Model a duplex house interior with feature walls, doors and paneling

Software: SketchUp

Task statement

Build a 3D interior model of a duplex house in millimetres. Follow the supplied dimensioned diagrams: diagram_01.png and the details diagram_01_detail01.png to diagram_01_detail06.png.

The model consists of two rectangular unit shells placed side by side with a gap between them. Each shell is enclosed by full-height perimeter walls and contains a front zone, a rear zone and an internal room layout. The overall extents are:

- 29491 mm wide across both units together, as shown in the front view.
- 36077.8 mm deep, as shown in the top view.
- 3628.4 mm high, as shown in the front view.

Lay out the internal partition walls for both units as shown in the top view: bedrooms, bathrooms and closets, with door openings and window openings cut into the walls.

The left unit is the furnished, finished unit. Fit it out with:

- Interior doors.
- Wall paneling and moulding frames.
- Arched niche features.
- A decorative feature wall with a circular medallion between vertical slat or drape elements (detail 5).
- A free-standing oval mirror or frame element (detail 6).
- Built-in furniture and fixtures, such as beds, shelving, a bathtub and a toilet, where the plan shows them.

The right unit is an unfurnished shell in the same orientation as the left unit, with the stepped bump-out on the same side. It carries the same general room partitioning, with door and window openings only.

Place separate loose items outside the building footprint, as the top and isometric views show: a copy of the feature wall panel and an oval frame.

Organise the model professionally:

- Make repeated items (doors, panels, fixtures, furniture) components. Keep distinct assemblies as groups, so that walls, fittings and furniture are not loose raw geometry.
- Use tags (layers) in addition to the default tag to separate major categories.
- Apply named materials to finishes such as walls, paneling, wood, fabric and fixtures.

The model must reproduce the top, front, right side and isometric views shown on sheet A-201.

Rubrics

- **R1:** The model shall contain two separate rectangular unit shells side by side, each enclosed by full-height perimeter walls.
- **R2:** The model shall have an overall width of approximately 29491 mm across both units.
- **R3:** The model shall have an overall depth of approximately 36077.8 mm in plan.
- **R4:** The model shall have an overall height of approximately 3628.4 mm.
- **R5:** The model shall include internal partition walls dividing each unit into multiple rooms, consistent with the top view layout.

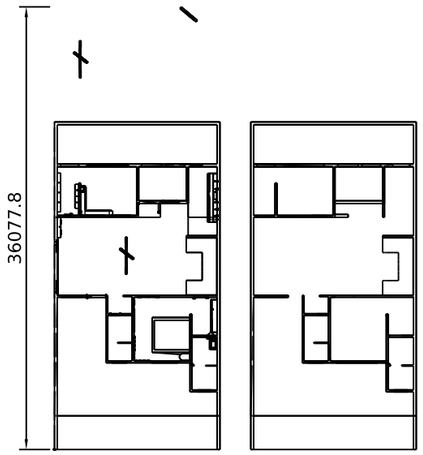
- **R6:** The model shall include door openings and window openings in the walls of both units.
- **R7:** The model shall include interior door assemblies in the furnished unit.
- **R8:** The model shall include a decorative feature wall with a circular medallion flanked by vertical slat or drape elements.
- **R9:** The model shall include wall paneling or moulding frame elements and arched niche features in the furnished unit.
- **R10:** The model shall include an oval mirror or frame element.
- **R11:** The model shall include furniture and fixtures, such as a bed, shelving and bathroom fixtures, in the furnished unit.
- **R12:** The model shall keep the second unit as an unfurnished shell with partitions and openings.
- **R13:** The model shall use component definitions for repeated items, with multiple component instances placed in the model.
- **R14:** The model shall use more than one tag (layer) to organise geometry.
- **R15:** The model shall apply multiple named materials to surfaces.

Input files

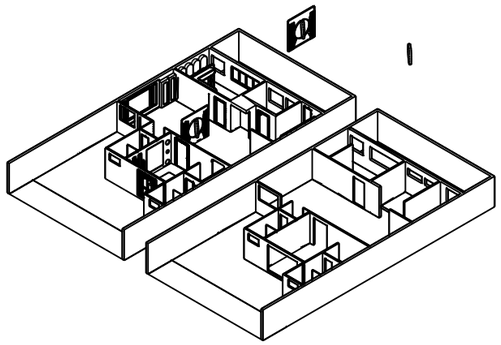
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- task_files/diagrams/diagram_01_detail03.png
- task_files/diagrams/diagram_01_detail04.png
- task_files/diagrams/diagram_01_detail05.png
- task_files/diagrams/diagram_01_detail06.png

Deliverables

- **.skp:** output_files/project_files/duplex_building_aug_21.skp: A single SketchUp .skp file containing the two-unit duplex interior model with walls, openings, doors, feature walls, paneling, furniture components, tags and materials.



TOP VIEW



ISOMETRIC VIEW



FRONT VIEW



RIGHT SIDE VIEW

DRAWING TITLE

DUPLEX HOUSE INTERIOR MODEL WITH FEATURE WALLS, DOORS AND PANELING

GENERAL NOTES

1. ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED.
2. DO NOT SCALE; USE FIGURED DIMENSIONS.

GRAPHIC SCALE

0 12.5 m 25 m

UNITS

MILLIMETRES

SCALE	SIZE
1:500	**A3**

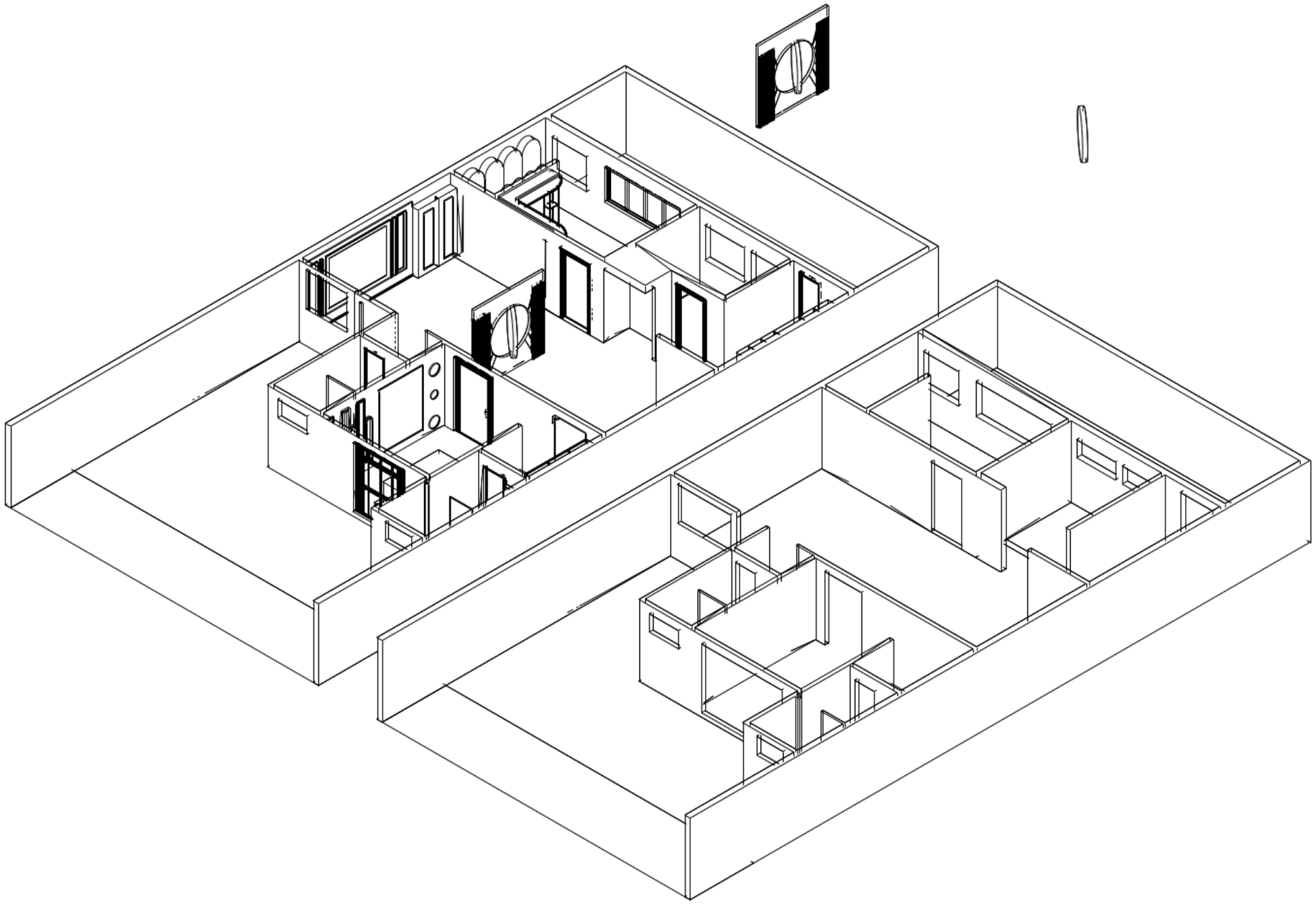
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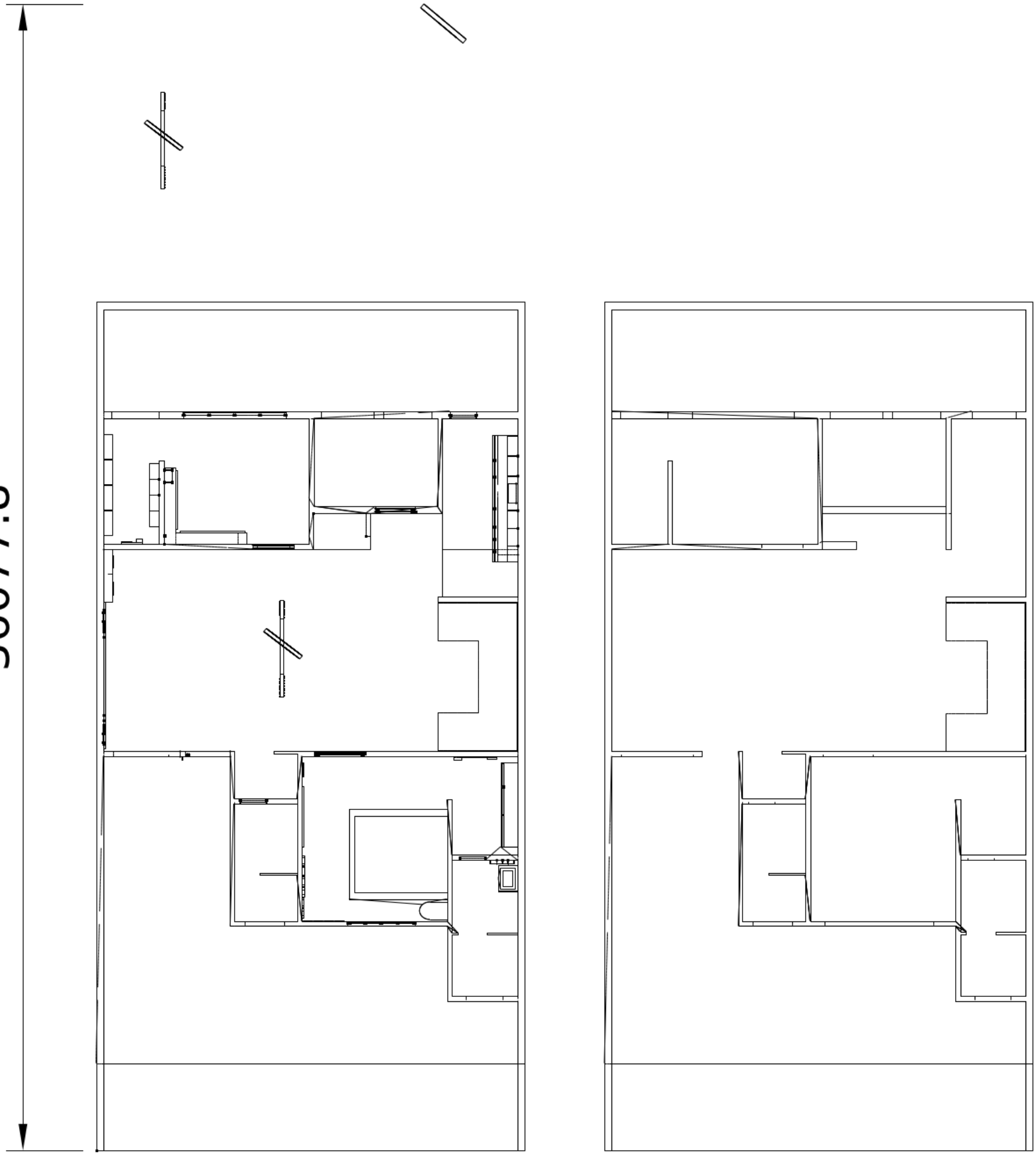
SHEET

A-201

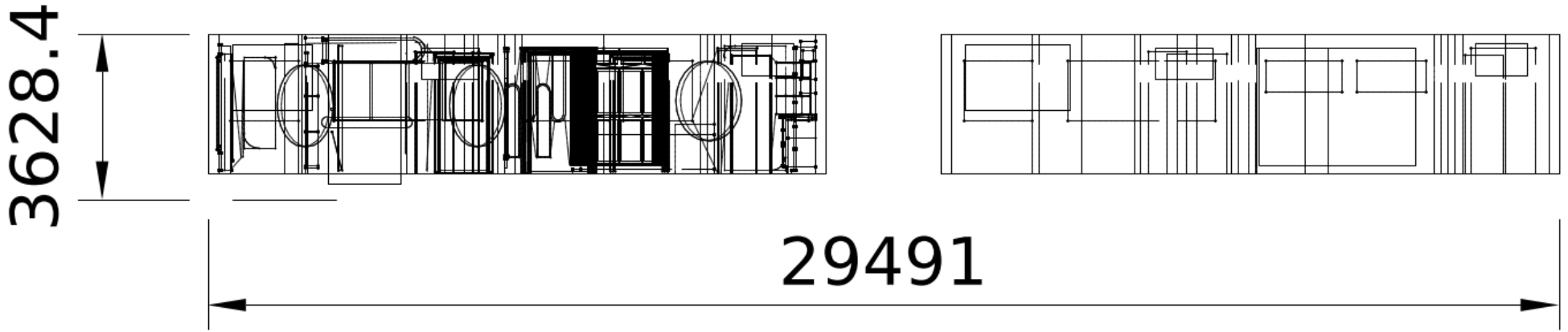
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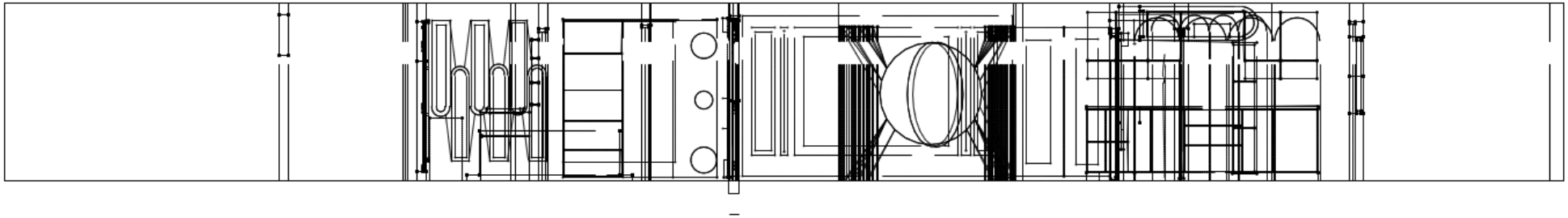
ISOMETRIC VIEW



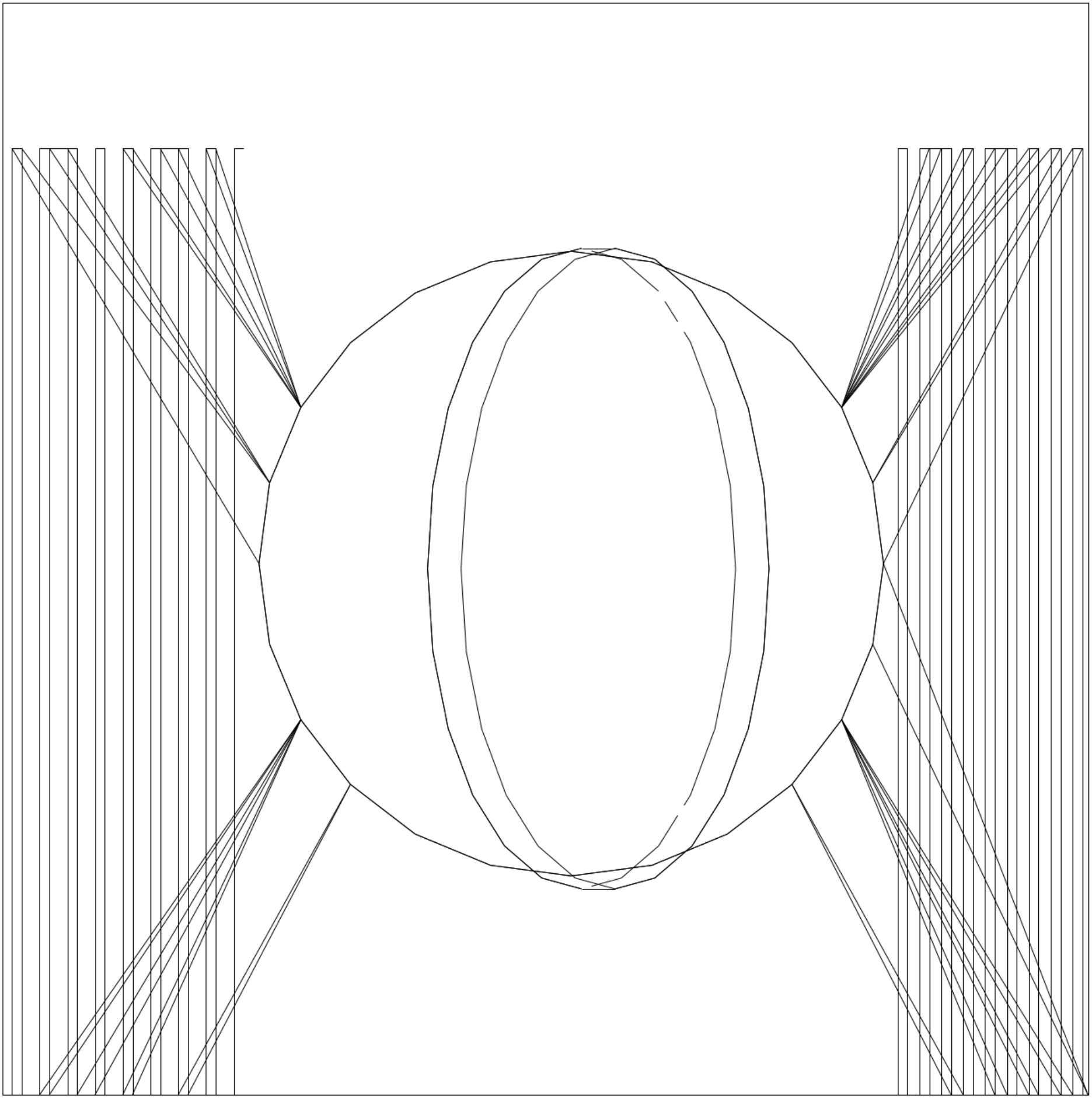
DETAIL 2 · VIEW 2 · SHEET ZONES B2-D3



FRONT VIEW



DETAIL 4 · VIEW 4 · SHEET ZONES E4-E5



DETAIL 5 · VIEW 5 · SHEET ZONES E5-E6

