

ITO-ECO BIOCLIMATIC RESIDENCE

COUNTY OF WARNER, ALBERTA, CANADA

072814 | 1402

PROJECT DESCRIPTION

Project Type:
High Performance Bioclimatic Residence (Passivehaus Target)

Client:
Ryan Ito & Karen Harrington

Budget (CAD\$):
Withheld

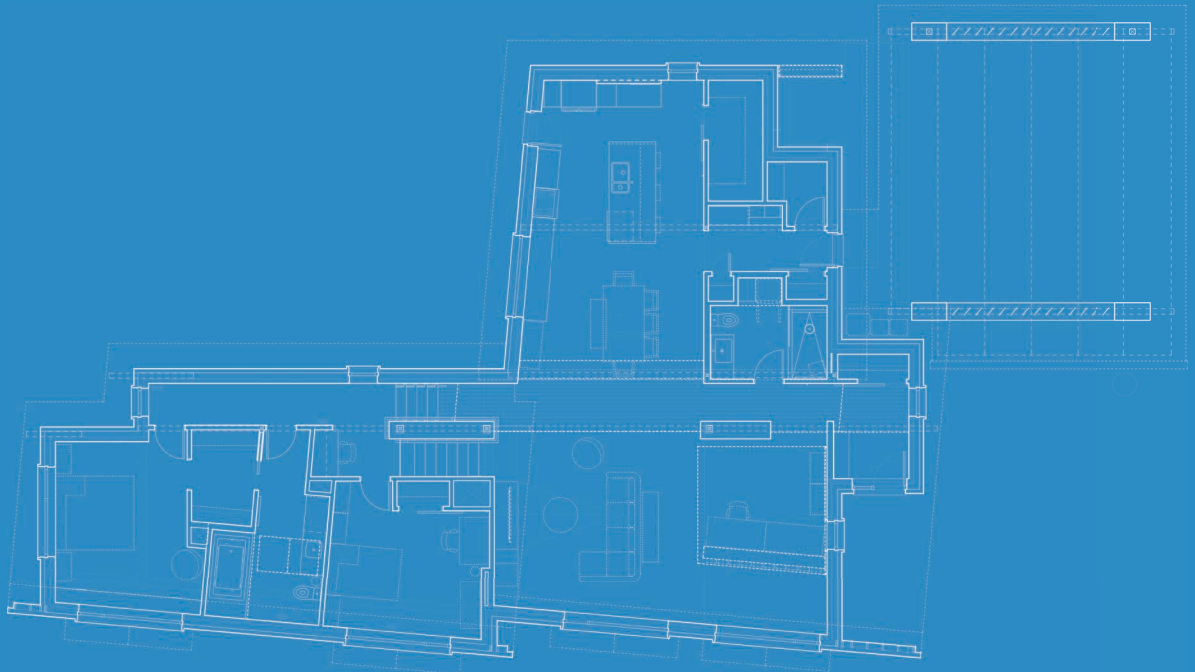
Size / Program:
+/- 2,204 sq. ft. / 204.8 sq. m. (not including crawlspace or porte cochere areas)

Building Design / Engineering:
010110 | Architecture + Urbanism with Crosier Kilgour & Partners, Sigma Rho Squared Engineering, Sunwise Engineering & SMP Engineering

Services:
Architecture, Performance Based Design Analysis (Sefaira Architecture), Construction Administration

General Contractor:
TBD

Project Date / Status:
2014+ / Tender Stage



Main Floor Plan

The architectural outcome will provide a super-insulated, air tight, passive-solar residence that performs at or near net-zero energy annually.

PROJECT SUMMARY

Steadily since the 1960's, single family homes have vastly expanded in program area while the average family size has decreased. Settlement patterns of the last half century have consumed vast land resources by means of carpet suburban developments planned at low densities with no long term ability to support existing or new transit and infrastructure systems. This form of ex-urban development does so at great municipal subsidy through taxation that borrows endlessly from the future.

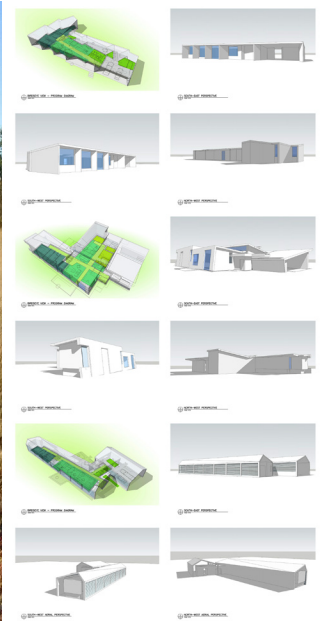
Furthermore, the trend of suburban North America continues to rely heavily on active mechanical and electrical systems to provide comfortable indoor environments across all climates. This unsustainable model of development ignores less active approaches to environmental design and consumes vast amounts of energy provided by highly refined finite fossil fuels.

010110's brief to design an ecologically sensitive environmentally conscious residence for a family of three will challenge convention through its climate specific design, needs apportioned footprint and by taking strict advantage of the sustainable design opportunities available on site in an attempt to turn constraints into long-term advantages.

The project objectives focus on goals that first scrutinize a family's real needs and capitalize on proven strategies to layer functions and do more with less while creating flexible program relationships. The project evaluates necessity in a way that continues to respond to 21st century living in a world lifestyle proving to be less and less sustainable.



Photograph of the Prairie Site and Three Dwelling Concepts



Spencer Court

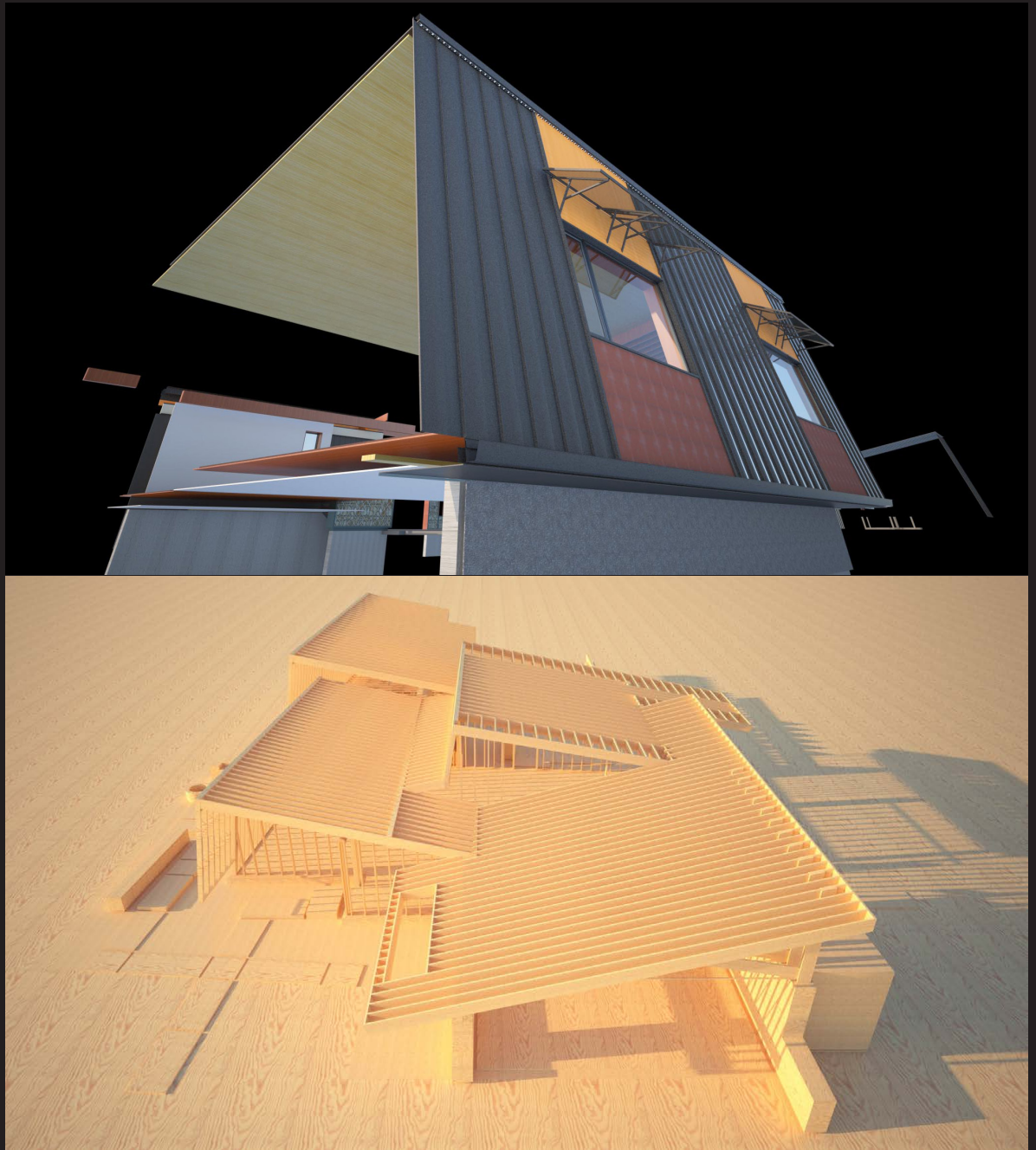


Michael Chu



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Conceptual Form & Framing Layout (Schematic Design Stage)