



The Express Track to an Express Lane Network

By: Robert Bostian, P.E.

The development of an express lane network in south Florida may have gotten off to a slow start, but after nearly six years of operating 95 Express phase-1 in Miami, it's now on the fast track. South Florida's first express lane project opened along I-95 from SR-112 to the Golden Glades Interchange in the northbound direction in December 2008. About one year later, the southbound direction opened and the project turned from local confusion to success story. This 9.5 mile express lane segment leading into and out of downtown Miami, provided commuters with the option of paying a toll in order to receive a faster and more reliable trip. The early days of these express lanes were filled with naysayers and detractors, calling the express lane, Lexus Lanes and expressing their aversion to the additional toll. It took a little while, but as commuters began to take advantage of the express lanes, they realized the benefits this system provides. The travelers in the general purpose (GP) lanes also saw that their daily trip was less congested and took less time. Travel speeds in the express lanes average between 45 and 55 mph during the peak period, while the general purpose lanes have seen an increase from an average of 20 to 40 mph during that same period. Everyone traveling this segment of I-95 is benefiting and experiencing a better commute, whether they opt for the express lanes or the GP lanes.

Just over a year ago, the first stretch of the express lanes in District-4 opened along with the completion of the I-595 P3 project. This 9.5 mile section of reversible express lanes was completed along with the reconstruction and widening of one of the most congested corridors in the District. The express lanes along I-595 are currently underutilized, averaging only 12,000 total vehicles per day. This is mainly due to the increase in overall traffic volume capacity created from the reconstruction and widening of the corridor from I-75 to east of SR-7, which has reduced the attraction for these express lanes in the near term.

The South Florida Express Lane Network is a planned system of more than 190 miles of express lanes on the major highways including I-95, I-75, I-595, SR-826 (Palmetto), SR-869 (Sawgrass), and the Homestead Extension of the Florida Turnpike (HEFT).

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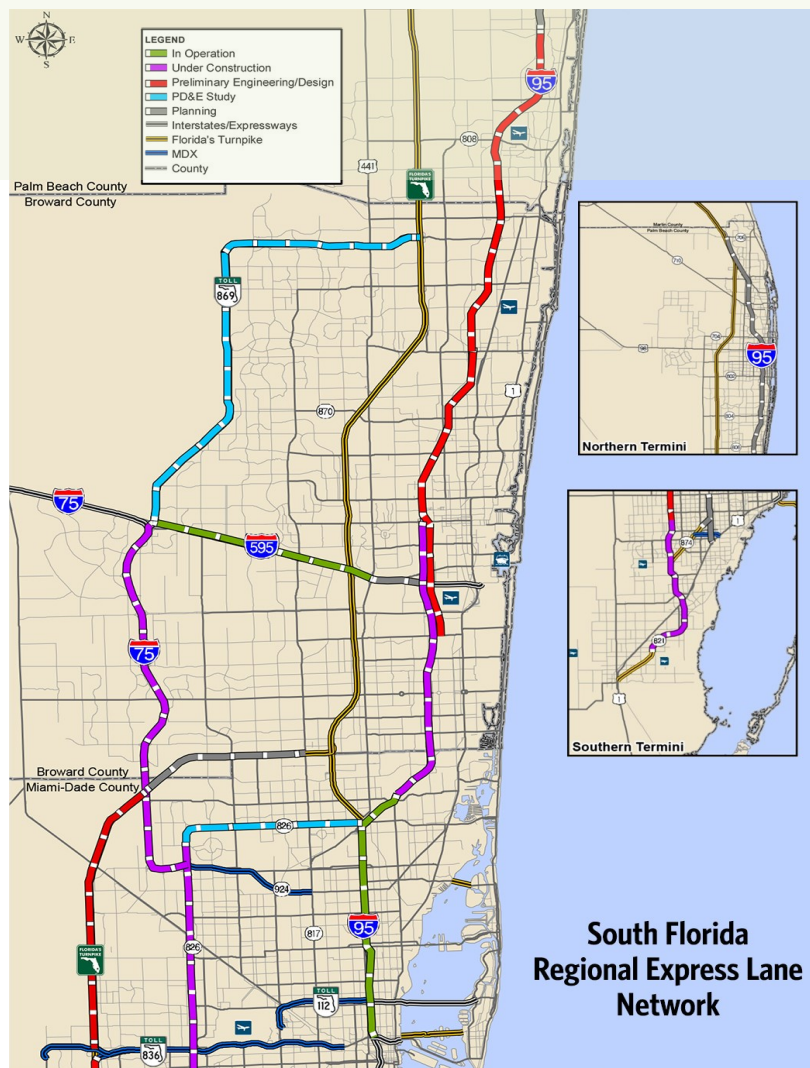
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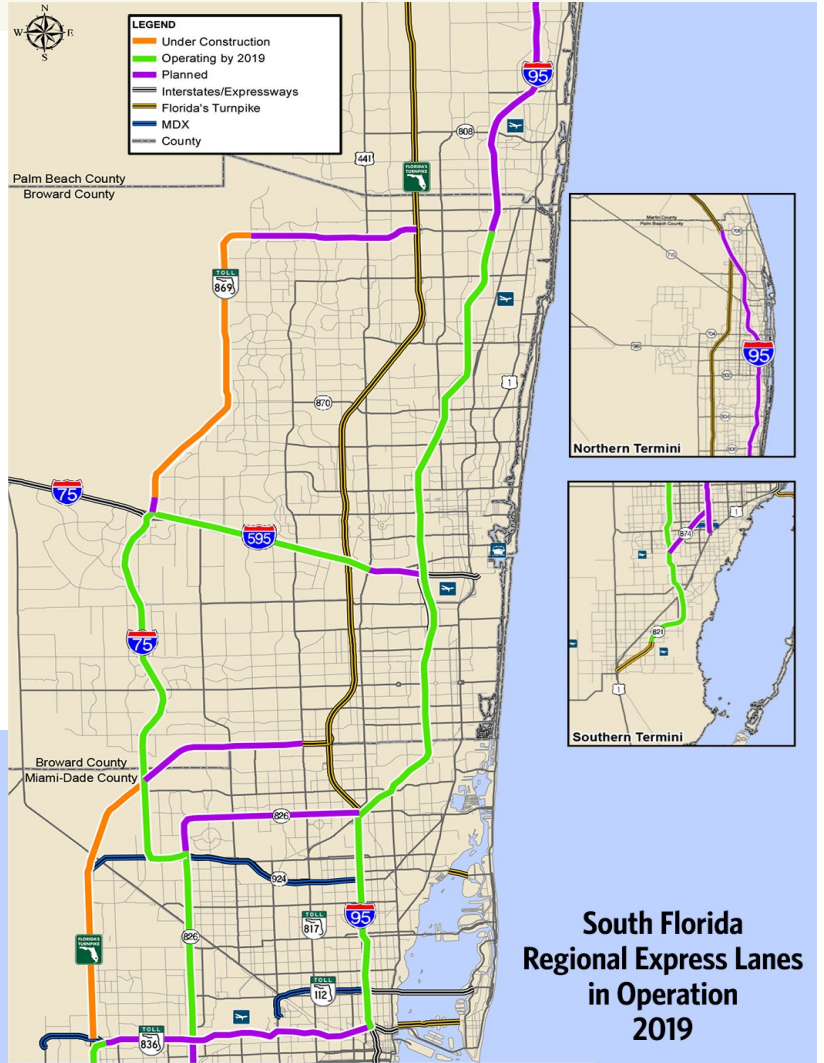
The Express Track to an Express Lane Network continued

Today, the three FDOT Districts that make up eastern south Florida have 19 miles of express lanes in operation and a combined 77 miles of express lanes under construction. In District-6, there are express lane construction projects on I-75, SR-826, and I-95 (between the Golden Glades and the Broward County Line) which will add 16 miles of new lanes. The Turnpike Enterprise has 23 miles of express lanes under construction at the south end of the HEFT, which will add an express component to the existing toll facility. District-4 has 38 miles of express lanes under construction along I-75 and I-95.

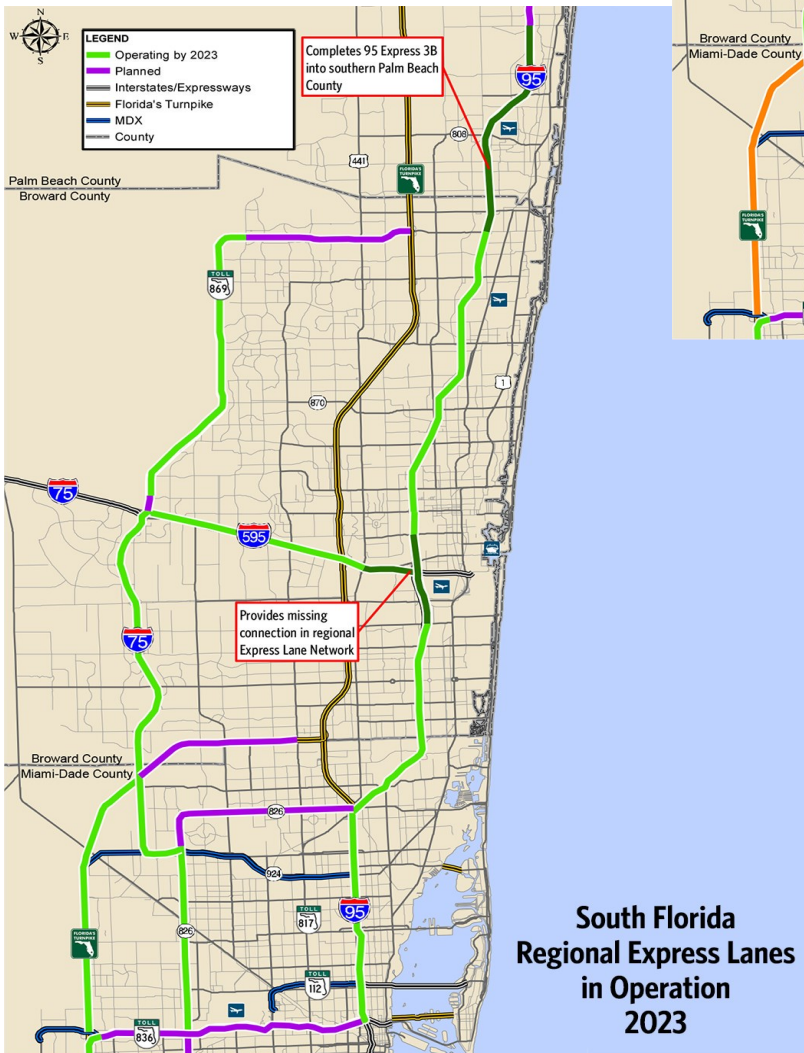
By fall 2015, the next leg of I-95 express lanes will open from the Golden Glades Interchange to Broward Blvd., bringing the total express lane centerline miles to 35. Jump ahead just four years to January 2019 and south Florida will see 96 miles of express lanes operating, including a 38.5 mile long section of the I-95 corridor from Deerfield Beach to downtown Miami, and a 25 mile long stretch along the western I-75/Palmetto corridor from Weston to Doral. Fast forward another four years to 2023, and south Florida will have a network of express lanes totaling more than 132 centerline miles. Express lanes have proven to be successful in a number of metropolitan areas around the country and also south Florida. Around the state of Florida, the Department has plans to add express lanes in seven of the eight Districts, including the Turnpike Enterprise. These express lanes will provide an important element of the transportation system and become another component of Florida's first class transportation system.



The Express Track to an Express Lane Network continued



South Florida Regional Express Lanes in Operation 2019



South Florida Regional Express Lanes in Operation 2023

What's up with the NEW 5.4.4 Drainage Manual Section? No more BURPS?!?

By: Elisabeth Hassett, R.L.A. and Geoff Campbell



OLD



BOLD

In January 2015, the FDOT Drainage Manual was updated to implement an initiative to create more aesthetically pleasing wet and dry storm water ponds. This update included provisions for pond design consistency with the Highway Beautification Policy; integration with existing and proposed landscape, and an interdisciplinary approach to include a Landscape Architect in the preliminary pond siting stages and throughout drainage design development. The updates also require a design variation in order to put a fence around a pond. Per the updated manual, fencing will only be justified when there is a documented maintenance need for restricted access that has been demonstrated.

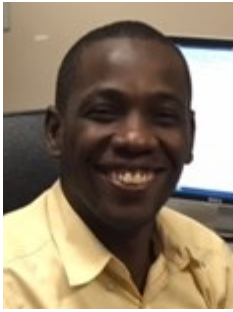
The aforementioned updates to the Drainage Manual were implemented following discussions and presentations with former Secretary Prasad, and the continuing commitment from Secretary Boxold that *“highway beautification will be one of his office’s highest priorities.”* This shift in pond siting and design is based on the same reasoning for former Secretary Prasad’s Bold Landscape Initiative: a goal of making Florida one of the most attractive places to visit and do business. *“Aesthetics Matter in Everything We Do”* (Former Secretary Ananth Prasad).

The understanding that improved aesthetics result in a more enjoyable experience is not debatable. Although challenging to quantify, there is no question that people are attracted to attractive places. To that end, public funds can and should be utilized to improve the aesthetics of public property. Although there should be no need to increase project budgets to accommodate aesthetics, it is justifiable if the economic benefits of the particular project warrant it. This is based off of the Office of General Counsel’s interpretation that: *“Aesthetics is an acceptable design objective.”* (FDOT 2015 Design Expo session: “Designing Picture PERFECT STORMwater Management Ponds”)

FDOT storm pond designs have traditionally emerged solely out of site specific permitting requirements. It is visually apparent that the goal has been to treat and attenuate runoff, with little regard for the visual impact the pond has on the corridor and surrounding properties. With a refocused goal of combining permitting needs with aesthetics, FDOT can create more attractive transportation corridors which will trigger economic benefits for the entire state. This new interdisciplinary approach to pond design will bring together design professionals who are advocates for drainage and maintenance needs, but also design aesthetics; which will result in storm ponds that are more aesthetically pleasing, but still highly functional and easily maintained.

See Elisabeth Hassett and Geoff Campbell for assistance in implementing this new requirement.

New/Relocated Employee Introductions



Jimmy Vilce - Traffic Design

I am a native of Haiti and have been living in Florida (Palm Beach) for 8 years. I have always wanted to become an Engineer ever since I was a child. This desire grew even further when I arrived in the states. It didn't take long before I grew an affinity for the beautiful bridges, the overpass, and the roadways I drove around on a daily basis. I wanted to be a part of the team who made it all possible. I enrolled and graduated from FAU with a Bachelor's Degree in Civil Engineering in the fall of 2013 and I am certified as an Engineering Intern in Florida. Soon after graduation, I found employment with a local Consulting firm where I gained some roadway design experience. I joined FDOT to further develop myself and acquire new skills that will be indispensable to both my personal growth as well as the Department's. I love to travel and spend time with my loved ones. I am also a big soccer fan and try to play every chance I get both on the field and behind the gaming console. Please feel free to stop by and welcome Jimmy to the Design Team.



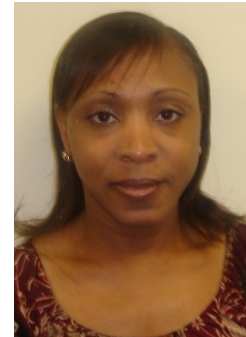
Dominic Vanchure - Design Section 3

I started with the Department as a PE Trainee almost two years ago in District 7 before transferring to District 4 in October 2013. I am currently entering the Senior Engineer Trainee phase with Roadway Design Section 3 after a six month specialty phase with the Structures Design office. Before coming to the Department I attended Florida State University. There I received my Bachelor of Science in Civil Engineering in 2012 and Master of Engineering in Structural Engineering in 2013. Recently, I flew out to California where I took and passed the PE Exam and then enjoyed some R&R in Yosemite. Now I am just waiting to have the required experience in Florida to file for reciprocity. Some other info about myself; I was born in Washington D.C. but have lived in South Florida for majority of my life. Outside of work, my hobbies include going to the gym, scuba diving, boating/ kayaking, playing bass guitar, reading, learning new languages, and traveling.



Maria Formoso - Consultant Management

Maria is a graduate of California State University at Long Beach with a Bachelor of Science degree in Civil Engineering. She is a Registered Engineer in the State of Florida, and a Project Management Professional (PMP). She has over 29 years of experience; including 10 years with FDOT, where she worked on roadway design projects, PD&E projects and Consultant Management. She returns to District Four after 11 years with South Florida Water Management District, where she worked designing flood control structure, levee regarding and armoring and Pump station restoration. Maria is thrilled to be back to District Four. Maria loves to spend time with her close-knit family. Please welcome Maria to the District 4 family.



Juliet Ashbourne - Utilities

L. Juliet Ashbourne has 18 years of employment with the FDOT (District Four) where she worked in various units such as Humans Resources, Office of Information Systems and Treasure Coast Operations. She attended Westchester Business Institute (*Business Management - 1985*), Washington School for Secretaries (*Computer Terminal-1989*), Atlantic Vocational (*Cosmetology - 1997*), Florida Atlantic University (*Paralegal -2004*) and Indian River State College (*Political Science - 2012*). Juliet has over 15 years of mentoring and volunteering experience working in and around her community. She is a certified Guardian ad Litem and has also mentored students enrolled in Taking Stock in Children and tutored at local High and Elementary Schools. In addition, she has lectured at Indian River State College and the Vero Beach Woman's Shelter. She is an active volunteer at local events such as Unifest and Shared programs and has also served on several Department committees such as the Employees Benefit Funds (EBFC), and the Safety Review & Recognition Committee. In her spare time she loves to read, garden and travel. She is a wonderful cook and prepares scrumptious Jamaican cuisines.

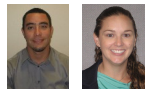
Design Yearly Award Winners

Design Employee of the Year: Jamie Polidora

Nominator: Scott Peterson



In spite of the fact that Jamie has only been with the Department for about 2 years, she is handling a disproportionately high amount of work in the section. As the section leader, I quickly learned that Jamie can be relied upon to successfully manage a large number of tasks simultaneously. The benefits of Jamie's presence in Design are felt far outside of our unit. In addition to being a lead designer on 2 large In-House projects, she is also managing a standalone landscape project; a signal project for Traffic Operations, and most significantly, a major design on a Park and Ride lot on behalf of Broward County and the City of Miramar. The Park and Ride lot project was especially challenging due to our relative lack of experience with this type of design and the constantly changing requirements requested by the County. I don't think completing this project would have been possible without Jamie's perseverance and calm demeanor no matter how stressful things became. In short, Jamie stepped up to handle any task given to her and should be recognized for her outstanding contributions to Design.



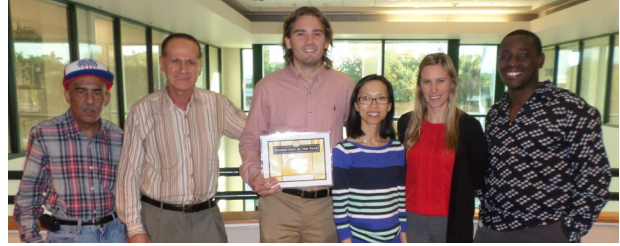
Design Team of the Year: Mobility Projects Team (Armando Aguiar, Alexander Barr, Eric Burnie, Alexander Estrada, Tonya Estwick, Aysel Freda, James Ford, Betsy Jeffers, Alain Jimenez, Roberto Jimenez, Adham Naiem, Scott Peterson, Jamie Polidora, Brad Salisbury, Ines Shaffer, Yenny Soca, Istvan Virag)

Nominator: Roberto Jimenez

The Mobility Team is comprised of many members of the In-House Design office. This team has cooperatively been establishing and strengthening relationships with numerous local governments including several cities, Broward County, and the Broward Metropolitan Planning Organization to construct needed bicycle and pedestrian facilities to increase safety throughout the region. This team of people started a brand new concept without precedence, and picked up an additional workload in order to make the projects happen. After a period of five years of challenges, with the guidance of Betsy Jeffers, and thanks to the partnership established with the Broward MPO, the Mobility Team has created an efficient systematic approach to process these transportation projects from the planning phase, through design and ultimately to construction. Today, the net effect of these efforts can be measured by over \$100 million in Complete Streets projects programmed for Fiscal Years 2014-2018. I believe that the efforts of this team deserve a sincere recognition.

Design Unit of the Year: Traffic Design

Nominator: May Cheng



To give a little background, this unit specializes in signalization, lighting, and signing and pavement marking. We use CADD software (Microstation and AutoCAD) to develop signal and lighting plans for In-house Design sections 1, 2, and 3. Besides developing plans, we review permits, plans in the ERC system, shop drawings, and support Consultant Project Managers in scope and staff hour estimates, along with managing fast track projects where the main scope of work is signalization and lighting. Traffic Design has accomplished a lot in the past year. We, a section of 5, have reviewed 57 permits, 50 component plans in the ERC system, and over 50 other reviews that ranged from shop drawings and safety, to staff hour estimates. Furthermore, we had 10 Constructability phase submittals, 6 Bid-dability phase submittals, and 3 Productions where we developed signal and lighting plans, which were all submitted on-time. In addition, we had a very challenging lighting project that appeared unexpectedly from Central Office in support of the Secretary's initiative for pedestrian safety. Central Office analyzed crash data and was determined to improve the lighting conditions at 20 signalized intersections that was deemed to have the highest instances of nighttime pedestrian crashes. District Four had 7 of these locations, all in Broward County and we were tasked to develop lighting plans within 4 months. With the assistance of other Design offices, we surveyed, measured illumination levels at night, ordered potholes, designed special foundations, and developed a set of plans all in 1/3 the time frame of a normal lighting project. Developing a set of plans within a short time frame while balancing the unit's normal workload was quite challenging. This unit doesn't hesitate to put forth the extra time and effort required to make sure that every detail in a project is evaluated and correct before being released for construction and they did it with the Department's best interest in mind. For the reasons of going above and beyond and always stepping up to meeting the Department's goals, I recommend that this unit is worthy of recognition.

Upcoming Events

- ◆ PM Forum - August 4
- ◆ Service Pin Presentation - August 13
- ◆ Awards Ceremony 2015 - August 18
- ◆ Transportation Development Division Meeting - September 1

Acknowledgement

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