



2018-2019 Florida Job Growth Grant Fund Public Infrastructure Grant Proposal

Proposal Instructions: The Florida Job Growth Grant Fund Proposal (this document) must be completed by the governmental entity applying for the grant and signed by either the chief elected official, the administrator for the governmental entity or their designee. Please read the proposal carefully as some questions may require a separate narrative to be completed. If additional space is needed, attach a word document with your entire answer.

Governmental Entity Information

Name of Governmental Entity: City of Coral Gables
Government Federal Employer Identification Number: [REDACTED]

Primary Contact Name: Raimundo Rodulfo
Title: Director of Information Technology
Mailing Address: 2801 Salzedo Street
Coral Gables, FL 33134
Phone Number: 305-461-6725
Email: rrodulfo@coralgables.com

Secondary Contact Name: Elsy Fuentes
Title: Internal Audit & Grants Coordinator
Phone Number: 305-460-5288

Public Infrastructure Grant Eligibility

Pursuant to section 228.101, F.S., the Florida Job Growth Grant Fund was created to promote economic opportunity by improving public infrastructure and enhancing workforce training. Eligible entities that wish to access this grant fund must submit public infrastructure proposals that:

- Promote economic recovery in specific regions of the state, economic diversification or economic enhancement in a targeted industry ([View Florida's Targeted Industries here](#)).
- Are not for the exclusive benefit of any single company, corporation or business entity.
- Are for infrastructure that is owned by the public and is for public use or predominately benefits the public.

1. Program Requirements:

(If additional space is needed, attach a word document with your entire answer.)

Each proposal must include the following information describing how the project satisfies eligibility requirements listed on page 1.

- A. Provide a detailed description of the public infrastructure improvements.

Coral Gables Smart District: Infrastructure for High-Speed Internet

- B. Provide location of public infrastructure, including physical address and county of project.

Please refer to attached document with map of Coral Gables Downtown area.

- C. Is this infrastructure currently owned by the public? Yes No

If no, is there a current option to purchase or right of way provided to the County?

- D. Provide current property owner.

City of Coral Gables

- E. Is this infrastructure for public use or does it predominately benefit the public?

Yes No

- F. Will the public infrastructure improvements be for the exclusive benefit of any single company, corporation or business entity?

Yes No

G. Provide a detailed description of, and quantitative evidence demonstrating, how the proposed public infrastructure project will promote:

- Economic recovery in specific regions of the state;
- Economic diversification; or
- Economic enhancement of a Targeted Industry ([View Florida's Targeted Industries here](#)).
 - Describe how the project will promote specific job growth. Include the number of jobs that will be retained or created, and in which industry(ies) the new net jobs will be created using the North American Industry Classification System ([NAICS](#)) codes. Where applicable, you may list specific businesses that will retain or create jobs or make capital investment.
 - Provide a detailed explanation of how the public infrastructure improvements will connect to a broader economic development vision for the community and benefit additional current or future businesses.

Please refer to attached document: "Coral Gables Smart District: Infrastructure for High-Speed Internet"

2. Additional Information:

(If additional space is needed, attach a word document with your entire answer.)

A. Is this an expansion of an existing training program? Yes No

B. Provide the proposed commencement date and number of days required to complete construction of the public infrastructure project.

Fiber expansion to start in 11/1/2018 and estimated to take 12 months after permit.

C. What permits are necessary for the public infrastructure project?

City Building permits, City Public Works permits, County permits and FDOT permits.

- D. Detail whether required permits have been secured, and if not, detail the timeline for securing these permits. Additionally, if any required permits are local permits, will these permits be prioritized?**

Local permits can be prioritized by the City. The City is already working with Miami-Dade County and FDOT processing permits for ongoing components of this infrastructure project.

- E. What is the future land use and zoning designation on the proposed site of the infrastructure improvements, and will the improvements conform to those uses?**

The improvements will conform to those uses.

- F. Will an amendment to the local comprehensive plan or a development order be required on the site of the proposed project or on adjacent property to accommodate the infrastructure and potential current or future job creation opportunities? If yes, please detail the timeline.**

Yes No

- G. Is the project ready to commence upon grant fund approval and contract execution? If no, please explain.**

Yes No

If additional space is needed, attach a word document with your entire answer.

- H. Does this project have a local match amount?** Yes No

If yes, please describe the entity providing the match and the amount.

City of Coral Gables Capital Fund - \$450,000.

- I. Provide any additional information or attachments to be considered for this proposal. Maps and other supporting documents are encouraged.**

Please refer to attached document: "Coral Gables Smart District: Infrastructure for High-Speed Internet"

3. Program Budget

(If additional space is needed, attach a word document with your entire answer.)

Estimated Costs and Sources of Funding: Include all applicable public infrastructure costs and other funding sources available to support the proposal.

1.) **Total Amount Requested** \$ 1,000,000
 Florida Job Growth Grant Fund

A. Other Workforce Training Project Funding Sources:

 City/County \$ 450,000

 Private Sources \$ 0

 Other (grants, etc.) \$ 0

Please Specify: _____

Total Other Funding \$ 450,000

B. Public Infrastructure Project Funding Sources:

 Construction \$ 600,000

 Reconstruction \$ 0

 Design & Engineering \$ 400,000

 Land Acquisition \$ 0

 Land Improvement \$ 0

 Other \$ 0

Please Specify: _____

Total Project Costs \$ 1,450,000

Note: The total amount requested must equal the difference between the workforce training project costs in 3. and the other Public infrastructure project funding sources in 2.

- C. Provide a detailed budget narrative, including the timing and steps necessary to obtain the funding and any other pertinent budget-related information.**

There are 3 miles of fiber optics in total in the project. The City is taking care of 0.8 miles (Match), with a value of \$450K. The City is asking for a grant to cover the remaining 2.2 miles, with a total estimate cost of \$1M, which covers transport (underground fiber) and electronics (site notes). The average cost per mile to build underground fiber optics is approximately \$250K/mile (transport only, without electronics). The electronic equipment (core, hubs, dist. cabinets...) cost is approx. \$50K per site node.

4. Approvals and Authority

(If additional space is needed, attach a word document with your entire answer.)

- A. If the governmental entity is awarded grant funds based on this proposal, what approvals must be obtained before it can execute a grant agreement with the Florida Department of Economic Opportunity (e.g., approval of a board, commission or council)?**

City officials have shown support for the project. Project execution is subject to permit process, procurement process, and Commission approval.

If board authorization is not required, who is authorized to sign?

- B. If approval of a board, commission, council or other group is needed prior to execution of an agreement between the governmental entity and the Florida Department of Economic Opportunity:**

- i. Provide the schedule of upcoming meetings for the group for a period of at least six months.
- ii. State whether entity is willing and able to hold special meetings, and if so, upon how many days' notice.

Commission meeting are held every other Tuesday (next one on August 2018).
Yes, as determined by the City Manager's Office and the City Clerk's Office.

- C. Attach evidence that the undersigned has all necessary authority to execute this proposal on behalf of the governmental entity. This evidence may take a variety of forms, including but not limited to: a delegation of authority, citation to relevant laws or codes, policy documents, etc.**

Please see attached City organizational chart. Additional verification can be requested from the City Manager's Office if required.

I, the undersigned, do hereby certify that I have express authority to sign this proposal on behalf of the above-described entity and to the best of my knowledge, that all data and information submitted in proposal is truthful and accurate and no material fact has been omitted.

Name of Governmental Entity: City of Coral Gables

Name and Title of Authorized Representative: Raimundo Rodulfo, Director of Information Technology

Representative Signature: *Raimundo Rodulfo*

Signature Date: 7/3/2018



City of Coral Gables

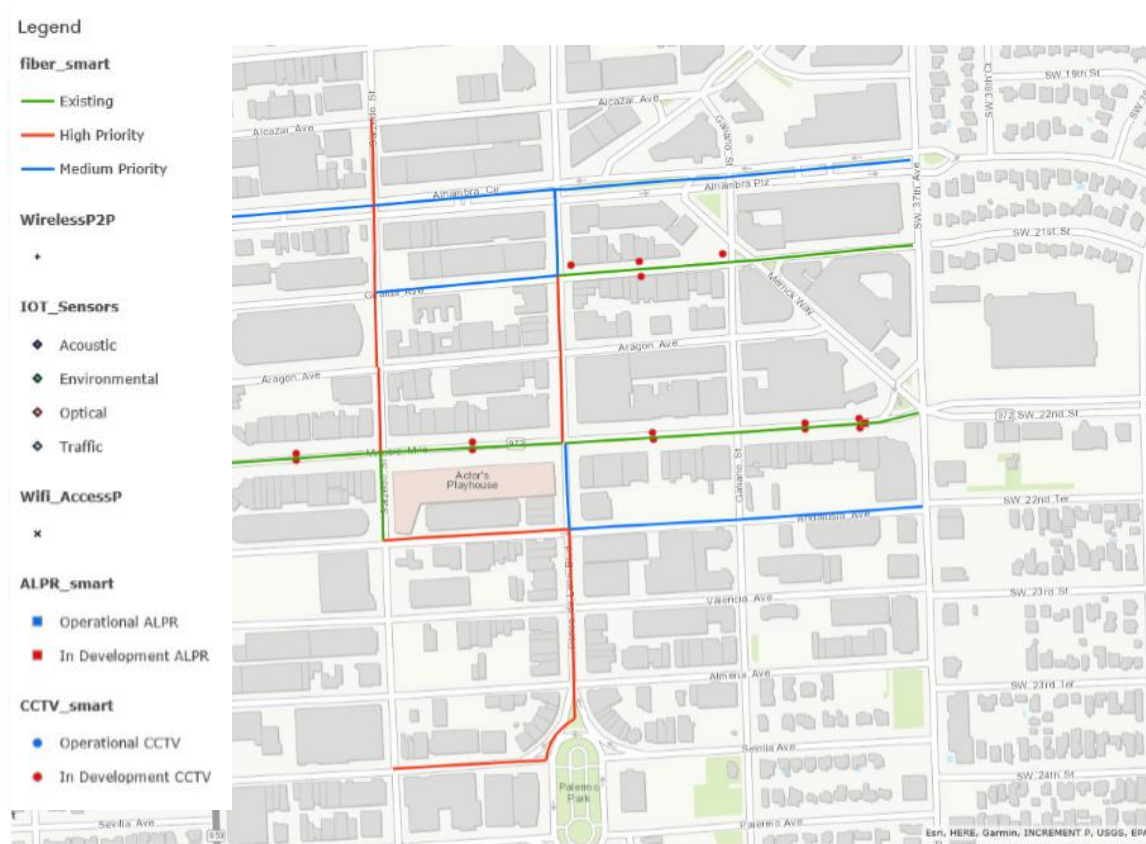
Application for State of Florida Economic Development Infrastructure Grant

Coral Gables Smart District: Infrastructure for High-Speed Internet

OVERVIEW

This project will support the City’s efforts to become the Innovation Center of the Americas by running high-speed/capacity internet fiber along strategic corridors in Downtown Coral Gables, thereby strengthening the City’s commercial core and supporting, growing and attracting technology-reliant businesses to the City. The attached fact sheet further describes the economic development benefits of this project.

The map below illustrates the proposed plan for the fiber infrastructure, with the existing fiber in green, proposed high priority fiber in red, and medium priority in blue.



FINANCIAL

Grant Request: \$1 Million

City Match: \$450,000

Total Project Costs: \$1,450,000

- There are 3 miles of fiber optics in total in the project.
- The City is taking care of 0.8 miles (Match), with a value of \$450K.

- The City is asking for a grant to cover the remaining 2.2 miles, with a total estimate cost of \$1M, which covers transport (underground fiber) and electronics (site nodes).
- The average cost per mile to build underground fiber optics is approximately \$250K/mile (transport only, without electronics)
- The electronic equipment necessary to light the fiber (core, hubs, distribution cabinets equipment...) is approximately \$50K per site node.
- The total length of proposed fiber is approximately 1 mile of high priority and 1.2 miles of medium priority fiber. There will be approximately 8 site nodes in total.
- Based on the above, the rough cost estimates are:
 - High priority fiber: 1 mile * \$250K/mile + 4 site nodes * \$50K/site node = \$450,000
 - Medium priority fiber: 1.2 miles * \$250K/mile + 4 site nodes * \$50K/site node = \$500,000
 - Total: \$950K
 - Adding a 5% buffer for contingency, CPI, overhead and intangibles we have a total budget of \$1M for the project.

PROJECT BENEFITS

The project would help to further several City initiatives and objectives. Due to Coral Gables' strategic central location in Miami-Dade County, its proximity to Miami International Airport, presence of regional corporate headquarters, and its high volume of County vehicle traffic and commuters, these benefits also have a significant county and regional impact:

- Economic development (see attached fact sheet)
- Government services
- Public Safety and Smart Policing (911, CCTV and License Plate Readers, speed sensors, gunshot detectors)
- Smart Parking systems
- Smart city ecosystem, data hub, and social platform
- Video analytics for forensics, investigations, policing, traffic engineering
- Business Continuity and Disaster Recovery (resiliency, hurricanes)
- Sustainability
- Smart Lighting, remote control, and energy efficiency
- Digital signage and smart kiosks
- Private/Public partnerships
- Business services
- Citizen services and apps
- Internet of Things (IoT) smart sensors for traffic (pedestrian/bikes/vehicles), parking, environmental variables (air quality, temp, humidity, CO/CO2), optical/acoustic/magnetic/location/chemical sensors
- Marketing, Ads, location-aware content (Augmented Reality AR, smart ads)
- Cost savings in telecom, utilities, recurring services, increased uptime of business and services, supply chain, etc.
- Community enrichment
- Flexibility and scalability of value streaming
- Crowdsourcing and citizen engagement
- Digital transformation, modernization
- Smart apps
- GIS platforms

Explain how this proposed project will spur economic development, attract new businesses to Coral Gables and create jobs.

The Central Business District of Coral Gables, FL is currently home to more than 150 multi-national companies. A true gateway to Latin America, Coral Gables is ideally situated 5 minutes from Miami International Airport and 15 minutes to Port Miami to attract and house leading companies from varied industries world-wide. With focus sectors including Law, Architecture, Design, Marketing and Media, the addition of high speed internet will provide a competitive advantage to the current companies while attracting companies from all sectors, such as health and technology.

Studies have shown that gigabit broadband drives GDP. A study by the Fiber to the Home Council Americas (FTTH Council) looked at 55 communities in nine states and found a positive impact on economic activity in the 14 communities that have gigabit technology. The gigabit broadband communities exhibited a per capita GDP approximately 1.1 percent higher than the similar communities without gigabit services. The research suggests that the 14 communities realized approximately \$1.4 billion in additional GDP when gigabit broadband became widely available.

The deployment of widespread ultra-high bandwidth broadband offers great promise for our economic future, similar to the way that access to abundant electricity transformed the country, lighting up factories to produce affordable consumer goods and automobiles for transportation. The availability of electricity spurred an era of high productivity and economic growth. And now, we are beginning to see that access to abundant bandwidth is likely to have a similarly positive impact on our economy.

Widespread gigabit availability contributes to the economy in multiple ways. Investment in physical infrastructure and labor creates jobs. Next generation broadband infrastructure can also shift economic activity, sparking local tech scenes and the relocation of businesses. For instance, Claris Networks moved its data center operations from Knoxville to Chattanooga to take advantage of its fiber network. Lafayette's network attracted Hollywood special effects company Pixel Magic to the community, because the high-performance gigabit network lets Pixel Magic move computer files back and forth between Lafayette and California quickly. And from the Hacker House in Kansas City to Fargo's Startup House in Fargo, North Dakota, local entrepreneurs are using gigabit networks to develop new applications and services, bringing in new investment and talent along the way.

The installation of fiber optic lines in the core of downtown Coral Gables would be an avant-garde step towards ensuring that our City Beautiful remains on the cutting edge of technology and maintains its status as a world class city. According to the Center for Technology Innovation at the Brookings Institution, a country's digital connectivity score is strongly correlated to an increase in productivity by 2.3 percent, innovation by 2.2 percent and national competitiveness by 2.1 percent. Already, Coral Gables has been making strides to fully transform into a "Smart City." This currently includes a City app for resident services as well as GIS (Geographic Information Systems) to measure anything from sea-level rise, to mapping out automatic license plate readers (ALPR), crime intelligence cameras, and placement of various sensors in the pedestrian walkways to monitor foot traffic. The City is in the process of deploying more sensor technology which would enable reporting on economic factors such as daylight population movements and concentrations in order to support businesses and their marketing efforts. Moreover, advancements towards implementation of IoT (Internet of Things) is underway, smart kiosks will soon be installed, and use of drone coverage is in the initial stages of assisting the police with crime control. To incorporate fiber optics into the city's infrastructure, therefore, is a natural next step towards making Coral Gables a Smart City and is

bolstered by actions the City is already taking to be a leading tech municipality and economic epicenter in the South Florida region.

In addition to assisting the City's internal population with municipal services, fiber optics would enhance the way the general public and business community could communicate and operate within Downtown Coral Gables. Fiber optic cables, in comparison to copper cables, provide several advantages. The City's growing downtown daytime population would benefit from greater bandwidth, faster speeds, and better reliability. Fiber optic cables, while initially costlier than copper cables, have a lower total cost of ownership because they are more durable and reliable. Copper cables suffer disadvantages such as disruptions in electrical currents, fire hazards, and vulnerability to temperature changes, severe weather and moisture. Fiber optic cables, on the other hand, are immune to these drawbacks, have less signal degradation, and provide faster signals than Cat5 or Cat6 copper cables. As the City nears the end of Streetscape construction on Miracle Mile and Giralda Avenue, increases in daytime populations are already being detected and all data indicates this trend will continue for some time. To ensure that business patrons, visitors, and downtown stakeholders can therefore continue to operate at the same speed (as the City outgrows its copper cable capacity), or even faster, the City of Coral Gables is determined to introduce a fiber optic conduit throughout its core. Despite what may happen with the region's proposal to Amazon.com, Inc. for placement of its second headquarters, it is cutting-edge infrastructure like fiber optic cabling that will make this City an appetizing destination for national and international companies alike. It is imperative that the City is able to secure funding for fiber optic cabling to maintain its attractiveness as a corporate center and ultimately to spur economic development. A 2015 study on the effects of the fiber network in Chattanooga, TN, concluded that it generated economic and social benefits ranging from \$865.3 million to \$1.3 billion and created between 2,800 and 5,200 new jobs. The effects of a fiber network in a larger city are consequently much more pronounced. In Chicago, smart city technology will create 90,000 jobs, add \$14 billion to the city's economic growth, and provide \$5 billion in smart grid and transportation benefits.

The city of Mesa, AZ has been fervently establishing its own city-wide fiber conduit providing firms with next-generation infrastructure. As a result, they have become the new site of a \$2 billion Apple global command center. A municipal network in Spanish Fork, UT saves the city \$1 million annually, which is in turn used for community projects and initiatives. The correlation between establishing a fiber network and increasing economic growth in a multitude of ways is impossible to ignore, especially in a forward-thinking, global city like Coral Gables.

The City of Coral Gables has 11 million SF of office space with a workforce of 50,000 people, nearly equivalent to the residential population itself. The largest component of this workforce at 60% is comprised of Professional Services, followed by Public Administration/Education at 30%, and finally Retail at 10%. Of the City's workforce, 80% are located within access points to the planned fiber optic infrastructure. Following these metrics, and extrapolating from increasing job trends at similar rates of those municipalities that have introduced fiber optics, Coral Gables can expect to bring at minimum between 1,150 to 2,000 new jobs. This does not include office space soon coming to market.

Therefore, in anticipation of the 1.4 million square feet of office space being added to market with the current development projects underway, the inclusion of fiber optic cabling would specifically attract established companies interested in communities that provide premium broadband connectivity. Companies that value this level of access are those that focus on technology, such as the I.T. industry, Entertainment Industry (due to quick information exchange between east and west coasts), Healthcare Services Industry, and Financial Services, all which rely heavily on timeliness

and precision. Fiber optics would enhance the quality of tenants absorbing new office space and by extension create not only more jobs, but higher-paying jobs. Of the new office space, modest analyses of jobs created by fiber optic infrastructure predict over 1,600 new jobs to market. Objective calculations demonstrate over 2,500 new jobs, and the most optimistic evaluation ventures that 2,800 new jobs would be created. Summated with new jobs created based only upon existing office space, the range of expected new jobs as a result of fiber optic installation in Coral Gables' Central Business District is 2,750 to 4,800. The realization of even the lowest prediction of new jobs created would deem this project a worthy investment.

Currently, the Coral Gables downtown worker has an average salary of \$60,000. With the implementation of fiber optic infrastructure, which would mostly attract tech-driven jobs (which pull in average salaries above \$100,000), the average downtown worker salary would increase, having a positive halo effect on the overall economy. Notable tech companies already in the City Beautiful are IBM, MasTec, Yahoo!, and ESRI, to name a few. In addition to tech companies, a new fiber optic infrastructure would attract multinational corporations, the entertainment industry, increase the quality of dining and retail tenants, and further propel the City's burgeoning medical industry.

In conclusion, a fiber network in the City of Coral Gables would multiply business opportunities, cost savings, increase home values, advance research, initiate tech booms, incubate startups, and create *at least* 2,750 new jobs. Coral Gables is determined to be proactive in acquiring fiber infrastructure in order to sustain and improve connectivity with a growing downtown population. The federal government's recent decision to eliminate internet neutrality further makes necessary this next step in the City's transformation to become a "Smart City." For these reasons, and in consideration of the undeniable economic benefits for the municipal, commercial, and residential communities, the City of Coral Gables formally requests grant funding in the amount of \$1 million from the Beacon Council, for which it will match \$450,000 towards this initiative, to begin the first tangible phase of implementing fiber optic infrastructure in the downtown core.

City of Coral Gables Contact Information:

Information Technology Department: it@coralgables.com
Economic Development Department: ed@coralgables.com
<http://www.coralgables.com>

CITY OF CORAL GABLES, FLORIDA
2018-2019 BUDGET ESTIMATE
ORGANIZATION CHART

