The Corradino Group was founded in 1971 and has become a national leader in multiple fields of engineering, including aviation, transit, infrastructure design and program management. The company has grown over the years by continually expanding their reach into new markets and locations. From regional hubs in Louisville, KY, and Miami, FL, Corradino serves public sector clients throughout the Midwest and Florida. The engineering firm has established a reputation for translating ideas into realities by tailoring solutions to their clients’ needs.

Corradino provides comprehensive planning services, urban design and context sensitive solution design. The company also has a long history of completing National Environmental Policy Act (NEPA) projects. Corradino’s transportation planning expertise includes transportation modeling, urban interstate added travel lanes, urban and rural interchange modifications, new terrain rural interstate, intersection improvements, drainage corrections, road rehabilitation and safety improvements. In recent years, Corradino has won nearly a dozen awards for their work in the planning fields.

In 2008, Corradino was awarded the oversight contract for the Florida Department of Transportation (FDOT) I-595 Express Corridor Improvement project, the state’s first Public-Private Partnership (3P) contract. The project scope includes reconstruction of a section of the I-595 roadway and all associated improvements to adjacent cross-roads, frontage roads and ramps, for a total project length of 13 miles. Advanced construction activities for the project began in June 2009, with actual construction expected to continue through June 2014.

In a P3 FDOT contract, the project owner is the government agency, but a private party (known as the Concessionaire) agrees to handle the financing, design, construction, operation and maintenance of the project over a specified period of time. In return, the private party receives payments from the government agency once the project has been finally accepted by FDOT. Corradino was hired to statistically validate the Concessionaire’s self-performed quality control and quality assurance measures to the Federal Highway Administration, and to oversee the project to ensure that it is built to specifications while maintaining access and mobility through the busy corridor.

“An estimated $50 a day, five days a week, for five years, Corradino will save around $65K in shipping costs by sharing documents electronically through our Prolog Solution.”

Jeannine Ward
I-595 Project Administration Manager
The Corradino Group
As FDOT’s Oversight Construction, Engineering and Inspection (OCEI) manager, Corradino has been charged with monitoring the Concessionaire’s material and inspection management, as well as the project’s progress and quality of work. Although CEI consultants typically use spreadsheets and paper files to manage projects, oversight was a new role for the company’s CEI team. “Tracking requests-for-information and shop drawings in spreadsheets wasn’t going to work on this project,” explains Jeannine Ward, Corradino’s administration manager on the I-595 project. “We needed a better way to track our audits and statistically validate that the project controls are within specified limits.”

To minimize the risk to FDOT and protect the financial investment of all parties, Corradino began searching for a software solution that would support detailed document tracking and provide an easy way for the company to collaborate with FDOT and the design team. “We explained our needs and vision to several vendors,” Ward says, “and chose the solution that suited us best.” That solution was Prolog software from Meridian Systems.

Corradino purchased Prolog in April of 2009 through Intuitive Systems, a Meridian Value Added Reseller (VAR) based in Miami, FL, that provides consulting, training, implementation, data migration, custom reporting and product placement services to business throughout Florida, Latin America and Europe. Intuitive Systems worked with Corradino to configure and implement a comprehensive Prolog solution, which included Prolog Manager software integrated with Web collaboration and mobile software from D5 Solutions, a Meridian Independent Software Vendor (ISV) partner.

This comprehensive Prolog solution allows Corradino to enhance their document control capabilities, and capture, record and centralize data from multiple paper-based and electronic sources. The extended project team can also access an easy-to-use Web-based interface that allows authorized users to review project information, respond to requests-for-information (RFIs) and perform a variety of other project management functions from any Internet connection. “The ability to collaborate with FDOT and the design team through this Prolog solution is a huge benefit,” Ward states.

**Notifications Enhance Document Management**

According to Ward, the most helpful Prolog document control tool has been the notifications ability. When Corradino receives a document package from the concessionaire, they upload it electronically and log it using Prolog. A notification is then automatically sent to the appropriate team members for action. Corradino utilizes Prolog’s reporting functions to monitor the status of the various document packages and follow-up on outstanding actions. “When you get 25 document packages a day and 20 of those packages need some kind of configuration and implementation of Prolog, Corradino hired experienced Prolog administrator, Eloisa Marshall, as their internal Document Control Specialist and primary contact with Intuitive Systems. “Eloisa is very familiar with Prolog and was able to work closely with Intuitive Systems to make the changes we needed,” Ward explains. Corradino's most significant Prolog changes involved adding user defined fields to the software and using Crystal Reports to create tailored reports and forms, including a variety of unique audit checklists.

By the time I-595 construction got underway in June of 2009, the Prolog solution was live and initial training for the project’s end users was complete. A year later, a dozen Corradino employees were using Prolog to manage oversight functions on the project.

Since the Concessionaire is responsible for the financial aspects of the project, Corradino’s use of Prolog is focused on the solution’s Document Management, Field Administration and Report Manager capabilities. The company’s project engineers and administrators use the software for daily reporting and uploading information such as photos. A Resident Compliance Specialist manages audits and tracks the project’s subcontractors. Corradino’s Public Information Officer utilizes a customized Communication Log to track public complaints and questions. And the document control staff use Prolog’s Drawing Packages feature – which Corradino has renamed Document Packages – to log all Submittal Packages associated with the project. In addition, nearly 50 FDOT and design team members use the Prolog solution to perform collaborative functions on a daily basis.

**A Custom Solution for Strong Oversight**

Prolog software has flexible customization options, which was important to Corradino because they wanted to reflect the project’s specific nomenclature, workflow and reporting requirements. To streamline the Meridian Partner Profile

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response, things can get lost in the shuffle,” she states. “After monitoring documents for a large project using spreadsheets, I can tell you that Prolog is an amazing tool that allows us to meticulously track documents, responses and actions.”

Corradino’s inspectors use the custom checklists in Prolog to perform random audits at the job site and record the results. “We have created a scoring system within Prolog that is tied to each checklist, which allows us to identify whether the project is passing or failing,” Ward says. “We can run reports as needed to identify how many checklists have been completed and what the various results have been,” Marshall adds.

Eliminating Paper Saves Time and Money

Managing documents in Prolog, rather than on paper, gives Corradino’s OCEI team the visibility they need to fulfill their oversight role – and a more efficient way to get the job done. On a previous project with similar document volume, Corradino utilized three administrative personnel for document control. On the I-595 project, a single person is performing that same task. “Over the course of five years,” Ward states, “this could save the FDOT nearly $350,000.”

This efficiency benefits Corradino as well by giving them more flexibility from a project staffing perspective. Instead of using their contracted dollars on administrative staff, the engineering firm can put those resources toward higher-level technical resources, which improves oversight delivery. Even the design team saves time because they can access documents and respond to RFIs online, without the need for in-person meetings.

Eliminating paper documents delivers another benefit to Corradino: a substantial savings in shipping costs. Instead of sending 10 document packages to various parties on CD-Rom each day – a common occurrence on a project of this scope – recipients can access the packages online. “At an estimated $50 a day, five days a week, for five years,” Ward computes, “Corradino will save around $65K in shipping costs by sharing documents electronically through our Prolog solution.”

Prolog Benefits Everyone Involved

Although establishing I-595 lane closures associated with construction is currently being handled on paper, Corradino is developing a workflow process within Prolog to automate this vital project aspect. Since the concessionaire is held to very specific lane closure limits, when the contractor wants to initiate a lane closure, the request must be reviewed and approved first. Prolog will soon be used by Corradino to record a lane closure request by the contractor, notify the concessionaire that the request needs to be reviewed and seamlessly notify the contractor whether or not their request has been approved.

When the Prolog-based workflow is complete, reviews will be expedited, giving the contractor more time to prepare for the closure or create a work-around if the request is denied. Emergency lane closures will be handled faster, too. “Since lane closure delays can impact the construction timeline, this will really streamline the process,” Ward says, “which will benefit everyone involved.”

So far, the Concessionaire hasn’t had the need to access Corradino’s Prolog solution. That will change, however, once the lane closure process is being managed with the software. “We’ll be able to give the Concessionaire limited, user-based access to Prolog,” Ward explains. “The Internet security is excellent, which makes us very happy!”

Now that construction on the I-595 project is well underway, Corradino is pleased to have Prolog operational. “The product is great,” Ward states, “and I’m glad that we have Eloisa here to support our ongoing training needs and to continue working with Intuitive Systems to fine-tune our system.”
The Corradino Group Project Profile

Florida Department of Transportation (FDOT) I-595 Express Corridor Improvement Project Located in South Florida

The I-595 Express Corridor Improvement project consists of the reconstruction of the I-595 mainline and all associated improvements to frontage roads and ramps from the I-75/Sawgrass Expressway interchange to the I-595/I-95 interchange, for a total project length of approximately 13 miles. The project improvements will be implemented as part of a Public-Private Partnership (P3) with I-595 Express, LLC, a subsidiary created by ACS Infrastructure Development, who was awarded the contract to serve as the Concessionaire to design, build, finance, operate and maintain the project for a 35-year term.

Estimated Project Cost: Approximately $1.2B

Execution of Contract: March 2009

Estimated Completion: Spring 2014

Anticipated Results: In addition to relieving traffic congestion in South Florida, this project is expected to boost the local economy by supporting more than 34,000 regional jobs.

Key Project Elements:

- Construction of three at-grade reversible express toll lanes, serving express traffic to/from the I-75/Sawgrass Expressway from/to east of SR 7, with a direct connection to the median of Florida’s Turnpike
- Continuous connection of the SR-84 frontage road between Davie Road and SR-7
- The addition of auxiliary lanes on I-595, along with combined ramps, cross-road bypasses and grade-separated entrance and exit ramps to minimize merge, diverge and weaving movements
- Widening/reconstruction of 2.5 miles of the Florida’s Turnpike mainline and improvements to the I-595/Florida’s Turnpike interchange
- Construction of the New River Greenway, a component of the Broward County Greenway System
- 13 sound barriers providing noise abatement for 20 communities
- Implementation of Bus Rapid Transit (BRT)/Express Bus service within the corridor
- Provision of a transit envelope within the corridor to accommodate potential future transit options currently under evaluation