



BUILDING TECHNOLOGIES

For All Of Your
Engineering Services

If You Have A Facility Problem, Becht Engineering Has The Solution.

For over fifty years Becht Engineering BT, Inc. has been providing engineering services to the Building Technologies business sector which includes mechanical, electrical, plumbing, and fire protection (MEP&FP) engineering, structural engineering, civil engineering, project management and construction management.



MEP&FP Engineering

Becht Engineering BT, Inc. provides Mechanical, Electrical, Plumbing & Fire Protection (MEP&FP) engineering services that are innovative in concept and economic to construct. Our team of professionals are specialist in troubleshooting systems in all trades.

Services We Provide:

■ Mechanical Engineering Services

- Heating
- Ventilation
- Air Conditioning
- Humidification
- Dehumidification
- Air Distributors
- Ventilation
- Hydronics
- Steam
- Energy Recovery
- Building Management Systems
- Chiller Plants
- Boiler Plants
- Heat Pumps
- Radiant Heating/Snow Melt
- Laboratories
- Clean Rooms
- Dust Collection
- Filtration/Odor Removal

■ Electrical Engineering Services

- Lighting
 - Architectural
 - Exit
 - Emergency
 - Lighting Controls
- Power
 - Equipment
 - Receptacle
 - Systems Furniture Power
- Alternate Power Systems
 - Stand-by
 - Emergency Generators
 - Uninterruptible Power Supply (UPS)
 - Photovoltaics (Solar)
 - Fuel Cells
 - Emergency Power Off (EPO)

- Security Systems
 - Intrusion Detection
 - Access Control
 - Closed-Circuit Television (CCTV)
- Information Transport Systems
 - Data (Computer Network)
 - Telephone
 - Voice Over Internet Protocol
 - Public Address
 - Clock
 - Intercom
- Grounding
- Bonding
- Lightning Protection

■ Energy Analysis

■ Plumbing Engineering Services

- Sanitary
- Storm Water
- Domestic Cold Water
- Domestic Hot Water
- Domestic Hot Water Recirculation
- Natural and Propane Gas Piping
- Laboratory Gas Piping
- Compressed Air
- Vacuum
- De-Ionized (DI) Water
- Waste Neutralization
- Waste Dilution
- Oil Separation
- Grease Separation
- Solids Separation

■ Fire Protection Engineering Services

- Sprinkler Systems
 - Wet Sprinklers
 - Glycol
 - Dry Sprinklers
- Early Suppression Fast Response (ESFR)
- Dry Chemical Sprinklers
- Fire Alarms
 - Smoke
 - Heat Detection
 - Notification Appliances
 - Indicating Appliances
 - Directional Systems
 - Class-E Systems

■ Building Evaluation Services

- Mechanical, Electrical, Plumbing and Fire Protection Systems
- Energy Audits
- Site Selection
- Lease Negotiation
- Real Estate Transaction
- Assessment Reports
- Troubleshooting



Structural Engineering

Becht Engineering BT, Inc. provides a full range of structural engineering services. These include inspections and investigations as well as the design of new structures and structural corrections and rehabilitation of existing structures. We have provided structural designs for commercial, residential, industrial, educational, institutional and municipal facilities. Our staff is proficient in the design of light gage and structural steel, concrete, masonry, and wood construction. Our clients include Architects, property owners, prospective buyers, insurance companies, developers and attorneys.

Becht has developed methods and applied them in the design of blast resistant and terrorist resistant structures for refineries, chemical plants, and terrorist sensitive buildings. These involve dynamic analysis and design of buildings for blast loads. One of Becht's structural engineers is a member of the ASCE Task Committee on Blast Design, which is developing a set of guidelines for design and analysis of blast resistant structures.

We can engineer your structure or building on any site, in cold or warm climates, in hurricane or seismic regions, in suburban environments or in dense urban areas within a maze of infrastructures.

Services We Provide:

■ Basic Services

- Preliminary Design
- Design Development
- Construction Drawings
- Specifications
- Bid Review
- Shop Drawing Review
- Construction Oversight
- Computer Analysis
- Computer Aided Drafting

■ Additional Services

- Feasibility Studies
- Failure Analysis
- Blast Resistant and Security Design
- Quality Control Inspections
- Third-party Design Review
- NYC Local Law 11 Facade Inspections

■ Investigative Services

- Forensic Investigations
- Insurance Claim Investigations
- Fire Damage Investigations
- Vehicular Accident Reconstruction
- Construction Defect Investigations
- Condition and Needs Assessments

Community Associations

Becht Engineering BT, Inc. offers full engineering and construction management services to Community Association clients including Condominium and Homeowner Associations, Cooperative Corporations and Planned Unit Developments with building types ranging from townhouse developments to high-rise structures. Our consulting services include Transition Studies - to assist in having the developer correct deficiencies to the original construction, Capital Reserve Studies - to provide financial planning for future capital replacement projects and Litigation Support services.

Becht also offers full design, specification and construction management capabilities for projects such as replacement of decks, shingle and low-slope membrane roofing, siding, boiler and chiller replacements, corrective drainage, and asphalt repaving. We will engineer your project to provide a proper design to allow for competitive contractor bids all based on the same scope of work. We will provide inspections during the course of construction to document the proper performance of the contractor in accordance with the design and specifications.

Becht's staff experts include licensed Professional Engineers, CAI designated Reserve Specialists (RS), and certified code experts in many disciplines. In addition, our staff now includes a Registered Roof Observer (RRO) who has demonstrated roofing proficiency through stringent examinations. Please contact us for your engineering needs.

Services We Provide:

■ Transition Engineering

- Roadway and parking area pavement and curbing
- Landscaping including grass shrubs and trees
- Drainage including detention/retention ponds
- Roofs including shingles, vents, flashing and structural conditions
- Life safety and fire code construction including fire walls, draftstop walls and integrity requirements
- Overall structural conditions of residences and amenities

■ Building Envelope



■ Capital Reserve Studies

- Inspection by qualified staff.
- Identification of specific conditions of all the common elements.
- Development of a reserve to provide schedule for annualized funding of the reserve program over a 30 year period.
- Development of cash flow schedules to fund the reserve based on two inflation scenarios for replacement costs and two interest rate scenarios for earnings on the deposit funds.

■ Corrective Design

- Engineered specifications for required maintenance work procedures.
- Development of bid packages and solicitation of bids from qualified contractors.

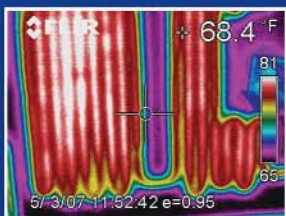
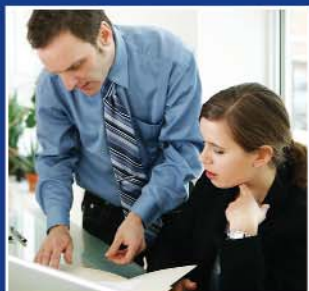
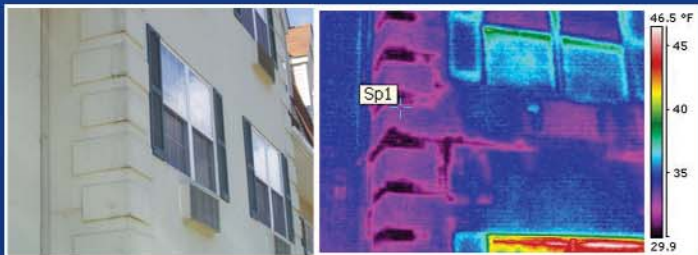
■ Major Maintenance

- Major Maintenance/Capital Replacements
 - Roofs
 - Repaving
 - Facades
 - Parking Decks
 - Residential Decks
 - Mechanical Systems
- Civil-Site Design
 - Site Plans
 - Storm Water Control
 - Paving
 - Erosion Control
 - Landscaping
 - Grading/Drainage
- Code Compliance
 - Local Laws
 - Life Safety/NFPA
 - Handicap Access/ADA
 - Construction Codes

■ Project Administration

- Construction Management
- Project Scheduling/Coordination
- Cost Estimating
- Bidding
- Field Supervision
- Submittals & Approvals
- Financial Analysis
- Needs Determination
- Mission Identification
- Program Development
- Construction Cost Budgeting
- Bond an/or Referendum Preparation
- Qualification Request and Evaluation Procedures for Design Professionals
- Design Professional Contract Preparation
- Initial Design Concept Preparation
- Construction Cost Estimate for Initial Design
- Program Refinement Until Final Development
- Preparation of Construction Documents with Attendant Reviews for Cost-Effectiveness
- Bid Procedures
- Construction Phase Supervision
- Project Close-Out





Becht Engineering
Has The Solution To All Your
Current And Future Needs.

Building Envelope

Services provided by Becht Engineering BT, Inc., related to the design, inspection, troubleshooting and construction oversight of a proper building envelope.

Services We Provide:

■ FRT Plywood Inspections

- Computer Analysis
- Computer Aided Drafting

■ Steep Roofs

- Inspections and Diagnostics
- Designs and Specifications
- Bidding Services
- Construction Observation Services
- Roof Asset Management
- Expert Reports and Testimony
- Life Cycle Cost Analysis
- Alternate Materials Recommendations
- Testing

■ Façade

■ Siding Replacement

■ Non-Invasive Observations through Thermal Imaging

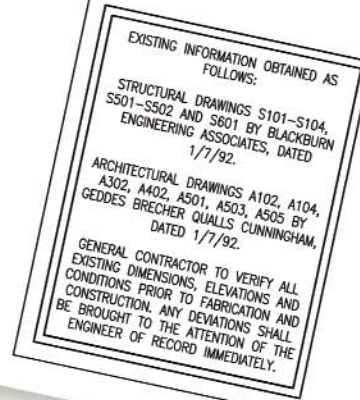
- Inspection and Diagnosis
- Life Cycle Cost Analysis
- Design and Specifications
- Bidding Services
- Roof Asset Management
- Materials Testing
- Photovoltaic Feasibility Studies
- Flat Roof Conversion to Recreational Space
- Flat Roof Conversions to Steep Roof
- Construction Observation Service
- Expert Reports, Testimony and Failure Analysis

The Becht Advantage

- Reputation of Principals and Staff
- Depth and Stability of our Firm
- Responsiveness to Budgets and Time Schedules
- Quality, Clarity, and Completeness of Contract Drawings
- Knowledge of State-of-the-Art Construction
- Skilled and Experienced Construction Phase Inspectors

Engineering Diversity

- | | |
|--------------------------|------------------------------------|
| ■ Residential | ■ Commercial |
| ■ Retail | ■ Restaurant/Food Service |
| ■ Hotels/Motels | ■ Municipal/Government |
| ■ Industrial | ■ Building Inspections |
| ■ Educational Facilities | ■ Pedestrian Decks |
| ■ Energy Engineering | ■ Garages |
| ■ Healthcare | ■ Historic Structures |
| ■ Libraries | ■ Glazed Structures/Conservatories |
| ■ Warehouses | ■ Places of Worship |
| ■ Life Sciences | |



MEP&FP Engineering ■ Structural Engineering ■ Community Associations ■ Building Envelope



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Engineering Services
800-772-7991
www.bechtbtt.com