SKATING ON THIN ICE:
WHAT THE OLYMPICS TAUGHT US ABOUT THE DESIGN PROCESS

(4-minute read)

By: Ethan Beauchamp

Ice hockey is fully underway at the 2026 Milan-Cortina Olympic Games. Men and women are competing for medals at two different arenas: the PalaItalia (also known as the Milano Santa Giulia Ice Hockey Arena) and the Fiera Milano (known as the Milano Rho Ice Hockey Arena).

Before the Games began, much attention surrounded the PalaItalia. Uncertainty about its completion was widely discussed in the hockey community, with representatives from various professional leagues unsure whether it would be ready in time to host the Olympic games.

Ground broke in 2023, with completion initially expected before the Games. However, delays and technical issues put that into question. Several key milestones were missed and on-ice tests encountered problems. One test game was even halted after a hole formed in the ice. The mounting issues raised doubts about the arena's total completion, reliability, and performance for the 2026 Olympics.

These delays highlight the importance of following each step of the design process. Every phase, from concept to construction, plays a vital role in ensuring a building is functional, safe, and ready for use. Creativity drives great design, but success depends on how well teams progress through each stage, resolving issues early and maintaining clear coordination from start to finish.

Most projects move through a well-defined sequence of phases from design through construction. Navigating these phases properly helps ensure a successful outcome. These core phases include Pre-Design, Schematic Design, Design Development, Construction Documents, Bidding, and Construction Administration.

Pre-Design is an introduction phase in which the design team meets with the client, becomes familiar with the site and its conditions, and identifies the project's overall goals. Understanding the client's needs is the primary objective at this stage.

Then comes Schematic Design – the point where design truly begins. Working within codes and regulations, designers start transforming ideas into conceptual layouts that meet the owner's requirements and expectations. Nothing is final at this stage. Designs and needs can evolve. This phase is the best opportunity to refine ideas early to help a project stay on schedule and budget.

Next is Design Development when plans begin to take shape. The project's vision becomes more concrete as designers and clients begin to settle on a single direction. At this point, additional disciplines are often brought in to integrate mechanical, structural, and electrical systems.

The Construction Documents phase follows and is one of the most important. Here, designs are finalized and translated into detailed documents that construction teams can use. Once complete, these documents are submitted for permits and code review.

We are then on to the Bidding phase. Here, contractors receive and review the documents, then submit estimates that designers and owners evaluate before awarding a contract.

Construction Administration is finally where design becomes reality. The design team stays involved to answer questions, review progress, and ensure

construction aligns with the documents. They verify materials, issue clarifications, and track milestones such as structural completion and system installation to maintain the project's quality and intent.

No matter the project's size or budget, following each phase of the design process is key to bringing a building to life. The PalaItalia's challenges are a good reminder of how important it is to move through each step carefully to make sure everything works as intended. Careful planning and adherence to each project phase can mean the difference between a venue that opens confidently on time and one that risks overshadowing the very event it was built to celebrate.

Ethan Beauchamp is an Architectural Designer at NUTEC who brings his passion for design and hockey to everything he does. When he is not playing in a local league or cheering for the Philadelphia Flyers, you might find him modeling hockey arenas in Revit – proof that his love for the game extends well beyond the rink.