



INNOVATIVE PROJECT SOLUTIONS

ENGINEERING & CONSTRUCTION
DESIGN-BUILD



CONTENTS

01...Message from the CEO

03...Services

07...Engineering

08...Design

09...Technical Builders

11...Project Management

13...Commissioning

15...Market Sectors

17...Biotech and
Pharmaceuticals

23...Advanced Technology

27...Healthcare

31...Laboratory Research
Institutes

35...Government





Message From The CEO



Innovative Project Solution's extraordinary and devoted individuals are driven by a single objective since its formation: to construct a better future. In an era of advanced technology and modern infrastructure, we continuously strive to offer the best in **construction, engineering, and commissioning**. We offer services for a wide range of industries including **biotechnology, pharmaceuticals, advanced technology, healthcare, and research institutes**. We believe our services, and the value they add to our customers' businesses, remain the fundamental elements of our continued success.

We are committed to providing a safety-conscious environment for our employees, as well as the clients we serve. Our continued diligence has allowed us to expand our operation both domestically and abroad. Commitment to quality has helped us build lasting relationships with our customers, many of whom rely on us year after year. As a result, we are steadily increasing our market presence across various industries and countries.

I extend my heartfelt gratitude to our past, present, and future clients for their unwavering support and faith in IPS. We remain steadfast in our commitment to uphold this trust and continue to be a dependable company. As we plan for the future, we renew our pledges to excellency, to keep abreast of new innovations, to adopt better engineering, construction, and management techniques, and to successfully navigate any obstacles that may arise.

Tariq Asefi, P.E



Diversity

65% Woman in the Workplace

90% Minority Employees

Reliability

96 % of our clients are
repeat customers

Safety

0 % EMR Rating for over 5
years

Quality

We're defined by our core values
of **safety, accountability, quality,**
innovation, and diversity.

“ We are relentless in our pursuit of progress and are passionate advocates for innovation. We strive to break new ground with emerging technology and ingenious design ”

SERVICES

We provide in-house Integrated planning, design, and construction services with specialized expertise in laboratories, **semiconductor facilities**, biotechnology, **pharmaceuticals**, hygienic/aseptic technology, **cleanrooms**, HVAC, process utility systems, and **central and process utilities design**.





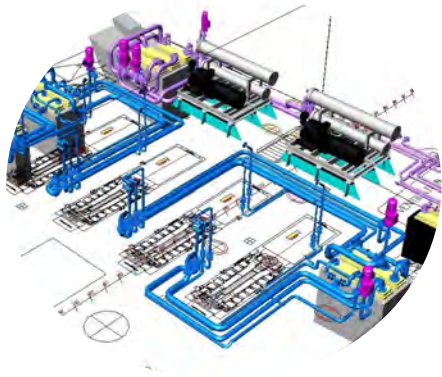
Architecture

Engineering

General Construction

Project Management

Commissioning



Architecture & Engineering

- Front End Engineering (FEED)
- Basis of Design (BOD)
- Architectural & Civil Engineering
- MEP Engineering
- Process & Specialty Gases
- Facilities Utilities Design
- Equipment Installation Design
- Revit Modeling
- Master Programming
- Space Planning
- Laboratory Planning and Design
- Vivarium Design



Construction

- Preconstruction
- General Construction
- Design-Assist
- Design-Build
- Design-Bid-Build
- Public-Private Partnership
- Construction Management at-Risk (CMAR)



SERVICES



Project Management

- Feasible Studies
- Procurement management
- Scope Definition
- Risk Management
- Project Execution Planning
- Estimating, Scheduling, & Cash Flow Management
- Work Breakdown
- Review and Management of Contracts and Change Orders
- Budget Development
- Constructability Reviews
- Value Engineering



Commissioning

- Start-Up Acceptance Testing
- Functional Performance Testing
- Close-Out Documents
- Discrepancy Logs and Corrections
- Commissioning and Qualification Documents
- Process Quality Risk Assessments
- Technology Transfer Planning

ENGINEERING

Services and Capabilities

- Architecture
- Mechanical Engineering
- Process Engineering
- Electrical Engineering
- Instrumentation and Controls
- Bulk Delivery System Design
- Waste Management Design
- Civil Engineering

Master Site Planning

Front End Engineering Design (FEED) & Basis of Design (BOD)

During the BOD and FEED planning phase, a deliverable review plan is developed to clearly delineate the most expeditious method for reviewing and approving deliverables as they are completed.

- Space Planning, Building Layout, Facility Utilities Layouts, Process equipment Layout
- Facility Utilities Capacity and Functional Requirements
- Provide Design Criteria Validations
- Applicable Codes and Authorities Having Jurisdiction (AHJ)
- Laboratory Planning and Design
- Mechanical, Electrical, Process, & Plumbing Redundancy
- General Commissioning





Design-Build & Design Assist Services

As a GC and engineering firm, we work closely with and Owners to create detailed plans, schedules and scope clarifications. Together, we minimize design and constructability costs, risks and issues prior to construction.

Benefits of the Design-Build Delivery Method:

- Faster project delivery and elimination of cost burdens caused by inefficient and non-constructible designs
- Improved document coordination, and better control of design creep the budget
- Develop value engineering options and submit cost savings for review and acceptance
- Review design for construction means and methods, alternative strategies, and drawing conflicts
- Minimal crashes due to early identification of potential space conflicts and quality coordination models
- Reduced risk of cost escalation by early identification of long-lead items
- Early release requests to meet schedule and budget

DESIGN



TECHNICAL BUILDERS

GC-Lean Construction

Lean Construction is a productive method aimed at reducing costs, materials, time, and effort. Not only does it maximize the value and output of a project, but it minimizes waste, reduces budgets, and promotes safety.

In tandem with Lean Construction, we bring together all stakeholders to efficiently meet client expectations and deliver sound results.

IPS supports the EPA's goal for the *(continuous improvement in the environmental performance of goods and services.)*

Pre-Construction Services

- Company-Client Meetings
- Budget Management
- Permit Strategy
- Approval Plan Development
- Design-Assist Trade Partners
- Early Trade Bids with Longs Lead Items
- Pull Planner Scheduling System
- Field Investigation

Construction Close-out

- Prepare Drawings & Specifications for TOP
- Verification for Contract Document Compliances
- Coordination with Procurement to Close all Contracts
- Finalize Redlines
- Finalize Punch List

GC— Lean Construction Approach

We embrace the Lean Construction management approach and emphasize collaboration, reliability of scheduling, and delivery of the most value while consuming the fewest resources.

- Use of prefabrication and modular building systems to reduce workers in field
- Use of collaborative pull scheduling
- Increase in planning and strategic vision to reduce construction time
- Increase in worker focus and understanding to eliminate risks and create a safe environment
- Increase in productivity all-round due to a higher rate of planning
- Waste reduction of construction materials to minimize environmental cost

Services

- cGMP/ISO Cleanrooms
- Office Renovations
- Laboratories
- Facilities Utilities Installation and Renovation
- Chemical and Gas Delivery Systems
- Wastewater Treatment
- Tenant Improvements
- Mechanical, Electrical, Process, and Plumbing
- New Ground-Up Construction
- Site Improvement including Grading and Under-ground Utilities



Licensed Contractor

B--General Building

A--General Engineering





Variety of Delivery Methods

IPS provides multidisciplinary project management services for all stages of your project cycle. From project inception to detailed design to closing and commissioning, we deliver the lasting changes organizations need to thrive.

As your representatives, we combine project management services with effective communication between both owners and contractors to deliver effective and inventive solutions for our clients.

We also supply project personnel to augment existing staff for periods of peak demand and for long-term assignments. As the client's single point of contact, we integrate the activities of all contractors and subcontractors to ensure the success of the overall program.

- Fill Skill Set Gaps
- Interim/ Resource Professions
- Manage Strategic, Mission-Critical Initiatives

PROJECT MANAGEMENT

Construction Project Management

IPS manages, coordinates, and reviews design documents early to allow for timely construction and efficient project execution.

Schedule Development & Management

Cost Control/Financial Tracking

Project Planning & Coordination

Safety & Quality Performance

Documentation, Communication, & Reporting

Project Scope Control/Subcontractor Management

Equipment and Material Procurement

We deliver projects intelligently, to drive the lasting changes organizations need to thrive.





COMMISSIONING

With experience in both **engineering, project planning**, and **feasibility studies**, IPS benefits organizations with independent evaluations of project viability.

As multidisciplinary professionals who have experience in all levels of engineering and construction, we add value to process design and optimize facility utilities.



Timely Delivery

Commissioning and start-up are critical steps in a **project execution process**. They move the project from the “*end of construction*” to the “*commercial operation*” phase.

Having an IPS commissioning agent (CxA) in the design phase ensures an effective and efficient project plan. Experienced in many different configurations, IPS is CxA can provide the most advantageous solutions. Our commissioning team partners with clients to provide a single point of expertise and safeguard the sustainable measures our clients aim to achieve.

Sustainability

IPS provide clients with a comprehensive sustainability strategy. We leverage a unique combination of sustainability expertise, engineering, and construction management to:

- Develop a comprehensive energy strategic plan
- Provide energy assessments (audits)
- Identify energy conservation measures (ECMs)
- Identify utility rebates, incentives, and purchase agreements to reduce costs
- Determine total cost of ownership
- Promote renewable energy sources

We provide clients detailed project commissioning documents early in the project planning and basis of design phase to ensure design and construction meets expectations These documents include:

- Equipment
- Architectural
- Piping
- Instrumentation
- Electrical
- Facilities Utilities

M/E Engineering provides a wide range of services for sustainable building design and energy conservation:

- Building Energy Audits
- Integrated Whole Building Energy Modeling
- Renewable Design
- USGBC LEED Administration & Design Services
- Utility Usage Assessment
- Retro Commissioning
- Existing Building Conditions Assessment
- Commissioning & Qualification
- Preparation and Submission of LEED Certification Application Documentation
- Responses to USGBC Certification Review Questions





MARKET SECTORS

Biotech & Pharmaceuticals

Advanced Technology

Healthcare

Laboratory Research Institutes

Government





Biotech & Pharmaceuticals





- Cell/Gene Therapy
- Pharmaceutical
- Biotechnology
- Vivarium/s
- Medical Devices
- BioPharma Facility Design & Construction
- Small Molecule Facilities
- Fermentation-Based Alternate Proteins

Technical Expertise

Pharmaceutical and biotechnology industries are under constant pressure to thrive in a highly competitive and changing market. We work with the owner in the planning and execution of capex projects. Our engineering, construction, and quality teams work seamlessly to offer an integrated approach to capex projects. We tailor the project by incorporating appropriate project controls to deliver the best value to the client.

- cGMP Cleanrooms
- cGMP Pilot Plants
- Aseptic Laboratories
- Active Pharmaceutical Ingredient Chemical Facilities
- Bio-Safety Laboratories (BSL)
- Radiographic Laboratories
- Nuclear Laboratories
- Chemical Facilities





We provide in-house design expertise in **biotech & pharmaceutical** manufacturing processes, **bioprocess engineering**, hygienic/aseptic technology, **cleanrooms**, HVAC , process utility systems, and **central and process utilities design**.

Our breadth of knowledge enables us to comprehend the actual requirements of our partners in the pharmaceutical, biotechnology, and medical device industries as they work tirelessly day in and day out to research and produce ground-breaking products. We thoroughly investigate each customer to determine their unique issues and prospects, and customize our recommendations based on those findings with our in-depth expertise of each sector.

We Specialize In:

- cGMP Cleanrooms
- cGMP Pilot Plants
- cGLP Aseptic Laboratories
- Active Pharmaceutical Ingredient
- Bio-Safety Laboratories (BSL)
- Radiographic Laboratories
- Vivarium's
- Microbial Fermentation
- Mammalian Cell Culture
- Cell & Gene Therapy
- Single Use Technology
- Antibody Drug Conjugates (ADC)
- Containment systems of Highly Active Pharmaceutical Ingredients (HPAPI)
- Drug Product Manufacturing

*Industry experienced insight
and collaborative design.*

cGMP Facilities

We design and build controlled environment cGMP facilities and cGLP laboratories for biotech and pharmaceutical industries.

cGMP Compliance

Fast-tracked projects can only succeed when design, construction, commissioning, and validation are coupled with a smooth process for approvals involving regulatory bodies such as the FDA, EMA, and EPA.

Our process architects and engineers, piping designers, facility engineers, control system integrators, and regulatory compliance professionals are capable of efficiently translating the client's needs into both an ideal manufacturing process and facility design, in compliance with all applicable cGMPs, codes, regulations, and standards governing the industry.





cGMP & cGLP Facility Design, Construct & Validate

- Commissioning Planning
- Validation Master Planning
- Process Engineering
- Process Utilities
- Bulk Delivery Systems
- Design Build & Turnkey Solutions
- CIP/SIP
- Site Master Planning
- Cleanroom Architecture
- Construction Administration and Management
- Startup and Commissioning/Validation
- Mechanical Engineering
- Electrical Engineering

Cleanroom, Laboratories and Vivariums

- Plant Infrastructure
- Air Recirculation/Filtration
- Biocontainment BSL 1- 4
- Modular Systems
- Prefabricated Skids
- Conceptual Studies
- User Requirement Specification
- Aseptic Manufacturing Suites
- Aseptic Processing

Advanced Technology





- Semiconductor
- Photovoltaics
- Batteries
- Data Centers
- Specialty Chemicals
- Alternative Energy

Design & Build

IPS provides multi-disciplinary design and construction services for all stages of your project cycle. From concept proposals, to detailed design, to sustainable construction, and finally to project closeout, we have extensive experience in Semiconductor design and understand what it takes to maintain competitive yields of our customers.

Our solutions are empowered by innovation, creativity and efficiency.





Capabilities & Expertise

- Cleanroom Architecture
- Startup and Commissioning
- Turn-Key Design Build
- Installation, Start-Up, and Certification
- Tool install design and construction
- Chemical and Specialty Gas
- Ultrapure Water (UPW)
- Vacuum Systems
- Process Cooling Water
- Waste Treatment Systems
- Mechanical Engineering
- Electrical Engineering
- Structural and Civil Engineering
- Instrumentation and Controls

Healthcare





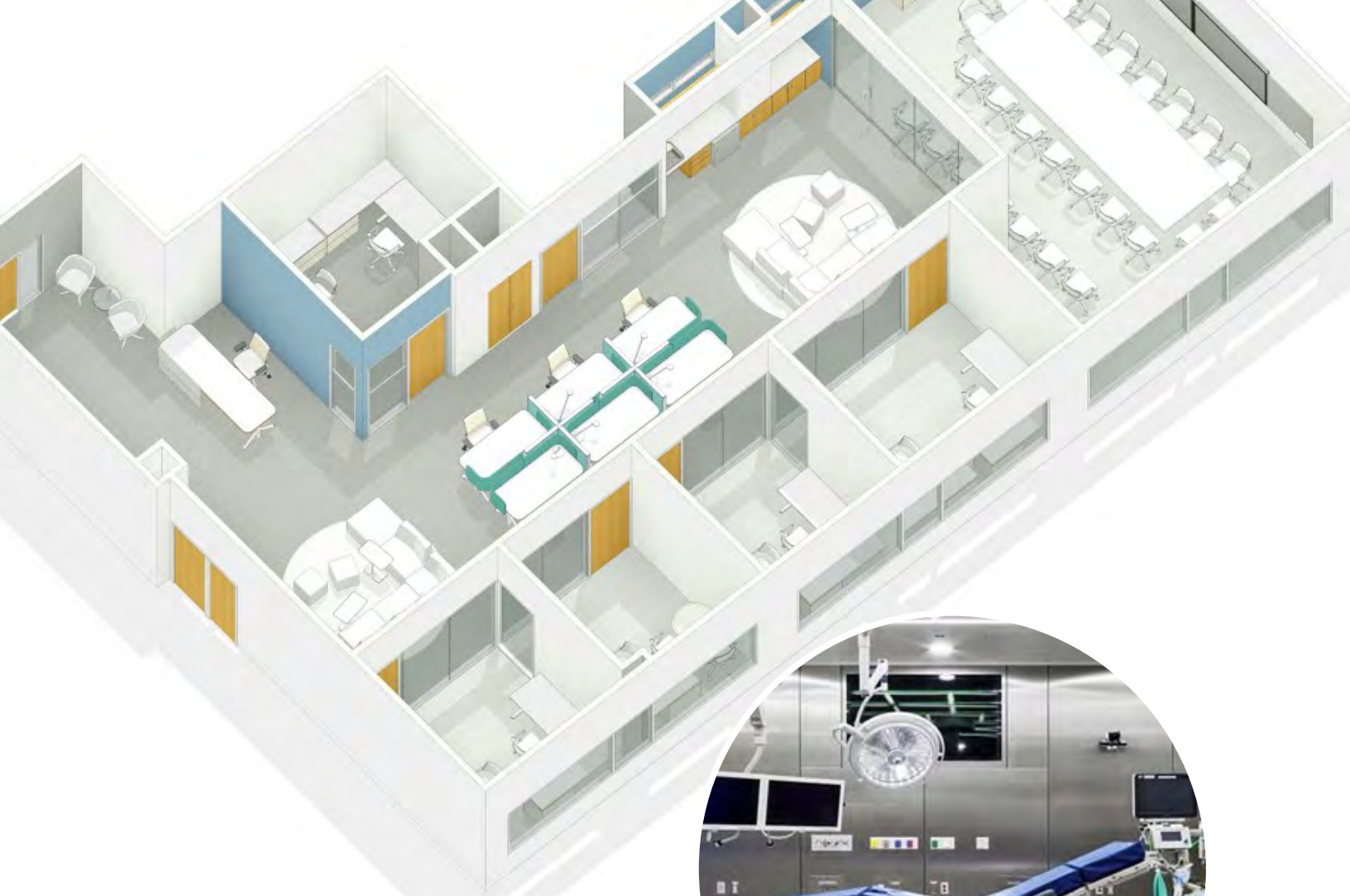
- OSHPD Facilities
- Facility Guidelines Institute (FGI)
- Ambulatory Surgery Center (ASC)
- Office-Based Labs (OBL)

Technical Expertise

IPS has an extensive record of successful planning, design and construction projects for healthcare clients throughout the San Francisco Bay Area. We understand the need to minimize the downtime of all areas and have the practical know-how necessary to get equipment installed and projects closed, allowing medical staff to return to, and focus on, patient treatment. Our engineers and construction teams bring specialized knowledge relating to design and planning for OSHPD, OBL, and ASC governed facility requirements.

- Coronary/cardiac care unit
- Emergency Room
- Intensive Care Units
- Oncology
- Operating Rooms
- Pre-Operation
- Recovery Rooms
- Exam Rooms
- Radiography (X-rays)
- Magnetic Resonance Imaging (MRI)
- Computed Tomography (CT)
- Fluoroscopy
- Ultrasound
- Echocardiography
- Nuclear Medicine
- Positron Emission Tomograph (PET)





We work with OSHPD to comply to changing codes and regulations for cost effective and functional design solutions.

Capabilities & Experience

- Mechanical, Electrical, Process & Plumbing Upgrades
- Facility Utilities, Installation, and Renovation
- Building Code Compliance Analysis and Design
- Architectural Rendering
- Programming, Feasibility, and Master Planning
- Basis of Design, Design, and Engineering
- Interior Design, including Furnishings, Fixtures, and Equipment
- Engineering and Design Evaluation
- Waste Treatment
- Medical Gasses and Gas Delivery Systems

Laboratory Research Institutes





- Laboratories
- Cleanrooms
- Bio-Safety Laboratories (BSL)
- Simulation Centers
- Lecture Halls

Capabilities & Experience

Today's labs must foster collaboration and be geared toward team-based research in order to stay up with ever-changing development. Open and closed labs need to coexist in harmony. Additionally, the rooms must have intelligent controls systems and be able to expand.

IPS can design and construct research labs as well as provide systems for chemical processing and process media distribution. Our technical planning teams have substantial competence in a wide range of specialized research facility types.

For top Research laboratories and governmental organizations around the world, IPS has significant expertise planning and constructing research laboratory facilities. Our suite of solutions consists of:

- Design and Build - Turnkey Plants
- Bio-Containment and Cleanrooms
- Chemical, Ultrapure Water, and Process Gas Systems
- Electrical and Control Systems
- Wastewater Treatment





At IPS, we believe that a good education is the foundation for a better future.

Our team strives to create the stimulating, collaborative, and safe learning environments necessary to foster the critical thinkers of tomorrow.

Expertly Crafted Research Institutes

IPS is committed to creating valuable, forward-thinking solutions that will benefit generations. With a balance between safety, sustainability, and reliability, we partner with our clients to develop inspiring designs for both classrooms and communities.

From renovations to additions to entirely new facilities, our team draws on professionals across all practices to plan, design, and construct learning environments that promote collaboration among students and educators.

Government





- Small Business Entity
- Service-Disabled Veteran-Owned Small Business (SDVOSB)
- Minority Business Enterprise
- Disadvantaged Business Enterprise

Federal and Community Partner

From continuing service contracts to creating complex buildings for various tenant groups, IPS works diligently to deliver innovative solutions that match local aspirations within funding constraints. IPS has experience partnering with various branches of the federal government, including but not limited to the **DOD**, **DOE**, and **GSA**. In addition, IPS has worked within state and local governments, as well as local counties and municipalities.

- Technical **problem solving** capability in the field for immediate facility improvements
- **Mission critical** design and operations philosophy based on Reliability, Availability, and Maintainability (RAM)
- We oversee **capital improvements** throughout their duration, and mitigate risks while maintaining tight control over scope, schedule, and budget.



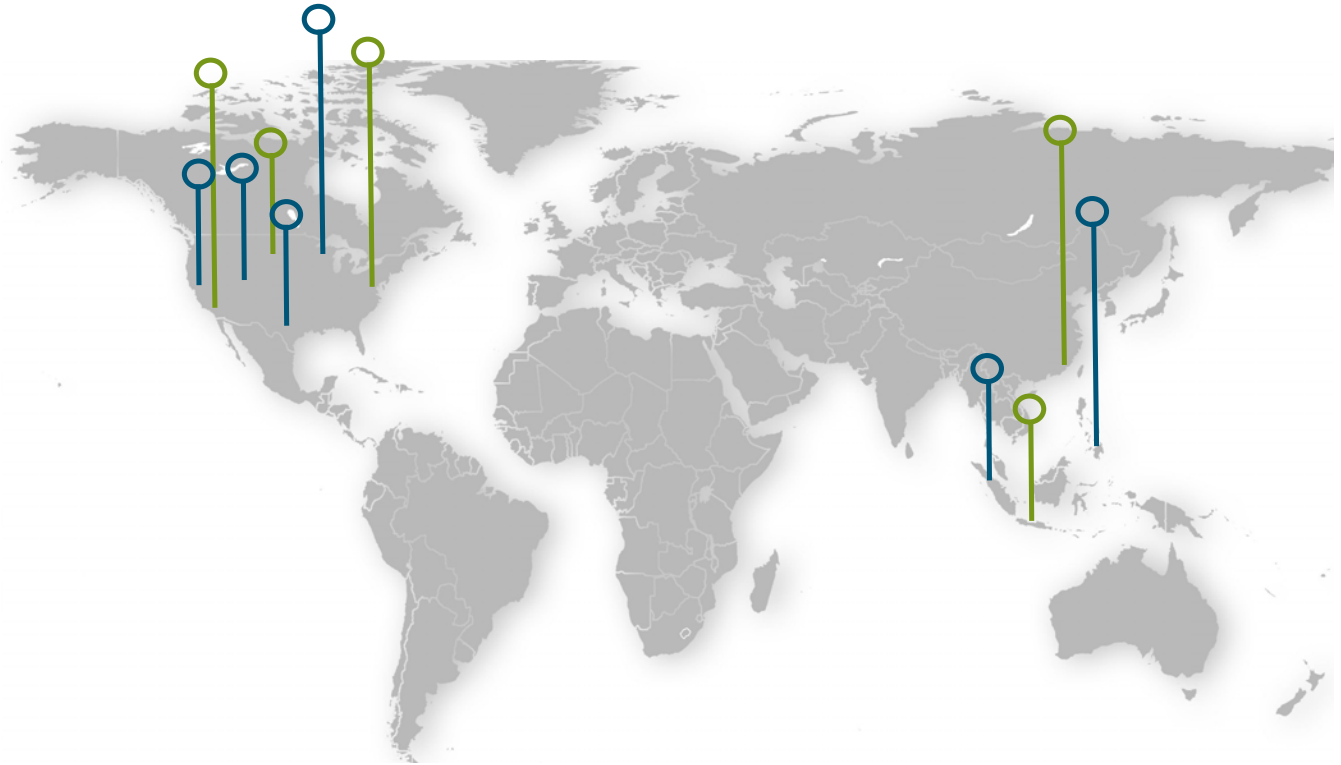


To augment government personnel, IPS provides staff for technical assistance including architects, engineers, and other specialists. IPS also provides project management services to assist government agencies in administering programs. Drawing on years of experience, IPS optimizes construction activities and delivers innovative solutions to achieve cost savings during every project phase. IPS's integrated solutions deliver projects from inception, to construction, to commissioning, to turn-over, and finally sustainment in both secure and non-secure locations.



Small Business Entity (2010019) | Service-Disabled Veteran-Owned Small Business (152190) |

Minority Business Enterprise (17001106) | Disadvantaged Business Enterprise (45864)



@ipsinc



ipsinc.net



510-289-0063



@innovativeprojectsolutions8088