• Where did our team have success implementing sustainability strategies and seeing them to fruition?
  o Success was really driven by the upfront work in the design and specification of systems, materials, and requirements. That work alongside the dedication to sustainability by Smith as the owner was instrumental to implementation. Efforts implemented prior to execution of the GMP contract between Shawmut and Smith went well.

• What were some of our challenges that may have prevented strategies from being realized?
  o Unwillingness from mfrs & subs to sign the healthy material sheet.
  o Variability of design made it difficult to finalize procurement and purchases. Sustainability efforts or updates to scope after GMP (100% CD issuance), were not as successful.
    ▪ Mafi wood floor was issued in Bulletin 021 for pricing and the work was estimated at a $300K premium. This product was the only one on the market that achieved both LEED and Healthy Building initiatives. Project continued with Stileno oak floors, BOD prefinished. Mafi floors material is more expensive and installation requires a layer of oil installed, then a soap wash.

• What could Smith do differently on future projects?
  o Leveraging spec 012301 Alternates prior to the CM issuing the bid documents (100% CDs) to include materials/systems/requirements identified as potentially cost-premiums could help inform the status of healthier materials’ competitiveness in the market.

• In regards to sustainability successes, what is your team most proud of?
  o Team implemented the use of app.getgreenbadger.com successfully to help organize and track LEED data from subs.
  o Worked through multiple phases of demolition and construction while keeping all waste streams properly tracked.
  o Procured all trades with agreements to achieve the LEED and Healthy Building goals outlined in the project specifications.

• Being a high-profile project funded by a private college facilitated the implementation of the lofty sustainability requirements and selection of various systems and materials that are typically out of reach for most other projects and clients.
  Many examples of leading-edge projects, practices, materials and methods are executed for private institutions with the financial ability to pursue such architecture.
  Using alternates or having a similar ‘baseline’/precedent comparative project may help measure a project’s impact.
    o Use a less expensive rainscreen option or EIFS system instead of limestone and precast.
    o Create multiple design options for pricing. Identify products or systems anticipated to be cost premiums.
    o Implement Integrated Project Delivery contracting methods to bring all parties closer throughout the entire planning, design and implementation/construction process.

• Subcontractors familiarity with product. Epoxy floor example. Many subcontractors represent specific manufacturers/products/systems. The pursuit of new materials and options requires the development of new relationships, discussions regarding exclusivity, performing proper training, etc.

• Toilet compartments design finalization/changes – stainless steel chosen for the full height partitions in the gender neutral rooms = $40K add over HDPE/Phenolic. Stainless was only lead &
red list compliant material.

- The use of metal instead of vinyl to create wall profile details increased difficulty to achieve desired finish, especially at wall base reveals.

- HVAC control wiring included sustainable soy insulation that was attractive to squirrels who chewed through many portions of various systems: $$$. Lessons learned for new material use - protect from pests during construction phase.

- Baswaphon (acoustic ceiling) system is made of proprietary products as an assembly, including vinyl (red list) trims and components. During design specification, architect was under impression the vinyl components could be swapped for metal. During review with the installers and product representatives, it was determined the system could not be used without the vinyl components.

- Salvaged millwork was restored for use in the new Browsing Room.

- Salvaged brick was used as much as possible to restore historical Neilson building.

- Elm tree that was taken down to accommodate new utilities into the building was turned into live-edge furniture pieces in the building.

- Restored original exterior sconce light fixtures for use on front east side entry to Neilson.

- Shawmut worked closely with the local Carpenters, Laborers, and Masons unions who put forth great efforts and helped drive the pursuit of our goals for Women & Minorities in the workforce.
  - Goals = 16% minority and 7% women
  - Achieved 19% minority and 6.9% women