POLTAVA IN PINE FOREST

program: custom home, landscape preservation

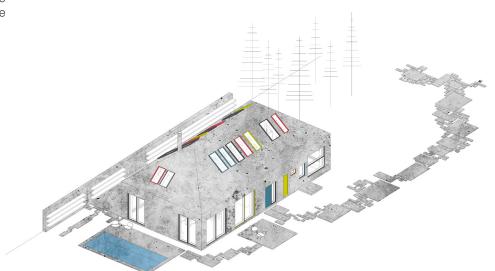
location: Poltava, Ukraine

basics: recycling & readapting of CDW

area: 221 sq.m. year: 2017 - 2019

in team with: -

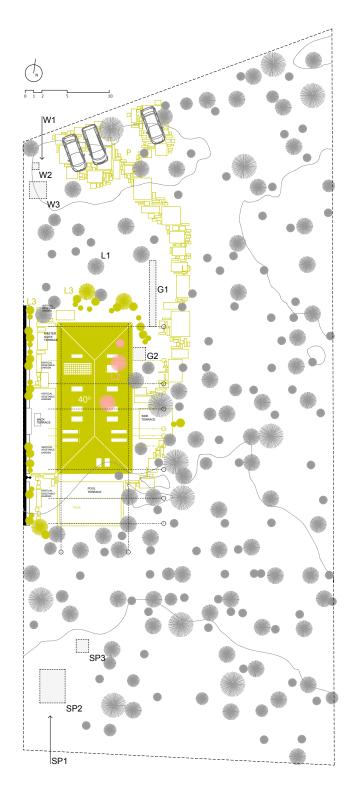
The house is oriented on inside - family, slow lifestyle, healthy climate - and outside - forest, preservation of landscape, living in harmony with nature, minimal environmental footprint. The design provides a spacious but compact space for 4 members family with natural ventilation, heating and cooling through inner gardens. The design adapts recycling and reusing of reclaimed materials and construction and demolishment waste (CDW) to reduce the environmental impact. The possibility to use salvaged windows, doors and glazing systems is harmoniously implemented into minimal and ascetic design, both inside and outside, as well as into resilient architectural assembly. The house is located in the old pine forest that allows a little light to come through. The maximum amount of existing trees have been preserved. Dark building envelope secures light absorption and reduces heating through cold winter months. At the same time, the house is protected from the summer heat by the high pine tree forest. Vertical vegetable garden is located in the most exposed to the sun area.



INTEGRATION OF THE BUILDING INTO LANDSCAPE PRESERVATION OF THE LANDSCAPE

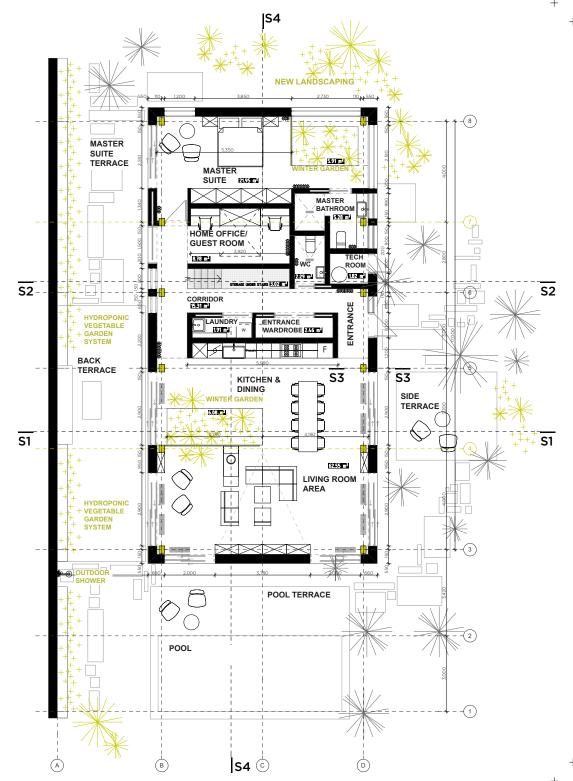
SITE PLAN & ROOF PLAN

- P Parking spot for 2-3 vehicles
- W1 Access to water tank pump and water storage tank
- W2 Water pump
- W3 Water storage tank
 L1 Existing landscape and greenery
 L2 Sacrificed landscape
- L3 New landscaping
- L4 Hydroponic vertical vegetable garden G1 Geothermal field
- G2 Geothermal pump and well
- SP1 Access to septic system
- SP2 Septic field SP3 Septic pump



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GROUND FLOOR PLAN. SCALE 1: 150



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+ 2ND FLOOR PLAN. SCALE 1:150

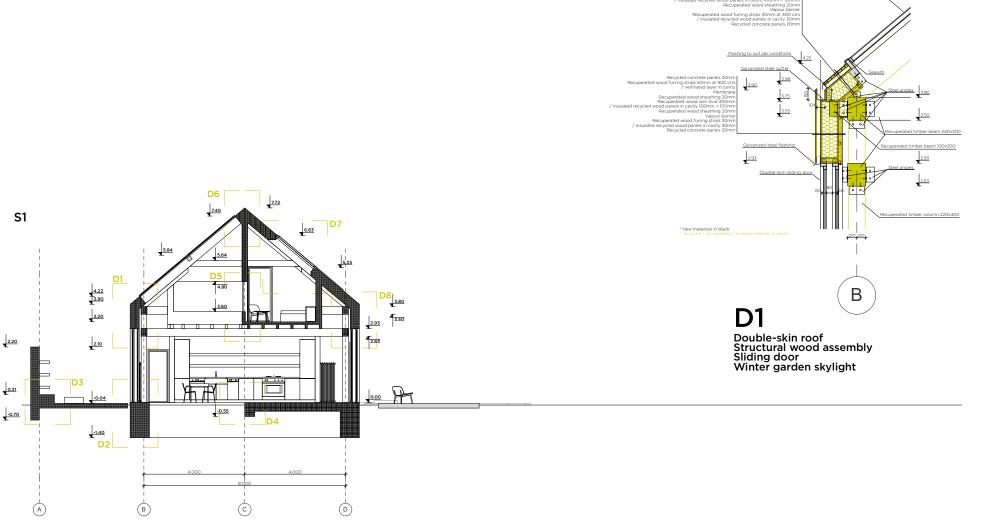
S4 OPENCY WANDON WA **S2** --6 **S2** BEDROOM 1 <u>S3</u> **S3** BEDROOM 2 S1 S1

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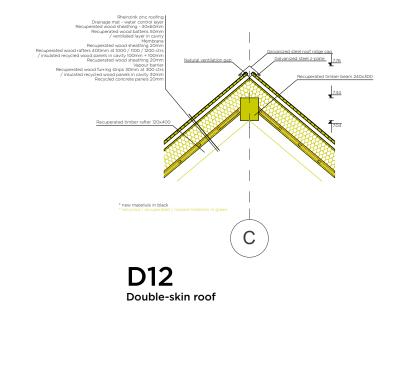
SECTION 1-1. SCALE 1:150 DETAIL 1. SCALE 1:50 -

Double glazed skylight per specs



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+ SECTION 2-2. SCALE 1 : 150 DETAIL 12. SCALE 1 : 50



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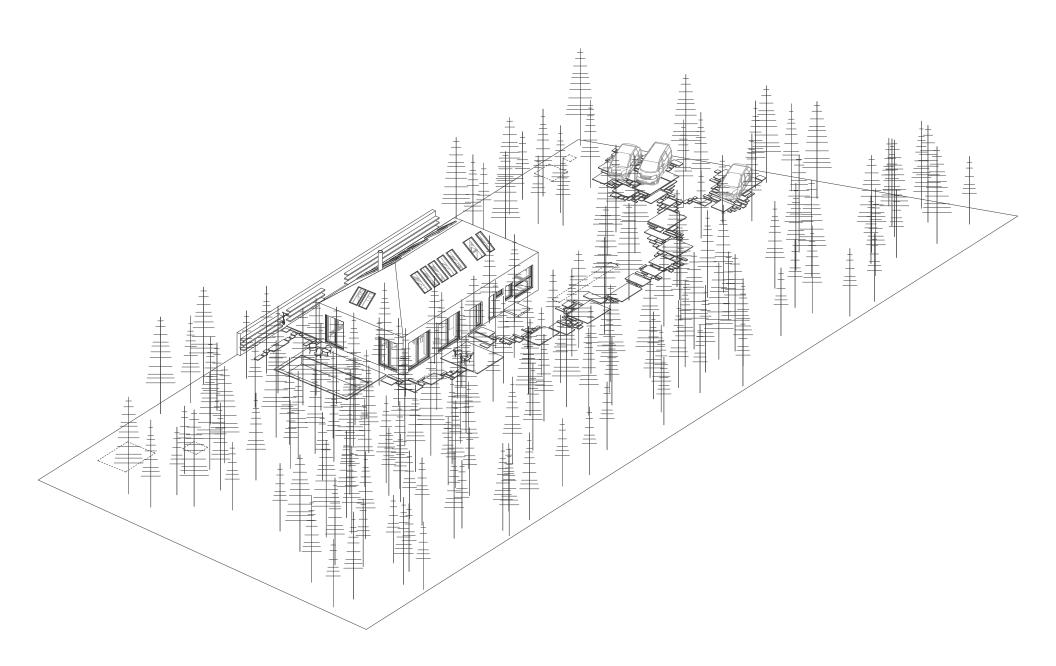
SECTION 3-3. SCALE 1:50

Rain water management inside building envelope

* new materials in black Phenozink Zinc roofing
Draitoge mat - water control layer
Draitoge mat - water control layer
Recuperated wood batters 50mm
/ yeeritaked layer in cavity
/ yeeritaked layer in cavity
/ resultated layer in cavity
/ resultated layer in cavity
/ resultated layer in cavity
/ resultate respected wood parels in cavity 100mm + 100mm
/ resultate respected wood parels in cavity 100mm + 100mm
/ resultated layers of water layers
/ resultated respected wood parels in cavity 30mm
/ resultated recycled wood parels in cavity 30mm
/ result Flashing to suit job conditions Galvanized steel gutter 2.68 Recuperated timber column 220x300 Recycled concrete panels 20mm clashvarzed steel downspout Recuperated wood sheathing 20mm Recuperated wood sheathing 20mm Recuperated wood parels in cavity ID0mm + ID0mm // resulated recycled wood parels in cavity ID0mm + ID0mm // resultated recycled wood parels in cavity ID0mm + ID0mm // resultated recycled wood parels in cavity 30mm // resultated recycled wood parels in cavity 30mm Recycled concrete panels 20mm Recuperated timber column 220x300 Flashing to suit job conditions Concrete catch basin Divider strips O.01 Galvanized steel parging / flashing
Dimpled membrane
Elastomeric spray applied waterproofing
Rigid insulation 30 mm
4-0.21 Vapour barrier Dimpled membrane Elastomeric spray applied waterproofing Rigid insulation 30 mm Vapour barrier Concrete foundation wall Elastomeric spray applied waterproofing Anker connection Terrezzo flooring - 20 mm / divider strips at column bases Bonding concrete agent - 80 mm Vapour barrier Rigid insulation - 100 mm / utilities tracing in cavity Concrete slab - 150 mm kg mane Compacted fil - min. 200mm Compacted fill - min. 100mm

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