

## Final Conclusions

The Boston University Arena and Recreation Center encompasses a variety of student activities. The hub is used often by students, faculty, and alumni alike. The unique design created an area of energy, pride, and movement. The expansive Arena brings people together from all over to enjoy a sporting event, while the Recreation Center provides a facility for all types of extracurricular activities. Taking this into account, I was able to research and redesign certain elements of the Boston University Arena and Recreation Center building design project.

In my redesign, I have provided new lighting schemes for the Club Room, lobby, gymnasium, and exterior pathways that integrate with the architecture of each space. In each design, I kept in mind the light levels desired as well as the different uses for each space. The electrical requirements for the new lighting design loads were taken into consideration as well as the resizing of the equipment. A copper versus aluminum wire study, energy efficient transformer investigation, and a protection device coordination analysis also has been provided. In addition, this report investigates a new ceiling system in order to improve constructability of the project, as well as a mechanical study taking into account the addition of clerestories.

The Capstone Senior Project has been an invaluable experience. I have learned a great deal about the building design industry and will apply many of the lessons I have learned once I join the trade. The project has taught me that many design issues concern all engineering disciplines and the cooperation between them can create an amazing product.