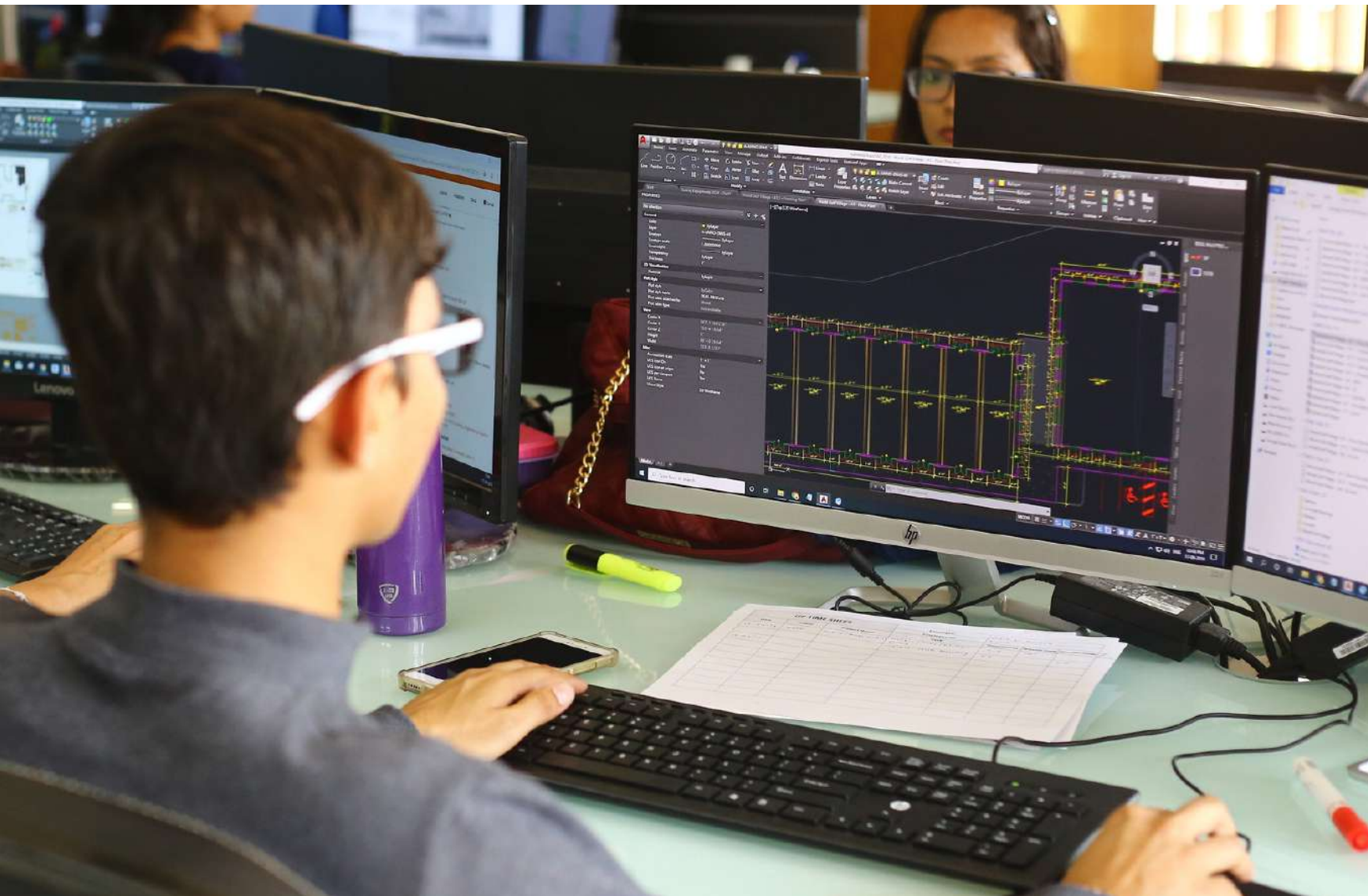
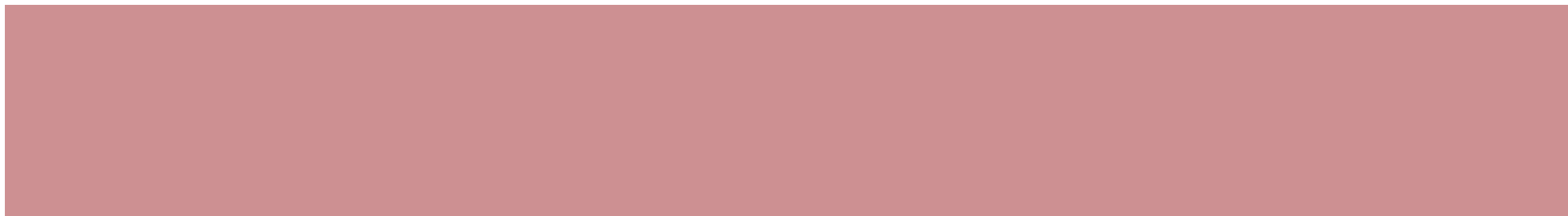


# MEP DESIGN SUPPORT



***World Class AEC Production Support***





## MEET ISP

**2000+ PROJECTS DELIVERED | 250+ CLIENTS | 300+ EMPLOYEES**

Since ISP's founding in 2006, we have been dedicated to helping A/E/C firms grow through qualified and cost-effective remote staffing. With an operational division located in India and representative staff in the US, our unique model starts with a state-of-the-art training institute and provides ongoing education for our architects and engineers, resulting in exceptional design and construction document sets for clients. We work together to achieve huge cost savings and quick turnaround times by leveraging the benefits of a 24-hour international business.

# THE ISP ADVANTAGE

- Reduce deadline stress with 24-hour working efficiency
- Grow through cost savings by employing an ISP team at a lower monthly rate and no overhead costs
- Produce high-quality deliverables through exceptional internal quality control and adaption to your standards
- Spend more time on business development and winning new work with a dedicated production team

***The Value We Provide Starts with Our Team:*** From recruiting professionals with Engineering degrees at accredited universities to ensuring every designer is certified in AutoCAD and REVIT to providing training in U.S. standards and regulations, our technical expertise consistently exceeds client expectations. We also know the importance of communication when collaborating under tight deadlines. We hire team members with excellent English communication skills and retain an English tutor on staff for further improvement.





# MECHANICAL/ HVAC

ISP is designed to work as an extension of your existing MEP Engineering Staff. Our engineers are highly trained and can deliver everything from calculations to full construction documents, and finally code required energy calculations with minimal oversight from your team. Your in-house engineers stay in complete control of the design through the process while your remote ISP design team takes a huge load off of your production at lower costs.

## HVAC Load & Ventilation Calculation

- HVAC ductwork layout using ASHRAE standards
- Mechanical piping layout with pipe sizing (CHW/HW/REF/COND)
- Enlarged mechanical room plans
- Sections for better clarity where one service crosses another.
- Fire and smoke damper as per Architect life safety plans and code
- Mechanical room layout with consideration of clearance requirement of all equipment when equipment is in operation.
- Coordinate power requirement with electrical team
- Coordinate BMS i/o points with ELV
- Coordinate mechanical room/louver requirement with architect trade
- Coordinate equipment/piping operating weight with structure trade

## HVAC Calculations:

- Cooling/ heating load calculation
- Ventilation calculation
- Annual energy calculation
- Duct static pressure drop calculation
- Pump head calculation
- Expansion tank sizing calculations

## Assign us Mechanical/ HVAC tasks:

- Load, ventilation, air balance calculations
- Duct/ piping/ US equipment design
- Schedules & details
- Enlarged mechanical room plans/sections
- Flow & control diagrams
- Structure & building clash detection

# Assign us Electrical tasks:

- Electrical preliminary calculation
- Lighting & power system design
- Riser & one-line diagrams
- Load calculations
- Design panel & equipment Schedule
- Wire/ feeder sizing
- Short circuit/ voltage drop calculations
- Lighting photometric analysis
- Conduit fill calculations/ sizing
- Load flow analysis
- Compliance report
- Structure & building clash detection
- Electrical enlarged room plans/ sections

## ELECTRICAL

### Power & System Design

- Layout all power devices per Code and industry standard system design per code
- Electrical load calculations
- Enlarged power plan design
- Circuiting devices per Panel

### Riser Diagram & Panel Schedules

- Circuiting per proper breaker size
- Complete all circuiting and verify final panel sizes per standard rating
- Breaker sizing + AIC rating
- Calculation per NEC demand factor for different load
- Connected and demand load calculation per NEC

### Lighting Design & Photometrics

- Lighting plan design per required lumen with circuiting
- Lighting controls with energy code compliant devices
- Emergency lighting design & photometrics per code
- Complete fixture schedules per company standards

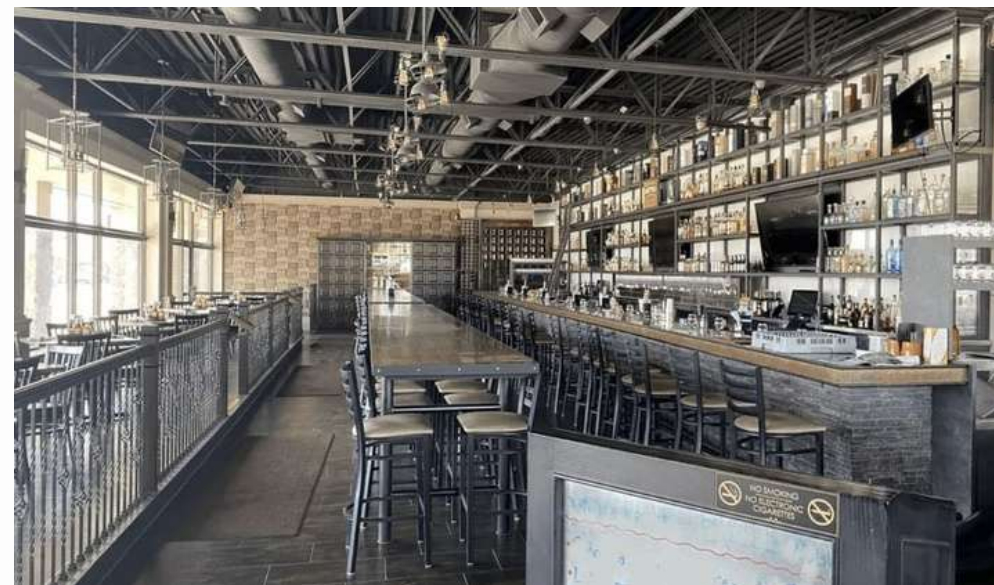
**We calculate the incident energy and arc flash boundaries following the NFPA 70E, IEEE 1584 & NESC standards.**

## Assign us SKM tasks:

- Load flow reports
- Short circuit reports
- DC system analysis
- Distribution reliability
- Arc flash evaluation

## Power System Analysis

We can give you a reliable design of a power system that saves cost by identifying and correcting system weaknesses efficiently and systematically. With SKM analysis, we will do a balanced load distribution to help your project with a long and safe life. If you are in need of a commercial or residential work that is to be done quickly and with an eye for quality, look no further than ISP. We have highly-trained, university-certified engineers working for both commercial and residential clients. We are highly efficient to deliver power engineering work at a given period of time.



# PLUMBING

## Plumbing Design

- Domestic water/sanitary/storm/hot water piping layout with riser diagram
- Water tank and pump room design
- Commercial kitchen design
- Compressed air/ natural gas piping layout and schematic diagram
- Condensate drainage system layout and schematic diagram
- Industrial waste piping layout
- Plumbing fixture and equipment selection
- Sump pit design

## Plumbing Calculations

- Cold/hot water demand calculation
- Drainage fixture load calculations
- Storm water calculations
- Pump head calculations
- Expansion tank calculations
- Compressed air system calculations
- Natural gas sizing and demand calculations
- Pipe sizing calculations (Water/Sanitary/Storm/Vent)

## Plumbing Schedule:

- Plumbing fixture schedule
- Hot water heater schedule
- Domestic water/Booster pump schedule
- Grease interceptor schedule
- Sump pump schedule

## Assign us Plumbing tasks:

- Water demand/ fixture load calculations
- Piping pressure drop and pump head calculations
- Schedules, quantity take-off and details
- Water tank and pump room design
- Control diagrams and sequence of operations
- Clash detection and resolution



# Assign us Fire Protection tasks:

- Hydraulic calculations, gaseous system calculations
- Sprinkler piping design
- Fire protection system schedule
- Fire pump room and tank with an enlarged plan.
- Schematic and riser diagram
- Clash resolve with other services using Navisworks
- Clean agent fire extinguishing system
- Fire protection system calculation

# FIRE PROTECTION

## Fire Protection System Design

- Sprinkler system and standpipe system
- Sprinkler system design in accordance to NFPA 13
- Wet pipe sprinkler system design
- Dry pipe sprinkler system design
- Pre-action fire sprinkler system design
- Stand-pipe system design

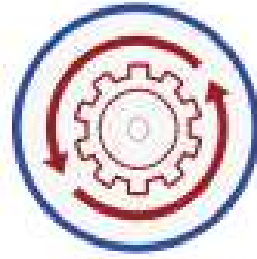


# ENERGY MODELING

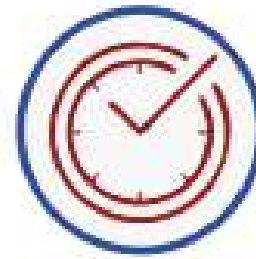
At ISP, we believe Energy Modeling is fundamental and essential to comply with continuously evolving building codes and sustainability rating systems. By identifying viable solutions, we can perform Energy Modeling using different design options, pushing environment-friendly technology, human comfort, lighting levels, airflow and more. We use modern tools like eQuest, EnergyPro, Energy Gauge, Carrier HAP, Trane Trace, Chvac and many more to match your company's standards. LEED ASHRAE, & Energy Star compliance and reporting can be easily performed using our Energy Team.



**REDUCE ENERGY CONSUMPTION**



**INCREASE SYSTEM EFFICIENCY**



**SAVE ENGINEERING TIME**

We model buildings in accordance with all IECC, LEED and ASHRAE 90.1 procedures & we model your building in any software.



# ENERGY COMPLIANCE & TITLE-24

ISP's engineers can complete Title - 24 energy calculations & compliance reports for your project. Being it either residential or commercial, a renovation project or a new project, we do it all. Using the software approved by the California Energy Commission we ensure the highest accuracy of the calculations & compliance report.

## Our Services



**Residential  
T24 Report  
CF-1R**



**T24 Report  
CF-1R +  
Mandatory**

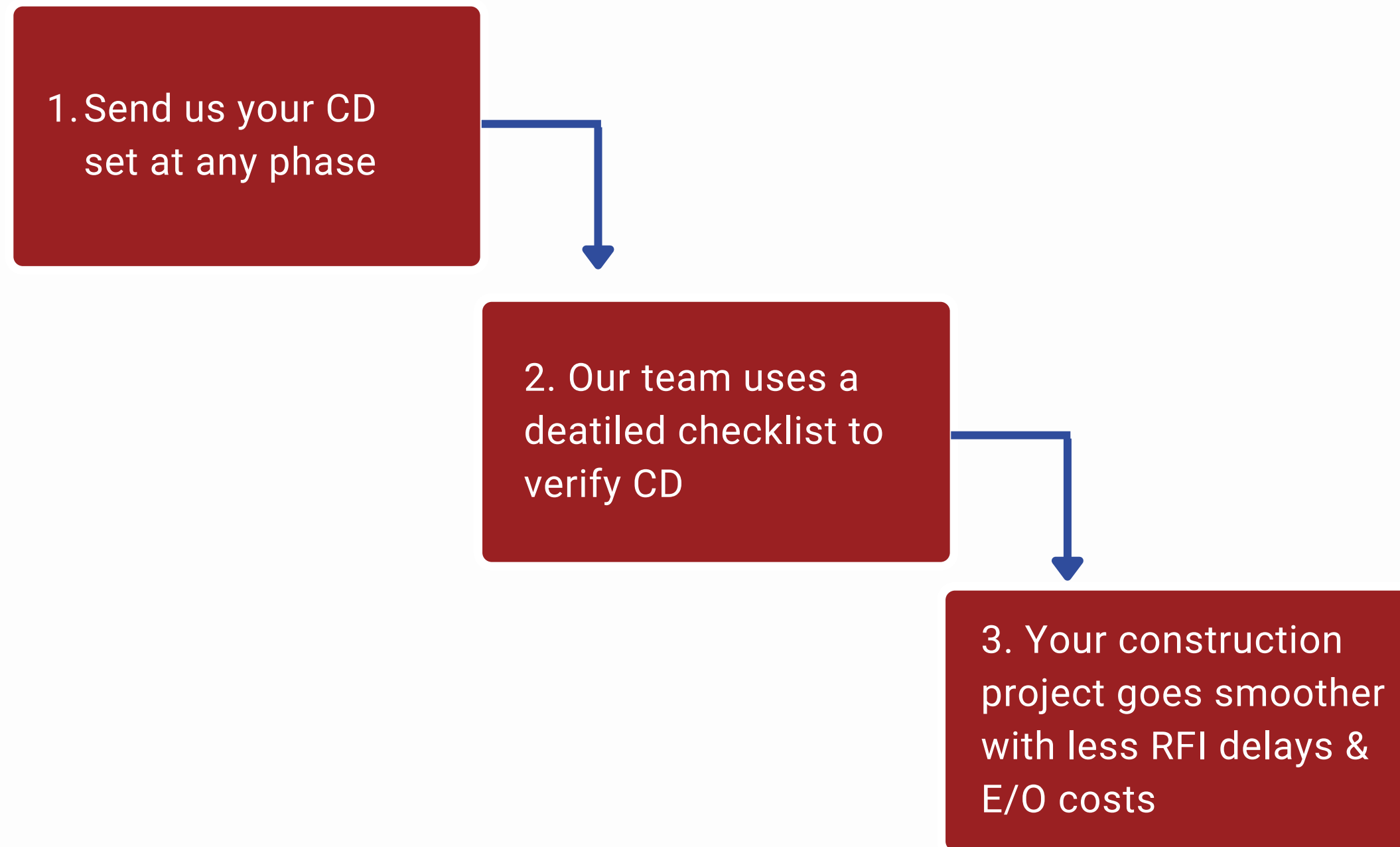


**Floor Plan**

# 3rd PARTY QC

Send your ISP QC Team a complete or interim set of documents from all trades and we will perform a QC using a detailed checklist. The ISP team will send a marked up PDF file along with a spreadsheet of comments for your design team to review and update.

## How We Work



## Assign us QC tasks:

- General & Title Sheets
- Life Safety Sheets
- Civil
- Landscape
- Demolition
- Architectural
- Structural
- Electrical
- Plumbing
- Mechanical
- Millwork and Details
- Fire Protection
- Fire Alarm
- Technology
- AV / Security

## TESTIMONIALS



ISP has been a valued partner providing MEP design/drafting services. Teaming with ISP has allowed our firm to expand the quantity of work we are capable of producing all while not sacrificing quality or the ability to meet scheduled deadlines. Our firm looks forward to continuing this relationship for years to come.

- Kenneth L. Gonzalez, P.E., LEED AP, McVeigh & Mangum Engineering, Inc



We've been using ISP for a few months now and their deliverables are stellar. They take our registered point clouds and create Revit and Cad files that we can use right away. Their turnaround time is also very impressive. We often get things back faster than ever expected. I highly recommend them!

- Bryan Clapper, Owner & Founder, Clapper Structural Engineering, PLLC



The commitment and focus on meeting our expectations by ISP's leaders and engineers are excellent. They have completed MEP drafting, calculations, risers, photometrics, Revit drafting & much more for our firm. They pay attention to deadlines & get us work back faster than we anticipate which has helped tremendously. We highly recommend them.

- Cat O'melia, Administration, Peterson Engineering Group LLC



We have enjoyed our relationship with ISP and have found them to be a vital partner in our MEP business. They have helped us streamline our operations and have added valuable resources that we have been able to pass on to our customers. We are looking forward to a continued partnership with ISP.

- Russ Cammack, Owner, RB Marks Construction, Inc.

# SOFTWARE EXPERTISE



**READY TO GET STARTED?**

**CONTACT US TODAY!**

407.619.6442 / 305.357.9756 · [ispusa.net](http://ispusa.net) · [sales@ispusa.net](mailto:sales@ispusa.net)

**Architectural Design Support**

**MEP Design Support**

**Structural Design Support**

**Civil/ Survey Design Support**

**3rd Party QC**

**Virtual Admin for Contractors**

**Home Design Modifications**

**BIM / Clash Detection Services**

