

# Panel House in USA

The design intent is to create a series of angled walls and reveals in the side elevations in order to provide for view corridors down the side yards to the ocean. The space between the tapered walls is used for pivot windows, which allows for the modulation of the natural prevailing breezes through the house.

Two issues arise from having such a transparent west facing façade, the need for increased privacy, and implementation of solar modulators. A system of aluminum louvers was designed to combat both issues, minimizing the solar gain and providing the desired privacy.

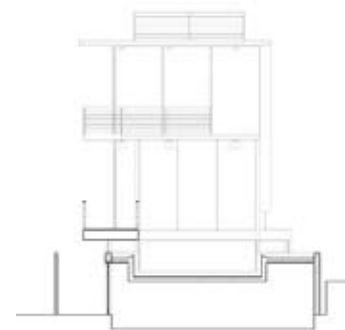
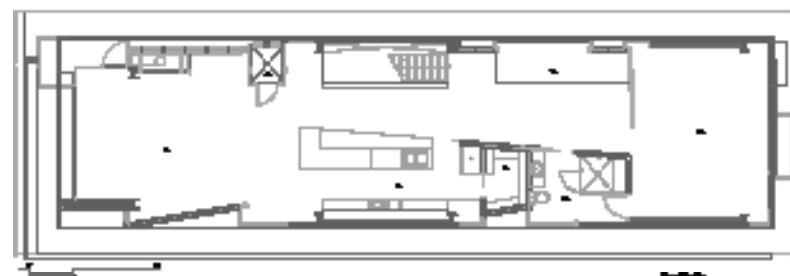
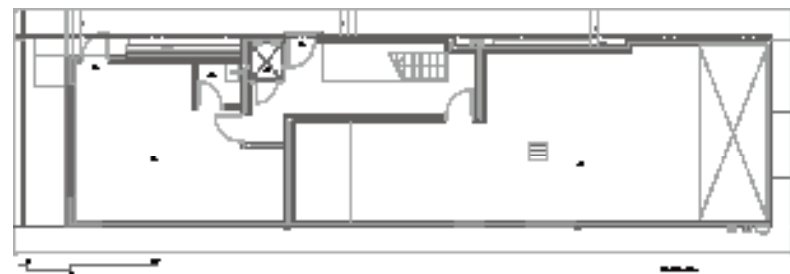
In addition to stairways, vertical circulation is addressed through the use of a glass pneumatic elevator. The elevator is the quickest and easiest access to the rooftop where there are photovoltaic panels, solar panels and a never-ending pool. Space is tight on this narrow lot, and requires the use of every available surface to achieve the sustainability, functionality and the desired quality of life.

本案旨在建筑立面上打造一系列呈角度墙体和外墙与门窗之间的门 / 窗侧，以便于形成观景走廊，欣赏海滨美景。锥形墙之间位置被用于安装中悬窗，这样的设计可以调节穿过空间的自然风量。

住宅西侧的透明设计引起两个问题：其一是如何提高住宅的私密度；其二是如何安装太阳能调制器。于是，建筑师设计了一个铝制百叶窗系统，令以上两个问题迎刃而解。该百叶窗系统不仅可以将室内光照最小化，还可令空间更加私密。

除了楼梯外，Panel House还拥有一个玻璃气动电梯，人们可以用最快的速度 and 以最便捷的方式通向屋顶。屋顶安装着光电板、太阳能板和一个水池。因为空间相对紧凑，建筑师必须充分利用每一处可以利用的表面，以得到一个集可持续性和功能性为一体，同时可以为房主提供理想生活质量的住宅空间。

Name of Project / 项目名称:  
Panel House  
Location / 地点:  
Venice, California, USA  
Completion Date / 竣工时间:  
2006  
Architecture / 建筑设计:  
David Hertz Studio EA  
Landscape / 景观设计:  
Thomas Ennis  
Interior Design / 室内设计:  
Thomas Ennis  
Photography / 摄影:  
Juergen Nogai  
Client / 客户:  
Thomas Ennis







The solar system comprised of 14 south-facing Photovoltaic panels and an inverter, production 2.3 KWH of energy per day – sending energy back to the grid. Solar collector provides hot water. Louvers are used in shade applications as blinds and window coverings to direct views as well as minimizing solar gain.

Automated skylights for natural ventilation control – programmed on set point thermostatic and humidistat control. Pivot windows are controlled manually to modulate airflow from the ocean – opening up the house to the prevailing breeze for natural ventilation. Staircase acts as a solar chimney, and the hot air rises through the open space and exits at the top through the skylight.

High performance pre-fabricated manufactured refrigeration panels are used to create the exterior walls. The panels are coated with aluminum sheets, which is the final finish for both the interior and exterior. There is no wood framing in the house. FCS certified walnut cabinetry and counters are used in the kitchen and bathroom.

太阳能发电系统由14片朝南放置的光电板和一个逆变器组成，该系统每天可以产生2.3千瓦时电能，并将剩余能量重新发回到电网中。太阳能集热器解决了住宅的热水供给问题。百叶窗的使用不仅可以保护室内隐私，同时可减少光照度。

自动天窗用来控制自然通风，进而调节室内温度和湿度。房内还装有可以手动控制的中悬窗，用以调节来自大海的气流，令空间获得更为自然的通风。室内楼梯间可以起到烟囱效应，引起空气对流，令热气上升并通过天窗排出。

预制高性能制冷板被用于创建建筑外墙，这些制冷板表面均镀有铝片，作为室内、外空间的最终饰面。出于防火性能考虑，住宅内未采用任何木质框架。厨房和浴室所用的胡桃木家具和柜台全部经过FCS认证。

