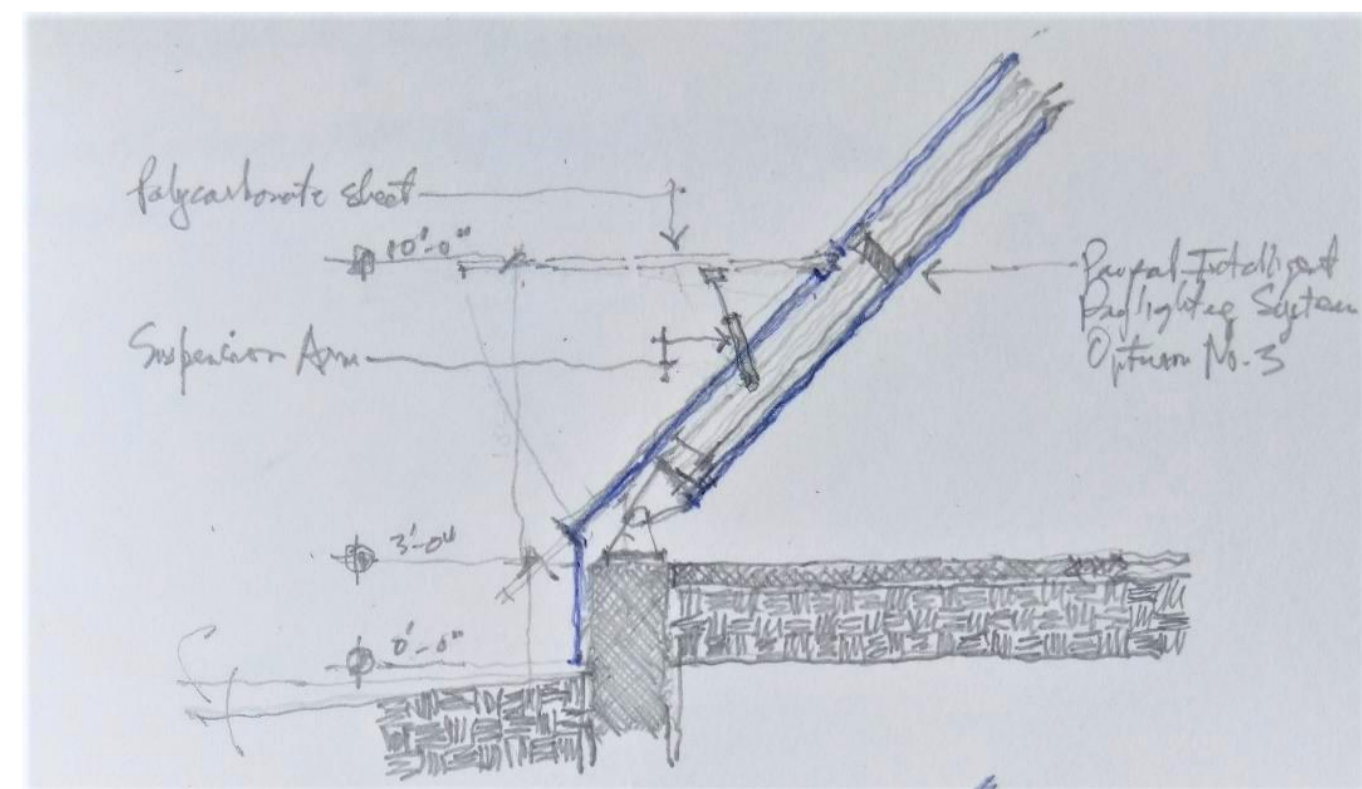
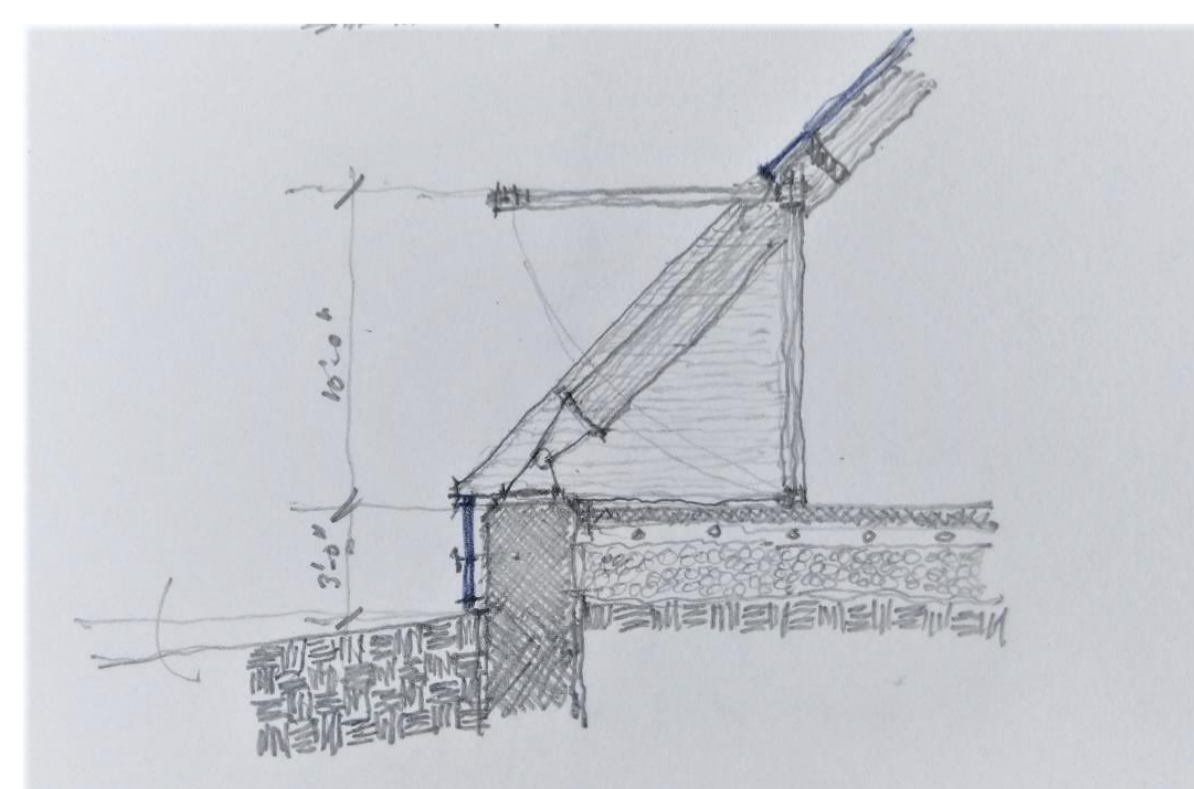


**SECTION MKD. A.A**

Polycarbonate is capable of withstanding harsh exterior environment and offer multiple advantages. The panels have greater impact resistance, protection against yellowing and optical clarity, excellent load ratings, and the highest resistance to wind uplift. Control of heat gain can be achieved using glazing materials which are designed to influence the nature and quantity of transmitted light. Some products are available in bronze and opal white tinting and are both effective for solar control, reducing glare by diffusing incoming light and reducing heat gain. The innovative development in polycarbonate sheeting which limits heat buildup through the sheet while transmitting light is ideal in any situation where natural light is required but excessive heat buildup can be a problem.

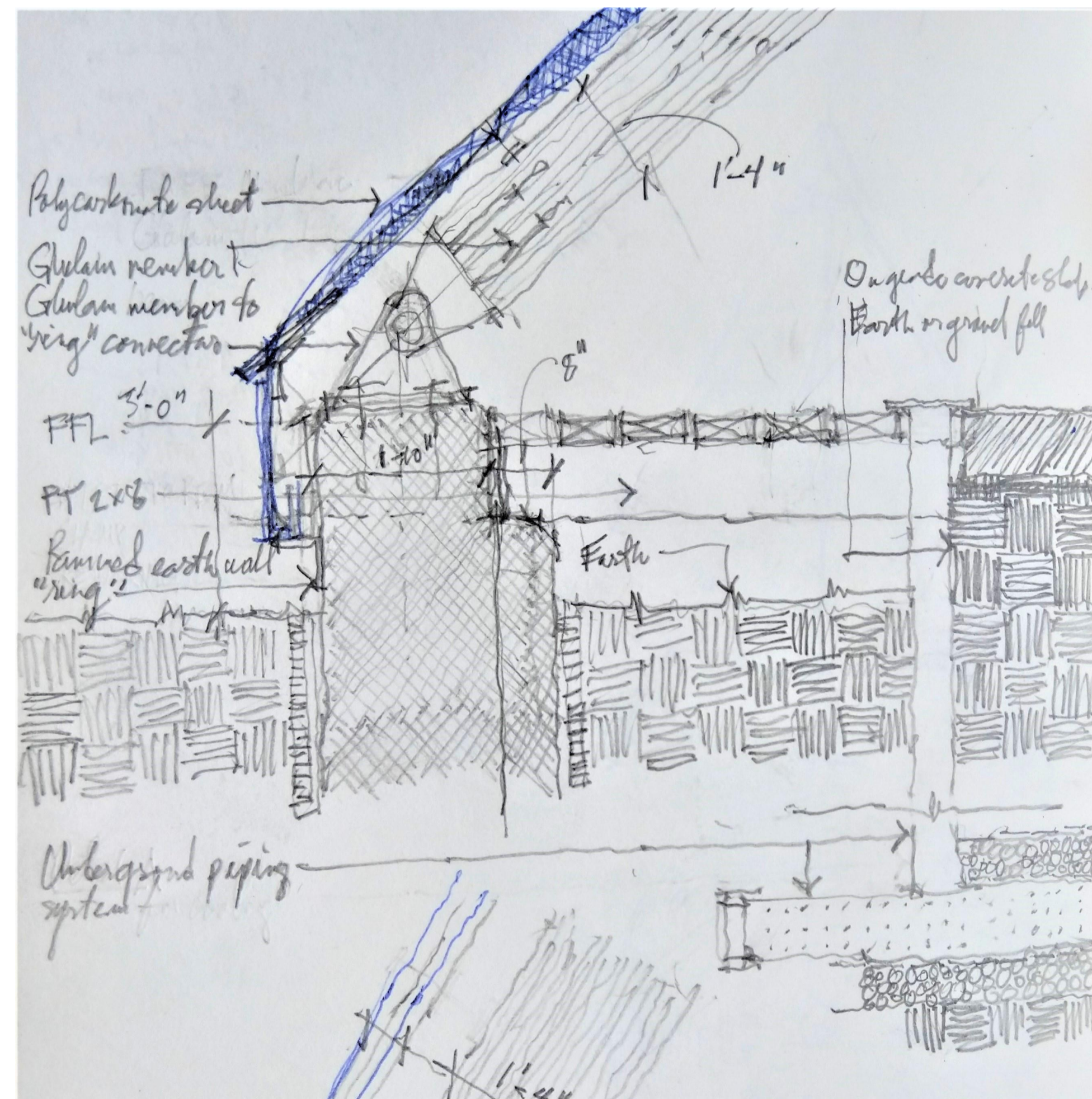
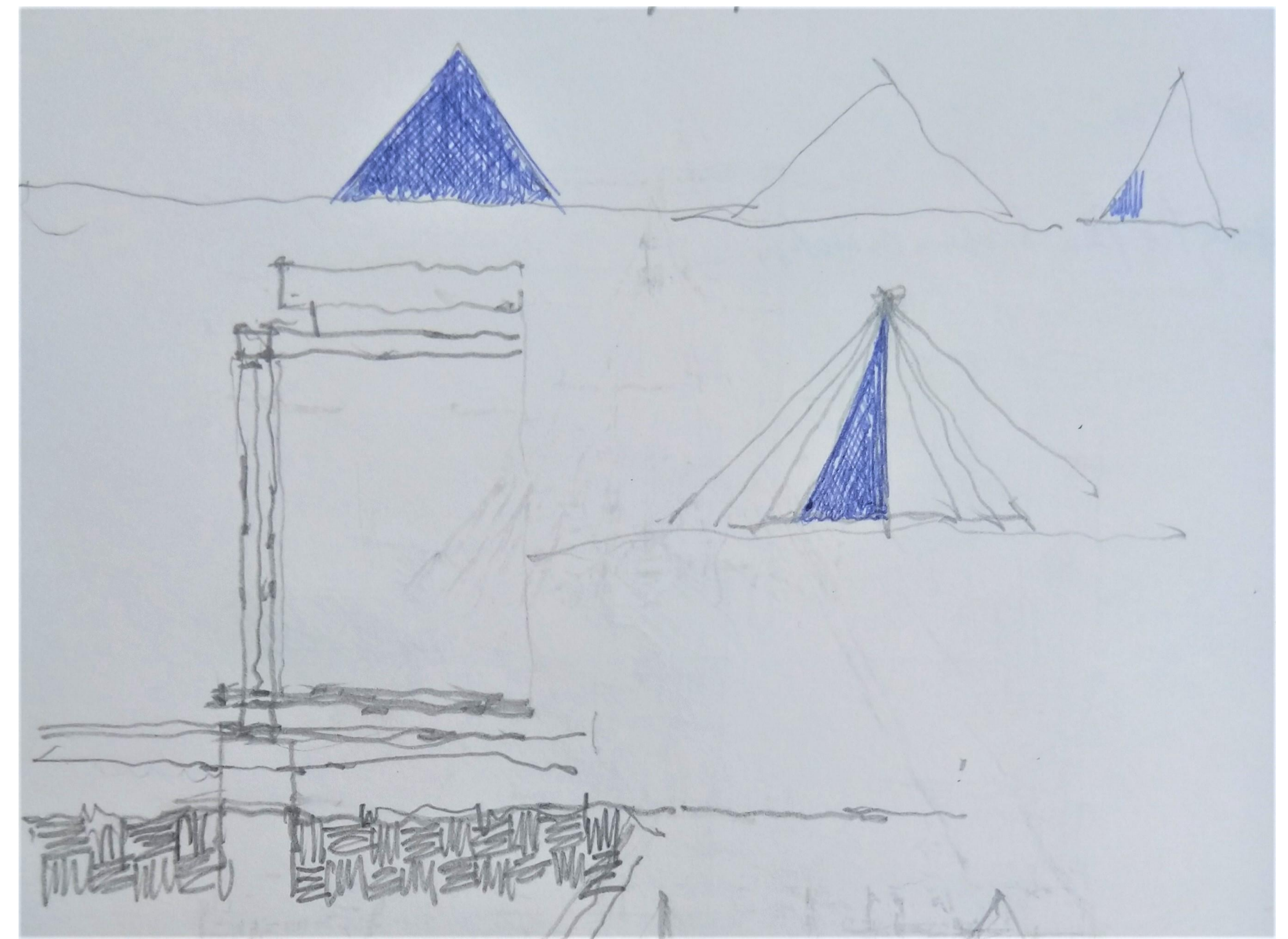


**AWNING WINDOW OPTION NO. 1**

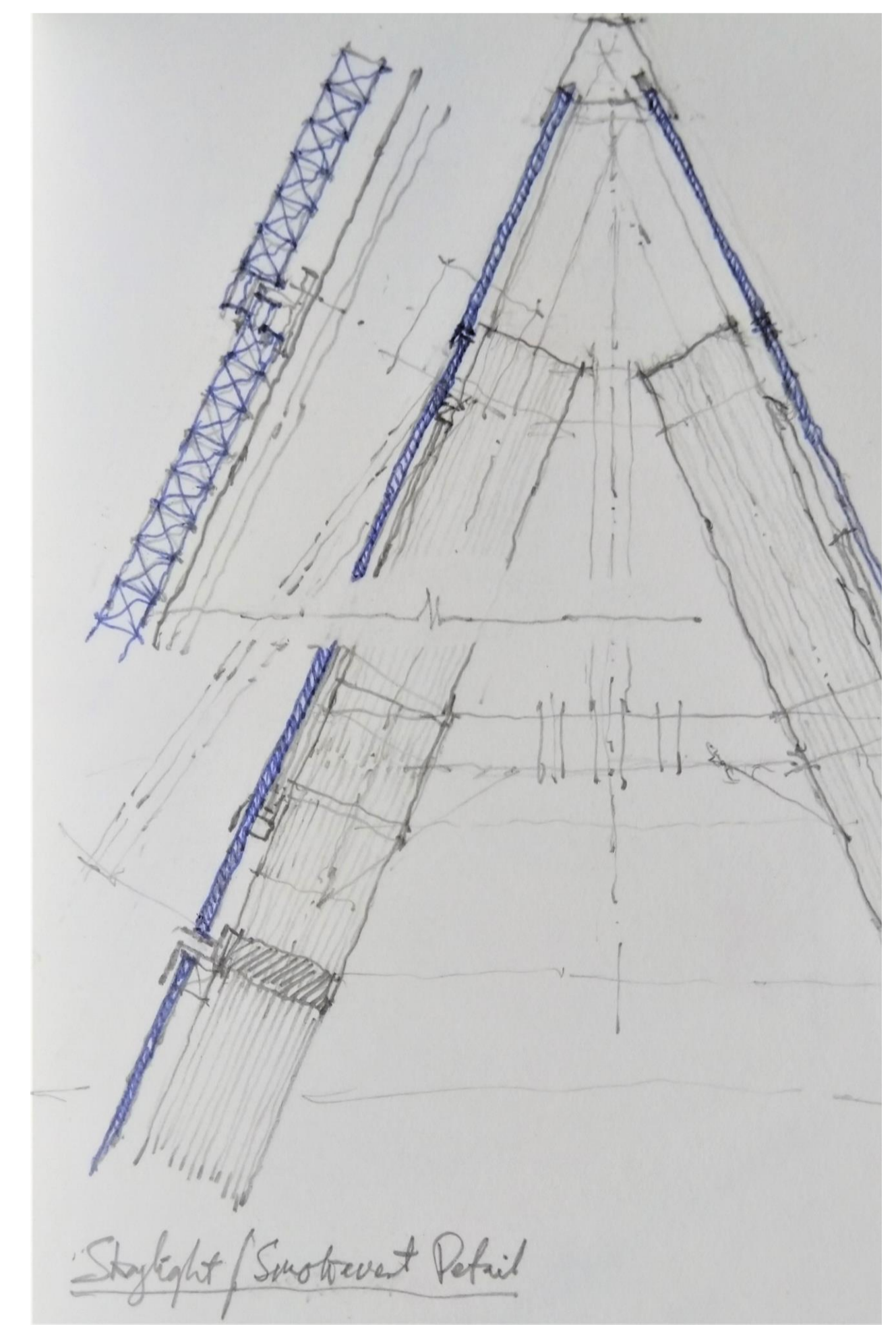


**AWNING WINDOW OPTION NO. 2**

Great thermal insulation is ensured by the presence of airgaps inside the panels. In order to improve the thermal properties of the component, the gaps can be filled with argon gas or granular silica aerogel. The synthetic porous gel is up to five times more effective than traditional insulation materials while being industrially robust across a broad temperature range in a space-saving, easy-to-use form, making it the most efficient industrial insulation on the market. It is also the world's lowest density solid and most effective thermal insulator which at a pressure of one-tenth of an atmosphere, has an R-value of R-20 per inch of thickness, compared to R-3.5/inch for a fiberglass blanket.



**DETAIL 1 - SECTION THROUGH FOUNDATION WALL**



**DETAIL 2 - SKYLIGHT/SMOKE VENT**

The GLULAM members are anchored to a 3'-0" tall rammed earth wall or "ring" with a diameter of approximately 52'-0", comprised of a mixture of local aggregates (abundant on site), including gravel, sand silt and clays. The low impact "ring" ought to play multiple roles, which are to keep elevated the finished floor of the interior considering the possibility of flooding, store heat, keep out insects, and provide a smooth and sound surface to anchor the Glulam beam to ring connectors and attach the polycarbonate sheets.