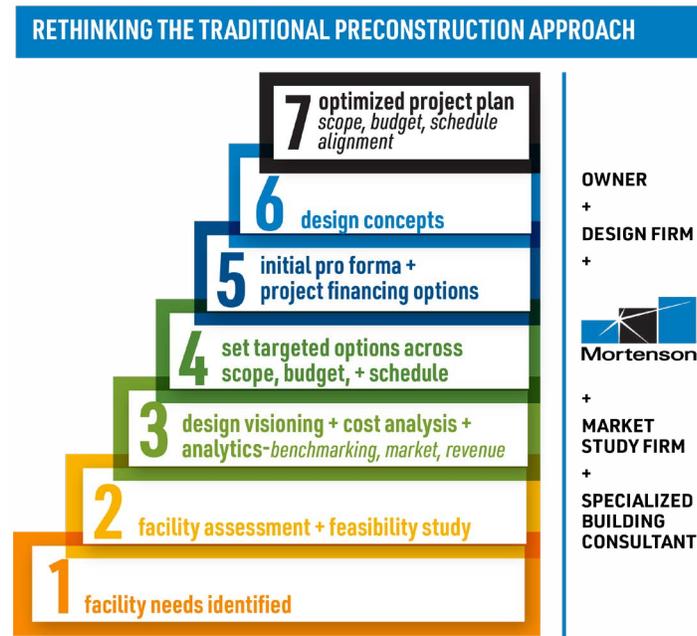
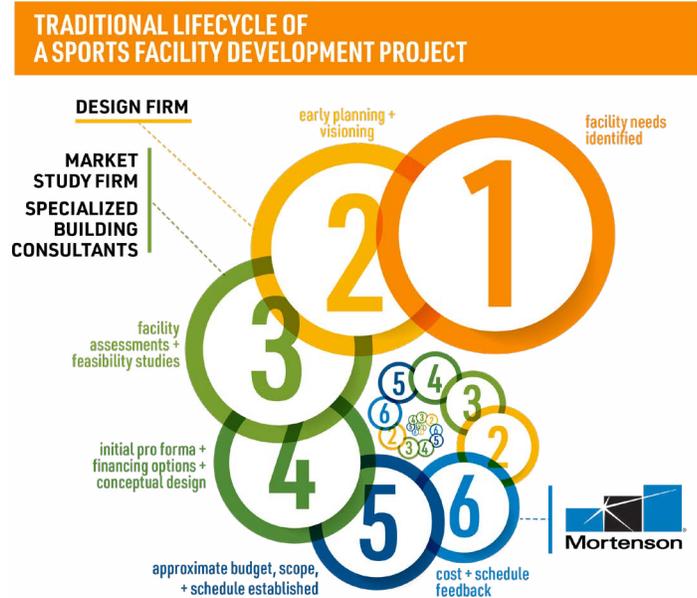


Mortenson’s contemporary approach to data analysis includes a supplemental layer of market data that bridges the gap between feasibility consultants, design firms, and construction partners. As the entity producing the final building product, Mortenson’s ability to connect the “data dots” provides a more accurate glimpse into a facility’s projected performance and return on cost.

RETHINKING THE TRADITIONAL PRECONSTRUCTION APPROACH

Typically, a sports facility development project follows this lifecycle:

1. Needs are identified.
2. Early planning and conceptualization start; a design firm is enlisted to create visionary facility drawings, scope options, and program recommendations.
3. Market study firms and specialized building consultants are commissioned to produce feasibility studies and facility assessments.
4. Creation of initial pro forma and development of project financing options.
5. An approximate budget, scope, and schedule is established; advanced design ensues and more explicit conceptual documents are produced that serve as a foundation for the facility and future design development.
6. Construction management firms are brought into the fold to provide cost and schedule feedback related to the conceptual design documents.
7. Significant gaps exist between customer budget and estimated construction cost(s); steps 2 – 6 are repeated (multiple times in some cases).



Oftentimes, as part of this inefficient sequence, valuable insights acquired during the early portions of work are cast aside in the relentless pursuit of early scope, budget, and schedule alignment. Time is wasted, involuntary changes to the venue are made, and the facility’s future performance potential is compromised.

Mortenson is disrupting the traditional project development approach from the earliest stages of facility conceptualization. Our industry expertise, far-reaching analytics capabilities, and thorough cost data infrastructure position us as an invaluable partner from day one of the development journey. The preconstruction resources and data analytics services we deploy during each sports project mitigate the impractical cycle illustrated above.

SUPPLEMENTARY MARKET ANALYTICS ENSURE PERTINENT FACILITY VISIONING

Mortenson's catalog of market data canvasses every zip code across the United States. With this information, we can analyze and understand statistical data related to an area's population, as well as characteristics that define the business, economic, and consumer environments. In the context of planning a sports venue, the juxtaposition of market attributes, detailed facility benchmarking, and revenue performance data can yield powerful, early insights.

Sports facility data analysis and market intelligence allows for easy identification of outliers, i.e., venues that might not be fully capitalizing on their regional characteristics. The facility could be underdeveloped, leaving money on the table, or their facility could be overdeveloped, having excess square footage and amenities that results in misappropriated construction cost.

Layering regionalized construction cost data across labor, material, and supply chain verticals can ensure designs and expectations are appropriately established. By synonymously considering and comparing a range of variables—from consumer income profiles to the regional cost of installing deep foundations—informed decisions can be made early on that have significant downstream cost impacts.

 Nothing is more cost-effective than that square footage that you don't build.



LOGAN GERKEN,
VICE PRESIDENT, GENERAL MANAGER, MORTENSON



MARKET ATTRIBUTES + DATA ANALYTICS IN ACTION

A recent partnership between an NBA organization, a national sports design firm, and Mortenson, highlight how early collaboration and access to information can help drive alignment on a multi-year arena redevelopment plan.

The team is facing a situation all too common with sports properties: renovate an aging arena or build new? Nested within this question are numerous considerations:

- **Renovation:** To what degree of construction intensity and cost? Fan experience scopes or building systems and back-of-house updates? How many years will the arena's useful life be extended?
- **New Build:** At what size, scope, and cost? What new revenue streams could be unlocked and incorporated into a fresh development? What arena and mixed-use development trends need to be understood and implemented into a new build?

In this approach, the design and preconstruction team unpacked the data with the intent to share and sharpen a dynamic plan as information was uncovered:

- The design team studied the current state of the arena, covering roof-to-foundation details. The firm devised various recommendations geared at updating the fan experience and customer amenities throughout the building.



VARIABLES | *Social, Economic, Demographic, Firmographic Data*

MEASURE	DEFINITION
Population Growth %	Growth/Decline of total population from previous year
Median HH Income	Average annual household income
Median Property Value	Average property value
Purchasing Power Index	Cost of Living Measure; in-market purchasing power of \$100
Fortune 1000 Companies	Number of Fortune 1000 companies (and affiliated operating entities) within market
Professional Sports Teams In-MSA	Number of professional (ticket-selling) sports franchises within market

Mortenson databases an abundance of market-tracking variables that allow for deeper insights into sports real estate planning.

- Shortly after, Mortenson investigated the arena's "guts and backbone" alongside the design firm and industry consultants. Structural, enclosure, and building system components were reviewed—venue upgrade 'absolutes' were identified to ensure the facility could continue to operate effectively over the near-term.
- The team shared ticketing system data with Mortenson so that high-demand products and underutilized areas of the venue could be analyzed and understood.
- In-house market studies were produced by Mortenson as a benchmark of league and market peers and to cross-check various design options.
- The team conducted building studies, data analysis outputs, and cost models to understand next steps given the team's funding options.

A critical element of the analysis included unique insight into social, economic, demographic, and firmographic data for each Metropolitan Statistical Area that serves as a home market to an NBA franchise.

Using the market data, combined with additional factors, a clustering algorithm was applied to establish defined groups of similarly characterized markets. The clusters allowed project stakeholders to understand how their market compared or contrasted to others across the NBA—and served as a barometer to how they should measure themselves against their peers. Within our NBA customer's cluster, detailed peer arena analysis was produced to highlight venue differences and areas for opportunity. Past renovation work—and following years performance—of the cluster set were measured, and stakeholders were able to understand how various renovation options in similar markets impacted the businesses' bottom line.

Interested in learning more about how data analysis can help your next sports facility construction project?



Get in touch with our sports facility experts to discuss your project!

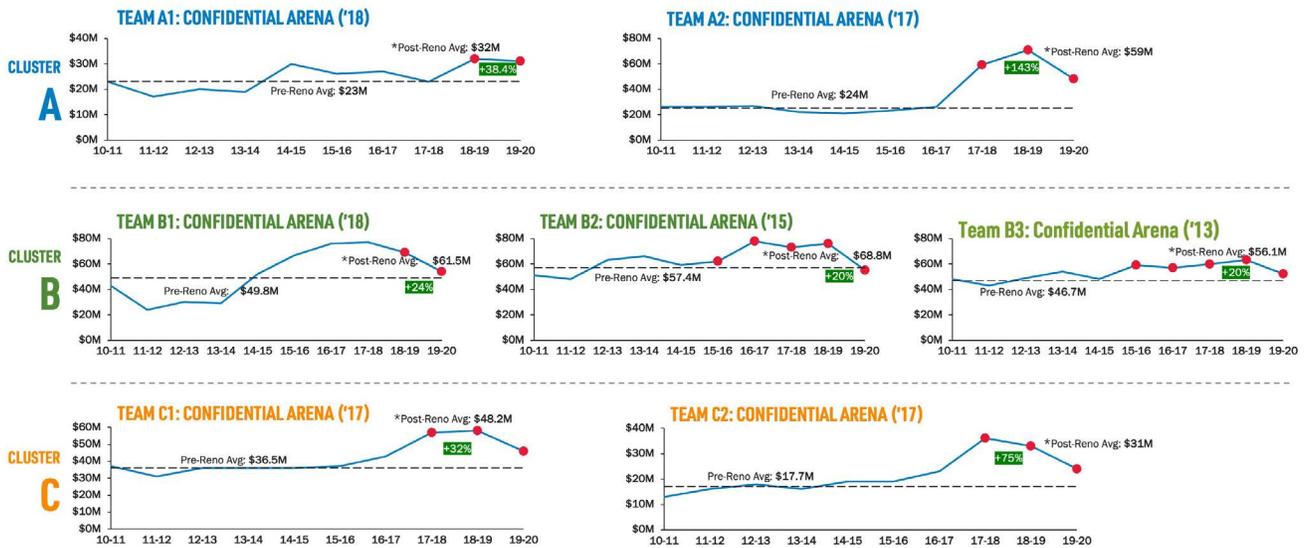
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NBA FACILITY REVENUES FROM TICKET SALES: PRE-TO-POST RENOVATION PERFORMANCE

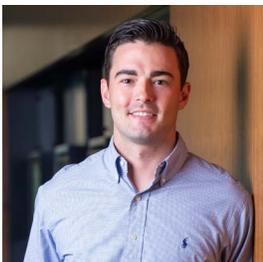


Gate receipt data, across recently renovated arenas, showcases before/after revenue performance of projects (note: '19-'20 performance impacted by COVID-19 shortened season).

DATA AS THE ULTIMATE PARTNER

The missing connection between feasibility studies and market analyses poses huge blind spots in the sports facility planning process. In order to achieve optimal facility programming, venue characteristics need to tie into how the venue sits within a certain market, and how the market and venue compare to others. We provide the missing link that helps bridge the gap between traditional feasibility studies and studies around existing facilities.

Our deep sports expertise and decades of sports facilities projects have allowed us to gather rich data and make sound programming and venue decisions with our customers. Through this process, we strive to build a relationship of trust and understanding, so that at the end of the day, customers know that we're dedicated to deploying their capital as efficiently and effectively as possible, maximizing the value of the program.



Jack is a business development manager within Mortenson's Sports + Entertainment group specializing in analytics. Jack is responsible for building, managing, and leveraging Mortenson's rich ecosystem of data resources throughout the development, preconstruction, and operational phases of our sports projects.