



### EDUCATION

Bachelor of Science in Civil Engineering, Florida International University, 2017

### REGISTRATIONS

Professional Engineer #93022 State of Florida 2021

Certified General Contractor #1531640 State of Florida 2022

## WORK HISTORY

Vasani Consulting LLC 2023-Present

Rummel, Klepper & Kahl, LLP 2022-2023

Stantec Consulting Services Inc 2017-2022

Eastern Engineering Group 2017 With over 7 years of experience Jorge has worked and developed complex civil projects including disaster assessment of damaged roadway and drainage facilities and their corresponding emergency relief measures and permanent repairs; hydraulic studies; stormwater sewer and cross drain infrastructure design; management of traffic; Resurfacing, restoration and rehabilitation (RRR); and roadway design projects. He is experienced in developing complex roadway and drainage projects utilizing both conventional design-bid-build and design build methods of project delivery.

## PROJECT EXPERIENCE

# CLIENT: Federal Emergency Management Agency (FEMA) Region II FEDERAL HIGHWAY ADMINISTRATION, Eastern Federal Lands Highway

The project consisted in conducting comprehensive assessments of roadway and bridge infrastructure in the greater Ponce region of Puerto Rico, following the devastation caused by Hurricane Maria in September 2017. This project covered 84 roadway sites and 11 bridge locations across the municipalities of Coamo, Jayuya, Juana Diaz, Orocovis, Peñuelas, Ponce, and Villalba, all severely affected by torrential rains and flooding from the Category 4 hurricane. As Project Engineer, Jorge prepared 38 damage description and dimension reports, which included comprehensive assessments of existing facility conditions, disaster-related damages, hydrologic and hydraulic evaluations, soil erosion analysis, and structural assessments of existing culverts. The reports also outlined proposed repair solutions and erosion control measures tailored for each site.

Reference: Juan Restrepo, P.E. 786-501-3896

#### CLIENT: ADEC Construction Inc. T1884 - DRAINAGE IMPROVEMENT PROJECT ON SR 17 AT HILLCREST AVE FPID: 446369-1-52-01 – District 1

The project consisted in the construction of a 36" cross drain, gravity wall, and road reconstruction at SR 17 and Hillcrest Ave in Lake Wales. Jorge proposed, as part of a cost savings initiative, a change to the original MOT plan from an off-peak hour only road closure to a road closure during peak and off-peak hours. He was able to accomplish it by providing accessibility to residential properties adjacent to the construction site and by creating a 5 miles truck detour through SR 60 and US 27.

As Engineer of Record, Jorge Rubio designed the Alternative Temporary Traffic Control Plans necessary to detour truck traffic away from the road closure at Hillcrest Ave. and SR 17.

Also, he performed lane closure analysis for the two-lane undivided SR 17 as required for permitting purposes. Reference: Rafael Taveras 954-762-7476 / Sergio Figueroa, PE 863-378-9546

CLIENT: M&J Construction Company of Pinellas County Inc. E8U71 - BRIDGE STRENGTHENING (No. 860184) IN BROWARD CNTY SR 91 BRIDGE,

FPID: 415927-5-52-01 – District 8

The project consisted of strengthening the existing beams of Bridge No. 860184 along SR 91 over the Hillsboro Canal in Broward County at MP 73.1. In addition to the beam strengthening, the outside traffic railing barriers will be upgraded with a rectangular tube retrofit. Jorge Rubio proposed, as part of a cost savings initiative, two new access points to the construction site. One of the new access points would provide direct access to the north end of the bridge and the second would provide staging area for construction materials. As Engineer of Record, he designed the Alternative Temporary Traffic Control Plans necessary to provide access to construction site, underneath the Bridge No. 860184. Reference: Chase Galloway 727-355-7564

### CLIENT: Wantman Group Inc. E200Z - RECONSTRUCTION OF SR 9 FROM SOUTH OF SR 126 (EMERSON ST) TO SOUTH OF SR 10 (ATLANTIC BLVD)

FPID: 432259-2-52-01 – District 2

The project consisted in the reconstruction of the corridor, bridge replacements, addition of four lanes, adding capacity and auxiliary lanes, reconstruction of cross drains.

As drainage engineer Jorge Rubio designed three sections of cross drain of 42", 36" and 24" RCP performing hydraulic and hydrologic studies throughout each corresponding watershed. He also developed the pre-development and post-development design, analysis and calculations for design documentation and drainage report. Due to the project complexity, the analysis and design was performed combining HY8 and ICPR. Also, the design and plan production were made in Subsurface Utility Design and Analysis (SUDA) Open-roads designer. Reference: Kevin Cann P.E. 904-470-4503

**Civil Engineer** 



#### CLIENT: Florida Department of Transportation – District 7 US19/SR55 from S of CR528/Drew St to N of Sunset Point FPID: 443780-1-52-01 – District 7

As the roadway design team leader, Jorge led the design efforts in the rehabilitation of the pavement conditions along the corridor for 2 miles. Responsibilities included calculating and designing the milling and resurfacing pavement along the mainline (6-lane facility) and frontage roads (2-lane roads northbound and 2-lane road southbound). Jorge also designed the horizontal and vertical geometry of new Texas-U turns intended to improve safety of the interchange and lane closure calculations to ensure lane closures were permitted per FDOT standards.

Reference: Joseph Baan, P.E. 863-670-9361

# CLIENT: Florida Department of Transportation – District 1 SR 865 From Linda Loma Drive to Kelly Road

FPID: 447880-1-52-01 – District 1

As Engineer of Record and roadway design team leader, Jorge proposed safety enhancement measures along the 1-mile segment of corridor (2-lane road with 1-TWLTL), to effectively reduce the operational speed along the corridor. Improvements included designing traffic chicanes to divert traffic and prompt drivers to reduce their speed in the mid-block crossings approaches. He also proposed a raised median, pedestrian refuge islands on each pedestrian mid-block crossing, and left turn lanes. Taking into consideration community representative demands, he performed turning movement analysis for recreational vehicles and WB-62FL. This analysis ensured access to residential and commercial properties adjacent to the project would be maintained. As part of the project requirements, Jorge designed and laid out boarding and alighting areas for public transportation users.

Reference: Joseph Baan, P.E. 863-670-9361

#### CLIENT: Chicago Transit Authority (CTA) Red-Purple Bypass Project

As design engineer Jorge oversaw and led the 3D modeling efforts which were intended reproduce the 2D engineering designs of the electrical, signal, structural, and lighting disciplines in 3D. To meet project goals Jorge modeled the rail tracks, rail sleepers, electrical conduits and equipment. Along with 3 other team members, Jorge successfully modeled all the necessary construction elements and identified several conflicts which helped the engineering design teams to avoid costly delays.

Reference: Juan Restrepo, P.E. 786-501-3896

### CLIENT: Americorp Development Inc.

**Commercial Development at 710 49th Street Hialeah FL 33013.** As Engineer of Record, Jorge designed the sewer lateral connection, sidewalk reconstruction, and French drain of the Commercial development associated to address 710 49th Street Hialeah FL 33013. Additionally, due to the proximity of the project to FDOT right of way (SR 932), FDOT district 6 required a drainage connection permit and drainage report to demonstrate that the new development would not impact the FDOT right of way during the corresponding design storms. Reference: Pedro Del Rio, CGC. 305-219-332

### CLIENT: Florida Department of Transportation – District 4 Atlantic Boulevard Interchange Improvements FPID: 443956-1 – District 4

As roadway designer Jorge designed the horizontal and vertical geometry of Atlantic Boulevard (10 lanes / Divided), the 4 on and off ramps of SR-869 to Atlantic Boulevard (Single and Multilane Ramps), as well as Atlantic Trail (2 Lane / Undivided). Also, he led the efforts for the 3D modeling phase of the project. Designed the cross-sectional features of Atlantic Boulevard, on and off ramps, and Atlantic Trail based on the requirements set forth by in the RFP as well as the corresponding design constraints. The design was carried out in

Reference: Luis Lazo, P.E. 786-302-6669.

#### CLIENT: Florida Department of Transportation – District 6 Golden Glades Interchange Enhancement Project *FPID*: 428358-1-52-01 – *District* 6

As drainage engineer, Jorge designed and performed calculations of the drainage facilities through 1 mile of the SR-826 (6-lane divided roadway) starting at the SW 12<sup>th</sup> Ave overpass to the intersection with the NW 7<sup>th</sup> Ave including connecting ramps. Drainage facilities included inlets, pipes, roadside ditches, swales, and ditch blocks. Calculations included spread analysis and drainage capacity calculations to determine the appropriate pipe sizing through the network. He also calculated ditch and swale capacities for the corresponding documentation and drainage design report. As part of the hydraulic analysis, he developed and prepared drainage maps. Reference: Manuel Francis, P.E. 786-395-6350

## CLIENT: MasTec Civil

T6413 – SR 826 Connector at Golden Glades Interchange and Various Ramps

FPID: 428358-8-52-01

As design engineer Jorge led the 3D modeling efforts of SR 826 Connector and adjacent ramps as per the approved FDOT 2D construction plans. The intent of the project was to create the proposed pavement surface in other to help the contractor calculate the earthwork needed to create the corresponding embankments and track construction progress.

Reference: Nicholas Souchon, P.E. 305-670-7585 Ext. 117

CLIENT: Central Florida Shell Construction.

**Residential Development at 4453 Shumard Oak Ct Orlando FL 32808.** As Engineer of Record, Jorge designed the sewer lateral connection to public sanitary sewer main. The development consisted in the construction of a single-family residence (3 Bedroom and 2 bathrooms) Reference: Sharod Worthen CGC. 689-224-4783