

winner ACSA Faculty Research and Design Award 2008

PROJECT

LOW COUNTRY LINE HOUSE

TYPE

NEW CONSTRUCTION

LOCATION

GORDON COUNTY, GA

DATE

2009

This project examines the influence of material on architecture through the Low-Country Line House in North Georgia. This project illustrates how a vernacular material and building construction influences design. Examining the influence of: form, cost, methods of construction, fabrication of product, installation of materials, structural and aesthetic performance, ecological and sustainable impact, and spatial/light/visual impact this project provides an analytical process for the implementation of the potential of a material. The Low Country Line house emerges from the climatic conditions of a rural north Georgia site. Desiring to have a limited impact on the landscape and be a self-sufficient building, the project sits lightly and responds formally and materially to environmental conditions. As an adjustable machine, the house operates to regulate use and performance. This project emerges from a sensibility founded in material celebration. It works within the guidelines of a material's performance, modularity, structural capabilities, formal presence and emotive power to produce an architecture that is of a material. As a case study it represents a material methodology founded in architecture of material influence.



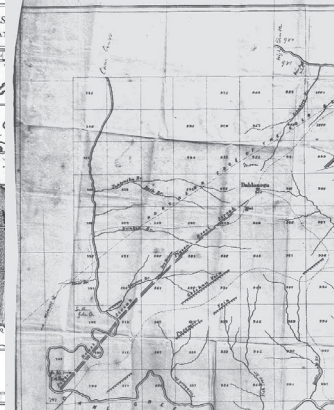
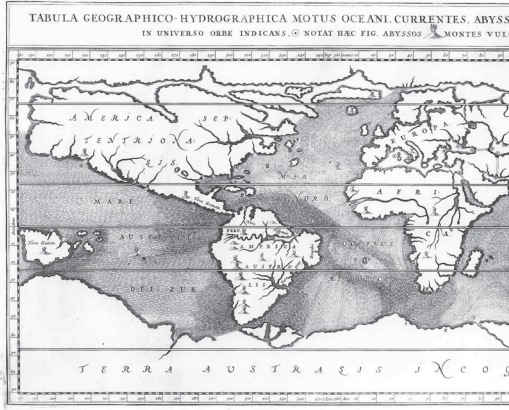
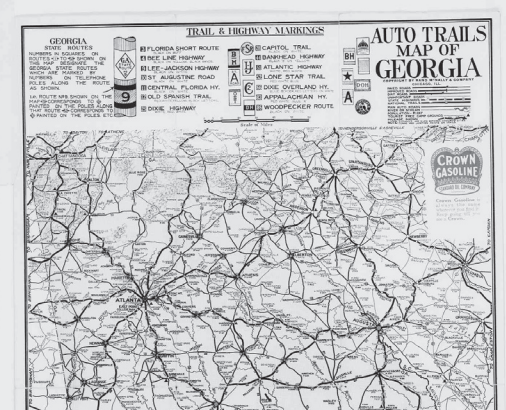
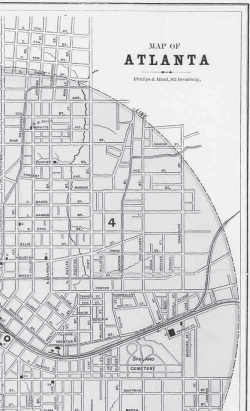
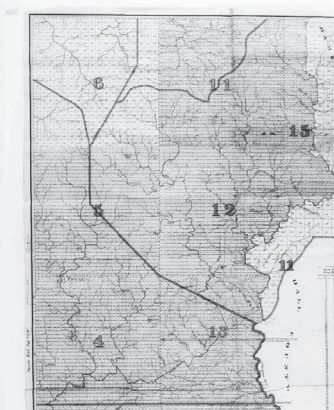
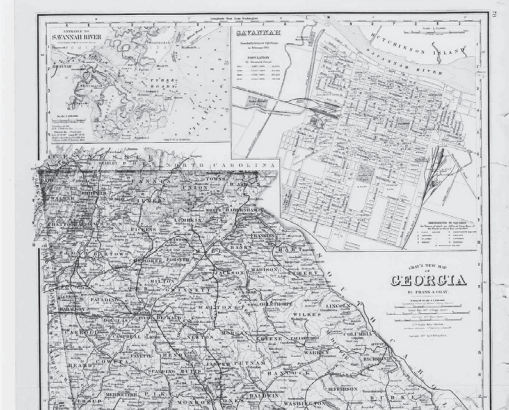
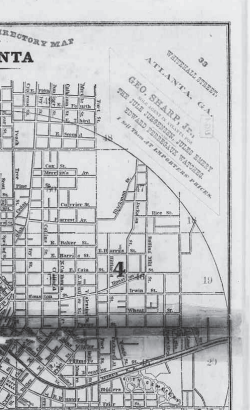
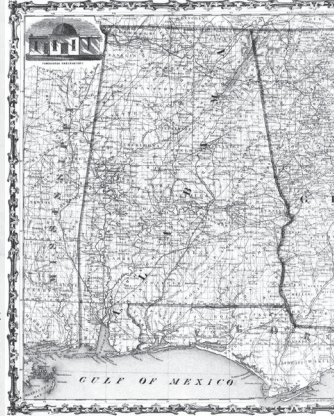
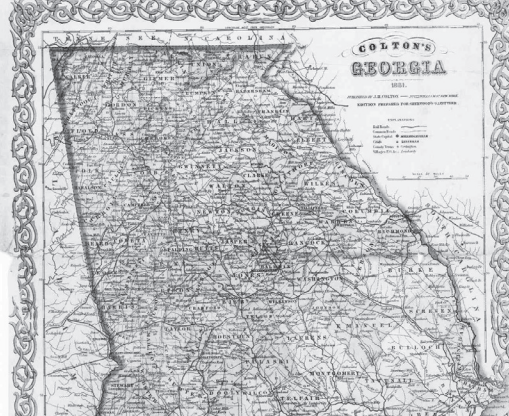
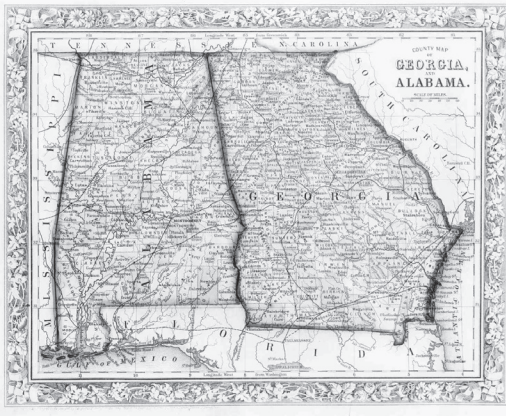
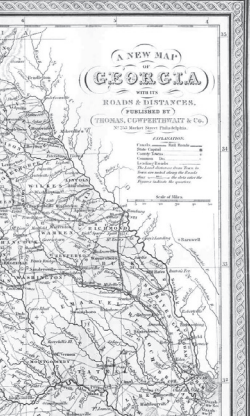
BORDEN PARTNERSHIP

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HOUSTON, TEXAS 77030

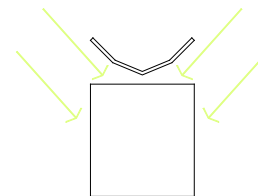
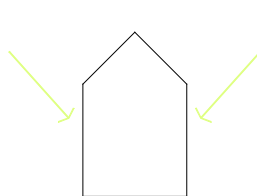
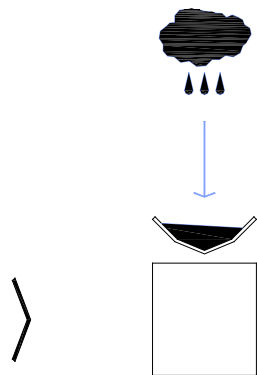
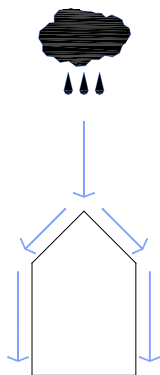
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HISTORICAL MAPPING OF NORTH GEORGIA 1794-1898

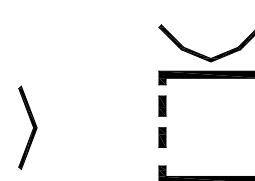
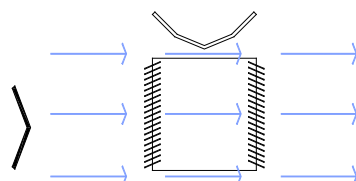
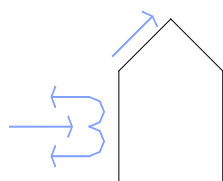


PROJECT
LOW COUNTRY LINE HOUSE



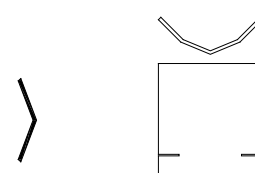
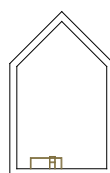
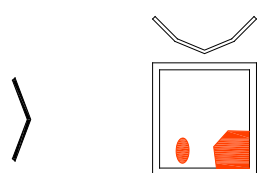
WATER

LIGHT



ENCLOSURE

FIXED ENCLOSURE - VARIABLE ENCLOSURE



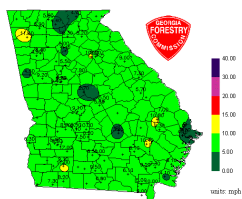
GENERAL HEATING - SPECIFIC HEATING

HOUSE AS FURNITURE

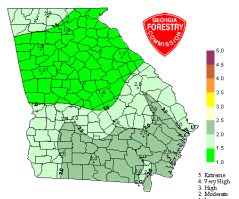
HOUSE DIAGRAMS

GEORGIA CLIMATE MAPS

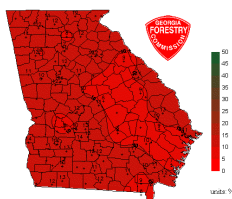
Map of Wind Speed
at April 25, 2006 1300 EST



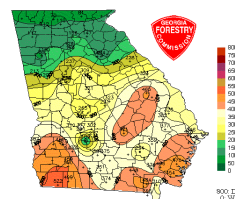
Forecast Fire Danger for Tomorrow
Produced at April 25, 2006 1300pm EST



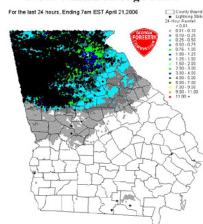
Map of 10-Hour Fuel Moisture
at April 25, 2006 1300 EST



Map of KBDI
at April 25, 2006 1300 EST

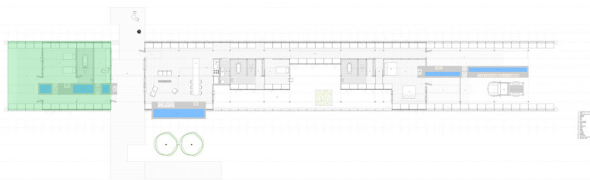


From Viasala through BLM

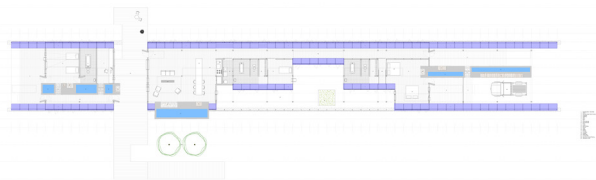


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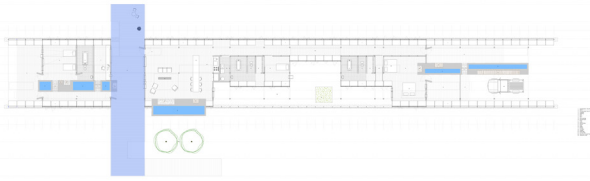
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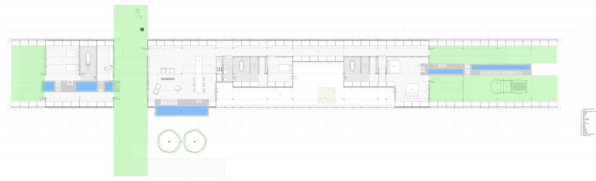
GUEST



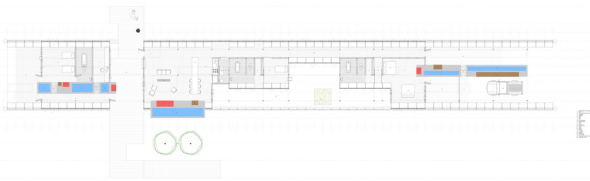
LOUVERS



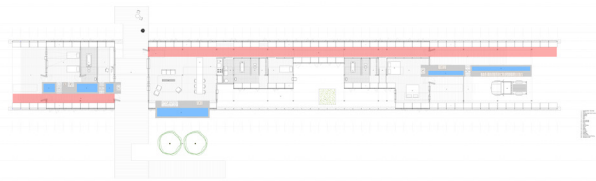
DOGTROT PORCH



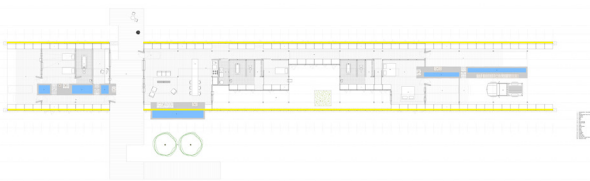
EXTERIOR ROOMS



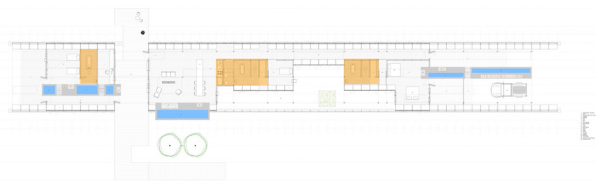
FIREBOXES



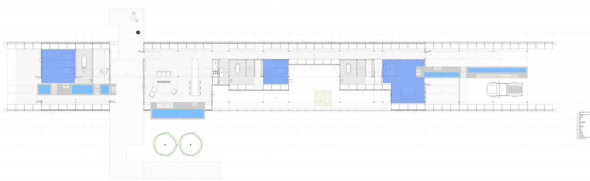
GALLERIES



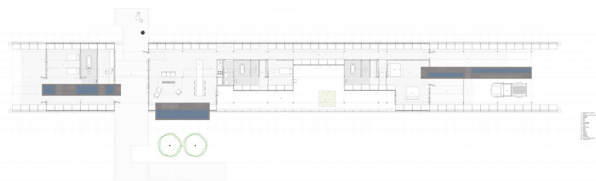
OPERABLE SKIN



SERVICE CORES

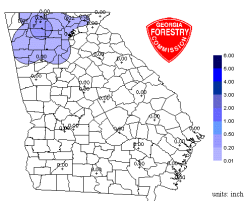


SLEEP ZONES

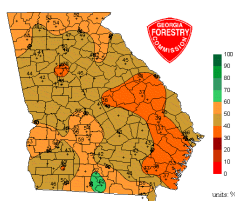


TROMBE WALLS

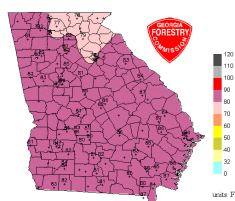
Map of Last 24 Hour Rainfall
at April 26, 2006 0600 EST



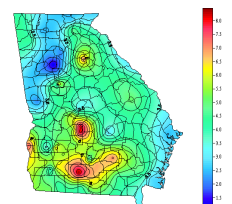
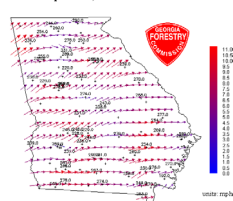
Map of Relative Humidity
at April 25, 2006 1300 EST



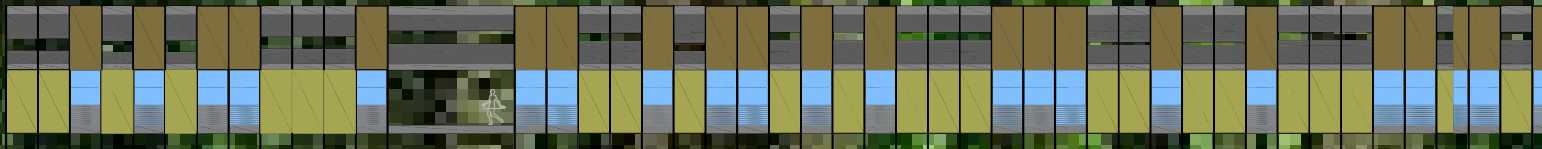
Map of Temperature
at April 25, 2006 1300 EST



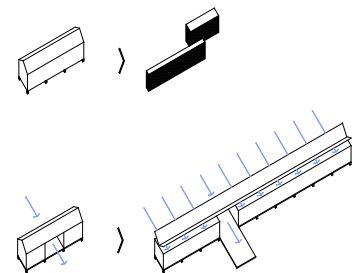
Map of Wind Direction
And Wind Direction
at April 25, 2006 1300 EST



PROJECT
LOW COUNTRY LINE HOUSE



LONGITUDINAL ELEVATION



SOUTHERN TYPOLOGIES: DOGTROT + SHOTGUN



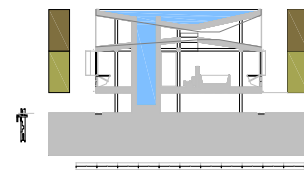
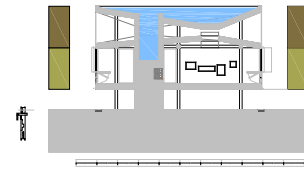
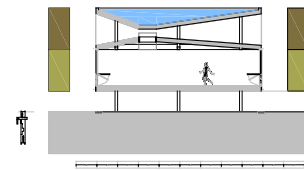
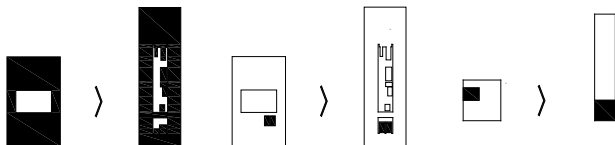


OPERABLE PANEL SKIN

HOUSE TO YARD

HOUSE TO CAR

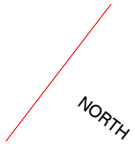
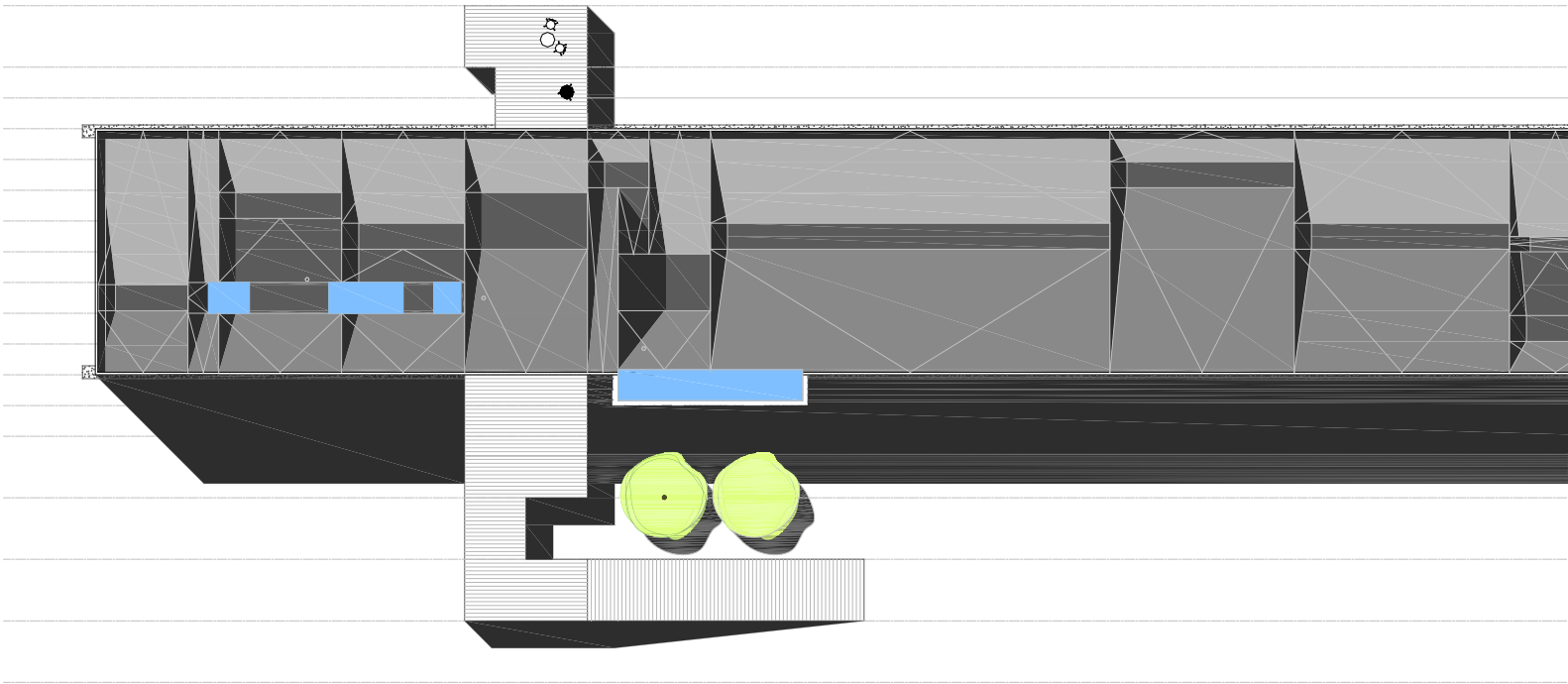
GUEST



TRANSVERSE SECTIONS

PROJECT

LOW COUNTRY LINE HOUSE



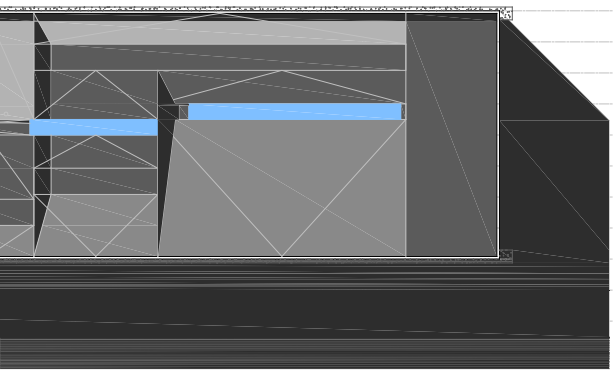
ROOF PLAN



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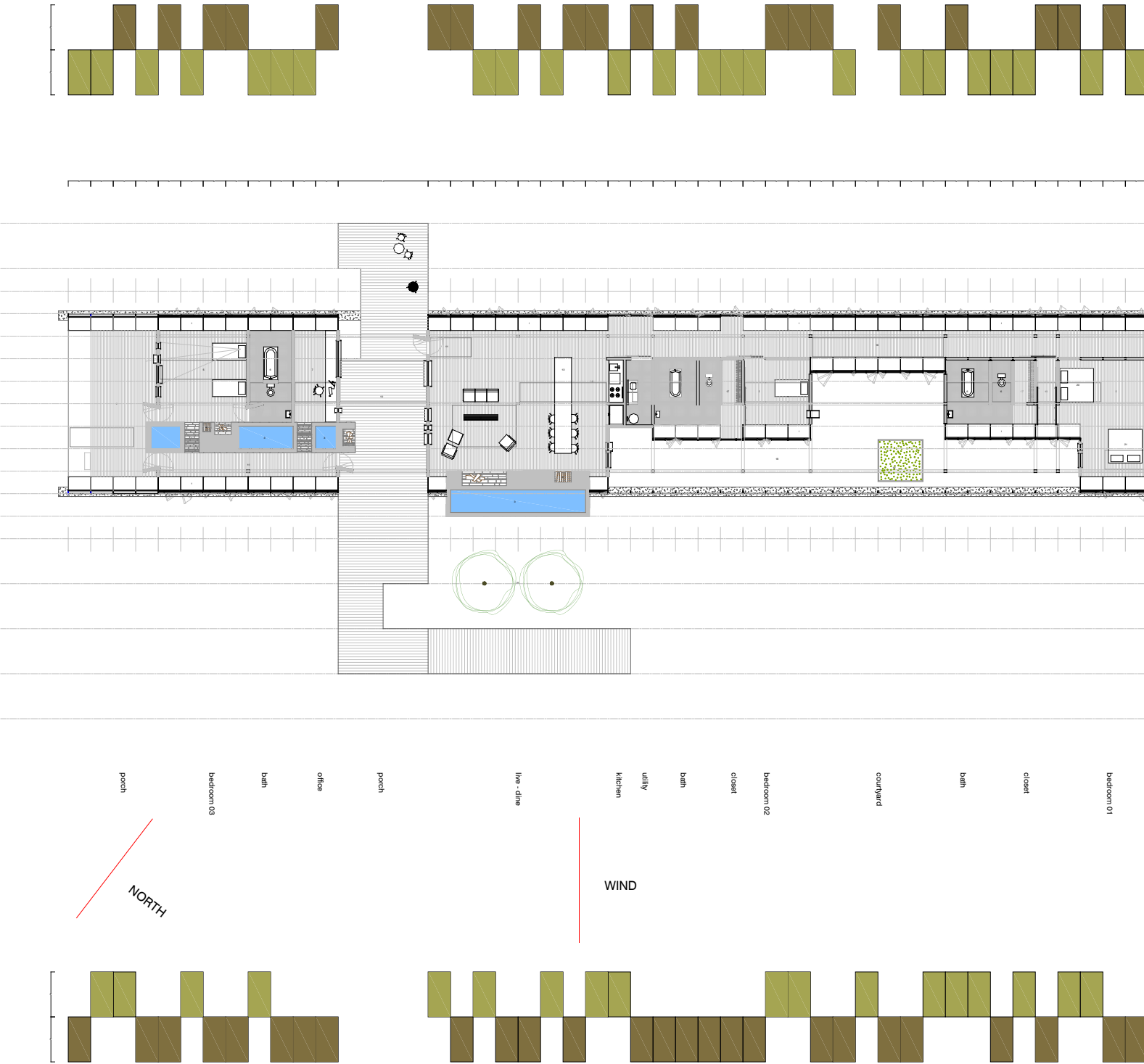
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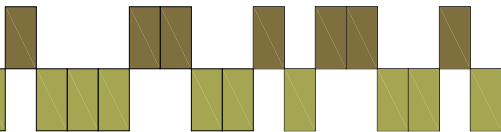
ORIENTATION



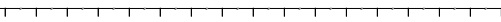
PROJECT
LOW COUNTRY LINE HOUSE



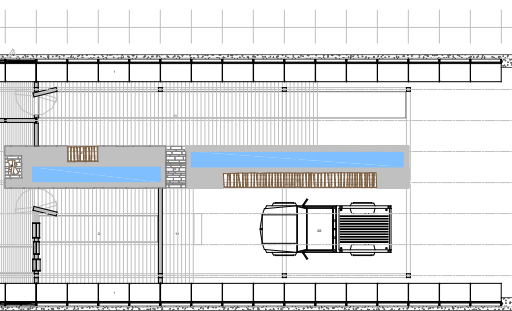
PLAN



OPERABLE PANEL SKIN



MODULE

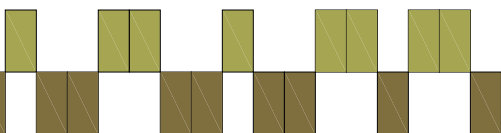


- 1. Porch
- 2. Carport
- 3. Living Room
- 4. Dining Room
- 5. Kitchen
- 6. Bedroom
- 7. Bathroom
- 8. Hallway
- 9. Staircase
- 10. Entry
- 11. Porch
- 12. Carport
- 13. Living Room
- 14. Dining Room
- 15. Kitchen
- 16. Bedroom
- 17. Bathroom
- 18. Hallway
- 19. Staircase
- 20. Entry

the porch carport

PROGRAM

ORIENTATION



OPERABLE PANEL SKIN

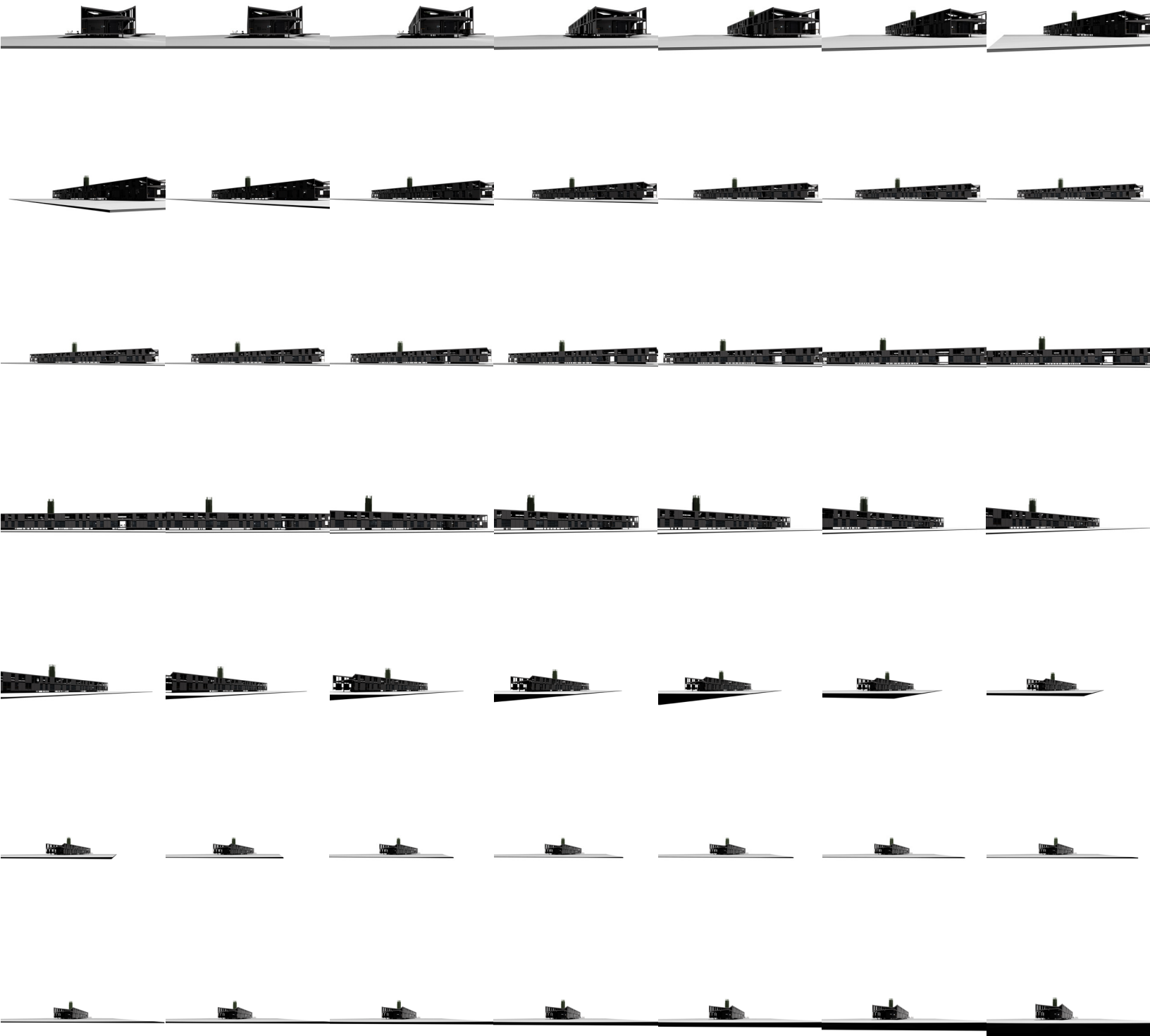


Low Country House



PROJECT

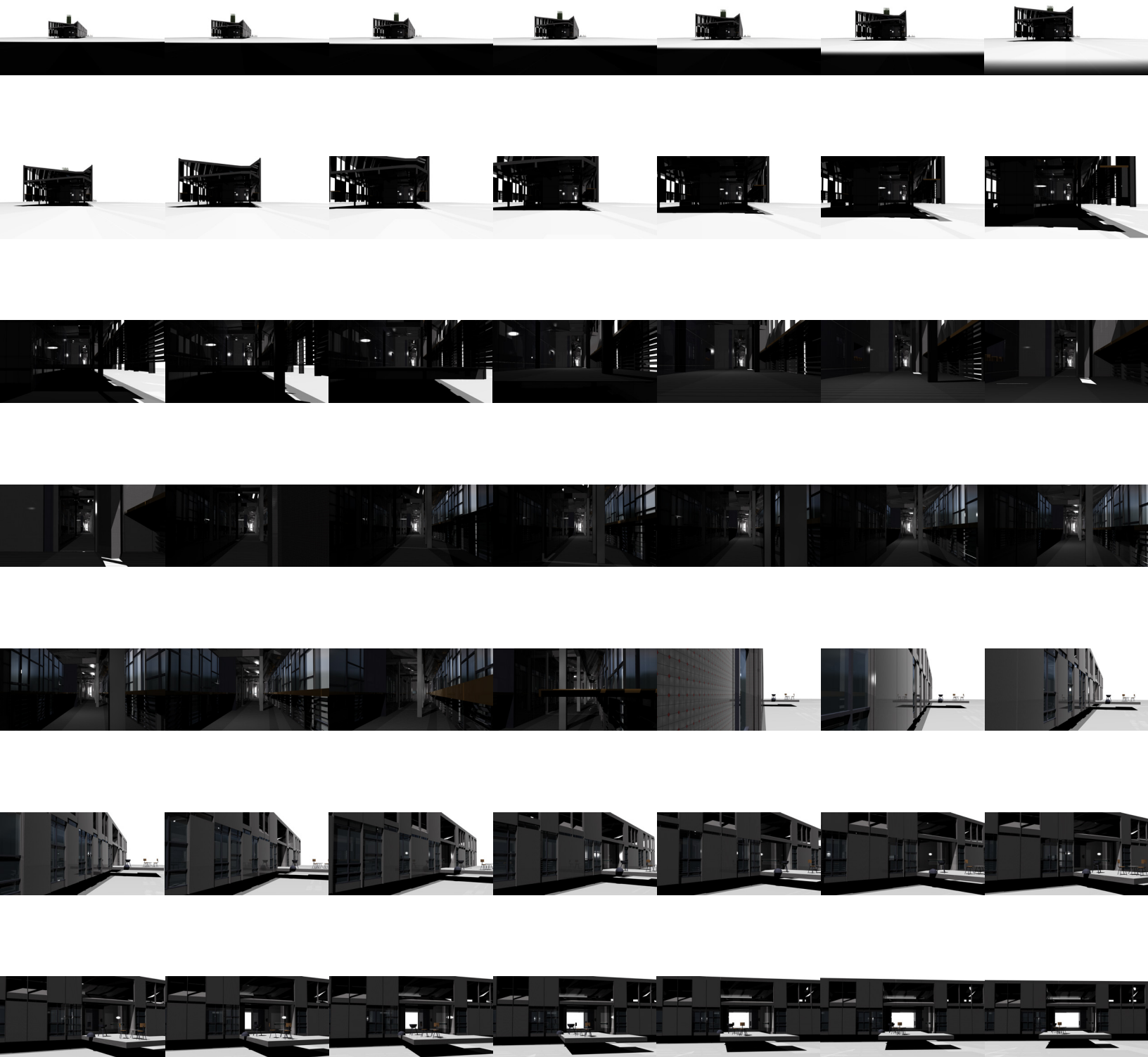
LOW COUNTRY LINE HOUSE



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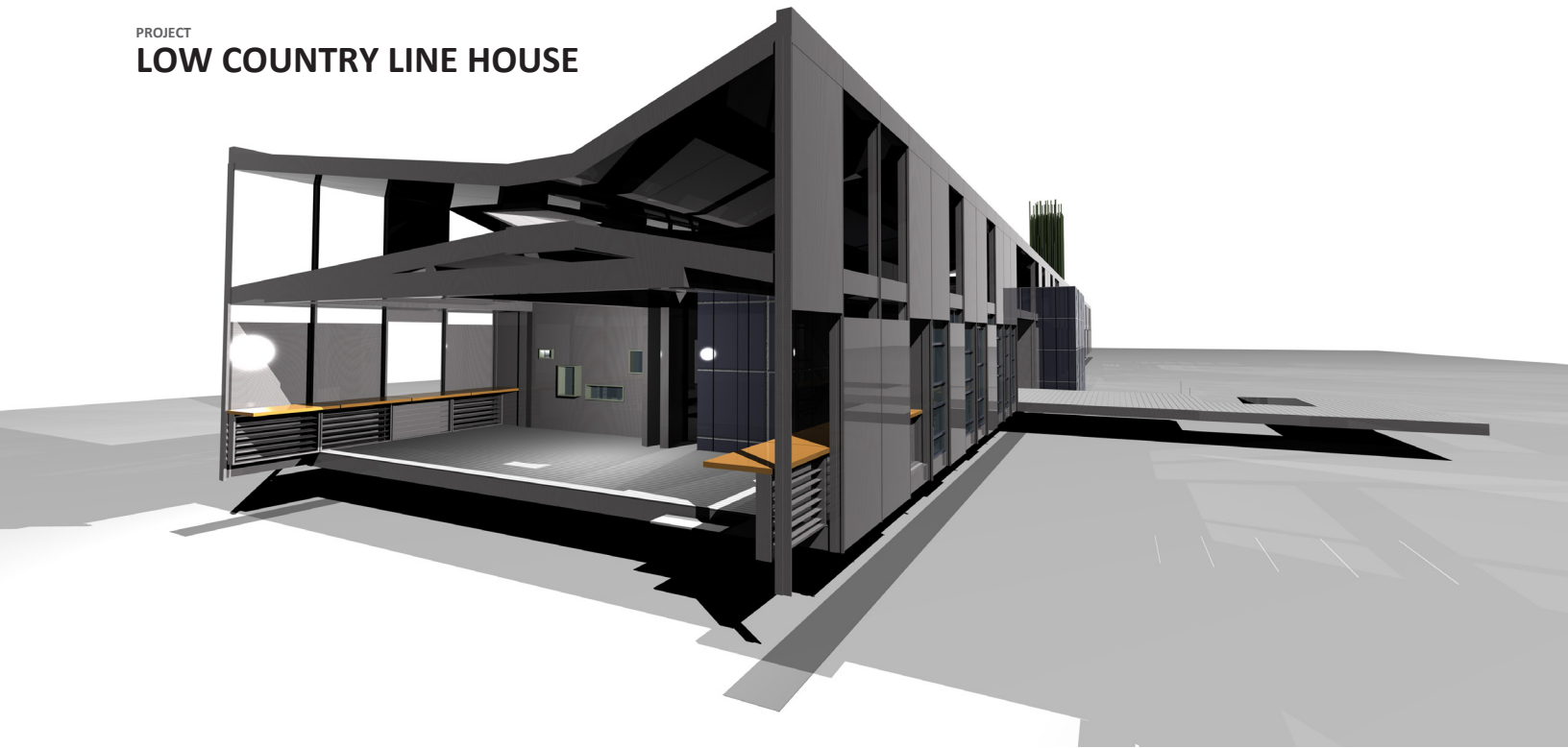
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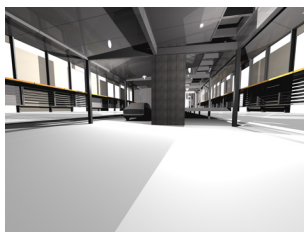
PROJECT

LOW COUNTRY LINE HOUSE

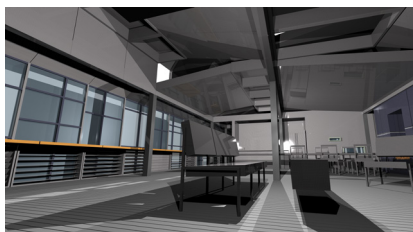


VIEW OF GUEST PORCH

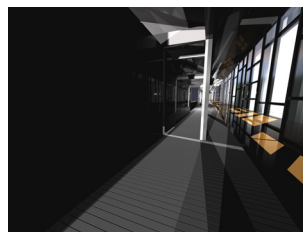
CARPORT + SERVICE ENTRY



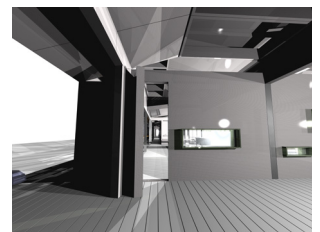
LIVING ROOM



GALLERY



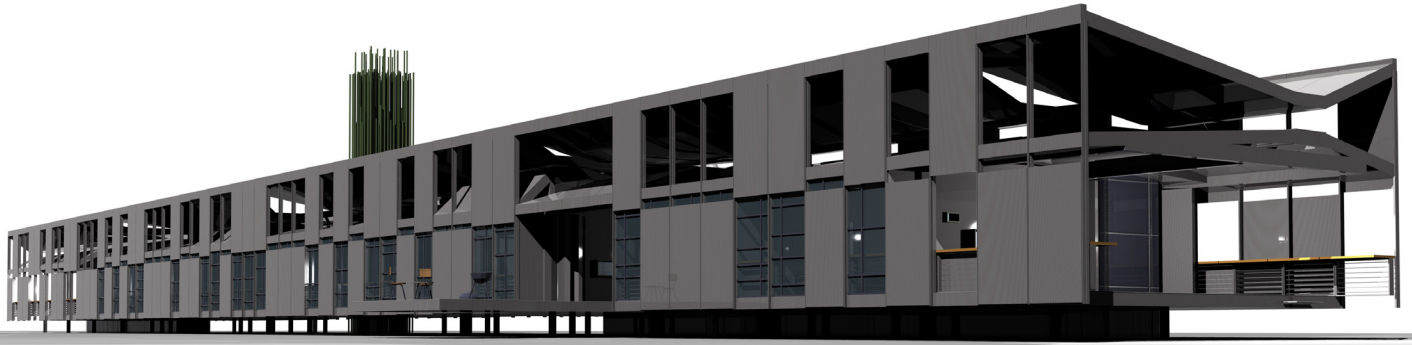
ENTRY AXIS



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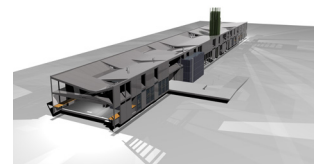
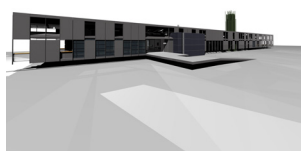
VIEW ALONG LENGTH

OPERABLE PANEL WALL

DOGTROT ENTRY

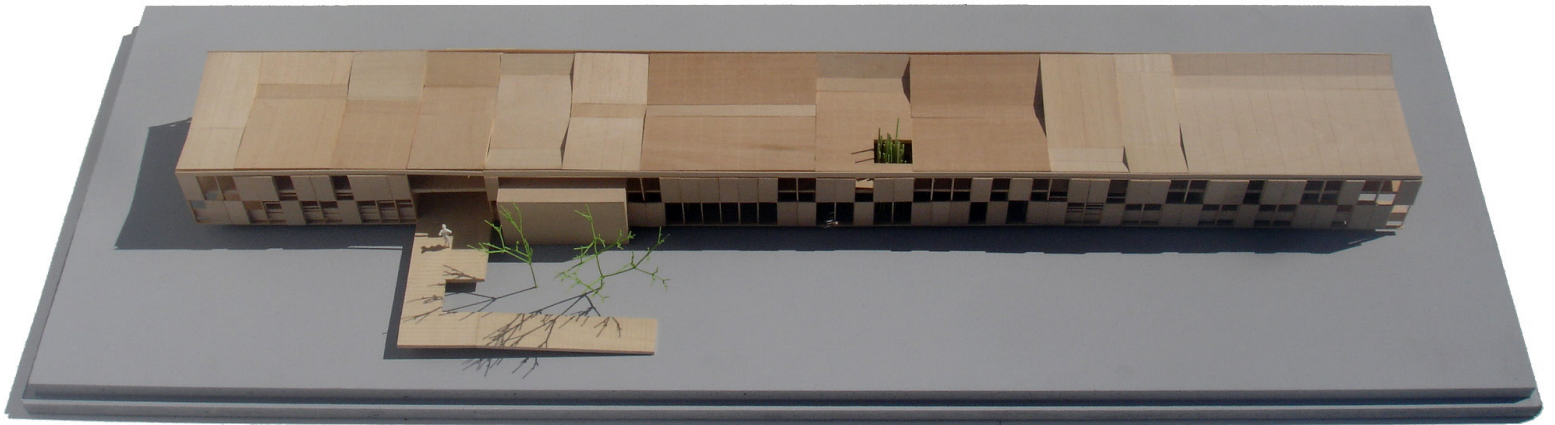
LONGITUDINAL ELEVATION

AERIAL VIEW



PROJECT

LOW COUNTRY LINE HOUSE



LOW COUNTRY LINE: FUNNEL ROOFS

VIEW ALONG HOUSE



DETAIL OF OPERABLE SECOND SKIN



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OPERABLE PLYWOOD WALL

OPERABLE SKIN OVER GARDEN

RAIN ROOF UPPER - WIND ROOF LOWER

