

# MH Professional Engineering, PLLC



## HEALTHCARE PROJECT EXPERIENCE

### ELLIS HOSPITAL A2 OPERATING ROOM CODE REVIEW

Schenectady, NY

- Lead Electrical Engineers for redundancy concerns within existing operating room suite at Ellis Hospital.
- Conducted necessary site investigations to examine how existing operating rooms were being fed with power.
- Performed a comprehensive code review to improve the redundancy problem while protecting patient safety and preventing disruption to the functions of the operating room during construction.
- Provided Ellis Hospital with information on how to rectify their existing installation to provide additional redundancy within the operating rooms.



# MH Professional Engineering, PLLC



## HEALTHCARE PROJECT EXPERIENCE

### VESTAL EXTENSION CLINIC, UNITED HEALTH SERVICES

Vestal, NY

- Lead Mechanical Engineers.
- Design was for a new 85,000 ft<sup>2</sup> medical office building.
- Spaces included Urgent Care facility; full imaging suite, including MRI, CT scanner, X-ray suite and vascular imaging suites; women's health care, including mammography, DEXA scan, and stereostatic suites, and internal medicine practice.





# MH Professional Engineering, PLLC



## HEALTHCARE PROJECT EXPERIENCE

### ALBANY IVF

Albany, NY

- Provided investigative mechanical and electrical engineering services for clinics.
- Review of operation of existing rooftop units and zone control dampers.
- Airflow survey and verification by a certified test and balance contractor.
- Review of existing wiring means and methods to verify code compliance.
- One-week recording of main electrical system by a third-party party electrical contractor to verify power condition.
- Provided verification services for corrective actions being provided by electrical contractor.



# MH Professional Engineering, PLLC



## HEALTHCARE PROJECT EXPERIENCE

### **RADIOLOGY DEPARTMENT RENOVATION STRATTON VETERANS ADMINISTRATION HOSPITAL**

Albany, NY

- This contract included design and construction services for the renovation of the radiology department. The scope included the design of a new floor plan for approximately 11,200 ft<sup>2</sup> on the main hospital second floor A-wing, as well as providing a cohesive plan over multiple phases to accomplish the renovations while maintaining the radiology department in full operation. The main goals were to improve patient privacy, ADA compliance and workflow functionality.
- Specific work requirements included modifications to the existing sprinkler system, plumbing system, electrical system, and fire alarm system. Mechanical system upgrades included new air handling units and ducted system to replace the existing window air conditioning units and provide sufficient heating, cooling and ventilation. The design included the extension of existing chilled water piping and hot water heating piping from neighboring areas.



# MH Professional Engineering, PLLC



## HEALTHCARE PROJECT EXPERIENCE

### UNITED HEALTH SERVICES HOSPITALS, INC.

New York Southern Tier

Served as the Lead Mechanical Engineers for the redesign and expansion of patient services and support services for a multitude of projects.

- Neurological Associates, Binghamton, NY
- Article 28 Upgrades, Orthopedics Associates, Binghamton, NY
- Pre-Admissions Testing, Johnson City, NY
- Physical Therapy Associates, Vestal, NY
- Laboratory Services and Family Practice, Owego, NY
- Wilson Memorial Hospital Dishroom Renovation, Johnson City, NY
- Perinatal Exam Suite and Laboratory Upgrades, Wilson Memorial Hospital, Johnson City, NY
- Article 28 Upgrades, Linear Accelerator at Wilson Square, Johnson City, NY
- Article 28 Upgrades for X-ray suite for Family Clinic, Deposit, NY
- Ortho Surgery Recovery, Memorial Building, Binghamton, NY
- Required HVAC upgrades for various Medical Center radiological equipment upgrades at Binghamton Hospital and Wilson Memorial Hospital
- Relocation of Professional Home Care Associates, Johnson City, NY
- Relocation and Expansion of ENT Associates, Wilson Square, Johnson City, NY
- Angiography Interventional Radiology Replacement, Johnson City, NY





# MH Professional Engineering, PLLC



## HEALTHCARE PROJECT EXPERIENCE

### OUR LADY OF LOURDES HOSPITAL

Binghamton, NY

Served as Lead Mechanical Engineers for the redesign and expansion of patient services and support services for a multitude of projects.

- Primary Care Associates, Whitney Point, NY
- Women's Health Care Associates, Vestal, NY
- Youth Services and Mental Health Clinic, Binghamton, NY
- Primary Care Associates, Binghamton, NY
- Primary Care Associates, Hancock, NY



# MH Professional Engineering, PLLC



## HEALTHCARE PROJECT EXPERIENCE

### **HUDSON VALLEY ORTHOPEDICS CENTER**

Hudson, NY

- Provided consulting and code review services for this design-build project, which included two Class C operating rooms, recovery area, anesthesia area and required ancillary spaces.
- The project required New York State Department of Health certification for outpatient surgical facilities. Medical gas systems, a medical gas storage area, and a hazardous medical waste storage area were included in the design.



# MH Professional Engineering, PLLC



## HEALTHCARE PROJECT EXPERIENCE

### **CHENANGO MEMORIAL HOSPITAL PHYSICAL THERAPY – EATON CENTER**

Norwich, NY

- Served as the Lead Mechanical, Electrical, Plumbing, and Fire Protection Engineers for the first-floor renovation of an existing salon, BOCES classrooms and offices into a physical therapy suite.
- Systems were upgraded to meet Article 28 requirements.
- Electrical systems required careful coordination with location of powered therapy/exercise equipment.
- Floor plan layout was carefully aligned to prevent placement of plumbing fixtures over existing electrical switchgear in basement and to avoid requiring a sewage lift station.





# MH Professional Engineering, PLLC



## HEALTHCARE PROJECT EXPERIENCE

### **FAMILY CLINIC RENOVATION, UNITED HEALTH SERVICES**

Deposit, NY

- Served as the Lead HVAC Engineers.
- Project involved the replacement of X-ray equipment.
- Existing HVAC equipment had to be modified/upgraded to meet current Article 28 requirements.
- Existing HVAC equipment is horizontal furnaces with DX cooling. The existing systems did not include mechanical ventilation air.
- System was upgraded to include dedicated outside air intake, two stages of filtration and booster fans to overcome additional static pressure.

### **PROFESSIONAL HOME CARE**

Johnson City, NY

- Lead Mechanical Engineers for the gut rehabilitation of existing building for offices for UHS Professional Homecare.
- Building spaces consisted of showroom, home medical device storage, offices, oxygen tank storage, and soiled/clean workstations.
- Building also included compounding pharmacy designed to meet USP 797 2012 regulations, essentially creating an ISO 8 clean room.

### **UHS UROLOGY, WILSON SQUARE**

Johnson City, NY

- Lead Mechanical Engineers for rehabilitation and reconfiguration of medical office space for Urology Associates. Space rehabilitation included upgrade of existing HVAC system to meet Article 28 guidelines (FGI 2010).
- Included study to upgrade the BMS system for the entire medical office building (6 stories).

### **KREMBS 3, 4 & 5 SHOWERS, BINGHAMTON GENERAL HOSPITAL**

Binghamton, NY

- Lead Mechanical, Electrical, and Plumbing Engineers.
- Provided new plumbing (supply and drain) connections for new shower/toilet rooms.
- Provided new lighting throughout rooms, power outlets throughout as required, and a nurse call system.
- Exhaust system per applicable codes were provided in all rooms.
- Revised fire alarm system device locations.

# MH Professional Engineering, PLLC



## HEALTHCARE PROJECT EXPERIENCE

### **OR L, WILSON MEMORIAL HOSPITAL**

Johnson City, NY

- Lead Mechanical Engineers for the expansion and rehabilitation of Operating Room L at Wilson Memorial Hospital.
- Space rehabilitation included upgrade of existing HVAC system to meet current Article 28 guidelines (FGI 2010).

### **STERILE PROCESSING, WILSON MEMORIAL HOSPITAL**

Johnson City, NY

- Lead engineers for upgrade of HVAC system for hospital's existing sterile processing area.
- Upgrade included new air handling unit, ductwork, steam and chilled water coils, and electric connections.
- As project lead, structural engineer and architect were subconsultants.
- HVAC upgrade goal is to upgrade space to meet current Article 28 guidelines (FGI 2010), in particular the space pressurization requirement.

### **STERILE PROCESSING, BINGHAMTON GENERAL HOSPITAL**

Binghamton, NY

- Lead engineers for upgrade of HVAC system for hospital's existing sterile processing area.
- Upgrade included new air handling unit, ductwork, steam and chilled water coils, and electric connections.
- As project lead, structural engineer and architect were subconsultants.
- HVAC upgrade goal is to upgrade space to meet current Article 28 guidelines (FGI 2010), in particular the space pressurization requirement.