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who we are...

Multi-Discipline Engineering and Consulting Services

We are a small Professional Engineering and Consulting company comprised of people with vast experience in many technical and engineering disciplines for industrial and commercial work. We have been in business since March 2000 and are licensed in North Carolina, South Carolina, Tennessee and Oklahoma.

Our Mission ...

To provide the highest quality Commercial, Industrial, and System Integration engineering and design services that meet our customer's requirements by:

Working side by side with each customer to insure complete communication and understanding of requirements

Meeting all deadlines while maintaining the highest standards

Holding customer costs to a minimum through value added services at low cost

Our Principals ...

We believe that the way we operate our business and provide services to our clients should be a reflection of our Christian beliefs:

"What ever you do, work at it with all your heart, as working for the Lord, not for men" (Colossians 3:23)



what we do....

Located in the mountains of Western North Carolina and Foothills of Tennessee, we provide Industrial, Commercial and System Integration engineering services in North Carolina, South Carolina, and Tennessee. Our Principal Engineers have over one hundred years of combined experience in Mechanical, Electrical, Civil/Structural, Instrumentation, and Control engineering:

- Civil / Structural
- HVAC
- Mechanical
- Electrical
- Instrumentation
- Chemical Plants
- Fiber Processing
- Utility/Power
- FDA Process Validation
- Machine Design
- Process Development & Integration
- Drafting-AutoCAD® & Microstation®
- Cost Estimation
- Automotive
- Surveying



civil / structural

ESS offers a full range of civil and structural engineering services to Industrial and Commercial markets. Our engineering capabilities extend from the most basic planning functions to the most advanced engineering calculations. We are experienced in the latest design codes and construction technologies.

Innovative Solutions.... to your Engineering Needs

Civil Engineering

Grading Plans
Site Drainage
Erosion Control
Storm and Sanitary Sewers
Roads
Railroads
Truck / Rail Loading Facilities
Secondary Containment
Asphalt & Concrete Pavements

Structural Engineering

Shallow & Deep Foundations
Structural Steel
Reinforced Concrete Structures
Timber Structures
Dynamic Analysis
Blast Resistant Structures
Failure Analysis
Retaining Wall Systems
Fall Protection Applications
Finite Element Analysis
Offshore Structures
Pre-Engineered Bldg
Foundations



mechanical

ESS provides a complete range of mechanical and piping services to equipment manufacturers, operating companies, commercial properties, educational facilities and the chemical and fiber industry. Our personnel are experienced in design of the following systems:

Innovative Solutions.... to your Engineering Needs

Industrial Applications

Process and Piping

Pressure Vessel Design
Piping Systems
Process P & ID's
Relief Valve Sizing
Reactor Design
Process Verification

Mechanical

Process Equipment
Utility Systems and Boilers
Heating Systems
Machine Design
Energy Audits
Material Conveying Systems

Filtration

Liquids Gas Solids

Commercial Applications

Air

Package Units Split Systems Heat Pumps Furnaces Compressed Air Vents and Ducts

Water

Boilers Chillers Cooling Towers Hydronic Systems

Plumbing

Potable Water
Sanitary Sewer
Waste Vent Piping
Waste Vacuum Piping
Hot Water Supply



electrical

ESS provides electrical and instrumentation services to meet the needs of our clients in both the commercial and industrial markets. We have design capability and experience in the following areas:

Innovative Solutions.... to your Engineering Needs

Industrial Applications Commercial Applications Electrical Power Lighting Design Distribution MCCs Proper lighting level Energy saving Distribution feeders Switchgear Dimming systems/controls Transformers Stage lighting Motor Starters Fault current analysis Power Design and Field analysis and trouble-Distribution • shooting Panel load analysis Service entrance loading analysis Ensure all panels and wiring are properly sized **PLC and Microprocessor Emergency Systems Based Controls** Fire Alarm Emergency egress/exit lighting Backup Emergency power **DCS Engineering Security Systems** Low-Voltage wiring **Building Management** E-2 **Systems**



systems integration

Today's competitive organizations are utilizing the concept of "Core Staffing", choosing to outsource support functions. This use of a flexible workforce... one that complements your existing staff while meeting your changing needs, enables your key personnel to stay focused on strategic business activities. ESS has business experience in the areas listed below. Call us.

Project Management
Equipment maintenance
Asset recovery
CAD Drafting
SAP
Maintenance Process Improvements
Estimating
Training & Education
Manufacturing/light industrial



key people...

Kyle Loseke, P.E.

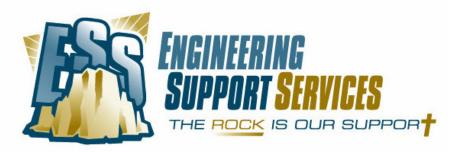


Although our youngest Principal Engineer, Kyle serves as President of ESS and has proven to be a key driver in the continued success of our company. In addition to his administrative responsibilities, Kyle leads the commercial portion of our business. Kyle received his Masters Degree in Mechanical Engineering from North Carolina State University in 1991. For the next 10 years he held various engineering and maintenance positions with BASF Corporation. To fill a need within ESS, Kyle has migrated heavily toward the electrical engineering field and now serves as our Principal Electrical and Mechanical Engineer for commercial projects. Kyle enjoys renovation projects and is involved in numerous activities at North Asheville Baptist Church.

Ron Blaine, P.E.



Ron has been with ESS from the beginning as Principal Engineer and part owner. With a strong background in stationary and rotating equipment, process piping, material handling, and reliability engineering, Ron leads our efforts in the Industrial market. A graduate of North Carolina State University with a BS in Mechanical Engineering, he has held positions with Carter-Web Corporation, Carolina Power & Light, and BASF Corporation. In addition to his role in the Industrial arena, Ron has experience with HVAC and plumbing for various commercial and educational facilities. An avid road and mountain biker, he enjoys participating in cycling events with his wife. Ron is a member of Biltmore Baptist Church.



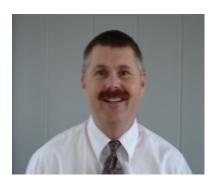
key people...

Tom Ray, P.E.



As founding partner and Principal Engineer, Tom is the most experienced member of the ESS staff with over 35 years of mechanical engineering practice to his credit. Tom specializes in the design and specification of mechanical equipment. His many years of experience make Tom a valuable resource during plant startups or modifications to existing equipment. Previously, Tom has twice owned engineering companies as well as a John Deere dealership. Over the years Tom has been involved in missionary activities with trips to Mexico, Ecuador, Brazil, Belize as well as activities here in the US.

K. David Martin, P.E.



A recent addition to the ESS Staff as Principal Engineer and Part Owner, David brings over 20 years experience in civil and structural design of commercial and industrial facilities. Before joining ESS, David served as Manager of Civil Engineering for BASF Corporation. During his 14 years with BASF, He served in both plant and corporate engineering positions at various sites in the US. David has also held structural and project engineering positions within the construction, design, and facility services fields. David brings to the table strong technical skills along with a practical and common sense approach to the application on engineering principals. David attends the Oneida Church of Christ.



staffing strategy...

CORE EXPERTISE -

ESS MAINTAINS LICENSED PROFESSONAL ENGINEERS IN ALL MAJOR DISCIPLINES:

CIVIL STRUCTURAL MECHANICAL ELECTRICAL

<u>SUPPORT STAFF</u> -

TO SUPPLEMENTOUR OUR NORMAL WORK FORCE, ESS UTILIZES EXPERIECED FULL AND PART-TIME RESOUCES WHO HAVE PROVEN EXPERTISE IN THE COMMERCIAL AND INDUSTRIAL SECTORS. TYPICAL PROJECT SPECIFIC RESOURCES INCLUDE:

CAD OPERATORS
PIPING ENGINEERS
DESIGNERS
INSTRUMENT ENGINEERS
PROJECT ENGINEERS

ALLIANCE PARTNER -

WE HAVE FURTHER LEVERAGED OUR ABILITY TO HANDLE PEAK MANNING FOR COMMERCIAL AND INDUSTRIAL PROJECTS BY ESTABLISHING AN ALLIANCE WITH A ME&P ENGINEERING FIRM LOCATED IN SOUTH CAROLINA. THE SEAMLESS INTEGRATION OF **ESS** AND OUR ALLIANCE PARTNER HAS INCREASED OUR FLEXIBILITY AND STAFFING CAPABILITY TO MEET DEMANDING SCHEDULES AND EXECUTE LARGER PROJECTS.



how to reach ESS...

THE NEXT TIME YOU HAVE A NEED FOR VALUE-ADDED ENGINEERING SERVICES CONTACT US AT ONE OF OUR LOCATIONS LISTED BELOW:

MAIN OFFICE

BRANCH OFFICE

P.O. Box 18163 Asheville, North Carolina 28814 TEL: (828) 768-0450 FAX: (864) 335-9888 P.O. Box 4834 Oneida, Tennessee 37841 TEL: (615) 469-5145 FAX: (615) 301-8550

IF YOU NEED TO SPEAK TO SOMEONE AFTER NORMAL BUSINESS HOURS, PLEASE CONTACT ONE OF OUR PRINCIPAL ENGINEERS:

Commercial applications.....

contact Kyle Loseke at (828) 768-0450

Industrial applications....

contact Ron Blaine at (828) 768-0451

Equipment Design applications....

contact **Tom Ray** at (828) 768-0452

Civil/Structural applications....

contact **David Martin** at (828) 768-0457



typical client list...

INDUSTRIAL CLIENTS:

BASF CORPORATION CHEMICALS
 COLBOND FIBERS
 LENZING FIBERS
 HONEYWELL FIBERS

ADVANCED SUPERABRASIVES MANUFACTURING
 US FILTER FILTRATION

➤ SILVER-LINE PLASTICS MANUFACTURING

COMMERCIAL CLIENTS:

- NORTH ASHEVILLE BAPTIST CHURCH
- ASHEVILLE-BUNCOMBE TECHNICAL COMMUNITY COLLEGE
- REYNOLDS BAPTIST CHURCH
- ROBINS & MORTON CONSTRUCTION COMPANY
- GLAZIER ARCHITECTURE
- PROFESSIONAL BUSINESS INTERIORS
- COMFORT INN
- MAGGIE VALLEY RESTAURANT
- WILD WING CAFE
- CALVARY CHAPEL
- EMMANUEL CATHEDRAL CHURCH