

# EHRA ENGINEERING

Engineering high-quality, low-impact designs  
for the Houston Market





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**W**ith a strong suite of land development-related engineering services, EHRA Engineering has long stood out in the Houston market for both experience and diversity. At 79 years old, the distinguished firm has adapted early and often over the years in an effort to continually meet the changing needs of its public- and private-sector clientele.

After World War I, Texas experienced significant industrial development. The city of Houston focused primarily on its port, the expansion of railroads and coordination of the state highway systems. The flood of job opportunities enriched Houston with a surplus of hard-working families and cultures from all over the globe, and for many years the city struggled to keep up with the growing numbers.

In 1936, longtime resident, T.C. Edminster Sr., recognized the city's need and officially opened Edminster Engineering. His goal was not only to build a successful engineering firm, but also to build quality-engineered residential subdivisions for his fellow Houstonians. Nearly eight decades later, EHRA is the second oldest continuously operated civil engineering firm in Houston.

## **Diverse expertise**

Led by Truman Edminster and Jim Russ, principals and owners of EHRA, the firm's leadership team works with a staff of approximately 125 people, including engineers specializing in 16 disciplines. Developer clients frequently approach the team with raw land for which EHRA's experts perform surveying, land planning, hydrology and hydraulics, construction phase services and all types of land development engineering.



The firm's divisions include public infrastructure, traffic and transportation, hydrology and hydraulics, land planning, land development engineering, surveying, construction phase services, as well as landscape architecture. These services complement each other to assist public and private clients with all manner of development projects, helping to efficiently serve the city, the county and the state as well as single-family residential, retail and commercial clients.

The firm's land development services have long stood as a strongpoint for the business. EHRA offers drainage system design, wastewater collection and treatment system design, water treatment and distribution system design, street and roadway design, bond applications and special district consulting services. This division has been involved in construction in the Houston market since the company opened its doors.

### **Recent applications**

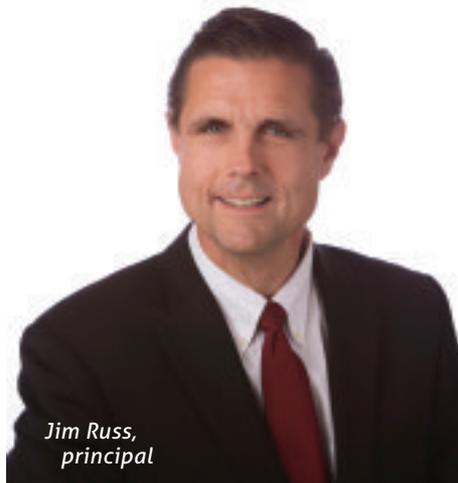
The land planning division is currently working on the Towne Lake master planned community, a 2,400-acre planned development that aims to offer premium living in the Houston metropolitan area. The plan incorporates three municipal utilities districts, one management district and a 325-acre multiuse detention and amenity lake system.

Additional infrastructure and amenities include three major thoroughfares with multiple bridges, overlooking lakes and

landscaped areas. Future residents will also have access to a boardwalk, trail system, a marina for boat access to shopping and restaurants, pocket parks and a recreation center. Ultimate development will be served with two water plants, two wastewater treatment plants and multiple lift stations.

EHRA is also currently working on the Meridiana Master Planned Community, an upscale planned community in Brazoria County, Texas. The community is comprised of 81 sections and scope of work for EHRA included surveying and engineering design for excavation, paving and grading, water mains, storm sewers, sanitary sewers, detention basins and amenity features and street paving for a 2,600-acre development. The community offers 5,500 single-family residential lots, multifamily residential, commercial, school and park developments.

One of the more challenging aspects of the project was remapping the Chocolate Bayou watershed to remove large portions of the development from the 100-year floodplain. EHRA also designed a complex drainage system, consisting of multiple detention facilities to be utilized as amenity features. The project also includes the design of several bridges, including a crossing over the Burlington Northern Santa Fe Railroad and multiple crossings over drainage facilities. In addition, the project will incorporate the design and construction of two wastewater treatment plant facilities and two water plants capable of serving the development's projected need.



Jim Russ,  
principal



## Defining success

As EHRA maintains a path of steady, sustainable growth, the firm now employs approximately 125 people. With the residential development market on a steady, upward trajectory, the team is making adjustments as time goes on to ensure continued success.

“For many, success refers to business and financial success, but for us more importantly it is satisfaction success,” explains Russ. “You have success when you have happy employees working with you every day. It is about the lives that you are able to enrich. Making a profit is just a byproduct of the more important ability to make your employees happy and satisfied,” Russ adds. “A lot of people are just interested in the profit component, but having happy and satisfied employees is my end-game.”

This level of relationship-building trickles down through the organization, starting with the leadership team and extending to employees, partners and most importantly, clients. In terms of developers and end users, particularly in the residential segment, a successful project is one that meets the needs and exceeds the expectations of the client.

Russ keeps his colleagues motivated by what the team affectionately refers to as “Jim-isms.” His personal favorite: “Keep it fresh.” “I am constantly pushing the team



to be on the forefront of technology,” he elaborates. “You want to be able to show your client a new technique that you have or a product that makes things easier rather than having them come to you and saying, ‘Hey, look what your competitor is doing, why aren't you are doing it?’”

EHRA has long been ahead of the curve with technology. In the late 2000s, the firm was instrumental in the development of a system for online bid work and plans systems that has been strongly embraced by the engineering world. The program has softened the impact of the bid process on the environment by reducing paper waste and carbon emissions from people driving “paperwork” around.

Looking ahead, Russ and his colleagues will continue to encourage innovation as EHRA Engineering provides quality, efficient, environmentally sensitive design and engineering services to the Houston market. •

# HYDROLOGY AND HYDRAULICS

**EHRA** is experienced in hydrologic and hydraulic analysis for small or large-scale land developments, flood plain analysis and mapping, public works drainage and flood reduction projects. Our staff uses HEC-HMS, HEC-RAS, HEC-GeoRAS, ICPR, SWMM, GIS and other software to perform drainage impact studies, regional storm water detention plans, and prepare FEMA Letters of Map Change (CLOMR, LOMR, LOMR-F). EHRA has been at the forefront of analyzing and integrating Low Impact Development techniques to improve storm water quality and reduce runoff in the Houston area. EHRA also excels at integrating hike and bike trails, landscaping, and athletic and recreational facilities with drainage and detention facilities to add value to the overall project.



Beaver Dam



Eagle Landing - Channel Rectification



Jacobs Reserve



Brickhouse Gully Detention



Terrace Brook



Towne Lake



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