

GIOVANETTI SHULMAN ASSOCIATES

GSA CONSULTING ENGINEERS & DESIGNEERS

Our Commitment

- Giovanetti Shulman Associates, Consulting Engineers (GSA), prides itself on our commitment to our clients and their projects with Principal involvement from the inception to the completion of the project.
- GSA is committed to exceed the normal engineering design services offered by other firms by having the ability to solve complex problems and design issues, while maintaining the project's design expectations and budgets.
- ▶ GSA's commitment to details assures the client that the entire design team will meet the design intent of the project and that the resulting design, will serve as a model for future projects.



Who We Are and What We Do

- GSA was formed in 1982.
- ▶ GSA maintains its experience in what we know best, MEP/FP LV engineering and design.
- ▶ GSA maintains an engineering staff of 40 to 50 engineers, designers and CAD staff.
- ▶ GSA provides engineering services for projects with MEP/FP/LV construction cost ranging from \$15,000 to \$450,000,000 and with general construction cost ranging from \$1,000,000 to \$2,500,000,000.
- GSA supports the architectural and interior design concepts, which have been approved by the client. As engineers, we look for inventive methods and solutions to maintain the integrity of the design.
- ▶ GSA's officers and principals of the firm are actively involved with all projects and to provide personal attention to the client's needs so that the client's project requirements are met without over or under design, and within the agreed budget.



Engineering Services Offered General Services

- Prepare MEP/FP/LV basis of design for the project
- Provide onsite review and observations with reports
- Prepare preliminary utility load estimates for the project including HVAC estimated loads
- Provide review of all testing and balancing

- Prepare code review as it relates to MEP systems
- Provide full time onsite representation during construction (when requested)

Attend design coordination meetings

Provide M/E/P V.E. Design Services

Provide construction administration services

Provide M/E/P Commissioning Services



Engineering Services Offered Mechanical Engineering and Design

- Heating, ventilation and air conditioning (HVAC)
- Central plant facility engineering
- Chilled water/hot water DX and split system HVAC system design
- Energy recovery systems
- Sustainable systems
- Under floor and displacement air systems
- Humidification/dehumidification systems
- Kitchen exhaust systems
- Smoke management systems and testing



Engineering Services Offered Electrical Engineering and Design

- Incoming electrical services
- Power distribution systems (medium and low-voltage)
- Normal power, standby and life safety generation
- UPS systems
- Renewable energy systems
- Energy code compliance analysis
- Interior/exterior lighting
- Power quality systems
- Life safety fire alarm systems



Engineering Services Offered Plumbing Engineering and Design

- High-rise and low-rise domestic water systems
- Gas piping systems
- Sanitary (foul) piping systems
- Grease waste systems
- Roof drainage systems
- Vacuum and compressed air systems



Engineering Services Offered Fire Protection Engineering and Design

- Sprinkler system design and calculations
 - Wet systems
 - Dry systems
 - Chemical systems
 - Pre-action systems
- Sprinkler piping system design
 - Pipe sizing
 - Piping layouts
- Sprinkler head location design (in coordination with the interior ceiling designs)



Engineering Services Offered Low -Voltage Engineering and Design

- Provide layout and design of space requirements for IT rooms, slot data rooms, IDF closets, and MDF rooms
- Determine the BTUH output and power requirements of the equipment and work with the MEP engineers to establish cooling and UPS requirements, as well as raceway coordination and requirements
- A/V design and engineering (subconsultant to GSA)
- Surveillance and security systems design engineering (subconsultant to GSA)
- Provide design and engineering of the following cabling requirements for the project:
 - Main computer system/network
 - Accounting system
 - LAN, WAN and Internet Network Infrastructure
 - Point of sale (POS system)

- Telephone system including:
 - Voicemail
 - Call accounting
 - Guest sets/dial tone
 - VoIP
- PoE
- Time and attendance system
- Tracking system
- RFID systems
- Interconnection to any local and corporate accounting software
- Beverage dispensing and control systems (interfaces)
- Building automation systems
- Infrastructure cabling required to meet State Gaming Board requirements for online central slot reporting to the State
- Wireless Wi-Fi/first responders radio systems
- Cell phone reception systems
- Credit card/ATM systems
- Convergence of the listed systems where feasible



Engineering Services Offered Sustainable Systems Building Design (LEED Services)

- At GSA, we have the responsibility to be environmentally sound in our design with regards to impact, efficiency and sustainability. Our consulting engineers have the knowledge and supporting technologies to assist clients in creating sustainable "green" buildings. We are a member of the U.S. Green Building Council (USGBC) and maintain a highly qualified staff of professionals who concentrate in the area of sustainability, primarily with respect to building services and building envelope. Areas of application include:
- Renewable energy technologies
- Appropriate ventilation strategies
- Effective use of thermal mass
- ► Energy and CO₂ emissions
- Reductions of unnecessary heat gains
- Water use
- Our sustainability group includes registered engineers possessing certification as LEED (Leadership in Energy and Environmental Design) accredited professionals



PROJECT TYPES

- ► CASINOS GAMING/ENTERTAINMENT
- **HOTELS**
- RESTAURANTS-NIGHTCLUBS
- HIGH RISE RESIDENTIAL
- **▶** RETAIL
- OFFICE BUILDING AND COMPLEXES
- FINANCIAL FACILITIES
- ASSISTED CARE LIVING

- PARKING STRUCTURES
- **▶ MEDICAL**
 - OFFICE BUILDINGS
 - WELLNESS CENTERS
 - HOSPITALS
- **▶ EDUCATIONAL**
- **▶ DATA CENTERS/COMPUTER ROOMS**
- CENTRAL PLANT FACILITIES



Construction Management Firm Associations

- Keating Construction
- Perini Building Corporation
- Gilbane Construction
- > Turner Construction
- L P Ciminelli Construction Managers
- Tishman Construction
- W.G. Yates Construction
- Roy Anderson Construction
- > TN Ward Construction
- FLINTCO Construction





REFERENCES

Mr. Dan Keating Keating Partnership The Phoenix, Suite 200 1600 Arch Street Philadelphia, PA 19103 (610) 660–4940	Mr. Richard L. Meister Vice President Isle of Capri Casino 600 Emerson Rd., Suite 300 St. Louis MO 63141 (314) 813–9390	Mr. Ed Sutor President Dover Downs Entertainment 1131 N. Dupont Highway Dover, DE 19903 (302) 857–3206
Mr. Steve Peck Principal Klai Juba Architects 4444 West Russell Road, Suite J Las Vegas NV 89118 (702) 221–2254	Mr. lan Cope Cope Linder Associates 30 So. 15 th Street Philadelphia PA 19102 (215) 981-0200	Mr. Brian Fagerstrom Principal The Worth Group 900 S. Broadway, Suite 150 Denver, CO 80209 (303) 649–1095
Mr. Tom Sykes Principal SOSH Architects 1020 Atlantic Avenue Atlantic City NJ 08401 (609) 345-5222	Mr. Joseph Emanuele Vice President Design and Construction Hard Rock International 6100 Old Park Lane Orlando, Florida 08755 (407) 455-7999	Mr. Jess Burts Vice President Construction Seminole Tribe of Florida 5731 South State Rd 7 Hollywood, Florida 33314 (954) 826–8142



RECENT CASINO PROJECTS

Revel Entertainment - Atlantic City, NJ	Seminole Hard Rock Casino - Hollywood, FL
Mohegan Sun at Pocono Downs - Wilkes Barre, PA	Seminole Hard Rock Casino - Tampa, FL
Borgata Hotel Casino & Spa – Atlantic City, NJ	Sugar House Casino – Philadelphia, PA
Seminole Tribe Casino - Coconut Creek, FL	Mt. Airy Casino Hotel - Wilkes Barre, PA
Maryland Live Casino – Baltimore, MD	Valley Forge Casino - Valley Forge, PA
Meadows Casino - Washington, PA	Dover Downs Casino Hotel - Dover, DE
Gun Lake Casino – Bradley, MI	The New Golden Nugget - Atlantic City, NJ

PENNSYLVANIA CASINOS



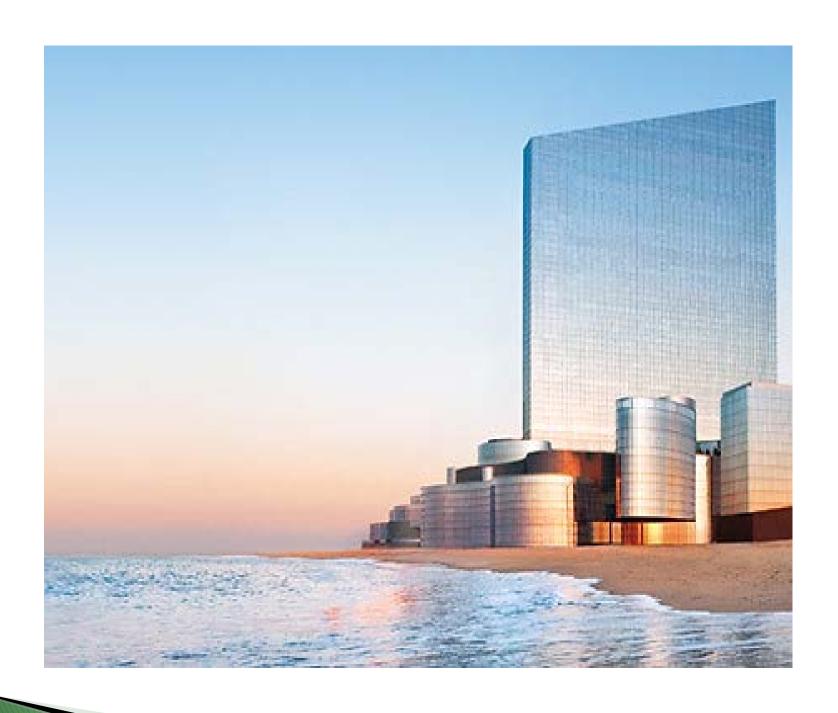








REVEL ENTERTAINMENT ATLANTIC CITY, NJ









Atlantic City, Marina Area Harrah's, Golden Nugget and Borgata





Borgata Hotel / Water Tower and Spa





Hard Rock Rockcino Northfield, Ohio



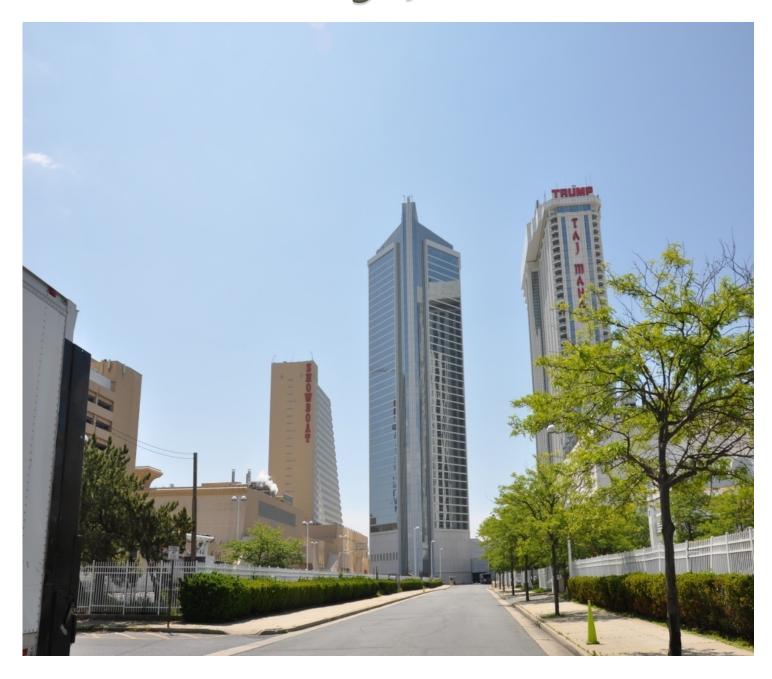


Caesars 5000 Space Parking Facility Atlantic City, NJ





Trump Hotel Atlantic City, NJ







Harrah's Hotel-Gaming Entertainment Atlantic City, NJ









Harrah's Hotel-Red Door Spa and Pool Atlantic City, NJ (Geodesic Dome)









Choctaw Casino Durant, Oklahoma





Hard Rock Casino - Moon Palace Punta Cana





Seminole Hard Rock Casino Hollywood, Florida





Seminole Hard Rock Casino Tampa, Florida





Seminole Coconut Creek Casino Coconut Creek, Florida





5000 Space Parking Structure Atlantic City, NJ





The Phoenix Luxury Condominiums Philadelphia, PA







Hyatt Waterfront Hotel Philadelphia, PA





Marriott Convention Center Hotel Philadelphia, PA





Dockside Condominium on the Waterfront Philadelphia, PA





Sheraton Hotel Atlantic City, NJ





Conectiv Thermal Central Plan Atlantic City, NJ







Design Engineering Approach

- GSA provides close design coordination between the architect and the mechanical/electrical engineers of the project, as well as other supporting consultants.
- GSA will be responsible for not only meeting the design criteria of the architect, as well as the various interior and theme design firms, which will be selected for the project's public spaces, but also will be responsible for providing a sustainable design implementing renewable energy and LEED design where applicable.
- GSA's dedication of the design engineering staff throughout the project design and construction phases and, more importantly, the commitment of the firm's principals and owner involvement to meet the project budget and planned scheduled opening.
- GSA's principals involvement continues long after the design and approval process of the project. The principals maintain the review of the building's mechanical/electrical systems during construction, as well as review and settlement of the MEP/FP contractor's final payments and project closeout.
- GSA commits its principals to the life of the project on a daily basis.



- GSA, as the principal engineer for projects and in responsible charge for the MEP/FP design and engineering, will be responsible for all coordination issues, all MEP approvals and all construction administration and field coordination issues during construction, including attending all building reviews and life safety testing.
- From the very start of the project GSA will:
 - Attend the design kick off meetings with the architect, client and other team members.
 - Ascertain a preliminary program and/or plans from the architect or client.
 - Prepare a load estimate spreadsheet based on the architect's program and area plans to allow for the review of the services required by area for the project and also the total required services for the project. This spreadsheet will provide the following information:
 - Cooling requirements.
 - Heating requirements.
 - Gas loads.
 - Water requirements.
 - Electrical requirements.
 - Generator sizing requirements.



- From this spreadsheet and the architect's plans, GSA is able to determine and start the following design:
 - Required sizing of the incoming utilities for the civil engineer to start the pursuit of the proper water, gas, electric and sanitary (foul) services for the project.
 - Prepare the MEP/FP/LV design brief for client review.
 - Allow for sizing of the Central Plant (if feasible for the project).
 - Select HVAC equipment and piping and locate this equipment in coordination with the structural engineer for steel sizing design.
 - Develop main slab penetrations.
 - Develop base single line electrical diagram.
 - Locate and size standby and emergency generation equipment.
 - Develop and size main plumbing equipment.
 - Required room sizes and preferred locations of MEP/FP/LV rooms in coordination with architect and owner.



- GSA is a full service engineering firm, which includes low-voltage design. As we continue through the process, it becomes increasingly important to get a handle on the types of systems being contemplated for the project, and the space and cabling requirements necessary to meet the project's final design in this area. GSA's plan of action includes the following:
 - Meet with the client to determine the numbers and types of systems being considered for the project.
 - From that meeting, determine the following:
 - Determine incoming service requirements.
 - Space requirements necessary for the equipment and its distribution location.
 - Cabling requirements for each system.
 - Raceway requirements.
 - BTUH and power requirements for the equipment being purchased.
 - Prepare a low-voltage system design brief for review.
 - When the initial requirements are determined as listed above, then the design process can continue through the Design Development and Construction Document phases of the project, with ongoing coordination with the entire design team.



- With the completion and coordination of the final documents, GSA will also provide the engineering services necessary for construction document releases from the required reviewing agencies and assist in obtaining the final Certificate of Occupancy from the building and inspection agencies, as required, to meet the client's opening schedule.
- GSA's experience in complicated large projects as listed in our resume have led to the development of this method of design approach which has made it's projects successful.
- GSA offers a complete Engineering/Design Service for your project.



CONSULTING ENGINEERS & DESIGNERS

Our Commitment

Giovanetti Shulman Associates, Consulting Engineers & Designers (GSA), prides itself in our commitment to our clients and their projects with Principal involvement from the inception to the completion of the project. GSA exceeds the normal engineering design services offered by other firms by having the ability to solve complex problems and design issues, while maintaining the project's design expectations and budgets.

This commitment assures the client that Giovanetti Shulman Associates will meet the design intent of the project at hand and that the resulting design, by its very nature, can and usually will serve as a model for future projects.

CONSULTING ENGINEERS & DESIGNERS

Who We Are

GSA was formed in 1982. Since that time, GSA's capabilities have expanded and can provide full mechanical, electrical, plumbing, fire protection, and low-voltage engineering and design services for all of its projects.

GSA's experience and diverse team of engineers, designers and business analysts helps companies implement sustainable business and building strategies through customized solutions that maximize environmental, human and financial performance.

GSA provides engineering services for projects with MEP/FP/LV construction cost ranging from \$15,000 to \$450,000,000 and with general construction cost ranging from \$1,000,000 to \$2,500,000,000.

Giovanetti Shulman Associates' commitment to teamwork requires that the mechanical and electrical engineering of a project support the architectural and interior design concepts, which have been approved by the client. As engineers, we look for inventive methods and solutions to maintain the integrity of the design, to meet code requirements, and to meet expected probable construction cost.

GSA's low-voltage cabling design division was developed to meet our client's needs and to provide a coordinated design between the low-voltage equipment requirements and the electrical power and HVAC requirements of this type of equipment. GSA's personnel are RCDD registered and familiar with the latest standards required by BICSI. GSA has become a leader in the development and cabling infrastructure for the low-voltage systems of today's buildings and their integration and convergence. In addition to the standard LV design services, GSA also provides A/V and security/surveillance design.

GSA maintains an engineering staff ranging from 50 to 70 qualified engineers, designers and cad design staff, plus administrative personnel. This allows GSA's associates, officers and principals of the firm to be actively involved with all projects and to provide personal attention to the client's needs so that the client's project requirements are met without over or under design, and within the agreed budget.

We are not only committed to the design of the project, but once the construction documents are completed and the contractors are selected, GSA will meet with the client/architect and the assigned contractors to review the MEP/FP/LV design to determine and resolve areas of concern. During the construction of the project, GSA commits itself to prompt shop drawing review (within five days of receipt) and to periodic site observations to assure that the project's design intent and code compliances are being met. The contractor's request for information or clarifications, final punch listing and witness testing of the completed MEP construction are performed promptly.

CONSULTING ENGINEERS & DESIGNERS

Engineering Services Offered

General Services

- Prepare MEP/FP/LV basis of design for the project
- Prepare preliminary utility load estimates for the project including HVAC estimated loads
- Prepare code review as it relates to MEP systems
- Attend design coordination meetings
- Provide construction administration services
- Provide onsite review and observations with reports
- Provide review of all testing and balancing
- Provide full time onsite representation during construction (when requested)
- Provide M/E commissioning services

Mechanical Engineering and Design

- Heating, ventilation and air conditioning (HVAC)
- Central plant facility engineering
- Chilled water/hot water DX and split system HVAC system design
- Energy recovery systems
- Sustainable systems
- Under floor and displacement air systems
- Humidification/dehumidification systems
- Kitchen exhaust systems
- Smoke management systems and testing



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Electrical Engineering and Design

- Incoming electrical service
- Power distribution systems (medium and low-voltage)
- Stand-by and life safety generation
- UPS systems
- Renewable energy systems
- Energy code compliance analysis
- Interior/exterior lighting
- Power quality systems
- Life safety fire alarm systems

Plumbing Engineering and Design

- High-rise and low-rise domestic water systems
- Gas piping systems
- Sanitary piping systems
- Grease waste systems
- Roof drainage systems
- Vacuum and compressed air systems

Fire Protection Engineering and Design

- Sprinkler system design and calculations
 - Wet systems
 - Dry systems
 - Chemical systems
 - Pre-action systems
- Sprinkler piping system design

CONSULTING ENGINEERS & DESIGNERS

Sprinkler head location design (in coordination with the interior ceiling designs)

Low-Voltage Systems Cabling Engineering and Design

- Provide layout and design of space requirements for IT rooms, slot data rooms, IDF closets, and MDF rooms
- Determine the BTUH output and power requirements of the equipment and work with the MEP engineers to establish cooling and UPS requirements, as well as raceway coordination and requirements
- Provide design and engineering of the following cabling requirements for the project:
 - Main computer system/network
 - Accounting system
 - LAN. WAN and Internet Network Infrastructure
 - Point of sale (POS system)
 - Telephone system including:
 - Voicemail
 - o Call accounting
 - o Guest sets/dial tone
 - o VolP
 - o PoE
 - Casino systems
 - Betting systems
 - Time and attendance system
 - Tracking system
 - RFID systems
 - Interconnection to any local and corporate accounting software
 - Beverage dispensing and control systems (interfaces)
 - Building automation systems
 - Infrastructure cabling required to meet State Gaming Board requirements for on-line central slot reporting to the State
 - Wireless Wi-Fi/first responders radio systems
 - Cell phone reception systems
 - Credit card/ATM systems
 - Convergence of the listed systems where feasible
 - A/V design and engineering
 - Surveillance and security systems design engineering

Sustainable Systems Building Design (LEED Services)

At GSA, we have the responsibility to be environmentally sound in our design with regards to impact, efficiency and sustainability. Our consulting engineers have the knowledge and supporting technologies to assist clients in creating sustainable "green" buildings. We are a member of the U.S. Green Building Council (USGBC) and maintain a highly qualified staff of

CONSULTING ENGINEERS & DESIGNERS

professionals who concentrate in the area of sustainability, primarily with respect to building services and building envelope. Areas of application include:

- Renewable energy technologies
- Appropriate ventilation strategies
- Effective use of thermal mass
- Energy and CO₂ emissions
- Reductions of unnecessary heat gains
- Water use

Our sustainability group includes registered engineers possessing certification as LEED (Leadership in Energy and Environmental Design) accredited professionals.

By providing full service capabilities in the areas of MEP, environmental, fire protection and technology services, our engineers extend the sustainability design concepts into each of the dynamic aspects of building design. We also understand the significant impact imposed by data centers, security and surveillance systems and other technology services' infrastructure, and the correlating effects upon the use of energy within a building. We combine all of our engineering design efforts into a holistic view of the entire project. We advise and guide our clients toward solutions that result in not only the highest levels of sustainability, but also address the overall economics in the context of their specific projects.

CONSULTING ENGINEERS & DESIGNERS

The GSA Executive Team

At GSA, our engineering team is our greatest asset. The team leaders shown below are the core, with a full staff of MEP/LV Engineers and Designers supporting their efforts to make GSA one of the Best in the Engineering Industry.

- Richard Giovanetti President
- Mark S. Shulman, P.E. Executive VP
- Joseph Ruffo Senior Vice President /Business Development
- Peter M. Carney, P.E. Vice President Mechanical Engineering
- Thomas M. Mehaffey, P.E. Vice President Electrical Engineering
- Thomas J. Fidura, C.I.P.E. Vice President Plumbing Engineering
- William Anderson, P.E. Senior Electrical Engineer



CONSULTING ENGINEERS & DESIGNERS

List of Continuing Clients

Architects / Interior Designers

- BLT Architects
- Cairone-Kaupp
- CGL Architects
- Cope Linder Architects
- Cuningham Group Architects
- DAS Architects
- David Robert Crawford, AIA
- Design Collaborative
- Design Collective, Inc.
- Friedmutter Group
- Harman Group
- Hnedak Bobo Group
- JCJ Architecture
- Klai Juba Architects
- Kuhlman Design Group
- Marnell Corrao Associates, Inc.
- R2 Architects, LLC
- SOSH Architects
- SPG3
- Steelman Partners, LLP

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- Westar Architects
- Worth Group

Direct Clients

- Seminole Tribe of Florida
- Hard Rock International
- Revel Entertainment
- Borgata Hotel Casino & Spa
- Caesars Entertainment
- Cannery Casino Resorts
- Colony Capital
- Cordish Group
- Dover Downs Hotel and Casino
- Foxwoods Resort Casino
- GlaxoSmithKline
- Harrah's Entertainment
- Hilton Hotels
- Isle of Capri Casinos
- Landry's Development, Inc.
- Marriott Hotels
- Seminole Hard Rock Hotel & Casinos
- Trump Entertainment Resorts

CONSULTING ENGINEERS & DESIGNERS

References

GSA has prepared the following list of references, which include architects, building managers, and contractors in order to offer a broad range for our prospective clients to review and contact:

Mr. Richard L. Meister Vice President Isle of Capri Casino 600 Emerson Rd., Suite 300 St. Louis MO 63141 (314) 813-9390

Mr. Michael Bertino President Bertino Associates 8025 Black Horse Pike, Suite 490 West Atlantic City NJ 08232 (609) 377-9148

Mr. Ian Cope Partner Cope Linder Associates 30 So. 15th Street Philadelphia PA 19102 (215) 981-0200

Mr. Kirk Harman President The Harman Group 900 west Valley Forge Rd Suite 200 King of Prussia PA 19406 (610) 337-3360

Mr. Dave Miller VP Design and Construction Seminole Tribe of Florida One Seminole Way Hollywood, FL (954) 585-5651

Mr. David Crawford 20000 Horizon Way Mr. Ed Sutor CEO Dover Downs, Entertainment, Inc. 1131 No. DuPont Highway Dover DE 19903 (302) 857-3206

Mr. Steve Peck Principal Klai Juba Architects 444 West Russell Road, Suite J Las Vegas NV 89118 (702) 221-2254

Mr. Joseph Emanuele Vice President Design and Construction Hard Rock International 6100 Old Park Lane Orlando Florida 32835 (407) 445-7953

Mr. Dan Keating President Keating Development Corp. 1600 Arch Street Philadelphia, PA 19103 (610) 668-4100

Mr. Tom Sykes Partner SOSH Architects 1020 Atlantic Avenue Atlantic City NJ 08401 (609) 345-5222

Mr. Frank Soltys Flagship Resort



CONSULTING ENGINEERS & DESIGNERS

Mt. Laurel, NJ 08054 (856) 866-0018 Ext. 102 60 No. Main Street Atlantic City, NJ 08401 (609) 343-7447 Ext. 7101

List of Projects and Project Types

Casinos

- REVEL Casino/Hotel Atlantic City, NJ
- Seminole Tribe Casino Coconut Creek FL
- Seminole Hard Rock Coconut Creek Casino Expansions
- Seminole Hard Rock Casino Hollywood FL
- Seminole Tribe Casino Immokalee FL
- Seminole Hard Rock Casino Tampa FL
- Seminole Tribe Brighton Casino
- Seminole Tribe Classic Casino
- Revel Entertainment Atlantic City, NJ
- Atlantic Club Casino Atlantic City NJ
- Bally's Atlantic City NJ
- Bally's Wild Wild West Atlantic City NJ
- Borgata Hotel Casino & Spa Atlantic City NJ
- Borgata Water Tower Atlantic City NJ
- Caesars Atlantic City NJ
- Claridge Casino Hotel Atlantic City NJ
- Dover Downs Casino Hotel Dover DE
- Foxwoods Casino Philadelphia PA



- Foxwoods Resort Casino Ledyard CT
- French Lick Casino and Resort West Baden IN
- Golden Nugget Atlantic City, NJ
- Golden Nugget Biloxi, MS
- Gun Lake Casino Bradley MI
- Harrah's Casino Council Bluffs IA
- Harrah's Casino Metroplis IL
- Harrah's Casino Tunica MS
- Harrah's Casino Hotel Maryland Heights MO
- Harrah's Casino Hotel Vicksburg MS
- Harrah's Cherokee Hotel and Casino Cherokee NC
- Harrah's Chester Downs Chester PA
- Harrah's Horseshoe Casino Hammond IN
- Harrah's Joliet Expansion Joliet IL
- Harrah's Kansas City Casino & Hotel North Kansas City MO
- Harrah's Louisiana Downs Bossier City LA
- Harrah's Prairie Band Casino Mayetta KS
- Harrah's Resort Atlantic City NJ
- Harrah's St. Louis Riverport Casino St. Louis MO
- Hilton Casino Resort Atlantic City NJ
- Horseshoe Casino Cincinnati OH
- Horseshoe Casino Shreveport LA
- Horseshoe Casino Tunica MS
- Horseshoe Hotel Casino Bossier City LA



- Indiana Live Shelbyville IN
- Isle of Capri Casino Bettendorf IA
- Isle of Capri Casino Blackhawk CO
- Isle of Capri Casino Cape Girardeau MO
- Isle of Capri Casino Caruthersville MO
- Isle of Capri Casino Kansas City MO
- Isle of Capri Casino Marquette IA
- Isle of Capri Casino Natchez LA
- Isle of Capri Casino Nemacolin PA
- Isle of Capri Casino Vicksburg MS
- Isle of Capri Casino Waterloo IA
- Isle of Capri Hotel Casino Biloxi MS
- Isle of Capri Hotel Casino Boonville MO
- Isle of Capri Hotel Casino Davenport IA
- Isle of Capri Hotel Casino Lula MS
- Isle of Capri Hotel Casino Pompano FL
- Isle of Capri Hotel Casino Tunica MS
- Lady Luck Casino Blackhawk CO
- Maryland Live Casino Baltimore MD
- Meadows Casino Washington PA
- Mohegan Sun Casino Uncasville CT
- Mohegan Sun at Pocono Downs Wilkes Barre PA
- Mt. Airy Casino Hotel Wilkes Barre PA
- Mystic Lake Casino Hotel Prior Lake MN

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- Parx Casino Philadelphia PA
- Resorts Casino Hotel Atlantic City NJ
- Scioto Downs Casino Columbus OH
- Sugar House Casino Philadelphia PA
- Trump Marina Hotel Casino Atlantic City NJ
- Trump Plaza Hotel Casino Atlantic City NJ
- Valley Forge Casino Valley Forge, PA

Restaurants and Food Service Venues

- Hard Rock Café- New Orleans
- Seminole Hard Rock Hard Rock Café Tampa FL
- Arturo's Italian Restaurant Atlantic City NJ
- Bally's Atlantic City "61X" Bistro Restaurant Atlantic City NJ
- Bally's Atlantic City Harry's Oyster Bar Atlantic City NJ
- Bally's Atlantic City Johnny Rocket's Restaurant 125 Seats Atlantic City NJ
- Bally's Atlantic City Noodle Village Restaurant Atlantic City NJ
- Bally's Atlantic City Pickles Deli Atlantic City NJ
- Bally's Atlantic City The Taste of the Shore Food Court Atlantic City NJ
- Bally's Atlantic City Virginia City Buffet 400 Seats Atlantic City NJ
- Borgata Hotel Casino & Spa Bobby Flay's Restaurant 150 Seats Atlantic City NJ
- Borgata Hotel Casino & Spa Buffet 550 Seats Atlantic City NJ
- Borgata Hotel Casino & Spa Metro Deli 225 Seats– Atlantic City NJ
- Borgata Hotel Casino & Spa Metropolitan Restaurant Atlantic City NJ
- Borgata Hotel Casino & Spa Sea Blu Seafood Restaurant –165 Seats Atlantic City NJ

- Borgata Hotel Casino & Spa Speccios Restaurant 165 Seats Atlantic City
- Borgata Hotel Casino & Spa Suilan Restaurant 150 Seats Atlantic City
- Borgata Hotel Casino & Spa UMBRAS Italian Restaurant 200 Seats Atlantic City
- Borgata Hotel Casino & Spa Underbite's Fast Food Outlet Atlantic City NJ
- Caesar's Atlantic City Atlantic Grille Seafood Steak and Sushi Restaurant Atlantic City NJ
- Caesars Atlantic City Mia's Restaurant 195 Seats Atlantic City NJ
- Caesars Atlantic City Morton's of Chicago Steakhouse 175 Seats Atlantic City NJ
- Caesars Atlantic City Temple Lobby Bar & Lounge Atlantic City NJ
- Caesars Atlantic City Tuscany Restaurant 200 seats Atlantic City NJ
- Copper Canyon Grille Gaithersburg MD
- Copper Canyon Grille Woodmore MD
- Delta Downs Racetrack and Casino Buffet Renovations 250 seats Vinton LA
- Dover Downs Casino Hotel Garden Café Restaurant -175 seats Dover DE
- Golden Nugget Atlantic City Charthouse Restaurant Atlantic City NJ
- Golden Nugget Atlantic City Grotto Italian Restaurant Atlantic City NJ
- Golden Nugget Atlantic City HO Pool Bar & Lounge Atlantic City NJ
- Golden Nugget Atlantic City Lilies Asian Restaurant Atlantic City NJ
- Golden Nugget Atlantic City Michael Patrick's Cafe Atlantic City NJ
- Golden Nugget Atlantic City Starbuck's Restaurant Atlantic City NJ
- Golden Nugget Atlantic City The Deck at the Marina Atlantic City NJ
- Golden Nugget Atlantic City Vic & Anthony's Atlantic City NJ
- Golden Nugget Atlantic City Wine and WiFi Atlantic City NJ
- Harrah's Atlantic City Bill's Burger and Bar Sports Bar Atlantic City NJ



- Harrah's Atlantic City Blue Oyster Bar and Steakhouse Restaurant 270 Seats Atlantic City NJ
- Harrah's Atlantic City Cesca Restaurant -150 Seats Atlantic City NJ
- Harrah's Atlantic City Coffee Shop Restaurant 350 Seats Atlantic City NJ
- Harrah's Atlantic City Dos Camino's Mexican Restaurant Atlantic City NJ
- Harrah's Atlantic City Eden Lounge 160 Seats Atlantic City NJ
- Harrah's Atlantic City Fantasy Reef Buffet Expansion Atlantic City NJ
- Harrah's Atlantic City Florentino's Italian Restaurant Atlantic City NJ
- Harrah's Atlantic City Sammy D's Restaurant and Bar Atlantic City NJ
- Harrah's Atlantic City Seven Star Lounge Atlantic City NJ
- Harrah's Atlantic City Taste of the Shore Food Court Atlantic City NJ
- Harrah's Atlantic City Waterfront Buffet 950 Seats Atlantic City NJ
- Harrah's Atlantic City s Waterfront Food Court 165 Seats Atlantic City NJ
- Harrah's Atlantic City "X" Casino Lounge Atlantic City NJ
- Harrah's Bluffs Run The Diamond Players Lounge & Restaurant Bluffs Run LA
- Harrah's Cherokee Seafood Restaurant Cherokee NC
- Harrah's Chester Downs Barleque Restaurant Lounge Chester PA
- Harrah's Chester Downs Café Napoli Italian Restaurant Chester PA
- Harrah's Chester Downs Mein Noodle Bar and Restaurant Chester PA
- Harrah's Chester Downs Pub Burger Bar and Lounge Chester PA
- Harrah's Chester Downs Sweet Shop Restaurant Harrah's Chester Downs Chester PA
- Harrah's The Diamond Players Lounge & Restaurant St. Louis MO
- Harrah's Mr. G's Lounge & Restaurant Council Bluffs IA
- Hilton Casino Resort Asian Restaurant & Noodle Bar Atlantic City NJ



- Hilton Casino Resort Cappuccino's Restaurant Atlantic City NJ
- Hilton Casino Resort Horizon's Coffee Shop 280 Seats Atlantic City NJ
- Hilton Casino Resort Player's Club Restaurant Atlantic City NJ
- Hilton Casino Resort Patsy's Steakhouse Atlantic City NJ
- Horseshoe Casino Buffet Restaurant Cincinnati OH
- Horseshoe Casino Buffet Expansion and Renovations Bossier City LA
- Horseshoe Casino Diamond Players Lounge 350 Seats Tunica MS
- Imperial Palace 32nd Floor Bar & Lounge 260 Seats Biloxi MS
- Isle of Capri Farraday's Steakhouse Restaurant 225 Seats Bettendorf IA
- Isle of Capri Farraday's Steakhouse Restaurant Biloxi MS
- Isle of Capri Calypso's Atrium Buffett 350 Seats Biloxi MS
- Isle of Capri Pool Bar Restaurant Biloxi MS
- Isle of Capri Calypso's Buffet 350 Seats Black Hawk CO
- Isle of Capri Tradewinds Deli Black Hawk CO
- Isle of Capri Calypso's Buffet 350 Seats Kansas City MO
- Isle of Capri Nightclub Lounge & Restaurant Kansas City MO
- Isle of Capri Calypso's Buffet Lake Charles LA
- Isle of Capri Farraday's Steakhouse Restaurant 275 seats- Lake Charles LA
- Isle of Capri Lula Calypso's Buffet 350 Seats Lula MS
- Isle of Capri Calypso's Buffet Vicksburg MS
- Maryland Live Bobby's Burger Palace (Bobby Flay's) Baltimore MD
- Maryland Live Cheesecake Factory Baltimore MD
- Maryland Live The Buffet at Maryland Live Baltimore MD



- Maryland Live The Prime Rib Steakhouse Baltimore MD
- Mohegan Sun @ Pocono Downs Food Court Plains Township PA
- NYY Steak House Coconut Creek Casino, Coconut Creek, FL
- NYY Steak House New York NY
- Rainforest Café Restaurant 290 Seats Atlantic City NJ
- Resorts Asian Spice Chinese Restaurant Atlantic City NJ
- Resorts Breadsticks Coffee Shop Restaurant Atlantic City NJ
- Resorts Buffet Restaurant Atlantic City NJ
- Resorts Cappriccio's Italian Restaurant Atlantic City NJ
- Resorts Coffee Outlet Fast Food Restaurant Atlantic City NJ
- Resorts Le Palais Restaurant 210 Seats Atlantic City NJ
- Resorts Lobby bar & Lounge "25th Hour" Atlantic City NJ
- Resorts Tuxedo's Restaurant Atlantic City NJ
- Resorts Rhythm City Casino Buffet Davenport IA
- Scioto Downs Grab and Go Restaurant Columbus OH
- Scioto Downs Buffet Columbus OH
- Seminole Hard Rock Private Dining Restaurant 125 Seats Hollywood FL
- Trump Marina Italian Restaurant Atlantic City NJ
- Trump Marina Marina Club Player's Club Restaurant Atlantic City NJ
- Trump Marina Taco Bell Fast Food Restaurant Atlantic City NJ
- Trump Marina Waterside Buffet Atlantic City NJ
- Trump Plaza 24/7 Deli/Coffee Shop Restaurant 330 Seats Atlantic City NJ
- Trump Plaza China Buddha Restaurant Atlantic City NJ



CONSULTING ENGINEERS & DESIGNERS

- Trump Plaza East Tower Buffet Atlantic City NJ
- Trump Plaza Evo's Restaurant 190 Seats Atlantic City NJ
- Trump Plaza Liquid Bar & Lounge 140 Seats Atlantic City NJ
- Trump Plaza New Yorker Deli Atlantic City NJ
- Trump Taj Mahal Boardwalk Bar & Lounge Atlantic City NJ
- Trump Taj Mahal "Burger" Burger Bar Restaurant Atlantic City NJ
- Trump Taj Mahal Casbah Nightclub & Lounge 410 Seats Atlantic City NJ
- Trump Taj Mahal Employee Dining Restaurant Atlantic City NJ
- Trump Taj Mahal Il Mulino's Italian Restaurant Atlantic City NJ
- Trump Taj Mahal Robert's Steakhouse Atlantic City NJ
- Trump Taj Mahal "Plate" 24 Hour Coffee Shop Atlantic City NJ
- Trump Taj Mahal Sultan's Feast Buffet 380 Seats Atlantic City NJ
- Trump Taj Mahal Starbuck's Restaurant Atlantic City NJ
- Trump Taj Mahal "Togo" Quick Bites Restaurant Grab & Go Atlantic City NJ
- Trump Taj Mahal White House Sub Shop Atlantic City NJ

Office Building and Complexes

- 313 W. Market Street Office Building West Chester PA
 - Approximately 185,000 SF of new office building, including total fit out for county of Chester
- 1000 Chesterbrook Valley Forge PA
 - 180,000 SF three-story office building, with base building MEP and tenant fit-out design
- 1000 Continental Office Building King of Prussia PA
 - Approximately 250,000 SF of new office building
- 1650 Arch Street Philadelphia PA
 - 650,000 SF high-rise office building
 - Overall base building MEP upgrade

- Tenant fit-out, including MEP design services
- 1801 Atlantic Avenue Sun Bank Office Building Atlantic City NJ
 - Approximately 45,000 SF of new office building
- 1801 Atlantic Avenue Office Building Atlantic City NJ
- Apple Computer Corporate Office Mt. Laurel NJ
 - 17,000 SF complex
- Applied Card Systems Corporate Office Building Concordville PA
 - 250,000 SF four-story office building, with base building MEP/FP and fit-out design



- Atrium III Mt. Laurel NJ
 150,000 SF office building
- Atrium II Mt. Laurel NJ
 - 127,000 SF office building
- Bayport One West Atlantic City NJ
 - 175,000 SF office building
- Bell Atlantic Network Services Philadelphia PA
 - 25,000 SF office fit-out
- Boeing Helicopters Ridley Park PA
 - 250,000 SF four-story office building design includes central plant, with base building MEP, plus complete office fit-out, including lighting, power, data/communications, HVAC, plumbing and fire protection
- Buchanan Ingersoll Law Offices Philadelphia PA
 - Two Logan Square 20,000 SF office space
- Butcher and Singer, Inc. Philadelphia PA
 - 35,000 SF office fit-out
- Caesars Atlantic City Atlantic City NJ
 - Marketing and HR offices
 - 25,000 SF office
- Corporate Dynamics Mt. Laurel NJ
 - 18,000 SF office building and tenant fit-out
- Deloitte & Touche Philadelphia PA
 - 60,000 SF high-rise office building
 - Multi-level office fit-out
- Dilworth Pepper Kauffman and Kauffman Pleasantville NJ
 - 9,000 SF office space
- Environmental Protection Department Offices Philadelphia PA
 - 100,000 SF of multi-level office spaces. This project required full temperature and humidly maintaining 30% relative humidity in all offices and open areas. In addition, full air quality control was required with special filtration systems.
- Ernst & Young Philadelphia PA
 - 96,000 SF office building
 - Multi-level fit-out comprising of MEP and data/communications

- GlaxoSmithKline Philadelphia PA GSA worked directly for GSK as the building facility engineer
 - Video-teleconference suites
 - Health club expansion
 - Employee dining room and kitchen
 - Security podium renovation
 - Approximate 25,000 SF office fit-out
 - Executive pantry fit-out
 - Building fire alarm study
 - Building electrical load study
 - Building condenser water study
 - Various area office fit-outs (total areas combined 300,000 SF)
 - Parking structure lighting upgrade
- Harrah's Entertainment HR Offices Atlantic City NJ
 - 50,000 SF existing building renovation with complete upgrade of all MEP/FP/LV systems
 - Complete fit-out
- HERETU Local 54 Corporate Offices Atlantic City NJ
- Inteleplex Corporate Office Pleasantville NJ
 - 28,000 SF complex
- Kidder, Peabody & Co. Philadelphia PA
 - 30,000 SF office building
 - Tenant fit-out, including MEP design and data/communications cabling plan
- Kodex Office Complex Mt. Laurel NJ
 - 23,000 SF office building and tenant fit-out
- Maritrans G.P., Inc. Philadelphia PA
 - 30,000 SF office complex with computerized dispatch offices
- Metrophone Norristown PA
 - Approximately 58,000 SF office fit-out
- Middlesex County Administration Building New Brunswick NJ
 - 112,000 SF five-story office building, with base building MEP and tenant fit-out design
- Middlesex County Public Safety Building New Brunswick NJ
 - 116,000 SF office building, with base building MEP and tenant fit-out design
- Millennium Complex Building 4 Conshohocken PA
 - 265,000 SF office building, with base building MEP/FP design



CONSULTING ENGINEERS & DESIGNERS

- Provident Mutual Life Insurance Company Philadelphia PA
 - 110,000 SF corporate office fit-out
- Three County View Chester County PA
 - 92,000 SF office complex
- Towamencin Township Township Administration Building Towamencin PA
 - 3 story, 60,000 SF base building and fit-out design
- Towamencin Township Township Police Administration/Public Safety Building Towamencin PA
 - 2 story, 42,000 SF base building and fit-out design
- Trump Organization Corporate Offices Pleasantville NJ
 - 30,000 SF office complex
- Trump Taj Mahal Atlantic City NJ
 - HR offices
 - 26,000 SF office complex
 - Corporate and general office area
 - 225,000 SF client space fit-out
- Two Logan Square Associates Philadelphia PA
 - 650,000 SF tenant fit-out, multiple projects varying in size from 1,000 SF to 55,000 SF

Parking Structures

- 15th & Spruce Streets Philadelphia PA
 - 600 vehicle parking structure
- Arco Newtown Square PA
 - 800 vehicle parking structure
- Atrium II & Atrium III Mt. Laurel NJ
 - 350 vehicle surface lot
- Bally's Atlantic City (Formerly Golden Nugget) Atlantic City NJ
 - Parking structure 1,500 vehicle parking garage and bus terminal
- Bethlehem PA
 - 450 vehicle parking garage
- Borgata Hotel Casino & Spa Atlantic City NJ
 - 5,000 vehicle open parking structure
 - (2) 1,400 vehicle employee parking structures



- Caesars Atlantic City NJ
 - Transportation complex 2,500 vehicle parking structure, bus terminal and general offices
 - New 2,500 vehicle parking structure and bridge connections to Caesars and Bally's
- Claridge Casino Hotel Atlantic City NJ
 - 2,500 vehicle parking structure
- Delaware County Memorial Hospital Drexel Hill PA
 - 500 vehicle parking structure
- Foxwoods Resort Casino
 - Phase IV parking structure Ledyard CT
 - 5,000 vehicle steel parking structure
- Harrah's Resort Atlantic City NJ
 - New employee parking facility 850 vehicle surface lot
 - Valet parking structure 800 vehicle parking garage
 - Hotel guest parking structure 1,800 vehicle parking garage
 - New valet parking structure 1,200 vehicle parking garage
- Isle of Capri Hotel Casino Biloxi MS
 - 1,000 vehicle parking structure
- Marriott Convention Center Hotel Philadelphia PA
 - 425 vehicle parking structure
- Meadows Casino Garage Expansion Washington PA
- Seminole Hard Rock Hollywood Casino Florida Parking Structure
 - A 2,800 space open parking structure, including 10,000 SF of high end offices being located in ground floor of the structure. GSA performed light studies for using LED, fluorescent and low pressure sodium lighting. The major difficulty for this structure was the increased lighting levels necessary for security in this environment, making the cost payback figures work for the client.
- Showboat Hotel Casino Atlantic City NJ
 - Parking structure lighting upgrade
 - 2,000 vehicle parking structure
- Underwood Memorial Hospital Parking Facility Woodbury NJ
 - 600 vehicle parking structure
- Walnut Street Towers Philadelphia PA
 - Parking structure expansion



CONSULTING ENGINEERS & DESIGNERS

Hotels

- Hyatt Hotels and Resorts Philadelphia PA
- Marriott Hotels and Resorts Philadelphia PA
- Marriot Hotel Philadelphia PA Airport
- Marriott Hotel Trenton NJ
- Marriott Newark Airport Newark NJ
- Marriott World Trade Center Fan Coil System Upgrade New York NY
- Meadows Casino Hotel Expansion Washington PA
- Residence Inn Conshohocken PA
- Sheraton Hotels & Resorts Atlantic City NJ
- Starwood Hotels & Resorts Atlantic City NJ

Medical

- Bayshore Community Hospital Holmdel NJ
 - New ICU/CCU center
- Delaware County Memorial Hospital Drexel Hill PA
 - Intensive care nursery
- Einstein Medical Center Philadelphia PA
 - Heart catherization suite
- Fairgrounds Medical Center Office Bldg. Allentown PA
 - 58,000 SF facility with operating rooms, radiology unit and medical offices
- Haverford Hospital Dialysis Center Haverford PA
- Kennedy Hospital Stratford NJ
 - MRI facilities
 - Nursery
 - Obstetrics/Pediatrics
- Kennedy Hospital Washington Township NJ
 - Intensive care unit

CONSULTING ENGINEERS & DESIGNERS

- Kimball Medical Center Lakewood NJ
 - Labor delivery room
 - Anesthesia room relocation
- Mainland Medical Center Galloway Township NJ
 - 12,000 SF Medical Office Building
- National Medical Care Kidney Dialysis Centers Philadelphia PA, Washington DC, Bethesda MD, Mansfield OH, Roanoke VA, Latrobe PA, and Three Rivers PA
- Ocean County Mental Health Clinic Ocean City NJ
 - 17,000 SF facility for outpatient services
- Pennsylvania College Podiatric Center Philadelphia PA
 - 25,000 SF medical office facility and radiology unit
- Somerset Medical Doctors Office Building Somerset NJ
 - 12,000 SF facility
- South Jersey Family Medical Center Elmer NJ
 - Cat scan unit
- South Jersey Family Medical Centers (approximately 10,000 SF Facilities each)
 - Mount Holly NJ
 - Burlington Township NJ
 - Pleasantville NJ
 - Atlantic City NJ
 - Hammonton NJ
- Salem NJ Two Logan Square Associates Philadelphia PA
 - Wellness center
- UMD Stratford NJ
 - Additional medical offices
 - Dental offices
 - Wellness center
- Underwood Memorial Hospital Woodbury NJ
 - ER/ASU
 - Psychiatric unit

High-Rise Residential, Housing, Assisted Care Living and Recreational

- Arch Street Philadelphia PA
 - The Phoenix 270 units luxury condominiums



- Dockside Pier 30 Philadelphia PA
 - 272 condominium units 1, 2, and 3 bedrooms
- Jewish Family Care Center Margate NJ
 - Daycare center
- Linwood Country Club Expansion Linwood NJ
- Madison Landing Housing Atlantic County NJ
 - New townhouse development 150 units
- Manhasset Bay Long Island NY
 - Independent living senior housing
- Meadows Racetrack and Casino Meadowlands PA
 - 24 lane bowling center, including retail shop bar/food service area and VIP bowling area and lounge
- Mount Laurel Fair Share Housing Mt. Laurel NJ
 - Housing units
 - Educational/recreational buildings
 - Maintenance building
- Parkview @ Bethlehem Bethlehem PA
 - Independent living senior housing
- Pier 9 Residential Tower Penn's Landing Philadelphia PA
 - 275 condominium units 1 and 2 bedrooms
- Southampton Senior Care Southampton PA
 - Recreational building 35,000 SF
- Savoy @ Brick Township Brick Township NJ
 - Assisted care living facility with 25,000 SF common building
- Savoy @ Morristown Morristown NJ
 - Senior housing
- Savoy @ Staten Island Staten Island NY
 - Assisted care living facility with 28,000 SF recreational building



CONSULTING ENGINEERS & DESIGNERS

Retail

- Blockbuster Music Cherry Hill NJ
 - Prototype design
 - Tenant fit-outs
- Blockbuster Video Feasterville PA and Egg Harbor Twp NJ
- Brandywine Town Center
 - 340,000 SF retail shopping center
- Cedar Square Shopping Center Cape May NJ
- Circle Plaza Shopping Center Vineland NJ and Pleasantville NJ
- Clementon Shopping Center Clementon NJ
- CVS Pharmacy Bellmawr NJ and Trenton NJ
- Daytona Live
 - Approximately 225,000 SF of multi-building retail, restaurants and club/entertainment venues
- Family Dollar Shoes Bellmawr NJ and Trenton NJ
- Fashion Bug Sea Isle NJ
- Franklin Mills Philadelphia PA
 - Various tenant fit-outs Over 50% of retail space designed by GSA
- Franklin Mills Spiegel Department Store Philadelphia PA
 - 70,000 SF retail space design of base building and complete tenant fit-out
- Golden Nugget Atlantic City Signature (Logo) Shop Atlantic City NJ
- Golden Nugget Atlantic City Essentials (Gift) Shop Atlantic City NJ
- Golden Nugget Atlantic City Jeans (Women's) Shop Atlantic City NJ
- Golden Nugget Atlantic City 1946 (Men's) Shop Atlantic City NJ
- Golden Nugget Atlantic City D'Orio (Jewelry) Shop Atlantic City NJ
- Golden Nugget Atlantic City Flirt (Women's) Retail Shop Atlantic City NJ
- Golden Nugget Atlantic City Tint (Sunglasses) Retail Shop Atlantic City NJ



- Golden Nugget Atlantic City Bread & Bean (Coffee) Shop Atlantic City NJ
- Golden Nugget Atlantic City Chocolate (Ice Cream) Shop Atlantic City NJ
- Golden Nugget Atlantic City Style & Trend (Men's & Women's) Shop Atlantic City NJ
- Herman's World of Sporting Goods Seekonk MA
- Jillian's Entertainment Centers Franklin Mills Philadelphia PA, East Farmingdale NY and Westbury NY
- Lalor Shopping Center Trenton NJ
- Larkins Shopping Center Upper Chichester PA
 - Engineering/design of landlord base buildings
 - Tenant fit-outs, including Super Fresh, Caldor, Rite Aid, Fashion Bug, Italian Restaurant, Nathan's and Optical Center
- Marshall's Department Store Springfield PA, Moorestown NJ, Langhorne PA and Greenbelt MD
- Metro Mall Elizabeth NJ
 - 1,000,000 SF retail shopping center
- Millpond Village Gary NC
 - Office building with four retail buildings equaling 90,000 SF of office and 70,000 SF of retail. Both base building and tenant fit-out MEP/FP design
- Park City Outer Mall Expansion Park City UT
 - Approximately 125,000 SF expansion of the existing mall, including an office building and retail spaces
- Pier I Imports Westboro MA and Seekonk MA
- Promenade @ Sagemore Mariton NJ
 - Approximately 275,000 SF of a life-style mall with basic white box design and some tenant fit-out
- Seekonk Shopping Center Seekonk MA
- West Marine Retail and Office Building Expansion Tracys Landing MD
 - Tenant fit-out
 - Core and shell office area (for future tenant)
- Westboro Shopping Center Westboro MA



CONSULTING ENGINEERS & DESIGNERS

Data Center and Main Computer Rooms

- Applied Card Systems Concord PA
 - 25,000 SF data center
- Borgata Hotel Casino & Spa Atlantic City NJ
 - New 5,000 SF computer center room
- Caesars Atlantic City NJ
 - New 125 KVA UPS system
 - New computer center
- Harrah's Resort Atlantic City NJ
 - New 3,000 SF computer room with emergency and UPS/MG set power system telephone and CCTV system UPS/MG set with power back-up system
- Maritrans Operations Control Center Philadelphia PA
 - 12,000 SF shipping corporate operations center with dispatch center for eight dispatchers
- NJ Bell Telephone Company Toms River South NJ, Central Office Toms River NJ, Central Office Collingswood NJ, Barnegat NJ, and Merchantville NJ
- Quotron Mt. Laurel NJ
 - 100,000 SF data center with emergency and UPS power systems
- Showboat Hotel Casino Atlantic City NJ
 - New 3,500 computer center room
- Trump Organization Pleasantville NJ
 - 5,000 SF data center with emergency and UPS power systems

Marinas

- Harrah's Marina Atlantic City NJ
 - 112 Slips
- Lighthouse Pointe Marina and Boat Club Cape May NJ
 - 200 Slips
- Poquoson Marina Poquoson VA
 - 297 Slips
- Senator Frank S. Farley State Marina Atlantic City NJ
 - 650 Slips



CONSULTING ENGINEERS & DESIGNERS

- Wildwood Yacht Basin Wildwood NJ
 - 385 Slips

Educational

- Bonsall School Camden NJ
 - ADA Upgrade
 - Entire School Renovation
- Drexel University Philadelphia PA
 - Student center renovations
- Dudley School Camden NJ Entire School Renovation
- Forrest Hill School Camden NJ Entire School Renovation
- Lawnside Elementary School Lawnside NJ
 - Geothermal central plant upgrade and school expansion and renovation
 - Pre-K Expansion
- Pyne Point School Camden NJ Entire School Renovation
- Rowan College Glassboro NJ
 - Day care center
 - Soccer field lighting
 - Bozorth hall studio
 - Bozorth hall expansion
 - Bozorth hall renovation
 - Radio tower relocation
 - Chiller replacements
- Sea Isle School Sea Isle NJ Entire School Renovation
- Temple University Philadelphia PA
 - Student dining hall renovations
 - Administration office upgrade
 - Central utility distribution study and report
- Villanova University Villanova PA
 - o Engineering / Facilities Offices
 - New south campus dormatories



CONSULTING ENGINEERS & DESIGNERS

- Waterford Elementary School Waterford NJ School Expansion
- Yorkship School Camden NJ Entire School Renovation

Financial Institutions

- Beneficial Bank
 - Prototype Design
- Beneficial Bank Branch Offices Springfield PA
- Beneficial Bank Branch Offices Maple Glen PA
- Beneficial Bank Branch Offices Newtown PA
- Commerce Bank, Mt. Laurel NJ
 - Horizon Corporate Center
- Commerce Bank Operations Center Mt. Laurel NJ
 - 50,000 SF complete banking operations center with normal, emergency and UPS power systems
- Mellon/PSFS Bank Prototype Design
- Mellon Bank offices at the following locations:
 - Clifton Heights PA
 - Fort Washington PA
 - Norristown PA
 - Plaza at King of Prussia PA
 - Route 202 King of Prussia PA
 - Southampton PA
 - Upper Darby PA
 - Whitman Plaza Philadelphia PA
 - 22nd and Market Streets Philadelphia PA
 - Cottman and Rutland Avenues Philadelphia PA
 - Frankford Avenue Philadelphia PA
 - 36th and Walnut Streets Philadelphia PA
 - Bank of the Future, Franklin Mills Philadelphia PA
- Merck Sharpe and Dohme Federal Credit Union and Corporate Offices
 - Approximately 10,000 SF office building and banking facility
 - Winner of USGBC award

GIOVANETTI SHULMAN ASSOCIATES

CONSULTING ENGINEERS & DESIGNERS

- Security Savings and Loan Vineland NJ
 - Executive center
 - 28,000 SF complex
- Security Savings and Loan Branch Offices Vineland NJ and Cedar Square NJ
- Wheat First Securities Philadelphia PA
 - 30,000 SF total operations center with normal, emergency and UPS power systems

Specialty Designs

- Air National Guard Absecon NJ
 - F16 hanger
- Animal Shelter (Lakeland) Camden NJ
- Atlantic City Country Club Atlantic City NJ
 - Squash courts
- Atlantis Hotel Casino Heliport Atlantic City NJ
- Fireman's Training Center Camden NJ
- Inteleplex Corp. Atlantic City NJ
 - Microwave tower
- Philadelphia Navy Yard Philadelphia PA
 - Dry dock facilities
- Trump Marina (Formerly Trump Castle Hotel Casino)
 - Heliport Atlantic City NJ
- Trump Taj Mahal Heliport Atlantic City NJ

Major Central Plant Design and Engineering

- Marina Thermal Systems Atlantic City NJ
 - "H" tract thermal control center building
 - REVEL Casino thermal plant center
- Conectiv Thermal Systems Atlantic City NJ
 - Energy transfer station
 - Midtown thermal control center building
- REVEL IDECK Energy Systems Control Center Atlantic City NJ

GIOVANETTI SHULMAN ASSOCIATES

CONSULTING ENGINEERS & DESIGNERS

Racetracks/Casinos

- Harrah's Chester Racetrack/Casino Chester PA
- Louisiana Downs Racetrack and Casino Shreveport LA
- Meadows Racetrack and Casino Meadowlands PA
- Mohegan Sun at Pocono Downs Wilkes Barre PA
- Philadelphia Park Racetrack and Casino Bensalem PA
- Pompano Park Pompano FL
- Prairie Meadows Racetrack and Casino Altoona IA
- Presque Isle Downs Erie PA
- Scioto Downs Racetrack and Casino Columbus OH

USGBC LEED Certified Buildings

- 313 W. Market Street Office Building West Chester PA
 - Approximately 185,000 SF of new office building including total building fit out for County of Chester
 - Winner of USGBC Silver Certification
- 1000 Continental Office Building King of Prussia PA
 - Approximately 250,000 SF of new office building
 - Winner of USGBC award Silver Certification
- 1801 Atlantic Avenue Sun Bank Office Building Atlantic City NJ
 - Approximately 45,000 SF of new office building
 - Winner of USGBC award Silver Certification
- Merck Sharpe and Dohme Federal Credit Union and Corporate Offices
 - Approximately 10,000 SF office building and banking facility
 - Winner of USGBC award Silver Certification



RDK understands how engineering affects people

Mechanical

Electrical

Plumbing

Fire Protection

Technology Design

Commissioning

Code Consulting

Energy Conservation

RDK ENGINEERS

HOTEL & HI-RISE PROJECT EXPERIENCE AUGUST 2013





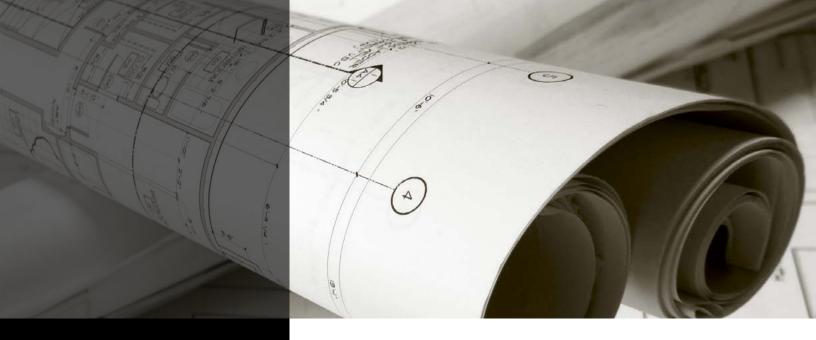
TABLE OF CONTENTS: TAB 1 FIRM BACKGROUND INFORMATION

TAB 2 RESUMES

TAB 3 PROJECT EXPERIENCE

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We are big enough to deliver...and small enough to care.

RDK AT A GLANCE:

Stability

In business since 1897

Superior Service

80 percent of business comes from return clients

Small firm responsiveness, big firm resources

Quality

Employees supported by firm, selected Best AE Firm to Work for by *Building Design + Construction* magazine

Work reviewed by staff of chief engineers

RDK ENGINEERS | FIRM PROFILE

RDK Engineers is a specialized mechanical and electrical engineering firm offering a spectrum of engineering services - total building systems solutions. We are one of the region's leading MEP specialty firms.

Firm Size:

Our 200+ member professional staff includes:

- Mechanical engineers
- Energy engineers
- Electrical engineers
- Plumbing engineers
- Fire protection engineers
- Audiovisual engineers
- Commissioning/retro-commissioning engineers
- Communication distribution designers
- Project managers
- Technical and administrative support personnel
- Code consultants

Market Sectors:

- Academic
- Commercial
- Government
- Historic and adaptive reuse
- Healthcare and hospitals
- Hotel and hospitality

- Industrial and manufacturing
- Municipal
- Residential
- Retail and mixed-use
- Science and high tech
- Transportation

Quality is Built Into Every Project We Design

Quality is not something that can be added on—it must be built in. It's the foundation of our organization. We don't just talk about quality—we invest in it. Our Chief Engineers, who ensure the quality of work in each of our disciplines, our extensive training programs, and our ISO 9001 2000 compliance program, are all evidence of our investment in building quality engineering into every project we undertake.

Practical Innovation/ Green Technologies

RDK's innovative designs incorporate the use of a wide variety of cutting edge, environmentally conscious technologies. Nearly 20% of our staff members are LEED Accredited Professionals. RDK is also a corporate member of the U.S. Green Building Council.





Engineering Services



As a full service MEP firm, RDK Engineers provides mechanical, electrical, plumbing, fire protection, telecommunications, audio-visual, commissioning, and energy design services on a wide variety of buildings.

At RDK, we care about our clients and the superior quality of work that we provide. Rather than relying on preconceived solutions, we start by listening. What we hear and what we learn about our clients' unique requirements become the inspiration for our design.

MECHANICAL

- Cogeneration
- Compressed Air Plants/Systems
- Ductwork and Piping Distribution
 Systems
- Energy Conservation including Heat Recovery
- Equipment Selection
- Fuel Cell Technology
- Fuel Oil Systems
- Geothermal
- HANSA Systems
- Heating and Cooling Systems
- Industrial Exhaust
- Infrastructure Master Planning
- Instruments and Controls
- Life Cycle Cost Analyses
- Mechanical Process and Manufacturing Equipment Facilities
- New and Renovated Central Plants,
 Efficiency Improvements and Plant
 Equipment Replacement
- Raised Access Floor (RAF) Systems
- Room Pressurization
- Specialized Humidification and Temperature Requirements
- Specialized systems design for medical procedure and labs
- System Analysis and Energy Studies
- Ventilation Systems

ELECTRICAL

- Auditorium/Theater Lighting and Audio Systems
- Carbon Monoxide / Dioxide Detection
- Systems
- Card Access Readers and Other Security Systems
- Emergency Generator Systems
- Emergency Power and Lighting Systems

- Fire Alarm and Detection Systems
- Intercom, Cable and Telephone Systems
- Interior and Exterior Lighting
- Nurse Call and Paging Systems
- Photovoltaics
- Power Transmission/Distribution Systems
- Roadway and Parking Lot Lighting
- Sports Arena Lighting
- Substations

PLUMBING

- Acid Waste Neutralization Systems
- Compressed Air Systems
- Domestic and Process Water Systems
- Domestic Water Heating Systems
- Fountains
- Fuel Gas Piping Systems
- Grev Water Systems
- Laboratory and Medical Gas Systems
- Laboratory and Medical Vacuum Systems
- Medical Gas Systems
- RO/DI Systems
- Sanitary, storm and Process Drainage Systems
- Solar Thermal
- Special Waste Systems
- Vacuum Drainage Systems
- Vacuum Systems
- Water Conservation

FIRE PROTECTION

- AFFF Fire Suppression Systems
- Building Code Consulting
- Computer Room Fire Suppression Systems
- Fire Alarm/Detection/Suppression Systems
- Lightning Protection

TELECOMMUNICATIONS

- Data Center Systems Design
- Feasibility Studies
- Intercom/Paging System design
- Low Voltage and Wireless Clock System Design
- PBX and Integrated Telephone System Design
- Telephone, Data, CATV Cabling & Infrastructure design
- Wireless System design

AUDIOVISUAL

- Audiovisual Infrastructure
- AV & IT/IP Integration
- Data Projection Systems
- Digital Signage
- Sound Reinforcement Systems
- Streaming Media Systems
- Systems Evaluation/Selection
- Video Systems
- Video/Audio Conferencing Systems

SECURITY

- Access Control Systems Design
- CCTV System Design
- Intrusion Detection System Design

COMMISSIONING

- Fundamental and LEED Enhanced Cx
 - Troubleshooting

ENERGY

- CHP Technical Service Provider
- Energy Audits
- Sample Ventilation Airflow Measurements
- Space Temperature and Relative Humidity Measurements
- Utility Incentives
- BOMA 360

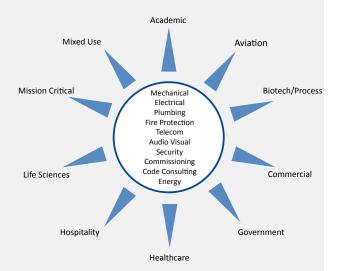












The Chart above can help further explain how RDK's structure gives you the benefits and feeling of working with a small firm but with the resources of a large firm.

Our Client-Centered Organization

Our long experience working with clients in a variety of private and public market sectors has taught us how different their needs are. The client-centered organizational structure we've developed reflects our understanding of these significant differences. Multi-disciplined "Team Studios" at RDK focus on specific client/market sectors.

The teams are comprised of staff with extensive experience and special expertise in the client sectors they serve. Each team includes a Group Leader, HVAC, Electrical and Plumbing/Fire Protection Engineers, Designers, and administrative staff who work together closely on projects in their focus areas. This approach enhances development of a comprehensive understanding of the specialized needs of their clients, as well as communication, coordination, quality and consistency of work products.

Although RDK's groups each fundamentally specialize in specific types of work within key market sectors, there is some overlap as one might expect. Above all, the relationships each RDK group has with their respective clients is what truly drives our organizational structure.

RDK GROUP STRUCTURE AND LEADERSHIP:

RDK Group	Group Leader(s)	Office
AC Group	Chris Hildreth, Principal	Andover, MA
	Pat Murphy, Principal	
	Bob Persechini, Principal	
B Group	Bill Leuci, Group Leader	Boston, MA
C Group	Scott Shipp, Group Leader	Charlotte, NC
D Group	Dan Wall, Principal Andover, MA	
	Joe Bonanno, Principal	
	Mitsu Koshima, Principal	
JM Group	Scott Guertin, Group Leader	Andover, MA
	Deborah Kay DeMaso, Group Leader	
MD Group	Mike Feyler, Group Leader	Andover, MA
RD Group	Jason Lund, Group Leader	Raleigh Durham, NC
RS Group	Ralph DeVito, Principal	Andover, MA
TC Group	Tim Curran, Principal	Amherst, MA
	Barry Poitras, Group Leader	
TD Group	Phillip Clendaniel, Group Leader	Andover & Boston, MA
Marketing & Business		
Development	Kim Sousa, Principal	Andover, MA
Accounting &		
Administration	Laura DePalma, CFO	Andover, MA



BIM & 3D CAD Capabilities





Since our inception, RDK Engineers has recognized the vital importance of staying current with industry trends and advancements in technology to provide our clients with the latest in innovative designs and solutions. We were on the forefront of the "green revolution" long before LEED became a household term. Many of our HVAC designs have incorporated innovative and cutting-edge technologies, from the use of German HANSA Air Conditioning systems, to state-of-the-art energy recovery and chilled beam / induction systems.

To stay current with the latest in 3D and Building Information Modeling (BIM) advances, RDK has taken the necessary steps to be on the front lines of this exciting industry development which is revolutionizing the building design process. We began to utilize ABS in production in 2007 and have fully integrated AutoCAD MEP 2012 and Revit 2012 products companywide. The 3D capabilities of either of these platforms allow us to design our MEP systems in 3D, as well as hosting a self contained database of design data within the electronic files. We are also proficient with collision detection using Navisworks Manage to assist us in conflict resolution with structural and/or architectural components related to a project.

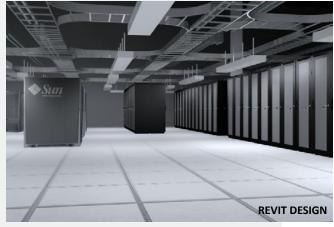
We have implemented Autodesk's® BIM Products Revit® MEP 2013 and AutoCAD MEP 2012 throughout the company and have extensively trained staff on both programs. We are prepared for any client requests to complete a BIM project in ACAD MEP 2012 or Revit® MEP 2013 or previous versions, and are continuing development to improve future BIM procedures and applications. Our ultimate goal with BIM is to have anything related to building design, decision making, and equipment selection along with additional simulations and estimates, accessible to anyone within one location—the BIM model.

PROJECT	YEAR	CLIENT	SIZE (SF)
Qualcomm, Box "A" First Floor TI	2013	3/d3 Studio	3,700
New York Life	2012	Gensler	100,000
UMass Amherst New Football Stadium Design	2012	Perkins + Will	N/A
Gordon School Renovation	2012	Cambridge Seven Associates	11,100
Schneider Electric, TI	2012	Perkins + Will	225,000
Perkins + Will, Building Addition	2012	Perkins + Will	75,000
Qualcomm, Pixtronixs Lab Renovation Phase	2012	3/d3 Studio	N/A
Meditech New Facility Foxborough	2012	Payette	200,000
Indian Point MEP Services	2012	rowland+broughton	18,000
Carolinas Med. Cntr. Steele Creek Healthplex	2012	BBH Design	22,500
Sardis Oaks	2012	CHS	N/A
Staples Headquarters Fitness Center	2011	Gensler	9,000
CMC Morrocroft, New Emergency Department	2011	BBH Design	30,000
Natick National Guard Readiness Center	2011	DHK Architects	N/A
Harvard Business School Innovation Lab	2010	Shepley Bulfinch Richardson & Abbott	70,000
Carolinas Medical Center Harrisburg ED	2010	BBH Design	N/A
Anna Maria College New Residence Hall	2010	Cutler Associates	65,000
Meditech Freetown New Facility	2010	Payette	200,000
Sapient Corporation	2010	Margulies Perruzzi	8,700
Tier-III Data Center	2010	Confidential Client	25,000
Hillsborough County Courthouse	2009	Lavallee Brensinger	80,000



PROJECT	YEAR	CLIENT	SIZE (SF)
Salem State University Library	2009	Shepley Bulfinch Richardson and Abbot	120,000
Methuen High School	2009	Finegold Alexander Associates	376,000
Robeco	2009	Gensler	30,000
Fish & Richardson	2009	ADD Inc	135,000
Children's Hospital Hunnewell Plastic Surgery	2009	IS Genuity	N/A
ITG (16th and 17th floor)	2009	Equity Office Properties	N/A
UNUM	2009	ADD Inc	175,000
Parexel	2008	ADD Inc	68,000
Greenfield Community College	2008	Gensler	240,000
Fidelity Investments, FMRCo, Miami, Fl	2008	ADD Inc	10,000 SF
Mass Maritime Academy Library	2008	Perry Dean	45,000
North Shore Community College ZNEB	2008	DiMella Shaffer	56,000
Parexel, 2 Federal Street	2007	ADD Inc	60,000
Framingham Public Works Facility	2009	Kleinfelder/SEA	44,000

PROJECT	YEAR	CLIENT	SIZE (SF)
Capital One Knolls Buildings 1 & 3 (HVAC)	2010	BHDP Architects	250,000
UMass Amherst Life Science Laboratories	2009	Wilson Architects	350,000
Fairmont Copley Plaza Boiler Room	2008	Fairmont Copley	N/A
Mandarin Oriental High End Condo	2008	СВТ	60,000
Bunker Hill Community College Wellness	2007	Dinisco Design	32,000
Emmanuel Residence Hall	2007	Goody Clancy	60,000 - 70,000
Curry College Student Center	2006	СВТ	60,000



 $A\, Tier\, 3\, data\, center\, completed\, in\, Revit\, shows\, a\, middle\, aisle\, exported\, and\, rendered\, using\, Autodesk\, 3ds\, Max.$



A Tier 3 data center actual completed project



Quality Control



"... RDK Engineers took our system from one with multiple problems due to poor construction and frequent remodels to one that is efficient, safe, and accessible for maintenance... I would gladly give my highest recommendation of RDK Engineers to anyone who needed facilities engineering support."

- Carolyn M. Chilcote Branch Manager Reading Co-Operative Bank RDK believes that quality is not something that can be added on—it must be built into every project. To that end, we've made quality control the foundation of our entire organization, and we've made continual substantial investments in it. Our Chief Engineers, who assure the quality of work in each of our disciplines, our extensive training programs, and our ISO 9001 2000 certification program, are all evidence of RDK's investment in building quality engineering into every project we do.

All RDK contracts are reviewed and overseen by a Principal of the firm who is responsible for the final quality and timeliness of all engineering services related to a project. A Project Manager is responsible for the day to day coordination of the project with the client, in house engineers, and sub-consultants. This includes implementing the design of the project from conception to construction completion, as well as the preparation and coordination of working drawings, interdisciplinary coordination, preparation of specifications, and field reviews.

Project Quality Control at RDK is a continuous process between the individual engineers/designers and the applicable Department Manager/Chief Engineer. Through this process, each project is reviewed and project concepts are developed initially on an informal basis at the project kick-off meeting. The Chief Engineers' responsibilities include the overall quality of a project, total project coordination between trades and the review of code compliancy issues related to the project. This assures that the project design adheres to the current building codes and standards, and that it meets the needs and expectations of our clients.

As the project proceeds through schematic design and design development phases, the review process increases in its detail. As a project nears the completion of construction documents it undergoes an in-depth QA/QC review of the systems. As part of our on-going QA/QC process, in-house coordination meetings are held between trades on a regular basis. In addition, our group structure fosters an ongoing daily communication and coordination between team members, enhancing the quality of our work products.

As a part of our quality control procedures, RDK can provide full construction administration phase services on every project. We take pride in seeing a project all the way through to project completion. This assures that once the design is complete, the installation of equipment fully meets the project requirements. The assigned project engineers are responsible for providing direct construction administration services while our Chief Engineers oversee the process. Additionally, we have the capability to assign a full time staff member out at the site, if the complexity of the project warrants this service.







"We have worked with RDK on a series of (complicated laboratory renovation projects at MIT)...They have been responsive and creative in collaborating on designs..the design of the new labs was successful in great part to their detailed attention to coordinating the mechanical components of the work."

- Bernard J. Dooley, AIA, Associate Goody, Clancy & Associates

"I want to thank you for the excellent work you did. You certainly exceeded our expectations ..."

- Michael Lucey, P.E., Facilities Engineer University of Massachusetts

"...We've been very pleased by the services provided by RDK... They are by far the best engineering firm we've dealt with, and will be from now on!"

Joe Boczanowski,
 Director of Facilities
 Milford-Whitinsville Regional Hospital

"... a rather spectacular performance on the part of the project engineering firm. From design phase to this date, the RDK Team... have exhibited exemplary performance in bringing this fairly complex project to completion in approximately one year."

-John DeYoung United Airlines Team Leader

"...You and your team were very informed, had great advice and delivered when it counted. I will highly recommend RDK and more specifically you guys for more projects in this office and beyond."

- Douglas T. Rand DiMella Shaffer Associates

"RDK was wonderful to work with and fully met our needs..."

Jeffrey Williams,
 Facilities Director
 Teradyne, Inc.

"...The level of professional competence provided was of the highest order. Their responsiveness to the engineering requirements of the Postal Service and their attention to schedule and budgets has been outstanding."

- John Talbot, P.E., Project Manager United States Postal Service







"This team had to manage the design and build-out of many different types of lab space – no easy feat. We were impressed with the interactive nature of the design process and how well the team addressed the technical challenges we faced along the way. Working together, we were able to cut months off the project timeline, and completed it in only nine months."

- Michael Porreca, Facility Manager Bayer Healthcare LLC

"I have been extremely pleased with your work on our chiller plants. You clearly had all the correct information for the most efficient design. We especially appreciated your responsiveness during construction to help ensure that every-thing went well for us. The plant is operating great!"

- Thomas Creaven Schering Plough Corp.

"I wanted to thank you all ... for all of the hard work you have done to date. The project has come along very nicely and looks terrific. Your document set looks first rate and has contributed greatly to the success of the job....things have run very smoothly and efficiently - we appreciate your communications with us and the other parties working on the development. On behalf of the BartonPartners Team - we thank you for fielding our crazy questions and your professionalism."

- William Warwick, Principal Barton Partners

"We have enjoyed a very productive working relationship with RDK. What is probably most notable is how well they listen to and understand our particular needs for a given situation, and then work with us to effect the best outcome."

- Ted Fire, Director of Project Administration The Kraft Group

"I have worked with RDK on several projects. I am very pleased with the work they do for us. Their entire team works together to make deadlines happen...They are very careful to explore all the ramifications of a project, e.g. code issues, legal issues, environmental issues, etc.

When I am doing a buildout or a renovation, there are many people involved inside and outside the company. It makes these projects much easier having RDK on the team. I can trust them and not worry about the quality or the timeliness of their part of the project."

- Chris Gilman, Facilities Director Idenix Pharmaceuticals

"The CBT Team and I would like to express our gratitude for a job well done at Eaton Vance. This was a challenging project and we have very pleased clients thanks for you efforts. Looking forward to working with RDK on future projects."

Sharon Steinberg
 CBT Architects







"I wanted to take a moment to thank you, RDK, and Mr. Dennis O'Leary for the manner in which you have interacted with Winchester on the Muraco project and for RDK's and Mr. O'Leary's continued assistance in our effort to engage others in the value of conducting a systematic life cycle analysis as part of our prioritization of capital expense choices."

- Mr. Brian P. O'Connor Chairman Winchester Board of Selectmen

"Again, my sincere thanks for the quick turn-around David. Your cost analysis was very thorough and complete - absolutely spot on. It's exactly what I was looking for. Your performance on this project has been stellar, and for that, I am most grateful. Based on this experience, I will be looking to RDK for more of our engineering support needs."

- Mr. Mark Cappello Facilities and Grounds Director Hampshire College

"CT Partners moved in to their space over the weekend and they are very happy with their new office.

I want to thank everyone for the tremendous effort in getting them into their space on time. Due to the circumstances, the schedule needed to get compressed to a level that I know was very tough to achieve, but due to the hard work and perseverance of the team, we were able to achieve a this very difficult goal. It was truly a great team effort by a great team. Thanks again."

- Steve Mitchell Vice President The Chiofaro Company

"RDK Engineers was contracted as a third party commissioning authority working directly for the owner to deliver a Tier III data hall. They led the construction team consisting of general contractor, engineers, electrical and mechanical contractors through design review, installation, start-up and final integrated testing. RDK helped develop a close knit team of all involved in this fast paced, complex project which led to an on time delivery within budget. We are very pleased and confident that our new data hall will perform flawlessly and economically."

- Gregory Lyon Vice President Critical Facilities Manager RBS Citizens

"RDK Engineers performed above and beyond their role as the commissioning agents for a \$20M Data Center project in Providence, Rhode Island and \$9M in Medford, Massachusetts for a major bank. I would truly recommend them for any critical systems work going forward.

- Dennis Murnane Vice President / Project Management Grubb & Ellis New York



RDK ENGINEERS

Client Testimonials

"The RDK team exceeded my expectations with its level of in-depth understanding of the engineering design and the level of support provided to us prior to, during and after the on-site commissioning activities. I felt that RDK supported us every step of the way and always had our best interest at the top of their agenda. Their engineering as well as field expertise was invaluable to us as we worked through the numerous unexpected issues that resulted from the integration of our new lab environment into our base building infrastructure. RDK was not our lowest cost option, but given their performance I am absolutely convinced they were our most cost-effective solution."

- Rodolfo Robles Senior Real Estate Project Manager Oracle North America

"Gentlemen . . . It looks great, you guys did a great job in an impossible time frame. Thanks."

 Marybeth Reddy Project Manager Massport Authority

"I thought that was a great compliment that RDK received today from Lois. Hearing her say that she felt that the AV Design is in competent hands made me feel very good. The AV Design for this project will be a major factor in determining our success. I'm glad Tufts selected RDK."

- John Crow Deferred Maintenance Project Manager Tufts University

"I just wanted to personally thank you for all the work that was done over the last few months which led up to a very successful day of black start (cogen plant) testing. Everybody worked very well together and Smith is very happy to have you in our corner."

- Charles H. Dougherty Power Plant Chief Engineer Smith College

"RDK had a vision very early on in understanding what Teleflex was trying to achieve on this important project. The team developed realistic budgets, viable schedules, and ultimately delivered a design that fully met all of our objectives."

Greg Forrest
 General Manager
 Teleflex Medical

"Chris [Hildreth], we quite literally couldn't have done it without you".

- Denise Rodino Associate Director Faculty Grants and Government Relations Smith College

Awards



2013 Giants 300 "Top Engineers" - #21

Building Design + Construction Magazine

2013 Boston's Top Engineering Firms - #14

Boston Business Journal

2011 CFO of the Year, Midsized Private, Laura DePalma

Boston Business Journal

2011 Area's Largest 100 Private Companies

Boston Business Journal

2009 Small Business of the Year Award Award for Business Excellence

Greater Boston Chamber of Commerce

Best AEC Firms to Work For

Building Design + Construction Magazine

2008 and 2009 Top 100 Places to Work

Boston Globe

"Best of 2008" Readers Poll Gold Winner, Construction Engineering Silver Winner, Commercial Real Estate Engineering

Banker & Tradesman Weekly

2008 Fastest Growing Private Companies in America

Inc. 5000

Area's Largest Engineering Firms

Boston Business Journal

Top 500 Design Firms

Engineering News Record Magazine

Top 100 Green Design Firms

Engineering News Record Magazine

Giants 100

Consulting-Specifying Engineer Magazine

Giants 300 "Top 50 Engineers"

Building Design + Construction Magazine

Top 100 Office, Industrial, University, Healthcare & Multifamily Design Firms

Building Design + Construction Magazine













Cape Cod Community College Technology Building

MA. DCAM Awards for Excellence Programming Award Design & Construction Award (DiMella Shaffer Architects)

Governors Academy Performing Arts Center

School Planning & Mgt. Magazine
Outstanding Architecture & Design Award
American School & University
Magazine
Architectural Portfolio
(CBT Architects)

Residences at 360 Newbury Street

IIDA 2009 Best Private Residential Design Award (ADD Inc)

Harvard University Stadium Renovation

AGC Massachusetts
Build New England Performance
Award
(Payton Construction/Stantec)

Waterscape at Hewitt's Cove Clubhouse

NAHB Best of 50+ Housing Silver Award (Barton Partners)

Carat Fusion Offices

CoreNet Global New England Small Renovation of the Year Award of Excellence (Margulies Perruzzi Architects)

Foley Hoag Offices

AIA New England Citation (CBT Architects)

Nativity Preparatory School

American School & University Magazine Educational Interiors Showcase Interior Renovation Award (CBT Architects)









Westfield State College Residence Hall

BSA/SCUP Higher Education Facilities Award Program Citation for Design Excellence Multi-Housing News Design Excellence Award (DiMella Shaffer Architects)

Worcester Polytechnic Institute Bartlett Center

Construction Mgt. Assn. of America/ New England Chapter 2007 Public Project of the Year (Gilbane/CBT Architects)

University of New Hampshire Gables Residence Hall

Learning by Design Magazine Citation of Excellence (DiMella Shaffer Architects)

Leonard P. Zakim Bridge

Outstanding Civil Engineering Achievement 2004 American Society of Civil Engineers 2003 National Grand Award American Council of Engineering Companies (HNTB)

Martha's Vineyard Airport Terminal

Boston Society of Architects
Design Award
(TAMS Consultants, Inc.)

New Worcester State College Wasylean Residence Hall

NAHB Best Student Housing
AIA Central MA Chapter
Honor Award for Design Excellence
College Planning & Mgt. Magazine
Project of Distinction
Building Magazine
New Construction Award
Public/Govt. Projects
(ADD Inc)



Interstate Route I-90 Extension

ACEC Massachusetts Engineering Excellence Awards Grand Conceptor Award (P/PB, Gannett Fleming & HDR)

Medway High School

American School & University
Magazine
Architectural Portfolio
(Design Partnership of Cambridge)

100 Cambridge Street State Offices

DCAM Awards for Excellence Design Award (ADD Inc)

Zoo New England Gorilla Exhibit

AGC Massachusetts Build New England Performance Award (Commodore Builders/Perkins+Will)

Massachusetts College of Pharmacy Living & Learning Center

Building Design & Construction Magazine Silver Reconstruction Award (Perkins+Will/Payton Construction)

North Shore Community College Academic Building

American School & University Magazine Educational Interiors Showcase Outstanding Project Award (DiMella Shaffer Architects)

St. Mark's School Center for the Arts

American School & University Magazine Architectural Portfolio (CBT Architects)

PerkinElmer World Headquarters

IIDA New England Interior Design Awards Best Office Over 80,000 SF (ADD Inc)











Park School Addition/Renovation

Boston Society of Architects Honor Award (Chan Krieger Sieniewicz)

Foundation Bar/Lounge

BSA/IIDA/ASID
Interior Architecture/Interior Design Citation
(Gensler)

Bloomberg LP Offices

AIA MA Honor Awards Design Excellence Citation (CBT Architects)

Danvers Holton-Richmond Middle School

Massachusetts School Bldg. Authority Design Award American School & University Magazine Architectural Portfolio (DiNisco Design Partnership)

Judge Baker Children's Center

American School & University Magazine Educational Interiors Showcase Silver Citation (Steffian Bradley Architects)

Boston Coach Headquarters

CoreNet Global New England Awards of Excellence in Best New Workplace - Large Tenant Renovation (ADD Inc)

Major Insurance Company Dover West

CoreNet Global New England Awards of Excellence in Best New Workplace - New Construction (Gorman Richardson Architects)

Tufts University Interfaith Center

BSA

2008 Design Award for Small Firms/Small Projects Awards Program; 2008 Faith & Form Award for Design Renovation SCUP/AIA-CAE 2009 Excellence in Architecture Award



Awards



311 Summer Street

Boston Preservation Alliance Preservation Achievement Award for Adaptive Use of a Historic Industrial Space (ADD Inc)

MBTA Charles Street/MGH Redline Accessibility/Modernization Project

Boston Preservation Alliance Preservation Achievement Award for Significant New Construction (Elkus Manfredi Architects)

The Boulders at River Ridge Senior Living Complex

AlA Aging Review Program
Merit Award
National Association of Home Builders
Best of Seniors Housing Design Awards
On The Boards Small and Mid-Size CCRC
Platinum Award
(JSA Inc Architects)

Boston Marriott Copley Place

Host Hotels & Resorts Best in Class Awards Capital Project of the Year (Gensler)

Massachusetts College of Pharmacy and Health Sciences, Griffin Academic Building

Building Design + Construction Magazine, September 2010 Silver Award (Perkins + Will)

Framingham State University McCarthy College Center

Construction Management Association of America (CMAA) New England Chapter, 2011 Renovation/Modernization Award of the Year (Construction less than \$20M) (Colantonio General Contractors)

New MEDITECH Building Fall River

AIA New England Honor Award for Design Excellence (Payette Associates, Inc.)









Mandarin Oriental Spa

Forbes Travel Guide 2010 Forbes Five Star Award (CBT Architects)

Mandarin Oriental Hotel

Conde Nast Traveler Magazine 2009 Readers' Choice Awards 3rd overall top-rated hotel in the USA and the 45th worldwide

American Automobile Association (AAA) Five Diamond Award (CBT Architects)

Patriot's Place Solar Array

Association of Energy Engineers New England Chapter Best Renewable Energy Project in New England 2010 (Constellation Energy)

UMass Boston Venture Development Center

IIDA2010 Best Research Design Award (Sasaki Associates)

Wellesley College Pendleton Hall

American School & University Magazine Academic Interiors Showcase Bronze Citation (CBT Architects)

Carpenters' Union Building

Association of Energy Engineers New England Chapter, Energy Award Winner

Wind Testing Center

CMAA

New England 2011 Project Achievement Award

CMAA

National 2011 Project Achievement Award (Turner Construction)



Awards



Johnson & Wales University Cuisinart Center for Culinary Excellence

Best Education Design Award at the International Interior Design Associations New England Awards - 2011 (Tsoi Kobus Architects)

2011 Silver Award Winner in the **Brick in Architecture** competition (educational category)

UMass Medical School Ambulatory Care Center

2011 Project of the Year Award by the New England Chapter of the Construction Management Association (CMAA)

2012 Boston Society of Architects Healthcare Facilities Award, Citation

DCAM, Department of Fire Services

Massachusetts Division of Capital Asset Management, 2008 Award of Excellence for Programming Study

DCAM, Bunker Hill Community College, New Health & Wellness Center

2008 winner of the Green Design Concept Award from the Education Design Showcase

North Shore Community College Health & Human Services Building

Construction Management Association of America (CMAA) New England Chapter, 2012 New Construction Award of the Year (Construction less than \$30M) (Walsh Brothers)

Engineering News Record (ENR) Best Projects of 2012 - Best Green Project

Smith College, Clark Science Center

Winner of the 2012 CMAA award for Renovation/Modernization with a construction value less than \$20M (Bond Brothers)

2013 IFMA Awards of Excellence Winner Best Practice Large Project category (with RE Dinneen, Bond, Smith College, and CSL Consulting)











Fidelity Investments, 900 Salem Street

The Outstanding Building of the Year (TOBY) Winner for Corporate Building BOMA Awards - 2012 (CBRE, Inc.)

Duke Realty, REX Medical Office Building, Holly Springs, NC

2012 Triangle Business Journal Space Award

Eagle Award for Excellence in Construction in the \$5M to \$10M category by the Carolinas Chapter of the Associated Builders and Contractors Inc. (ABC)

City of Manchester New Department of Public Works Administration Building, Manchester, NH

2013 AIANH Honor Award for Excellence in Architecture and Design (Lavallee Brensinger)

Hillsborough County Superior Court North Renovations, Manchester, NH

2013 AIANH Honor Award for Excellence in Architecture and Design; 2011 Governor's Excellence in Energy Efficiency Award (Lavallee Brensinger)

Boston Medical Center, Carl & Ruth Shapiro Ambulatory Care Center, Boston, MA

AIA New England, Honor Award for Design Excellence; BSA Design Award 2012 (Tsoi Kobus)

Hosteling International, Boston, MA

Winner of 2012 Boston Society of Architects Honor Award; 2013 Architizer A+ Awards (Special Mention); 2013 USGBC Massachusetts Chapter Innovative Building Award; Boston Business Journal's 2013 Best of Boston Real Estate (Finalist); 2013 Boston Preservation Alliance Preservation Achievement Award, and Mayor Thomas M. Menino's 2013 Greenovate Boston Award (Bergmeyer Associates)



Millipore Corporation, EMD Chemical Technology & Customer Care, LEED Commissioning, Philadelphia, PA (LEED Gold)

Winner of an IFCA Finish First Award, and the 2012 IIDA Philadelphia President's Choice and People's Choice Awards (L2Partridge Architects)

Boston B-2 Police Station, Roxbury, MA

AIA New England Design Citation, 2012; Winner of 2012 Boston Society of Architects Honor Award (Leers Weinzapfel)

Whittier Street Healthcare Center, Roxbury, MA

2012 Boston Society of Architects Healthcare Facilities Award, Citation (DHK Architects)











Johnson & Wales University New Culinary Arts Building



WPI Bartlett Admissions Building



llipore, Mobius II LEED Cleanroom



University of North Carolina, Hospital Imaging & Outpatient Center



LEED CERTIFIED PROJECTS

- 1. 50 Connell Drive, New Office Building, CI-Cx Services, Berkeley Heights, NJ SILVER
- 2. 50 Connell Drive, New Office Building, Core & Shell Cx, Berkeley Heights, NJ SILVER
- 3. 500 Connell Drive, Office Building New LEED, CS & Cx Services, Berkeley Heights, NJ SILVER
- 4. 100 Hancock Street Upgrade, Quincy, MA SILVER
- 5. Acuity Brand Lighting, Office Fit-Out & Exhibit Gallery Cx, New York, NY GOLD
- 6. ADD Inc, Summer Street Office, Boston, MA PLATINUM
- 7. AECOM Fitup 250 Apollo Dr, Chelmsford, MA SILVER (Design and Cx)
- 8. Akamai, 4 Cambridge Center, 12th Floor, Cambridge, MA SILVER
- 9. Allsteel/Gunlocke, Resource Center, Boston, MA SILVER
- 10. Beacon Capital Partners, 200 State St., 5th Floor TI, Boston, MA SILVER
- 11. Boston Children's Museum Cx, Boston, MA GOLD
- 12. Boston College Weston Jesuit Community Housing Cx, Brighton, MA PLATINUM
- 13. Boston Scientific Corporation, Marlborough, MA CERTIFIED
- 14. Boston Scientific Quincy Facility (Former Jordan's Warehouse) Cx, Quincy, MA CERTIFIED
- 15. Brown University, Joukowsky Institute, Providence, RI GOLD
- 16. Brown University, Granoff Center for the Creative Arts Cx, Providence, RI GOLD
- 17. Cadmus Group Office Fit-up, 100 5th Avenue, 1st and 2nd Floors, Waltham, MA GOLD
- 18. Central Carolina Community College, Siler City Center, Siler City, NC GOLD
- 19. Cell Signaling Technology Cx, Danvers, MA CERTIFIED
- 20. Cisco, 125 High Street, Boston, MA CERTIFIED
- 21. City of Boston, Dudley Square B-2 Police Station Cx, Roxbury, MA GOLD
- 22. City of Cambridge, Russel Field House Cx, Boston, MA CERTIFIED
- 23. Clark University, Blackstone Residence Hall Cx, Worcester, MA SILVER
- 24. College of the Holy Cross, New Figge Residence Hall, Worcester, MA GOLD
- 25. DCAMM, Bunker Hill Community College, New Health & Wellness Center, Charlestown, MA GOLD
- 26. DCAMM, Cape Cod Community College, New Technology Building, West Barnstable, MA GOLD
- 27. DCAMM, Mass State Firefighting Academy, Stow, MA GOLD
- 28. DCAMM, Methuen Armory Readiness Center, Methuen, MA SILVER
- 29. DCAMM, North Shore Community College, New Allied Health Building, Danvers, MA GOLD
- 30. DCAMM, Wall Experiment Station Renovation/Addition, Lawrence, MA PLATINUM
- 31. Duke Realty, Rex Medical Office Building, Holly Springs, NC CERTIFIED
- 32. Duke University, Bell Tower Residence Hall, Durham, NC SILVER
- 33. Duke University Medical Center, School of Nursing, Durham, NC SILVER
- 34. EMD-Millipore Corporation, EMD Chemicals Cx LEED CI 2009 Eap1 & EAc3, Philadelphia, PA GOLD
- 35. Fidelity Investments, Boston Coach Due Diligence and TI, Boston, MA SILVER
- 36. Fidelity Investments, Campus Building 900 & Parking Garage, Smithfield, RI SILVER
- 37. Fidelity Investments, FMRCo Miami, FL CERTIFIED
- 38. Fidelity Investments, Government Affairs Office, Washington, DC GOLD
- 39. Fire Station #2, Portsmouth, NH CERTIFIED
- 40. Forsyth Institute, New Research Lab and Office Cx, Cambridge, MA SILVER
- 41. Gensler Office Relocation, One Beacon Street, 3rd Floor, Boston, MA GOLD
- 42. Google, 5 Cambridge Center, 2nd Floor, Cambridge, MA CI GOLD
- 43. GSA, Citizenship & Immigration Services, Lawrence, MA SILVER
- 44. Harvard Business School, Innovation Lab @ 125 Western Avenue, Allston, MA GOLD
- 45. Harvard Business School, Hamilton Hall Cx, Cambridge, MA GOLD
- 46. Harvard Law School, 125 Mount Auburn Street Renovations, Cambridge, MA SILVER
- 47. Harvard University, Blackstone Renovation (UOC) Cx, Cambridge, MA PLATINUM
- 48. Harvard University, Northwest Lab B1 SEAS, Cambridge, MA PLATINUM
- 49. Harvard University Holyoke Center Partial Renovations, 7 Holyoke, 4th Floor, Cambridge, MA GOLD
- 50. Johnson & Wales University, New Cuisinart Center for Culinary Excellence, Providence, RI GOLD
- 51. Leggat McCall, 10 Post Office Square, 13th Floor Cx, Boston, MA PLATINUM
- 52. Confidential Client, 330 Stuart Street, Boston, MA CERTIFIED

- 53. Confidential Client, New Office Building, Dover, NH GOLD
- 54. Margulies Perruzzi, Office Upgrades, Boston, MA CI SILVER
- 55. McCormack Federal PO & Courthouse Cx, Boston, MA GOLD
- 56. Millipore, Mobius II Cleanroom, Danvers, MA GOLD
- 57. Northfield Mount Hermon, Rhodes Center for the Arts, Gill, MA GOLD
- 58. Northfield Mount Hermon School, New Administration Building, Gill, MA GOLD
- 59. Parexel, LEED TI & Upgrades, 2 Federal St., Billerica, MA CERTIFIED
- 60. Parexel, Headquarters Relocation, Waltham, MA CERTIFIED
- 61. Perkins + Will, Offices TI, 55 Court Street, Boston, MA SILVER
- 62. Perkins + Will, 225 Franklin Street 11th Floor LEED-CI Commissioning, Boston, MA GOLD
- 63. RISD, New Chace Center Cx, Providence, RI SILVER
- 64. St. George's School, Library Addition and Renovation, Middleton, RI GOLD
- 65. Taco Inc, Distribution Facility Expansion Cx, Cranston, RI CERTIFIED
- 66. TD Bank, 535 Boylston Street, Boston, MA GOLD
- 67. Triangle Wastewater Treatment Facility Cx, Durham, NC CI CERTIFIED
- 68. UMMS, New Ambulatory Care Center (ACC), Worcester, MA SILVER
- 69. University of Maryland, Denton Hall Dining Facility Cx, College Park, MD SILVER
- 70. University of North Carolina, Hospital Imaging & Outpatient Center, Chapel Hill, NC SILVER
- 71. Naval Weapons Station Earle Main Security Gate Improvements, Colts Neck, NJ GOLD
- 72. Wainwright Bank, Coolidge Corner, Brookline, MA SILVER
- 73. Wainwright Bank, Carruth Building Renovation, Dorchester, MA CERTIFIED
- 74. Wainwright Bank, Conversion of Retail Space to New Bank, Cambridge, MA SILVER
- 75. Wainwright Bank, Newton, MA GOLD
- 76. Weber Shandwick, 40 Broad Street, 8th Floor, Boston, MA CERTIFIED
- 77. Whittier Street Health Center, New Outpatient Facility, Boston, MA SILVER
- 78. Women and Infants Hospital Cx, Providence, RI GOLD
- 79. WPI, Bartlett Admissions Center, Worcester, MA CERTIFIED
- 80. WPI, New East Residence Hall & Parking Structure Cx, Worcester, MA GOLD

LEED REGISTERED PROJECTS

- 1. Augusta Maine, New Courthouse Commissioning, Agusta, ME
- 1. Boston College, Stokes Commons Commissioning, Newton, MA
- 2. Brown Brothers Harriman Office Relocation, Boston, MA
- 3. Cambridge Housing Authority, Central Office Rehabilitation, Cambridge, MA
- 4. DCAMM, Greenfield Community College, Core Modernization, Greenfield, MA
- 5. DCAMM, Mass Maritime Academy, New Library & Learning Commons, Buzzards Bay, MA
- 6. DCAMM, Northern Essex Community College, Allied Health & Technology Building, Lawrence, MA
- 7. DCAMM, Salem State College, New Library and Learning Commons, Salem, MA
- 8. Hillsborough County, North Superior Courthouse Renovation, Manchester, NH
- 9. Hostelling International, New Boston Facility, Boston, MA
- 10. Lesley University, Art Institute of Boston Commissioning, Cambridge, MA
- 11. Longwood Center, Commissioning Services, Boston, MA
- 12. Schneider Electric, Design and Commissioning, Andover, MA
- 13. Skanska USA, Core and Shell Lab Building Commissioning Services, Cambridge, MA
- 14. South Shore Hospital, Emerson Building Expansion Commissioning, South Weymouth, MA
- 15. Suffolk University, New Building, 20 Somerset Street, Boston, MA
- 16. Tufts School of Medicine, Sackler Center Renovations, Boston, MA
- 17. Unum Group, Tenant Fit-Up, Worcester, MA
- 18. VCU Health System, Children's Hospital of Richmond Pavilion Commissioning, Richmond, VA
- 19. Willard Elementary School (MA-CHPS), Concord, MA
- 20. Wilmer Hale, 60 State Street Cx LEED-Cl Tenant Improvement, Boston, MA
- 21. Winsor School Performing Arts & Wellness Center Commissioning, Boston, MA
- 22. WPI, New Aquatic and Fitness Center Commissioning, Worcester, MA



Franklin Institute of Boston, AS, Mechanical Engineering

University of Massachusetts, BS, Mechanical Engineering

Northeastern University, Certificate, Air Distribution & Duct Design

Northeastern University, Certificate, HVAC Systems Design & Temperature Control

REGISTRATION/ PROFESSIONAL AFFILIATIONS

American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)

Boston Society of Architects (BSA)

LENGTH OF EXPERIENCE

30 Years



RALPH DEVITO, JR.

Principal / Project Manager

As Principal, Ralph has led the RDK team in designing systems for a variety of clients, including fit-up, base building renovations, and phased construction projects designed to minimize disruptions to business operations. He is responsible for administering the design of projects from conception to construction completion, all while meeting the goals of his clients.

RELEVANT EXPERIENCE

Guest Quarters Suites Hotel, Boston, MA

New 15-story hotel including 310 executive suites, office, function areas, kitchen, garage, and indoor pool. The atrium connecting all 15 floors of the hotel was provided with an automatic lighting control system sequencing the atrium lights off automatically upon sufficient daylight. HVAC was provided through incremental heat pumps.

Liberty Center, Pittsburgh, PA

Design for multi-use complex which includes a large hotel; a 27-story office tower; and a shared two-level parking garage with retail areas. The hotel HVAC system uses vertical fan coil units served by the complex's 3,000-ton central chilled water plant.

The Mandarin Oriental Hotel & Residences, Boston, MA

Project Manager for MEP systems design for \$260 million, 450,000 SF complex including 5-star hotel, ultra-luxury residential, and retail space. Included evaluation of innovative technologies such as HANSA induction chilled ceilings, geothermal heating/cooling, and next-generation communication technologies. A tight building envelope and integration of hotel, residence and retail systems required creative design solutions.

Washington Mall Mixed-Use Development, Hamilton, Bermuda

Schematic design, design development and construction administration services for Phase 3 of Bermuda's premier office/retail mall, involving demolition of 3 existing buildings and construction of a new 7-story, 180,000 SF mixeduse complex with two floors of stores and restaurants, four floors of commercial offices, and penthouse residential condominiums. Among a number of "green" features designed for the complex is a geothermal system for heating and cooling the condos and for supplemental cooling for commercial facilities.

The Waterfront Mixed-Use Complex, Hamilton, Bermuda

Building systems design for a \$100 million, 250,000 SF mixed use development with Class A commercial buildings, high-end retail, restaurants, and luxury residences. Work has included shell and core building systems design for three of the commercial buildings totaling over 120,000 SF; over 200,000 SF of tenant fit-up, and design for 15 residences. Many innovative technologies were evaluated for incorporation into the development, including "green"/sustainable technologies.



Northeastern University, BS, Mechanical Engineering

University of NH, Whittemore School of Business and Economics BA, Economics Second Major Option: Political Science

REGISTRATION/ PROFESSIONAL AFFILIATIONS

Registered Professional Engineer in MA #43090

Also registered in ME and NH

LENGTH OF EXPERIENCE

30 Years

RDK

RICHARD B. SEIDEN, PE

Senior Associate/Senior Project Manager/Senior Mechanical Engineer

Rick is a Senior Associate experienced in engineering, design, analysis and construction support of building and facility heating, ventilating, air conditioning, and other mechanical systems. He specializes in the design of building systems for commercial, industrial and mission critical facilities. His responsibilities include managing, planning, scheduling and organizing projects.

RELEVANT EXPERIENCE

The Mandarin Oriental Residences, Boston, MA

Building systems design for fit-out of a number of privately-owned, multimillion dollar condominiums in the Mandarin Oriental Complex.

The Mandarin Oriental Hotel and Residences, Boston, MA

Design for a new \$260 million, 450,000 SF complex including 5-star hotel, ultra-luxury residential, and retail space. Included evaluation of innovative technologies such as HANSA induction chilled ceilings, geothermal heating/cooling, and next-generation communication technologies. A tight building envelope and integration of hotel, residence and retail systems required creative design solutions.

The Waterfront Complex, Phase II, Hamilton, Bermuda

Building systems design for \$100+ million, 500,000 SF luxury office/hotel/residential complex. Work has included shell and core building systems design, tenant fit-up, and design of state-of-the-art building systems for all of the luxury residences.

Elbow Beach Resort, Hamilton, Bermuda

RDK Engineers provided mechanical engineering services for the new 365,000 SF Hotel, consisting of 9 Floors, with 33 residential units, 65 guest rooms, 16 suites, 1 penthouse, Restaurant, Conference Rooms, Pool, Spa and fitness center. Engineering services included central plant systems design, plumbing design, and fire protection design.

Arrowstreet Capital TI, Hancock Tower 30th Floor, Boston, MA

MEP/FP engineering services for the tenant fit-up of approximately 30,000 SF located on the 30th floor of the Hancock Tower.

Choate Hall & Stewart Office Relocation, 2 International Place, Boston, MA

Building systems design for relocation of law offices to over 150,000 SF of Class A space on multiple floors of this downtown office tower. Included fit-up for 75 interior offices, 100 secretarial stations, conference rooms, a training room, a data center, and a cafeteria/cooking kitchen.



Franklin Institute of Boston, AS, Electrical Engineering

Coyne/Suffolk University Technical School, AS, Electrical Engineering

Carolina AGC, Washington, NC, Medical Facilities Design Certificate

LENGTH OF EXPERIENCE

36 Years

ROBERT LORENTZ

Senior Associate/Senior Electrical Engineer

Bob is a Senior Associate who dedicates his time to electrical engineering design and design supervision for a variety of project types. His experience includes lighting layouts and controls, power distribution, emergency generator and uninterruptable power systems, communication systems, construction coordination and specifications for commercial and residential facilities.

RELEVANT EXPERIENCE

Mandarin Oriental Hotel and Residences, Boston, MA

Lead Engineer for electrical systems design for a new \$260 million, 450,000 SF complex including 5-star hotel, ultra-luxury residential, and retail space. Included evaluation of innovative technologies such as HANSA induction chilled ceilings, geothermal heating/cooling, and next-generation communication technologies.

Residences at the Royal Navy Dock Yard, Bermuda

Lead electrical engineer for a proposed 16 story, 210,000 SF high-end mixed-use tower, with luxury residences, a gym, market, meetings rooms, screening room, restaurant, retail, and parking.

The Waterfront Mixed-Use Complex, Hamilton, Bermuda

Building systems design for a \$100 million, 250,000 SF mixed use development with Class A commercial buildings, high-end retail, restaurants, and luxury residences. Work has included shell and core building systems design for three of the commercial buildings totaling over 120,000 SF; over 200,000 SF of tenant fit-up, and design for 15 residences. Many innovative technologies were evaluated for incorporation into the development, including "green"/sustainable technologies.

Newbridge on the Charles, Dedham, MA

Electrical systems design for a new 700,000 SF multi-generational/senior living campus, with a Long Term Care Facility with 240 beds on multiple levels; an Assisted Living Facility with 115 units of varied sizes with common dining and activity spaces; Community facilities with athletic fields, outdoor pool, child and adult daycare, discreet parking, and an underground parking garage; and Administrative, commons, and activity spaces including a healthclub/wellness center, pool, and service/support areas.

Government Hotel in Russia

Lead Engineer for the phased construction of a new hotel for foreign dignitaries. The complex is 3-stories and contains approximately 60 rooms with specialized satellite capabilities for communications and special voltage requirements.





Wentworth Institute of Technology, BS, Architectural Engineering Technology

Northeastern University, Certificate in Fire Protection Systems

REGISTRATION/ PROFESSIONAL AFFILIATIONS

Registered Professional Engineer in MA #47208

Also registered in CT, VT and NH

National Fire Protection Association (NFPA)

Society of Fire Protection Engineers (SFPE)

LENGTH OF EXPERIENCE

14 Years

JEFFREY T. FAUCON, PE

Associate/Chief Fire Protection Engineer

Jeff is an Associate who specializes in the design of fire suppression and fire alarm systems including in-depth system investigations, code analysis reports and project management services. He performs site surveys, system design, hydraulic calculations, permitting, and construction administration for commercial, educational, industrial and residential facilities.

RELEVANT EXPERIENCE

Elbow Beach Resort, Hamilton, Bermuda

RDK Engineers provided mechanical engineering services for the new 365,000 SF Hotel, consisting of 9 Floors, with 33 residential units, 65 guest rooms, 16 suites, 1 penthouse, Restaurant, Conference Rooms, Pool, Spa and fitness center. Engineering services included central plant systems design, plumbing design, and fire protection design.

The Mandarin Oriental Hotel and Residences, Boston, MA

Base building design and interior fit-up for a new \$260 million, 450,000 SF complex, including 5-star hotel and ultra-luxury residential, and retail space. The project included evaluation of innovative technologies, such as HANSA induction chilled ceilings, geothermal heating/cooling, and next-generation communication technologies. A tight building envelope and integration of hotel, residence and retail systems required creative design solutions.

The Boulders at Riverwoods, Exeter, NH

Fire protection engineer for project involving HVAC, plumbing, fire protection and electrical design and construction administration for a \$45 million, 203,000 SF long-term-care facility to include 116 beds, 76 independent-living apartments, and 29 detached cottages. Additionally, the facility will house independent, assisted-living units, and lounges, a library and multipurpose rooms, shops, and a restaurant.

UMass Amherst, Orchard Hill Residence Halls Fire Suppression System Replacement, Amherst, MA

Mechanical evaluation and subsequent design for new fully addressable fire alarms, sprinkler systems, emergency lighting, fire and site water pump stations, life safety generator, as well as related infrastructure upgrades for the 7-story Orchard Hill Residence Complex, including the Field, Grayson, Webster and Dickinson Residence Halls totaling 302,200 SF.





Northeastern University, BS Mechanical Engineering

Various Certification Courses Including:

- United Association Medical Gas Systems Training and Brazing Certification Program
- Franklin Institute, Design of Plumbing and Related Sanitary Systems
- Northeastern University, Fire Sprinkler Protection Systems Design I & II

REGISTRATION/ PROFESSIONAL AFFILIATIONS

Certified in Plumbing Engineering (CIPE)

Certification in Engineering Technology (CET), Level IV

American Society of Plumbing Engineers (ASPE)

LENGTH OF EXPERIENCE

23 Years

LOUIS J. CARAGLIA, CIPE, CET

Senior Associate/Senior Plumbing Engineer

Lou is a Senior Associate whose professional background includes plumbing system design for a variety of facility types including commercial, hotel, educational, and medical facilities. His system design experience includes medical gas, laboratory waste, sanitary storm drainage, domestic water distribution systems, and fuel delivery systems.

RELEVANT EXPERIENCE

Elbow Beach Resort, Hamilton, Bermuda

RDK Engineers provided mechanical engineering services for the new 365,000 SF Hotel, consisting of 9 Floors, with 33 residential units, 65 guest rooms, 16 suites, 1 penthouse, Restaurant, Conference Rooms, Pool, Spa and fitness center. Engineering services included central plant systems design, plumbing design, and fire protection design.

Mandarin Oriental Hotel & Residences, Boston, MA

Design services for a new, \$260 million, 450,000 SF complex including 5-star hotel, ultra-luxury residential, and retail space. The design incorporated as many energy-efficient systems as possible, and systems that could be seamlessly integrated into the luxurious interiors and roof gardens.

Newbridge on the Charles, Dedham MA

Plumbing systems design for a new 700,000 SF multi-generational/senior living campus, with a Long Term Care Facility with 240 beds on multiple levels; an Assisted Living Facility with 115 units of varied sizes with common dining and activity spaces; Community facilities with athletic fields, outdoor pool, child and adult daycare, discreet parking, and an underground parking garage; and Administrative, commons, and activity spaces including a health-club/wellness center, pool, and service/support areas.

Water's Edge Resort & Spa, Westbrook, CT

Lead Plumbing Engineer for the design of a new 65,000 SF facility as part of this existing, 15-acre Resort & Spa complex located on the shoreline of Long Island Sound. A turn-of-the-century estate, the complex constructed a new building with all the amenities and conveniences of a full service resort.

Carnegie Tower, Portsmouth, RI

Building systems design for a new 17-story residential complex containing 59 luxury residences, a parking deck, outdoor pool, and fitness facilities.









Mandarin Oriental Hotel and Residences, Boston, MA

MEP/FP + T design for a new \$260 million, 450,000 SF mixed-use development including a 5-star hotel incorporating the use of cutting edge building systems technologies. The challenge for RDK was to investigate systems which could be seamlessly integrated into the luxurious interiors and roof gardens. The design factored in acoustic and comfort and accommodated low floor to floor heights. Metering and separate systems for the hotel, including a unique DDC system integrated with the hotel's scheduling system, were also key features of the design.

Fairmont Copley Plaza Hotel, Boston, MA

Building systems design for numerous projects in this prestigious Boston landmark hotel, involving work on hundreds of guestrooms including the Presidential Suite, function/meeting rooms, lounges, public spaces and a new rooftop health club/spa.

InterContinental Hotel, Boston, MA

Peer review of building systems design for a new \$310 million, 440,000 SF five-star waterfront hotel, with 424 guestrooms including a Presidential Suite, four Grand Suites, and 18 Executive Suites; a signature restaurant and multiple cocktail lounges; a spa and health club; and meeting/function spaces, including the largest ballroom in downtown Boston.

Boston Park Plaza Hotel, Boston, MA

Multiple projects at this historic, 15-story, 950-bed hotel in downtown Boston, including replacement/upgrade of the HVAC & plumbing systems serving the hotel guest rooms and upgraded the electrical and life safety systems.











UMASS Amherst Lincoln Campus Center Hotel Renovations, Amherst, MA

MEP/FP system improvements for a \$9 million renovation to 116 hotel guest rooms of all different sizes, some including kitchenettes, and the replacement of windows, vertical hot and cold water risers, and horizontal mechanical piping and common areas on floors 4-7. The hotel continued to operate during the renovation.

Boston Back Bay Hilton, Boston, MA

MEP/FP/T design for major renovations at the 26-story, 385 room hotel located in the heart of Boston's Back Bay Area. Systems were designed for maximum comfort, and were seamlessly integrated into the interior architectural components of the hotel.

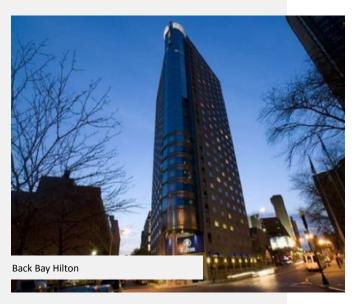
Le Royal Meridian King Edward Hotel, Due Diligence Inspection, Toronto, Ontario

MEP Engineering survey and systems evaluation services for the Le Royal Meridian King Edward Hotel. The facility consists of meeting spaces, exhibition halls, and 296 guestrooms. RDK reviewed the HVAC systems, including air handling units and terminal room units.

Back Bay Hilton, Health Club Renovation, Boston, MA

MEP/FP engineering services for renovation of the existing Health Club, including the pool area, new Jacuzzi addition, and exercise equipment relocation. The design included two separate roof top systems, new lighting modifications to the fire alarm system. RDK has also worked on other projects within this hotel facility, including:

- Junior Ballroom Air Handlers
- Laundry Room Ventilation
- Mechanical and Electrical System Evaluation











Crown Plaza Hotels & Resorts Worldwide

Development of Design and Construction Standards for all Crowne Plaza Hotels & Resorts across the United States. As lead MEP/FP engineer, RDK developed building systems standards for any renovation or new construction project undertaken at a Crowne Plaza Hotel, aimed to meet current and future facilities needs.

Hyatt Regency, Main Ballroom Renovation, Cambridge, MA

Engineering services for the renovations to the existing Main Ballroom and supporting pre-function space on the first floor of the Hyatt Regency Cambridge. Design features include HVAC system re-balancing, new lighting design with a new dimmer control panel, new sound system speakers, and modifications to the existing fire alarm system.

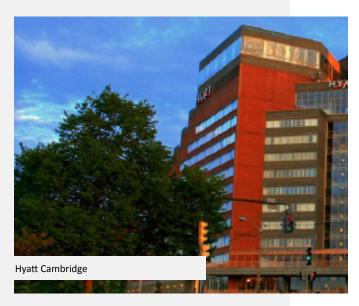
Royal Sonesta Hotel, Cambridge, MA

RDK has provided engineering services for several projects at the Royal Sonesta Hotel, located on the Cambridge side of the Charles River. The hotel houses over 400 guest rooms and suites. Below is a representative sample of projects that RDK has performed at this upscale luxury hotel.

- Main Lobby Renovation
- Hotel Transformer Evaluation
- Boiler Room Upgrade, Phase I & II
- New Lounge and Bar

Adams Mark Hotel, Due Diligence Inspection and Report, Charlotte, NC

MEP/ FP engineering systems evaluation services for the Adams Mark Hotel. The facility includes 613 rooms in two 14-story towers, 52,000 SF of meeting space, and an 18-story, 200,000 SF office tower. RDK prepared a report of findings and system recommendations.











Courtyard By Marriott, New Hotel, South Boston, MA

HVAC and plumbing engineering services for the design-build of this new 100,000, six-story structure with 164 rooms, and an attached restaurant and pool. Design services included the wall electric heating and cooling units, two packaged roof top units for make up air, kitchen roof top unit and exhaust, pool dehumidification unit, domestic hot water heaters, and drains and make up water for the pool.

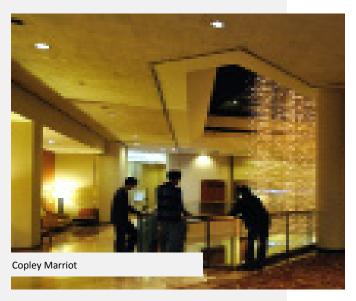
Holiday Inn, Various Locations

RDK has provided engineering services for several Holiday Inns. Below is a representative sample:

- Replacement Rooftop Air Handling Units and Guestroom Fan Coil Units, Aruba
- MEP Due Diligence Report , 440 West 57th Street, New York City, NY
- Engineering Consulting Services, Somerville, MA

Host Hotel & Resorts Copley Marriott LEED Lobby Upgrades and Meeting Platform Expansion, Boston, MA

MEP/FP engineering survey, design, bidding, and construction administration services at the Copley Marriott. The project included upgrades and program enhancement to the Lobby and Public Areas in approximately 46,970 SF of the interior spaces including Back of House spaces, restrooms, business center, retail spaces, two kitchens and Champions Restaurant and Bar. The project also included the study of an expansion of Meeting Space and the Ballroom atop the current 5-level Huntington Avenue podium totaling 79,870 SF.











Fairmont Copley Plaza Hotel Chiller Plant and Public Space AHU Upgrades, Boston, MA

RDK led a two-phased project involving Mechanical and electrical engineering survey, design, bidding, and construction administration services for the replacement of the public space Air Handling Units as well as upgrades to the Chiller Plant. Phase I included the design of an additional chiller, a new cooling tower to support the added chiller capacity, new electrical power distribution, upgrades to the domestic water heaters, and all new controls, piping, and wiring to support the related equipment. Phase II included design of a new chilled water supply and return system and the replacement of the public space Air Handling Units which were designed to be fed from the new chilled water supply and return system. RDK also provided design for the expansion of the Building Automation System to accommodate the new AHUs.

Westin Hotel MEP Redesign Berkeley Heights, NJ

Engineering services for the redesign of the eight-story 180,000 SF hotel consisting of 225 rooms, 15,000 SF of meeting/banquet space and two full service restaurants. The hotel lobby consists of the main entrance lobby, seating area, offices, restaurant, bar, kitchen, pantry, and toilette rooms. The conference level consists of kitchen, dinning area, laundry room, offices, board rooms, meeting rooms, conference rooms, prefunction area, ball room, indoor pool, and work out rooms

Hostelling International, Adaptive Reuse, 25 Stuart St., Boston, MA

Design for renovations to 62,000 SF of space to be used as a premiere, urban hostelling facility. The space includes: 380 guest beds, bathroom facilities, meeting spaces, cooking facilities and support office areas, and is being designed to achieve LEED Gold certification. The facility is being designed in a manner that will lend itself to sustainable education for facility guests.







Mandarin Oriental Hotel and Residences, Boston, MA

MEP/FP and telecom design and commissioning for a new \$260 million, 450,000 SF mixed-use development including a 5-star hotel incorporating the use of cutting edge building systems technologies. The challenge for RDK was to investigate systems which could be seamlessly integrated into the luxurious interiors and roof gardens. The design factored in acoustic and comfort and accommodated low floor to floor heights. Metering and separate systems for the hotel, including a unique DDC system integrated with the hotel's scheduling system, were also key features of the design.

Washington Mall Mixed-Use Development, Hamilton, Bermuda

Schematic design, design development and CA services for Phase 3 of Bermuda's premier office/retail mall, involving demolition of 3 existing buildings and construction of a new 7-story, 180,000 SF mixed-use complex with two floors of stores and restaurants, four floors of commercial offices, and penthouse residential condominiums. Among a number of "green" features designed for the complex is a geothermal system for heating and cooling the condos and for supplemental cooling for commercial facilities.

The Residences at 360 Newbury Street, Boston, MA

MEP/FP and telecom design for conversion of 83,000 SF of office space on the top five floors of the 8-story 360 Newbury Street into luxury condominiums. The first three floors of the 127,903 SF building remain as retail space. Systems were designed for 55 units in 10 different configurations, as well as for public spaces in the redeveloped complex.

The Residences at the Royal Navy Dockyard, Bermuda

Building systems engineering for a new, 210,000 SF development on the Bermuda waterfront, with a 16-story luxury residential tower, gym, market, meeting room, screening room, restaurants and retail space.







285 Columbus Ave. Condominium Conversion, Boston, MA

MEP/FP and telecom building systems design for conversion of an existing 106,000 SF, 8 story office building into 65 luxury loft-style condominium units with multiple configurations, and 10,000 SF of retail space on the first floor.

Hostelling International, Adaptive Reuse, 25 Stuart St., Boston, MA

MEP/FP, telecom and AV design for renovations to 62,000 SF of space to be used as a premiere, urban hostelling facility. The space includes: 380 guest beds, bathroom facilities, meeting spaces, cooking facilities and support office areas, and is being designed to achieve LEED Gold certification.

Holgate Apartments, Boston, MA

MEP design for a number of repair projects in this 7-story housing development containing 86-apartments for the elderly. Work included upgrades to the boiler plant and installation of a new fire alarm system.

Chapel View A3, Residential Mixed-Use, Cranston, RI

Engineering services for 23 residential condo units in a new 6-story mixed-use building. The units are located on floors 4-6 consisting of approximately 50,000 SF while the lower floors of the building consist of retail spaces.

Carnegie Residential Tower, Portsmouth, RI

MEP/FP design for a new 17-story, waterfront residential complex containing 59 luxury residences, a parking deck, outdoor pool, and fitness facilities.

The Grandview, Boston, MA

MEP/FP + T design for a new 18-story luxury condominium building with a 5-story underground parking garage and retail area on the ground floor overlooking Boston Common.









- Geothermal study
- Innovative integrated DDC system using PDA technology
- Energy-efficient designs
- Flexible heating/cooling options for condominiums including
 Hansa induction chilled ceilings

SIZF:

450,000 SF

OWNER:

Mandarin Oriental Group

CONSTRUCTION COST:

\$260M

The Mandarin Oriental Hotel and Residences, Boston, MA

New Luxury Mixed-Use Development

This new \$260 million, 450,000 SF mixed-use complex located in Boston's historic Back Bay includes the 5-star Mandarin Oriental hotel, 40 ultra-luxury condominiums, 48 apartments, a 16,000 square-foot spa and fitness center, and high-end retail facilities. The developers' vision for the 13-story, two building complex was to create a world-class landmark facility incorporating leading edge technology into the ultimate in luxurious interior and exterior design. "The idea," said developer Robin Brown, "is to do something spectacular. We want to do something unique."

The challenge for RDK, who served as MEP/FP/T engineer on the design team for the prestigious project, was to investigate systems which could be seamlessly integrated into the luxurious interiors and roof gardens. The MEP systems design had to take into account factors such as acoustics and comfort and accommodate low floor to floor heights. Metering and separate systems for the hotel, including a unique DDC system integrated with the hotel's scheduling system, were also key features of the design. In addition, the design featured significant coordination and tie-in with systems and utilities outside of the building foot print. One of those systems was the Trigen high pressure steam system. Also, MEP/FP systems were also tied into a variety of areas to an adjacent mall and the arcade area.

The design included many energy efficiency and green features. These included steam generation for the steam to hot water plant through Trigen steam. The benefits of using Trigen steam, versus using a steam boiler system, include the elimination of high pressure boilers. High pressure boilers are less efficient and produce more nitrogen oxide (NOX) in the atmosphere relative to the Trigen system. Also, the design incorporated an energy recovery heat exchanger that utilizes gravity fed steam condensate from the steam to hot water converters to preheat the HVAC hot water system. Another energy efficiency and green feature were heat recovery wheels for the air handling units.



The Mandarin Oriental Hotel and Residences, Boston, MA

New Luxury Mixed-Use Development

A significant issue raised early in the design of the project was the problems that would be created by placing conventional HVAC systems on the roof. Condenser water was needed, but traditional alternatives, such as the 5 cell cooling tower initially proposed, raised concerns about space, noise, water usage, chemicals, energy, and aesthetics, since the rooftop will be used by residents, and the building is in close proximity to other high-end buildings. A geothermal approach which would eliminate those problems was therefore evaluated by RDK. The geothermal system utilizes twenty 1,500-foot-deep standing column wells with fully submersible stainless steel pumps headered together to flat plate heat exchangers.

The infrastructure for the condominiums is designed so that owners can select any MEP system they want when finishing their units. Heating is accomplished via Trigen-supplied steam with heat exchangers. Condo heating options include in-floor radiant heat, custom millwork for tube radiation and duct mounted coils. Cooling options include use of vertical custom double wall fan coil units with DDC controls in multiple mechanical rooms or single A/C units with individual room VAV boxes.

Ventilation is accomplished by three 100 ton outside air custom penthouse units, stone clad to match the building. The units take advantage of heat/cool recovery from the exhaust/return of the entire complex, reducing energy costs.

Because there were two mechanical rooms in the project, the design had to accommodate limited space in each of these areas to include a multitude of equipment, including chillers, pumps, heat exchangers, etc.

In addition to shell and core systems design and fit-out of the hotel and retail areas of the development, RDK completed commissioning services for the complex.

RDK also completed interior fit-out of numerous multi-million dollar private residences purchased in the complex.







- MEP/FP systems designs
- Multiple unit configurations
- Adaptive re-use of commercial building

SIZE:

83,000 SF

OWNER:

Boston Residential Group

CONSTRUCTION COST:

\$260M

The Residences at 360 Newbury Street Boston, MA

Adaptive Reuse Luxury Condominiums

The 360 Newbury Street building, originally constructed in 1920, was famously redesigned by Frank O. Gehry in 1987, winning a Parker Award as the most beautiful new building in Boston. The top five floors of the iconic structure, formerly office space, have now been converted into 54 luxury loft-style condominiums. RDK provided all MEP/FP/T systems designs for the stunning new residences, available in 10 different configurations ranging from 800 to 3300 SF, as well as for public spaces on the redeveloped floors, totaling 83,000 SF. The condominium units feature ceilings up to 12 feet high, oversized windows with breathtaking views of the City, and high-end fixtures and finishes.







- Adaptive reuse of former Industrial facility
- State-of-the art recreational and business facilities
- New boiler/chiller plant
- Evaluation of innovative design alternatives

OWNER:

O'Neill Properties Group

CONSTRUCTION COST: \$74M

The Tower Residences at Carnegie Abbey, Portsmouth, RI

Luxury Condominium Redevelopment

The 220' tall Kaiser Aluminum Tower, a vacant eyesore on Portsmouth, RI's beautiful Aquidneck Island since the 1980's, was dismantled and the property transformed into a striking new luxury waterfront residential complex, as part of the 15-acre planned development of the acclaimed Carnegie Abbey Sporting Club. The 17-story residential replacement tower, designed to be the centerpiece of this exclusive resort style community, includes 59 luxury condominium units with penthouse style appointments, including private foyers off the central elevator. The complex also includes a business center with state-of-the-art equipment and small meeting capability; a 25 meter, four lane lap pool with adjacent lounging and children's pools; and a private gym and fitness center.

RDK designed all MEP/FP systems for the residential tower, and was also responsible for design of a new boiler/chiller plant for the complex which was situated remotely. A number of innovative heating and cooling design options, including use of flooded abandoned subterranean mines on the site as a source of condenser water, were investigated as part of the boiler/chiller plant design development.







- Adaptive reuse
- Numerous sustainable deign features
- LEED Gold certification goal

SIZE:

62,000 SF

OWNER:

Hosteling International USA

CONSTRUCTION COST:

\$42M

AWARDS:

Winner of 2012 Boston Society of Architects Honor Award; 2013 Architizer A+ Awards (Special Mention); 2013 USGBC Massachusetts Chapter Innovative Building Award; Boston Business Journal's 2013 Best of Boston Real Estate (Finalist); 2013 Boston Preservation Alliance Preservation Achievement Award, and Mayor Thomas M. Menino's 2013 Greenovate Boston Award

Hosteling International (HI), Boston, MA Adaptive Reuse Project, 25 Stuart Street

Design for renovations to 62,000 SF of space to be used as a premiere, urban hosteling facility and includes an adaptive re-use of the six-story Dill Building which is listed on the *National Register of Historic Places*.

The space includes: 380 guest beds, bathroom facilities, meeting spaces, cooking facilities and support office areas, and is being designed to achieve LEED Gold certification. The facility was designed in a manner that will lend itself to sustainable education for facility guests. Sustainable features include a green roof, green elevators, and solar hot water heating, which will help make the hostel the **nation's first LEED certified hostel**.

When the new hostel opens, it will be the second largest in North America and will replace the current Boston hostel located at 12 Hemenway Street. The new hostel is expected to welcome 46,000+ visitors each year, including thousands of international travelers.

Hosteling International opened in the spring of 2012.







- Building systems designs for Class A offices, high-end retail, and luxury residences
- State-of-the art technologies and "Green" designs
- Shell & core and tenant fit-up designs

SIZE:

250.000 SF

OWNER:

Waterloo Properties

CONSTRUCTION COST:

\$100M

The Waterfront at Pitt's Bay, Hamilton, Bermuda

Mixed-Use Development

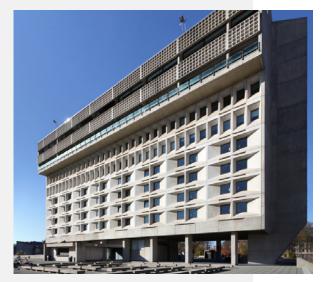
The Waterfront at Pitt's Bay is a 250,000 SF mixed-use project located on Hamilton Harbor in Bermuda. The stunning multi-building enclave is comprised of a number of Class A commercial/retail buildings which are home to major corporations and high-end shops and restaurants. Fifteen exclusive luxury residences, including twelve freestanding townhouses lining the beautiful waterfront, and three condominium apartments on the upper floors of the Point Building, complete this prestigious development.

RDK has provided MEP/FP engineering services on the project, which is being constructed in several phases, since 1999. Work has included shell and core building systems design for three of the commercial buildings in the complex totaling over 120,000 SF; over 200,000 SF of tenant fit-up in six buildings; and design of state-of-the-art building systems for all of the luxury residences.

Many innovative technologies were evaluated for incorporation into the development, including "green"/sustainable technologies. For example, because the island of Bermuda has a shortage of fresh water, seawater is used for cooling throughout the complex. Rainwater is collected from rooftops and stored in tanks for potable and non-potable needs, reducing the need for City water. All rooftop equipment is fully enclosed in penthouses, to avoid corrosion from the salt air, as well as to preserve the architectural lines of the buildings and the pristine harbor views.

Additional "Green" strategies incorporated into the commercial/retail buildings include lighting and HVAC systems that require manual override for extended hours of usage. Typically, the zone will shut down when not occupied, reducing energy and operating costs.







- Gut renovation and modernization to 116 rooms with multiple layouts
- State-of-art heating and cooling system that saves energy
- Internet access, secure passcard entry system, and lap top plug in stations in all rooms

SIZE:

116 Rooms

Owner:

UMass - Amherst

ARCHITECT:

Gensler

University of Massachusetts, Amherst, MA Lincoln Campus Center Hotel Renovations

MEP/FP and Audio Visual system improvements for the \$9.2 million renovation to the Lincoln Campus Center Hotel guest rooms, lobby and common areas. The renovation of the hotel, originally built in 1970, will turn it into a three star facility which is being funded by the University of Massachusetts Building Authority.

The hotel consists of 116 guest rooms on floors 4-7 with all different room types including double occupancy rooms with double, queen, and king size beds, and suites with two bathrooms, a living area, and kitchenette. The renovated rooms include wall mounted plasma televisions, high speed internet access, laptop plug-ins, iPod docking stations, and a secure passcard entry system.

The hotel has 36 meeting rooms hosting between 200 and 300 conferences each year and serves as a training site for students enrolled in the Isenberg School of Management at UMass Amherst.

The project included the replacement of windows, vertical hot and chilled water risers along with horizontal piping to new fan coil units that save energy, and upgrades to all bathrooms including the replacement of bathtubs with walk-in glass showers.

The renovations were done two floors at a time to allow the hotel to operate during the construction completed in a little under a years time.



- MEP/FP systems design for multiple floor plans and luxury amenities such as media rooms
- Electrical design for state-of-theart Residential Cabling System
- Automatic fire protection/life safety systems with emergency generator back-up power

SIZE:

106, 914 SF

CONSTRUCTION COSTS:

\$80M

The Grandview Luxury Condominiums, Boston, MA

New Luxury Condominium Apartment Building

The Grandview is a new \$80 million, 18-story luxury condominium apartment building located in Boston's Theater District, overlooking Boston Common. The complex contains 62 one to four bedroom units, with fifteen different floor plans, including duplex penthouse units. Among the many luxury amenities featured in the condominiums are media rooms and gourmet kitchens. The building's first floor atrium contains an owners' Tea Room and retail space, and a 5-level underground garages accommodates parking for 100 cars.

RDK served as MEP/FP engineer on the Project Team for design and construction of the luxurious hi-rise complex. Services provided by RDK included:

- Mechanical design for a four-pipe fan coil heating and cooling system including chillers, cooling towers, chilled water pumps, condenser water pumps located in the mechanical room on the top floor, providing cooling to the entire building
- Electrical design for a state-of the-art Residential Cabling System
- Complete automatic fire protection/life safety system for the entire facility including fire pump, zone controls, combined Sprinkler / Standpipe system, and fire department connection
- Installation of stair and elevator pressurization fans and a central corridor ventilation system for operation during a fire emergency to pressurize the stairwells and elevator shafts and ventilate each corridor floor
- Installation of an emergency generator system which will supply back-up power to the buildings life safety systems



