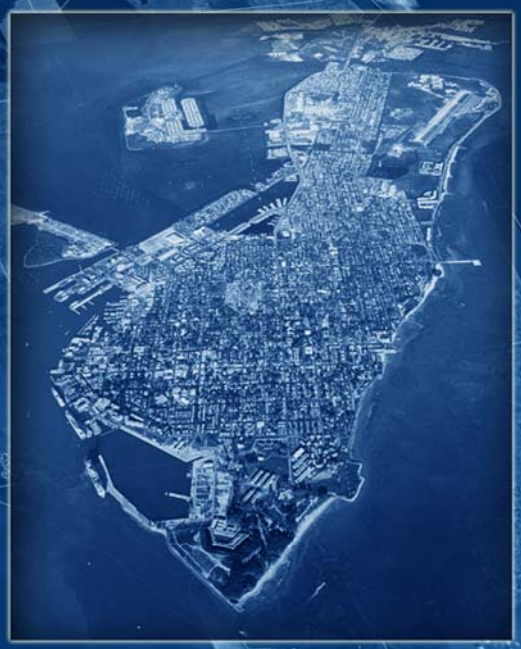
Carrying Capacity Traffic Study, Key West

RFQ No. 10-009

Submitted by:

THE CORRADINO GROUP, INC.



In association with:

Sandra Walters Consultants, Inc.
Crossroad Engineering Data, Inc.

SEAL OF THE CITY OF KEY WEST, FLORIDA

April 16,2010

CORRADINO

April 16, 2010

City Clerk
City of Key West
525 Angela Street
Key West, Florida 33040

Dear Ms. Snider,

The Corradino Group (Corradino) is extremely pleased to submit this proposal to perform a carrying capacity analysis for Key West.

Corradino has been performing similar services across the nation since 1971. With 6 offices and 200 people the firm is an expert at transportation planning, design and implementation. Teaming with Sandra Walters Consulting and Crossroads Engineering provides the local insight into the issues.

Through the successful planning and implementation of highly creative and ground breaking projects the firm has distinguished itself as a leader in the field. Its work in transportation capacity analysis and carrying capacity studies has led to multimodal master plans and first of their kind transportation and growth management initiatives in Florida. The firm has won nearly a dozen awards for its work in this area. The firm's Miami Beach Municipal Mobility Plan, and Coastal Communities Transportation Master Plan have analyzed the carrying capacity of roadways in the highly tourist oriented areas of Miami Beach, suggesting new ways of managing congestion and dealing with growth. Work in the tourist town of Petoskey, Michigan focused on quantifying local congestion, and selecting multimodal alternatives to mitigate the problems. Corradino's project team for this effort has completed over a dozen similar studies.

Currently Key West is under a self imposed moratorium on the issuance of permits for businesses that use vehicles such as tour buses, trolleys, rental bicycles, electric cars and other motorized and non motorized modes as their primary sources of income. Corradino understands that this moratorium results from the concern about the level of traffic attributable to these non-traditional commercial vehicles which have increased in recent years, particularly in the historic district. This increase, which is yet undefined, adds to the congestion that is negatively impacting the quality of life, safety, and economic viability of the City. Additionally, the congestion has begun to impact the residential areas. The City would like to undertake an analysis of the situation to understand the capacity of the individual roads, the volume of traffic on the roads, the contributions of the various vehicle types to the volume and congestion, and understand where the conflicts between vehicles and pedestrians exist. Once understood, the City would like to determine methods for reducing the impact of traffic on the roads, and in the residential areas.

Corradino realizes the importance of this special study and the uniqueness of Key West transportation characteristics, and has proposed a context-sensitive approach to the analysis, which will be underpinned by an extensive public involvement process to engage the community and assist in building consensus. The system will be evaluated for its actual capacity, versus the extent it is utilized by the various modes. An equivalency analysis will be performed to understand the relative impact of each mode so that an accurate utilization can be viewed. Utilization will be projected into the future based on the 10 year planning horizon.

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Because capacity enhancements to the Historical Old Town in the form of additional lanes are impossible to achieve with current goals and objectives of preserving the historical district, it is anticipated that multimodal recommendations will be made, including operational roadway improvements, alternative mode improvements, parking improvements, and policy recommendations.

This team, led by Joseph M. Corradino, Srin Varanasi and Sandy Walters is extremely well suited to perform these services as you will see from the proposal. They have been continually working carrying capacity and transportation master planning projects for over a decade. They have helped the most progressive and successful communities deal with the issues of transportation and growth management over the years.

We look forward to further presenting our qualifications for this important project

Sincerely,

Joseph M. Corradino, AICP
President

City of Key West

RFQ No. 10-009
Carrying Capacity Traffic Study

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April 16, 2010

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The Corradino Group, Inc.

The Corradino Group, established in 1971, has been providing multimodal transportation planning, transportation design and construction administration services in the State of Florida and across the nation for four decades. With 200 people in six offices (Miami, Detroit, Indianapolis, Louisville, Fort Lauderdale, and Palm Beach) the firm has built a reputation as a "Can Do" partner with local, county, regional, and state governments.

Through the successful planning and implementation of highly creative and ground breaking projects the firm has distinguished itself as a leader in the field. Its work in transportation capacity analysis and carrying capacity studies has led to multimodal master plans and first of their kind transportation and growth management initiatives in Florida. The firm has won nearly a dozen awards for its work in this area.

The firm's Miami Beach Municipal Mobility Plan, and Coastal Communities Transportation Master Plan have analyzed the carrying capacity of roadways in the highly tourist oriented areas of Miami Beach, suggesting new ways of managing congestion and dealing with growth. Work in the tourist town of Petoskey, Michigan focused on quantifying local congestion, and selecting multimodal alternatives to mitigate the problems. Corradino's project team for this effort has completed over a dozen similar studies.

Over the decades no piece of significant mass transit has been built in Miami Dade County without Corradino leading the way. The firm planned the Miami Metrorail, the first Heavy Rail mass transit system in Florida. It planned and designed the US-1 Bus lanes, one of the nation's first Bus Rapid Transit Systems, and recently assisted in the planning of the I-95 High Occupancy Toll Bus Rapid Transit System, one of a hand full of similar programs in the nation, representing an evolution on mass transit.

Corradino has built the State of Florida's foremost transportation planning model, and the State's first regional model, the Southeast Florida Regional Planning Model (SERPM).

The firm led the largest economic development program in the history of the State of Kentucky, with the ongoing Louisville Airport Improvement Program. It managed the single largest FDOT construction contract, the I-95 Express for the I-95 reconstruction through Palm Beach County. It is managing the development of one of the nation's first public private partnerships related to an international border crossing between the United States and Canada.

Over the past decade Corradino has worked evaluating the carrying capacity of various municipal and regional transportation systems, to develop alternative transportation management and concurrency measurement techniques, such as Transportation Concurrency Management Areas (TCMA's), which is a method of measuring transportation concurrency in a multimodal manner. The firm has also developed an automated Concurrency Management System, which enables real time measurement of transportation impacts and remaining capacities, integral to the approval, tracking, maintenance and funding transportation projects.

Its municipal services practice is deep, diverse, and experienced, working for the smallest cities in the state to the largest and all sizes in between on similar efforts. The firm serves as staff for multiple municipalities and has completed new comprehensive plans, comprehensive plan elements, comprehensive plan amendments, and evaluation and appraisal reports. Corradino has helped cities incorporate, develop, and reach their growth management goals through master planning.

Corradino's efforts are geared toward bringing the highest level of interactive public involvement to its municipal planning projects. By doing so each project is given the highest opportunity for success because the community truly understands and becomes part of the effort.

Crossroads Engineering Data, Inc.

Crossroads Engineering Data, Inc. is a Traffic Engineering firm that is fully equipped to undertake virtually any level of intense data collection. The corporation was organized under the laws of the State of Florida on April 4, 1993, and has an office located in Miami, Florida.

Collectively, their staff has over 30 years experience in the field of Traffic Engineering, data collection, and in general as consulting engineers. Currently they have a core staff of two professionals and four technicians. The types of studies the firm is capable of performing include, but are not limited to, the following:

Data Collection

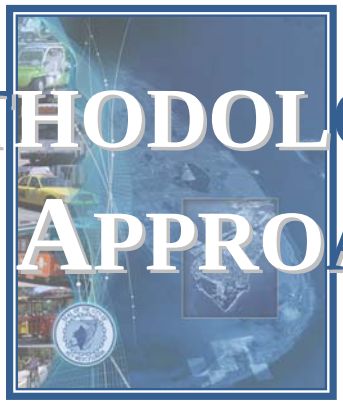
Traffic Counts
Arterial Travel Time and Delay Studies
Vehicle Classification Studies
Spot Speed Studies
Roadway Characteristics Inventory
Origin-Destination Surveys
Vehicle Gap Studies
Saturation Flow and Headway Studies
Field Inspection of P.T.M.S.
Condition Diagrams
Arrival Type and g/C Surveys
Crash Data Analysis
Queuing Analysis
TTMS Inspections and Trouble Shooting
Video Surveys

Sandra Walters Consultants, Inc.

Sandra Walters Consultants, Inc. (SWC) provides services in all areas of ecological and environmental consulting; land use and public facilities planning and permitting including habitat assessments, wetland permitting and mitigation design, environmental impact statements, compliance monitoring, development agreements, and submerged land leases. The firm has extensive experience working with regulatory agencies to develop project designs that minimize impacts and meet permitting requirements, and to bring clients into compliance with regulatory standards. Many clients have benefited from representation by the firm with agencies and public officials at the local, State and federal level, and members of the firm have provided expert witness testimony in State of Florida administrative hearings and court proceedings.

The company is also very experienced at coordinating communications, including public information and involvement programs and is fully acquainted with all NEPA requirements. SWC can provide plan development; community outreach and consensus building using various tools such as workshops, seminars and public meetings; and placement and preparation of advertisements. The firm has full multimedia capabilities for production of public presentations, websites, newsletters, news releases, and all support documents.

METHODOLOGY AND APPROACH



Corradino understands the importance of this special study and the uniqueness of Key West's multimodal transportation characteristics, and has proposed context-sensitive approach to the analysis, which will be underpinned by an extensive public involvement process to engage the community and assist in building consensus. Corradino will evaluate the system with respect to the extent it is used by each mode. An equivalency analysis will be performed to assess the relative impact of each mode. Expected utilization will be projected for the 10 year planning horizon. Because capacity enhancements to the Historical Old Town in the form of additional lanes are not compatible with current objective of preserving the historical district, it is anticipated that multimodal recommendations will be made, which may include operational roadway improvements, alternative mode improvements, parking improvements, and policy recommendations. The following sections describe the Corradino team's project understanding and the approach of conducting this Carrying Capacity Traffic Study.

4.1. Project and Project Area Understanding:

Understanding

Currently Key West is under a self imposed moratorium on the issuance of permits for businesses that use vehicles such as tour buses, trolleys, rental bicycles, electric cars and other motorized and non-motorized modes as their primary sources of income. Corradino understands that this moratorium results from the concern with the level of traffic attributable to these non-traditional commercial vehicles, which have increased in recent years, particularly in the historic district. This increase, which is yet undefined, adds to the congestion that is negatively impacting the quality of life, safety, and economic viability of the City. Additionally, the congestion has begun to impact the residential areas. The City would like to undertake an analysis of the situation to understand the capacity of the individual roads, the volume of traffic on the roads, the contributions of the various vehicle types to the volume and congestion, and understand where the conflicts between vehicles and pedestrians exist. Once understood the City would like to determine methods for reducing the impact of traffic on the roads, and in the residential areas.

Location

Key West is one of the most popular tourist destinations in United States. An island city of approximately 4.2 Miles long by 1.5 Miles wide, Key West has an estimated current population of 23,000. The city occupies the entire island and a portion of neighboring Stock Island to the Northeast. The study area encompasses the entire Island of Key West, with special emphasis on Historic Old Town. Figure 4.1 depicts the streets and landmarks of Key West. Figure 4.2 highlights the City limits.

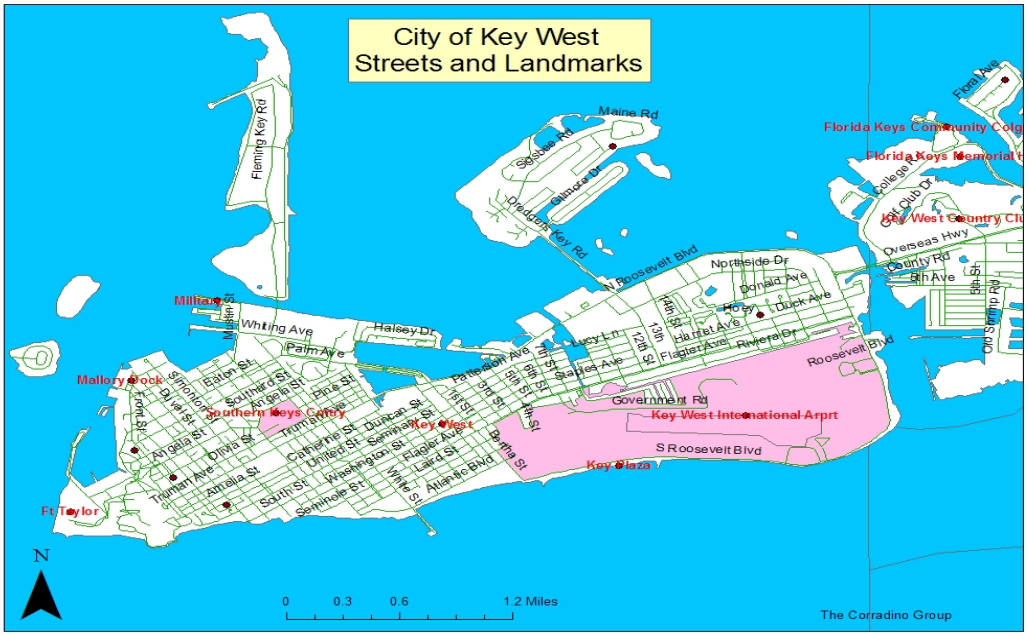


Figure 4.1 City of Key West Streets and Landmarks

The original Key West settlement on the western part of the island is called "Old Town" and comprises the Key West Historic District. It includes the major tourist destinations of the island, including Mallory Square, Duval Street, the Truman Annex and Fort Zachary Taylor. Old Town is the western half of the island separated by White Street, from the New Town of the Island.

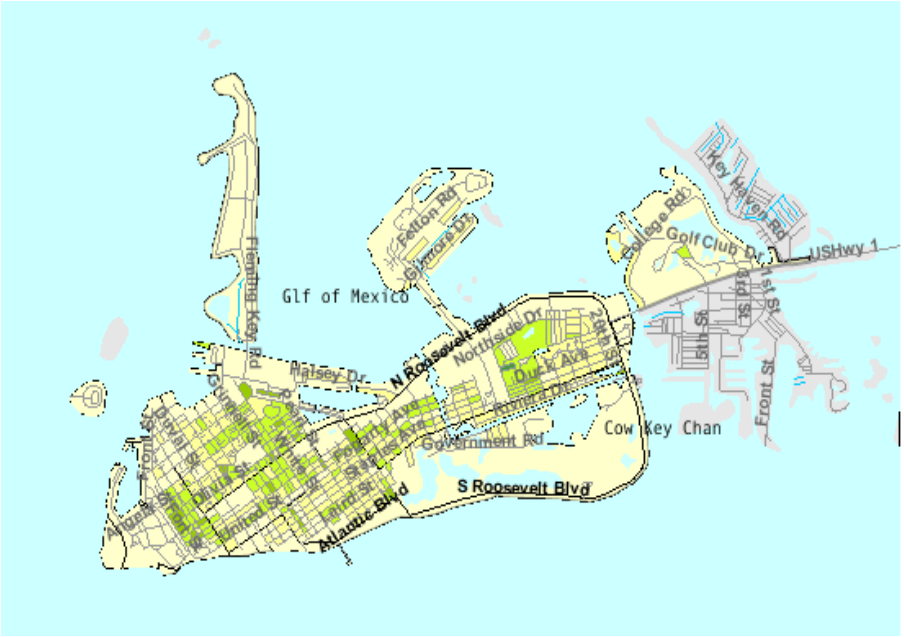


Figure 4.2: US Census Bureau Map Showing City of Key West Limits

The City of Key West regulates permits, licenses, franchises, other authorizations and land uses by its Code of Ordinances. The City has seen a significant increase in level of traffic from commercial vehicles. These include various modes of transportation such as mopeds, electric cars, trolleys, bicycle tours and conch trains. This increase in traffic is noticeable in the historic district. Although this traffic is a product of a healthy economy and a successful tourism industry in Key West, not managed properly it will negatively affect the quality of life for residents and visitors. The City Commission recognized that this comprehensive traffic study is needed to determine traffic capacity of its roadways, current volumes, traffic circulation, conflicts between vehicular and non-vehicular traffic. The study also strives to identify methods for reducing the impacts of traffic in residential neighborhoods. To assist, the city is considering revised regulations for its code of ordinances and comprehensive plan.

Traffic Carrying Capacity is the ability of the transportation infrastructure to support mobility and access functions generated by the surrounding land uses for a diverse group of visitors, residents, and businesses. The ability to move people, goods and services in the most efficient, effective, and safe way has never been more important. For places like Key West, where millions converge each year from around the world, this presents a significant challenge. The ability to accommodate a truck that is delivering supplies to a historic district business, a tourist from France on a rented bicycle, and an employee of one of the various business trying to get to work, should be balanced and accommodated. This comprehensive study will be performed to identify and understand the current issues and conflicts. Capacity is just the first step. An important part of the study will be to involve the community in the discussion of what's happening today, to create a vision for the future, and begin to implement the vision and then monitor the progress. The process will discover what has the most impact on capacity operations and safety and then recommend proven strategies either alone or in combination, based on the issues observed.

Detailed observations on how the different users, with different vehicles, share the roads in Key West will be the first and most important step. In the City, there are a multitude of users, and all with different cultural, language, and environmental factors affecting them. This combined with a multitude of transportation modes with different trip purposes and destinations in an urban environment, leads to an unstable transportation environment for users. Then, add into the equation policies, rental hours, attraction hours, and a constrained network with little separation between attractions and you have a recipe for not only limited capacity but severe congestion. In general, congestion has proven to correlate directly with incidents and crashes. The exposure of the different mix of users, modes, and vehicle types at every grid network intersection puts a strain on the operations and safety of the traveling public, no matter where you are from. The reasons and the loss of capacity will be thoroughly documented.

Several vehicle mix scenarios from these actual observations will provide the baselines for initial capacity. Skill level, behavior, distractions, and other outside influences affect the driver's behavior and mode choice and these will be further quantified from the observation and calibration of actual events. Different vehicular mixes can then be examined and tested to see how they compare to each other. This will convert each mode to passenger car (auto) equivalents, so that an accurate reading of utilization can be made, and so that the impacts of each mode can be quantified. A tour bus may equate to several automobile trips, while a moped may equate to a fraction of an automobile trip. But if the moped operates slowly and erratically, it may cause more congestion than an auto. This study will make such assessments.

Traffic surveys of three types of streets with different land uses and functions will allow for actual carrying capacity to be observed and documented with the aid of video recorders and automatic traffic counters and manual interference counts. Mid-block pedestrian crossings, parallel parking, and different human behaviors have an effect on capacity and will be recorded and then simulated in an appropriate micro-simulation traffic model.

The theoretical traffic carrying capacity will be defined for the entire range of vehicles users and modes that use the transportation infrastructure of Key West for several of the sample road segments. This will be compared with the observed capacities. The difference between the theoretical, and what is lost, based on the friction and interaction observed between nodes/intersections, will be quantified.

Based on our investigation in the City of Key West and review of traffic study documents, the Corradino team has developed a thorough understanding of existing transportation infrastructure. Currently, the City consists of the following classes of roadways:

1. Arterial Roadways: Corridors having high traffic volumes serving major centers of activity. Example: Roosevelt Blvd., Truman Ave, Flagler Ave
2. Collector Roads: These provide access and traffic circulation within residential, commercial and industrial areas. These distribute trips from major arterials to local streets. Example: 1st Street corridor, White Street
3. Local Roads: These provide direct access to different land uses connecting to higher classification roads.

The City does not currently have or plan to build limited access facilities. US-1, which connects the City of Key West with rest of the United States, serves as the primary arterial. FDOT historical counts at the permanent traffic count station on US-1, just north of Stock Island Bridge, indicated decreasing traffic volumes over the past 5 years, which is consistent with experiences in many of Florida's tourist destinations. Traffic volumes decreased from 37,900 to 34,600 at this location, indicating a decrease in daily passengers entering and leaving Key West. Population and employment for the City have decreased as well. This is likely to be a temporary trend associated with the economic down-turn over the past five years.

FDOT traffic studies for the City of Key West indicated primary problems associated with roadway infrastructure, and are summarized as below:

- Narrow streets and tight corners (Small turning radii), especially in historic district
- Visibility obstructions from parked cars, buildings and poles etc.
- Poor signing and poor pavement conditions
- Inadequate parking
- Limited right-of-way

These problems, in combination with the substantial tourist-generated traffic, delivery trucks and the allowance of bicycles, and recreational vehicles to use the street system, cause major traffic circulation problems.

It must be noted that the past studies focused on estimating traditional level-of-service (LOS) deficiencies based on auto trips. In a diverse transportation environment like Key West, this approach produces an inaccurate assessment of the effectiveness of the roadway. Corradino understands that the need to consider the effects of special modes in combination with the auto traffic, on the confined infrastructure of Key West, is key to this study. Recent research on passenger car equivalency of special recreational vehicles indicates that special modes such as scooters and Pedi-cabs, not only occupy the roadway, but due to their frequent stops and speed characteristics, adversely impact the LOS of the entire segment of the roadway. A thorough understanding of the operational and capacity characteristics of each mode is important, as is equating them to the baseline of an auto trip. Only through this exercise can an adequate management plan be developed.

The Corradino team recognizes a 10 year planning period analysis for this study. Future growth estimates should be developed from historical growth trends for the City. The growth for the 10 year planning period is expected to be flat. The visitor population, however, could be a variable in the next 10 years. This includes the number of cruise ships unloading. The Corradino team has collected some historic statistics on demographics of Key West to understand the growth patterns.

Table 4.1: Key West Visitor Person-Trip Estimate
Source: Key West Chamber of Commerce

	2003	2004	2005	2006	2007	2008
Key West Overnight Visitors	1,309,559	1,303,633	1,046,111	1,063,752	1,094,647	1,112,978
Key West Day Trippers	242,268	241,172	237,460	196,794	202,510	205,901
Cruise Ship Passengers *(Key West Only)*	1,067,222	934,070	925,795	888,183	816,919	739,218
Total Key West Visitors	2,619,049	2,478,875	2,209,366	2,148,729	2,114,076	2,058,097

Table 4.2: Key West Historic Population Statistics
Source: Key West Chamber of Commerce

Population:		
Year	Monroe County	Key West
1980	63,188	24,382
1990	78,024	24,832
2000	79,589	25,478
2005	75,750	23,935
2008	72,243	22,364

Study Goals and Objectives:

After thorough review of the RFQ and from detailed discussions with City staff during the pre-proposal conference, the Corradino team has fine-tuned the goals and objectives of the study. Following is a list of important targets of the study:

- Assess the capacity of streets and related transportation infrastructure, with special emphasis on historical Old Town, to support various modes of transportation
- Determine vehicle equivalency for each mode using the network
- Assess background utilization vs. capacity to determine the level of congestion (level of service) on existing streets, in the entire Island
- Project this utilization to the 10 year planning horizon
- Develop a multimodal set of recommendations for how to mitigate the issues found. Including setting a specialized LOS for a variety of vehicles, which due to their size, physical

characteristics or use relative to Key West transportation infrastructure, could result in a greater impact than cars or bicycles to mobility and the quality of life of City residents

- Integrated public engagement and educating during key milestones of the technical Study

4.2 Project Approach

The Corradino team attended the pre-proposal meeting and participated in the City tour provided by the City officials. In addition, the Corradino team conducted an investigation on the Key West streets to understand the current conditions, parking, special vehicular modes and their operational characteristics, major attractions and destinations. After thorough review of the RFQ and detailed discussions in the pre-proposal meeting Corradino developed the methodology for the project. A flow chart depicting project approach is presented in Figure 4.3. This will be important for analyzing the existing conditions, engaging the community, and recommending alternatives. This approach consists of:

- Public Involvement
- Data Collection
- Future Planning Projections
- Level of Service Analysis
- Including vehicular equivalency
- Parking Analysis
- Bicycle and Pedestrian Analysis
- Transit Analysis
- Traffic Calming Analysis

Public Involvement

The public involvement program for this study will be extensive and span the duration of the project. Initially, Corradino recommends the formation of a project Steering Committee consisting of the City's Project Manager, Corradino's Project Manager and various technical professionals from agencies that may need to be included, either from the county, state or various other city departments. A liaison with the public and or the City Council should also be included. It is anticipated that this group will meet monthly to review previous work product, and instruct the study as it progresses.

Initially the team should develop a list of stakeholders. These can consist of elected officials, staff, as well as business and community leaders. These people should be met with on a one on one basis.

There are three proposed public workshops. The first will introduce the study to the community, and gather general input. The second will introduce the results of the analysis and begin to formulate public wants relative to solutions. The third will prioritize the recommendations.

The final aspect of the public involvement will be the public hearings to gain formal approval of the project from the City Commission. The team will make presentations at the necessary planning board and city commission hearings, as well as any advisory boards deemed necessary.

Data Collection

As first step, the Consultant will collect and review the existing data, which include recent traffic counts from FDOT, traffic counts from the City of Key West and counts collected as part of other studies. The Consultant will also collect the following additional data included but not limited to:

- GIS roadway network and street centerline files as available
- Number of lanes, posted speeds, facility types/functional classification of roadways
- Bike and pedestrian lanes
- Major attraction/landmarks
- Historic significant areas
- Any available data that may be applicable to the operations study including signal-timing permits from the City, Monroe County and FDOT
- Last four years of crash data. A review and analysis of the crash information collected will identify crash concentrations, and patterns. Possible causes and possible countermeasures to determine the potential to reduce crashes in the future will be made at appropriate locations

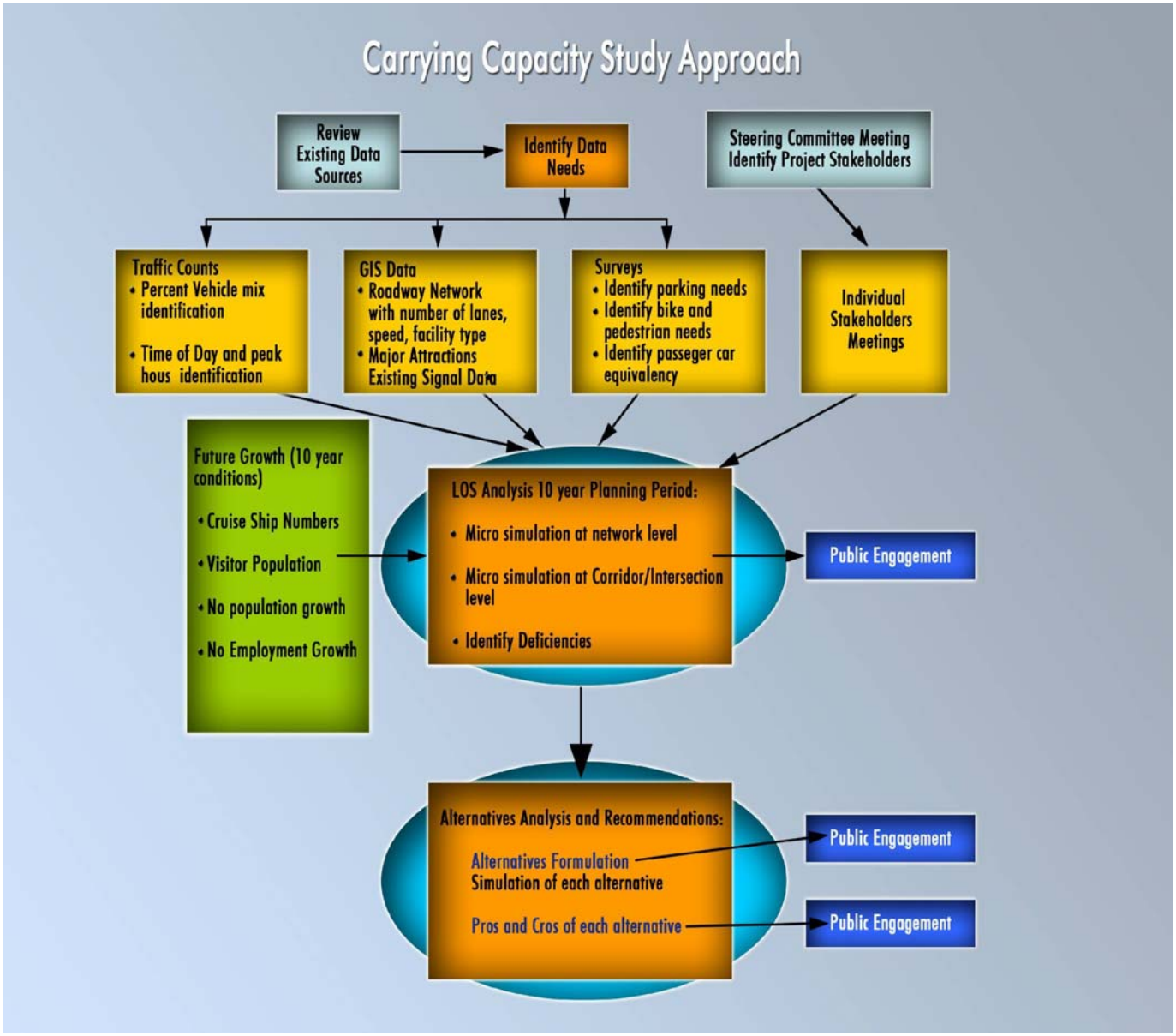
The Corradino team will then identify the data needs for the study. The data collection efforts will then be coordinated with the City. The team envisions the following data collection efforts:

- **Developing GIS layers of roadway network and layers of information**.
  This data is key for the study, as GIS facilitates easy handling of multiple layers of data overlaid one on other, and analyze a combined effect of the layers.
- **Developing a comprehensive traffic count database for the entire island.**
  This will include collecting new traffic counts where needed. The traffic counts collected should target an identifying percent vehicle mix on a sample of roadways of critical importance. The traffic count effort will identify the peak hour/period of the roadway. The consultant realizes that the peak hour may not be a typical peak as observed in a typical urban area, and is roadway and area-type specific in the Island. For example, Duval Street may have a peak hour some time mid day when most visitors start going to the attractions. These characteristics will be thoroughly quantified in the data collection efforts.
- **Performing Field Surveys**
  A comprehensive field review will be conducted early in the project. Field observation serves to provide a good understanding of the signal timing issues, such as queuing problems, lost times, early or late release times, pedestrian demands, and phase operation. The same professional engineer who will develop the simulation models will conduct the field reviews. Traffic data that will be collected during the field reviews includes:

  - Analyze parking needs, bike and pedestrian needs, modal connectivity, to determine modal conflicts on different roadways
  - Analyze passenger car equivalency of different modes of transportation
  - Other roadway conditions, such as on-street parking locations, bus stop locations, and driveway locations
  - Bottleneck locations, conflict points, and capacity constraints,
  - Commute travel patterns
  - Existing lane geometry and physical roadway features
  - Field measurements to be used in establishing pedestrian and vehicles clearance intervals
  - Photos at specific intersections will be taken using a digital camera to provide a useful tool for quick viewing of an intersection's field conditions at the time of the field observations. Photos will be included on intersection diagrams and pictures will be linked to an aerial map and GIS system to be provided to the respective community.

- **Travel Time Surveys**
  New travel time studies will be conducted along the key corridors to develop a good understanding of the existing corridor operation, average travel speeds, and existing travel times. PC-Travel software will be used by The Corradino Team to conduct the travel time surveys. PC-Travel uses an installed GPS sensor in a test car to produce data and graphical analyses for travel times, stops, link speeds, fuel consumption and emissions. The data will be used to develop the SYNCHRO/SIM TRAFFIC model input and to further verify realistic representation of the network operations.

Figure 4:3 Project Approach Flow Chart



Future Planning Projections

Upon completion of data development process, the efforts for identifying growth patterns for the 10 year planning period will be conducted. It is expected that the growth patterns will be flat as population and employment are not expected to grow. The Corradino team will include the City planning department, Monroe County, the Chamber of Commerce and other local entities to identify the future growth rates. It is our understanding that the cruise ship trips and the visitor trips are only potential variables for future growth estimation. A coordinated approach, reviewing the historical data of relevant variables will be conducted and the future projections will be made.

LOS Analysis

The Corradino team proposes a 2-phase approach for identifying the existing LOS. In phase 1, we will analyze the entire roadway network by developing a calibrated SYNCHRO micro simulation Model. In phase 2, a VISSIM model will be developed that analyzes specific streets/intersections of interest, with special emphasis on the Historical District. VISSIM allows us to simulate better in the historical district with pedestrian crossings on mid blocks and incorporating a vehicle mix in the capacity analysis.

Phase 1: Background Network Capacity Analysis for the Entire Island

An effective operational study is built upon a good simulation model of the network. SYNCHRO provides an ability to modify the vehicular mix and simulate observed capacities and will be used to provide LOS and other performance measures for the entire system included number of stops, delays, total travel time etc.

Based on field reviews, travel time surveys, and relevant data, the traffic model will be calibrated and validated to accurately reflect existing conditions, including the capacity lost for whatever reason. This is an important step because the effectiveness of the optimal timings, especially for future and alternative conditions, depends on how closely the model represents the existing conditions and reflects existing driver behaviors.

The traffic models provide interactive processing and a more robust time-space and platoon-progression diagrams than the stand-alone HCM calculations. These features are specifically helpful for development of multiple operational alternatives.

Phase 2: Historical District Modeling / Vehicle Equivalency

VISSIM is a microscopic, behavior-based multi-purpose traffic simulation program. For many engineering disciplines, simulation has become an indispensable instrument for the optimization of complex technical systems. This is also true for transportation planning and traffic engineering, where simulation is an invaluable and cost-reducing tool. It offers a wide variety of urban and highway applications, integrating public and private transportation. Even complex traffic conditions are visualized in an unprecedented level of detail providing realistic traffic models.

Consequently, traffic engineering expertise, combined with 3D animations, guarantees convincing presentation for both technical experts and decision makers. VISSIM convincingly shows how effective a projected measure might be regardless of whether the vehicle mix, type of roadway, or fixed route transit system is being planned. The figures and simulations speak for themselves.

Alternatives will be entered into the model to contrast existing conditions to the proposed conditions, and performance measures will be analyzed and summarized. The video simulations would replicate the benefits to be realized.

A passenger car equivalency table for the special modes (Conch trains, Pedi-cabs, scooters, trucks and electric cars) that share the roadway with the auto traffic, on the streets of Key West, will be developed to determine the LOS in the historical district. It is fully understood that the unique characteristics of the streets of the Historic District make the quantification difficult. However, the Corradino team presents an innovative approach of quantifying these using the micro simulation models. This will not only help identifying the existing conditions, but also to quantify the recommended alternatives for mitigating traffic congestion.

Parking Analysis

A detailed analysis on current parking conditions in the City will be made, in addition to the transportation LOS analysis. This will examine the presence of parking, and provide an estimate of utilization in the peak hour, on a per street basis. On-Street Parking is fairly common in many of Key West streets. The impacts of these parking spaces, on the throughput of the streets will be assessed carefully. Existing data on parking lots will be collected and, this combined with the parking conditions survey will allow us to determine recommendations. While eliminating the on-street parking everywhere is impossible, this analysis will lead to planning for regulations on certain streets. From our investigation of the City infrastructure, it is evident that on-street parking prohibits incorporation of bike lanes in the city streets, as the right-of-way of the roadways is very limited. Detailed maps of existing parking locations will be created to help the City make further decisions on on-street parking. Another approach of eliminating on-street parking on certain roadways may be to develop more park-n-ride lots. Enhanced transit circulators connecting park and ride lots with the major trip attractors will reduce traffic to some extent. Currently, the City operates one park-n-ride lot. By providing adequate off-street parking, congestion can be reduced by eliminating the need to circulate in search of parking.

Bicycle and Pedestrian Facility Analysis

Bicycles provide a great means for reducing demand on the road system within Key West. Biking can be an excellent inducement to get people out of the cars to improve traffic flow and reducing emissions. Encouraging bicycle use without adequate planning and construction of adequate facilities, however, can adversely affect the traffic flow. A map delineating existing bicycle pathway facilities in Key West will be developed. Bicycle and pedestrian level of service will be assessed. Potential additions/improvements of bike lanes will be thoroughly assessed. The pedestrian friendliness of the roadways in the Island will also be assessed and recommendations will be made.

Transit Analysis

Existing transit bus routes and schedules will be evaluated. The possibility of adding transit routes and exploring potential funding sources will be evaluated. Transit, combined with park-and-ride lots, can be an effective alternative for reducing congestion in the City of Key West. From our investigation of the city streets and modes, we observed that the current recreational modes of transportation in Key West are not aimed at moving people from Point A to Point B. These are mostly intended to provide tours to the visitor population. The tours in Key West are expensive alternatives to move from Point A to Point B. Scooter renting per day costs up to $75, while Conch Train Tour costs $30 per person. Many visitors, to avoid the burden of walking, prefer driving the automobiles and parking in Downtown, and walking to nearby attractions. If alternative parking outside congested areas can be found at a lower price, with good transit circulation to major attractions, a significant portion of automobile traffic to downtown can be eliminated. This option should be closely analyzed while involving all groups of the community, and the benefits should be assessed.

Traffic Calming Analysis

While it is important to ease traffic flow on major arterials, it is equally important to reduce travel speeds, thereby ensuring safety and serenity in residential neighborhoods. Certain Key West residents constantly

complain about the loud traffic on their neighborhoods, parking violations, drunken visitors creating nuisance, and noise from the bars. This study will analyze the traffic calming aspect as well, and ensure that the alternatives including traffic diversion will not conflict with residential neighborhoods. Residential streets and districts will be identified. Vehicular speeds and volumes will be identified. Through traffic, as opposed to origin and destination traffic, will also be quantified as a means of assessing the need for traffic calming.

The background capacity analysis, in addition to the survey results on bike and pedestrian activity, transit analysis, traffic calming, and most importantly public input, will enable the consultant to develop a set of draft recommendations. These will be grouped into various categories, including roadway improvements, alternative mode improvements and policy improvements. Each category will contain a set of recommended improvements. Each recommendation will be evaluated using the SYNCHRO/VISSIM micro simulation models, which will quantify the level of improvement/benefits provided. The purpose, need, and anticipated benefits of each recommendation will be detailed.

4.3: Scope of Services-Tasks, Deliverables and Schedule

The final scope of services will be prepared after discussions with the City, as result of contract fee negotiations. The following list depicts the tasks and deliverables that will be provided to the City at different stages of the Study. A one year project completion schedule, starting with the anticipated Kickoff Meeting in July 2009, is presented in Figure 4.4.

Task 1: Public Involvement

Upon receipt of the Notice to Proceed (NTP), the Corradino team will work with the City to form a Steering Committee for the Study, including local representatives of various important organizations and the community. Input from the Steering Committee will be sought to obtain guidance on more precise directions for the study. Input from the Committee will be documented and provided to the City as the first step after the NTP. Individual stakeholders meetings will be held during the time frame of Task 2. The introductory public workshop will be held during this task.

Task 2: Existing Data Review

Existing data obtained from the City and other existing data sources will be thoroughly reviewed. A memorandum will be provided to the City, explaining the data availability and new data collection needs for the study.

Task 3: Data Collection

The Corradino team will coordinate with the Steering Committee in the new data collection efforts. The data collection efforts will be documented, and all raw data collected in the process will be archived for future use.

Task 4: Data Processing

The collected data from Tasks 2 and 3, such as field survey observations, traffic counts, passenger car equivalency data, and GIS layers will be analyzed and processed for use in LOS analysis and alternatives analysis. Key statistics will be documented and provided for City staff review.

Task 5: Future Year Growth Rates

Data on future year projections will be collected and analyzed. The process of developing future year growth rates will be documented and presented to the Steering Committee.

Task 6: LOS Analysis
As first step, Phase 1 of the LOS analysis will be performed. The deficiencies in the background network and critical intersections will be identified. The results will be presented to the Steering Committee

Phase 2 of the LOS analysis will be concentrated mainly on the Historic District. This will include micro simulation of existing and future conditions using VISSIM software, and using the vehicle equivalency analysis of different special modes of transportation. The micro simulation process will be demonstrated to the steering committee. A memorandum documenting the LOS analyses will be submitted to the Steering Committee.

Task 7: Public Workshop 2
Results of Task 6 will be presented in the Public Workshop 2. Public input on potential transportation issues and opinions on Task 6 results will be sought. Public input on what preferred mitigation techniques will be obtained. The results will be documented and used to formulate alternatives

Task 8: Alternatives Analysis
Using results of Task 6 and Task 7, the consultant will formulate a set of alternatives. These alternatives will be presented to the Steering Committee for approval and further evaluation. Pros and cons of each alternative will be developed in both qualitative and quantitative senses. A memorandum describing the results will be submitted to the Steering Committee.

Task 9: Public Workshop 3
The results of alternatives analysis will be presented at Public Workshop 3, and any additional input needed will be obtained. Public comments will be used to fine-tune the recommendations.

Task 10: Alternatives Comparison and Final Report:
A final fine-tuning of alternatives and results will be performed based on public and Steering Committee input. A final report of the study compiling all sections will be performed.

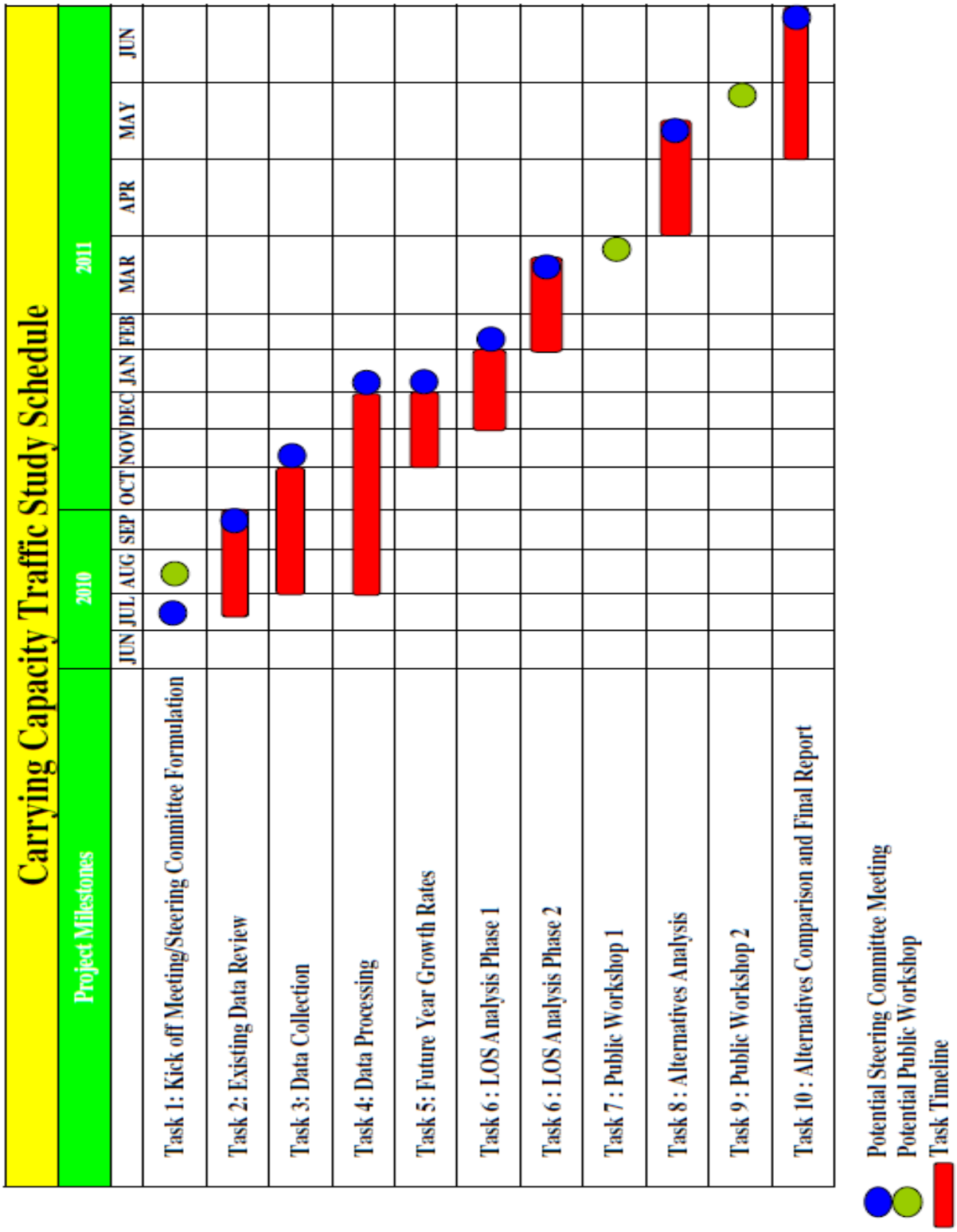


Figure 4.4 Carrying Capacity Traffic Study Schedule

The Corradino Team consists of experienced professionals in the fields of transportation/land use planning, comprehensive planning, traffic engineering, transportation modeling, public involvement and government relations. The team has produced similar award-winning efforts in the recent past. Our Team is committed to the on-time, within-budget delivery of this project. Ultimately, Corradino understands the needs of these types of projects. The firm's record of accommodating scope and schedule changes is stellar. Listed below are brief descriptions of project team leaders and detailed resumes of have been provided on the following pages of this section as requested.

Joseph M. Corradino, AICP will serve as the Principal in Charge. He will instruct the data collection, analysis, and mapping, and assure all invoices and administrative project details are taken care of. He will lead the approval process with the State as well as the public involvement process. Srin Varanasi, EIT will be the Project Manager assuring all work is distributed to staff. He will perform technical modeling analysis. Sandra Walters will lead the public involvement effort.

Joseph M. Corradino, AICP, will serve as the Principal-In-Charge for this effort. He is highly experienced in similar analysis for high traffic, high tourist oriented islands and communities. He has spent nearly his entire career working on solving these issues particularly for the City of Miami Beach, as they have faced and solved very similar circumstances, which he has worked for continuously since 1997. He has served in similar capacities for Clearwater, Sarasota and Islamorada among several others. As a technical professional, a community leader, and an elected official, Mr. Corradino's holds a unique perspective on transportation master planning and carrying capacity analysis. He has been a statewide leader in master planning, growth management and multimodal transportation planning. He has developed similar analysis and transportation plans, which have focused on measurement of level of service in a multi-modal manner taking into account, transit, bicycle and pedestrian activities. These have developed project lists used as the bank of projects from which capacity projects, transit projects, impact fees or fair share contributions are taken. This has been done in: Doral, Miami Beach, Palmetto Bay, Cutler Bay, Miami Gardens, Hialeah, and Miami. He has established the State's first Transportation Concurrency Management Area's (TCMA's) in Miami Beach, Hialeah, Sarasota, and Miami Gardens. He has developed an automated Concurrency Management System, which enables the accurate measurement of trips and remaining capacities required to monitor and manage a transportation system, as well as assess fair share contributions from the development community. These have been developed for Miami Beach, Coral Gables, Hialeah, Homestead, and Sarasota. This is also integral to the development of a carrying capacity analysis, which is focused on the measurement of roadway capacity and level of service. He has developed impact fees for communities well in advance of the Fair Share legislation of 2005. He is intimately familiar with the provisions of the 2009 SB 360, "the Community

Renewal Act". He is aware and tracking 2010 Florida Legislative initiatives including bill 1742 which will impact growth management and transportation. Finally, Mr. Corradino has performed multiple comprehensive plan amendments, which have been a necessity in the implementation of the carrying capacity recommendations. These have been done in Miami Beach, Hialeah, and Sarasota.

From a personal perspective, Joe is an elected official in the Village of Pinecrest, a member of the League of Cities, who sits on the Miami Dade MPO's Transportation Planning Council (TPC), a recommending body to the MPO Board. He has been appointed by Miami-Dade County Mayor Carlos Alvarez to the South Florida Workforce Board. He served as immediate past Chairman of the Doral Business Council, sits on the Board of Directors and Executive Committee of Chamber South, and is the Chairman of the Chamber South Transportation Committee. He serves on the board of directors for the Economic Development Council of South Dade. He is the former past Chairman of the Miami Chapter of the American Planning Association, and a former member of the Miami-Dade MPO's Citizens Transportation Advisory Committee, (CTAC). From a technical perspective, Joe has won nine awards for his work in the field.

Srin Varanasi, EIT will serve as the Project Manager for this effort. He will ensure all project deadlines are met. Mr. Varanasi will particularly be focused on the transportation modeling, vehicle equivalency and the testing of alternatives. Based in the Miami office of the Corradino Group, Mr. Varanasi serves as Project Manager in several transportation projects with FDOT, and the MPOs in South East Florida. Specializing in transportation modeling/planning, Srin has managed and developed forecasts for several studies across the Nation. Most notable of these include: transportation models and forecasts development for recently completed Regional Long Range Transportation Plan in South East Florida Region. He successfully developed the transportation forecasting models for the region and has ensured the deadlines are met in a timely manner. This project involved innovative forecasting methods and high levels of coordination efforts between, FDOT, MPOs and other jurisdictions such as Florida Turnpike and the Tri Rail. Mr. Varanasi Currently serves as FDOT District 4 Project Manager for the ongoing system planning contract. As part of this contract, he is managing travel forecasting model enhancement for the Treasure Coast area, and model development for the Treasure Coast Regional Long Range Transportation Plan. With a wide variety of experience in transportation planning, forecasting and GIS database development, he also provides on-call consultation services for FDOT D4 in their ongoing planning activities. Mr. Varanasi recently completed forecasting for multimodal transportation studies such as Miami-Dade Health District Study, NW 7th Ave. and a study for the Miami-Dade MPO. In addition to Florida projects, he recently developed a travel demand forecasting model for Winchester-Frederick County, for Virginia Department of Transportation (VDOT). Mr. Varanasi has also developed forecasts for the Summer Tourist Attraction of Petoskey Area in Michigan. His hands-on experience in developing and applying travel forecasting models, combined with extensive research on seasonal traffic forecasting, offered the ability to successfully develop forecast for this Summer Resort Area. More than six years of transportation planning/forecasting experience, an aptitude to implement state of the art and innovative methods in transportation planning/forecasting projects, the capability to prioritize project needs and ability to manage working with both senior and junior level staff, makes Mr. Varanasi the ideal Project Manager for this unique transportation study.

Jim Hartman, PE, will serve as the senior specialist in the capacity analysis and traffic operations analysis for this project. Mr. Hartman has worked on projects ranging from transportation planning, to environmental assessments, to major traffic impact, safety, operations, and access management studies. He has excellent communication and leadership skills and is proficient with the tools needed to complete these complex projects, including traffic analysis software, computer-aided design, computer simulation models, and geographic information systems

Joe C. Corradino, PE, will serve as the senior specialist in Public Involvement and Alternatives Recommendations for this project. Mr. Corradino has directed numerous public consulting projects in the fields of engineering and planning. These include analyses of transportation alternatives, environmental impact assessments, and system analyses for major projects in Detroit, Louisville, Ky., Tampa, Fla., Dade County (Miami), Denver and Los Angeles. Joe Corradino was the Program Manager for the $800+ million Louisville, Ky., Airport Improvement Program. Early in his career, he helped create the strategy that led to the formation of the Transit Authority in River City (TARC) in Louisville, Ky. Mr. Corradino is the project manager for the Detroit Intermodal Freight Terminal Feasibility Study and EIS. This project involves expanding rail-truck intermodal terminals to meet the future needs of four Class I railroads. He now leads the U.S. effort to build a new bridge to Canada at Detroit. On a national basis, Mr. Corradino has directed a substantial body of work conducted by Corradino. This includes many projects that have had a strategic planning component for major public government entities and agencies. In addition, Mr. Corradino has served on numerous boards, led major fund raising campaigns, and served as an elected official (County Commissioner) in Jefferson County (Louisville), Kentucky.

Josh Bocks will serve as the GIS and transportation planning specialist. Mr. Bocks is an award winning planner with six years of experience. He has participated in multiple projects in a variety of fields of discipline. These projects include traffic modeling, access management, comprehensive plans, PD & E, concurrency development, and long range planning. His recent experience includes work on approximately a dozen projects including bicycle and pedestrian master plans, safe routes to school plans and transportation master plans. His experience also includes working with strategic planning efforts, public involvement process, charrettes and workshops, transportation, traffic & transit studies; as well as non-motorized plans and mobility studies, implementing growth management regulations, comprehensive plan reviews for the Florida Department of Transportation, assisting with transportation master plans and preparing graphics, exhibits and maps. He is also well skilled in Geographic Information Systems, TransCAD software, QUANTM Integrator and ArcObjects programming in multiple programming languages.

George Galan, PE (CED) will serve as Senior Specialist for traffic data collection and capacity analysis efforts. Mr. Galan has over nineteen years experience in the field of traffic engineering and transportation planning. He has performed and managed a number of projects including data collection projects, traffic impact studies, PD&E Projects and development of regional impact studies. He is well versed in the use of data collection and processing software such as TAS, PETRA, MSC3000, TDP, MVRAP and SPS; and current traffic analysis software and procedures including: HCS, SIDRA, TRANSYT7F, CRONOS, SIGNAL2000, PASSER, and PRE-PASSER. In addition, he is familiar with Autodesk Civil Series software. Mr. Galan is experienced in the procedures used by the Department of Transportation to coordinate, collect, and summarize all facets of traffic data. In particular, he has conducted a number of accident studies, condition diagrams, travel time and delay studies, RCI Inventory, speed studies, origin destination studies, g/C surveys, saturation flow, arrival type, intersection delay studies, gap studies, conflict studies, as well as, the basic turning movement surveys.

Sandra Walters (SWC) will work mainly in the public involvement, data collection, and GIS areas of this project. Ms. Walters established her firm, SWC, in 1996. SWC has participated in a number of transportation-related land use studies, as well as many general planning studies and projects. SWC staff are highly skilled in using Arc GIS 9.2 to develop databases and produce maps and data sets. Sandra has taken FDOT's ETDM training seminar and has received certification for completion of the program. She is familiar with the overall methodology and has worked with ETDM components for several projects, most recently including the SR 710 PD&E Study in Palm Beach and Martin counties. Sandra presently serves on the South Florida Regional Planning Council and was a planner at the Council in the early 1980's. She also served for four years on Florida's Acquisition and Restoration Council (ARC), which

oversees purchase and management of all Florida conservation lands, and during that service, reviewed more than 200 State land management plans. SWC recently served as principle drafter for a statewide aquatic preserve management plan that is providing land use data collection and analysis services for a two-county FDOT PD&E study, and is participating in several areas of development of a regional EIS for the South Florida Water Management District.

Srinivas "Srin" Varanasi, EIT
Project Manager/Senior Transportation Engineer

Education
Louisiana State University, Baton Rouge, La., M.S.C.E. (2003)
Andhra University, Visakhapatnam, Andhra Pradesh, India, B.S.C.E. (2001)

Professional Registrations
EIT, Louisiana, 2003

Professional Affiliations/Training
Member ITE since 2002
Member Florida Model User Group
Member North Carolina Model User Group
Travel Demand Modeling Using TransCAD, 2004
NTI's Multimodal Travel Forecasting, 2005
FHWA's ITS Deployment and Analysis Software (IDAS), 2006
Advanced CUBE Voyager Scripting Workshop, 2008

Experience
2007-Present
The Corradino Group, Inc., Miami: Project Manager/Senior Transportation Engineer. Mr. Varanasi is a Project Manager and Senior Transportation Engineer in Corradino's nationwide transportation Engineering/modeling practice. He has more than six years of experience in multimodal traffic forecasting, travel demand model development, transportation planning, and GIS database development projects.

Mr. Varanasi recently completed development of transportation forecasting models for the South East Florida Regional Long Range Transportation Plan (RLRTP). Working with the FDOT, MPOs and other local Jurisdictions, he managed and applied several innovative travel forecasting techniques for the most complex roadway network in Miami-Fort Lauderdale-Palm Beach Metro area. Mr. Varanasi has implemented open road toll modeling procedures, "reversible lane" modeling and high occupancy toll (HOT) lane modeling. He currently serves as local Project Manager for FDOT District IV General Planning Contract focusing on District wide transportation system planning and travel forecasting enhancements. Mr. Varanasi currently serves as lead transportation engineer, for Greater Treasure Coast Regional Planning Model Enhancements.

Mr. Varanasi managed several travel forecasting/model application projects, and served as lead Transportation Engineer for projects, including modeling for County Road 609 Planning and Conceptual Engineering (PACE) Study in the Treasure Coast Region of Florida, Health District Modeling for Miami-Dade MPO, HOT lanes modeling for I-95 in Miami-Dade and Broward counties. In addition to Florida Models, Mr. Varanasi recently completed development of the Winchester, VA., travel demand model in Cube Voyager format for the Virginia Department of Transportation. In addition to traditional studies, Mr. Varanasi developed forecasts for the Summer Tourist Attraction of Petoskey Area in Michigan. His hands on experience in developing and applying travel forecasting models, combined with extensive research offered the ability to successfully develop forecast for this Summer Resort Area.

Mr. Varanasi is experienced in processing and using survey and Census data to develop travel demand models. His recent experience included analysis of the Treasure Coast Trip Characteristics Survey to estimate trip length distribution and mode choice targets. He is also experienced in the analysis and use of Census data in model development. He has processed the CTPP journey to work data to develop home based work trip targets for several models, including GTCRPM, SERPM6.5 models in Florida and Winchester Regional Model in Virginia.

Mr. Varanasi has knowledge and experience in mathematical and statistical analyses using ArcGIS, Microsoft Access, Excel, SPSS, and SAS. He has experience scripting languages such as Cube Voyager and GISDK, and computer languages such as FORTRAN, VB, and C. Mr. Varanasi is well experienced in research and model data development, mode validation and calibration and model application in various platforms such as Tran Plan, Cube Voyager and TransCAD. He is well experienced in using various data sources such as Census, Travel Surveys and On-Board Surveys.

2004 - 2007

Piedmont Authority for Regional Transportation (PART), Greensboro, N.C.: Transportation Engineer. Mr. Varanasi served as key Transportation Engineer in the Piedmont Triad regional model (PTRM) development. He developed innovative techniques in creating region-wide master highway network development, area type sub model development. He served as key member in model calibration and validation activities. He also processed on-board travel survey data for the use in Mode Choice development of PTRM. He provided guidance and training to the regional partners in various model development activities and model applications.

Mr. Varanasi designed and developed several transit alternatives, and provided extensive modeling support for PART alternatives analysis. He served as a key modeler the Heart of the Triad Project, a major land use project. As part of this project, he presented various scenarios to the planning directors and elected officials of the region. Mr. Varanasi performed extensive GIS analysis and modeling work, in developing a regional thoroughfare plan map for the Triad region.

2001-2003

Louisiana State University, Baton Rouge, La.: Graduate Research Assistant. Mr. Varanasi performed thorough research and assessed the Feasibility of Supplying Vehicle Activity Data to MOBILE6 Using the Global Positioning System. The work produced comparative statistics of traditional travel demand modeling outputs to the innovative GPS data. The work was published as his Master's thesis.

Research Papers

Varanasi, S., Wilmot, C.G. "Use of Global Positioning Systems in Supplying Travel-related Data to MOBILE6," TRB's Ninth Conference on the Application of Planning Methods, Baton Rouge, La., April 2003.

Varanasi, S., Kilambi, R. "High Performance Concrete from Buildings to Bridges," National Civil Engineering Conference, Tanjore, Tamilnadu, India, September 1999.

Joseph M. Corradino, AICP
President

Education
Villanova University, BA (Geography) (1990)
University of Cincinnati, MA (Community Planning) (1992)

Qualifications
- American Institute of Certified Planners No. 012032
- Council Member, Village of Pinecrest, FL
- Board of Directors, Chamber South
- Chairman, American Planning Association; Gold Coast Section Executive Board (2005-2007)
- Chairman, Doral Business Council (2005-2007)
- Chairman, Planning Board, Pinecrest (2004-2006)
- Miami-Dade MPO, Citizens Transportation Advisory Committee, (2004-2006)
- Miami-Dade MPO, Development Permitting Advisory Committee, (2005-2007)

Honors and Awards
- American Planning Association Award for Excellence: Miami Beach Municipal Mobility Study
- American Planning Association Award for Excellence: Clearwater "One City, One Future" Strategic Plan
- American Planning Association Award for Outstanding Achievement: Alton Road Traffic Calming
- American Planning Association Award for Outstanding Achievement: Transportation Concurrency Management Areas
- APA Award for Outstanding Mobility Project: Palmetto Bay Transportation Master Plan
- Florida Redevelopment Association Award: Hialeah Transportation Concurrency Management Areas

Experience
Mr. Corradino is head of The Corradino Group's planning operations in South Florida. In addition to administrative responsibilities, Mr. Corradino works with local and state governments developing policy and strategic planning efforts, including public involvement, charrettes and workshops; transportation, traffic and transit studies; as well as comprehensive plans and mobility studies. In addition he serves as an elected official in Pinecrest, Florida.

1995-Present
The Corradino Group, Inc., Miami, FL: President
[Vice President-Planning (1995-April 2008)]

Relevant Experience
Urban Planning
- South Miami CRA Housing and Urban Design, South Miami, FL
- Intermodal Feasibility Study, Miami Beach, FL
- South Beach Strategic Planning Workshop, Miami Beach, FL
- San Castle Neighborhood Streetscape Design, Palm Beach County, FL

- Consolidated Plan for HUD Community Development Block Grant Funding, Plantation, FL
- State Road 7 Master Plan and Design Guidelines, Plantation, FL
- State Road 7 Implementation Plan, Plantation, FL
- Pinecrest Comprehensive Plan, Pinecrest, FL
- Islamorada Comprehensive Plan, Islamorada, FL
- Clearwater Strategic Plan, Clearwater, FL
- North Greenwood Neighborhoods Plan, Clearwater, FL
- Transportation and Land Use Corridor Study, North Miami Beach, FL

1992-1995

Chance Management Advisors, Philadelphia, PA: Community Planner.

Scarlet R. Tenen, AICP
Senior Planner

Education
University of California, San Diego, CA, B.A.
(Urban Studies and Planning) (June 1995)

Professional Affiliations
Member, American Planning Association (APA)
Chair, Gold Coast Section of the Florida Chapter APA
Planners Technical Committee

Experience
Ms. Tenen has more than 11 years experience in community planning, transportation planning and growth management regulations. She specializes in analyses of land use issues related to comprehensive plans, rezoning and the site planning process. Her experience also includes implementing zoning regulations, drafting ordinances, assisting with transportation master plans and preparing graphics, exhibits and maps.

04/2006-Present

The Corradino Group, Inc., Miami, FL.: Senior Planner. Ms. Tenen is a senior planner for Corradino's South Florida planning group specializing in municipal and transportation planning. She assists Corradino clients with a variety of technical expertise, including FDOT District 6 planning division where she is the in-house growth management analyst. Currently, Ms Tenen is managing comprehensive planning projects which include evaluation and appraisal reports, planning feasibility studies, comprehensive master plan updates and reviews, and a variety of other professional transportation and land planning needs. Ms. Tenen is currently the Project Manager for the newly created Town of Cutler Bay's first Comprehensive Plan and played a key role in the establishment of the town's planning department and continues to serve as the town's senior planner.

09/2004-04/2006

The City of Aventura, FL.: Senior Planner. Her senior planner responsibilities included project management for numerous ongoing development review petitions; assisting with the city's first evaluation and appraisal report for the Comprehensive Plan; preparing administrative approvals, variance, and conditional use applications for residential, commercial, industrial and mixed-use developments which included reviewing applications, surveys, site, landscape and architectural plans for compliance with the city regulations as well as providing technical and professional advice to the public.

11/2001-11/2003

The Lightfoot Planning Group, Oceanside, CA: Senior Planner. While working with The Lightfoot Planning Group, Ms. Tenen was a representative for planning projects presented to elected and appointed officials including city councils, planning commissions, and historical preservation advisory commissions as well as at informal developers' conferences. She gained experience negotiating changes and preparing application documents for review and approval by city councils for general plan amendments, zone changes and tentative maps. A notable accomplishment was the approval of development rights for a concrete batch plant which was achieved through coordination with local and regional environmental planning staff, surrounding business owners and individual planning commissioners.

9/1999-11/2001

Fairfield Residential, San Diego, CA: Predevelopment Project Manager. Ms. Tenen was the primary point of contact of the planning process for approximately 3,500 apartment units throughout California and the Phoenix metro area. Her project management responsibilities included preparing initial evaluations of potential development sites. These investigations included taking an overall inventory of the surrounding land uses, and estimating the existing traffic patterns and street configurations as well as infrastructure. The inventories were conducted by field visits as well as reviews of ALTA surveys, land use maps, title reports, development agreements, aerial photos, and final maps. Her responsibilities also included facilitating the preparation of applications for development reviews, including: tentative parcel maps, design review, variances, conditional use permits and other planning applications. A notable accomplishment was working successfully with the City of Phoenix Chinese Cultural Center Commercial Association regarding site issues such as building colors, neighborhood concerns, pedestrian walkways and coordinating the relocation a granite feng sui statue.

04/1998- 09/1999

Alliance Land Planning and Engineering, Inc., Carlsbad, CA: Land Planner. Her land planner responsibilities included assisting with the land planning and civil engineering plans for several master planned communities; preparing and reviewing cost estimates and engineering plans for utilities, streets and grading; preparing presentation quality exhibits and engineering plans using AutoCAD version 14.

9/1997-3/1998

City of Del Mar, CA: Planning Assistant. Planning Assistant responsibilities included assisting with screening applications for an environmental impact report for the restoration of local wetlands and assisting with development of the Rails-to-Trails regional transportation project as well as providing technical and professional advice to the public.

Josh A. Bocks
Transportation Planner

Education
Michigan State University, East Lansing, MI, B.S., Geography (2004)
Geographic Information Systems Certificate, East Lansing, MI, (2004)

Professional Certification
Member, American Planning Association

Professional Training
TransCAD GISDK-2005
QUANTM-2005
ESRI Programming ArcObjects using VBA-2007
Travel Demand Forecasting, Federal Highway Administration-2004

Experience
Mr. Bocks has six years of experience as a planner and has participated in multiple projects in a variety of fields of discipline. These projects include traffic modeling, access management, comprehensive plans, PD&E and long range planning. His experience also includes working with strategic planning efforts, public involvement process, charrettes and workshops, transportation, traffic and transit studies; as well as comprehensive plans and mobility studies, implementing growth management regulations, comprehensive plan reviews for the Department of Transportation, assisting with transportation master plans, bicycle and pedestrian master plans and preparing graphics, exhibits and maps. He is also skilled in Geographic Information Systems (GIS) and TransCAD software. He has been the project manager on numerous projects including the Knoxville Transit Study, Akron Transit Study, Village of Palmetto Bay Bicycle and Pedestrian Master Plan, Automated Concurrency Management Systems for the Cities of Miami Beach, Hialeah, Coral Gables, Homestead, Doral and Sarasota. He is currently the project manager on the Doral Transportation Master Plan and the Village of Palmetto Bay ARRA projects which include the installation of a traffic circle and the upgrade of pedestrian crosswalks.

2005-Present
The Corradino Group, Inc., Miami: Transportation Planner. Mr. Bocks performs travel demand forecasting and GIS activities for projects including the Detroit River International Crossing EIS/EPE; Fort Lauderdale-Hollywood, FL, International Airport; Detroit Intermodal Freight Terminal Feasibility Study and EIS; and the University of Florida Master Plan. He has performed in-depth analysis on social/cultural issues, noise impacts, mitigation, right-of-entry, and many other aspects of planning. Mr. Bocks recently completed an award winning bicycle and pedestrian master plan for the Village of Palmetto Bay, as well as an APA award for his development of the Automated Concurrency Management System for the City of Hialeah.

March 2004-January 2005
Michigan Department of Transportation, Lansing, MI: Statewide Travel Analysis Section. Duties included GIS, geocoding, and other related work with statewide and urban travel models and data entry. He was a project member of the Michigan Travel Counts Project and was an integral part of the award-winning City Pairs project that helped identify the levels of connectedness amongst Michigan's 38 major urban areas.

Ryan Solis-Rios, PE
Project Development Engineer

Education
Bradley University Peoria, IL; B.S. (Civil Engineering) (1998)

Professional Skills
Registered Professional Engineer Florida, No. 63345
New Hampshire, No. 11546

Certifications
Highway Capacity Analysis Workshops
Floodplain Management Development
Traffic Engineering
Urban Stormwater Systems Design
Basic and Advanced Design Traffic
Basic Culvert Hydraulics
Traffic
Signal Operations
Erosion and Sediment Control
Roadway Drainage Systems Design Project Management Advanced
Quality Level of Service Module I&II
Access Management Media Relations/Dealing with an Angry Public
Efficient Transportation Decision
The Fundamentals of Engineering
Making (ETDM) 10-Hour OSHA
Value Engineering Intersection Design
Long Range Estimates System Drainage Standards
Stream Stability and Scours at Bridges Timberline
FEMA and Floodplains Analysis Interchange Design

Experience
Mr. Solis-Rios' area of expertise is planning and project development. As a former District 2 FDOT project manager, he has worked and finalized many Planning and Project Development and Environment (PD&E) studies which included five interchanges on freeway systems, six principal arterial-widening projects, and four FIHS/SIS facilities. He brings a significant perspective by being involved with the initial project development phases and construction management. Here are some of his duties and responsibilities with The Corradino Group:

- Performs Planning and Project Development and Environment Studies (PD&E)
- Performs traffic analysis. Responsible for setting number of lanes, typical sections, intersections and interchange layouts for rural and urban roadways.
- Analyzes and develop alignment alternatives for complex highway improvements projects.
- Selection and analysis of various typical section alternates for proposed facilities.
- Responsible for reviewing, producing and evaluating work effort to assure the preliminary engineering and environmental documentation is prepared in accordance to meet AASHTO and NEPA standards.

- Generates project costs estimates including engineering cost, construction cost, right of way cost and maintenance cost.
- Development of design presentation for public meetings, elected officials and citizens by providing the necessary information to assure the public is sufficiently informed on the proposed improvements.

2005-Present

The Corradino Group, Inc., Fort Lauderdale, FL: Project Development Engineer.

- Performs Project Development and Environment Studies (PD&E).
- Performs traffic analysis. Responsible for setting number of lanes, typical sections, intersections and interchange layouts for rural and urban roadways.
- Analyzes and develop alignment alternatives for complex highway improvement projects.
- Selection and analysis of various typical section alternates for proposed facilities.
- Responsible for reviewing, producing and evaluating work effort to assure the preliminary engineering and environmental documentation is prepared in accordance to meet AASHTO and NEPA standards.
- Generates project costs estimates including engineering cost, construction cost, right of way cost and maintenance cost.
- Development of design presentation for public meetings, elected officials and citizens by providing the necessary information to assure the public is sufficiently informed on the proposed improvements.

Project Experience

- SR-70 (Okeechobee Road) PD&E Study (District 4)
- I-75/US 441 (Alachua Interchange) PD&E/IMR Study (District 2)
- SR-997 (Krome Avenue) PD&E Study (District 6)
- I-95 PD&E Study/SIMR (District 4)
- 137th Ave. Corridor Study (Miami-Dade County)

1999-2004

Florida Department of Transportation District 2, Lake City, FL.: Project Manager.

- Performed Project Development and Environment Studies (PD&E).
- Performed traffic analysis. Was responsible for setting number of lanes, typical sections, intersections and interchange layouts for rural and urban roadways.
- Analyzed and develop alignment alternatives for complex highway improvements projects.
- Supervised the selection and analysis of various typical section alternates for proposed facilities. employees to assure the preliminary engineering and environmental documentation is prepared in accordance to meet AASHTO and NEPA standards.
- Generated project costs estimates including engineering cost, construction cost, right-of-way cost and maintenance cost.
- Development of design presentation for public meetings, elected officials and citizens providing the necessary information to assure the public is sufficiently informed on the proposed improvements.
- Performed Bridge and Location Hydraulic Reports. Was responsible for calculating bridge scour, setting bridge lengths, bridge cross-sections, basin calculations and peak flows.
- Supervised and helped train department staff in producing Preliminary Engineering Reports, Location Hydraulic Reports and Bridge Hydraulic Reports.

Joseph C. Corradino, PE
CEO

Education
Villanova University, Villanova, Pa., B.S.C.E. (1965)
Purdue University, West Lafayette, Ind., M.S.C.E. (Urban Planning and Engineering) (1966)

Professional Affiliations
American Society of Civil Engineers
Institute of Transportation Engineers
Kentucky Society of Professional Engineers
National Society of Professional Engineers
Honorary and Fraternal Affiliations
Chi Epsilon – Civil Engineering Honor Fraternity
Tau Beta Pi – National Honor Fraternity
Rhodes Scholar Candidate
Who's Who of America
Louisville Zoo Foundation – Chairman
Spalding University – Board of Trustees, Former Chairman

Professional Registration
Civil Engineer, Pennsylvania, 1970, No. PE-016672E
Civil Engineer, Kentucky, 1970, No. 7730
Civil Engineer, Florida, 1975, No. 22421
Civil Engineer, Michigan, 1976, No. 6201023400
Civil Engineer, California, 1991, No. C37790
Professional Engineer, Ohio, 1993, No. PE-57067

Professional Training
Program in Negotiation: Harvard – MIT Public Disputes Program, November 1992
Leading in the 1990s: University of Kentucky, December 1992

Experience
1970 - Present
The Corradino Group, Inc., Miami: Managing Principal. Responsible for project control and execution of technical work in transportation/traffic engineering, engineering design, environmental management, systems planning, and urban and regional planning projects.

Mr. Corradino has directed numerous projects in the fields of engineering and planning. These include analyses of transportation alternatives, environmental impact assessments, and system analyses for major projects in Detroit, Louisville, Ky., Miami, and Los Angeles. Joe Corradino is the Project Manager of several significant projects for the Michigan Department of Transportation including widening I-75 in Oakland County for addition of an HOV lane; a public-private partnership to expand an intermodal (truck/rail) terminal in Detroit; and, a new bridge between Windsor, Canada, and Detroit, Mich. Joe Corradino was the Program Manager for the $850 million Louisville, Ky., Airport Improvement Program. One significant facet of the project was creation of the "Renaissance Zone," the legislation for which Joe

Corradino authored. It creates a “turbocharged” Tax Increment Financing District to pay for infrastructure at and around the airport.

On a national scale, Joe Corradino’s experience includes alternatives analysis of major rapid transit systems in Miami and Los Angeles; highway work like Preliminary Engineering/EISs for I-65 in Indiana; feasibility studies for a proposed interstate highway (I-73) between Toledo, Ohio, and Jackson, Mich., and The Hoosier Heartland Highway between Lafayette and Logansport, Ind. The multimodal plans he has helped his clients prepare include those for Gainesville, Fla., and Ann Arbor and Petoskey, Mich. His work in public involvement is complemented by affected citizens’ groups as “inclusive” and “collaborative,” resulting in enhancements to a community as infrastructure improvements are built. Joe Corradino is known for being able to address contentious/highly controversial situations in common-sense terms with positive outcomes. Part of that success comes from serving in elected office as a Jefferson County, Ky., Commissioner.

1965 - 1970

Simpson & Curtin, Inc. (now Booz, Allen & Hamilton), Philadelphia, Pa.: Transportation Engineer. Participated in transit planning for Atlanta, Ga.; Omaha, Neb.; Toledo, Ohio; Washington, D.C.; San Francisco, Miami; and Allentown, Pa. Duties included transportation planning for Philadelphia, Chester, Allentown, Sharon-Farrell, and Washington, D.C. Participated in traffic engineering for Washington, D.C., and Philadelphia and Allentown, Pa. Performed traffic surveys for the Philadelphia Department of Commerce; the Department of Traffic and Transportation of Dade County, Fla.; and, the Allentown, Pa., Redevelopment Authority. Responsible for airport planning for Philadelphia International Airport and Miami International Airport. Performed research for Omaha, Neb. (modal split model); Toledo, Ohio (modal split model); Sharon-Farrell, Pa. (system-sensitive trip generation model); and, San Francisco (rapid transit computer scheduling program).

Kenneth D. Kaltenbach, PE
Senior Vice President

Education
University of Kentucky, Lexington, Ky., B.S.C.E. (1971), M.S.C.E. (1972)

Professional Registration
Professional Engineer, Kentucky, 1975, No. 9379
Professional Engineer, Ohio, 1998, No. E-62616
Professional Engineer, Florida, 1976, No. 23921
Professional Engineer, California, 1983, No. 37494
Professional Engineer, Indiana, 1990, No. PE60900287
Professional Engineer, Virginia, 1990, No. 0402-021073
Professional Engineer, Michigan, 1996, No. 40881
Professional Engineer, North Dakota, 1996, No. 3810

Experience
1976 - Present
The Corradino Group, Inc.: Senior Vice President, Transportation Systems Planning. Mr. Kaltenbach is responsible for the nationwide management of transportation planning and travel demand forecasting projects.

Mr. Kaltenbach has managed a wide range of transportation planning and travel demand forecasting studies. Recent projects include the development and calibration of the 4,000+ zone Southeast Florida Regional Planning Model for Miami-Dade, Broward, and Palm Beach counties, Fla., development of the Florida Statewide Model, management of the 1999 Southeast Florida Travel Characteristics Study, and development of a travel demand model for Ashland, Ky. In Michigan, Mr. Kaltenbach developed a commodity flow model in support of the Detroit Intermodal Freight Terminal Feasibility Study and EIS.

Since the late 1970s, Mr. Kaltenbach has been a key player in the continuing development of the Florida Standard Urban Transportation Modeling Structure (FSUTMS). FSUTMS is the cornerstone of travel demand modeling and transportation planning activities in Florida. Using these models, he has managed model development, corridor studies and long-range transportation studies in Panama City, the Treasure Coast region, Gainesville, Broward, Miami-Dade and Palm Beach counties.

Mr. Kaltenbach has been project manager for recent major transportation planning studies, including the I-65 Corridor Study in southern Indiana, which is now open to traffic, and a study of a new crossing of the St. Johns River in northeast Florida. He has developed project traffic and evaluation data for major traffic projects in Michigan, including I-75, the Ambassador Bridge, and the Detroit River International Crossing EIS/EPE, and Florida's Turnpike in Broward County, Fla.

Mr. Kaltenbach has used his experience and expertise with travel demand modeling, transportation planning, geographic information systems, and computer programming to develop innovative modeling techniques and applications such as the Concurrency Management system in use in Miami Beach and Hialeah, Fla.

1972 - 1976
Kentucky Department of Transportation (now Kentucky Transportation Cabinet [KYTC]), Frankfort, Ky.: Senior Civil Engineer/Section Manager. Responsible for directing the division's programs for small urban

area transportation studies, including technical assistance to project engineers conducting such studies for all modes. Also was responsible for maintenance of travel and socioeconomic data for determining transportation study priorities; direction of special studies on travel characteristics; trip generation and distribution, modal split, travel assignment, data collection, etc.; coordination of multimodal aspects of small urban area transportation studies; development and maintenance of an up-to-date and effective program of citizen involvement in the transportation planning process; and assistance in developing regional transportation plans, including environmental analyses of those plans. Conducted route location studies and prepared environmental impact documentation.

Alison Townsend, AICP
Community/Transportation Planner

Education

University of Iowa, Iowa City, Iowa, Masters of Science in Urban Regional Planning (1995)
University of Iowa, Iowa City, Iowa, Bachelors of Business Administration, Finance (1989)

Professional Affiliations

American Institute of Certified Planners (#014199)
American Planning Association
Kentucky Chapter American Planning Association

Experience

1995 - Present

The Corradino Group, Inc.: Community/Transportation Planner. Ms. Townsend has participated in a wide variety of planning projects including comprehensive plans, corridor studies, environmental assessments and impact statements, and site selection studies.

Ms. Townsend has also worked on various environmental assessments and environmental impact statements (EIS). She is currently participating in the Detroit River International Crossing Study EIS/EPE for the Michigan Department of Transportation (MDOT), and the Fort Lauderdale-Hollywood, Fla., International Airport EIS. She has also worked on the Detroit Intermodal Freight Terminal Feasibility Study and EIS (MDOT); the I-75, Oakland County, EIS (MDOT); the M-15 EIS, (MDOT); and, the Cleveland, Ohio, Transit Center EIS.

Ms. Townsend also does a great deal of work in the area of transportation and transit-related surveys. She has managed several Title VI surveys for the Detroit Department of Transportation; conducted an onboard survey for Madison Metro in Wisconsin; provided supervision for the SEMCOG Onboard Survey, Detroit; and, participated in several of the surveys associated with the Southeast Florida Regional Transportation Characteristics Study. She has also done on/off counts as part of the Indianapolis Transit Survey; the KAT 2010 Action Plan, Knoxville, Tenn.; and, the Detroit Department of Transportation Passenger Counts. Her survey work extends to database development and analysis.

Her land use and community development projects include the Kalamazoo and Portage, Mich., Comprehensive Plans; the Original Highlands Neighborhood Plan, Louisville, Ky.; the New Albany, Ind., Downtown Plan; the Madison Corridor Redevelopment Plan, Covington, Ky.; Redevelopment Plans for the Old City Dump/Moser Tannery, New Albany, Ind.; and, the Norfolk Area, Louisville, Ky., Master Plan.

1995

East Central Intergovernmental Association, Dubuque, Iowa: Project Analyst. Assisted in the development of a transportation demand model.

1990 - 1991

Dun & Bradstreet, Dubuque, Iowa: Business Analyst. Ms. Townsend prepared business information reports. Her job duties included collection, analysis and presentation of general business and financial data.

James C. Hartman, PE
Technical Vice President

Education
Michigan State University, East Lansing, Mich., B.S.C.E. (1991)

Professional Affiliations
American Society of Civil Engineers
Institute of Transportation Engineers
Professional Registrations
Civil Engineer, Michigan, No. 42716 (1997)
Professional Engineer, Florida, No. 57840 (2001)

Experience
2000 - Present
The Corradino Group, Inc., Southfield, Mich.: Technical Vice President. Mr. Hartman has worked on projects ranging from transportation planning, to environmental assessments, to major traffic impact, safety, operations, and access management studies. He has excellent communication and leadership skills and is proficient with the tools needed to complete these complex projects, including traffic analysis software, computer-aided design, computer simulation models, and geographic information systems.

Mr. Hartman serves as project manager and lead transportation engineer on large and small projects for public and private clients. He has managed three very successful access management studies for the Michigan Department of Transportation on several of the state's major arterials. Operations, safety, and access management solutions were specified for the U.S. 24/Telegraph Road corridor in Monroe County, M-153/Ford Road in Wayne County, and M-24/Lapeer Road in Oakland County. He gathered the stakeholders and the public together at frequent intervals to educate and inform them of the benefits of each plan's recommendations. Implementation priorities and monitoring programs were established as part of each study. Mr. Hartman continues to meet with the steering committees in all three corridors to ensure that the plans are implemented, monitored and, maintained, ensuring the identified benefits are realized.

Mr. Hartman completed several regional analyses that examined existing and future transportation deficiencies, developing specific solutions, policies, and recommendations to mitigate them for the future. In the northeast section of the City of Ann Arbor, he first helped the community develop a vision with specific goals and objectives. He then worked with the City to develop a transportation plan that was later measured against the communities' priorities and refined the plan to meet those priorities. A comprehensive transportation plan was established that balanced transit, non-motorized and other needs in the area. The plan was approved by the technical and citizens advisory groups and the City of Ann Arbor. Mr. Hartman completed a similar study for Lapeer County, where alternatives were developed and tested to improve the identified operational and safety needs of the current and future transportation system. Another comprehensive transportation study was completed surrounding the General Motors-Milford Proving Grounds in Oakland and Livingston counties. There, General Motors and other stakeholders requested identification of future transportation improvements and timing of such needs based on consolidation efforts in this area and the rest of southeast Michigan.

1998 - 2000

Parsons Brinckerhoff Michigan Inc., Detroit: As a senior transportation engineer for this large, worldwide transportation consulting firm, Mr. Hartman worked on several corridor transportation studies including U.S. 12/Michigan Avenue in Dearborn, and Ford Road in Canton Township. This experience provided valuable project management training and experience. In addition to his corridor transportation study work, Mr. Hartman provided on-call traffic engineering services for various municipalities. Projects ranged from designing traffic calming solutions, to detailed signal optimization studies, to maintenance of traffic and detour simulations for construction projects.

1993 - 1998

Hubbel Roth & Clark, Inc., Bloomfield, Mich.: Mr. Hartman worked for a local consulting firm completing transportation studies and implementing traffic engineering solutions to private, municipal, and state agencies. He completed a wide range of traffic studies for the municipal clients. He completed dozens of traffic impact studies and several environmental assessments with differing levels of responsibility.

1991 - 1993

California Department of Transportation, San Francisco, Calif.: Mr. Hartman successfully completed the professional engineering rotation program with the California Department of Transportation (Caltrans) in the San Francisco Bay Area. His experience included freeway design, construction engineering, environmental document preparation, and transportation planning and modeling.

CROSSROADS ENGINEERING

George Galan, P.E.

GEORGE GALAN, PE
President

EDUCATION: Florida International University, Miami, FL.
Civil Engineering, B.S., 1988.

REGISTRATION: **Professional Engineer No. 60080**
24 years Experience 7 years Post PE Experience

SUMMARY:
Mr. Galan has over nineteen years experience in the field of traffic engineering and transportation planning. He has performed and managed a number of projects including data collection projects, traffic impact studies, PD&E Projects and development of regional impact studies. He is well versed in the use of data collection and processing software such as TAS, PETRA, MSC3000, TDP, MVRAP and SPS; and current traffic analysis software and procedures including: HCS, SIDRA, TRANSYT7F, CRONOS, SIGNAL2000, PASSER, and PRE-PASSER. In addition, he is familiar with Autodesk Civil Series software. Mr. Galan is experienced in the procedures used by the Department of Transportation to coordinate, collect, and summarize all facets of traffic data. In particular, he has conducted a number of accident studies, condition diagrams, travel time and delay studies, RCI Inventory, speed studies, origin destination studies, g/C surveys, saturation flow, arrival type, intersection delay studies, gap studies, conflict studies, as well as, the basic turning movement surveys. Mr. Galan has also performed telemetry traffic monitoring site (TTMS) troubleshooting and inspections for Central Office, as well as, inspections of Permanent Traffic Monitoring Sites (PTMS) for District 4.

EXPERIENCE:
Crossroads Engineering Data, Inc., Miami, FL
President: 1994 - Present
President and CEO of the company. Duties encompass a wide range of tasks including managing a staff of eight employees, marketing to both the public and private sector, client development, production of written technical proposals, presentations, appropriations of bank loans, developing and maintaining the company's cost accounting system, project management, quality control, and maintaining computer systems and data collection equipment. Performed and managed a number of traffic impact studies and data collection activities including turning movement counts, volume / classification counts, travel time and delay studies, saturation flow studies, parking surveys, origin – destination surveys (license plate surveys), video surveys, crash analysis, RCI Inventory, and Inspections and repairs of Telemetry Traffic Monitoring Sites. . In an effort to reduce costs and improve data quality, Mr. Galan developed a portable self contained Video TMC recorder. The device eliminates the need for field technicians to collect turning movement count data in the field and improves the final product by allowing the video to be reviewed by our QC teams in house thus confirming the accuracy of the data. Projects of interest include:

City of Coral Gables Traffic Calming Studies-Conducted studies to identify the need for traffic calming devices within the City of Coral Gables. Developed traffic calming alternatives including traffic circles, round-abouts, and speed tables. Produced roadway and signing and marking plans. Provided support to the City's staff during public meetings.

City of Miami Traffic Calming Studies-Performed studies to identify the need for traffic calming devices within the City. The studies were initiated by local residents concerned with high speeds and cut-through traffic along local roads. Designed traffic calming devises including traffic circles and speed tables, produced roadway and signing and marking plans . Provided field engineering support to the contractor during installation of both temporary and permanent traffic circles.

I-95 Ramp Metering Project- Assisted the Florida Department of Transportation and Florida International University with the data collection and implementation of ramp metering equipment along the I-95 Corridor in Miami-Dade County. This is an on going ITS project within the District.

Senor Evaluations- Worked in conjunction with the Florida Department of Transportation and Florida International University to review and analyze the capabilities and accuracy of three traffic sensors. The results of the study were used to determine which equipment would best serve the Department's ITS requirements.

CROSSROADS ENGINEERING — George Galan, P.E.

District 6 Traffic Monitoring Sites Design and Professional Services- Conducted site engineering and selection of PTMS sites. Performed Inspection and Acceptance of newly installed PTMS sites. Performed 18-Kip ESAL studies. Reviewed PTMS shop drawings.

Districtwide Data Collection (District 6) - Managed the $750K data collection project, which included the collection of routine counts, turning movement counts, Project Traffic Forecasting, and RCI data collection.

Districtwide Data Collection (District 6) - Managed the $950K data collection project, which included the collection of routine counts, turning movement counts, and Permanent Traffic Monitoring Site Inspection of loops and piezos.

Districtwide Traffic Operations Studies (Districts 4 and 6) - Managed a number of data collection activities including Turning Movement Counts, Intersection Delay Studies, Gap Studies, Travel Time and Delay Studies, Sight Distance Evaluation, Pedestrian Group Size Studies, Conflict Studies, and Collision Diagrams.

Sarasota Signal Retiming Study - managed the data collection and field review of 30 signals in Sarasota County.

Ft. Pierce Signal System Study - managed the data collection and field review of 50 signals located in Ft. Pierce in order to update and interconnect the signal systems within a number of corridors within the city.

Broward County Signal System - managed the data collection and field review of 20 signals along 10 corridors within Broward County in order to update and interconnect the signal systems.

Palm Beach Signal Retiming Study – managed the data collection of more than 30 signals in Palm Beach County.

Miami-Dade County Signal Retiming – manged the data collection of over 100 signals along 4 major corridors in Miami-Dade County. Collected turning movement counts 7 day volume data and travel time information.

I-95 HOV Monitoring - Managed the collection of several performance measures along the 47 mile HOV section of I-95 between Miami-Dade and Palm Beach Counties. The measures included volume, speed, and classification data, as well as, travel time and delay surveys and vehicle occupancy surveys.

Districtwide Data Collection (District 4)- Managed and collected over 200 miles of on –system and off-system RCI and HPMS data in both urban and rural areas throughout the district.

Districtwide Data Collection (District 6) - Managed and collected over 220 miles of off-system RCI data in both urban and rural areas throughout the district.

Statewide TTMS Inspection and Repair- Performed inspections and repairs to the Departments Telemetry Traffic Monitoring Sites maintained communications between the remote sites and Central Office in Tallahassee, and determined functionality of the loops and piezos at each of the sites.

CROSSROADS ENGINEERING

Richard Eichinger
Senior Traffic Engineering Manager

QUALIFICATIONS SUMMARY - Professional engineering experience: 30 years
- Public and private sectors

- Areas of expertise:

Traffic Impact Studies • Concurrency Analysis • Access Management • Capacity Analysis • Traffic Conflict Analysis • Planning and Zoning Studies • Travel Time and Delay Studies • Traffic Signal Timing and Fine Tuning • Site Layout and Circulation • Parking Studies • Pedestrian and Bicycle Safety Studies • Maintenance of Traffic • Signs and Pavement Markings • Contract Management • Traffic Signal Design • Qualitative Assessments • Level of Service Analysis • Signal Warrant Analysis • Presentations to Public and Private Hearings.

EDUCATION AND TRAINING

ASTE - Miami-Dade Community College
Coursework - Florida International University
Urban Street System Design - Northwestern University
Traffic Accident Reconstruction - Northwestern University
Safety Design and Operational Practices - FHWA
Railroad Highway Grade Crossings - FHWA
Brakes; Design and Safety - Society of Automotive Engineers
FDOT Access Management - FHWA
TDM Strategies - Institute of Transportation Engineers
Highway Capacity Analysis Workshop – University of Florida
Numerous Traffic Engineering Seminars

PROFESSIONAL EXPERIENCE February 1988, joined Transport Analysis Professionals, as Senior Associate.
January 2008, joined Crossroads Engineering and Data, Inc.
A few notable projects and clients:

FDOT SR 878/874 20-year Transportation Plan • FDOT SR 836 & NW 45th Avenue Ramp Study • Project Manager FDOT District 6 Districtwide Data Collection and Multi-Modal Evaluation Study • Miami-Dade and Monroe County School Traffic Impact and Concurrency Studies • Metropolitan Miami Miami • OneKnight's Key (Marathon) • Cay Clubs International • Northstar (Key Largo) • approximately 40 City of Miami MUSP type traffic impact studies • Gulliver Schools • The Craig Company (Key West) • Ocean Reef • Adrian Development • Related Group • Consulting Engineering Sciences • Miami-Dade County Schools Development Projects • Traffic Engineer for Bal Harbour Shops • Checkers, Burger King, McDonalds, Dunkin Donuts, Farm Stores, Pollo Tropical Traffic Concurrency and Site Circulation Studies • Walgreen's & Eckerd's • Doctor's Hospital of Coral Gables Parking and Traffic Studies • Project Manager for Miami-Dade MPO "RUSH" Project • Project Manager for Waterford at Blue Lagoon DRI • Project Manager for Miami-Dade County 1993 "TOPICS Study • Baptist Hospital Traffic Circulation Study • Project Manager for Datran IV DRI • One Miami (at Dupont Plaza) • Brickell Marriott Hotel/Barclays Financial Center • Worldwide Sportsman Traffic Impact Analyses (Monroe County) • Numerous Monroe County Traffic Impact Studies • Vincam Office Building • Williamson Cadillac • Marathon Bank • Forest Lakes • Gulliver Preparatory and Academy • Publix at Dadeland • One Miami • Met One • Numerous Traffic Impact Analyses for Private and Public Sector Clients

1984 - 1988 Vice President of Traffic Engineering for Miles Moss and Associates
1983 - 1984 Traffic Engineer for Mid South Engineering
1978 - 1983 Traffic Engineer for Miami-Dade County Public Works Department and Department of Traffic and Transportation

PROFESSIONAL AFFILIATIONS
- Institute of Transportation Engineers (ITE)
- Florida Section of ITE
- IVHS Council - ITE

SPECIAL ACHIEVEMENT Published ITE article on "Protected/Permissive Left Turn Protected Only Left Turns Criteria for Implementation." Year 1982 top award-winning paper published in the ITE Journal.

CROSSROADS ENGINEERING

Osvaldo Jimenez

Professional Experience: 3.5 years

SUMMARY OF EXPERIENCE:

Mr. Jimenez Crossroads as an Engineering Technician and has served as well as Data Collection Field Supervisor. Mr. Jimenez has been gaining experience in traffic engineering and is responsible for the execution of data collection activities and the maintenance and repair of collection sites throughout the state. He also provides support in conducting field inventories for traffic studies and design projects, as well as other traffic studies to include intersection delay studies, origin-destination surveys, travel time and delay studies and parking studies

He is well versed in the procedures used by the Department of Transportation to coordinate, collect, and summarize all facets of traffic data. Mr. Jimenez is proficient in the use of Department's SPS software, PETRA, TDP, STREETER-AMET traffic data recorders, PC Travel software and hardware. He is also proficient in the use of data reduction software.

Mr. Jimenez has conducted numerous approach counts, classification counts, stop sign delay studies, gap studies, occupancy and turning movement counts and is highly proficient in the use and application of data collection procedures.

EXPERIENCE:

Traffic Monitoring Site Design and Professional Services- FDOT District 6
SR 710 PD&E – FDOT District 4
Districtwide Data Collection – FDOT – District 6
I-75 PD&E
Districtwide Safety Projects and Traffic Operations – Districts as Sub-consultants to:
F.R. Aleman and Associates
Kimley-Horn and Associates, Inc.
Parsons Brinckerhoff
Carter Burgess
Reynolds Smith & Hills
St Lucie County Signal Retiming
Broward County Signal Retiming

CROSSROADS ENGINEERING

Lucas Scott 10 years Professional Experience

Crossroads Engineering Data, Inc.
Senior Technician
13284 SW 120th Street
Miami, FL 33186

Education: On-going Florida International University: Engineering Major

Past Work Experience:
Mr. Scott joined Crossroads as the Senior Data Processing Manage. Mr. Scott is well versed in the procedures used by the Department of Transportation to coordinate, collect, and summarize all facets of traffic data. In particular, travel time studies, speed studies, origin destination studies, g/C surveys, and turning movement surveys. Mr. Scott is completely familiar with the Department's SPS software, PETRA, TDP, TASPLUS, and all Microsoft applications.

Mr. Scott is responsible for processing traffic data for the firm. He maintains the traffic database system for the company and ensures the prompt and accurate submittal of traffic count data to our clients.

Mr. Scott has assisted the Department, both in Central Office and District 4 with maintaining, troubleshooting and inspecting Telemetry Traffic Monitoring Site (TTMS) and Permanent Traffic Monitoring Sites (PTMS) for District 4.

Related Project Experience:
Districtwide Safety Projects/Traffic Operation Studies in Districts 4 and 6 as sub-consultants to: Kimley-Horn and Associates, Inc., Miller Consultants, URS Consultants, Parsons Brinkerhoff, F.R. Aleman and Associates, Inc., and Keith & Schnars. Mr. Scott's principle responsibilities were data analysis, mainly of volume, classification, speed studies and Intersection Turning Movement Counts. He also contributed to coordinating data collection activities.
Districtwide Data Collection District 4 Planning
Mr. Scott was responsible for analyzing and processing over 800 road-tube locations. Mr. Scott also inspected and collected data from the assigned PTMS cabinet locations. Please contact Alexander Rodriguez with any questions at 954-777-4664.
Districtwide Data Collection and Special Counts District 6 Planning
Mr. Scott conducted the data analysis and processing for over 140 72-hour classification counts. He was also involved with the analysis and processing for all intersection turning movement counts
Statewide TTMS Inspection and Repair- Performed inspections and repairs to the Departments Telemetry Traffic Monitoring Sites maintained communications between the remote sites and Central Office in Tallahassee, and determined functionality of the loops and piezos at each of the sites.
District 6 RCI Data Collection Feature 216- Coordinated and collected Feature 216 (Sidewalks and Bike Lane characteristics) on over 450 miles of roadway in District 6.
District 4 Broward County Signal Retiming Project- Collected traffic data at over 50 intersections along the SR 7 and University Drive corridors.
Districtwide Data Collection (District 4)- Collected over 200 miles of on –system and off-system RCI and HPMS data in both urban and rural areas throughout the district.
Districtwide Data Collection (District 6) - Collected over 220 miles of off-system RCI data in both urban and rural areas throughout the district.

SANDRA (SANDY) WALTERS
President

Academic Background
Masters Degree in Marine Affairs, University of Miami, Florida, 1983
Bachelor of Science in Animal Behavior and Marine Biology, University of California, Davis, CA, 1974

Specialized Professional Competence
Ms. Walters has more than 25 years of professional experience in Florida. She is qualified as an Expert Witness in Florida administrative hearings and court proceedings; has conducted and supervised environmental studies, and developed avoidance and mitigation plans, in all South Florida submerged and upland habitats; has successfully permitted projects ranging from single family homes to developments of regional impact, working with all regulatory agencies; has extensive experience in design and implementation of public participation programs and review and development of comprehensive plans; and has represented clients successfully with many agencies and government boards. She is presently serving as immediate past chair of the South Florida Regional Planning Council, appointed by governors Bush and Crist; serves on EPA's Water Quality Steering Committee for the Florida Keys; and served from 2000 to 2004 as a Governor's appointee on Florida's Acquisition and Restoration Council, which supervises purchase and management of State conservation lands.

Representative Professional Experience

President & Founder, SWC (Sandra Walters Consultants, Inc.), 1996-present
Key West, Miami and Fort Myers, FL
Provide consulting services to both public and private sector clients in areas of ecological/environmental and land use planning and permitting, including habitat evaluation, mitigation and contamination assessment and remediation; public involvement and outreach; and community and government liaison.

ENVIRONMENTAL STUDIES • PERMITTING • MITIGATION • MONITORING SERVICES

- **Monroe County Comprehensive Plan and Evaluation & Appraisal Report**
  Member of consulting team providing planning services for Monroe County to conduct thorough update of comprehensive plan, including technical and policy documents, and prepare State-required evaluation and appraisal report, including working with local officials and citizens, as well as facilitating review process with South Florida Regional Planning Council and Florida Department of Community Affairs.
- **Wetland Delineation, Essential Fish Habitat Assessment and Local Permitting Support for Utility Corridor, Okeechobee, Hillsborough and Miami-Dade counties**
  Principal in charge of wetland data collection and jurisdictional delineation for utility corridor, utilizing both federal and State wetland delineation methodologies, including extensive habitat characterization, mapping using sub-foot-accuracy Trimble GPS equipment, and daily downloading and transmitting of data to central processing facility. Also preparing EFH Assessment meeting NMFS requirements for South Dade County segment, including cumulative and secondary impacts analyses, and providing coordination and assistance with local permitting in Martin and Miami-Dade counties.
- **SR-710 Planning, Design & Environmental (PD&E) Study, District 4 FDOT**
  Part of consultant team in charge of planning, design and environmental study of 27-mile corridor of B-Line Expressway through Palm Beach and Martin counties. Responsible for wetlands and threatened and endangered species field data collection, assessment of contamination potential in vicinity, and documentation of land use patterns along corridor regarding potential for secondary and cumulative impacts.
- **Stormwater Filter Marsh, City of Naples, Collier County**
  Principal in charge of wetland jurisdictional determination, habitat evaluation, and threatened and endangered (T&E) species survey; development of impact assessment and mitigation plan, as needed; and general assistance with preparing and processing environmental resource permit (ERP) applications with DEP and US Army Corps of Engineers (USACE) for creation of filter marsh to provide treatment to stormwater presently being pumped untreated into Naples Bay.
- **Environmental Impact Study (EIS), Ft. Lauderdale Airport Runway Extension**
  Principal in charge of fulfillment of all NEPA requirements including T&E species impact assessment and wetland delineation, coordination with environmental regulatory agencies, and preparation and processing of environmental permit applications for final, selected alternative. Acquired concurrence from all resource

Sandra Walters

CURRICULUM VITAE PAGE 2

agencies on jurisdictional lines and Universal Mitigation Assessment Method (UMAM) scores for all wetlands affected by one or more project alternatives, prepared administrative draft and Draft Environmental Impact Statement, participated in DEIS public hearing, prepared EFH and Biological assessments for National Marine Fisheries Service and U.S. Fish & Wildlife Service, prepared responses to all ecological questions for DEIS and FEIS; assisted with preparation of Final EIS.

- **WTA Compartments B & C EIS, South Florida Water Management District, Palm Beach County**
  Part of consultant team that developed EIS for improvements to water treatment areas just south of Lake Okeechobee, which is an Acceler8 project associated with Everglades restoration. Work included full assessment of existing data and sources and evaluation of sufficiency; drafting environmental consequences alternatives, wetlands and T&E species sections; and participating in public involvement activities.
- **St. Lucie River Watershed Protection Plan, SFWMD, Martin & St. Lucie counties**
  Part of consulting team responsible for performing extensive research and writing to prepare protection plan for major Florida river basin, including making changes to document to incorporate edits and comments from on draft plan by review agencies. Work also included tabular organization and manipulation of multiple data sets in Microsoft Excel® as well as participating in project meetings and recording detailed meeting minutes.
- **Roadway Design Projects, City of Key West**
  Member of team working on three Local Area Participation (LAP) projects in Key West funded by Florida Department of Transportation (FDOT), providing design services for roadway improvements, SWC roles include environmental and public involvement services.
- **Mallory Dock Maintenance Dredge, City of Key West**
  Principal in charge for successful acquisition of all permit modifications to add Mallory Dock to scope of Navy Key West Harbor dredging project, including collection of all data on submerged habitats required by agencies, coordination with dredging company and environmental monitoring contractor, acquisition of EPA approval for use of offshore disposal site, provision of Quality Assurance services onboard the dredging vessel, and preparation of all final reports to Navy and permitting agencies. Represented City in Navy agency partnership process for harbor dredge and other environmental issues.
- **City of Pompano Beach General Engineering Services, Broward County**
  Part of consulting team providing engineering services to the City, with SWC scope including environmental, planning and public involvement tasks.
- **Canoe-Kayak Launch, City of Bonita Springs, Lee County**
  Coordinated with South Florida Water Management District (SFWMD) and Florida Department of Environmental Protection (DEP) to resolve issues, successfully acquired documentation so DEP could issue City lease allowing City to proceed with construction of recreational public access facility.
- **General Engineering Services, City of Bonita Springs, Lee County**
  SWC is providing ecological/environmental services to City of Bonita Springs, as needed, including benthic and wetland assessments and associated environmental permitting.
- **Port Everglades Master Plan Update, Broward County**
  Principal in charge of all natural systems data collection and analysis and permitting assessments for five-year master plan update.
- **General Environmental Consultant for Florida Keys Overseas Heritage Trail**
  In contract with DEP, provide environmental planning services for entire 130-mile linear park throughout Florida Keys, including NEPA review and documentation for permitting of segments and bridge crossings.
- **Jewfish Creek Bridge/US Highway 1 Project, Northern Florida Keys**
  Member of design-build team in charge of environmental compliance for final design and construction of 65-foot-high bridge over Jewfish Creek and new roadway from North Key Largo to just south of Dade County line, including training of onsite personnel regarding avoidance of listed species; coordination with agencies for permit modifications; assessment of preconstruction environmental conditions; and continuous work with project engineer and contractor to assure all environmental permit conditions are met during four-year project.
- **Stormwater System, City of Key West** Consultant in charge of bringing City into compliance with Environmental Resource Permit (ERP) requirements for already-completed and future maintenance work of stormwater system, including developing impact assessment and mitigation plan that incorporates 5.6 acres of wetland restoration and enhancement at former Hawk Missile site in eastern Salt Ponds and creation of connection between Riviera Canal and western Salt Ponds to enhance 131 acres of wetlands and cause

MICHELLE (SHELLI) BRAYNARD
Senior Project Manager

Academic Background

Master of Science, Biology (Marine Ecology), Old Dominion University, Norfolk Virginia, 2003

Associate of Applied Science (Medical Technology), Thomas Nelson Community College, Hampton, Virginia, 1997

Bachelor of Arts (Anthropology), University of Illinois, Champaign-Urbana, Illinois, 1992

Specialized Professional Competence

Ms. Braynard is an accomplished and knowledgeable researcher and project manager with extensive experience in Florida coastal habitats. She is particularly skilled in designing and implementing ecological data collection programs, including mapping of resources using sub-meter-accuracy GPS, analyzing and presenting resulting data using state-of-the-art GIS software, and communicating results effectively to agencies and the public. Her in-water experience, including scientific diving and boating certifications, prepare her for both supervising and participating in all aspects of coastal environmental data collection. In addition, she has direct field and laboratory experience with water quality monitoring, phytoplankton ecology, and microbiological identification. Ms. Braynard is currently serving as adjunct faculty at Florida Keys Community College, teaching classes in marine data collection and seagrass restoration.

Representative Professional Experience

Senior Project Manager, SWC, August 2009-present, Key West, Fort Myers, & Miami, FL
Serve as manager of various ecological, land use and public involvement services for public- and private-sector clients, with responsibilities including data collection and analysis, report writing, and oversight of compliance timetables and budgets.

- **Wetland Mapping for Central Wastewater Project, Florida Keys Aqueduct Authority, Monroe County, FL**
  Data collection to assist design engineer in wetland avoidance and minimization for new central wastewater system in Lower Florida Keys.
- **Walker's Island Maintenance Dredge Environmental Resource Permit, Monroe County**
  Project manager for acquisition of environmental resource permits for maintenance dredging of entrance channel and boat basin, including design of comprehensive mitigation plan resulting in regional environmental enhancement, coordination with Florida Keys National Marine Sanctuary, Florida Fish and Wildlife Conservation Commission and U.S. Coast Guard, and processing of application with permitting agencies.

Manager of Lower Keys Damage Assessment, Restoration and Resource Protection (DARRP) Team, Florida Keys National Marine Sanctuary (FKNMS) through Florida Department of Environmental Protection, August 2006-September 2009, Key West, FL

Supervised and managed four employees to respond to vessel groundings and natural resource damage events, conducted biological assessments and prepared restoration plans and DARRP case management documents. Reviewed planning documents and permit applications and prepared recommendations on consistency of activities conducted within FKNMS Lower Region with FKNMS Management Plan and State environmental protection policies. Insured that damage assessment, restoration and monitoring plans were coordinated and consistent with federal, state and local regulations and management plans. Coordinated and provided technical and logistical field support for research, monitoring, and restoration projects within FKNMS. Assisted Sanctuary management with evaluating and resolving Sanctuary resource management issues and provided reports of monitoring findings to management and scientific community. Served as liaison with other State, local, and federal agencies regarding development and implementation of interagency agreements, response protocols, and civil penalty schedules for vessel groundings and oil spills within FKNMS. Prepared and administered State of FL portion of DARRP budget in accordance with FKNMS Annual Operating Plan.

Marine Research Associate & Florida Keys Tidal Restoration Project Manager, Florida Fish and Wildlife Conservation Commission, Fish & Wildlife Research Institute, January 2005-July 2006, Marathon, FL

Coordinated and managed all recreational mail surveys and monitoring, wrote public summary statements, and developed harvest estimates for recreational sector. Participated in team-based fishery and ecosystem

research focusing on spiny lobster within and adjacent to the FKNMS, as well as Biscayne National Park and Buck Island Reef National Monument in St. Croix, USVI. Assisted in design and implementation of projects to study distribution, abundance, size structure, growth, fecundity, and other life history attributes of spiny lobsters using both above- and under-water scientific sampling methods. Analyzed data using advanced statistical techniques to determine trends and statistical significance and maintained archival databases using QA/QC methods. Prepared presentations, reports, and peer-reviewed manuscripts of study results for journals, FWC and other management commissions, and scientific meetings. Led and participated as member of research teams in field sampling, and prepared and helped coordinate logistics of field sampling activities. Participated in maintenance and operation of field equipment and vessels. Managed FTE and OPS employees and coordinated with inter-agency scientists to complete water quality monitoring, hardbottom habitat assessment, seagrass assessment, benthic sediment and invertebrate sampling for FKTR project. Conducted field instrument calibration, operation and maintenance for FKTR. Designed and maintained relational data entry databases using Microsoft Access and performed data analyses using statistical methods. Organized and maintained project records including QA/QC, instrument maintenance, data, and reports. Generated monthly data submissions, semiannual baseline data reports, and final data reports using Microsoft products, ArcView, and EcoWatch.

Marine Research Assistant, Florida Fish and Wildlife Conservation Commission, Fish & Wildlife Research Institute, January 2003-December 2004, Marathon, FL

Assisted original project primary investigator (PI) in designing and implementing a multifaceted monitoring project (FKTR), including creation of a monitoring plan and quality manual in accordance with EPA standards. Performed data entry for various field projects and recreational lobster fisher mail survey returns. Participated in database maintenance, field research and sampling, laboratory sample analysis, and maintenance, operation, and trailering of FWRI vessels.

Graduate Research Assistant, Department of Biological Sciences, Old Dominion University, March 2001-December 2002, Norfolk, VA

Collected water samples and environmental information for the Chesapeake Bay Monitoring Program. Conducted field and water quality instrument calibration, operation and maintenance. Prepared and analyzed water samples for identification and quantification of phytoplankton involving extensive microscopic analysis and computerized data entry. Trailered and operated program vessels in a wide variety of conditions and over long distances. Assisted in preparation of presentations, reports, and peer-reviewed manuscripts of study results involving phytoplankton ecology in the Chesapeake Bay and surrounding areas.

Certifications, Training and Memberships

- Certified SSI Open Water SCUBA diver (@500 total dives) (@450 total scientific dives)
- NAUI Divemaster – currently enrolled in course
- Certified SSI Nitrox diver
- FDEP Scientific Diver 2008-2009
- NOAA Scientific Diver 2006-2008
- Certified AAUS Diver 2003-2006
- Certified YMCA SCUBA Lifesaving and Accident Management (SLAM)
- Certified Motorboat Operator (MOCC), US Dept. of Interior
- Certified American Red Cross CPR/AED and Standard First Aid

DEAN WALTERS
Assistant Public Information Officer

Education

Bachelor of Music Education, DePauw University, Greencastle, IN
Master of Music, Vocal Performance, Academy of Vocal Arts, Philadelphia, PA

Specialized Professional Competence

Mr. Walters is an accomplished professional in the field of public involvement and civic outreach. In addition to his many years as a musical performer, he has been involved in management and direction of such organizations as Island Opera Theatre of the Florida Keys, Inc., and the Keys Chorale at Florida Keys Community College, and in those roles gained extensive direct public involvement and civic outreach experience.

Representative Professional Experience

PIO and Administrator, SWC (Sandra Walters Consultants, Inc.), Key West, FL 2007-present
Mr. Walters is responsible for countywide research data compilation for client projects. He manages day-to-day office management, fielding calls and answering questions from clients. Upon staff completion of work, he is responsible for compilation of documents, and delivery of final products to the client. He also serves as Assistant Public Information Officer, and in that capacity, he locates and reserves venues for public information meetings; acquires, sorts and edits project mailing lists from the Property Appraiser and prints mailing labels; prepares and processes mailings; prepares and distributes news releases to local media; prepares all collateral materials for public meetings including sign-in sheets, informational handouts, comment forms and name tags; provides services at public meetings including setting up and breaking down the meeting assisting the public to sign in and to fill out comment forms, and taking photos; and prepares public information summary reports.

Founder/Executive Director, Island Opera Theatre of the Florida Keys, Inc., Key West, FL 2000-2006
Mr. Walters was involved with all aspects of the creation, development, and day-to-day operations of this organization. Responsibilities included budgeting, finance, creation and implementation of all fundraising activities, personnel hiring/firing, selection of repertoire, managing rehearsals, design of all publicity/marketing tools, liaison with Tourist Development Council and Florida Keys Council of the Arts distribution of Cultural Umbrella Funding, contracts, union compliance, audience development, public outreach, and management. He successfully raised a budget of over $200,000 annually for seven seasons.

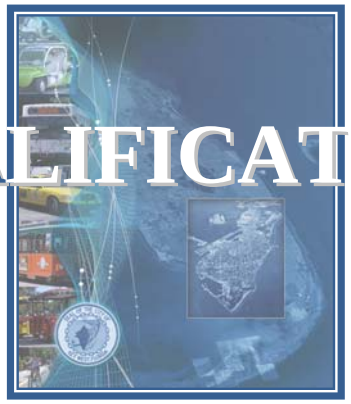
Artistic Director, Keys Chorale, Florida Keys Community College, Key West, FL 2006-present
As a director of a not-for-profit organization, Mr. Walters is involved on a daily basis with outreach to the local community for not only financial support, but membership recruitment. Other responsibilities include developing departmental budgets, and acting head of music department. His direction of the group requires the utmost in personal management ability to get the diverse 70+ members to perform as a unit.

Owner, Well-Tech Wellness Products, Key West, FL 1997-present
Mr. Walters has been the owner of a wellness product distributing company for 13 years. He deals with hundreds of clients, and is involved in the outreach to new constituents and businesses that can benefit from his products and expertise.

Professional Affiliations

Vice-Chair, Florida Keys Council of the Arts
Member, Key West Business Guild
Member, American Choral Directors Society
Member, National Association of Teachers of Singing

QUALIFICATIONS



The Corradino Group believes that it is qualified to undertake this carrying capacity study for the City of Key West because the firm has a depth of experience with similar projects, in multi-modal areas of high density and high tourist activity. Additionally, the firm's experience in this field has led to highly creative transportation projects which have assisted communities face the challenges of providing mobility, managing growth and ultimately enhancing their quality of life. Over the past decade this team composed for this project has worked together successfully on several occasions.

The Corradino Group, led by Joseph M. Corradino and Srin Varanasi, is extremely well suited to perform these services for several reasons. They have been continually working carrying capacity and transportation master planning projects for over a decade. The firm has helped the most progressive and successful communities as they have dealt with the issues of Growth Management over the years. Corradino has won multiple awards for its work in the field from the American Planning Association, the Florida Redevelopment Association and others. The individual technical specialties that are significant aspects of a carrying capacity study include Modeling, Geographic information systems, project development, data collection and traffic operations analysis, alternative mode planning, public involvement, and the development of performance measures.

Understanding the carrying capacity of a street, or a roadway network in a multimodal manner is a many layered process, including the assessment of the capacity, understanding of the existing conditions, the equivocation of modal impact, the evaluation and setting of multimodal service levels, the analysis of alternatives, engagement with the public and the implementation of the alternatives through a the development of individual operational projects, ordinances, impact fees and comprehensive plan amendments. Corradino has done this many times. Explained in this section is a brief description of some of the projects the Corradino team has recently worked on, as well as the individual disciplines that will be needed to successfully complete a carrying capacity study. For the projects explained below, members of the project team assigned to this Key West effort played either management or significant technical roles in each.

Key Projects

Miami Beach Municipal Mobility Plan

In the late 1990's after Miami Beach had reached a point of significant roadway congestion, so much so that, under the existing laws of concurrency, they were about to enter a moratorium on growth. It became imperative that this world class tourist destination and home to 100,000 residents undertake a multi-modal analysis of its transportation system to understand its capacity, its utilization, traffic circulation, vehicular conflicts and explore methods to enhance capacity through operational improvements, policy initiatives

and the use of alternative modes, to enhance flow and protect residential neighborhoods. The Corradino Group was hired to undertake a city wide mobility plan. Corradino assessed all the major roadways in the city to determine their capacity. Data collection in the form of link and node counts was analyzed to determine the roadway usage and subsequent level of service. All modes were evaluated. The existing conditions were projected 15 and 25 years into the future under planned growth scenarios. This effort was underpinned by a significant public involvement process which build community consensus. This consisted of stakeholders meetings, meetings in small groups, large public workshops, and then, finally, official public hearings leading to formal approval. After an understanding of the utilization was had, methods to mitigate the impacts were developed in the form of a multi-modal project bank which consisted of projects that enhanced physical capacity, developed alternative modes, set policy and enhanced flow along the spine of the community. These projects were conceptually approved and then further developed in an implementation plan which provided the purpose, need, and cost of each. The project bank in total was implemented through the sale of a $97milion general obligation bond. The effectiveness of the public involvement is shown in the willingness of the people to vote to tax themselves to implement the projects. Some of the projects recommended were ultimately meaningful efforts that were the first of their kind or ahead of many growth management rules. This project won an Award of Excellence from the American Planning Association.

In order to manage traffic flows, the city initially decided to implement an automated concurrency management system. This is an automated GIS based computer program which enables the city to track roadway capacity and utilization in an ongoing manner. Project data for each development is entered into the database, and a concurrency determination is made in a matter of seconds. The information is stored and tracked in any manner of customizable ways. This allowed the city to always know how many trips were planned to be on the network based on planned development. Quantifying and tracking trips was the basis behind the ability to charge a per trip fee, to fund the remainder of the mobility projects.

The City abandoned the traditional link-by-link measurement of concurrency for an Area-wide approach. They implemented the State's first Transportation Concurrency Management Areas, which were essentially multimodal districts that continued to allow development as long as capacity was maintained. The capacity was maintained through the incentivization of alternative modes.

The rules of concurrency, which allowed development to occur without the need to pay impact fees if level of service remained adequate, was understood to be unfair as they only charged the developer who finally pushed the level of service past the acceptable threshold. The rules were changed to assess a concurrency management fee to the development community on a per trip basis, regardless of roadway or area-wide level of service. Essentially every developer paid their proportionate share of the impact on a per trip basis, making the system equitable.

The primary alternative mode was the City's circulator bus, the Electrowave. This was the first municipal circulator in Miami Dade County, and it made a loop around South Beach freeing up capacity on the roadway network.

The bicycle and pedestrian system was enhanced through the development of a series of "greenway" networks all planned to interconnect to provide a third level of transportation.

The City undertook the feasibility of traffic calming to protect residential streets from traffic intrusion. This effort was coupled with operational and capacity improvements on the spine of the system to maintain a casual yet consistent flow of traffic. At the same time, the entire city undertook a parking analysis, and residential parking restrictions were put in place.

An intermodal feasibility study was undertaken to determine the most appropriate locations to create intercept facilities to allow automobiles to park on the city's fringe and for people to then circulate thought the community via transit. The intermodal facility was also planned to link with propose rail transit which would eventually connect to mainland Miami.

Doral Transportation Master Plan

The City of Doral in Miami Dade County is on the western edge of development but is one of the largest employment centers in the county attracting nearly 100,000 vehicle each day. The capacity of roadway system was evaluated, utilization determined and a multimodal set of projects were develop to mitigate deficiencies. These dealt with physical capacity, alternative modes, policy and land use. Significant public involvement was held to build consensus for the project. FDOT functional roadway classifications for the network were reviewed so that their initial capacity could be determined. Data was collected on each roadway and projected out 15 and 25 years. A multi-layered public involvement program reached out to the citizens in order to develop a list of wanted projects. The level of service analysis developed a list of needed projects to remedy deficiencies. The wants and needs were evaluated, and those that had the consensus of the community were moved forward. The project spawned various operational improvements to keep the flow to and through the city moving. An issue in Doral was that the roadway system was built on major corridors on a mile grid, with little connectivity internal to the superblocks. Connectivity was planned inside these larger blocks. A municipal circulator was developed, and despite unfavorable demographics, the circulator was extremely successful because it linked the many trip generators. The City created a downtown district, by which it planned transit oriented densities in a central core and planned to eventually compete as an economic engine with any area in Miami Dade County. An impact fee system was developed which assessed a per trip fair share mitigation fee on the development community. This was well received by developers and was used to fund many of the improvements.

Sarasota TCMA

Early in this century the City of Sarasota, one of the most well planned communities in Florida and a significant tourist destination, understood that its Newtown district was running out of transportation capacity. Corradino evaluated the carrying capacity of the Newtown roadway network, understood the existing and future level of service from an automobile and bicycle / pedestrian standpoint. Working in great detail with the local stakeholders, elected officials, and city staff a series of mitigation methods were developed to preserve the capacity. This enabled infill development to continue in the area, while maintaining conduits to and from the main street area in downtown Sarasota.

Key Disciplines

Transportation Modeling

The Corradino Group has extensive experience in transportation model development, calibration and validation. The firm has developed models for local and state agencies across the nation, including Florida, Virginia, Ohio, Michigan, Kentucky, and Indiana over the last three decades. Corradino has been involved in all stages of project development from preparation of travel demand modeling data, applications, work programs, and contract documents, to implementation and management, monitoring, and evaluation of projects. Corradino's staff is expert in developing, calibrating and using travel-forecasting models for transportation studies and major transportation investment projects. Corradino continues to break new ground in model development through its work with the Ohio and Florida Departments of Transportation.

Corradino's staff is highly experienced in travel demand modeling and is fully capable of developing quality, state-of-the-art products. The firm does modeling every day for state DOT's, MPO's and transit

agencies, and was involved in the design of FSUTMS. Corradino developed and calibrated Version 6 of the Southeast Florida Regional Model. The firm also developed the Treasure Coast Regional Planning Model for the FDOT and implemented an urban track model as a part of that model. Corradino implemented the TRANSCAD model for the Gainesville LRTP.

GIS Database

Most of Corradino's projects require excellent GIS databases. The firm uses GIS extensively on each project. Both Corradino and SWC are adept at the provision of these tools and have done so on numerous occasions. Both firms work in the latest version of ArcGIS and have used much of this work in the updating of municipal comprehensive plans, the development of automated concurrency management systems, and the development of transportation models.

Data Collection/Traffic Operations

Corradino has completed hundreds of complex traffic engineering studies nationwide and has been instrumental in guiding municipalities and county governments through the growth management process as a result. Corradino uses these traffic impact analysis and traffic operations analysis as it evaluates the benefits of many projects. The firm also has expertise in multimodal quality of service evaluations, including pedestrian and bicycles. Working for FDOT District 4, SWC is involved with data collection regarding natural systems affected by the project, analysis of land use patterns and changes along the corridor and possible secondary impacts that could result from road widening, and data collection regarding contamination sites and concerns.

Alternative Mode Planning

The Corradino Group has completed the Broward County Transit Master Plan and has recently completed the major update of the Broward County Transit and the Transit Development Plan. The firm has managed projects for Miami Dade Transit that included the Alternative Analysis and Environmental Impact Statements for rail extensions between Miami Beach and Downtown Miami, and between Kendall and Homestead. Corradino worked on the design of the original Miami Metrorail Project and did the design of the South Dade Busway Extension. Corradino has worked to develop an Intermodal Center for Miami Beach as a location where the City operated Electrowave could be stored and maintained as well as interface with the Miami Dade Transit buses and the proposed Bay Link. Corradino also performed the Environmental Assessment, the fleet management plan, the program management plan and the long range plan for Tri-Rail. Several members of the team have worked upon different parts of the Strategic Intermodal Systems (SIS) Plan for the State DOT. Corradino has worked on municipal circulators in many cities.

Through our extensive transit planning activities we are well aware of State and Federal grant requirements and we can assure the MPO that our transit studies and reports will meet all of the requirements to receive transit grant funding. The State sponsored SIS places a heavy emphasis on freight, goods movement and intermodal systems. The SIS will fund both.

Public Involvement Activities

The team places the highest emphasis on public involvement for its municipal clients. This focuses on building consensus, and does so by providing the citizens an understanding of why the effort is being undertaken, what its goals and objectives are, and allows them to play an integral role in the formulation and testing of alternatives. The process is multifaceted. The firm prefers that a steering committee be developed consisting of, potentially, a liaison with the decision-making body, the client project manager and other technical advisors as necessary. The best way to engage the population is to work from individuals to large groups. Individual stakeholder meetings are typically held where the project manger will meet one-on-one with elected officials, staff, business leaders, activists and other interested parties.

From there, public workshops are held at various times in the process to explain the project, and existing conditions, get input on desired solutions, test the solutions and help prioritize recommendations. Corradino believes that often it is important to go to the people instead of having them come to the project team. Meetings are often held in private homes, neighborhoods or other non-governmental locations. Corradino has used rolling bus tours to get the word out to the community at multiple locations in an area. Social media will be introduced on this effort to keep with cutting edge technology in this fast paced world.

The team specializes in working in intense and contentious environments. The act of patience, the art of listening and the ability to discuss complex transportation concepts in common terms which are easily understood by everyone lends to the team's success. Corradino's staff brings public involvement experts who specialize in this aspect of planning. Many of the firm's engineers or planner's people are either current or former elected or appointed high level officials, who are adept at communication. Various team members have developed public involvement expertise by running the public involvement activity for the Miami Beach Municipal Mobility Plan. The Gainesville Long Range Transportation Master Plan included maintenance of database, fact sheets, direct mail, advertisement design and layout, website development, conducting the public meetings and maintenance of public comment and response systems. The Broward County Transit Master Plan and Transit Development Plan involved website development and maintenance, extensive surveys, public opinion polls, and workshops. It is proposed to develop a Public Involvement Plan for the City of Key West that will lay out activities that can be accomplished within the overall framework tailored to the project. It will lay out strategies for conducting different types of public involvement programs for different types of studies. The PIP will identify different stakeholders and decision makers that need to be involved in the process.

Another overriding program can be the development of the website that can be expanded and modified to accommodate the various studies and projects that will need to be undertaken. The webpage can be interactive. The page should be hosted on the City website and all material posted to the site will be subject to City approval. Schedules and meeting notices will be updated regularly within the site. The team is very experienced with the development of mailers. The art to mailers is to keep them out of the garbage. Mailers are the primary method of meeting notification, information dissemination, and distribution of community surveys. Corradino can be responsible for the graphics, writing, printing and mailing of all literature. The City will have approval of all mailers prior to printing. New technology has enabled the use of social media such as facebook and twitter to keep masses of people engaged in projects. This is useful in today's busy environment when the average person does not have the time to attend a night workshop. The people will have the opportunity to track the project and make comment on their time, not our time. This should go far in making the process more accessible to everyone.

Development of Performance Measures

Much of the long range planning that the firm does must evaluate the performance of a variety of projects. Corradino is adept at the development of performance measures by which to measure individual projects, whether they be areas of increased mode split balancing, level of service, V/C ratios, project cost, time savings, or environmental factors.

REPRESENTATIVE PROJECTS AND CLIENT REFERENCES

This section contains a list of projects completed by The Corradino Group, Crossroads Engineering and Sandra Walter Consultants, which demonstrates the Team's experience in providing services as requested in this RFQ.

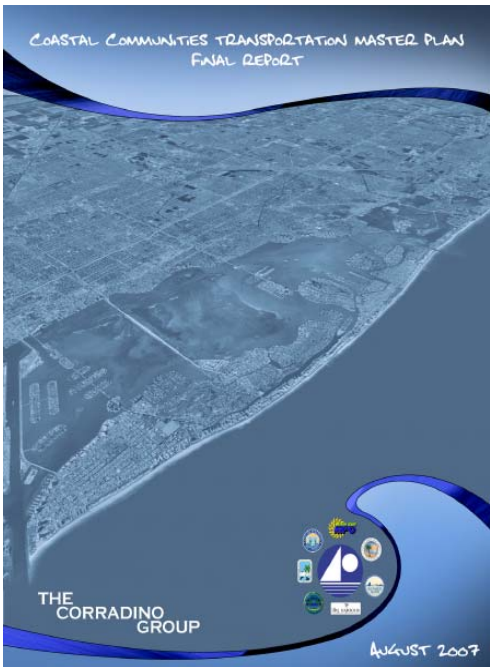
The Corradino Group, Inc.

Coastal Communities Transportation Master Plan

Client: City of Miami Beach
1700 Convention Center Drive
Miami Beach, FL 33139
Xavier Falconi
Tel.: 305.673.7411

Project Cost: $250,000

Start/Completion: 3/2006 / 8/2007



Project Description:
The City of Miami Beach, in a joint effort with its neighboring coastal communities in northeastern Miami-Dade County (City of Aventura, City of Sunny Isles Beach, Town of Bal Harbour Village, Town of Bay Harbor Islands, Town of Surfside, Town of Golden Beach and City of North Bay Village) was interested in the development of a transportation master plan that assesses the traffic and transportation issues on the barrier islands. The goal of this plan was to produce short, mid, and long term multi-modal solutions to transportation issues, on a sub-regional basis.

This effort strived to set an example as a targeted sub-regional attempt at transportation planning which is multi-modal in nature. Issues arrived at through accepted methodologies were supported by an extensive public involvement process. The study w portrayed existing conditions and provided a picture of the origin and destination of traffic affecting the coastal communities. Recommendations were made which focused coordinated multimodal improvements, as well as promoted the viability of routes for commuters traveling from the barrier islands throughout the greater Miami area, as there are a limited number of ways to access the islands from the mainland.

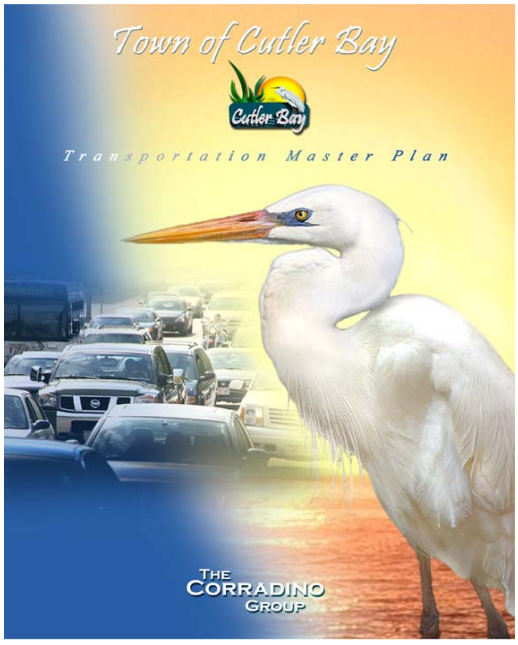
This project included coordination with the Coastal Communities Transit Plan which was developed by the Center for Urban Transportation Research (CUTR).

Cutler Bay Transportation Master Plan

Client: Town of Cutler Bay
10720 Caribbean Blvd.
Cutler Bay, Florida 33189
Ralph Casals
Tel.: 305.234.4262

Project Cost: $100,000 to date

Start/Complete: 3/2008 / Ongoing



Project Description:
In this contract The Corradino Group is providing a variety of transportation planning services, on time and within budget. These include:

- Public Involvement, and Consensus Building
- Data Collection
- Evaluation of Existing Roadway Network, Transit, Bicycle and Pedestrian Systems
- Level of Service Determination
- Travel Demand Forecasting
- Analysis and Evaluation of Alternatives
- Preparation of Maps, Reports, and Presentations

Cutler Bay incorporated as a City in 2005. The Corradino Group acted as the Town's initial Planning Director, Planning Staff and Transportation Consultant. Corradino continues to serve as the Towns General Planning Consultant assisting with a wide variety of tasks. On this study Corradino collected data at 50 locations and evaluated the existing conditions of the roadway, transit, and bicycle and pedestrian systems. Travel demand forecasting was performed using the MPO Long Range Model to project conditions into the future. Extensive public involvement was held to reconcile the desires of the community, with the transportation needs. Through a series of detailed and highly graphic reports and presentations, Corradino was able to build consensus on a list of projects which are being prioritized for inclusion into the Towns Capital Improvement Program.

Doral Transportation Impact Fee Study

Client: City of Doral
8300 NW 53rd Street, Suite 100
Doral, Florida 33166
Mr. Nathan Kogon
Tel: 305.301.2123

Project Cost: $20,000

Start/Completion: June 2006-November 2006

Project Description:
Joseph M. Corradino as Corradino's project manager on this effort was assisted by Scarlet Tenen. As a new municipality, Doral desired to have impact fees in order to have new development contribute to funding transportation projects. Corradino developed a method by which impact fees can be charged. This specifies who is eligible to contribute, in what cases contributions will be required, what the contributions will be applied to, and by what method fees will be assessed. An ordinance was prepared for the purpose of updating the City's code to include the new impact fee.

TABLE 1 CITY OF DORAL IMPACT FEES ORDINANCE

Existing and Future Land Uses with Resulting Daily Trips - 20 year Projection from 2005

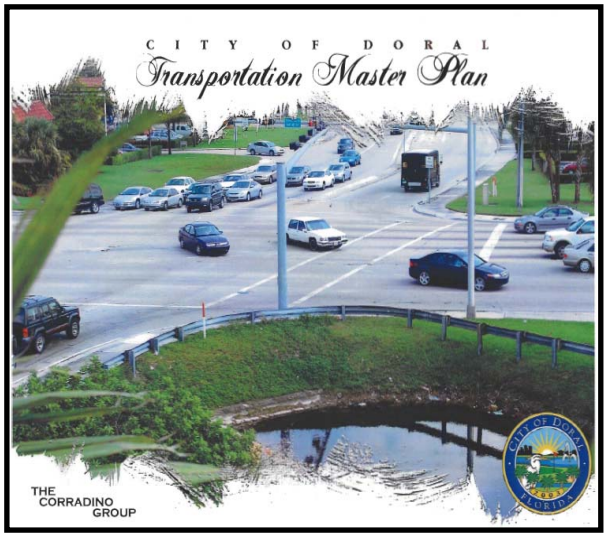
	Existing			Future							
Land Use	Acres	1,000 Sq. Ft	Dwelling Units	Acres	1,000 Sq. Ft	Dwelling Units	Difference	ITE Code	Daily Trip rate per unit	Unit	VPD
1. Single Family (up to 6 d.u. / acre)	492	21432	2952	948	41295	5688	2736	210	9.57	d.u.	26184
2. Low Density Multi-Family (7 to 25 d.u. / acre)	448	19515	7,168	1595	69478	25520	18352	230	5.86	d.u.	107543
3. High Density Multi-Family (greater than 25 d.u / acre)	38	1655	950	0	0	0	0	232	4.18	d.u.	n/a
4. Commercial, Shopping, etc	386	16814	n/a	611	26615	n/a	9801	820	42.94	1000 sq ft	420855
5. Office	402	17511	n/a	914	39814	n/a	22303	710	11.01	1000 sq ft	245556
6. Industrial	1460	63598	n/a	2370	103237	n/a	39639	150	4.96	1000 sq ft	196609
7. Downtown Mixed Use(average trip rate items 2 thru 6 above)	n/a	n/a	n/a	174	7579	tbd	n/a	average	13.79	mixed	104514
8. Traditional Neighborhood (average of Items above except # 6)	n/a	n/a	n/a	372	16204	tbd	n/a	average	14.71	mixed	238393
Total Daily Trips											1339654

Doral Transportation Master Plan

Client: City of Doral
8300 NW 53rd Street, Suite 100
Doral, Florida 33166
Mr. Sergio Purrinos
Tel: 305.591.6725

Project Cost: $90,000

Start/Completion: 01/2005 to
08/ 2005



Project Description:
Joseph M. Corradino was the project manager on this effort. As new municipality Doral was trying to develop and upgrade its transportation mobility infrastructure in a multimodal manner. The City needed this type of plan to prove to the County Commission that they have an organized plan to deal with transportation, so that they can attain funds from the Peoples Transportation Plan. This focused on an intensive public involvement process that would build consensus on projects developed in the areas of roadway capacity, alternative modes, and transportation demand management. A set of 27 projects have been developed in these areas. The City has already entered the implementation phase on some projects.

The Doral Transportation Master Plan is a project funded jointly by the City of Doral and the Miami-Dade County Metropolitan Planning Organization, (MPO). Through its public involvement, data collection and analysis, this effort has recommended projects based on the needs of each component of the transportation system. These components include:

- The Roadway Network (capacity)
- Transit (alternative modes)
- Transportation Management (traffic management, policies)

The project was undertaken with an intensive public involvement process, focused on building consensus. This approach consulted decision makers from state and county agencies, public officials, citizens, and business owners. In addition, transportation network was comprehensively inventoried, existing conditions evaluated and projected into the future. A set of projects in each of the three areas of Roadway, Transit, and Transportation Management has been produced. Projects in each area have been examined in detail and prioritized based on criteria developed within the community. The entire program has gone before the city commission, and gained approval.

Electrowave Long-Range Transit Plan

Client: City of Miami Beach
Planning Department - City Hall
1700 Convention Center Dr.
Miami Beach, Florida 33139
Richard Lorber
305.673.7000

Project Cost: $50,000

Completion Date: 2001

Project Description:
Corradino provided long-range planning to the Electrowave to complete the implementation of its initial phase and plan the subsequent phases of its development. Conceptual routes were developed for mid-range and long-range scenarios. Funding sources were examined and management issues were addressed. Performance standards were recommended to assure the system could continue to meet the goals of the community.

Districtwide Model Development and Support, Florida Department of Transportation, District IV

Client: Florida Department of Transportation, District IV
3400 W. Commercial Blvd.
Fort Lauderdale, FL 33309-4197
Derek Miura
Tel.: 954.777.4653

Project Cost: $1,500,000

Start/Completion: 2005/2010

Principal In Charge: Ken Kaltenbach, PE

Project Manager: Srin Varanasi, EIT

Project Description:
Corradino has served for many years as the Florida Department of Transportation District 4's General Modeling Consultant. Work under this contract has included:

- Updates of the Southeast Regional Planning Model (SERPM)
- Updates of the Treasure Coast Regional Planning Model
- Development of the Greater Treasure Coast Model
- Development of an auto ownership model
- Development of models for HOT lanes
- Onsite review and assistance to FDOT staff

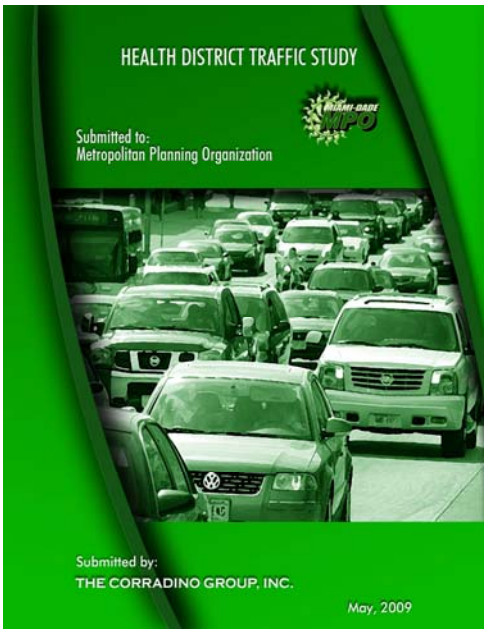
With wide variety of experience in transportation planning, forecasting and GIS database development, Corradino provides consultation services for FDOT D4 in their ongoing planning activities. This largely includes travel forecasting models development estimating transportation forecasts. The transportation models are used by FDOT for the I-95/I-595 Major Investment Study and by the MPOs for the long-range transportation plans update. The models are capable of multimodal travel forecasting and are widely used tools in Treasure Coast and South East Florida regions. The models have forecasting capabilities for various travel modes such as autos, express bus, local bus, Tri Rail, Metro Rail and people movers. The transportation network for South East Florida is most complex with various facility types, including Turnpike, I-95, MDX Toll Roads, HOV lanes, HOT lanes. These forecasting tools are considered state-of-the- art, and include some of the cutting edge methods for estimating future demand. In addition, Corradino provides forecasting/modeling support Regional Long Range Transportation Planning.

Health District Traffic Study

Client: Miami Dade County MPO
111 NW 1 Street
Suite 920
Miami, Florida 33128

Cost: $153,000

Start/Complete: February 2008/May 2009



Project Description:
The Health District is the second largest employment center in the county outside of Downtown Miami. The area is growing rapidly and many of the freeways accessing the area are over capacity. It lies in the Urban Infill Area and is governed by various growth management rules. Over time, the multiple stakeholders in the area have developed many recommendations to mitigate the traffic congestion and foster mobility. This study was designed to evaluate the study area holistically in light of each of these existing plans, so that the implementing agencies could have the confidence to move forward with the understanding that the area has been examined comprehensively and that conflicting projects are not programmed.

Based on the analysis a series of recommendations have been prepared to address the identified transportation deficiencies and improve the study area in terms of safety and operations. The series of improvements are multimodal in character to ensure that all users of the system will be provided an adequate level of service.

As a main objective of this project was to perform a transportation analysis to determine the need for projects, recommendations were made by bringing together previously suggested projects from a variety of sources including the Transportation Improvement Program, the Long Range Transportation Plan, and the City of Miami Basis of Design Report, as well as new projects stemming from the intensive analysis of the system performed in this study. Recommendations were made in six categories which include Currently Planned and Recommended Projects, Transportation Management Organization, Intersection Modifications, Pedestrian and Transit, Additional Capacity and New Facilities.

As input was taken, it was recommended that the streets or roadways that are adjacent to the University of Miami/Jackson Memorial main generators, Institutional uses, main parking facilities and Metrorail stations have a well interconnected system of sidewalks to provide for an efficient transportation system. Additionally a signage program needs to be developed direction motorists coming to the Health District from the highway system. Additionally, there is a stated need for improved bike path system between the residential areas located in the western most area.

Hialeah Transportation Concurrency Management Areas

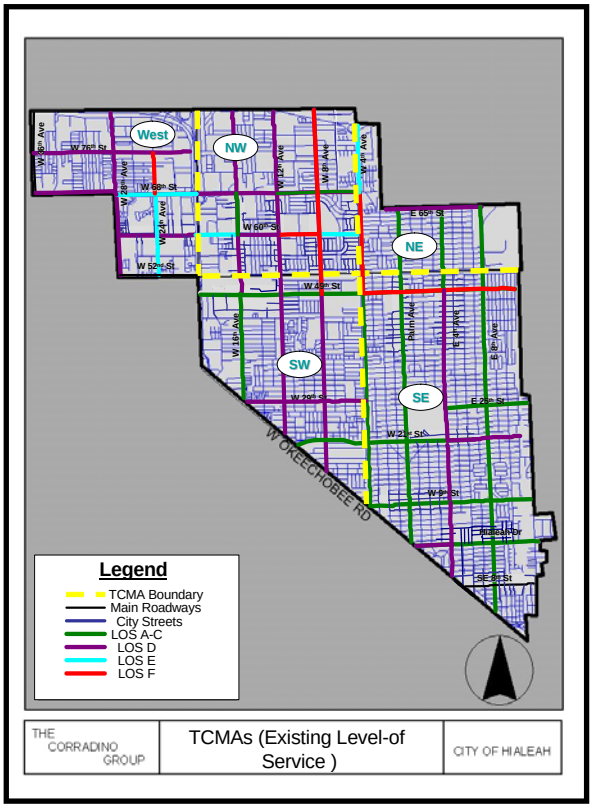
Client: City of Hialeah
501 Palm Avenue
Hialeah, FL 33010
Mr. William M. Grodnick
Tel: 305.883.5854

Services Performed: Comprehensive Planning / Transportation Planning

Project Cost: $65,000

Completion: March 2004

Project Description:
As a result of progressive policies toward redevelopment, Hialeah had begun to run out of roadway capacity and as a result had to curtail development. The TCMA concept enabled Hialeah to continue infill development, while adding multimodal alternatives to its transportation system. The concept, had been implemented only once in the state prior to this (by Corradino for Miami Beach in 2000) and has been viewed as an extremely successful method of continuing growth in a controlled, well planned manner.



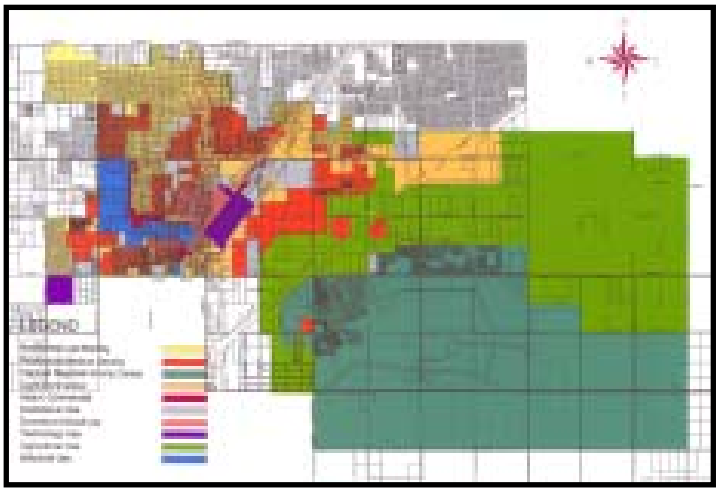
Homestead Mobility Plan

Client: City of Homestead
790 North Homestead Boulevard
Homestead, FL 33030
Mr. Charles Baldwin
Tel.: 305.247.1084, ext. 101

Project Cost: $75,000

Completion: 2000

Project Description:
The purpose of the Transportation Element of the Homestead Comprehensive Development Master Plan was to plan for an integrated multimodal transportation system providing for the circulation of motorized and non-motorized traffic in the City of Homestead. Addressed are all aspects of transportation in the City of Homestead including the road system, the public transit system, bicycles, pedestrians, freight rail lines, and Intermodal facilities and their access as well as:



- Analysis of the existing transportation system,
- The availability of transportation facilities and services to serve existing land uses,
- The adequacy of the existing and projected transportation system pertaining to emergency evacuation,
- Growth trends and travel patterns as well as the interactions of different land use scenarios with transportation systems,
- Intermodal deficiencies,
- Projected transportation system levels of service,
- The effects of transportation concurrency management areas and exceptions,
- An analysis of local and state programs,
- The maintenance of adopted levels of service standards.

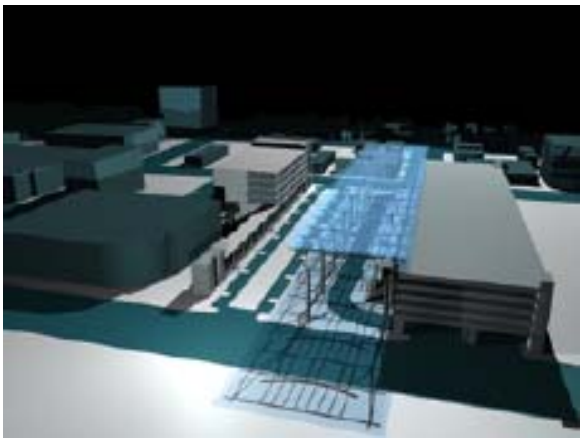
Intermodal Feasibility Study

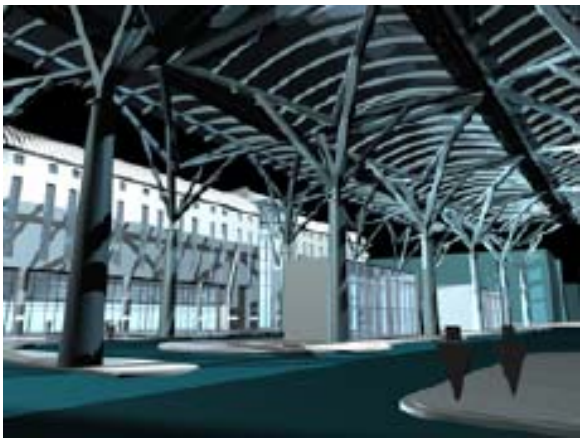
Client: City of Miami Beach
Planning Department - City Hall
1700 Convention Center Dr.
Miami Beach, Florida 33139
Mr. Joseph Johnson
Tel.: 305.673.7000

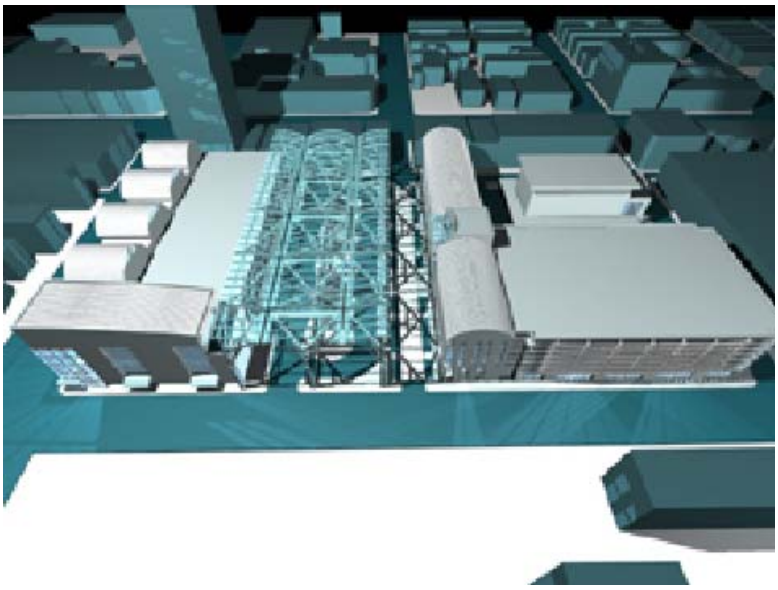
Completion: 2001

Services Performed: Feasibility Study

Project Description:
The increased demand for the Electrowave, an electric shuttle system in Miami Beach, has caused the City to look for a permanent facility to maintain the vehicles and serve as a station. Corradino is currently examining the feasibility of two sites for this intermodal and maintenance facility. The examination has required several conceptual designs, draft reports, and will conclude with a color brochure of the final option for distribution to the public.







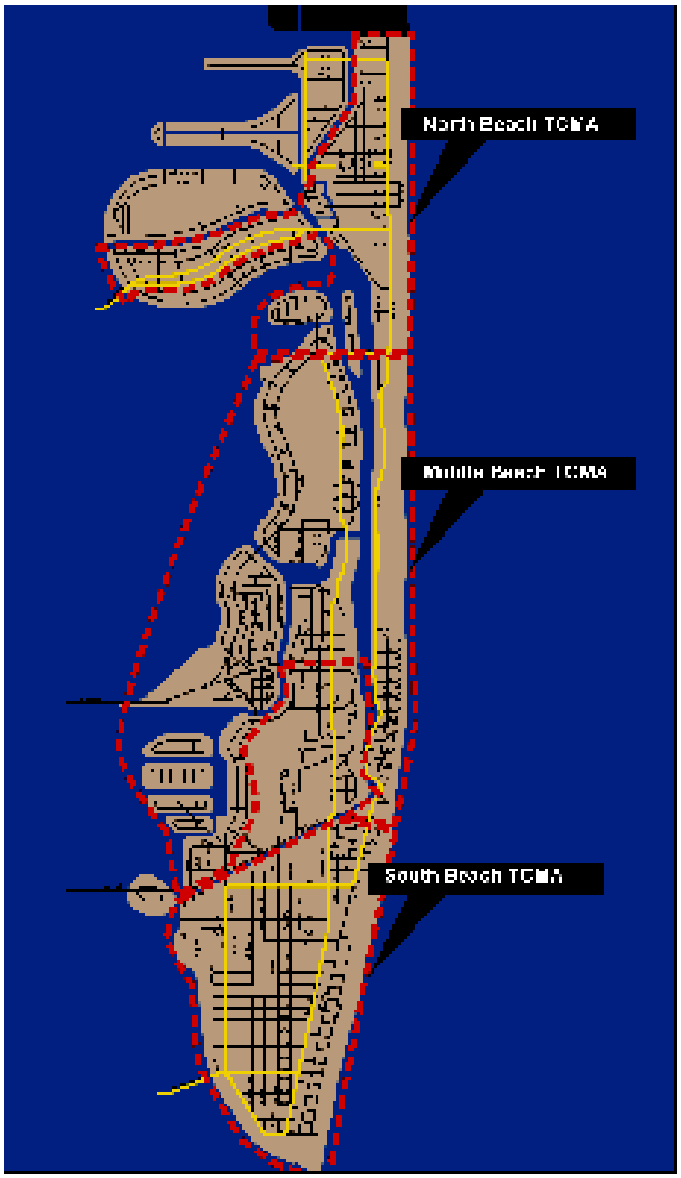
Miami Beach Transportation Concurrency Management Areas

Client: City of Miami Beach
1700 Convention Center Drive
Miami Beach, FL 33139
Richard Lorber
Tel.: 305.673.7550

Completion: 2000

Services Performed: Develop a Transportation Concurrency Management Areas (TCMAs) amendment to the City's Comprehensive Plan

Project Description:
Corradino was hired to establish three TCMAs within the City (North Beach, Middle Beach, and South Beach) to permit new development in areas of high traffic congestion. By averaging the level of services on adjacent streets of similar classification in conjunction with efficient mobility alternatives, infill development or redevelopment efforts may continue. The TCMAs are essentially a series of transit villages with increasingly dense centers supported by a network of bike trails, pedestrian paths, and public transit. The establishment of TCMAs requires an amendment to the City's Local Government Comprehensive Plan.



Miami Beach Municipal Mobility Plan

Client: City of Miami Beach
1700 Convention Center Dr.
Miami Beach, Florida 33139
Fernando Vasquez
305-673-7550

Project Cost: $90,000

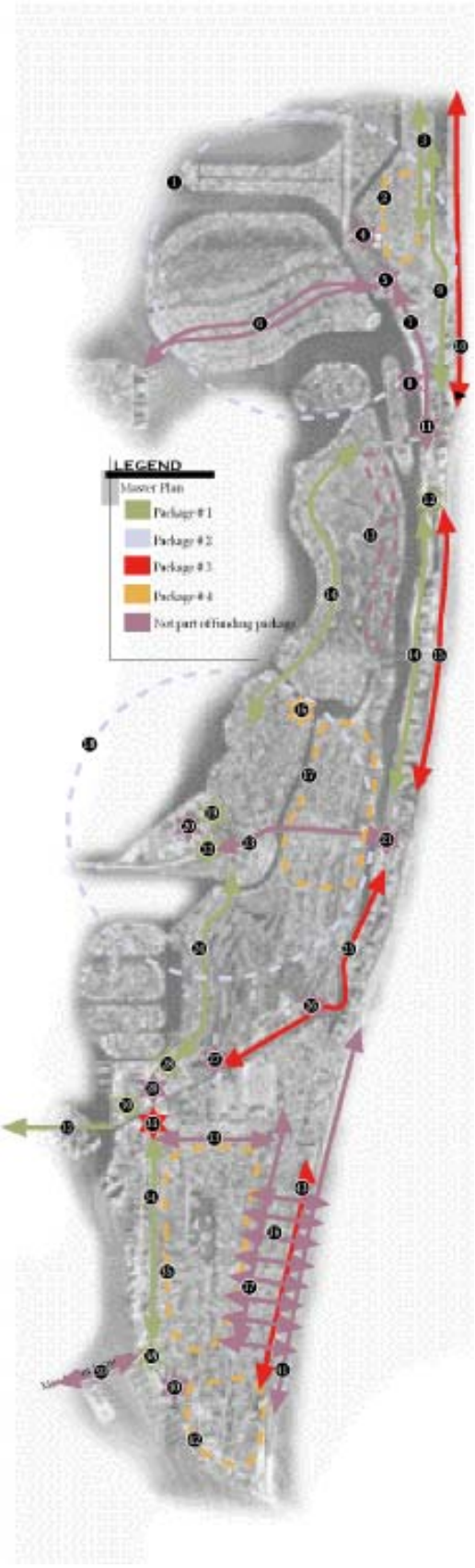
Completion Date: 1999

Project Description:
The Miami Beach Municipal Mobility Plan (MMP) is the City's first "grassroots" effort to master plan for the community's transportation needs. It provides a snapshot of future transportation issues and trends which will impact Miami Beach. The MMP establishes the City's vision for transportation, makes recommendations for meeting the identified needs (the Ten-Year Plan), provides a "Project Bank" of strategies for addressing the issues, and establishes the planning tools for guiding on-going decisions related to mobility. It also reflects a comprehensive approach towards the issue of transportation by addressing the needs for all types of mobility including automobiles, transit, pedestrians, bicycles and other non-motorized vehicles.

An essential component of the Municipal Mobility Plan is to address the impacts of traffic congestion on quality-of-life, the urban environment, tourism, and growth management are through a multi-modal strategy geared toward inducing greater use and enjoyment of transit, pedestrian, non-motorized, and marine travel modes.

Traffic congestion presently constrains the mobility of pedestrians and bicyclists, and the congestion is perceived as getting worse each year. Alternative transportation is one way of mitigating traffic to some extent, yet currently 60% of the populations claim they never use public transit. Many residents would be more willing to use public transportation if the cost were reduced and if there was better transit information. However, the availability, convenience and price of parking are the primary motivations for using transit.

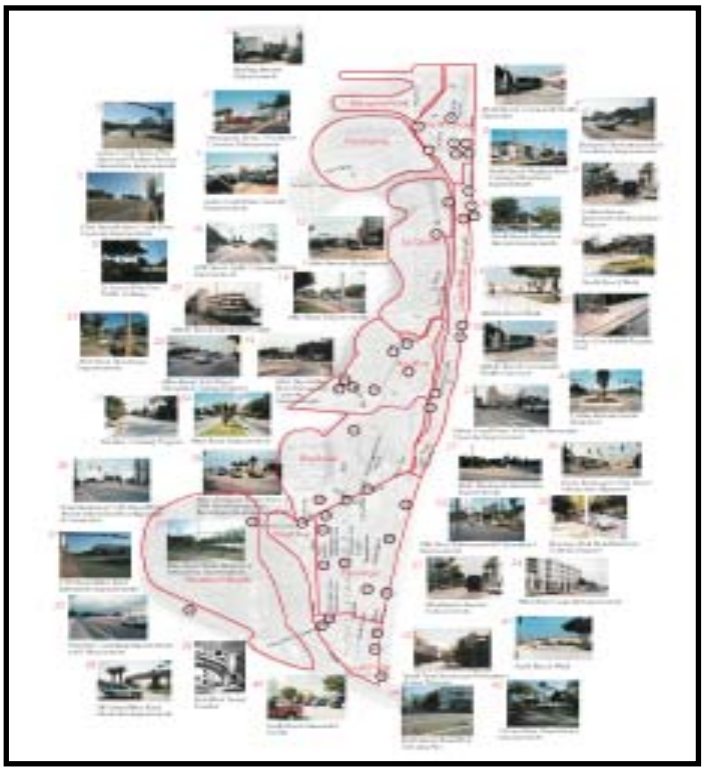
The impact of high traffic volumes and speeding on neighborhood streets must also be managed. The City's street network includes state roads that front single



family residences. Furthermore, several north/south and east/west cut-through routes bring large volumes of traffic at high speeds through residential streets. The dual concerns of maintaining neighborhood character while fully utilizing the urban grid must be negotiated by well designed traffic management.

A special Users Report was also completed as part of this project in the following categories:

1. Neighborhood Traffic Management
2. Bicycle and Non-Motorized Vehicles
3. Pedestrians
4. Roller Skating and Skateboarding
5. Transit
6. Inland Marine and Water Taxi



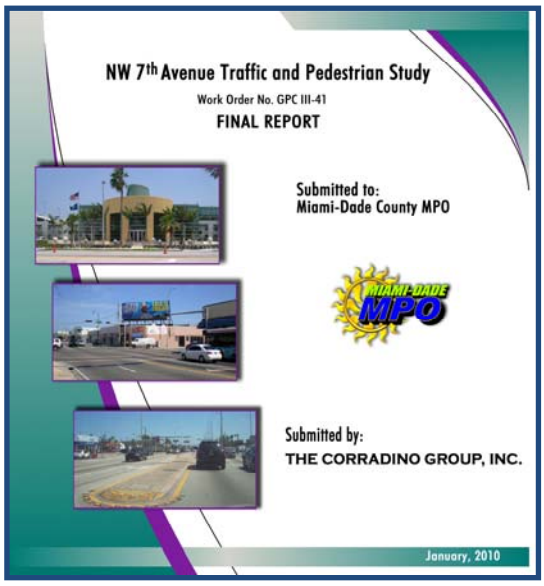
Fifty percent of the visitors to Miami Beach parked on the street, while only 15% used garages. Of those who used transit, the availability and convenience of parking was a motivating factor. The price of parking was a motivating factor for over 50% of the visitors that utilized transit.

NW 7th Avenue Traffic and Pedestrian Study

Client: Miami Dade County MPO
111 NW 1 Street
Suite 920
Miami, Florida 33128

Cost: $90,000

Completion: January 2010



Project Description:
The objectives of the NW 7th Avenue Traffic and Pedestrian Study are to document the need for pedestrian improvements along NW 7th Avenue and to document the impacts of the new federal immigration facility at NW 7th Avenue and NW 88th Street.

The existing conditions analysis was the basis for the evaluation, and lead to the ultimate recommendations focused on issues surrounding the new immigration facility, general pedestrian improvements along the corridor, areas of specific pedestrian activity and improvements for roadway and transit along the corridor.

To develop an existing conditions analysis, a variety of reports and studies relevant to this study were reviewed. Right-of-way, geometry, other traffic and pedestrian data were reviewed collected from existing sources.

Transit data was gathered for the routes along 7th Avenue and those that crossed and stopped along 7th Avenue. A detailed land use map of the area within a ¼ mile radius of the federal immigration facility was prepared, and a complete inventory of all on- and off-street parking in the vicinity of that facility including a mid-day occupancy count was undertaken. Additionally, traffic and turning movement counts at the intersection of NW 88th Street and NW 7th Avenue were taken.

The Miami Dade County Department of Planning and Zoning was met with to identify future activity centers in the corridor, as was FDOT District IV to identify outputs from the regional travel model being developed. Multiple site visits were taken to examine sidewalk locations and widths along the corridor, as well as other pedestrian amenities, including identification of areas of high pedestrian activity. Ultimately this resulted in necessary intersection modifications related to the traffic generated by the immigration facility, in addition to parking access, transit, pedestrian and safety improvements related to that facility.

Palmetto Bay Bicycle & Pedestrian Master Plan

Client: Village of Palmetto Bay
900 Perrine Avenue
Palmetto Bay, Florida 33157
Corrice Patterson
Tel.: 305.969.5011

Project Cost: $50,000

Start/Complete: 11/2008 / 8/2009

Project Description:
As a community's population density increases, the number of short trips (those of less than ½ mile) increases. These trips can often times be made as easily by walking or Bicycling rather than by driving. As a community becomes more dense, the construction of bicycle and pedestrian facilities as an alternative to automobile travel becomes more important to maintain mobility within the community. The population of Miami-Dade County is expected to exceed 3 million by the year 2025. To meet the transportation needs of individuals who walk or bike for all or a portion of their trip, the Miami-Dade Metropolitan Planning Organization (MPO) is planning for these types of facilities in its transportation plan.

It is a stated intention of federal transportation policy to increase non-motorized trips to at least 15 percent of all trips and to reduce the number of non-motorized users killed in traffic crashes by at least 10 percent. In Florida, concurrency requirements were revised in 1999 to encourage a more comprehensive multi-modal evaluation of transportation facilities. Local governments are directed to use professionally accepted techniques for measuring level of service for all modes: automobile, bicycle, pedestrian, transit and trucks. The creation of a Bicycle and Pedestrian Plan in Palmetto Bay is a step towards achieving a higher percentage of non-motorized trips by identifying areas in greatest need of bicycle and pedestrian improvements and focusing improvements where they are most needed.

The information from the data collection and analysis points to the existing bicycle and pedestrian level of service and need for enhancements in Palmetto Bay. This task has utilized the technical analysis and coupled it with the information gleaned from the public involvement and the many group and individual meetings which where held. The vision or goal of this master plan is to provide for a safe convenient and connected transportation system, focused on encouraging bicycle and pedestrian mobility for multiple levels of users.

The vision can be implemented by achieving several objectives. In defining the vision several topics were examined. These included:

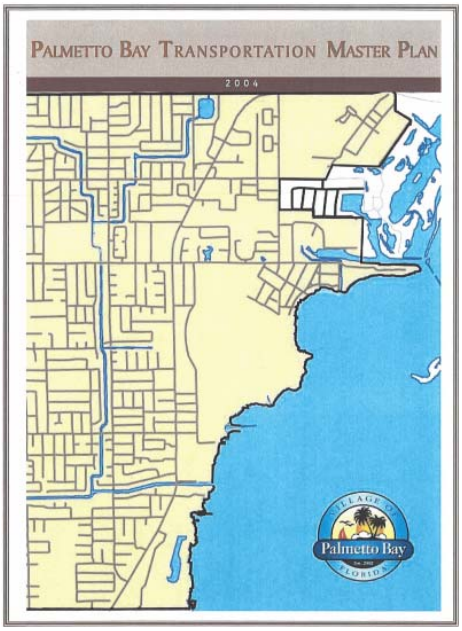
- Preferred Modes
- Areas of Connection
- Costs
- Characteristics of Non Motorized Systems

Palmetto Bay Transportation Master Plan

Client: Village of Palmetto Bay
900 Perrine Avenue
Palmetto Bay, Florida 33157
Ron Williams
Tel.: 305.259.1234

Project Cost: $50,000

Start/Complete: 11/2006 / 5/2007



Project Description:
In this contract The Corradino Group provided a variety of transportation planning services, on time and within budget. These include:

- Public Involvement, and Consensus Building
- Data Collection
- Level of Service Determination
- Travel Demand Forecasting
- Analysis and Evaluation of Alternatives
- Preparation of Maps, Reports, and Presentations

Corradino has been recognized by cities, and transportation agencies in our region as a firm who provides multi-disciplinary expertise to transportation issues. This ability, coupled with a deep knowledge of local government, has given Corradino a reputation for being able to build consensus and implement difficult projects. This reputation stems from the firm's experience with the Metrorail, the US-1 Busway, the I-95 HOT lanes, the Miami Beach Municipality Mobility Plan through the Palmetto Bay Transportation Master Plan. Palmetto Bay was able to build consensus based on Corradino's efforts to implement an extraordinary amount of transportation projects, the result of which have built an intense sense of community in this relatively new city.

Petoskey, Mich., Area-wide Transportation Study

Client: Northwest Michigan Council of Governments
P.O. Box 506
Traverse City, MI 49685-0506
Jan Kellogg
Tel.: 231.582.6482

Project Cost: $188,000

Start/Completion: 2006/2007

Project Manager: Joe C. Corradino

Staff: Jim Hartman, PE; Alison Townsend, AICP, Srin Varanasi, EIT

Project Description:
The Corradino Group worked with a group of local governments (City of Petoskey, Emmet County, Bear Creek Township, and Resort Township) to develop a plan to address future congestion needs in Petoskey. The Petoskey area, long a resort destination, has extremely heavy traffic particularly in the summer. For years, an expressway-type bypass around the community was debated, but eventually the community decided against it. This "local roads study" identified multimodal and land use strategies to deal with current and future traffic congestion issues. The study involved extensive public involvement, development of a specialized traffic model particularly for the Petoskey area, and consideration of traffic, transit, and non-motorized improvements.

Sarasota Transportation Concurrency Management Area

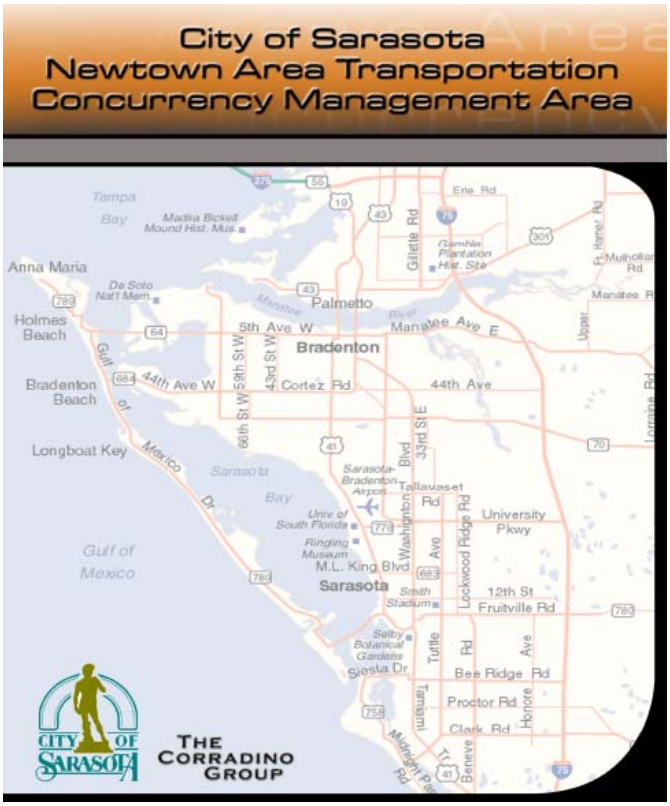
Client: City of Sarasota
1782 Dr. Martin Luther King, Jr. Way
Sarasota, Florida 34234
John Hawthorne
Redevelopment Specialist
Tel. 941-373-7765

Project Cost: $80,000

Star/Completion: 2005 - 2008

Project Description:
The Newtown Comprehensive Redevelopment Plan adopted by the City on October 2002, sought to revitalize a well-defined urban area through focused regulatory and policy strategies that promote economic redevelopment.

The transportation strategy that the City of Sarasota desired to promote their redevelopment with is the designation of the area as a Transportation Concurrency Management Area (TCMA). The Corradino Group was hired to develop this TCMA and it is currently working in such development.



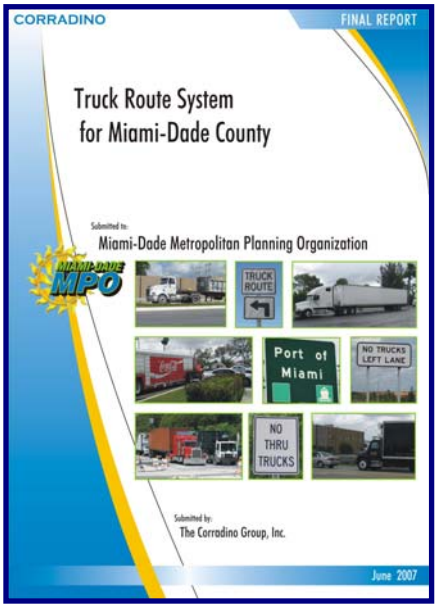
Truck Route System for Miami-Dade County

Client: Miami Dade County MPO
111 NW 1 Street
Suite 920
Miami, Florida 33128

Cost: $53,000

Start/Complete: 10/ 2006 / 06/ 2007

Services Provided: Planning Services



Project Description:
The Corradino Group along with the Miami-Dade County Metropolitan Planning Organization (MPO) has prepared a Truck Route System Plan for Miami-Dade County. The MPO and its consultants have worked closely with the MPO's Freight Transportation Advisory Committee, the local trucking community, and affected local and state agencies in developing the plan.

There are several projects in current planning that affect the truck route system. The first is the 25th Street Viaduct Project, which will connect the airport to the Doral Area using an elevated bridge over 25th Street. A second project is the Port Tunnel from the Seaport to I-395. This project, which is currently anticipated for completion in 2013 but which has been on again and off again for a number of years, will have a dramatic impact on truck traffic in downtown if built. These and others will be important elements of the truck route system. Perhaps even more critical is ensuring that the facilities designated as truck routes have the correct geometrics and signalization to facilitate efficient traffic movement for both autos and trucks.

Building on these recommendations, the truck route management system proposed for Miami-Dade County was developed in concert with the FTAC, which served as the steering committee for the project. The system is based on the concept of designating key routes that connect major freight generators and roadway facilities. The first step in the development of the system was a workshop with the FTAC, which resulted in the identification of a number of key facilities in the central part of the County.

The MPO has taken the lead in promoting a truck-supportive roadway environment in the County. Initially, the primary emphasis will be improving existing streets at a low cost level and at a major cost level building projects such as the Port Tunnel and the 25th Street Viaduct to separate trucks and traffic. A second key element will be the ability of the public and private sector to embrace technology to provide truckers better information about how and where to go to best make their trips. The bottom line is these improvements and others are going to have a huge cost. But, the cost of congestion will be equally huge. With the support and leadership of the MPO, this plan is a starting point for creating a truck-supportive and friendly roadway environment.

Crossroads Engineering Data, Inc.

Traffic Monitoring Design and Professional Services
Florida Department of Transportation
1000 N.W. 111th Avenue, Miami, Florida 33172

FDOT Project Manager:	Jennifer Barrows
	(305) 470-5382
Project No.:	C8J90
Contract Amount:	$1.5 Million
Begin/End Date:	June 2005 / Ongoing

Project Description:
Crossroads is responsible for collecting routine traffic counts for District 6, Off-system RCI in Monroe County, Special Data Collection Projects, inspection and acceptance of PTMS sites, and managed the design of new PTMS locations.

Districtwide Data Collection District 4
Florida Department of Transportation
3400 W. Commercial Blvd.
Ft. Lauderdale, FL 33309-3421

FDOT Project Manager:	Alexander Rodriguez /Kara Schwartz
	(954) 777-4664
Project No.:	C8J90
Contract Amount:	$500,000
Begin/End Date:	October 2003 / October 2005

Project Description:
Crossroads is responsible for collecting routine traffic counts for District 4, Special Data Collection Projects, inspection and acceptance of PTMS sites in Broward, Palm Beach, Martin, St. Lucie, and Indian River Counties.

Ft. Pierce Signal Retiming Study

Sub-Consultant to:	Faller Davis, Inc.
FDOT Project Manager:	Marilda Hoover
	(954) 777-4367
Project No.:	N/A
Contract Amount:	$50,000
Begin/End Date:	October 2007 / January 2008

Project Description:
Crossroads was responsible for collecting intersection turning movement counts and ADT counts at over 50 intersections located throughout the City of Ft. Pierce.

Broward County and Palm Beach County Signal Retiming Study

Sub-Consultant to:	VANUS, Inc.
FDOT Project Manager:	Marilda Hoover
	(954) 777-4367
Project No.:	N/A
Contract Amount:	$60,000
Begin/End Date:	October 2006 / January 2007

Project Description:
Crossroads was responsible for collecting intersection turning movement counts and ADT counts at over 60 intersections located throughout the Broward and Palm Beach Counties.

Districtwide Traffic Operations Safety Studies
Florida Department of Transportation
1000 N.W. 111th Avenue, Miami, Florida 33172

Sub-Consultant to: Reynolds, Smith and Hills, Inc.

FDOT Project Manager:	Khalil Maarouf (305) 470-6705
Project No.:	C8E75
Contract Amount:	$1.5 Million
Begin/End Date:	June 2003 / Ongoing

Project Description:
Crossroads is responsible for collecting intersection turning movement counts, approach counts, delay studies, spot speed studies, gap studies, and safe curve speed studies.

Sandra Walters Consultants, Inc.

Stock Island-Key Haven US 1 Corridor Study, Florida Keys
Provided public involvement outreach and meeting coordination services for study to identify improvements to US 1 corridor segment; resulted in significant participation by user groups and relevant and effective planning charrette.

Sombrero Beach Road PD&E Study
- Public involvement & landscape design
- Contact: Vilma Croft, (305) 470-5240
- Dollar Value: $350,000.00
- Duration: 18 months (completed)

Lower Matecumbe Key PD&E Study
- Public involvement & land use evaluation
- Contact: Vilma Croft, (305) 470-5240
- Dollar Value: $566,000.00
- Duration: 24 months (completed)

Big Coppitt Key PD&E Study
- Public involvement & landscape design
- Contact: John Dovel, (305) 470-5342
- Dollar Value: $409,680.00
- Duration: 18 months (completed)

Coastal Communities Transportation Master Plan/ Miami Beach Municipal Mobility Plan

City of Miami Beach
1700 Convention Center Drive
Miami Beach, FL 33139
Fernando Vazquez, PE
Tel.:305.673.7080
fvazquez@miamibeachfl.gov

Palmetto Bay Bicycle & Pedestrian Master Plan/ Palmetto Bay Transportation Master Plan

Village of Palmetto Bay
900 Perrine Avenue
Palmetto Bay, Florida 33157
Ron Williams
Tel.: 305.259.1234
rwilliams@palmettobay-fl.gov

Petoskey, Mich., Area-wide Transportation Study

Northwest Michigan Council of Governments
P.O. Box 506
Traverse City, MI 49685-0506
Jan Kellogg
Tel.: 231.582.6482

The following documents have been provided in this section:

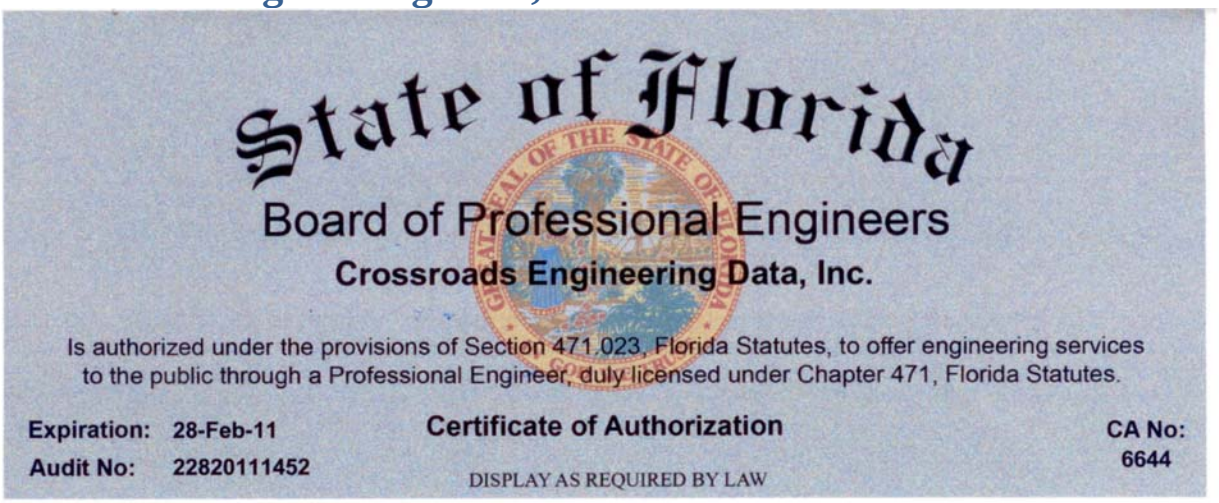
- **Firm Licenses**
- **Anti-Kickback Affidavit**
- **Sworn Statement on Public Crimes**
- **Notice of Advertisement – Request for Qualifications**
- **Addenda**

Firm Licenses

The Corradino Group, Inc.


State of Florida
Board of Professional Engineers
The Corradino Group
Is authorized under the provisions of Section 471.023, Florida Statutes, to offer engineering services to the public through a Professional Engineer, duly licensed under Chapter 471, Florida Statutes.
Expiration: 28-Feb-11
Audit No: 22820111811
Certificate of Authorization
DISPLAY AS REQUIRED BY LAW
CA No: 7665

Crossroads Engineering Data, Inc.


State of Florida
Board of Professional Engineers
Crossroads Engineering Data, Inc.
Is authorized under the provisions of Section 471.023, Florida Statutes, to offer engineering services to the public through a Professional Engineer, duly licensed under Chapter 471, Florida Statutes.
Expiration: 28-Feb-11
Audit No: 22820111452
Certificate of Authorization
DISPLAY AS REQUIRED BY LAW
CA No: 6644

ANTI-KICKBACK AFFIDAVIT

STATE OF FLORIDA

SS:

COUNTY OF MONROE

I the undersigned hereby duly sworn, depose and say that no portion of the sum herein response will be paid to any employee of the City of Key West as a commission, kickback, reward or gift, directly or indirectly by me or any member of my firm or by an officer of the corporation.

BY: _____
Joseph M. Corradino, President

sworn and prescribed before me this 15 day of April, 2010

Silvana Andrea Newman
NOTARY PUBLIC, State of Florida

My commission expires:

Notary Public State of Florida
Silvana Andrea Newman
My Commission DD814755
Expires 10/31/2012

SWORN STATEMENT PURSUANT TO SECTION 287.133(3)(A)
FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS,

1. This sworn statement is submitted to
by
Joseph M. Corradino, President
(print individual's name and title)
for
The Corradino Group, Inc.
(print name of entity submitting sworn statement)

whose business address is
4055 NW 97th Avenue
Miami, Florida 33178
and (if applicable) its Federal Employer Identification Number (FEIN) is

61-07-13040 (if the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement):

2. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or of the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

3. I understand that "conviction" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 01, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

4. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means:
    1. A predecessor or successor of a person convicted of a public entity crime: or

    2. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity

crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members and agent who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment of income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

5. I understand that a "person" as defined in Paragraph 287.133(1)(e), Florida Statute means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

6. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement (indicate which statement applies).

✓ Neither the entity submitting this sworn statement, or any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July, 1989.

_____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 01, 1989.

_____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 01, 1989. However, there has been a subsequent proceeding before a Hearing Officer of the State of Florida, Division of Administrative Hearings and the Final Order entered by the Hearing Officer determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vendor list. (attach a copy of the final order)

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING

OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH ONE (1) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES, FOR THE CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

Joseph M. Corradino, President

(SIGNATURE)

April 15, 2010

(DATE)

STATE OF Florida

COUNTY OF Dade

PERSONALLY APPEARED BEFORE ME, the undersigned authority Joseph M. Corradino who, after first being sworn by me,
(name of individual)
affixed his/her signature in the space provided above on this
15 day of April, 2010

Silvana Andrea Newman
NOTARY PUBLIC

My commission expires:

Notary Public State of Florida
Silvana Andrea Newman
My Commission DD814755
Expires 10/31/2012

ANTI-KICKBACK AFFIDAVIT

STATE OF FLORIDA

SS:

COUNTY OF MONROE

I the undersigned hereby duly sworn, depose and say that no portion of the sum herein response will be paid to any employee of the City of Key West as a commission, kickback, reward or gift, directly or indirectly by me or any member of my firm or by an officer of the corporation.

BY: Andre Walters

sworn and prescribed before me this 14th day of April, 2010

Becky D. Hernandez-Bauer

NOTARY PUBLIC, State of Florida

BECKY D. HERNANDEZ-BAUER
Notary Public - State of Florida
My Comm. Expires Oct 1, 2012
Commission # DD 827643
Bonded Through National Notary Assn.

My commission expires:

SWORN STATEMENT PURSUANT TO SECTION 287.133(3)(A)
FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS,

1. This sworn statement is submitted to
by Sandra Walters, President

(print individual's name and title)
for SWC (Sandra Walters Consultants, Inc.)

(print name of entity submitting sworn statement)

whose business address is 6410 5th Street, Suite 3, Key West, FL 33040

and (if applicable) its Federal Employer Identification Number (FEIN) is

65-0975585 (if the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement):

2. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or of the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

3. I understand that "conviction" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 01, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

4. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means:

    1. A predecessor or successor of a person convicted of a public entity crime: or

    2. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity

crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members and agent who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment of income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

5. I understand that a "person" as defined in Paragraph 287.133(1)(e), Florida Statute means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

6. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement (indicate which statement applies).

✓ Neither the entity submitting this sworn statement, or any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July, 1989.

_____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 01, 1989.

_____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 01, 1989. However, there has been a subsequent proceeding before a Hearing Officer of the State of Florida, Division of Administrative Hearings and the Final Order entered by the Hearing Officer determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vendor list. (attach a copy of the final order)

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING

OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH ONE (1) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES, FOR THE CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

Sandra Walters
(SIGNATURE)

April 14, 2010
(DATE)

STATE OF FL

COUNTY OF Monroe

PERSONALLY APPEARED BEFORE ME, the undersigned authority
Sandra Walters who, after first being sworn by me,
(name of individual)
affixed his/her signature in the space provided above on this
14th day of April, 2010

Becky D. Hernandez-Bauer

NOTARY PUBLIC

My commission expires:

BECKY D. HERNANDEZ-BAUER
Notary Public - State of Florida
My Comm. Expires Oct 1, 2012
Commission # DD 827643
Bonded Through National Notary Assn.

ANTI-KICKBACK AFFIDAVIT

STATE OF FLORIDA

SS:

COUNTY OF MONROE

I the undersigned hereby duly sworn, depose and say that no portion of the sum herein response will be paid to any employee of the City of Key West as a commission, kickback, reward or gift, directly or indirectly by me or any member of my firm or by an officer of the corporation.

BY: _____, PRESIDENT

sworn and prescribed before me this 13 day of April, 2010

NOTARY PUBLIC, State of Florida

My commission expires: 1/11/2013

STEPHEN P. O'NEILL
Commission DD 832414
Expires January 11, 2013
Bonded Thru Troy Fain Insurance 800-385-7019

SWORN STATEMENT PURSUANT TO SECTION 287.133(3)(A)
FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS,

1. This sworn statement is submitted to

by GEORGE GALAN, PRESIDENT
(print individual's name and title)

for CROSSROADS ENGINEERING DATA, INC.
(print name of entity submitting sworn statement)

whose business address is

13284 SW 120 ST MIAMI, FL. 33186

and (if applicable) its Federal Employer Identification Number (FEIN) is

65-0349140 (if the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement):

2. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or of the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

3. I understand that "conviction" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 01, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

4. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means:

    1. A predecessor or successor of a person convicted of a public entity crime: or

    2. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity

crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members and agent who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment of income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

5. I understand that a "person" as defined in Paragraph 287.133(1)(e), Florida Statute means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

6. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement (indicate which statement applies).

X Neither the entity submitting this sworn statement, or any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July, 1989.

_____The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 01, 1989.

_____The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 01, 1989. However, there has been a subsequent proceeding before a Hearing Officer of the State of Florida, Division of Administrative Hearings and the Final Order entered by the Hearing Officer determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vendor list. (attach a copy of the final order)

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING

OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH ONE (1) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES, FOR THE CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

PRESIDENT
(SIGNATURE)

4/13/2010
(DATE)

STATE OF FLORIDA

COUNTY OF MIAMI-DADE

PERSONALLY APPEARED BEFORE ME, the undersigned authority GEORGE GALAN who, after first being sworn by me,
(name of individual)
affixed his/her signature in the space provided above on this 13TH day of APRIL, 2010

NOTARY PUBLIC

My commission expires: 1/11/2013

STEPHEN P. O'NEILL
Commission DD 832414
Expires January 11, 2013
Bonded Thru Troy Fain Insurance 800-385-7019

NOTICE OF ADVERTISEMENT – REQUEST FOR QUALIFICATIONS

NOTICE is hereby given to prospective proposers that responses will be received by the CITY of KEY WEST, FLORIDA by the office of the City Clerk, 525 Angela Street, Key West, Florida 33040 until 3:30 p.m. April 16, 2010 for the "Request For Qualifications 10-009 – Carrying Capacity Traffic Study" in the Office of the City Clerk. Any responses received after the time announced will not be considered.

Scope of Services and Response Documents may be obtained from DemandStar by Onvia at www.demandstar.com/supplier or call toll-free at 1-800-711-1712. One (1) original and ten (10) copies of the responses are to be enclosed in two (2) sealed envelopes, one within the other, each clearly marked on the outside: **"Request For Qualifications # 10-009– Carrying Capacity Traffic Study"** the due date, and the respondent's name, addressed and delivered to:

CITY CLERK, CITY OF KEY WEST, FLORIDA
CITY HALL, 525 ANGELA STREET
KEY WEST, FLORIDA 33040

At the time of the proposal, the successful Responder must show satisfactory documentation of state licenses (if applicable).

Any permit and/or license requirement and subsequent costs are located within the response documents. The successful Responder must also be able to satisfy the City Attorney as to such insurance coverage, and legal requirements as may be demanded by the response in question. The City may reject responses: (1) for budgetary reasons, (2) if the responder misstates or conceals a material fact in its response, (3) if the response does not strictly conform to the law or is non-responsive to the response requirements, (4) if the response is conditional, or (5) if a change of circumstances occurs making the purpose of the response unnecessary, (6) if such rejection is in the best interest of the City. The City may also waive any minor formalities or irregularities in any response.

_____

Sue Snider, Purchasing Agent

ADDENDUM NO. ONE

Request for Qualifications
Carrying Capacity Traffic Study

To All Bidders:

The following change is hereby made a part of RFQ 10-009 as fully and as completely as if the same were fully set forth therein:

The City has assembled available traffic and transportation studies on the Planning Department Webpage in an effort to provide background references for the Carrying Capacity Traffic Study RFQ 10-009. Please review the transportation studies prior to submitting your response. The link is as follows:

http://www.keywestcity.com/egov/apps/services/index.egov?path=details&action=i&id=247

All Bidders shall acknowledge receipt and acceptance of this Addendum No. 1 by acknowledging Addendum in their proposal or by submitting the addendum with the bid package. Bids submitted without acknowledgement or without this Addendum may be considered non-responsive.

Signature

Joseph M. Corradino, Pres.

The Corradino Group, Inc.
Name of Business

ADDENDUM NO. 2

To All Bidders:

The following change is hereby made a part of RFQ 10-009 Carrying Capacity Traffic as fully as completely as if the same were fully set forth therein:

All Requests for Information shall be submitted no later than April 10th, 2010.

All Bidders shall acknowledge receipt and acceptance of this Addendum No. 1 by acknowledging Addendum in their proposal or by submitting the addendum with the bid package. Bids submitted without acknowledgement or without this Addendum may be considered non-responsive.

Signature

The Corradino Group Inc.
Name of Business

Joseph M. Corradino, Pres

THE CORRADINO GROUP, INC.