

Low Voltage



The Stahl Companies has a unique expertise in planning and coordinating information technology and communication systems. We provide solutions that address the complex requirements of modern healthcare facilities. Our low voltage system services can provide validation of design and spaces, capacity and future growth, code challenges, and managing the implementation of converging technology solutions. We can coordinate subcontractor work while planning ahead to meet move-in requirements which include IT systems and medical equipment. The Stahl Companies can help at every phase – from system procurement through implementation, testing, acceptance, training, and documentation – working with your staff to complete a successful project.

## OUR SERVICES INCLUDE:

### ARCHITECTURAL & ENGINEERING DESIGN SUPPORT

- Planning & Design Support for Medical Equipment and Facilities
- Cabling Systems Designs for Voice, Data, Video, and Security
- Building Systems (power, HVAC, seismic) for Technology
- Code Review and Analysis

### PLANNING, PROGRAMMING & RISK ANALYSIS

- Site/Campus Technology Infrastructure Assessment & Planning
- Peer Review
- Budget Planning for Technology Projects
- Construction Plan Review
- Project Team Development

### PROCUREMENT SUPPORT

- Technology Needs Assessment
- RFP Development & Bid Evaluation
- Procurement and Logistical Support

### PROJECT MANAGEMENT

- Structured Cabling Systems Installation
- Oversight of Commissioning and Acceptance Testing
- Technology Implementation

## OUR CORE COMPETENCIES INCLUDE:

### TECHNOLOGY COORDINATION FOR MODERN HEALTHCARE FACILITIES

- In our modern healthcare environment, technology is a critical component that enhances the quality of care by connecting doctors, nurses, and other medical professionals with their patients.
- The number of systems to coordinate and the complexity of having all systems effectively communicate is often underestimated by Contractors, Architects, Engineers, and Owners. Ensuring that these technologies work together requires a professional with a unique expertise and knowledge to effectively integrate these systems.
- The Stahl Companies' broad-based experience in Low Voltage systems and healthcare construction brings valuable insight into technology advancements, integration of best practices, and incorporating cutting edge technologies into a healthcare facility both efficiently and cost-effectively.

### REVIEWING CONSTRUCTION PLANS FOR COMPLETENESS

Based on our extensive experience in healthcare facility construction and our knowledge of industry trends, The Stahl Companies conducts a full review of construction plans to address the critical Low Voltage coordination issues. This ensures building the right infrastructure into your facility so that your needs are met. We will make certain this new building has the capacity to support both current and future technology needs.

### TECHNOLOGY COORDINATION

The Stahl Companies designs systems to bring work processes together into a seamless and reliable operating environment that supports the highest standards of patient care. We have the expertise to properly coordinate clinical and administrative applications, information technology systems, telecommunications and low voltage equipment, and cabling and supporting infrastructure.

Proper implementation of these technologies is crucial. The Stahl Companies will help you at every phase – from system procurement and pilot projects through testing, acceptance, staff training, and documentation – working with you to complete a successful project. We can assist you from the project's inception or be brought in at any phase to get a project back on track.



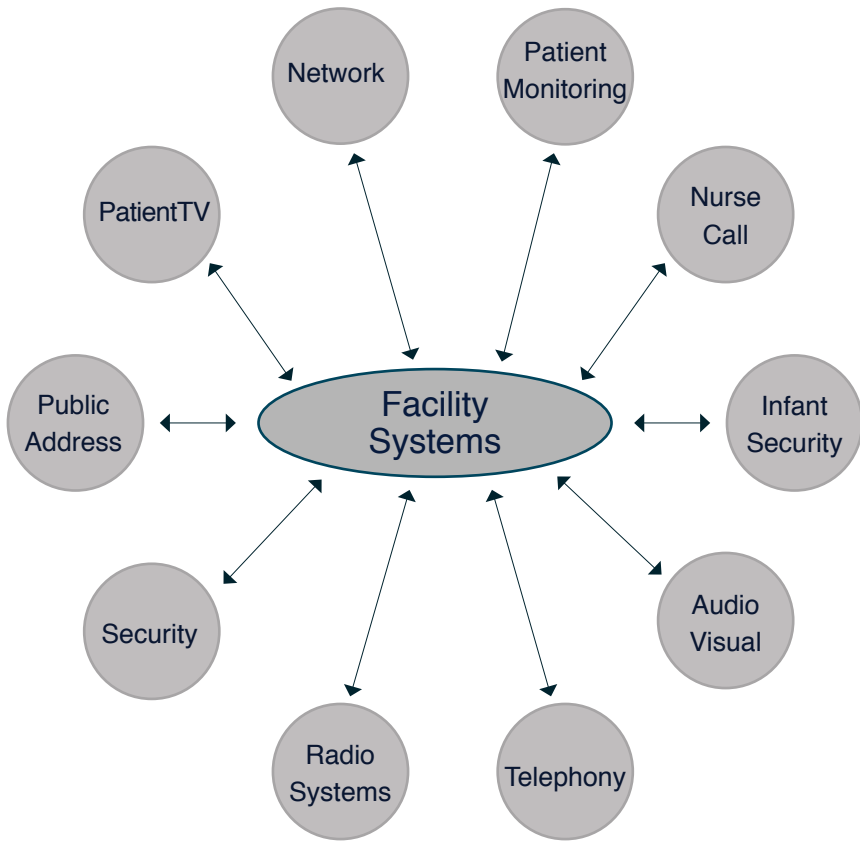
LOW VOLTAGE SITUATIONS AND SOLUTIONS IN CALIFORNIA

SITUATIONS	SOLUTIONS
Telecommunication room designs are typically incomplete with regard to cooling loads, elevations & layouts, and entrance facilities.	The Stahl Companies, working directly with the design professional, resolves potential conflicts within the layout of the room by ensuring proper sizing of heat and cooling loads and equipment elevations on walls and racks. During this phase of work it is imperative to properly plan for emergency power and electrical circuit locations.
Data Center / Server rooms are not designed to meet the needs of the Owner.	The Stahl Companies provides statistical recommendations on heat load information for sizing of cooling equipment, rack configuration, and emergency backup capabilities throughout the entire design and construction process.
Patient room low voltage systems are rarely designed to allow for all low voltage systems many of which impact room functionality including nurse call, fire smoke detectors, bed controls, and patient TVs.	The Stahl Companies provides expertise to resolve low voltage relays for light controls, layout of low voltage systems in head wall units, resolution of bed controls between manufacturer, design team, and contractors.
Infant Security, Nurse Call, Patient TVs, Public Address System, and Paramedic Radio solutions are not always <i>bought out</i> by the General Contractor, leaving it for the Owner or another vendor to pick up as an afterthought.	The Stahl Companies is the Owner's Low Voltage representative and is dedicated to assist with reviewing and providing solutions and then managing the team selected for installation of these systems. Stahl's role is to coordinate scheduling, design corrections, final testing, implementation, and installation to meet OSHPD and code requirements.
General Contractors do not understand the schedule and construction impacts of structured cabling installations to other systems.	The Stahl Companies provides the expertise to assist the general contractor in understanding when managed construction systems (building management, elevator operations, etc.) require data and voice functionality. Stahl is able to educate the general contractor on time frame for telecom room build-outs, above ceiling zone coordination, penetration impact, and fire life safety impact
Projects typically have minimal designs completed for redundant diverse and utility corridor pathways to both the existing right of ways and central plant.	The Stahl Companies can assist the design team in understanding the pathway requirements and number of conduits required for current implementation as well as capacity for future growth.
The implementation (proper backing and anchorage) of electronic equipment, including PC's, medical monitoring, and operations equipment is usually left until the end of the project with little regard for who will install it.	The Stahl Companies works closely with the Owner, vendors, and design team to resolve issues with anchoring, backing, electrical, and low voltage capacity requirements early in the project, so that systems that are deployed will meet the Owner's needs.



STAHLCOMPANIES IS THE COMMON LINK

Technology Implementation  
Structuring Cabling Systems



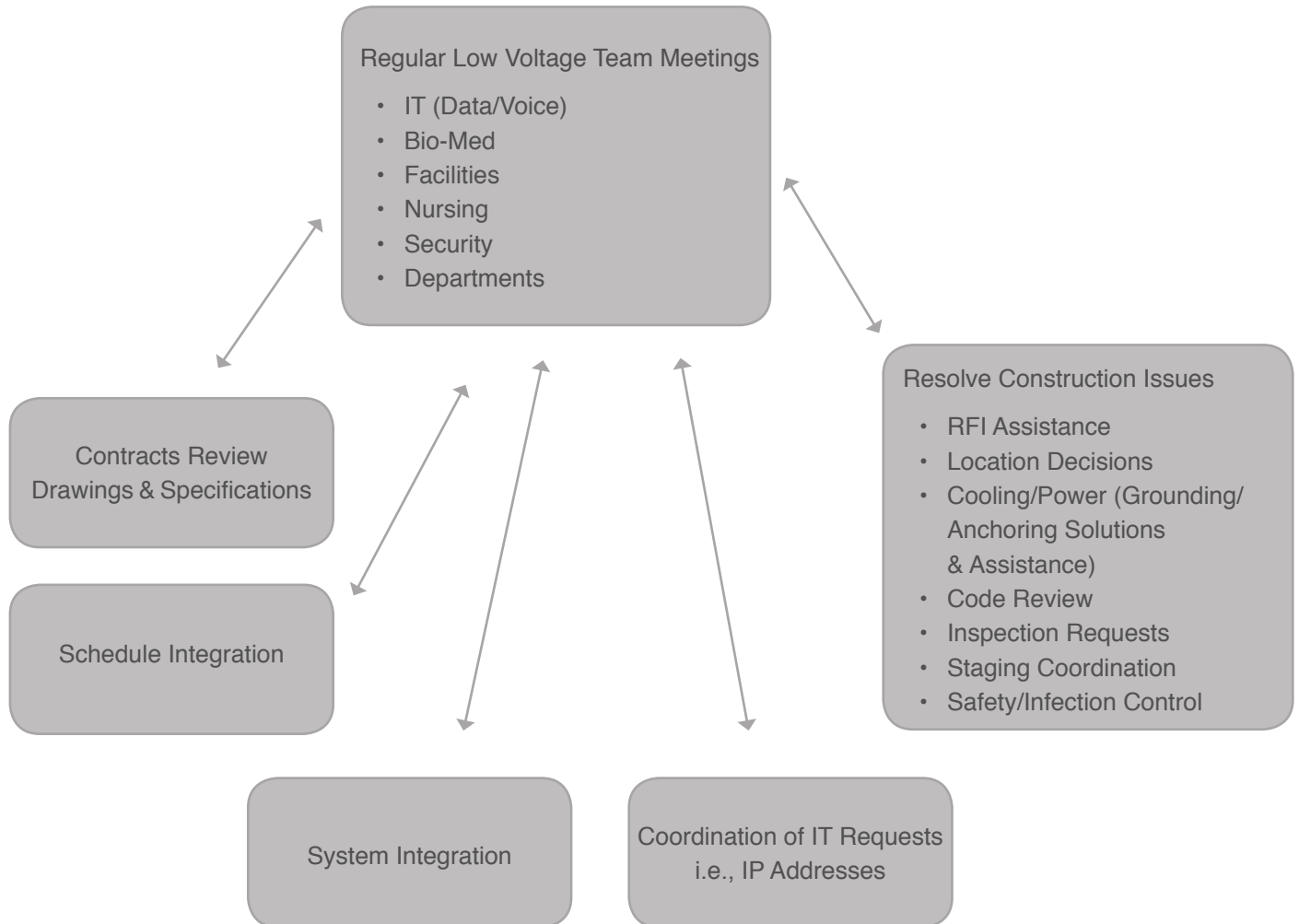
Construction



Bio-Med  
IT Department  
Data Center  
EMR  
Security  
Equipment Planner



## How The Stahl Companies Coordinates and Implements Low Voltage Systems

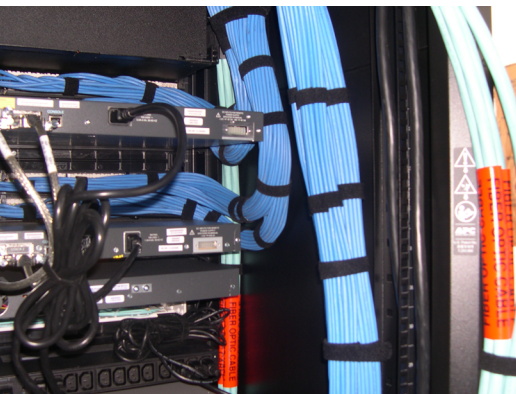


# LOW VOLTAGE



## ADVANTAGES OF THE STAHL COMPANIES COORDINATION:

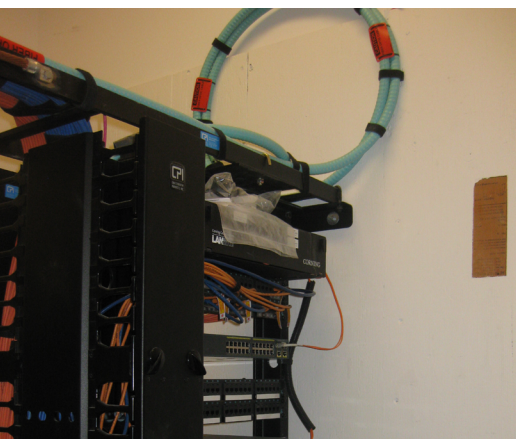
- We provide one point of contact for low voltage vendors to the Owner
- We understand and can effectively communicate construction issues
- We understand low voltage systems design and functionality
- We interpret code & inspection requirements for low voltage systems
- We are able to integrate components between systems



## THE STAHL COMPANIES PROVIDES ONE POINT OF CONTACT FOR ALL LOW-VOLTAGE SYSTEMS

### DRAWINGS TYPICALLY CALL OUT EACH VENDOR IS RESPONSIBLE TO COORDINATE WITH THE OWNER

- TV Backbone Connection
- Nurse Call
- Wireless Clocks
- Security / Access Control
- Public Address System (paging)
- Audio Visual Systems
- Infant Security System
- Information Technology



YOUR PROJECT.

OUR PASSION.

THE POWER OF TEAM.