

IN THE CIRCUIT COURT OF KANAWHA COUNTY, WEST VIRGINIA

CHARLESTON AREA MEDICAL  
CENTER, INC.,

FILED

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Plaintiff,

v.

KANAWHA COUNTY CIRCUIT COURT

Civil Action No. 19-C-1259

Bloom

BSA LIFESTRUCTURES, INC.,  
MI-DE-CON, INC.,  
ELCO MECHANICAL CONTRACTORS, LLC,  
CARRIER CORPORATION,  
MASON & BARRY, INC., and  
ENGINEERING ECONOMICS, INC.,

Defendants.

COMPLAINT

Plaintiff Charleston Area Medical Center, Inc. ("CAMC") states as follows for its Complaint against Defendants, BSA LifeStructures, Inc. ("BSA"), Mi-De-Con, Inc. ("MDC"), ELCO Mechanical Contractors, LLC ("ELCO"), Carrier Corporation ("Carrier"), Mason & Barry, Inc. ("MAB"), and Engineering Economics, Inc. ("EEI") (collectively "Defendants"):

PARTIES AND JURISDICTION

1. CAMC is a West Virginia Corporation with its primary place of business in Charleston, West Virginia. CAMC operates healthcare facilities that provide healthcare services in Kanawha County, West Virginia.

2. On information and belief, BSA is an Indiana corporation with its primary place of business in Indianapolis, Indiana. BSA is a multi-disciplinary design practice of architecture and engineering professionals that specialize in providing architecture and engineering services to the healthcare industry.

3. On information and belief, MDC is an Ohio corporation with its primary place of business in Ironton, Ohio. MDC provides construction services to the healthcare industry, including new construction as well as complex renovations and additions to existing buildings.

4. On information and belief, ELCO is a West Virginia limited liability company with its primary place of business in Charleston, West Virginia. ELCO installs and services commercial HVAC systems.

5. On information and belief, Carrier is a Delaware corporation with its primary place of business in Palm Beach Gardens, Florida. Carrier manufactures, installs, and services commercial environmental control systems.

6. On information and belief, MAB is a West Virginia Corporation with its primary place of business in St. Albans, West Virginia. MAB sells commercial HVAC systems and components.

7. On information and belief, EEI is a Colorado corporation with its primary place of business in Golden, Colorado. EEI provides commissioning agent services to healthcare industry clients.

8. Jurisdiction and venue properly lie with this Court because the action involves contracts entered into in Kanawha County, West Virginia, and because the work conducted pursuant to those contracts was performed in Kanawha County, West Virginia.

#### **GENERAL ALLEGATIONS**

9. In March of 2014, CAMC began a renovation and expansion of the CAMC Family Practice Building (the "Facility") in Charleston, West Virginia for the construction of a new ambulatory surgery center (the "Project").

10. The Project required the knowledge and expertise of engineers and contractors experienced with the construction of healthcare facilities, including, but not limited to, experience designing and installing commercial HVAC systems specially designed for use in commercial healthcare facilities.

11. CAMC contracted with BSA to perform design and engineering services on the Project.

12. As part of the design and engineering services BSA was contracted to provide on the Project, BSA was responsible for designing and engineering the Facility's upgraded commercial HVAC system in compliance with CAMC's operational requirements.

13. Due to the expansion of the facility, the Project required the design and installation of a larger HVAC system, including the design, integration, and installation of a new 150-ton cooling tower to augment the Facility's existing 50-ton cooling tower.

14. CAMC contracted with MDC to be the General Contractor on the Project.

15. As part of its contractual obligations on the Project, MDC was responsible for coordinating and overseeing installation of the upgraded HVAC system at the Facility.

16. ELCO was selected by MDC as its mechanical subcontractor on the Project.

17. ELCO's subcontracted responsibilities on the Project included, but were not limited to, the installation and integration of the new 150-ton cooling tower as part of the HVAC system installed on the Project.

18. In connection with the Project, CAMC contracted directly with Carrier to provide and install the building and environmental controls for the upgraded HVAC system at the Facility.

19. CAMC also directly contracted with MAB to supply, among other things, the new 150-ton cooling tower as specified in the design drawings and submittals.

20. CAMC separately contracted with EEI to provide commissioning agent services on the Project.

21. BSA's design of the HVAC system at the Facility was required to meet CAMC's operational requirements, which included routine operation of the building and HVAC system, including cooling towers, in normal Charleston, West Virginia, weather conditions, including without limitation regular ambient outdoor temperatures below 32°F.

22. BSA's design for the HVAC system failed to address and/or meet these operational requirements.

23. In particular, in designing the HVAC system at the facility, BSA's design of the HVAC system failed to consider, provide for, or adhere to reasonable industry standards and recommendations and warnings of the equipment manufacturer for protection of the HVAC system and components from freezing, including, without limitation:

- a. Control sequences-of-operation, control system devices, and piping system to provide automatic drainage of the cooling tower sumps when ambient outdoor air temperatures would fall below 40°F;
- b. Control sequences-of-operation to maintain minimum fluid flow through the closed loop cooling coil to maintain leaving water temperature above 45°F;
- c. Water circulating in the cooling tower closed loop cooling coil and the condenser water loop was not treated with anti-freeze protection, ethylene, or propylene glycol;

- d. Cooling tower closed loop coils were not provided with piping systems and isolation valves that would allow drainage of the cooling coils when the outdoor air temperature dropped below freezing temperatures;
- e. Drainage of the cooling tower sumps required manual drainage and refill as the outdoor air temperature fell below or increased above 40°F;
- f. The condenser water loop was not provided with a heat exchanger to provide isolation between the cooling tower closed loop coils and the condenser water loop.

24. In designing the HVAC system at the facility, including the piping design and control sequences, BSA did not provide appropriate provisions and sequences of operation to drain, operate, and control the cooling towers in freezing conditions.

25. BSA's design drawings likewise did not provide for draining the cooling tower sumps and coils, or for completely isolating the condenser loop from the cooling towers to aid in draining water from the system in freezing conditions.

26. These defects in BSA's design drawings were or should have been apparent to BSA and to the other defendants given their experience and involvement in the industry and with similar systems.

27. Each of the Defendants failed to identify and/or disclose these apparent errors in BSA's design drawings and in project submittals so as to deliver to CAMC a suitably designed and installed HVAC system that would function without defects and was suitable for operation under normal conditions in Charleston, West Virginia.

28. Furthermore, in supplying the new 150-ton cooling tower for the Project, MAB failed to furnish a cooling tower unit equipped with galvanized steel positive closure dampers as described in the Project design drawings and submittals.

29. The lack of the specified closure dampers on the cooling tower unit was or should have been apparent to each of the defendants in the course of their respective design, installation, commissioning and other activities related to the HVAC system at the Facility.

30. Defendants nevertheless failed to identify and/or disclose to CAMC that the cooling tower furnished by MAB failed to adhere to the Project design drawings and submittals and lacked closure dampers as required.

31. Defendants, and in particular BSA, EEI, and Carrier, also failed to provide, or otherwise implement, a sufficient sequence of operations for the HVAC system installed at the Facility.

32. As a result of the Defendants' design and installation defects and errors, and the lack of a reasonable sequence of operations for the HVAC system, as well as the Defendants' failure to timely identify and/or disclose these defects to CAMC, the upgraded HVAC system failed to comply with CAMC's operational requirements and Project plans, specifications, and agreements, the HVAC system failed to function properly and, ultimately, experienced critical and catastrophic failures.

33. These HVAC system failures negatively impacted CAMC's ability to operate the ambulatory surgical center.

34. CAMC contacted Defendants during the fall of 2017 and informed them of routine concerns with the operation of the HVAC system at the Facility. During that time, the defendants

were regularly on site in an effort to address and correct the HVAC system issues so that CAMC could operate the system as intended and expected.

35. Despite these efforts, Defendants were unable to identify the cause of the continuing issues experienced at the Facility or to correct deficiencies in the HVAC system.

36. During a five-day period beginning on December 28, 2017 and through at least January 1, 2018, the outside temperature in Charleston, West Virginia dropped below freezing.

37. As a result of the defective design and installation of the HVAC system at the Facility, along with the improper ECS sequence implemented by Carrier's service technician, the freezing temperatures between December 28, 2017 and January 3, 2018 caused the coolant in the closed loop cooling coils to freeze and the cooling coils to rupture.

38. CAMC notified the Defendants immediately of the initial freeze event on December 28, 2017.

39. Defendants responded and again attempted to correct the failure of the HVAC system that they had designed and installed at the Facility, including on information and belief, implementation by Carrier and/or EEI of an ECS sequence procedure without approval from BSA.

40. During the second freeze event on January 3, 2018, the rupture of the coils caused a catastrophic and complete failure of both cooling towers, rendering the cooling towers, and by extension the Facility's HVAC system, inoperable.

41. The freeze events on December 28, 2017 and January 3, 2017 were the product of continuing defects of Defendants' design, furnishing, and installation of the HVAC system, coupled with the ineffective modifications and manipulation of the controls and lack of a suitable sequence of operations, all of which combined to result in the catastrophic failure of the cooling towers and the HVAC system at the Facility.

42. Following the catastrophic failure of the Facility's HVAC system in January of 2018, and in order to avoid additional interruption of operations at the Facility, CAMC was required to rent portable cooling towers at considerable extra cost in order to have an operational HVAC system at the Facility, as well as additional costs for the design and installation of new HVAC components and equipment to remediate deficiencies in the system designed, furnished, and installed by Defendants.

**COUNT I**  
**Breach of Contract**  
**(Against BSA)**

43. The allegations contained in the preceding paragraphs are hereby incorporated in their entirety as if restated herein.

44. Under its contract with CAMC, BSA owed a contractual duty to perform its services with the skill, care, and diligence of a reasonably professional architect and engineer in designing and overseeing construction and installation of the HVAC system at the Project, and in the preparation and review of drawings, specifications, and submittals associated therewith.

45. BSA further owed CAMC a contractual duty to perform its services in accordance with contractual requirements and CAMC's programming and operational requirements.

46. BSA breached its contract with CAMC by, among other ways to be proven at trial, failing to comply with the requisite professional skill and care and by failing to design and engineer the HVAC system and related sequences of operation and protocols for the Facility consistent with contractual requirements and CAMC's programmatic and operational requirements, including but not limited to appropriate operation of the HVAC system, including the cooling towers, during cold temperatures.



47. BSA further breached its contractual duties to CAMC after installation of the HVAC system and cooling towers by failing to take reasonable action to recommend or design an appropriate fix for the problems experience in the HVAC system, and by failing in its construction administration duties to direct MDC to complete work to address and remediate issues experienced with the installed system and cooling towers, particularly following the first freeze event on December 28, 2017, in order to avoid further damage to the installed HVAC components and cooling towers.

48. At no time was CAMC in material breach of its contract with BSA.

49. CAMC performed all conditions precedent, including payment obligations, required pursuant to its contract with BSA.

50. As a direct and proximate result of BSA's breach of its contract with CAMC, as described herein, CAMC has and will continue to incur damages in excess of the jurisdictional limits of this Court.

**COUNT II**  
**Negligent Design and Administration**  
**(Against BSA)**

51. The allegations contained in the preceding paragraphs are hereby incorporated in their entirety as if restated herein.

52. As the design and engineering professional on the Project, BSA owed CAMC a non-delegable duty to exercise act with the skill, care, and diligence of a reasonably professional architect and engineer in designing and overseeing construction and installation of the HVAC system at the Project, and in the preparation and review of drawings, specifications, and submittals associated therewith.

53. BSA breached its duty of care to CAMC as set forth above and by, among other things, failing to properly design and administer installation and construction of the HVAC system so as to provide for appropriate operation of the system, including the cooling towers, during cold temperatures without damaging the system and its components.

54. BSA further breached its duty of care to CAMC during and after installation of the HVAC system and cooling towers by, among other ways to be proven at trial, failing to identify and/or disclose defects in the equipment furnished to the Project and in the installation of the HVAC system, and by failing to take appropriate action to address and remediate issues experienced with the installed system and cooling towers, particularly following the first freeze event on December 28, 2017, in order to avoid further damage to the installed HVAC components and cooling towers.

55. As a direct and proximate result of BSA's breach of its duty to CAMC, CAMC has and will continue to incur damages in excess of the jurisdictional limits of this Court.

**COUNT III**  
**Breach of Contract**  
**(MDC, Carrier, MAB, and EEI)**

56. The allegations contained in the preceding paragraphs are hereby incorporated in their entirety as if restated herein.

57. Under its contract with CAMC, MDC owed a contractual duty to supervise and coordinate subcontractors and suppliers and to perform its work in constructing the Facility, including the HVAC system, in accordance with plans, specifications, and generally acceptable construction practices.

58. Under its contract with CAMC, Carrier owed contractual duties to CAMC to, among other things, install, monitor, and adjust electronic controls within the Facility for the

HVAC system consistent with plans, specifications, manufacturer recommendations and guidelines, and generally acceptable industry practices.

59. Under its contract with CAMC, EEI owed a contractual duty to employ robust commissioning procedures to enable and ensure the effective operation of the HVAC system consistent with CAMC's operational requirements, as well as to facilitate training of CAMC's staff in order to ensure that the upgraded HVAC system installed at the Facility as part of the Project met and operated within CAMC's requirements.

60. Under its contract with CAMC, MAB owed a contractual duty to procure and furnish equipment that complied with plans, submittals, specifications, and generally acceptable industry practices.

61. MDC, Carrier, EEI, and MAB breached their contractual duties to CAMC as alleged above, and by failing to perform their work on the Project in accordance with the Project plans, specifications, and appropriate industry practices and standards of care so as to permit and ensure operation of the completed HVAC system in accordance with CAMC's operational requirements, including operation of the HVAC cooling towers in cold weather conditions, and by failure to provide appropriate training and/or operation manuals and sequences to CAMC's staff.

62. At no time was CAMC in material breach of its contracts with any of the defendants.

63. CAMC performed all conditions precedent, including payment obligations, required pursuant to the contracts.

64. As a direct and proximate result of the defendants' breach of their contractual and common law duties to CAMC, CAMC has and will continue to incur damages in excess of the jurisdictional limits of this Court.

**COUNT IV**  
**Negligence**  
**(Against MDC, Carrier, MAB, EEI, and ELCO)**

65. The allegations contained in the preceding paragraphs are hereby incorporated in their entirety as if restated herein.

66. Defendants MDC, Carrier, MAB, EEI, and ELCO owed common law duties to CAMC to exercise reasonable care in the performance of their work on the Project in compliance with accepted industry standards and requirements of the Project documents.

67. The Defendants breached their duties to CAMC as alleged above, and by, among other things, failing to review the Project documents and designs for constructability and feasibility, by failing to identify and/or disclose to CAMC apparent defects in the Project documents and designs, by failing to furnish equipment and perform installation work in a good and workmanlike manner and consistent with Project plans, specifications and acceptable industry practices and standards, by failing to appropriately address issues as they became apparent following installation of the HVAC system; and by failing to adequately train CAMC staff or provide necessary operational manuals and/or sequences of operation to permit operation of the HVAC system in accordance with CAMC's requirements and so as to avoid damage to the system.

68. As a direct and proximate result of Defendants' breach of their common law duties to CAMC, CAMC has and will continue to incur damages in excess of the jurisdictional limits of this Court.

**COUNT V**  
**Breach of Warranty**  
**(All Defendants)**

69. The allegations contained in the preceding paragraphs are hereby incorporated in their entirety as if restated herein.

70. In agreeing to and undertaking to provide their respective design, construction, supply, and commissioning services, each of the defendants warranted, expressly and impliedly, that their work would be consistent with applicable industry standards and the Project documents, of good quality and free from defects, and would result in completed work and a Project that would meet or exceed CAMC's programmatic and operational requirements, including requirements for heating and cooling the building in cold temperatures.

71. Defendants breached their express and implied warranties by designing and installing the HVAC system at the Facility in a defective and unworkmanlike manner, in supplying equipment that did not conform with the Project plans, submittals, and specifications, and in failing to perform their work such that the HVAC system could be operated consistent with CAMC's normal operational requirements as described herein, and by failing to correct the defects identified by CAMC within the applicable warranty periods.

72. As a direct and proximate result of Defendants' breach of their warranties to CAMC, CAMC has and will continue to incur damages in excess of the jurisdictional limits of this Court.

#### **PRAYER FOR RELIEF**

**WHEREFORE**, Charleston Area Medical Center, Inc., demands judgment against Defendants as follows:

- (a) Awarding CAMC its actual and consequential damages in an amount to be established at trial as a result of the facts alleged herein and such other facts established at trial;
- (b) Awarding CAMC pre-judgment and post-judgment interest on its damages at the rates prescribed by applicable law;
- (c) Awarding CAMC its costs and expenses in this litigation, including its attorneys' fees, expert fees, and other costs and disbursements; and

- (d) Awarding CAMC such other and further relief as this Court may deem just and proper under the circumstances.

**JURY TRIAL DEMANDED**

**CHARLESTON AREA  
MEDICAL CENTER, INC.**

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