

J3 Engineering Consultants, Inc.

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Jason D. Margraf, PE

Principal

Mr. Margraf has over 17 years of professional experience in the engineering and engineering management field. His extensive experience ranges across several disciplines, including Civil, Water Resources, Transportation, and Construction Administration fields. Those experiences have been gained on both private sector residential, industrial, and commercial land development projects and municipal and DOT projects. His private sector work experience includes master planned developments of over 3,000 single family and multi-family homes, golf course communities, over 250 acres of commercial property, charter schools, clubhouses, park and open space areas and local and regional drainage improvements. Public sector work includes highway and hydrologic/hydraulic design, bridge washout studies, river hydraulic studies and regional water resource analysis.

Mr. Margraf has a history of developing great relationships with various municipalities and is determined to facilitate a collaborative project through superior communication and consensus building. In addition to his technical expertise, he stays intimately involved in the day-to-day operations of the design team and has input at every stage of the process, in an effort to provide a successful project. Mr. Margraf serves as a Principal, Project Manager and technical resource and actively mentors staff to engender sound engineering principles, thoughtful approach and a client first mentality.

Engineering Project Examples:

Gaylord Colorado – City of Aurora, CO: The Gaylord Entertainment Group planned a 2,000-room hotel and conference center within the City of Aurora, adjacent to the E-470 corridor and Denver International Airport. The state-of-art hotel and conference resort included approximately 85 acres of on-site development and consisted of off-site regional improvements such as arterial road networks, regional drainage improvements, sanitary sewer system trunk infrastructure and regional water network with a total project budget of approximately \$825 million dollars. **J3 Engineering Consultants** was selected to perform a full service civil engineering scope, including project due diligence; purchase assistance, development and city negotiations; master drainage and master utility studies; development of the on- and off-site project budgets, and site improvements. The master utility studies included a

EDUCATION

B.S., Civil Engineering, University of Kentucky

PROFESSIONAL REGISTRATION

Colorado Professional Engineer
Wyoming Professional Engineer
Utah Professional Engineer
Arizona Professional Engineer (inactive)

TRAINING/OTHER QUALIFICATIONS

HAZWOPER 40-hour
CDOT Protégé
CASFM Member
Project Finance
DPLE Academy
General Continuing Education

EMPLOYMENT

J3 Engineering Consultants, Inc.
Principal
May 2003 – Present

Stantec Consulting
Project Engineer
Oct 2000 – May 2003

Hall-Harmon Engineers
Water Resources Lead Engineer
Nov 1998 – Oct 2000

PDR
Staff Engineer
May 1998 – Nov 1998



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phase population analysis for the hotel and the surrounding future development to determine the adequacy of utility improvements. The existing trunk infrastructure ranged in size from 12-inch to 16-inch pipes and the tributary lift station were evaluated and triggers identified for increasing capacity. The regional water network was analyzed to determine serviceability for initial and final project phases and optimized based on future development opportunities surrounding the site. The water mains ranging from 12-inches to 24-inches were then evaluated to determine regional development triggers, networking (looping) requirements and evaluated based on expiration of intergovernmental agreement that affected the timing of interconnections. The due diligence and master studies were successfully completed to allow for entitlement processing and the procurement of tax incentive financing.

Morning Star Senior Living Locations – Lone Tree and Centennial, CO: Provided entitlement, design services and construction observation for the Morning Star, Senior Living facility in Centennial, Colorado. This project included civil infrastructure design for the 84-unit senior living facility, with associated parking areas, sanitary sewer facilities, including a package lift station, water main extensions, roadway access, major drainage channel work, and detention facilities.

J3 Engineering worked with the client and contractor to design the site infrastructure. Challenges included detailed grading of the parking areas to allow for easy access for residents. Major channel restoration work processed through the Urban Drainage and Flood Control District and the Corps of Engineers. **J3** prepared the plans for the sanitary lift station required to serve the site. Water quality facilities were design to integrate into the site aesthetics and major drainage way traversing the site.

Landmark Medical Center (Roslyn Rd) – Greenwood Village, CO: Provided entitlement, design, and construction observation of the Landmark Medical Office Center. This project included civil infrastructure design for a 33,000-sq. ft. building, parking areas, sanitary sewer facilities, water main extensions, roadway access, covered patient drop-off areas specially graded to allow for ease of access for patients and providers, underground detention facilities, and roadway improvements.

J3 Engineering designed the innovative underground detention system which allowed for the construction of a larger parking area for the building and its users. This type of underground detention system was the first to be processed and constructed within the jurisdiction and required considerable effort to educate project stakeholders and contractors to achieve a successful outcome for the client.

Downtown East Louisville (DELO) – City of Louisville, CO: DELO is a brownfield, transit-oriented mixed-use development, located in the heart of the vibrant City of Louisville. Consistently ranked in the top 10 places to live in the United States, reinventing this previous industrial area in a concept worthy of the municipality in which it resides was a major challenge. Mr. Margraf has led the design team in the due diligence, entitlement, planning, processing, and design for this existing development. Planned for 244 residential units and 15,000 sq. ft. of office/commercial space, evaluation of the existing infrastructure and determination of a project vision was imperative. The goal was to deliver a neighborhood with new urbanism practices, with a pedestrian first experience that responded to the future commuter rail



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station adjacent to the site and that activated the traditionally underutilized streetscape. The result was the generation of urban plazas that provide for public gathering, breaks up development massing, and allow for commercial opportunities; the utilization of a woonerf street section, which is a multi-modal street that allows for free pedestrian movement, implements a curbless street environment and blends the street uses, much like those in Europe. Additionally, urban greenways were created that allow for a break in the urban expanse and are fronted by residential development. To accomplish these tasks, new urban street sections were generated and implemented and regional utilities were rerouted to benefit the project and the future development of the surrounding area. The project is funded through tax incentive financing and through private investment, which highlights the public and private partnership that was required to create this cornerstone project.

High Point at DIA – City of Aurora, CO: Mr. Margraf led the design and managed the development of the first 435 acres of this 1,500-acre mixed use, master planned, transit-oriented development. A variety of national builders and housing types were planned and constructed, each with unique challenges and design requirements. Regional infrastructure includes arterial roadways, trunk utility mains, channel corridors and water quality and attenuation ponds. Residential development occurred to generate distinct neighborhoods that consisted of differing product type, monumentation, and landscaping. Parks and open space were strategically integrated to create a regional network and to facilitate a sense of community. Beyond the 800 single family homes completed in the first development phase, the processing, design, and construction of a club house, community pool, and State Charter School was completed. **J3** led the design and processing for all projects and was retained to provide construction support services and to assist the contractor in obtaining and managing the stormwater management permit through the City. Mr. Margraf was tasked in building consensus and to generate common project stakeholder goals. Stakeholders included the City and County of Denver, the City of Aurora, the Urban Drainage Flood Control District, the Federal Aviation Administration, Denver International Airport, the High Point Metropolitan District, adjacent development teams and neighboring Home Owner Associations.

Neutown at Parker Subdivision – Town of Parker, CO: This project included the complete design of single-family detached, small lot cluster residential product, multifamily 6-plex units and a central park with pool clubhouse that encompassed approximately 120 acres. The full-service scope included overlot grading, detailed grading, water and sanitary sewer system master planning, design and construction, storm sewer design, street horizontal and vertical design and the redesign and retrofitting of existing facilities designed by others. Mr. Margraf was charged with determining the planning and engineering implications of the cluster units, which was a new product offered by the client. This entailed meetings with the architect, client, and governing municipalities to determine planning impacts, serviceability, and constructability. Additional design challenges associated with water systems planning and modeling included planning for a Parker Water and Sanitation District well and pumps house facility. **J3 Engineering Consultants** was responsible for the construction management on portions of the project and coordination with the Town to obtain initial and final acceptance.



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Steel Ranch – City of Louisville, CO: Steel Ranch is a 75-acre, mixed-use development offering a variety of housing options and a variety of engineering challenges. The project includes single-family standard lot development, alley lots, row homes, apartments with club house, commercial/retail and community parks. The project is located within and adjacent to the City limits and is considered an infill parcel. The area has numerous jurisdictional parties, making coordination and determination of the applicable criteria imperative. Mr. Margraf resolved this hurdle by spearheading efforts via ongoing meetings and proactively identifying conflicts. Groundwater and claystone depths on site were problematic and resulted in large soil heave potential and perched groundwater conditions. However, the design team was successful in overcoming this challenge through proficient grading solutions to allow for home basements. As the lead consultant, Mr. Margraf successfully processed the required entitlements, planning, and construction documents. The entitlement was required to allow for the property assemblage and zoning and to allow for the unique form and character of the community. As a portion of the planning document's master drainage and utility plan; reports were developed to demonstrate the development impact on the City's regional facilities. Furthermore, a Final Development Plan (FDP) was generated in the planning process that created four new street cross sections that enhanced the site's urban feel and the pedestrian patterns through multi-model connections. Stormwater management plans and construction documents were generated and approved for the project's construction. **J3 Engineering Consultants** was retained to assist with owner's representation to ensure site construction and over-excavation practices were in accordance with the plans and met all the associated project requirements.

Westerly Creek at Common Ground Golf Course – Cities of Denver and Aurora, CO: Mr. Margraf's project responsibilities included engineering due diligence for the client, assistance through site grading and associated stormwater management plans, utility design, the FEMA Letter of Map Revision (LOMR) process and associated channel overflow realignment for Westerly Creek, mass grading analysis to adequately address the compensatory volume of Westerly Creek Dam, landscape design, and the tree mitigation process with the City of Aurora. To complete these tasks, it was critical to conduct thorough coordination with the Urban Drainage and Flood Control District (UDFCD), FEMA and US Army Corps of Engineers for the site-specific drainage design, as well as the City and County of Denver, the City of Aurora and the Lowry Redevelopment Authority. The project is located in an area that has numerous jurisdictional parties, on a closed Air Force Base within a contaminated area, within a 100-year floodplain designated by FEMA, and within the Probable Maximum Flood storage volume of the Westerly Creek Dam. The multiple challenges regarding the location of the site required that we spearhead efforts via ongoing meetings and proactively identifying and resolving conflicts. In addition, the design timeline was rigorous as the time between the project start to the beginning of construction was four months. Mr. Margraf was proactive in discussions with UDFCD and the municipalities to alleviate the need to provide a CLOMR and thus maintain the demanding schedule. The LOMR was processed and approved by FEMA.

MDA-B Superfund Site – Los Alamos County, NM: MDA-B is a federal superfund site located in Los Alamos County, New Mexico. The site is a landfill utilized in the 1940s by the National Laboratory and



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consists of a broad range of chemical, industrial, and nuclear waste. The project consisted of clean-up efforts to remove, categorize, sort and contain contaminated material for transport via enclosed apparatus to permitted disposal sites. **J3 Engineering Consultants** was hired to plan, design, prepare and provide construction administration for the general civil components on the project. The general civil components included the following: exploratory landfill efforts such as direct push technology, construction sequencing and enclosure movements, grading phasing and excavation plans, stormwater management plans, utility evaluation for decontamination trailers, site layout and intermodal analysis, demolition plans and reestablishment operations. The project design phases included coordination of multiple disciplines and jurisdictional entities. Additionally, Mr. Margraf was responsible for leading construction specification development associated with the general civil portion of the scope. Site construction observation and administration was provided to ensure construction practices were upheld, to field modify the design to address contamination conditions, and to meet the project schedule.

Falmouth River Bridge Washout Study – Town of Falmouth, Pendleton County, KY: Was contracted by the Kentucky Department of Transportation to analyze bridge replacement options for the Falmouth Bridge which was destroyed during a flood event in 1997. Responsibilities included hydrologic and hydraulic analysis to generate a HEC-RAS model to replicate the 1997 flood event. This included critically comparing the modeling against stream gauge data and eye witness accounts. Once calibrated, hydraulic modeling for various roadway and bridge replacement alignments were analyzed to determine effects on water surface elevations for a variety of storm events and the associated bridge scour. Presentations to KyDOT to elaborate on design criteria and analysis techniques occurred. Once the preliminary presentations were completed, a preferred alignment was selected.

Tates Creek Hydraulic Analysis and Flood Protection Study – Lexington, KY: Was contracted by the Lexington-Fayette Urban County Government to analyze a problematic section of Tates Creek. Several homes directly adjacent to the tributary flooded during a series of severe storm events. Responsibilities included a community flood survey, hydrologic and hydraulic analysis to generate a HEC-RAS model to replicate the flood events and determination of cost effective mitigation. This included critically evaluating the modeling to stream gauge data and eye witness/home owner accounts. A study was generated to identify hydraulic inefficiencies, determine mitigation options and create a multi-faceted “punch list” to improve stream conveyance and maintenance. The study was presented to the client and the recommend option of purchasing the frequently flooded homes was implemented.

Detention Pond Improvement Study – Lexington, KY: Was contracted by the Lexington-Fayette Urban County Government to analyze a poorly functioning detention pond which discharged to a section of Tates Creek. The sub-regional detention pond served a commercial campus and ultimately conveyed attenuated runoff to Tates Creek. The pond outfall was eroding the creek bed and several homes adjacent to the outfall location experienced frequent inundation of property. Responsibilities included tributary verification, historic and existing campus hydrologic analysis to generate the required pond volume, attenuation analysis for the existing and updated pond conditions, determination of the outfall

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erosive potential and determination and comparison of the time to peak for the pond versus Tates Creek. A study was generated to identify the pond and associated outfall reconfiguration recommendations, to evaluate the effectiveness of the pond when compared to the regional hydrograph of Tates Creek and design recommendation for erosion protection.

Falmouth River Bridge Washout Study – Town of Falmouth, Pendleton County, KY: Was contracted by the Kentucky Department of Transportation to analyze bridge replacement options for the Falmouth Bridge which was destroyed during a flood event in 1997.

Tates Creek Hydraulic Analysis and Flood Protection Study – Lexington, KY: Was contracted by the Lexington-Fayette Urban County Government to analyze a problematic section of Tates Creek. Several homes directly adjacent to the tributary flooded during a series of severe storm events.

Steel Ranch South – Louisville, CO: Leading all due diligence, entitlement and engineering design efforts for this multi-family development located in Louisville. Final design will include roadways, utilities, mass grading, and stormwater management.

Downtown East Louisville (DELO) – Louisville, CO: Working closely with the DELO redevelopment effort of a brownfield. Project will include mixed use transit oriented development of approximately 12 acres. This work includes all work from entitlement to final approval, including coordination and permitting with the adjacent railroad.

Centennial Center – Centennial, CO: Providing subregional infrastructure and individual pad site designs for this approximate 20-acre commercial and retail development. The work includes engineering design from planning entitlements through construction.