Miscellaneous Projects

Sampling

BIRD MACHINE, INC., WALPOLE, MASSACHUSETTS
Steel-framed superstructure addition over an existing foundation; pre-engineered metal wall system; MEP/FP systems; and an overhead crane.

BOSTIK, INC., MIDDLETON, MASSACHUSETTS
Design of a three-story reactor building for the grinding and mixing of adhesive products.

CAMBRIDGE TOOL AND DIE, BILLERICA, MASSACHUSETTS
Design of a two-story addition to the existing manufacturing facility. Structure generally comprises a steel-framed roof, composite steel/concrete second floor, and a structural first floor slab supported on piles.

CHELSEA CLOCK COMPANY, CHELSEA, MASSACHUSETTS
Visit the site to investigate the feasibility of installing a 4,000 pound dust collector on the second floor roof or mounting it on a masonry wall. Provide sketches for any required strengthening of the existing structure for supporting the dust collector.

CHEMGENES, WILMINGTON, MASSACHUSETTS
Visit the 18,000 sq.ft. facility and provide a report on the condition of the existing metal roof deck. Follow up with existing roof deck testing and analysis as required by the existing conditions and as approved by the Owner.

COLDWATER SEAFOOD CORPORATION, EVERETT, MASSACHUSETTS
Design of the original facility and multiple additions and alterations. Facility includes processing, freezer storage, general warehousing, and offices.

FOXBOROUGH STADIUM, FOXBOROUGH, MASSACHUSETTS
Processing for the stadium was limited to 100,000 GPD because of property restraints on the size of the leaching field. Designed a concrete holding tank and clarifier so that effluent processing would be augmented to 300,000 GPD.

HANOVER MALL, HANOVER, MASSACHUSETTS
Designed the foundation and tank walls for a sewage treatment plant for the mall. The new system expanded processing capabilities from 54,000 GPD to over 100,000 GPD.

HOLLISTON SCHOOLS, HOLLISTON, MASSACHUSETTS
Designed the structural system for this sewage treatment facility to accommodate two schools in Holliston.

THE GILLETTE COMPANY, SOUTH BOSTON, MASSACHUSETTS
Single-point material storage and retrieval center for the entire South Boston manufacturing facility. Design of an Automatic Material Handling System with an 85 foot high rack-supported structure, shipping/receiving area, material handling area, offices, mezzanines, and an electrical substation.

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MISCELLANEOUS PROJECTS

SAMPLING

LIBRARY LOFTS - CHELSEA, MASSACHUSETTS
A Chapter 34 structural evaluation was performed to determine the reuse of the existing three (3) story mill building typical for this area of Massachusetts into new residential units. There are two portions to the structure – an east and west half. They are connected by a three (3) story corridor of similar construction. Between the buildings there is also a one (1) story loading dock, and to the east of the building, there is an attached one (1) story structure. The focus of our report was on the three (3) story portions of the buildings, which are the areas that are proposed for renovation. The exterior wall construction consists of unreinforced masonry bearing walls. The majority of the interior framing is wood columns and brick piers, wood beams, and wood floor decking.

NEW ENGLAND CONSERVATORY OF MUSIC, BOSTON, MASSACHUSETTS
Field measure and structurally evaluate the load carrying capacity of the existing roof structure above the Auditorium Stage. Analyze the existing structure for the addition of a new rigging system to support screens, motors, and other electrical systems.

MARTHA'S VINEYARD REGIONAL HS, MARTHA'S VINEYARD, MASSACHUSETTS
Foundation and catwalk design for a 25' x 40' waste water treatment plant that would serve the regional high school. The building was never built because the school tied into neighboring Edgartown's system.

RAYNHAM SOLID WASTE PROCESSING FACILITY, RAYNHAM, MASSACHUSETTS
Structural design of this solid waste processing facility which processes and transfers on average 800 tons per day of construction and demolition (C&D) waste and municipal solid waste, with a peak of 1,000 tons per day. The facility includes a pre-engineered metal waste-processing and transfer building and scale house/office.

US POSTAL SERVICE - ASTOR CARRIER ANNEX, BOSTON, MASSACHUSETTS
Complete renovation of a two-story concrete framed building originally used as a car dealership. Structural work included support of new masonry veneer, second floor structural modifications for support of USPS vehicles, new elevators, and construction of a loading dock.

US POSTAL SERVICE - ESSEX STREET STATION, BOSTON, MASSACHUSETTS
Expansion and complete renovations to an existing undersized Boston USPS. The building is: (a) a ten-story structure with a single level below grade constructed in the early 1900's; (b) a steel-framed superstructure (interior and perimeter) with cast-in-place concrete fireproofing wraps; (c) terra-cotta infills between the steel beams, which acted as forms for the cast-in-place concrete wraps, and presently act as fireproofing; and (d) perimeter clay brick masonry walls.

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US POSTAL SERVICE, MELROSE, MASSACHUSETTS
A structural evaluation and analysis was performed for this building and recommendations were provided for its proposed renovation. The building is one-story with a partial second floor stepped loft and a full basement. The basement floor is a concrete slab-on-grade. The first floor and loft framing are wood. The roof framing is wood rafters supported by wide-flange steel beams at nine (9) foot centers clear spanning from exterior wall to exterior wall.

US POSTAL SERVICE, NEWTON CENTER, MASSACHUSETTS
Additions and complete renovations to a one-story steel framed building originally used for retail. The addition included new vestibules and construction of a new loading dock. Renovations included several new large openings through the existing brick masonry bearing walls for access into the new spaces. New structural systems are cast-in-place concrete, structural steel, and structural lightgauge metal framing.

US POSTAL SERVICE, ROXBURY, MASSACHUSETTS
Structural retrofits and repairs to the existing loading dock area. The original exterior loading dock wall construction was severely damaged by delivery truck impacts. The retrofits and repairs included removing the existing dock door surrounds and adding new structural steel frames for impact resistance.

US POSTAL SERVICE, STONEHAM, MASSACHUSETTS
Additions and complete renovations to the existing undersized Stoneham USPS. The addition included a 2,500 square-foot, one-story work area off the rear of the original building and construction of a new loading dock. Renovations included three new large openings through the existing brick masonry bearing walls for access into the new spaces. New structure systems are cast-in-place concrete and structural steel.

YMCA - QUINCY, MASSACHUSETTS
This project included renovations to the existing building and a new 14,000 square foot one-story natatorium addition. The structural system is constructed of exposed 4x6 tongue and groove plank supported by wood glu-lam arched girders. The girders are supported by cast-in-place concrete columns. The pool tank is reinforced concrete. The building and pool tank were founded on structural concrete grade beams supported on precast concrete piles. Since the building underwent extensive renovations, miscellaneous structural investigations were conducted.

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