



# Broward County Transit FY 2011 Transit Development Plan (TDP) Annual Update

Developed by:

Broward County Transit (BCT)

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## **CHAPTER 1 - BCT ACCOMPLISHMENTS AND IMPLEMENTATION DISCREPANCIES FOR FY 2010**

In 2008, Broward County Transit (BCT), its transportation partners and the public together initiated and completed a milestone for transit planning in Broward County, Florida: the FY 2009-18 Transit Development Plan (TDP). This TDP has provided the public and policy makers in Broward County an invaluable account of the public transportation successes and needs in Broward County. The plan offers analysis that details how vital public transportation is to the lives of those who live, work, visit or are commuting to, from and within Broward County. Most importantly, the plan demonstrates that both those who currently use the BCT system and those who do not currently use this or other public transit systems share a strong belief about more transit service and transit-related amenities being developed in Broward County and the region in the short and long-term.

This FY 2011 Annual Update provides an update on BCT's TDP implementation progress for FY 2010 (October 1, 2009 through September 30, 2010) and what is planned to be implemented in FY 2011 (October 1, 2010 through September 30, 2011). As detailed in this report, there were many changes at the local, state and federal government levels that have affected the original implementation program for FY 2010. That said, many aspects of the FY 2009-18 TDP were successfully-implemented in FY 2010, others changed due to elements outside the control of BCT, while still other programs await future implementation.

### **HIGHLIGHTS OF THE FY 2009-18 TDP**

The Broward County FY 2009-18 TDP was an important transit planning milestone completed in late 2008. This TDP process was arguably the first such plan completed in Broward County that offered many firsts:

- A comprehensive look at the operating and capital needs of BCT through the development of a detailed ten-year service plan for the BCT fixed route system;
- The identification of strategic transit needs such as the addition of higher-capacity and faster-travelling Bus Rapid Transit (BRT) on six corridors;
- The first such plan under new State rules that required approval by BCT's governing Board, the Broward County Board of County Commissioners (Board). The Board unanimously approved the plan on October 28, 2008;
- Extensive TDP-related public and stakeholder involvement. Development of the FY 2009-18 TDP was steered by the Advisory Review Committee (ARC), a coalition of key public transportation stakeholders in Broward County. There were also community involvement meetings, the distribution of public surveys and a random telephone survey of over 400 Broward residents.

### **BCT ACCOMPLISHMENTS FOR FY 2010**

Broward County's FY 2009-18 TDP was ambitious in its scope of identifying and prioritizing transit service and transit capital needs for FY 2009-18. This chapter will provide an update on which components of the FY 2009-18 TDP were implemented, revised or not implemented in FY 2010. Many

of the new service and capital project initiatives envisioned for FY 2010 came to fruition, while others were delayed due to public transit funding shortfalls and overall economic changes at the local, state and federal governmental levels. Following is an overview of what BCT accomplished in FY 2010.

#### FY 2010 BCT System Overview

As of July 1, 2010, BCT operates 37 fixed routes, 3 limited-stop routes, 1 express route and assists 18 municipalities in the capital and/or operational costs of 45 community bus routes (see Map 1 and Map 2) in Broward County.

#### FY 2010 Fixed Route Ridership

BCT's fixed route system ridership declined -1.85% (see Table 1) for a comparable time period from the previous year (07/01/08-6/30/09 compared to 07/01/09-6/30/10). BCT attributes this ridership loss to a combination of the following factors unique to FY 2010 in comparison to the previous year:

- Fixed route fare and pass price increases implemented on 10/01/08 and 10/01/09;
- Higher local unemployment rate coupled with local and regional economic recession conditions.

#### FY 2010 Community Bus Ridership

In FY 2010, BCT assisted with capital and/or operational funding of 46 Community Bus routes in 20 municipalities in Broward County (see Map 2). Collectively, ridership on the Community Bus system experiences a wider annual variance due to the nature of the service and its contractual requirements. That said, the Community Bus layer of service exhibited a -9.96% decrease in ridership for FY 2009 (07/01/08-6/30/09) to FY 2010 (07/01/09-6/30/10). The decrease in ridership can be attributed to a few key attributes unique to FY 2010:

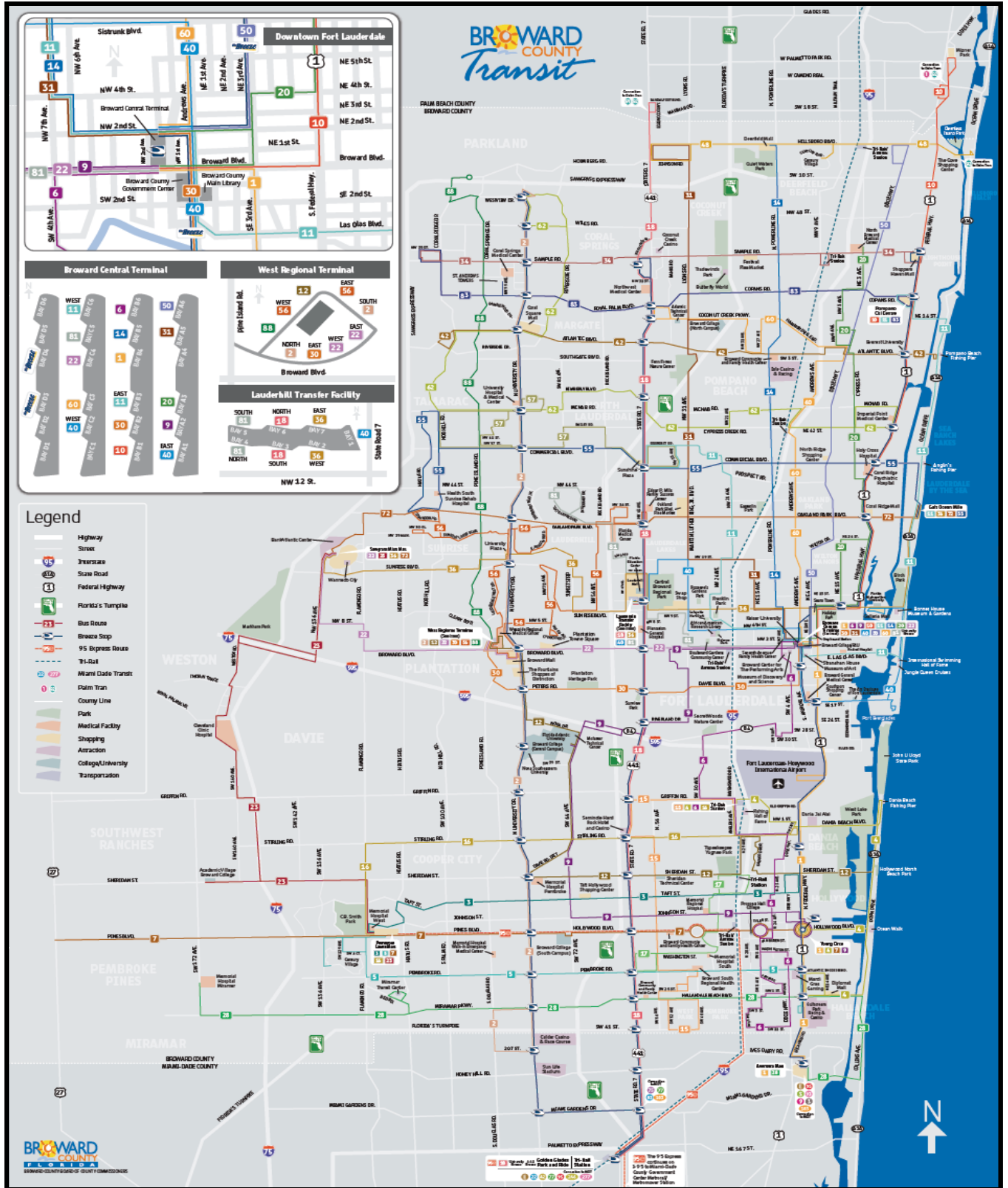
- The elimination of one Community Bus route throughout in the system due to route not meeting Broward County's policy requiring a minimum hourly ridership criteria of 7.1 Per Passenger Hour (PPH);
- Reduction in service hours by varying municipalities;
- Introduction of community bus fares by some municipalities.

#### FY 2010 Community Bus Funding Redistribution for Discontinued Routes

Over the last few years, reductions in city and county budgets have resulted in less funding for Community Bus service. As needs change and more resources become available, there may be the opportunity for additional funding. Should more funding or capital equipment become available, these resources will be distributed to participating partners or new cities based on established eligibility criteria. Funding is redistributed based on specific Eligibility and Ranking Criteria. This program will continue into FY 2011.

# BROWARD COUNTY FY 2011 TDP ANNUAL UPDATE

## Map 1: BCT FY 2010 System Map



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**Table 1: BCT FY 2010 Fixed Route Ridership\***

<b>BCT Route</b>	<b>July 2008 - June 2009</b>	<b>July 2009 - June 2010</b>	<b>% change</b>
Route 1	2,470,716	<b>2,374,420</b>	-3.90%
US 1 Breeze	221,965	<b>234,405</b>	5.60%
Route 2	1,999,579	<b>1,893,410</b>	-5.31%
Univ. Breeze**	148,481	<b>233,652</b>	57.36%
Route 3	228,336	<b>155,987</b>	-31.69%
Route 4	414,582	<b>353,731</b>	-14.68%
Route 5	468,875	<b>493,344</b>	5.22%
Route 6	732,551	<b>806,989</b>	10.16%
Route 7	1,293,172	<b>1,338,732</b>	3.52%
Route 9	659,824	<b>631,212</b>	-4.34%
Route 10	1,225,090	<b>1,248,608</b>	1.92%
Route 11	1,271,411	<b>1,137,736</b>	-10.51%
Route 12	530,730	<b>545,829</b>	2.84%
Route 14	1,251,334	<b>1,092,542</b>	-12.69%
Route 15	140,246	<b>139,641</b>	-0.43%
Route 16	278,047	<b>304,642</b>	9.56%
Route 17	68,333	<b>72,033</b>	5.41%
Route 18	4,316,741	<b>4,526,901</b>	4.87%
441 Breeze	433,773	<b>465,566</b>	7.33%
Route 20	405,882	<b>348,560</b>	-14.12%
Route 22	1,462,714	<b>1,365,354</b>	-6.66%
Route 23	158,990	<b>164,758</b>	3.63%
Route 28	1,121,341	<b>1,248,432</b>	11.33%
Route 30	710,228	<b>688,310</b>	-3.09%
Route 31	1,142,132	<b>1,085,176</b>	-4.99%
Route 34	845,815	<b>827,907</b>	-2.12%
Route 36	2,454,356	<b>2,316,579</b>	-5.61%
Route 40	1,443,109	<b>1,335,254</b>	-7.47%
Route 42	691,567	<b>685,818</b>	-0.83%
Route 48**	104,465	<b>223,301</b>	113.76%
Route 50	1,563,486	<b>1,406,066</b>	-10.07%
Route 55	581,909	<b>686,896</b>	18.04%
Route 56	532,391	<b>533,783</b>	0.26%
Route 57	38,742	<b>35,274</b>	-8.95%
Route 60	1,334,006	<b>1,285,608</b>	-3.63%
Route 62	636,487	<b>610,555</b>	-4.07%
Route 72	2,398,842	<b>2,327,804</b>	-2.96%
Route 81	812,278	<b>756,560</b>	-6.86%
Route 83	367,181	<b>370,674</b>	0.95%
Route 88	272,824	<b>260,422</b>	-4.55%
Route 92/94**	46,267	<b>NIS</b>	N/A
Route 93**	20,668	<b>NIS</b>	N/A
Route 95**	19,632	<b>NIS</b>	N/A
Route 97**	9,762	<b>NIS</b>	N/A
I-95 Express**	<b>NIS</b>	<b>26,785</b>	N/A
<b>TOTALS:</b>	<b>37,328,860</b>	<b>36,639,256</b>	<b>-1.85%</b>

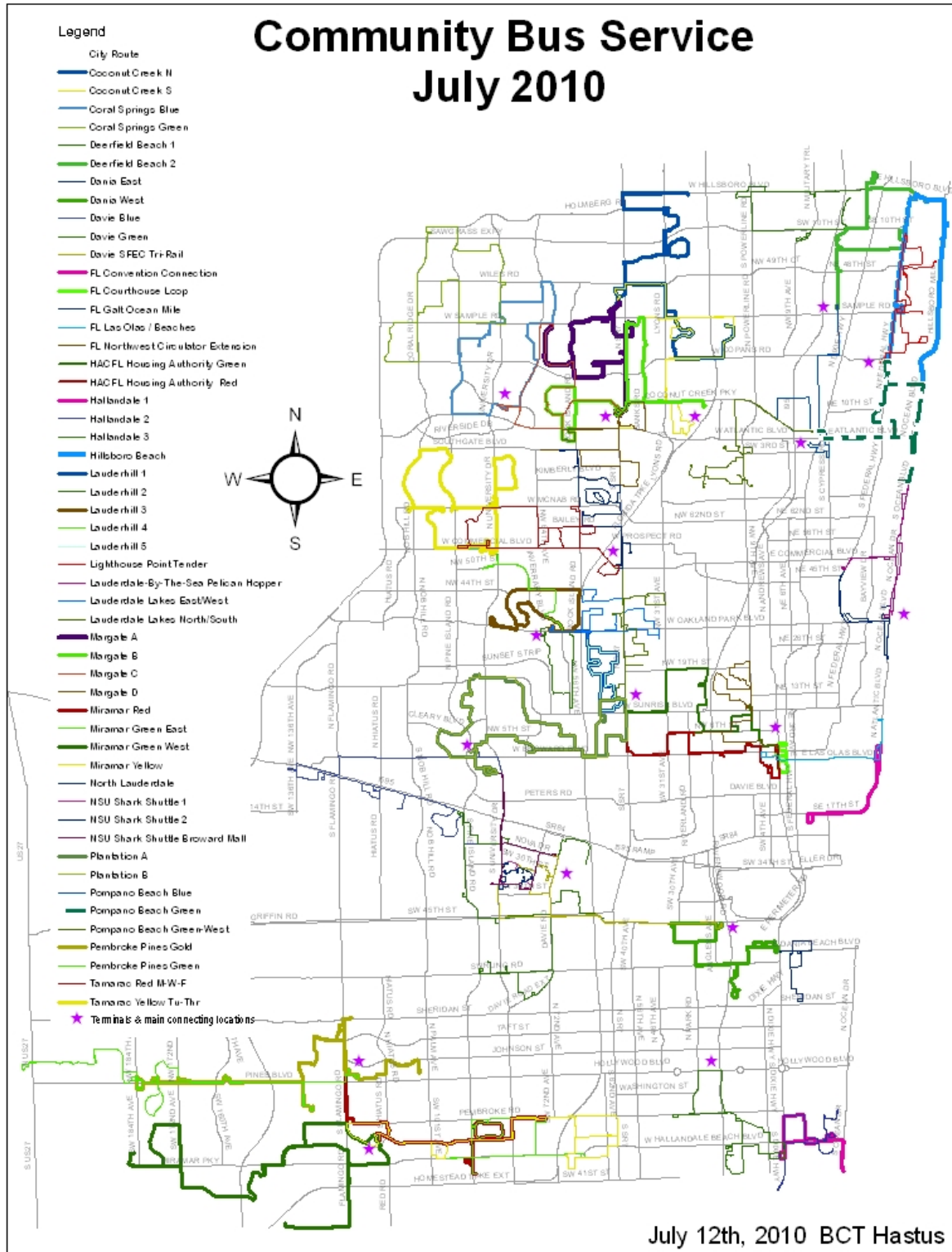
Notes: \*Ridership compared from 07/01/08-6/30/09 to 07/01/09-6/30/10.

\*\*University Breeze started service in Sept. 2008.

Route 92/94, 93, 95 & 97 discontinued, replaced with Route 48 in January 2009.

I-95 Express (107-Hollywood Blvd.) started service in Jan. 2010.

Map 2: BCT Community Bus System Map



BROWARD COUNTY FY 2011 TDP ANNUAL UPDATE

Table 2: FY 2010 Community Bus Ridership

	<u>July 2008 - June 2009</u>	<u>July 2009 - June 2010</u>	<u>% change</u>
Coconut Creek "N"	73,591	<b>77,591</b>	5.44%
Coconut Creek "S"	55,317	<b>62,291</b>	12.61%
Cooper City	20,821	<b>16,958</b>	-18.55%
Coral Springs - Green ( <i>instituted fares in 10/08 &amp; fare increase 10/09</i> )	60,918	<b>46,840</b>	-23.11%
Coral Springs - Blue ( <i>instituted fares in 10/08 &amp; fare increase 10/09</i> )	59,738	<b>47,204</b>	-20.98%
Dania Beach - Blue	25,703	<b>28,588</b>	11.22%
Dania Beach - Green	29,327	<b>24,915</b>	-15.04%
Davie - Green ( <i>reduction in service hours in FY 2009</i> )	46,135	<b>35,191</b>	-23.72%
Davie - SFEC	67,063	<b>61,058</b>	-8.95%
Davie - Blue	84,487	<b>81,156</b>	-3.94%
Deerfield Beach – Route 1	22,446	<b>20,943</b>	-6.70%
Deerfield Beach – Route 2	26,182	<b>26,289</b>	0.41%
Deerfield Beach – Route 3 ( <i>Discontinued 11/08</i> )	7,521	<i>Discontinued</i>	N/A
Ft. Lauderdale – Courthouse	44,440	<b>52,468</b>	18.06%
Ft. Lauderdale – NW Circulator ( <i>Merged with Laud. Manors 10/08</i> )	49,735	<b>72,509</b>	45.79%
Ft. Lauderdale – Tri-Rail ( <i>Discontinued 10/08</i> )	2,581	<i>Discontinued</i>	N/A
Ft. Lauderdale – Las Olas/Beach ( <i>reduction in serv. hrs. in 11/08</i> )	49,915	<b>40,099</b>	-19.67%
Ft. Lauderdale – Park & Ride ( <i>Discontinued 10/08</i> )	2,709	<i>Discontinued</i>	N/A
Ft. Lauderdale – Lauderdale Manors ( <i>Merged NW Circulator 10/08</i> )	9,810	<i>Discontinued</i>	N/A
Ft. Lauderdale - Galt ( <i>reduction in serv. hrs. in 05/09</i> )	25,422	<b>21,482</b>	-15.50%
Ft. Lauderdale – Convention Connection ( <i>reduction in serv. hrs. in 10/09</i> )	45,643	<b>43,015</b>	-5.76%
Ft. Lauderdale - URC/HACFL	29,913	<b>33,488</b>	11.95%
Hallandale Beach	38,677	<b>46,088</b>	19.16%
Hillsboro Beach ( <i>eliminated Saturday service 10/08</i> )	17,758	<b>13,457</b>	-24.22%
Lauderdale Lakes – Route 1	62,213	<b>64,558</b>	3.77%
Lauderdale Lakes – Route 2	136,331	<b>147,140</b>	7.93%
Lauderdale-by-the-Sea	26,663	<b>30,543</b>	14.55%
Lauderhill – Route 1 ( <i>instituted fares in 02/09 &amp; fare increase 01/10</i> )	54,075	<b>45,274</b>	-16.28%
Lauderhill – Route 2 ( <i>instituted fares in 02/09 &amp; fare increase 01/10</i> )	66,159	<b>38,177</b>	-42.30%
Lauderhill – Route 3 ( <i>instituted fares in 02/09 &amp; fare increase 01/10</i> )	39,094	<b>25,139</b>	-35.70%
Lauderhill – Route 4 ( <i>instituted fares in 02/09 &amp; fare increase 01/10</i> )	46,244	<b>30,647</b>	-33.73%
Lauderhill – Route 5 ( <i>instituted fares in 02/09 &amp; fare increase 01/10</i> )	70,728	<b>49,901</b>	-29.45%
Lighthouse Point ( <i>reduction in serv. hrs. in 11/08</i> )	8,565	<b>7,093</b>	-17.19%
Margate – Route A ( <i>instituted fare increase in 10/09</i> )	32,134	<b>28,913</b>	-10.02%
Margate – Route B ( <i>instituted fare increase in 10/09</i> )	30,138	<b>27,419</b>	-9.02%
Margate – Route C ( <i>instituted fare increase in 10/09</i> )	40,184	<b>32,901</b>	-18.12%
Margate – Route D ( <i>instituted fare increase in 10/09</i> )	38,203	<b>35,826</b>	-6.22%
Margate – Route E ( <i>Discontinued 10/08</i> )	5,683	<i>Discontinued</i>	N/A
Miramar – Green East ( <i>new route established in 12/09</i> )	77,994	<b>68,101</b>	-12.68%
Miramar – Red	41,033	<b>38,006</b>	-7.38%
Miramar – Yellow	46,081	<b>39,118</b>	-15.11%
Miramar – Orange ( <i>Merged with Green West Route in 12/09</i> )	34,790	<b>12,756</b>	-63.33%
Miramar - Green West ( <i>Established 12/09</i> )	<i>Not in service</i>	<b>28,179</b>	N/A
North Lauderdale – East	23,922	<b>17,660</b>	-26.18%
North Lauderdale – West ( <i>Discontinued 10/08</i> )	5,332	<i>Discontinued</i>	N/A
NOVA Southeastern ( <i>Discontinued 10/08</i> )	74,864	<i>Discontinued</i>	N/A
Oakland Park – East Route ( <i>Discontinued 06/09</i> )	12,179	<i>Discontinued</i>	N/A
Oakland Park – West Route ( <i>Discontinued 06/09</i> )	9,477	<i>Discontinued</i>	N/A
Pembroke Pines – Green	84,874	<b>85,825</b>	1.12%
Pembroke Pines – Gold	111,333	<b>116,703</b>	4.82%
Plantation – A & B	142,064	<b>139,560</b>	-1.76%
Pompano Beach – Blue	26,790	<b>42,525</b>	58.73%
Pompano Beach – Green	18,078	<b>25,160</b>	39.17%
Pompano Beach – Green West	14,818	<b>25,691</b>	73.38%
Tamarac – Red	13,507	<b>15,686</b>	16.13%
Tamarac – Yellow ( <i>Merged with Tamarac Red 10/09</i> )	1,183	<i>Discontinued</i>	N/A
Wilton Manors ( <i>Discontinued 10/09</i> )	12,313	<b>3,459</b>	-71.91%
	<b>2,302,898</b>	<b>2,073,590</b>	<b>-9.96%</b>

### BCT Service Accomplishments for FY 2010

BCT implemented two of the four of the originally-planned route improvements (see Appendix A for the FY 2010-19 BCT Service Plan). Service improvements that occurred in FY 2010 include:

- 20-minute AM and PM Peak service added to Route 28 – Hallandale Beach Blvd./Miramar Pkwy.
- New 30-minute AM and PM Peak I-95 Express service from CB Smith Park & Ride (at Flamingo Rd.) to downtown Miami via Hollywood/Pines Boulevard and the I-95 Express Lanes.

### BCT Comprehensive Operational Analysis (COA)

In June, 2010, BCT's Board adopted the agency's first-ever COA. This COA effort began in February 2009 when the Board selected the public transportation consulting firm of Transportation, Management and Design, Inc. (TMD) to conduct an in-depth analysis of the BCT system from an operational standpoint.

This COA provides an in-depth study of BCT's transit system, identifies the strengths and weaknesses of the current system and develops clear recommendations for improvements to the system as a whole.

The COA as a process fell into the following phases from beginning (February 2009) to end (May 2010):

- Service Assessment: Key to the strength of this COA is that fact that in 2009 TMD completed a ridecheck and on-board survey of every BCT fixed route and community bus route for every time period and day of the week of operations. This massive survey effort provided the backbone of the final COA recommendations and ensures that BCT's current user travel patterns and observations from the system were gathered and documented.
- Service Evaluation: TMD provided a comprehensive review of BCT's existing service performance and effectiveness including On-Time Performance.
- Public Participation: BCT hosted over 18 public meetings in 2009 and 2010 to further garner the transit needs of the current BCT users and those not yet utilizing BCT services. This helped to provide an expansive picture of BCT's current system user and the non-user's needs and perception of the current BCT system.
- Final Recommendations: The final COA provides a comprehensive list of suggested changes to the BCT system including Performance Monitoring Standards, an updated BCT Service Framework, a Preferred BCT Service Plan (PSP) for the next ten years and Final Recommendations on improving BCT's on-time performance, customer service, fare policy and overall transportation policy.

Details on how findings from the COA are incorporated into the FY 2011-20 TDP Service Plan are located in Chapter 2. More information on BCT's COA can be found at the following location:

<http://browardauthor/BCT/COA/Pages/Default.aspx>

### BCT Capital Project Accomplishments for FY 2010

The FY 2009-18 TDP was highlighted by a number of identified transit capital needs supportive of BCT's current service and future expansion priorities. Transit capital project completions for FY 2010 include:

- Addition of 12 hybrid buses to BCT's fixed route service fleet.
- Upgrade/improvements to 310 bus stops to meet the Americans With Disabilities Act of 1990 (ADA) requirements.
- Continuation of planning and design phases with FDOT and Broward County Traffic Engineering (BCTED) to develop a Transit Signal Priority (TSP) system at 70 intersections on Hollywood/Pines Blvd. (Pembroke Lakes Mall to I-95) and Broward Blvd. (State Road 7 to US 1).
- Continued development of real-time information signage for bus stops on State Road 7.
- Further planning and design of expanded BCT bus shelter program county-wide, including plans and designs for the 441 Breeze bus stops and for BCT's highest ridership bus stops/transfer locations system-wide.

### **BCT IMPLEMENTATION DISCREPANCIES FOR FY 2010**

Unfortunately, some aspects of the Revised BCT Local Service Plan for FY 2010-19 (see Appendix A) were not implemented in FY 2010. In addition, other changes occurred that were not optimal for the overall BCT transit system. Following is a summary of each relevant change that occurred in FY 2010:

- Planned Service Not Added: Planned Saturday service improvements for Route's 1 & 72 (see Appendix A) were not implemented due to lack of available operating funds.
- Community Bus Route Changes: There were changes/eliminations to three routes in the Community Bus program in FY 2010:
  - City of Fort Lauderdale – Convention Connection (1 bus removed and hours reduced due to expiration of Congestion Mitigation and Air Quality grant).
  - City of Miramar – Orange Route (route merged with Miramar Green West Route in 12/09).
  - City of Wilton Manors (route discontinued failure to maintain the minimum Passengers Per Revenue Hour (PPH). Broward County has a requirement that all Community Bus routes receiving capital or operating subsidy from BCT maintain a 7.1 PPH ridership performance threshold on a rolling six month basis).

## CHAPTER 2 – REVISIONS TO THE IMPLEMENTATION PROGRAM FOR FY 2011-20

Like any strategic plan, there are many elements of the original FY 2009-18 TDP implementation program that require annual revisions. Following are revisions to the planned transit service and capital improvement plans for FY 2011-20, with needs for the new tenth year, FY 2020, included.

### BCT PLANNED SERVICE IMPLEMENTATION PROGRAM FOR FY 2011

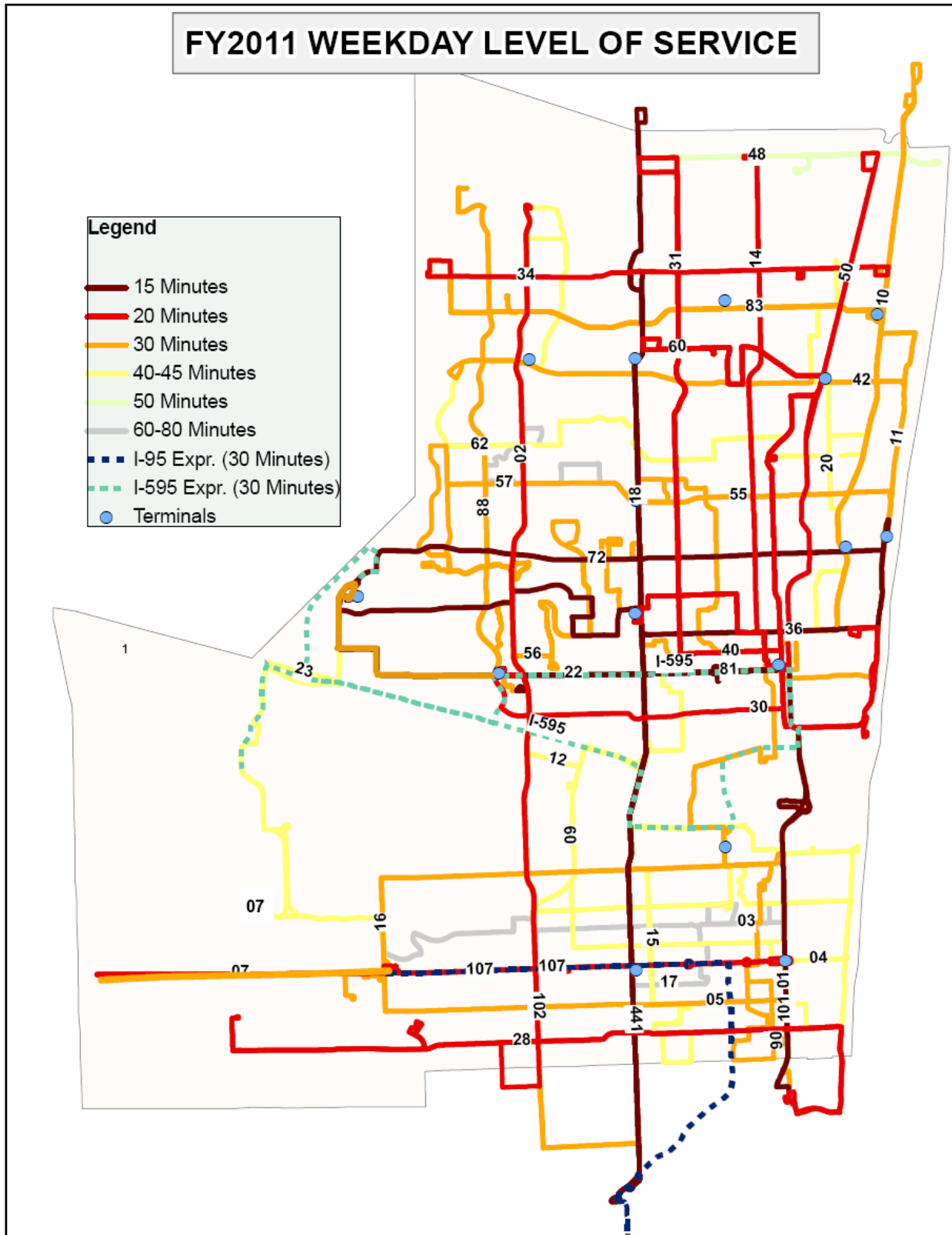
For FY 2011, BCT plans on implementing upgrades to existing routes while adding new express service from the Sunrise and Weston areas to downtowns of Fort Lauderdale and Miami (see revised FY 2011-20 BCT Service Plan in Table 3 and Map 3). Highlights include:

- New Service & Service-related Improvements:
  - Local Route Improvements:
    - Route 1 – US 1: Decrease Saturday headways from 30 min. to 20 min., decrease Sunday headways from 30 min. to 20 min.;
    - Route 7 – Hollywood/Pines Blvd.: Decrease Weekday headways from 30 min. to 20 min. between Pembroke Lakes Mall and Young’s Circle, decrease Sunday headways from 40 min. to 30 min. between Pembroke Lakes Mall and Young’s Circle. Increase Weekday headways from 30 to 40 minutes west of Pembroke Lakes Mall. Increase Saturday and Sunday headways from 30 to 60 minutes west of mall.
    - Route 22 – Broward Blvd.: Decrease Weekday Midday headways from 20 min. to 15 min.
    - Route 30 – Davie Blvd./Peters Rd.: Decrease Weekday Peak headways from 30 min. to 20 min.
    - Route 34 – Sample Rd.: Decrease Weekday Peak headways from 30 min. to 20 min.
    - Route 72 – Oakland Park Blvd.: Decrease Weekday Midday headways from 20 min. to 15 min., decrease Saturday headways from 30 min. to 20 min.;
  - Route Capacity Improvements: BCT will add additional 60-foot articulated buses to the fleet in order to relieve overcrowding, improve carrying capacity and decrease dwell time delays on the Route 72 – Oakland Park Blvd.
  - I-95 Express Bus Service: BCT is in the process of developing up to two express routes that will provide express commuter service between the Weston and Sunrise areas to downtown Ft. Lauderdale and downtown Miami. It is expected that these routes will have park and ride facilities to support a wider net of commuter usage. Service will operate in the AM and PM Peak periods only. Exact routing is currently being finalized.
  - Transit Signal Priority (TSP) Pilot Project: BCT, in partnership with the Broward County Traffic Engineering Division (BCTED) and the Florida Department of Transportation (FDOT), is testing the development of a TSP system for the Hollywood/Pines Blvd. (Pembroke Lakes Mall to I-95) and Broward Blvd. (State Road 7 to US 1). The goal is to design a TSP system that allows BCT’s buses to achieve maximum schedule adherence and provide travel time savings. Development and testing of TSP system will continue through FY 2011.

Table 3: Revised BCT Service Plan for FY 2011-20

FY11	Weekday Frequency	Weekday Span	Saturday Frequency	Saturday Span	Sunday Frequency	Sunday Span	Route Extensions	New Routes	Net New Total Service Hours	Net New Buses	Bus Capital Cost	Rapid Corridor Cap. Cost	Total New Service O&M Cost
FY 2010	28 Routes 7, 22, 30, 34, 72							I-95 Express (1)	15,262	11	\$4,532,000	\$0	\$1,159,130
FY 2011			Routes 1, 72		Routes 1, 7	Route 1		I-595 Express	45,636	21	\$12,040,000	\$0	\$3,793,488
FY 2012	Routes 14, 40, 50, 60	Route 40	Route 50	Route 40		Routes 14, 30, 40, 50, 60			32,237	11	\$5,399,680	\$0	\$2,648,270
FY 2013	Route 2					Route 2		US 1 Rapid	11,684	0	\$0	\$4,940,000	\$998,164
FY 2014					Route 72	Route 72		Oakland Park Blvd. Rapid, I-95 Express (2)	45,902	16	\$11,214,032	\$6,080,000	\$4,261,993
FY 2015	Routes 28, 81	Routes 5, 12, 81		Routes 5, 12	Route 18	Routes 12, 81	Route 18	State Road 7 Rapid	59,320	15	\$9,519,768	\$9,880,000	\$5,481,168
FY 2016	Routes 10, 42	Routes 42, 62	Routes 22, 40	Routes 42, 62		Routes 10, 22, 42	Route 10	Broward Blvd. Rapid	34,573	11	\$7,235,900	\$3,040,000	\$3,322,465
FY 2017	Route 34	Routes 6, 7, 20, 34, 88		Routes 4, 6, 20, 34, 88		Routes 4, 6, 7, 20, 34		Hollywood/Pines Blvd. Rapid	40,828	12	\$9,460,692	\$3,990,000	\$4,080,759
FY 2018	Routes 11, 31, 55	Route 55	Route 36	Route 55	Route 36	Routes 11, 31, 36, 55	Route 55	Sunrise Blvd. Rapid	59,711	22	\$15,255,890	\$5,700,000	\$6,206,361
FY 2019	Routes 9, 12, 28		Route 14		Routes 14, 40			University Dr. Rapid	63,981	18	\$14,315,232	\$10,070,000	\$6,916,346
FY 2020		Route 48		Route 48	Routes 10, 50	Routes 10, 48		Dixie Highway Rapid, I-75 Express	52,144	20	\$17,736,660	\$5,700,000	\$6,106,828

Map 3: Planned BCT Weekday Level of Service (LOS) for FY 2011



## CHANGES IN THE FY 2011-20 BCT SERVICE PLAN

There are many changes to the BCT FY 2011-20 Service Plan reflected in this TDP Annual Update. Many of the changes reflect changes in service priorities identified in BCT's recently-adopted COA. The COA concluded that in order for BCT to provide the best options for existing transit riders and attract new riders to the system, BCT will have to develop a network that offers a complete and interconnected system of services that provide cost and time-saving options (see Appendix B). That said, BCT's service needs and future service planning framework are now classified into four main categories:

- Network-Based Services – Provide comprehensive coverage for a wide range of transit needs. Network-based local services will provide the backbone of the system and generally have operational headways no lower than 15 min. and no higher than 30 min. This layer of service will be the main feeder to BCT's Rapid and Commuter Service.
  - *BCT's Network-Based Routes: 1, 2, 6, 7, 9, 10, 11, 12, 14, 18, 22, 28, 30, 31, 34, 36, 40, 42, 50, 55, 60, 62, 72, 81*
- Rapid Bus Service – High-speed, high-performing service operating on BCT's most productive corridors. Serves BCT's major transit corridors with high level frequencies (at least 10 min. at Weekday peak). Highlighted by limited stop spacing, transit signal priority, enhanced passenger stations and unique branding.
  - *BCT's Rapid Bus Corridors: State Road 7, Oakland Park Blvd., US 1 (south of downtown), University Dr., Sunrise Blvd., Dixie Highway, Hollywood/Pines Blvd., Broward Blvd.*
- Community-Based Service – Local circulation routes that cater to specific market needs and greater connections to network-based routes. Typical route will have headways ranging from 40 min. to 80 min.
  - *BCT's Community-Based Routes: 3, 4, 5, 15, 16, 17, 20, 23, 48, 56, 57, 83, 88*
- Commuter Service – These will entail point-to-point, longer-distance express services without local stops. Route will be geared toward peak-hour commuters and require further development of the park and ride concept.
  - *BCT's Commuter Routes: I-95 Express, I-595 Express, (proposed I-75 Express)*

The updated FY 2011-20 Service Plan (see and Table 3 and Map 4) incorporates these classifications and combines them with the current performance of each route in order to plan out ten years of anticipated service needs. The Rapid Bus corridor needs reflect time periods established in the COA, while the Network and Community-Based service plan additions reflect current route productivity and expected growth needs for the FY 2011-20 timeframe.

## BCT STRATEGIC SERVICE INITIATIVES FOR FY 2015-2020

The Strategic Service Initiatives were originally developed for the FY 2009-18 TDP as a way to identify the immediate and future need for rapid transit service on BCT's key transit corridors. For this Update, there are some key changes to these conceptual projects that reflect BCT's current system needs (see Table 4). First, the addition of Rapid Bus to eight corridors in BCT's FY 2011-20 Service Plan (see Table 3) pushes out any realistic introduction of fixed guideway BRT on most of the Rapid corridors outside of the FY 2011-20 timeframe. BCT expects that some fixed guideway development may occur on its top two corridors by FY 2020: Oakland Park Blvd. and State Road 7.

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In addition, the COA also recommended that BCT not invest in new local routes until said corridors show development patterns that exhibit higher employment and population densities more supportive of public transit service (see Appendix C). With this finding, BCT views the introduction of new local fixed routes on Rock Island Rd., McNab Rd., Nob Hill Rd. Griffin Rd., Flamingo Rd., Wiles Rd., Douglas Rd. and Palm Ave (see Table 4 below) as a long-term Strategic Service Initiative but not fundamental to the needs reflected in BCT’s updated FY 2011-20 Service Plan. None of the Strategic Service Initiatives are funded at this time.

**Table 4: Strategic Service Initiatives for FY 2015-20**

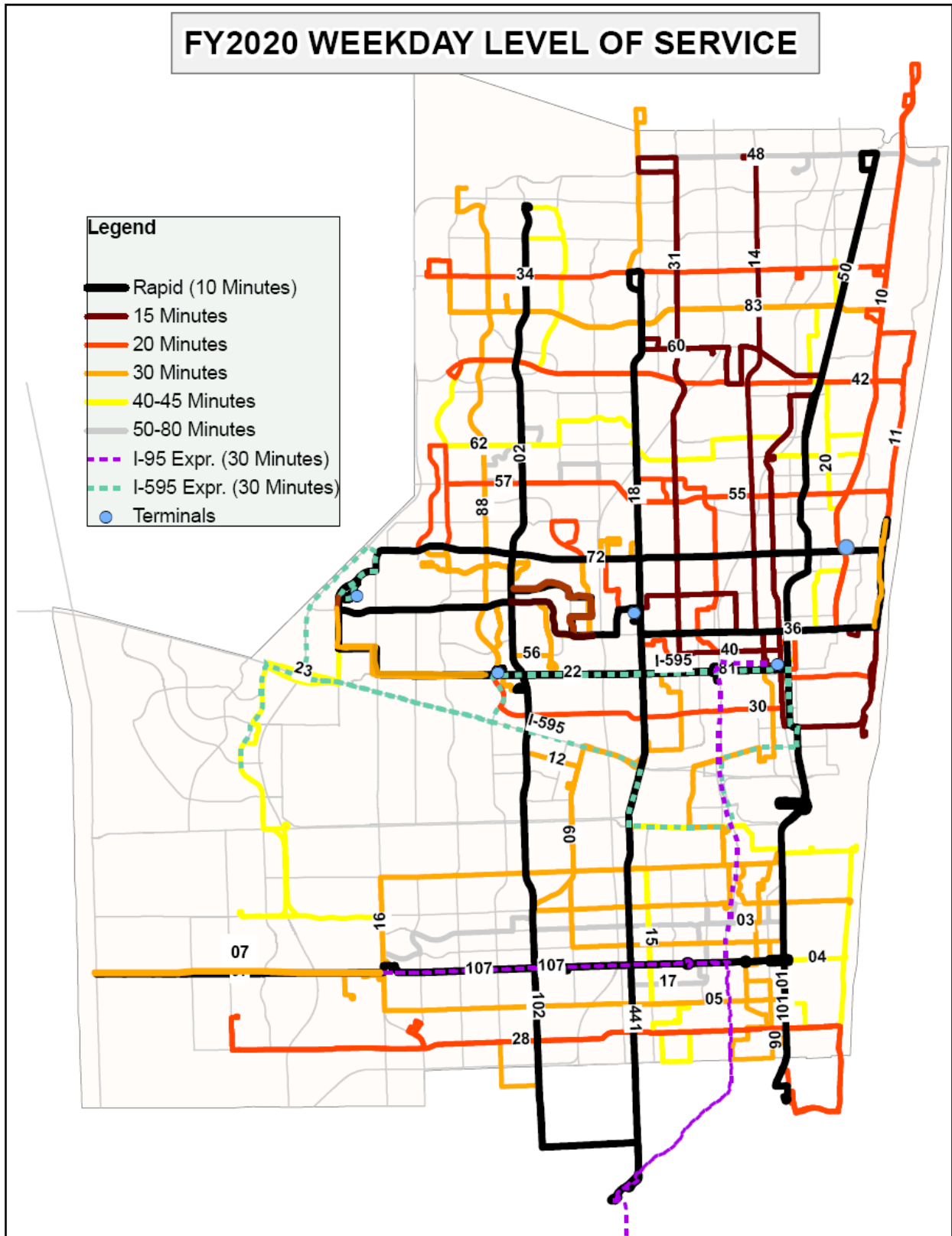
Year	Service Initiative	Operational Parameters	Net New Total Service Hours	Net New Buses	Total Capital Cost*	Total New Annual Operating Cost (**TBD)
FY 2015	Electric Light Rail Streetcar 2.7 miles Downtown Ft. Lauderdale	Monday through Sunday	TBD	n/a	\$150,000,000	\$2,000,000
FY 2019	BRT Enhancements - Oakland Park Boulevard (Route 72)	Monday through Sunday 10 min peak/15 min off-peak frequency	51,230	n/a	\$160,000,000	*
FY 2020	BRT Enhancements - 441 (Route 18)	Monday through Sunday 10 min peak/15 min off-peak frequency	96,056	n/a	\$300,000,000	*
FY 2020	New Local Service: Rock Island Rd., Nob Hill Rd., McNab Rd., Wiles Rd., Griffin Rd., Douglas Rd., Palm Ave., Flamingo Rd.	Weekday 30 Peak/60 min. Off-Peak, Sat. and Sun. 60 min.	105,448	34	\$22,841,302	\$11,854,464
<b>TOTALS</b>			<b>252,735</b>	<b>34</b>	<b>\$482,841,302</b>	<b>\$13,854,464</b>

\*BRT cost estimate estimated at \$10 million per mile, which includes some fixed guideway development, 60' buses, enhanced bus shelters/stations/amenities, ticket/vending machines, real-time info. signage, transit signal priority.

\*\*O&M costs for BRT service are assumed to similar to those programmed for Rapid Bus in the FY 2011-20 Service Plan (see Table 3).

\*\*\*Operating agency to be determined.

Map 4: Planned BCT Level of Service (LOS) for FY 2020



**BCT PLANNED CAPITAL/FACILITY IMPLEMENTATION PROGRAM FOR FY 2011**

BCT will be implementing many aspects of the planned transit capital program plan from the FY 2009-18 TDP as well as other transit capital programs that gained importance in FY 2010. All of the transit capital projects for FY 2011 are part of an identified need in the original FY 2009-18 TDP.

- Transit Facility Projects:
  - BCT Bus Stop Upgrades: BCT plans to upgrade an additional 300 bus stops to ADA standards in FY 2011.
  - BCT Shelter and Bus Stop Improvement Program: BCT, in partnership with various municipalities and FDOT, plans to add 700 new bus shelters in the system by the end of FY 2014. It is expected that BCT will complete at least 100 new shelters in FY 2011, 200 in FY 2012, 200 in FY 2013 and 200 in FY 2014.
  - Pompano Neighborhood Transit Center (NTC): In FY 2011, Construction will continue on BCT's forthcoming Pompano NTC. It is expected that this transfer center will be operational in FY 2011.
  - BCT Ravenswood Facility: The Ravenswood Facility is BCT's oldest garage. The Design phase of the project will commence in FY 2011. The project will include a new maintenance building, a new operations building, a new multi-story personnel garage, a new fueling/support building, a new bus wash area, and a reconfigured bus parking area.
  - BCT Central Terminal Redevelopment: Planning and design work is expected to begin in FY 2011 for BCT's main terminal in downtown Fort Lauderdale. It is expected that the Planning/Design phases will be completed during FY 11-14 with Construction to possibly begin in FY 2015.
- BCT Green Fleet Expansion: BCT will be adding two additional hybrid-electric buses to its fleet in FY 2011 and ordering 10 more during the fiscal year.

Capital Expansion Needs for FY 2011-2020

An updated list of the transit capital needs for BCT is identified in Table 5 & 6. These capital expansion needs are a current estimation of what BCT will need to operate and maintain existing service and facilitate the new local and Rapid service needs detailed in Table 3 of this update. These needs also represent the priorities the public sought BCT to pursue per the TDP public involvement efforts in 2008. Following are some of the highlights of BCT's unfunded Capital Expansion Priorities for FY 2011-2020:

- Third Maintenance/Operations Facility:  
BCT will be unable to implement major portions of the FY 2011-2020 Service Plan and Strategic Service Initiatives unless a third maintenance/operations facility is constructed to support the expansion in BCT's bus fleet. Although BCT's existing Ravenswood Rd. facility will be refurbished and reconfigured for up to 30+ buses in the near future, a third site will be necessary (long-term) for the system to expand to a fleet of nearly 600 per the TDP.
- Intermodal Centers:  
For the period of FY 2011-2020, BCT will need to refurbish and possibly rebuild portions of its three existing Intermodal Centers: Broward Central Terminal, West Regional Terminal and the

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Lauderhill Mall terminal. In addition, BCT expects that further investment in new intermodal centers/hubs across the county as they evolve over the next ten years from concepts.

- **Park and Ride Facilities:**  
Key to the success of growing transit ridership (particularly attracting new and choice riders) is the strategic development of park and ride lots at key points in the BCT system.
- **Transit Infrastructure:**  
One of the top issues brought forth by the public in the development of the FY 2009-18 TDP was the need for more bus shelters, benches, signage, and other amenities throughout the existing and future BCT system. This capital expansion need remains a top priority for BCT for its existing system and bus stops. Likewise, many of the planned bus service expansion improvements (see table 3) will need supportive infrastructure to appeal to existing and new riders.
- **Capital Improvement Plan (CIP):**  
In FY 2011, BCT will develop a capital needs inventory, a process for capital project prioritization, via a formal Capital Improvement Plan (CIP). The plan will have detailed cost information for the first 10 years on a project-by-project basis, as well as a projection of long-term capital project needs for BCT.

**Table 5: BCT Capital Expansion Priorities – FY 2011-15**

FACILITIES	FY 11	FY 12	FY 13	FY 14	FY 15	TOTAL FY11-15
Third Operating Base (Phase I)	\$0	\$0	\$0	\$0	\$0	\$0
Third Operating Base (Phase II)	\$0	\$0	\$0	\$0	\$0	\$0
Intermodal Centers	\$0	\$0	\$0	\$0	\$0	\$0
Park 'n Ride Facilities	\$0	\$5,000,000	\$3,000,000	\$4,000,000	\$2,000,000	\$14,000,000
Sub-Total	\$0	\$5,000,000	\$3,000,000	\$4,000,000	\$2,000,000	\$14,000,000
<b>HIGH CAPACITY TRANSIT</b>						
Streetcar (See Table 4)	\$0	\$0	\$0	\$0	\$0	\$0
BRT/Fixed Guideway (See Table 4)	\$0	\$0	\$0	\$0	\$0	\$0
<b>VEHICLES</b>						
Community Bus Vehicles	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$3,000,000
Capital Maintenance Upgrades	\$100,000	\$430,838	\$433,590	\$390,832	\$484,654	\$1,839,914
Sub-Total	\$700,000	\$1,030,838	\$1,033,590	\$990,832	\$1,084,654	\$4,839,914
<b>TRANSIT INFRASTRUCTURE NEEDS</b>						
ADA-Compliant Upgrades	\$1,250,000	\$1,375,000	\$1,512,500	\$1,663,750	\$1,830,125	\$7,631,375
200 Shelters @ \$35,000 ea.	\$0	\$0	\$0	\$0	\$7,000,000	\$7,000,000
Ped. Improvements (sidewalks, etc.)	\$1,000,000	\$1,250,000	\$1,500,000	\$1,750,000	\$2,000,000	\$7,500,000
Bus Stop Upgrades ( <i>lighting, benches...</i> )	\$250,000	\$275,000	\$302,500	\$332,750	\$366,025	\$1,526,275
Sub-Total	\$2,500,000	\$2,900,000	\$3,315,000	\$3,746,500	\$11,196,150	\$23,657,650
<b>TECHNOLOGIES</b>						
Real Time Info. Systems (AVL, APC, signage)	\$500,000	\$1,250,000	\$1,500,000	\$1,600,000	\$1,750,000	\$6,600,000
Paratransit ITS	\$1,400,000	\$114,000	\$114,000	\$114,000	\$114,000	\$1,856,000
Transit Signal Prioritization	\$600,000	\$1,500,000	\$600,000	\$1,500,000	\$1,200,000	\$5,400,000
Software Upgrades	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$750,000
Sub-Total	\$2,650,000	\$3,014,000	\$2,364,000	\$3,364,000	\$3,214,000	\$14,606,000
<b>MISCELLANEOUS</b>						
Plan, Design, Engineering Studies	\$2,000,000	\$2,500,000	\$3,000,000	\$3,500,000	\$4,000,000	\$15,000,000
Sub-Total	\$2,000,000	\$2,500,000	\$3,000,000	\$3,500,000	\$4,000,000	\$15,000,000
<b>TOTAL Expansion CAPITAL EXPENSES</b>	<b>\$7,850,000</b>	<b>\$14,444,838</b>	<b>\$12,712,590</b>	<b>\$15,601,332</b>	<b>\$21,494,804</b>	<b>\$72,103,564</b>

**Table 6: BCT Capital Expansion Priorities – FY 2016-20**

FACILITIES	FY 16	FY 17	FY 18	FY 19	FY 20	TOTAL FY16-20
Third Operating Base (Phase I)	\$5,000,000	\$0	\$0	\$0	\$0	\$5,000,000
Third Operating Base (Phase II)	\$0	\$15,000,000	\$30,000,000	\$7,000,000	\$0	\$52,000,000
Intermodal Centers	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$15,000,000
Park 'n' Ride Facilities	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$15,000,000
Sub-Total	<b>\$11,000,000</b>	<b>\$21,000,000</b>	<b>\$36,000,000</b>	<b>\$13,000,000</b>	<b>\$6,000,000</b>	<b>\$87,000,000</b>
<b>HIGH CAPACITY TRANSIT</b>						
Streetcar (see Table 4)	\$0	\$0	\$0	\$0	\$0	\$0
BRT/Fixed Guideway (See Table 4)	\$0	\$0	\$0	\$0	\$0	\$0
<b>VEHICLES</b>						
Community Bus Vehicles	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$3,000,000
Capital Maintenance Upgrades	\$400,000	\$430,838	\$433,590	\$390,382	\$484,654	\$2,139,464
Sub-Total	<b>\$1,000,000</b>	<b>\$1,030,838</b>	<b>\$1,033,590</b>	<b>\$990,382</b>	<b>\$1,084,654</b>	<b>\$5,139,464</b>
<b>TRANSIT INFRASTRUCTURE NEEDS</b>						
ADA-Compliant Upgrades	\$1,250,000	\$1,375,000	\$1,512,500	\$1,663,750	\$1,830,125	\$7,631,375
200 Shelters @ \$35,000 ea.	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$35,000,000
Ped. Improvements (sidewalks, etc.)	\$1,500,000	\$1,750,000	\$2,000,000	\$2,250,000	\$2,500,000	\$10,000,000
Bus Stop Upgrades ( <i>lighting, benches...</i> )	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$2,500,000
Sub-Total	<b>\$10,250,000</b>	<b>\$10,625,000</b>	<b>\$11,012,500</b>	<b>\$11,413,750</b>	<b>\$11,830,125</b>	<b>\$55,131,375</b>
<b>TECHNOLOGIES</b>						
Real Time Info. Systems (AVL, APC, signage)	\$1,750,000	\$2,000,000	\$2,250,000	\$2,500,000	\$2,750,000	\$11,250,000
Transit Signal Prioritization	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$7,500,000
Software Upgrades	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
Sub-Total	<b>\$3,450,000</b>	<b>\$3,700,000</b>	<b>\$3,950,000</b>	<b>\$4,200,000</b>	<b>\$4,450,000</b>	<b>\$19,750,000</b>
<b>MISCELLANEOUS</b>						
Plan, Design, Engineering Studies	\$3,000,000	\$3,250,000	\$3,500,000	\$3,750,000	\$4,000,000	\$17,500,000
Sub-Total	<b>\$3,000,000</b>	<b>\$3,250,000</b>	<b>\$3,500,000</b>	<b>\$3,750,000</b>	<b>\$4,000,000</b>	<b>\$17,500,000</b>
<b>TOTAL Expansion CAPITAL EXPENSES</b>	<b>\$28,700,000</b>	<b>\$39,605,838</b>	<b>\$55,496,090</b>	<b>\$33,354,132</b>	<b>\$27,364,779</b>	<b>\$184,520,839</b>

Broward County MPO 2035 Long Range Transportation Plan (LRTP)

The Broward County 2035 Long Range Transportation Plan (LRTP) was adopted by the Broward Metropolitan Planning Organization (BMPO) in December 2009. The Transit Needs component of the 2035 LRTP provides the opportunity to help identify a comprehensive set of short and long range transit needs for a longer time period than this FY 2011 TDP Annual Update. The final 2035 LRTP identified numerous unmet rapid transit needs in Broward County (see Map 5 and Table 6 for list of premium transit corridors and related projects). The Rapid Bus and potential BRT corridors BCT identified in this FY 2011 TDP Annual Update are consistent with the 2035 LRTP. In addition, most of the unfunded capital needs for BCT are reflected in the 2035 LRTP.

BCT and 2035 LRTP Implementation/Coordination Activities

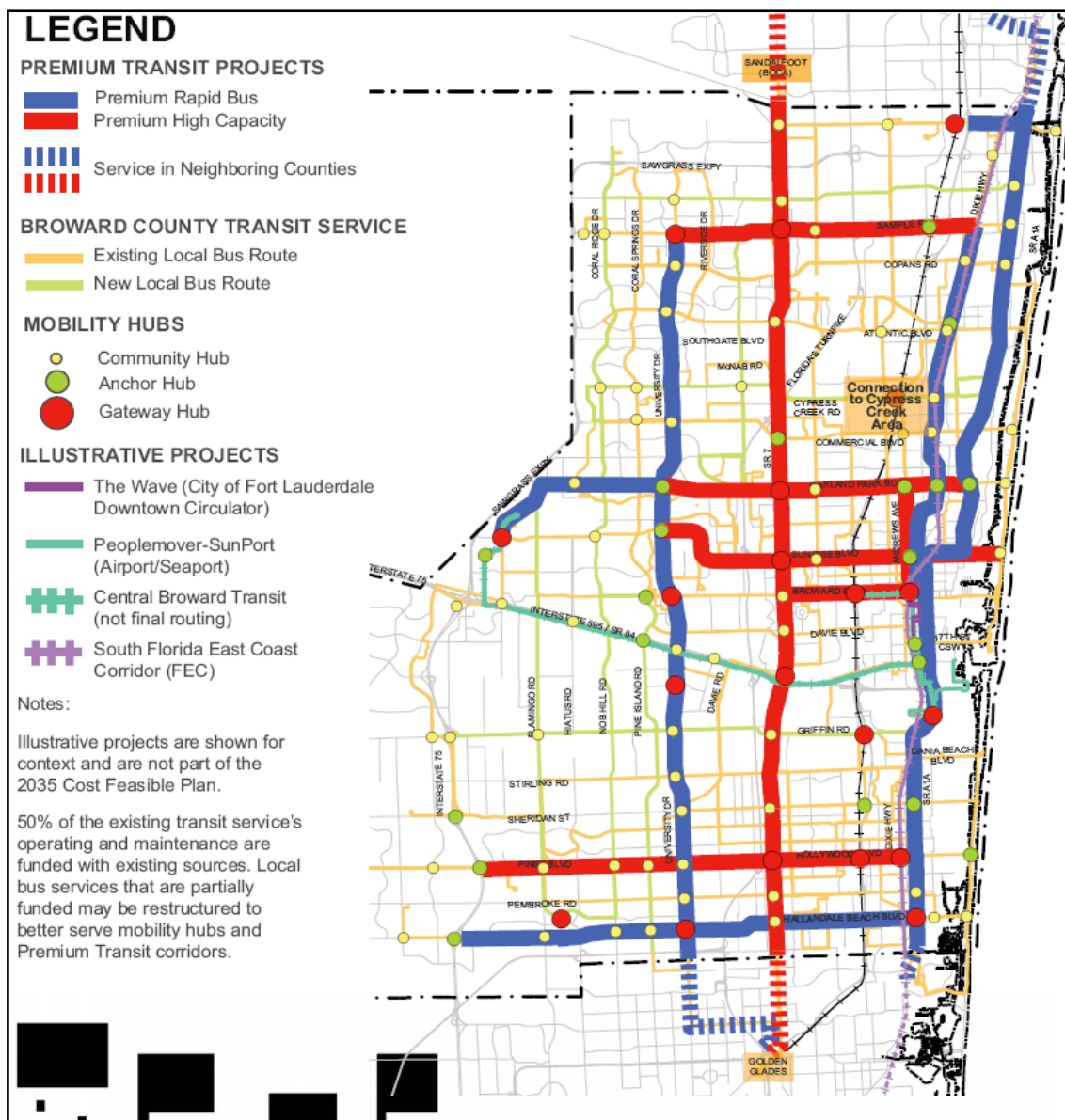
Since the adoption of the Broward County 2035 LRTP in December 2009, BCT has been working with transportation partners such as the BMPO, South Florida Regional Transportation Authority (SFRTA) and

the FDOT, in addition to participating municipalities to implement aspects of the transit components of the plan.

Some of the activities that started in FY 2010 and will continue in FY 2011 include:

- *Broward Blvd. Transit Study (2010-12)*
- *Oakland Park Blvd. Transit Study (2011-12)*
- *Regional Smart Card Integration Analysis (ongoing)*
- *Mobility Hub conceptual development activities*
- *Integration of BCT system Origin/Destination survey data into regional travel demand model*

**Map 5: Broward County 2035 L RTP Cost Feasible Transit Projects and Mobility Hubs**



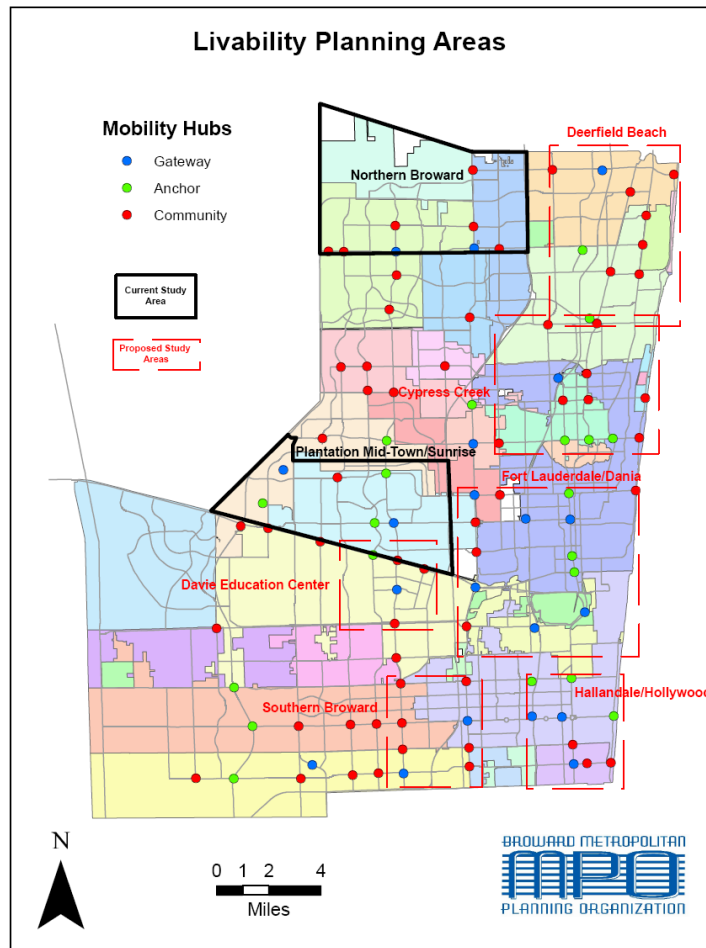
Source: Broward County MPO 2035 L RTP

BCT and Land Use Coordination

For FY 2011 and beyond, BCT staff will continue to work with our local and state partners in coordinating transit-supportive land use activities in Broward County. Establishing transit supportive development encourages people to ride buses, walk and bike more often, allows for cheaper alternatives to the automobile and can lead to increased ridership and farebox revenue for BCT. Effective coordination of transportation and land use can foster a sense of place, encourage mixed-use and transit oriented/supported development, provide affordable housing, and enhance overall economic opportunity.

One emerging effort to link transit-supportive analysis and future decision-making is the MPO's Livability Planning Area study initiative. This initiative is aimed at guiding and encouraging multi-use development to support the LRTP's transit-oriented Mobility Hub concept and key nodes across Broward County (see Map 6). The first such study of the Northern Broward County area is due for completion soon. Currently, the Plantation Mid-Town/Sunrise area is also being examined under this effort and will be completed in 2011. It is expected that the next study area will commence along US 1 in the Hallandale/Hollywood area in 2011.

**Map 6: Broward MPO Livability Planning Areas**



## CHAPTER 3 – REVISED TDP FINANCIAL PLANS FOR FY 2011-20

On September 28, 2010, BCT's Board will adopt an official capital and operating budget for BCT for FY 2011. The following BCT Capital and Operating budgets for this FY 2011-20 TDP Annual Update are therefore based on BCT's best estimates at the time this annual update was drafted (July 2010).

### REVISED FINANCIAL PLANS FOR FY 2011

Following is BCT's estimated capital and operating budgets for FY 2011-20. As noted above, the actual BCT Capital and Operating budgets for FY 2011 will be adopted by BCT's Board on September 28, 2010. For BCT's annual budgeting process, capital and operating revenue projections for FY 2011 stem from anticipated revenue from BCT's primary funding sources: Broward County, FDOT and the Federal Transit Administration (FTA). For BCT's FY 2011 budget process, all sources of revenue are generally assumed to be flat or in decline, so an inflationary estimate is not provided for out years in this update.

#### BCT FY 2011-20 Capital Budget

BCT's estimated capital budget for FY 2011-20 is shown in Table's 7 & 8. For FY 2011, BCT expects \$28.3 million in transit capital revenue from the FTA and a minor portion from the Broward County Transportation Concurrency (TOC) fund. The FTA funds are allocated to BCT based on a formula, while the TOC funds are now only allocated to BCT for transit capital projects on an annual basis only, so funding for FY 2012-15 cannot be estimated until July of each new budget year.

#### BCT FY 2011-20 Operating Budget

BCT's estimated operating budget for FY 2011-20 is shown in Table's 9 & 10. BCT's total operating budget for FY 2011 is estimated to total \$115,962,000 million (see Table 9). It is estimated that operating funding in total will remain flat for FY 2011 and in all out years. BCT's main sources of annual operating revenue include:

- Broward County General Funds
- Broward County Local Option Gas Tax
- State of Florida Public Transit Block Grants
- BCT Operational Revenue (Charges for Services)
- Miscellaneous Revenue

For BCT's FY 2011 operating budget, BCT estimates it will receive -\$ 2,205,360 less than was allocated for the FY 2010 operating budget. The main source of the FY 2011 decline in operating funds stems from the Broward County General Fund, of which BCT's share declined from \$29,645,530 million in FY 2010 to \$22,337,670 million in FY 2011. The decline in Broward County's property tax-based General Fund in FY 2011 will likely lead to service reductions for BCT in FY 2011. It is expected that the Board will approve cuts to BCT-related services/programs in FY 2011 to make up the operating shortfall.

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**Table 7: BCT FY 2011-15 Capital Budget**

<b>REVENUES:</b>	<b>FY 11</b>	<b>FY 12</b>	<b>FY 13</b>	<b>FY 14</b>	<b>FY 15</b>
Federal Transit Administration	23,400,000	23,400,000	23,400,000	23,400,000	23,400,000
Transfer from Transit Concurrency Fund	4,900,000	0	0	0	0
<b>TOTAL:</b>	<b>\$28,300,000</b>	<b>\$23,400,000</b>	<b>\$23,400,000</b>	<b>\$23,400,000</b>	<b>\$23,400,000</b>
<b>Improvement/Replacement/Maintenance Programs for Vehicles</b>					
Buses	7,755,450	9,663,990	8,276,910	7,888,720	9,700,000
Concurrency Funds - Buses (Capital Match)	4,900,000	0	0	0	0
Community Bus Replacements	375,000	882,350	1,779,650	2,148,820	1,050,430
Replacement/New Vehicles	0	150,000	150,000	200,000	282,440
Retrofit Bus Interior Lights w/LED lighting	368,000	0	0	0	0
Capital Maintenance & Preventative Maintenance	4,302,560	4,209,580	3,788,130	3,747,940	4,006,170
Tire Leasing	1,575,000	1,606,500	1,670,760	1,736,440	1,736,440
<b>Subtotal</b>	<b>19,276,010</b>	<b>16,512,420</b>	<b>15,665,450</b>	<b>15,721,920</b>	<b>16,775,480</b>
<b>Infrastructure Improvement/Maintenance Programs</b>					
Transit Facility Refurbishment	840,000	856,800	899,640	912,610	1,040,690
Construction of New Administration Building	2,400,000	2,400,000	2,400,000	2,400,000	1,500,000
Maintenance Shop Equipment	394,000	310,180	377,680	396,570	416,390
ADA Bus Stop & Facility Improvements	100,000	200,000	500,000	500,000	750,000
Replacement & Capital Maintenance of Bus Simulators	750,000	0	29,000	30,450	31,980
Replacement of Transit Print Shop Equipment	115,000	0	0	0	0
<b>Subtotal</b>	<b>4,599,000</b>	<b>3,766,980</b>	<b>4,206,320</b>	<b>4,239,630</b>	<b>3,739,060</b>
<b>Security-Related Programs</b>					
Capital Software Maintenance Safety Vision System	103,850	109,050	114,500	120,220	126,230
Replacement Facility Card Access	50,000	52,500	55,130	57,880	60,780
Capital Maintenance Facility Cameras & Access Systems	125,000	105,000	110,250	115,760	121,550
Secured Receptacles for Terminal Facilities	33,600	0	3,360	3,530	3,700
Capital Maintenance Camera Systems on Buses	0	0	0	0	700,000
<b>Subtotal</b>	<b>312,450</b>	<b>266,550</b>	<b>283,240</b>	<b>297,390</b>	<b>1,012,260</b>
<b>Information Technology Related Programs</b>					
Community Bus Automatic Passenger Counters (APC)	200,000	20,000	20,000	20,000	20,000
Community Bus Internet Reporting System	75,000	78,750	82,690	86,820	91,160
Electronic Data Filing System and Maintenance	20,000	0	2,000	2,100	2,200
Paratransit Software Maintenance and Upgrades	28,000	28,000	228,000	28,000	28,000
Replacement of Scheduling, Bid Dispatch & Other Modules	806,820	0	80,680	84,720	89,630
Transit Software and Hardware Capital Maintenance	534,140	544,820	572,060	600,670	612,680
Smartcard Reader Retrofit	150,000	150,000	150,000	150,000	150,000
Employee Timekeeping Payroll System Module	50,000	50,000	50,000	50,000	50,000
<b>Subtotal</b>	<b>1,863,960</b>	<b>871,570</b>	<b>1,185,430</b>	<b>1,022,310</b>	<b>1,043,670</b>
<b>Miscellaneous Items</b>					
Transit Planning Studies	100,000	100,000	100,000	100,000	100,000
Lease of Administration Building	1,200,000	1,236,000	1,273,080	1,311,270	0
Capital Cost Contracting	66,480	66,480	66,480	66,480	66,480
Contractual Services and Other Capital	882,100	580,000	620,000	641,000	663,050
<b>Subtotal</b>	<b>2,248,580</b>	<b>1,982,480</b>	<b>2,059,560</b>	<b>2,118,750</b>	<b>829,530</b>
<b>TOTAL CAPITAL COSTS:</b>	<b>\$28,300,000</b>	<b>\$23,400,000</b>	<b>\$23,400,000</b>	<b>\$23,400,000</b>	<b>\$23,400,000</b>

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Table 8: BCT FY 2016-20 Capital Budget

<b>REVENUES:</b>	<b>FY 16</b>	<b>FY 17</b>	<b>FY 18</b>	<b>FY 19</b>	<b>FY 20</b>
Federal Transit Administration	23,400,000	23,400,000	23,400,000	23,400,000	23,400,000
Transfer from Transit Concurrency Fund	4,900,000	0	0	0	0
<b>TOTAL:</b>	<b><u>\$28,300,000</u></b>	<b><u>\$23,400,000</u></b>	<b><u>\$23,400,000</u></b>	<b><u>\$23,400,000</u></b>	<b><u>\$23,400,000</u></b>
<b><u>Improvement/Replacement/Maintenance Programs for Vehicles</u></b>					
Buses	8,657,014	8,657,014	9,760,477	9,347,808	9,192,703
Concurrency Funds - Buses (Capital Match)	4,900,000	0	0	0	0
Community Bus Replacements	1,247,250	1,247,250	1,297,140	1,349,026	1,247,250
Replacement/New Vehicles	156,488	156,488	162,748	169,257	156,488
Capital Maintenance & Preventative Maintenance	4,010,876	4,010,876	4,171,311	4,338,163	4,511,690
Tire Leasing	1,665,028	1,665,028	1,665,028	1,665,028	1,665,028
<b>Subtotal</b>	<b><u>20,636,656</u></b>	<b><u>15,736,656</u></b>	<b><u>17,056,703</u></b>	<b><u>16,869,282</u></b>	<b><u>16,773,159</u></b>
<b><u>Infrastructure Improvement/Maintenance Programs</u></b>					
Transit Facility Refurbishment	909,948	909,948	946,346	984,200	1,023,568
Construction of New Administration Building	1,500,000	1,500,000	0	0	0
Maintenance Shop Equipment	378,964	378,964	394,123	409,887	378,964
ADA Bus Stop & Facility Improvements	410,000	410,000	426,400	443,456	410,000
Replacement & Capital Maintenance of Bus Simulators	31,980	31,980	33,259	34,590	35,973
Other Infrastructure Improvements	485,799	485,799	505,231	525,440	546,458
<b>Subtotal</b>	<b><u>3,716,691</u></b>	<b><u>3,716,691</u></b>	<b><u>2,305,359</u></b>	<b><u>2,397,573</u></b>	<b><u>2,394,963</u></b>
<b><u>Security-Related Programs</u></b>					
Capital Software Maintenance Safety Vision System	114,770	114,770	114,770	114,770	114,770
Replacement Facility Card Access	55,258	55,258	55,258	55,528	55,528
Capital Maintenance Facility Cameras & Access Systems	115,512	115,512	120,132	124,938	129,935
Secured Receptacles for Terminal Facilities	3,530	3,530	3,530	3,530	3,530
Capital Maintenance Camera Systems on Buses	140,000	140,000	145,600	151,424	157,481
<b>Subtotal</b>	<b><u>429,070</u></b>	<b><u>429,070</u></b>	<b><u>439,290</u></b>	<b><u>450,190</u></b>	<b><u>461,244</u></b>
<b><u>Information Technology Related Programs</u></b>					
Community Bus Automatic Passenger Counters (APC)	20,000	20,000	20,000	20,000	20,000
Community Bus Internet Reporting System	82,884	82,884	82,884	82,884	82,884
Electronic Data Filing System and Maintenance	2,200	2,200	2,200	2,200	2,200
Paratransit Software Maintenance and Upgrades	28,000	28,000	28,000	28,000	28,000
Replacement of Scheduling, Bid Dispatch & Other Modules	85,010	85,010	85,010	85,010	85,010
Transit Software and Hardware Capital Maintenance	572,874	572,874	572,874	572,874	572,874
Smartcard Reader Retrofit	150,000	150,000	150,000	150,000	150,000
Employee Timekeeping Payroll System Module	50,000	50,000	50,000	50,000	50,000
<b>Subtotal</b>	<b><u>990,968</u></b>	<b><u>990,968</u></b>	<b><u>990,968</u></b>	<b><u>990,968</u></b>	<b><u>990,968</u></b>
<b><u>Miscellaneous Items</u></b>					
Transit Planning Studies	500,000	500,000	500,000	500,000	500,000
Lease of Administration Building	1,282,905	1,282,905	1,334,221	1,387,590	1,443,094
Capital Cost Contracting	66,480	66,480	69,139	71,905	74,781
Contractual Services and Other Capital	677,230	677,230	704,319	732,492	761,792
<b>Subtotal</b>	<b><u>2,526,615</u></b>	<b><u>2,526,615</u></b>	<b><u>2,607,680</u></b>	<b><u>2,691,987</u></b>	<b><u>2,779,666</u></b>
<b>TOTAL CAPITAL COSTS:</b>	<b><u>\$28,300,000</u></b>	<b><u>\$23,400,000</u></b>	<b><u>\$23,400,000</u></b>	<b><u>\$23,400,000</u></b>	<b><u>\$23,400,000</u></b>

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Table 9: BCT FY 2011-15 Operating Budget

<b>SECTION SUMMARIES</b>	<b>FY 11</b>	<b>FY 12</b>	<b>FY 13</b>	<b>FY 14</b>	<b>FY 15</b>
Administration	\$5,896,830	\$5,896,830	\$5,896,830	\$5,896,830	\$5,896,830
Compliance	\$1,712,730	\$1,712,730	\$1,712,730	\$1,712,730	\$1,712,730
Customer Relations & Communication	\$2,495,900	\$2,495,900	\$2,495,900	\$2,495,900	\$2,495,900
Information Systems	\$884,170	\$884,170	\$884,170	\$884,170	\$884,170
Maintenance	\$28,270,960	\$28,270,960	\$28,270,960	\$28,270,960	\$28,270,960
Paratransit Transportation	\$19,876,850	\$19,876,850	\$19,876,850	\$19,876,850	\$19,876,850
Service and Capital Planning	\$4,342,300	\$4,342,300	\$4,342,300	\$4,342,300	\$4,342,300
Transit Procurement	\$445,360	\$445,360	\$445,360	\$445,360	\$445,360
Transportation Operations	\$52,037,500	\$52,037,500	\$52,037,500	\$52,037,500	\$52,037,500
<b>TOTAL</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>
<b>REVENUES</b>					
Charges for Services	\$27,625,330	\$27,625,330	\$27,625,330	\$27,625,330	\$27,625,330
Miscellaneous Revenue	\$739,810	\$739,810	\$739,810	\$739,810	\$739,810
State Grants	\$11,248,000	\$11,248,000	\$11,248,000	\$11,248,000	\$11,248,000
TF 0010 General Fund	\$22,337,670	\$22,337,670	\$22,337,670	\$22,337,670	\$22,337,670
TF 1040 CTF Local Option Gas Tax	\$53,191,210	\$53,191,210	\$53,191,210	\$53,191,210	\$53,191,210
TF 1050 CTF Transit Concurrency Fees	\$604,000	\$604,000	\$604,000	\$604,000	\$604,000
Less 5%	-\$1,383,420	-\$1,383,420	-\$1,383,420	-\$1,383,420	-\$1,383,420
Fund Balance	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000
Interest Earnings	\$0	\$0	\$0	\$0	\$0
<b>TOTAL</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>
<b>APPROPRIATIONS</b>					
Personal Services	\$66,604,800	\$66,604,800	\$66,604,800	\$66,604,800	\$66,604,800
Operating Expenses	\$47,983,180	\$47,983,180	\$47,983,180	\$47,983,180	\$47,983,180
Capital Outlay	\$0	\$0	\$0	\$0	\$0
Reserves	\$1,374,620	\$1,374,620	\$1,374,620	\$1,374,620	\$1,374,620
<b>TOTAL</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>

Table 10: BCT FY 2016-20 Operating Budget

<b>SECTION SUMMARIES</b>	<b>FY 16</b>	<b>FY 17</b>	<b>FY 18</b>	<b>FY 19</b>	<b>FY 20</b>
Administration	\$5,896,830	\$5,896,830	\$5,896,830	\$5,896,830	\$5,896,830
Compliance	\$1,712,730	\$1,712,730	\$1,712,730	\$1,712,730	\$1,712,730
Customer Relations & Communication	\$2,495,900	\$2,495,900	\$2,495,900	\$2,495,900	\$2,495,900
Information Systems	\$884,170	\$884,170	\$884,170	\$884,170	\$884,170
Maintenance	\$28,270,960	\$28,270,960	\$28,270,960	\$28,270,960	\$28,270,960
Paratransit Transportation	\$19,876,850	\$19,876,850	\$19,876,850	\$19,876,850	\$19,876,850
Service and Capital Planning	\$4,342,300	\$4,342,300	\$4,342,300	\$4,342,300	\$4,342,300
Transit Procurement	\$445,360	\$445,360	\$445,360	\$445,360	\$445,360
Transportation Operations	\$52,037,500	\$52,037,500	\$52,037,500	\$52,037,500	\$52,037,500
<b>TOTAL</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>
<b>REVENUES</b>					
Charges for Services	\$27,625,330	\$27,625,330	\$27,625,330	\$27,625,330	\$27,625,330
Miscellaneous Revenue	\$739,810	\$739,810	\$739,810	\$739,810	\$739,810
State Grants	\$11,248,000	\$11,248,000	\$11,248,000	\$11,248,000	\$11,248,000
TF 0010 General Fund	\$22,337,670	\$22,337,670	\$22,337,670	\$22,337,670	\$22,337,670
TF 1040 CTF Local Option Gas Tax	\$53,191,210	\$53,191,210	\$53,191,210	\$53,191,210	\$53,191,210
TF 1050 CTF Transit Concurrency Fees	\$604,000	\$604,000	\$604,000	\$604,000	\$604,000
Less 5%	-\$1,383,420	-\$1,383,420	-\$1,383,420	-\$1,383,420	-\$1,383,420
Fund Balance	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000	\$1,600,000
Interest Earnings	\$0	\$0	\$0	\$0	\$0
<b>TOTAL</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>
<b>APPROPRIATIONS</b>					
Personal Services	\$66,604,800	\$66,604,800	\$66,604,800	\$66,604,800	\$66,604,800
Operating Expenses	\$47,983,180	\$47,983,180	\$47,983,180	\$47,983,180	\$47,983,180
Capital Outlay	\$0	\$0	\$0	\$0	\$0
Reserves	\$1,374,620	\$1,374,620	\$1,374,620	\$1,374,620	\$1,374,620
<b>TOTAL</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>

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BCT's Unfunded Capital Needs: FY 2011-20

The Broward County FY 2011 TDP Annual Update, based on current BCT transit capital sources of funding, indicates an unfunded capital needs list for BCT for the time period of FY 2011-20. The BCT FY 2011-20 Service Plan (Table 3) and Capital Expansion Priorities (Table's 5 & 6) create an unfunded transit capital needs list for BCT that totals over \$408 million by FY 2020 (see Table 11 & 12).

**Table 11: BCT FY 2011-15 Unfunded Capital Needs**

	<u>FY 11</u>	<u>FY 12</u>	<u>FY 13</u>	<u>FY 14</u>	<u>FY 15</u>
<b>TOTAL ALLOCATED CAPITAL REVENUES:</b>	<b>\$28,300,000</b>	<b>\$23,400,000</b>	<b>\$23,400,000</b>	<b>\$23,400,000</b>	<b>\$23,400,000</b>
<i>Unfunded Capital Expansion Priorities (Table 5)</i>	\$7,850,000	\$14,444,838	\$12,712,590	\$15,601,332	\$21,494,804
<i>Unfunded FY 2011-15 Service Plan Capital Needs (Table 3)</i>	\$12,040,000	\$5,399,680	\$4,940,000	\$17,294,032	\$19,399,768
<i>Total Annual Unfunded Capital Needs:</i>	\$19,890,000	\$19,844,518	\$17,652,590	\$32,895,364	\$40,894,572
<b>TOTAL UNFUNDED CAPITAL NEEDS SHORTFALL:</b>	<b>\$19,890,000</b>	<b>\$39,734,518</b>	<b>\$57,387,108</b>	<b>\$90,282,472</b>	<b>\$131,177,044</b>

**Table 12: BCT FY 2016-20 Unfunded Capital Needs**

	<u>FY 16</u>	<u>FY 17</u>	<u>FY 18</u>	<u>FY 19</u>	<u>FY 20</u>
<b>TOTAL ALLOCATED CAPITAL REVENUES:</b>	<b>\$28,300,000</b>	<b>\$23,400,000</b>	<b>\$23,400,000</b>	<b>\$23,400,000</b>	<b>\$23,400,000</b>
<i>Unfunded Capital Expansion Priorities (Table 5)</i>	\$28,700,000	\$39,605,838	\$55,496,090	\$33,354,132	\$27,364,779
<i>Unfunded FY 2016-20 Service Plan Capital Needs (Table 3)</i>	\$10,275,900	\$13,450,692	\$20,995,890	\$24,385,232	\$23,436,660
<i>Total Annual Unfunded Capital Needs:</i>	\$38,975,900	\$53,056,530	\$76,491,980	\$57,739,364	\$50,801,439
<i>Total Unfunded Capital Needs from FY 11-15 (Table 11)</i>	\$131,177,044				
<b>TOTAL UNFUNDED CAPITAL NEEDS SHORTFALL:</b>	<b>\$170,152,944</b>	<b>\$223,209,474</b>	<b>\$299,701,454</b>	<b>\$357,440,818</b>	<b>\$408,242,257</b>

BCT's Unfunded Operating Needs: FY 2011-20

The Broward County FY 2011 TDP Annual Update, based on current BCT transit sources of operating funding, indicates a great unfunded operating needs list for BCT for the time period of FY 2011-20. The BCT FY 2011-20 Service Plan (Table 3) and Capital Expansion Priorities (Table's 5 & 6) create a total annual unfunded transit operations needs total for BCT that totals over \$43.8 million per year by FY 2020 (see Table 13 & 14).

**Table 13: BCT FY 2011-15 Unfunded Operating Needs**

	<u>FY 11</u>	<u>FY 12</u>	<u>FY 13</u>	<u>FY 14</u>	<u>FY 15</u>
<b>TOTAL PROJECTED OPERATING BUDGET:</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>	<b>\$115,962,600</b>
<i>Unfunded Local Service Operating Needs: FY 11-15 (Table 3)</i>	\$3,793,488	\$2,648,270	\$998,164	\$4,261,993	\$5,481,168
<b>TOTAL OPERATING NEEDS SHORTFALL:</b>	<b>\$3,793,488</b>	<b>\$6,441,758</b>	<b>\$7,439,922</b>	<b>\$11,701,915</b>	<b>\$17,183,083</b>

**Table 14: BCT FY 2016-20 Unfunded Operating Needs**

	<u>FY 16</u>	<u>FY 17</u>	<u>FY 18</u>	<u>FY 19</u>	<u>FY 20</u>
<b>TOTAL PROJECTED OPERATING BUDGET:</b>	<b><u>\$115,962,600</u></b>	<b><u>\$115,962,600</u></b>	<b><u>\$115,962,600</u></b>	<b><u>\$115,962,600</u></b>	<b><u>\$115,962,600</u></b>
<i>Unfunded Local Service Operating Needs: FY 11-15 (Table 3)</i>	\$17,183,083				
<i>Unfunded Local Service Operating Needs: FY 16-20 (Table 3)</i>	\$3,322,465	\$4,080,759	\$6,206,361	\$6,916,346	\$6,106,828
<b>TOTAL OPERATING NEEDS SHORTFALL:</b>	<b><u>\$20,505,548</u></b>	<b><u>\$24,586,307</u></b>	<b><u>\$30,792,668</u></b>	<b><u>\$37,709,014</u></b>	<b><u>\$43,815,842</u></b>

**NEW TRANSIT FUNDING INITIATIVES FOR FY 2011**

BCT will continue its search for additional funding for the capital and operating needs identified in the FY 2011 TDP Annual Update. Following is a description of the new revenue sources BCT has received and seeking to implement in FY 2011.

*I-595 Express Bus Funding*

Broward County is also working with its partner, FDOT (District IV), to develop and implement express bus service along the I-595 corridor. While the routes are being finalized at the time of print, FDOT has provided the capital and annual operating funding required for BCT to implement this service.

*Broward Blvd. Livable Mobility Plan Grant*

BCT received over \$8 million in new federal grant funding as part of an application to the FTA’s Section 5309 Bus and Bus Facilities Livability Initiative Program. Funding will be utilized to enhance BCT’s green fleet, traffic signalization updates and TSP, transit and pedestrian infrastructure and multimodal facility improvements from BCT’s West Terminal in Plantation to BCT’s Central Terminal in Downtown Fort Lauderdale. The application for this grant was submitted in close coordination with BCT’ partners, including: the FDOT, Fort Lauderdale Downtown Development Authority (DDA), City of Fort Lauderdale, BMPO and the South Florida Regional Transportation Authority (SFRTA).

**Appendix A:**

**FY 2010-19 TDP Service Plan**

Table 3: Revised BCT Local Service Plan for FY 2010-19

Year	Weekday Frequency	Weekday Span	Saturday Frequency	Saturday Span	Sunday Frequency	Sunday Span	Route Extensions	New Routes	Net New Total Service Hours	Net New Buses	Total Capital Cost (Buses)	Cost per Service Hour	Total New Annual Operating Cost
FY 2009	5, 55							Route 2 Limited, Route 48	35,756	16	\$6,400,000	\$92.00	\$3,290,472
FY 2010	Route 28	Route 55	Routes 1, 72	Route 55		Routes 28, 55	Route 55	I-95 Express, I-595 Express, Rock Island Rd	61,600	28	\$12,180,000	\$94.76	\$5,837,216
FY 2011	Routes 30, 34, 40	Routes 20, 34, 40	Routes 34	Routes 20, 34, 40	Route 40	Routes 1, 20, 34, 40, 60, 72	Route 18	I-95 Express, Route 72 Limited	50,445	22	\$9,570,000	\$97.60	\$4,923,432
FY 2012	Routes 7, 50	Route 7	Routes 50, 14		Routes 7, 50	Routes 30, 7, 50, 14			20,338	6	\$2,610,000	\$100.53	\$2,044,579
FY 2013	Route 81	Route 81	Route 36			Routes 36, 22, 81		Route 36 Limited, Route 22 Limited, Route 34 Limited	35,232	18	\$7,830,000	\$103.55	\$3,648,274
FY 2014	Routes 2, 11	Routes 5, 12		Routes 5, 12	Routes 2, 11	Routes 2, 11, 12			31,390	10	\$4,350,000	\$106.65	\$3,347,744
FY 2015	Routes 10, 441 Breeze	Routes 42, 62	Route 42	Routes 42, 62	Route 10, 42	Routes 10, 31, 42, 42, 62			37,063	15	\$6,525,000	\$109.85	\$4,071,371
FY 2016	Routes 9, 12, 20	Routes 6, 88, 3	Route 4	Routes 6, 4, 3, 88		Routes 6, 4		Route 3 SUN	19,881	6	\$2,610,000	\$113.15	\$2,249,535
FY 2017	Routes 1 Breeze, 23	Routes 23		Routes 23	Route 15	Routes 10	Routes 1 Breeze		15,010	11	\$4,785,000	\$116.54	\$1,749,265
FY 2018	Route 48	Routes 48	Route 48	Routes 48	Route 48	Route 48		Route 14 Limited, Route I-75 Express	23,396	14	\$6,090,000	\$120.04	\$2,808,456
FY 2019								Wiles Rd, McNabb Rd, Nob Hill Rd, Griffin Rd, Douglas Rd, Palm Ave, Flamingo Rd	105,448	34	\$14,790,000	\$123.64	\$13,037,591
<b>TOTALS</b>									<b>435,569</b>	<b>180</b>	<b>\$62,950,000</b>		<b>\$43,717,462</b>

## **Appendix B:**

### **BCT Comprehensive Operational Analysis (COA) Service Framework**

## 6. Service Framework

### 6.1 Introduction

The future BCT network will be challenged to provide sustainable mobility options to the county and surrounding region. Currently, most residents use private automobiles to travel within the county, but with rising fuel costs and increased concern over the environmental impacts of cars, transit will take on a larger role in coming years. BCT must invest resources where they will benefit the largest number of passengers.

BCT faces a number of key challenges in providing sustainable mobility. Limited funding resources, including lack of dedicated transit funding, hinder BCT's ability to provide sufficient service levels. Broward County is also largely developed in an automobile-centric manner, with multi-lane streets and highways throughout the urban fabric and much sprawling, decentralized development; this type of land use design is difficult to serve with transit and makes transit travel less convenient for passengers. Since transit is not a dominant travel mode, there is a perceived "stigma" that transit is reserved only for those who do not have access to a personal vehicle.

In order to provide options that meet the needs of transit dependent and non-dependent riders, the future BCT network will need to be a complete system of transit services that coalesce to form an interconnected service network that provides cost- and time-effective options. In addition to the findings of the service analysis, enhancing service quality and identifying key transit corridors are essential in developing the future system.

#### Service Framework Goals

The service framework is intended to provide a background for proposed network modifications and additions. The future network should be developed with the following guiding principles:

- ***Develop a Customer Focused System:*** Provide services that reflect the travel needs and priorities of current and future customers.
- ***Develop an Easy to Understand System:*** Provide services which are readily understandable to current and future customers.
- ***Develop a Sustainable System:*** Provide appropriate types and levels of service that are consistent with market demands and are able to be maintained under current financial conditions.

Creating a service classification system will help BCT to direct investment to the places where it will have maximum effects for BCT customers. The following service classifications of the system reflect current BCT success, identified market needs, and transit industry best practices. These service tiers will allow BCT to serve Broward County and neighboring areas in a more cost effective manner.

## 6.2 Service Classification

BCT current and future service classes are defined as follows:

- Network-Based Service – Network-based local fixed route service will continue to be the backbone of the system. Successful network-based service lies in that it provides convenient connections to rapid and community service. To meet their role in the future network, BCT’s local services may require frequency increases and will also benefit from travel delay reduction through introduction of AVL, increased on-site supervision, and transit signal priority improvements.
- Rapid Bus Service – Serves major transit corridors with high service frequencies, limited stop spacing, transit signal priority, enhanced passenger stations, and unique branding.
- Community-Based Service – Local circulation catering to specific market needs and connections to network-based services. In some cases, areas now served by BCT’s fixed routes may be more suited to flexible options.
- Commuter Service – These routes include point-to-point, longer-distance express services which do not make local stops. Geared towards commuters, they provide service to major employment districts in peak hours from hubs such as park and ride lots.

**Table 6.1**

BCT Service Tiers	
<b>Network-Based Service</b>	Provides comprehensive coverage for wide range of travel needs
<b>Rapid Bus Service</b>	High-speed, high performing service operating on key corridors
<b>Community-Based Service</b>	Market specific service tailored to individual community market needs
<b>Commuter Service</b>	Longer-distance express service catering to peak-hour commuters

The below table presents tiers of service in the BCT system, defined by their location within the BCT service area and the key markets they serve. These can be used to define new service and in the service development.

**Table 6.2**

Service Tier Criteria	Demand Intensity	Corridor Type	Network Role	Key Markets
Network-Based Service	Medium to High Ridership per route mile	Major and secondary arterials	Provides core network	All-day multi-purpose
Rapid Bus Service	High Ridership per route mile	Major arterials and dedicated rights-of-way	Fastest, highest capacity services	High volume all-day multi-purpose; major destinations
Community-Based Service	Medium to low ridership per route mile	Local and neighborhood	Community based network connector or local circulation	Market specific services tailored to individual community needs
Commuter Service	High point-to-point demand	Freeways and major arterials	Fast, efficient peak-hour service	Peak-hour commuters

BCT's current system is a combination of Network-Based, Community-Based, and Commuter services. Commuter Service along Hollywood/Pines Blvd. to downtown Miami via the new I-95 Express lanes started service in January 2010. In early 2011, BCT will initiate additional Commuter service from western Broward County to downtown Ft. Lauderdale. Rapid bus service as described in the Framework does not currently exist within the BCT network, but is recommended within the Preferred Service Plan. BCT's Breeze routes include an important feature of Rapid Bus service – limited stop spacing – but lack the frequency and other amenities recommended for Rapid Bus.

Tables 6.3 – 6.5 show current BCT routes in terms of their classification into Rapid, Network-Based, or Community-Based categories. Routes with high performance in terms of overall ridership, ridership per route mile, and higher population and employment density within ½ mile of the route are Rapid candidate corridors. Those with moderate performance and density are Network-Based routes, while supporting routes with lower performance and density are Community-Based routes.

**Table 6.3 – Rapid Candidate Corridors**

Corridor	Weekday Boardings	Boardings per Route Mile	Residential/ Employment Density
SR 7	14,860	576	12.4
Oakland Park Blvd.	7,850	513	13.8
US 1 (south of BCT)	7,010	543	15.0
University Dr.	6,610	240	12.3
Sunrise Blvd.	5,080	336	12.0
Dixie Hwy.	4,590	310	15.6
Hollywood/Pines Blvd. (to Pembroke Lakes Mall)	4,500	405	14.6
Broward Blvd. (to WRT)	3,230	399	14.9

**Table 6.4 – Network-Based Routes**

Route	Weekday Boardings	Boardings per Route Mile	Residential/ Employment Density
60	4,333	258	11.1
11	3,810	160	13.4
14	3,800	264	12.4
10	3,791	205	14.2
40	3,760	252	15.7
31	3,574	184	10.9
28	3,291	155	10.5
34	2,780	211	11.3
81	2,432	168	14.1
6	2,224	122	13.6
30	2,175	215	14.9
62	2,092	84	14.4
9	2,068	98	13.2
42	2,036	160	11.2
12	1,837	90	11.1
55	1,690	102	13.3




**Table 6.5 – Community-Based Routes**

Route	Weekday Boardings	Boardings per Route Mile	Residential/ Employment Density
56	1,615	68	15.1
5	1,334	79	12.6
83	1,145	78	11.4
20	1,104	79	15.3
4	1,009	65	10.7
88	958	66	11.6
16	807	51	8.9
48	681	69	9.7
15	535	43	11.3
3	472	29	12.9
23	378	19	7.0
17	269	43	13.9
57	202	19	11.1

Map 6.1 shows the current BCT system in terms of Network, Community, and Commuter services, while Map 6.2 shows the proposed network with additional Rapid and Commuter services. Implementation of these services will be addressed in the Preferred Service Plan.



Map 6.1

### Current BCT Network

-  Network
-  Community
-  Commuter

Tri-Rail

Updated: January 2010

 0 0.5 1 2 Miles 



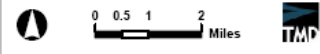
Map 6.2

# Proposed BCT Network

- Rapid
- Network
- Community
- Commuter

Tri-Rail

Updated: April 2010



### 6.3 Rapid Bus Implementation

The term Rapid Bus refers to a “toolkit” of transit improvements which elevate Rapid Bus services above traditional bus services. Rapid Bus service provides a faster, more convenient, and more comfortable trip for passengers, and is more competitive with private automobile travel. Rapid Bus services are proposed on high ridership corridors, where improvements will be shared with the greatest number of current and future customers.

#### Rapid Bus Toolkit

Rapid Bus attributes which provide an enhanced transit experience include:

**Table 6.6**

Quality	Improvements
Speed	Less frequent stops as compared with local bus service
	Transit signal priority
Convenience	Frequent service
	Headway-based schedules
	Simple route design
	Connections with supporting bus services
	Passenger information at stations
	Real-time bus arrival information at stations
Comfort	Enhanced stations with seating and lighting
	Attractive, newer vehicles
Image	Branded buses and stations with complementary designs and colors

These attributes are more costly to implement than traditional bus service, but are far less expensive than other modes of transit such as Bus Rapid Transit (BRT) in fully separated right-of-way, or tracked services such as Light Rail (LRT). The Kansas City MAX Rapid bus service cost \$3.5 million per mile, while the Los Angeles Metro Rapid services cost roughly \$200,000 per mile (costs vary based on priority measures implemented, station amenities selected, etc.)

Costs for BRT and LRT vary considerably based on the amount of land needed for exclusive right-of-way, and typical infrastructure costs. Both Cleveland and Eugene, OR implemented BRT with a substantial portion of the running environment in separated right-of-way; the Cleveland Healthline cost \$30 million per mile while the Eugene EmX Green Line cost \$6 million per mile. Recently-implemented LRT lines in Minneapolis and Phoenix cost \$58 million and \$70 million per mile, respectively.<sup>1</sup> A network of Rapid bus services can be implemented for the same cost as a single LRT line. With increasing ridership and need for enhanced service beyond Rapid Bus, future improvements such as separated right-of-way may take place along these corridors.

<sup>1</sup> Federal Transit Administration, Small Starts Program, [http://www.fta.dot.gov/planning/newstarts/planning\\_environment\\_222.html](http://www.fta.dot.gov/planning/newstarts/planning_environment_222.html)

### Service Guidelines

Rapid Buses are proposed to operate on weekdays at high frequencies with limited stop spacing. Local bus service will continue to be provided along these corridors, in order to provide more convenient access for those who wish to access local stops. Table 6.7 shows Rapid service parameters.

**Table 6.7**

<b>Rapid Bus Frequency</b>	10-minute peak-hour service, 10- or 15-minute off-peak service
<b>Local Bus Frequency</b>	30-minute weekday service 20-minute weekend service (no Rapid)
<b>Rapid Bus Stop Spacing</b>	0.6 – 0.75 miles

In order to provide meaningful travel time savings over local bus services, the combination of limited stop spacing and transit signal priority for Rapid services should provide at least a **20 percent improvement** in travel time. Research during the Los Angeles Metro Rapid service implementation showed that a 20 percent improvement provided meaningful time savings for customers, and was able to be achieved via the limited stop spacing and priority measures which distinguish Rapid services. This improvement defines Rapid bus services as significantly different transit products than traditional bus services.

### Rapid Corridors

The eight corridors identified in Table 6.3 are identified as candidates for Rapid service. These are the most intense corridors in the BCT system, with high levels of boardings per route mile. They include:

- State Route 7
- Oakland Park Blvd.
- US 1 south of Broward Central Terminal
- University Dr.
- Sunrise Blvd.
- Dixie Hwy.
- Hollywood/Pines Blvd. to Pembroke Lakes Mall
- Broward Blvd. to West Regional Terminal

Of these, the first three (SR 7, Oakland Park Blvd. and US 1) stand out above the rest in terms of their intensity. Each of the routes currently running on these corridors produces over 7,000 daily boardings (SR 7 is twice that) and over 500 boardings per route mile. These corridors should be prioritized for Rapid Bus implementation.

#### Rapid Bus Implementation

- Rapid Bus services will be characterized by limited stop spacing and 10-minute peak-hour headways.
- Rapid Bus services should provide at least a 20 percent improvement in travel time over local bus services.
- Rapid Bus implementation should be prioritized on SR 7, Oakland Park Blvd., and US 1 corridors.

**Appendix C:**  
**Additional Local Routes**

While BCT serves the majority of its service area effectively, there are several corridors on which BCT is considering adding bus service per the FY 2009-18 Transit Development Plan (TDP). These eight corridors are listed below and shown in the Map C.1.

- Douglas Rd./Pine Island Rd. between Broward Blvd. and Miramar Pkwy.
- Flamingo Rd. between Sawgrass Mills Mall and Pembroke Rd.
- Griffin Rd. between SW 154<sup>th</sup> Ave. and Ft. Lauderdale/Hollywood Airport
- McNab Rd. between Nob Hill Rd. and Federal Hwy.
- Nob Hill Rd. between Sawgrass Expy. and Broward Blvd.
- Palm Ave./Nob Hill Rd. between Broward Blvd. and Pembroke Rd.
- Rock Island Dr. between Oakland Park Blvd. and Sample Rd.
- Wiles Rd. between Sawgrass Expy. and Federal Hwy.

To determine the need for implementing bus service on these corridors, each was analyzed within a ½-mile buffer for many of the land use density and demographic factors affecting transit productivity. These include many of the same indicators discussed within the Market Assessment, including current and future population and employment density, density of Economically Challenged (EC) Zero Vehicle Households (ZVH), as well as the overall Residential Transit Orientation Index (RTOI), which combines the densities of residential population, youth, seniors, economically challenged, and zero-vehicle households. The densities of economically challenged residents and zero-vehicle households are singled out specifically since these groups constitute a large portion of BCT ridership.

The results are shown in Table C.1, in order of highest to lowest 2005 density.

**Table C.1**

Route	2005 Density	2035 Density	EC Density	ZVH Density	RTOI
Rock Island Dr	12.99	17.75	1.39	0.51	79825
McNab Rd	11.94	15.36	0.76	0.28	51480
Nob Hill Rd	11.06	13.66	0.55	0.23	76230
Douglas Rd	10.71	14.91	0.46	0.14	41176
Palm Ave	9.17	12.64	0.30	0.10	37367
Wiles Rd	8.74	12.06	0.65	0.13	44155
Flamingo Rd	6.82	10.61	0.24	0.11	61031
Griffin Rd	5.52	8.06	0.32	0.07	23816

Based on this analysis, Rock Island Dr. has the highest concentration of transit-supportive factors. It runs through some of the highest-density and lowest-income areas in Broward County, such as North Lauderdale, Lauderdale Lakes, and Lauderdale Hill. It is located, however, roughly 1 mile from SR 7, which is proposed for a major service investment including an upgrade to Rapid service. This route may be warranted in the future as densities approach the 2035 projection of over 17 people per acre. It may also have the potential to be combined with a portion of Route 81, which serves the corridor south of Oakland Park Blvd.

McNab Rd., Nob Hill Rd. and Douglas Rd. constitute the second tier of market demand, and may have potential for development if increased funding is available to BCT. These corridors show relatively strong densities now and in the future, but lower amounts of transit-supportive factors. Some (such as McNab Rd.) are in close proximity to existing BCT service.

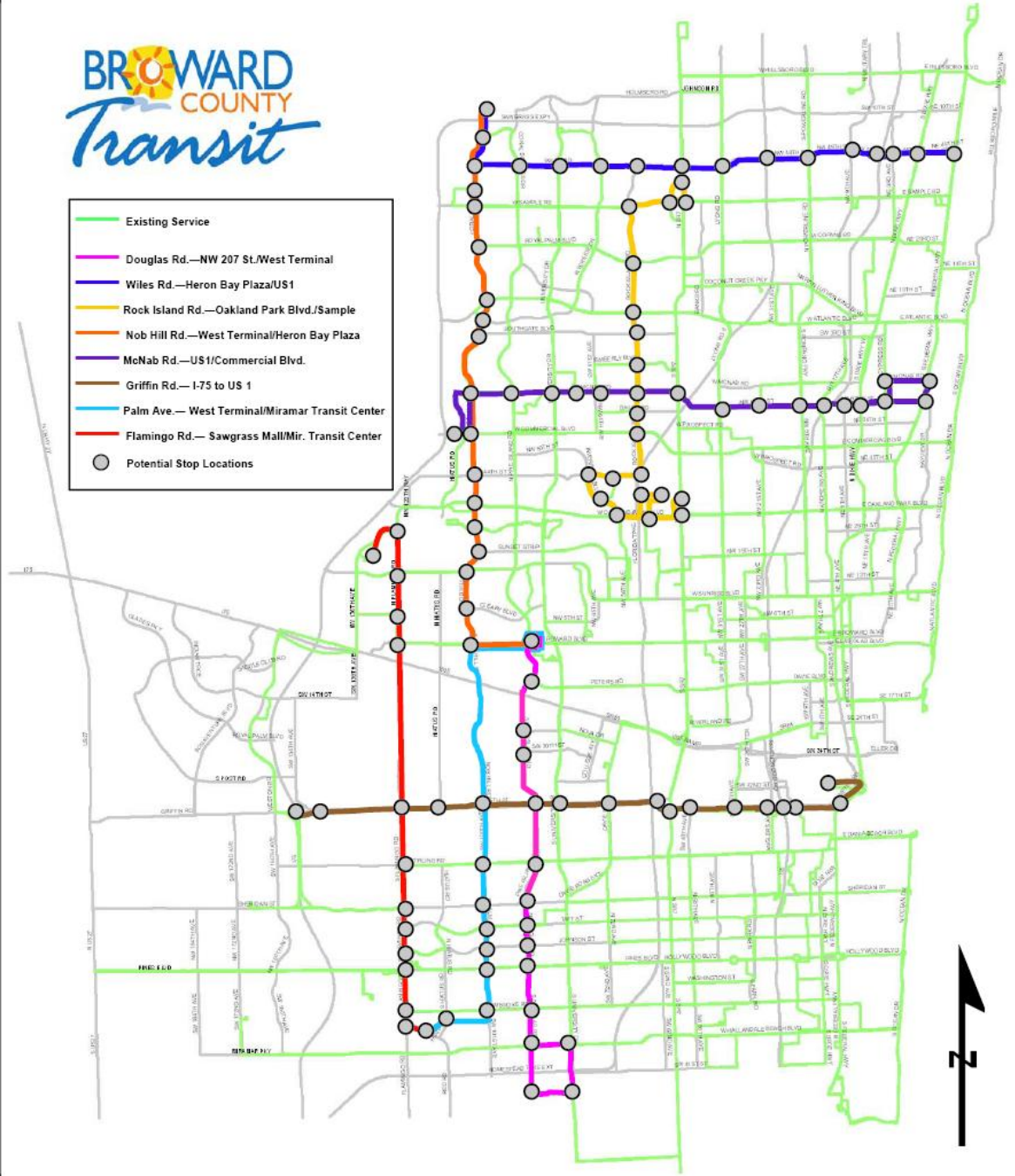
The remaining routes have lower values across all indicators, and are not recommended for development unless circumstances change. Densities of under 10 people per acre are typically not supportive of transit service; current BCT routes which operate in areas of low density rank in the lower tiers of productivity. These routes may have potential if densities reach or exceed their 2035 projections.

Map C.1

# FY 2018: New Local Service



- Existing Service
- Douglas Rd.—NW 207 St./West Terminal
- Wiles Rd.—Heron Bay Plaza/US1
- Rock Island Rd.—Oakland Park Blvd./Sample
- Nob Hill Rd.—West Terminal/Heron Bay Plaza
- McNab Rd.—US1/Commercial Blvd.
- Griffin Rd.—I-75 to US 1
- Palm Ave.— West Terminal/Miramar Transit Center
- Flamingo Rd.— Sawgrass Mall/Mir. Transit Center
- Potential Stop Locations



Broward County Transit  
March 2009