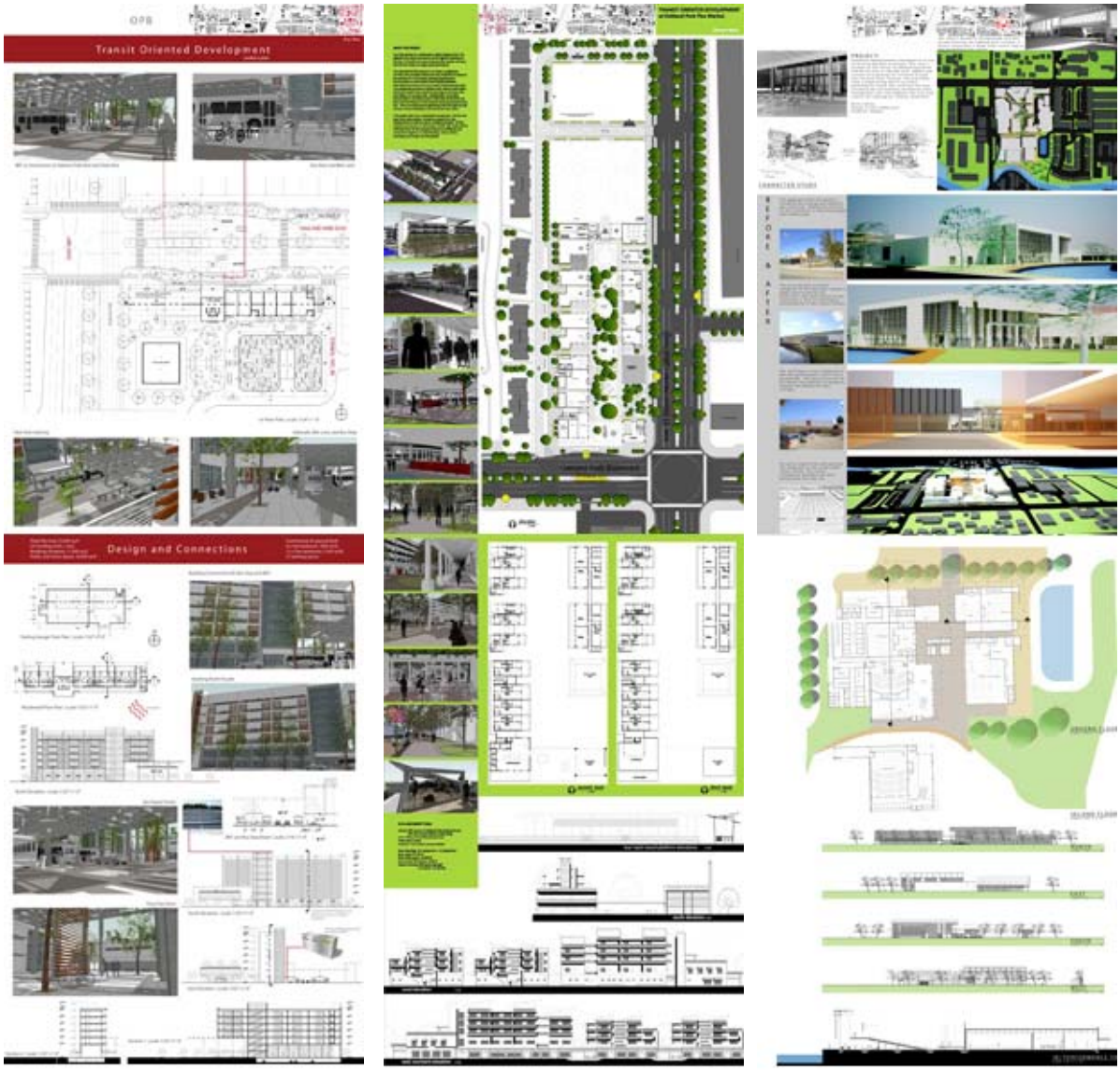


Fig. D.2. Hypothetical redevelopment project schemes receiving the highest rating (score of 5) at the second public exhibit and Scorecard Event. *FAU School of Architecture: (l to r) Greta Carbo, Joanna Reyes, Brian Collins. April 2009.*

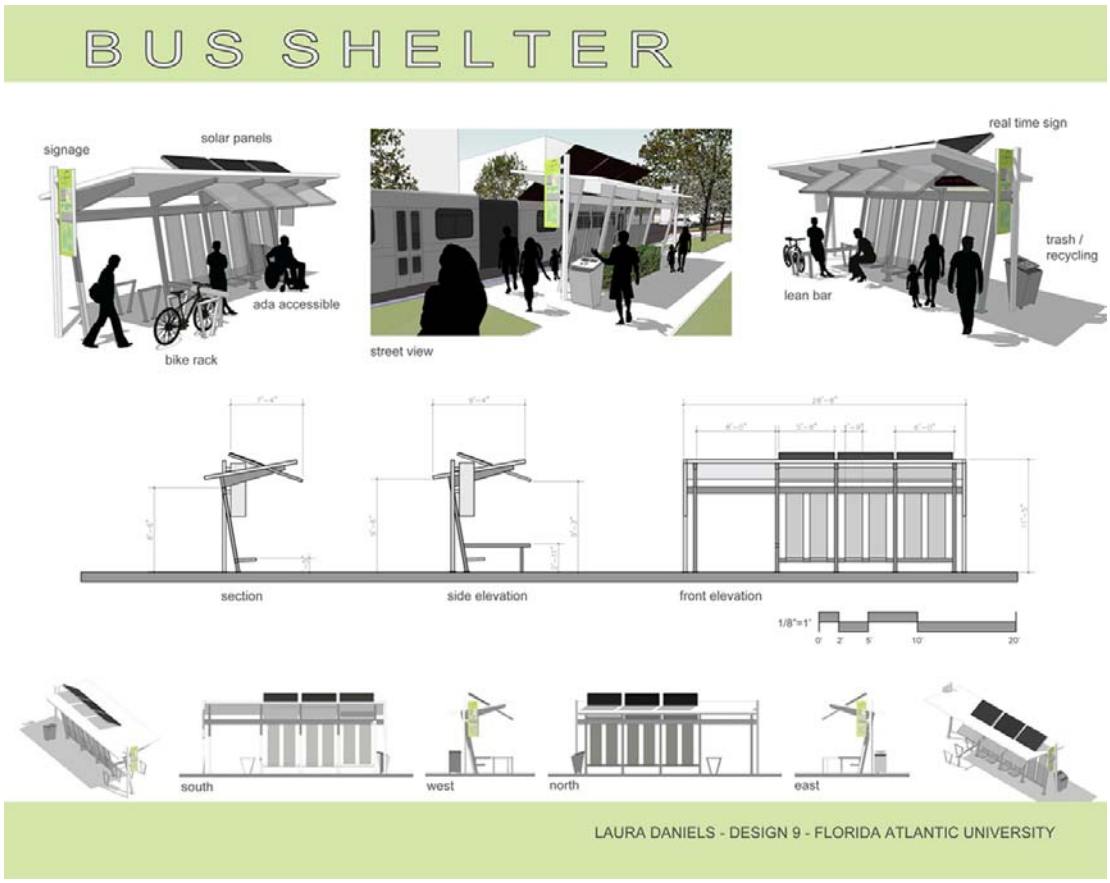


Fig. D.3. Bus shelter elements from a hypothetical redevelopment project selected by BCT for further development and implementation as part of the prototype shelter program. *FAU School of Architecture: Laura Daniels. April 2009.*

Community design inventory summary

Issues		Inventory item	Action needed				Priority		
Revitalization	Conserve community character		No change	Repair or upgrade	Add new element	Remove existing	High	Medium	Low
		Transportation							
3		Streets		2	1		1		1
1		Alleys		1	1		1		1
3		Sidewalks and pedestrians paths		5	1		4	1	
3		Crossings and crosswalks		5			2	1	
3		Bicycle routes			6		4	1	
1		Curbs and drainage	1	1	1		2		1
3		Parking			1	3	1		1
2		**Transit (bus stops)**		2	4		**5**		
1		FEC Line (1)			2			1	
		Light rail (4,5)			1				
1		Traffic lanes (4,5)			1	1			
		Urban design							
2		Unscreened eyesores (backflow preventers 4,5)		4		1	1		1
2	1	Important landmarks		3	3		2	1	
3		Street lighting		3	3		3		1
3		Paving materials		3	2		1		1
3		Places to sit (benches, urban furniture)		2	4		3	1	
1	2	Uses: offices, shops and stores		3	1	1	1	1	
3	1	Uses: residential apartments and condominiums			4		3		
1	1	Uses: community facilities, health, services		1	2		2	1	
2		Trash receptacles		1	4	1	1	1	1
2		Edges, boundaries, transitions		3	1		2		
1		Recycling (1)			1				
		Landscape							
3		Parks and green spaces			5		4		
3		**Trees for shade**			6		**5**		
2		Planters		1	3	1	1	1	1
3		Water, water features			3		1	2	
3		Vacant space, land			4		3		
1		Upgrade vacant land to green areas, gathering spaces (1)			3				
		Architecture							
3		Public entrance(s)		3		2	3	1	
3		Service entrance(s)			4	1	1		1
3		Façade appearance: materials and finishes		3		2	2		
3		Façade appearance: Condition and maintenance		4		1	3		
3		Relation to neighbors		3	1		3		
3		Relation to street and sidewalk		3	1	1	2		
3		Canopies for weather protection (sun and rain)			6		3		
3		Display window(s), transparency			5		2	2	
1		Town center, town square (1)			1			1	
		Environmental Graphics							
3		Condition and maintenance of signage		4		1	3	1	
3		Location of signage on routes and destinations		3	2		2	2	
3		Location of signage at proper decision points		2	1		2	1	
3		Visibility and appearance		4	1		2		
2		Scale (pedestrian, automobile)		6			3		
2		Materials		2	2		1	3	
1		Coordinates with architecture		1	2		2		
1		Directional signage (2)			1		1		

(1) Item added by Group 1 for Area 1
(2) Item added by Group 2 for Area 2
(4,5) Item added by Group 4,5 for Areas 4,5)

Appendix 'D'

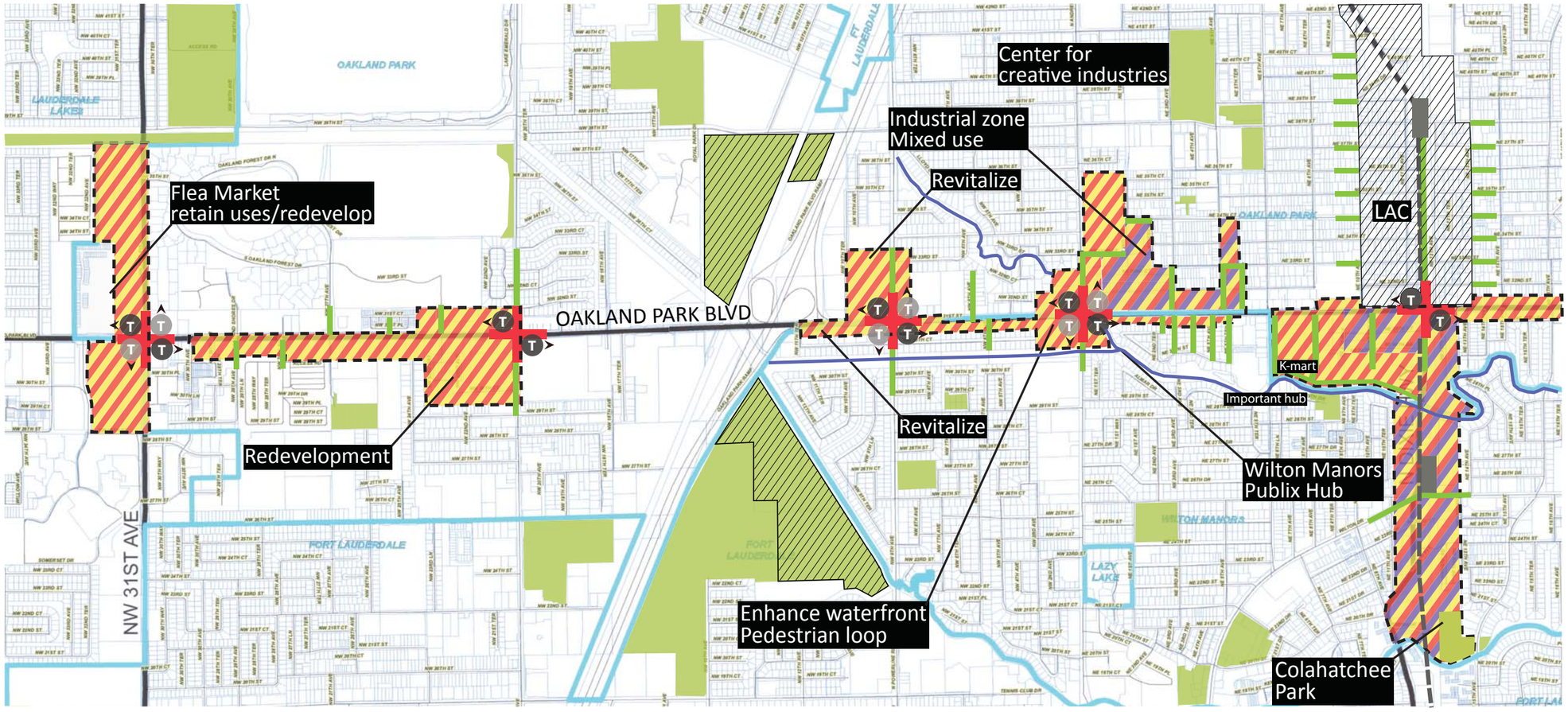
Strategic Area Plan

The strategic area plan was developed by county and municipal planners at a *charrette* held on March 5, 2009 working with data received from the Community Design Inventory of January 24, 2009 and the results of the Specific Area Plan exhibit of February 24, 2009.

The plan consolidates key strategies and directions for redevelopment and enhancements of the Study Area.

The following plan (fold-out) is a record of the plan.

TRANSIT / HOUSING ORIENTED REDEVELOPMENT
WORKING GROUP WORKSHOP
OAKLAND PARK BLVD



- City boundaries
- Parcel boundaries
- Pedestrian/bike connection
- Potential enhancement and redevelopment area
- Future intercity rail FEC line
- Waterway/River
- Transit stop: Articulated bus
- Transit stop: bus

- Enhancement/revitalization mixed use TOC/TOD
- Revitalization: industrial, commercial, residential TOD
- Regional rail station (proposed)
- City parks
- County parks
- High transit use intersection

Issues:

Focus on parking, especially shared with pedestrian to lot and to transit

Rentals (residential)

Mixed use opportunities

Marked bus shelters on map that have been approved for stimulus package funding

Some development at Prospect Road is less noticed

Proposed renaming of Dixie Hwy. within Oakland Park and Wilton Manors to increase local feeling

Need to restore neighborhoods where industry exists

Small bus stops good for dealing with narrowness

BCT bus and articulated

Pedestrian and bikes

Park and ride

Feasibilty of parking structure vs. surface parking

Art Institute

Creative-industrial uses

Transit/tranfer station (Powerline Rd.)

Gateway to Wilton Manors and Oakland Park

Preserve green areas, natural areas and parks