Grandview Heights Aquatic Centre contains recreational and world-class Olympic pool facilities beneath the world's longest span timber catenary roof system.

The City's desire for an "iconic" destination pool to entice families, athletes and international competitions drove the design for Grandview Heights Aquatic Centre.

Through close collaboration with the client and diverse user groups, we arrived at a design that maximized glazing towards the street, activating the project edge and blurring lines between interior and exterior spaces.
Site Context

The site is located in Surrey, BC, Canada, the second largest city in the province. As one of the fastest growing cities in the region, public facilities are facing increasing demand.

The City of Surrey initiated a master planning study which consists of staged rezoning and redevelopment of the area to include a mix of low and medium density housing, enhanced road networks, pedestrian and bicycle routes, and the development of public facilities that will serve as civic nodes to support growing communities. Grandview Heights Aquatic Centre is the first stage in the realization of this master plan.
Main Level Plan

1. Lobby
2. Viewing Area
3. Administration
4. Cafe
5. Classroom
6. Universal Change
7. Women's Change
8. Men's Change
9. Leisure Pool
10. Hot Tub
11. Lap Pool
12. Sauna
13. Steam
14. Retractable Seating
15. Storage
16. Water Slide
17. Spring boards
18. Dive Tower
Second Level Plan

1 Fitness
2 Lobby
3 Lobby (open to below)
4 Mechanical
5 Seating
6 Timing Room
7 Dive Tower
8 Water Slide
Apart from the material efficiency of the roof structure, the building volume created by the suspended roof is 20% less than that of the truss roof, making it that much more efficient to heat and cool.
The roof is dynamic, moving independently from the vertical structure.

Because the roof is hanging in suspension, its structure allows for a certain amount of deflection under snow loads and wind uplift.