

The background features a dark blue field with several overlapping, semi-transparent shapes in lighter shades of blue and white. These shapes are geometric and angular, creating a sense of depth and movement. The text is positioned in the upper right quadrant of the image.

A L L I A N C E
D I R E C T O R Y *of* S E R V I C E S

In 1989, Alliance was formed to meet the engineering, construction management and program management needs of the industrial, manufacturing and power generation industries with a focus on highly responsive service without sacrificing quality. As the industry has evolved, Alliance has always remained flexible enough to see opportunities to do things better. It's how Alliance expresses its deep commitment to helping these sectors stay competitive and grow the U.S. economy. Alliance has listened to clients' changing needs and adapted, resulting in a 95% repeat business ratio and a focus on developing increasingly specialized, category-specific services and capabilities. Responsive, agile and flexible, Alliance continues on its growth trajectory, providing turnkey solutions to clients worldwide. This, while remaining steadfastly committed to innovating efficiencies in partnership with clients to keep domestic manufacturing strong. **Three offices across Virginia and Maryland, and more than 100 employees later, Alliance is positioning to become the most trusted brand for engineering services in every sector of the manufacturing industry.**



ALLIANCE

OUR NAME IS OUR
PARTNERSHIP
PHILOSOPHY.

CIVIL/STRUCTURAL ENGINEERING & ARCHITECTURAL SERVICES

Our CSA services provide you with in-depth knowledge of how to meet your site/building goals. Our services range from conceptual master planning to finite element stress analysis. Working together with your in-house staff and local code officials, we focus on providing you with cost effective site/building designs.

CIVIL

Geotechnical Investigations - Shallow & Deep Foundations

Infrastructure & Environmental Services

Landscape Architecture & Land Planning

Permit Acquisition/Expediting

Site Development - Roadways, Buildings, Easements

Site Grading & Erosion and Sediment Control

Site Surveys for Grading & Boundary Conditions

Storm Water Management

Underground Utility Location Services

STRUCTURAL

Analysis & Design of New Structures Using Steel/
Aluminum/Concrete/Masonry/Timber with Finite Element
Computer Modeling

- › Multistory Buildings/Industrial Structures
- › Crane Repairs & Upgrades
- › Equipment Foundations
- › Pipe Supports
- › Retaining Walls
- › Mezzanines/Platforms/Stairways
- › Barges
- › Waterfront Dock & Pier Design
- › Large Duct & Stacks



Crane Engineering & Support Services
Dry Dock Certification
Equipment Foundations & Vibration Analysis
Expert Witness
Failure Analysis - Steel, Concrete, Masonry & Timber
Fall Protection Surveys, Audits & Engineering
GMP Compliant Structural Designs
Inspection, Evaluation & Modifications of Existing
Buildings & Structures to Address:
› Corrosion
› Fatigue - Impact Damage
Real Estate Condition Assessments
Rigging Plans
› Equipment 100 Tons +
› Construction Sequencing
Special Inspections in Accordance with the Current IBC

ARCHITECTURAL

Building Design & Documentation
Code Compliance & ADA Studies
Construction Administration Services
Construction Documents
Existing Facilities Survey & Due Diligence
Facilities Management
Franchise Prototype Development
Lender's Inspection Services
Master Planning & Site Selection
Materials Selection
Programming
3-D Renderings



MECHANICAL/INDUSTRIAL HVAC / PROCESS ENGINEERING

Reliable, efficient and safe process and utility designs are the cornerstone of the Mechanical and Process group.

Working together with your in-house Mechanical/Process and maintenance groups, we focus on providing design solutions that optimize construction and operating costs.

Bulk Material Handling Systems

Conceptual Design, Cost & Feasibility Studies

Dry/Wet Dust Collection Systems

Energy & Material/Flow Balances

Energy & Utilities Management

Energy Audits

Equipment Design & Specifications

Equipment General Arrangements

Equipment Sizing & Specifications

Facilities Assessments

Fume Removal Systems

GMP/Clean Room HVAC Design

HVAC Retrofit

Hygienic Piping Design

Industrial HVAC Design

Life Cycle Studies

Machine & Equipment Improvements

OSHA Process Safety Management

Packaging

Pipe Stress Analysis

Piping Analysis & Design

Piping & Instrumentation Diagrams (P&IDs)



Piping/Plumbing Systems

Pressure Vessel Repair/Alteration Calculations

Process Conceptual Design & Feasibility Studies

Process Enhancement & Debottlenecking

Process Flow Diagrams (PFDs)

Process Hazards Analysis (PHA)

Process Piping Design

Studies & Evaluations (HVAC, Process, Utilities, etc.)

Tank & Pressure Vessel Design



ELECTRICAL/INSTRUMENTATION / CONTROLS ENGINEERING

Reliable power and control systems are what keep your processes going. Alliance's electrical and control services provide you with the expertise you need to minimize the cost of power and optimize the performance of your control systems. Alliance is also recognized as a leading provider of Arc Flash programs for Fortune 500 companies with evaluation services that include: field walk down and analysis, recommendations and the generation/application of warning labels and training.

AC/DC Drives & Motors

Arc Flash Analysis & Training

Conceptual Design, Cost & Feasibility Studies

Controls for Process Equipment, including Stand-Alone or Integrated PLCs & Programming Services

Emergency & Standby Power Systems, including Generators & UPS

Energy Efficiency Studies

Expansion/Modification of Electrical Infrastructure

Fire/Security Wiring Design

Grounding Systems

Instrumentation Specifications & Design

Lighting for Industrial Facilities, Parking Lots & Office Space, Lighting Controls

Lightning Protection Systems

New & Upgraded Electrical Services

Photovoltaic (PV) System Design

Power Distribution (35KV to 120VAC, 125VDC), and Specification & Design of Associated Equipment



Power System Analysis including Short Circuit Analysis
& Coordination Studies, Relay & System Protection

Power System Infrastructures

Substation & Transformer Sizing, Specifications
& Design

Switchgear/Switchboard/MCC Design

Turnkey Control Systems



CONSTRUCTION MANAGEMENT SERVICES

We can implement and monitor the safety, quality, schedule and cost control systems of your project as part of our total plant and facility services or as a separate function altogether. From conceptual engineering and construction to startup, we're prepared to implement our project management team during any phase of your job.

Estimating

- › Concept
- › Budget
- › Detail

Value Engineering

Constructability Reviews

Construction Scope Development

Bid Packaging Preparation

Pre-Bid & Pre-Award Meetings

Bid Analysis

Planning & Scheduling

Cost Control

Cash Flow Projections

Construction Support

Contract Administration

Support Safety Oversight

Pre-Commissioning/Commissioning/Start-Up

Owner Representation

Site Management

Staff Augmentation



SITE SELECTION

Alliance stands ready to assist clients in evaluating potential sites and opportunities for new facilities, from examining logistics and labor requirements to analyzing incentives offered by local jurisdictions and determining the overall cost of production. Additionally, we can assess the costs associated with the alternative option of relocating/modifying existing structures to meet client needs.

Conceptual Cost Estimates

Existing Building Surveys/Studies

Infrastructure Analysis

Site Assessment/Selection

Transportation Assessments

Work Force Comparisons



ON-SITE/PLANT SUPPORT SERVICES

Flexibility is essential to serving our clients' needs in today's fast-paced, ever-changing environment. We keep ourselves one step ahead of technology and market demands, growing with our clients to meet their changing needs. There are a full range of customized services we can provide to support your on-site team.

As-building & Field Verification

CAD Services

- › AutoCAD
- › Microstation
- › Revit
- › CADWorx
- › Navisworks

Crane Engineering Support Services

Dry Dock Certification Support Services

Engineering & Drafting (AutoCad/Microstation)

Facility Assessments

HVAC Retrofit

Life Cycle Studies

Maintenance Facility Engineering

On-site Design & Drafting

On-site Plant & Project Engineering

Preventive Maintenance Auditing

Project Commissioning

Support Services

3-D Project Documents

3-D Existing Plant Model Generation





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