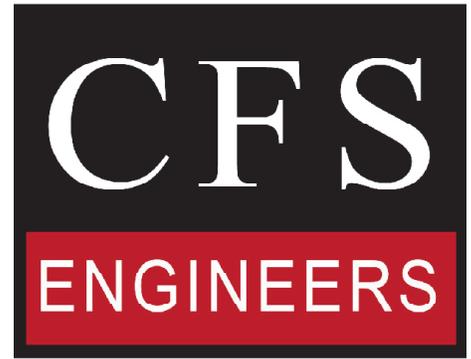


STATEMENT OF
QUALIFICATIONS



*ROADWAY
DESIGN*

Type of Business: C Corporation
Date of Establishment: 1961

CONTACT INFORMATION

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CFS Engineers is a leading provider of professional engineering, planning and surveying services. Our staff of approximately 100 professionals considers it a privilege to have partnered with communities for the past half-century, and we are just as committed today to our core-values of service, as when we began in 1961. To Cook, Flatt & Strobel, engineering is more than just an eye-pleasing design. To us, engineering means relationships, community and trust while creating lasting, reliable partnerships with common goals. We work hard to deliver quality with passion while remaining flexible and dependable.

We strive to have excellent interactions with our clients, bringing them both our expertise and experience to create better neighborhoods, safer streets, and sound structures. Within each project, we strive to improve quality of life, protect natural resources and better the environment in which we all live. CFS integrates a broad range of services within one organization, offers comprehensive approaches to clients, and provides expertise to infrastructure challenges.

WORKFORCE DIVERSITY

CFS supports the individual characteristics and experiences of our diverse staff. Our leadership and staff proactively promotes recruitment and collaboration of diverse talent that will add to our firm's resiliency and dependability. Our hardworking attitude seeks new points of view to better serve our community, add to our range of professional capabilities, and provide comprehensive insightful planning and design services. We believe in the natural innovation that occurs by collaboration between unique educational, managerial, political, cultural, and socioeconomic backgrounds. By discovering how our differences, our experiences, and our work passions can interconnect, we bring out a stronger appreciation for all walks of life into our daily workflow and expand our staff's experiences through collaboration of diverse project teams. Our team is committed to equal opportunities, hiring highly qualified candidates, supporting employee efforts to contribute to our work environment, supporting employee advancement and enthusiasm to grow into management, strengthening our public engagement by supporting multiple languages, and advancing our internship and mentorship programs. We actively promote the growth of diversity in the workforce through our high school outreach programs and by partnering with institutions of education to encourage undergraduates and graduates to explore their engineering talents regardless of age, religion, gender, race, ethnicity, disability, sexual orientation, communication style, work style, economic status, and geographic origin.

TRANSPORTATION PLANNING

We build consensus by identifying the connections, overlaps, and magnets between planning issues. With a strong history in transportation planning and many years of experience working with MoDOT, we are focused on improving transportation options. Our capabilities cover corridor studies, lane capacity, auxiliary turn lanes, utilization factor analysis for active transportation modes, bus routing, truck haul routes, pavement and sidewalk investigation, VISSIM and Synchro, Multimodal Transportation Master Plans, Access Justification Reports, and prioritization planning for improvements.

Project Showcase - MoDOT & Branson, MO - Spirit of 76 Complete Streets Project

CFS Team led the completion of the Spirit of 76 Master Plan, a guiding document for the proposed long-range improvements for a 5-mile section. The goals of the project include improvement to safety, reduction of visual clutter from overhead utility lines, aesthetic lighting management, themed amenities, encouragement of walking and biking, and overall improvement to the economic vitality of Branson's central attraction area. Multimodal transportation elements included a 15 ft wide pedestrian promenade, new sidewalks, reduction of driveway access points, trolley/transit stops, pedestrian crosswalks with new signalization, and the implementation of a regional transportation management system to improve travel and congestion. CFS was responsible for the creation of an overall plan of finance for the project and assisting the City with the establishment of a community improvement district. CFS responsibilities included project management, property owner/stakeholder public involvement, right-of-way negotiation, MoDOT/FHWA collaboration, roadway planning and design, legal assistance to the City, and utility coordination. A tremendous amount of traffic engineering analysis and modeling was included in this work in order to coordinate overall improvements with MoDOT. CFS prepared construction plans and bid documents for the first phase of the overall construction project.

Project Showcase - Independence, MO - Fairmount Business District Plan

CFS provided transportation planning and roadway concept design alternatives for the roadway needs assessment for Fairmount Business District. Project tasks focused on access management, consolidation of offset intersection approaches, on-street parallel parking, off-street bicycle facilities with protected intersections, a pedestrian plaza, trail connectivity, and application of complete street principles.

Project Showcase - Cape Girardeau, MO - Kiwanis Drive Corridor Study

CFS provided a transportation plan that addressed improvements to the roadway network within Arena Park including the intersection of Maria Louis Lane & Kiwanis Drive/N Broadview Street. Recommendations included a change to the intersection of Maria Louis Lane & Kiwanis Drive/N Broadview Street by realigning Kiwanis Drive to connect to N Broadview Street and extending Optimist Drive between Kiwanis Drive and Maria Louise Lane. The report included a regional parking management plan for community events.

COMPLETE STREET DESIGN

CFS specializes in complete streets that reduce congestion, reduce emissions, and provide improved access for all transportation modes. We have the versatility to design any type of roadway project including rehabilitation/reconstruction, local streets, urban/rural arterials, freeways, multi-level interchanges, intersections, and bicycle and pedestrian facilities. Our pedestrian facilities match the required width depending on the density of activity which can vary from a 4 ft sidewalk to 10 ft stream-side path to a 20 ft roadside promenade through the heart of a community. To encourage active trail use, our design professionals supplement the path with a tree canopy, pedestrian-scale lighting, safe crossings, wayfinding and historical signage, trailhead parking and gateway design, connectivity to parks and businesses, shelters/restrooms/maintenance facilities, and education programming.

Project Showcase - Kansas City, MO - Maplewoods Parkway

This project was constructed by the City of Kansas City, Missouri Parks and Recreation Department for a total of 1.8 miles. The project will eventually extend north to North Cookingham Road, completing a vital north-south link in this rapidly developing part of the City. CFS completed the design of the roadway improvements which will transform the route from a narrow, hilly two-lane road to a rolling parkway with variable width medians, roundabouts intersections, bike lanes, trails, and a diversity of landscaping. The proposed project will incorporate BMP practices by grading the wide landscaped medians to create rain gardens. The design included sections of reverse crown pavement which direct runoff into the median rain gardens. This project also included energy dissipation to lower outlet velocities from the storm sewer system.

Project Showcase - Kansas City, MO - Shoal Creek Parkway

The design and construction of this project represented a vital step in completing a much needed east-west corridor for Kansas City and a major portion of the City's parkway network. CFS completed plans for this 0.5 mile extension of Shoal Creek Parkway and led all aspects of the project. The typical section chosen for the roadway dramatically changed this open-ditch roadway section to a divided four-lane parkway with variable width medians. The project included bike lanes, multi-use paths, sidewalks, lighting, and improved storm drainage.

ROADWAY DESIGN-BUILD

One of the most efficient and cost-effective strategies of construction is the Design-Build concept where the timeline of the project overlaps construction and design. It unifies the responsibility for the project in one source, the Design-Build team, reducing the chance of any surprise issues or miscommunication during construction. This concept allows for more owner participation, single-source responsibility, better communication, value engineering, fast-tracking, and improved cost management of the project. CFS Engineers has been successfully completing Design-Build projects for several years including recent projects in Rogersville, MO, Springfield, MO and Kansas City, MO.

Project Showcase - Springfield, MO - Design-Build Grant Avenue Parkway

Teamed with Radmacher Brothers Excavating, the Grant Avenue Parkway project is the largest infrastructure project in the history of Springfield city limits. Funded through the RAISE grant program, the 22 million dollar project replaces a 3 lane road with a 2 lane road and a 10 ft wide pedestrian freeway. Delivered Compliant with Federal Requirements including NEPA, this project includes a roundabout, three protected intersections, traffic signal replacements, an urban greenway trail, and advisory bike lanes. The project innovations include a smart trail corridor, extensive use of raised crossings for traffic calming, and undergrounding all utilities along the corridor. Acquisition of right-of-way was included in the cost of construction.

Project Showcase - Kansas City, MO - Vision Zero Design Build

Kansas City's inaugural Citywide Vision Zero program covered seven key intersections that had excess expected pedestrian crash frequency. This design-build project focused on installation of pedestrian improvements including signal upgrades, sidewalk ramp reconfiguration, traffic calming, and curb bumpouts. These pedestrian-level enhancements were focused on mitigating observed pedestrian-vehicle conflicts and addressing egress movement between transit riders and nearby intersection crossings. The improvements were coordinated with KCATA, Parks & Recreation, MoDOT, and adjacent property owners at each intersection corner.

Project Showcase - Kansas City, MO - Design-Build Wornall Road

In one of the inaugural projects completed as part of Kansas City's GO KC program, CFS teamed with Miles Excavating to deliver roadway improvements to Wornall Road from 85th to 89th Street. This project provided new pavement, sidewalk, and curbs for a 2,800 ft segment. In addition to removing and replacing the failing roadway pavement, the project replaced all existing sidewalks on the west side of the street, added missing segments of sidewalk, and a new sidewalk for the entire project length on the east side of the street.

Project Showcase - Kansas City, MO - Design-Build North Oak Trafficway (NE 42nd Street to N. Indianola)

As part of the City of Kansas City's innovative design-build delivery process, CFS Engineers and Pyramid Excavation & Construction teamed to provide design and a total roadway reconstruction, curb and gutter replacement, driveway entrance replacement, and intersection ADA improvements for 0.5 miles. This section of North Oak had previously been a part of the Missouri Department of Transportation roadway network and had no pedestrian or bicycle facilities. To meet the City's goals for expansion of active transportation, this project included the addition of sidewalks and bike lanes.

Project Showcase - Kansas City, MO - Design-Build 39th Street (Cleveland Avenue to Elmwood Avenue)

CFS and Pyramid Excavation & Construction provided design elements including roadway reconstruction, curb and gutter replacement, curb inlet replacement, driveway entrance replacement, and intersection ADA improvements. The project also included the removal and replacement of 7 fire hydrants.

ROADWAY IMPROVEMENTS

Project Showcase - MoDOT & Columbia, MO - MO Route 740 / Stadium Boulevard

CFS was the lead consultant for this unique and innovative partnership with the City of Columbia and MoDOT. CFS worked on the corridor improvement that included increased roadway capacity, improved access management, enhanced traffic management, and safety for pedestrians and bicyclists. This design also included plans for a diverging diamond interchange (DDI).

Project Showcase - Cass County, MO - School Road

CFS was responsible for the planning, design, and construction inspection of the reconstruction of School Road. Since School Road is the main roadway into the main campus for the Raymore-Peculiar School District, all work had to be coordinated with school schedules and CFS facilitated communication between the cities of Raymore and Peculiar, all emergency service providers, the school district, and MoDOT. The project included converting an existing 24 ft roadway with open ditches to a 24 ft urban roadway with curb & gutter and storm sewers. At each intersection, left turn lanes were provided. For Phase 3, the left-turn lane was provided for the full length of the roadway.

Project Showcase - Warsaw, MO - Truman Dam Access Road

This 0.2 mile segment of Truman Dam Access Road focused on shoulder improvements, adding bike lanes, and the installation of a new traffic signal at Truman Dam Access Road & Commercial Street. The scope included a traffic report, survey, environmental permitting, and construction plans. The construction plans included curb and shoulder replacement, bike lane design, traffic signal design, preliminary traffic signal timing, vehicle detection, signal wiring diagrams, pavement marking, and necessary changes to utilities.

ROADWAY SAFETY DESIGN

Our engineers have an impressive toolkit of options when it comes to reducing aggressive driving behavior through low cost but lasting design features.

Project Showcase - Lebanon, MO - Evergreen Parkway Improvements

CFS Engineers lead the development of roadway and utility design to provide safe and effective access and services for the new Middle School in Lebanon. This project consisted of reconstructing 220 ft of Evergreen Parkway and new construction of 800 ft of Slate Street. To alleviate traffic conflicts at an intersection involving an odd entry angle, CFS designed a roundabout creating a safe effective solution for buses serving the middle school and truck traffic serving the industrial developments to the north. CFS was able to design a roundabout so that part of the existing roadway could be used as a right-turn bypass to the roundabout, lowering the project cost of construction. This project also included approximately 1,810 ft of new 12 in. waterline and 1,940 ft of 8 in. sanitary sewer line. Construction included clearing, removal of improvements, grading, enclosed storm system, paving, erosion control, street lighting, permanent signing, and pavement marking.

Project Showcase - Riverside, MO - Mattox Road Reconstruction

This project improved a segment of roadway with a vertical grade in conflict with industrial semi-truck access and adjusted the approach to a railroad crossing. CFS designed the roadway and shoulder replacement including vertical profile realignment, curb & gutter, stormwater piping, pavement markings, signage, and erosion control.

Project Showcase - Independence, MO - W Pacific Avenue

The project provided improved bicycle and pedestrian mobility with direct connection between the Truman Depot Train Station and the National Frontier Trails Museum. This corridor is an important link to the National Historic Trail Retracement and plans had to comply with MoDOT funding requirements including design standards, specifications, ADA regulations, and unit bid pricing. The CFS Roadway Design Team evaluated three alternatives for improved accessibility in consideration of the physical design constraints which included steep terrain, railroad tracks adjacent to the travel lane, utilities, and private property. All options required consideration for the existing traffic volumes, truck circulation patterns, pedestrian crossings, railroad crossings, and stormwater inlets. Major improvements under discussion included bike lanes, pedestrian refuge islands, improved pavement markings, new signage, and new options for parking utilizing available roadway width. All of these options were discussed with the City of Independence who helped steer the final design within the constrained area to consist of a straight curb, an off-street pathway, and bike sharrows. Bid documents were completed with minimal impact to property owners, stormwater inlets, railroad tracks, and utility pole relocations.

ROADWAY WIDENING DESIGN

Project Showcase - Kansas City, MO - 155th Street Improvements

The design focused on the reconstruction of 3,500 ft of roadway including a pair of 28 ft wide divided median roadway sections, 127 ft long 6 ft x 6 ft box culvert, 26 storm inlets, 3,200 ft of storm pipe utility relocations, and 60,000 cubic yards of earthwork. Along with the roadway improvements, the project includes the construction of a 10 ft trail and a 5 ft sidewalk. CFS completed surveying, roadway design, street lighting, storm sewer, erosion control, NPDES and MDNR permitting, stormwater detention, BMP analysis and design, Right of Way acquisition, and construction administration services. For this project, CFS incorporated the latest 3D modeling techniques to create a complete complete representation of the proposed project.

Project Showcase - Kansas City, MO & Jackson County, MO - Longview Road

CFS was selected to design two phases of roadway widening projects on Longview Road. The first phase encompassed widening Longview from a two-lane rural-type roadway to a three lane urban roadway. This project included bike lanes on each side, an enclosed storm drainage system, sidewalks, and street lighting.

Project Showcase - Platte County, MO - Interurban Road Improvements

This project consisted of pavement overlay and widening of a 29,500 ft segment of Interurban Road. Construction consisted of removal of improvements, linear grading, drainage structures, underdrains, paving, erosion control, seeding and mulching, pavement marking, and traffic control. CFS Engineers provided a LIDAR survey for 9 miles of roadway. Project constraints included construction budget, public expectations, and right-of-way availability. The ultimate cross section consists of a 4 in. asphalt overlay on existing pavement and 2 ft of full depth pavement replacement on each side of the roadway, resulting in a 24 ft total roadway width. Drainage structures were extended as needed throughout the project.