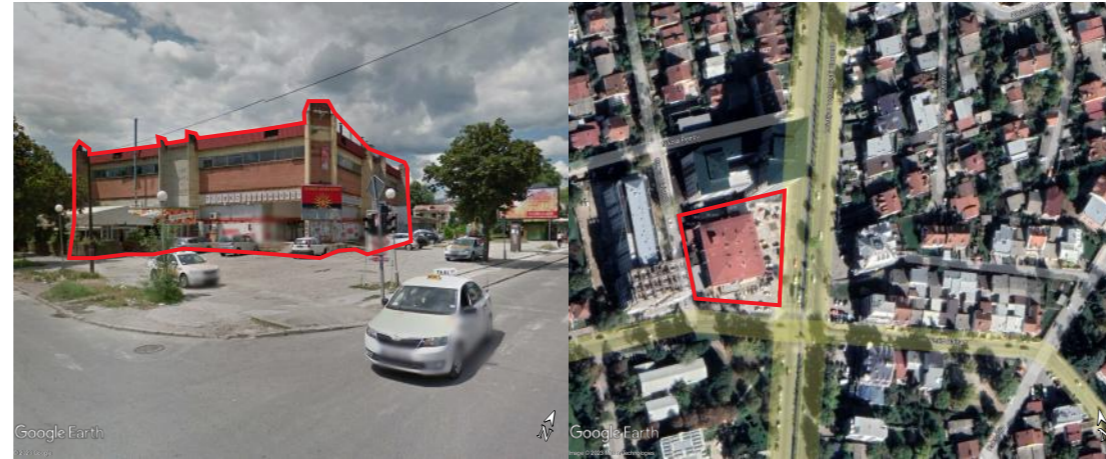




Abstract

The purpose of this unique structure is to create an inviting and vibrant atmosphere for people to gather and socialize. The design is inspired by the form of a tree, emerging from the ground and growing tall to provide shade and beauty to the surrounding area. Not only does it serve as a functional space for people to congregate, but it also enhances the aesthetic of the location. The structure is designed to be a natural gathering spot and a source of inspiration and joy for those who visit. The tree-like design adds a touch of nature and elegance to the area, making it a destination for both locals and visitors alike. Overall, this structure not only serves a practical purpose but it also adds a sense of charm and liveliness to the space.



Location

This structure is situated in Butel-2, a location that once served as a bustling hub of activity, housing a supermarket and a popular restaurant. However, over time the area has become abandoned and now serves primarily as a parking lot. As a result, the community has lost a beloved gathering spot and children no longer frequent the area as they once did. The new structure aims to revitalize the area and bring back the sense of community and socialization that it once had. By providing a new gathering spot that is both functional and beautiful, this structure aims to breathe new life into the Butel-2 community and make it once again a destination for locals and visitors alike.

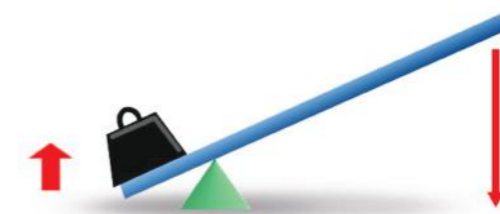
Information about the Structure

The structure is designed to resemble a tree, with the shape and form of an orchid flower on top. The primary materials used in its construction are Laminated Veneer Lumber (LVL), which is known for its strength and durability and is commonly used in residential and commercial building projects as structural members such as lintels, beams, mid-floors, and roofs. The structure also incorporates pressure-treated lumber, plywood, and iron rods to provide added strength and stability. The majority of the structure is held together using strong adhesive, but also has a concrete footing and steel components that help to support its weight. This combination of materials ensures that the structure is not only visually stunning, but also sturdy and built to withstand the elements and heavy use.

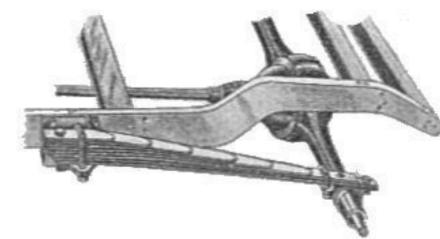
Structural Information

The structure consists of two distinct components, each with its unique purpose. The main component is a curved column that serves as both a structural support and a cantilever. The second component is designed to provide additional support to the cantilever, ensuring the stability and safety of the overall structure. Together, these two parts create a cohesive and functional design that is both visually striking and structurally sound. The curved column and cantilever provide an interesting dynamic to the structure, while the supporting component adds to the overall stability and functionality of the design. We will use the Quarter-elliptic spring method which is used in old car suspensions.

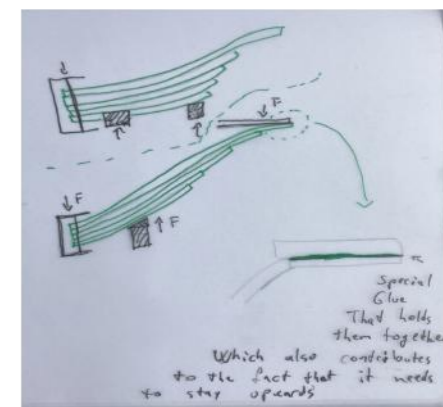
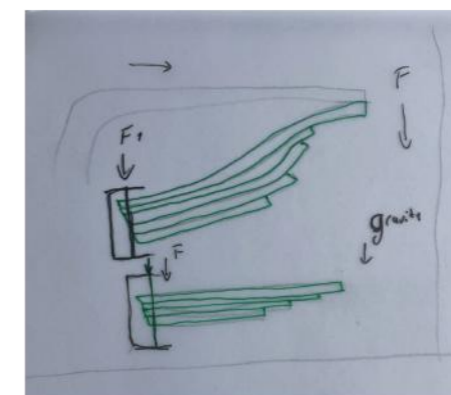
The structure is designed with a foundation that includes a steel attachment to keep the wooden planks securely in place. However, simply using the foundation as a downforce would not be sufficient to sustain the load of the cantilever. To ensure the stability and safety of the overall structure, a steel component is placed under the wooden planks near the foundation to act as a fulcrum. This creates a lever system, with the foundation as the weight and the steel component as the fulcrum, that effectively holds up the cantilever and enables the structure to withstand the load. This combination of the foundation and the steel component as fulcrum creates a robust structure that is able to sustain the load of the cantilever and guarantees the stability and safety of the overall design.

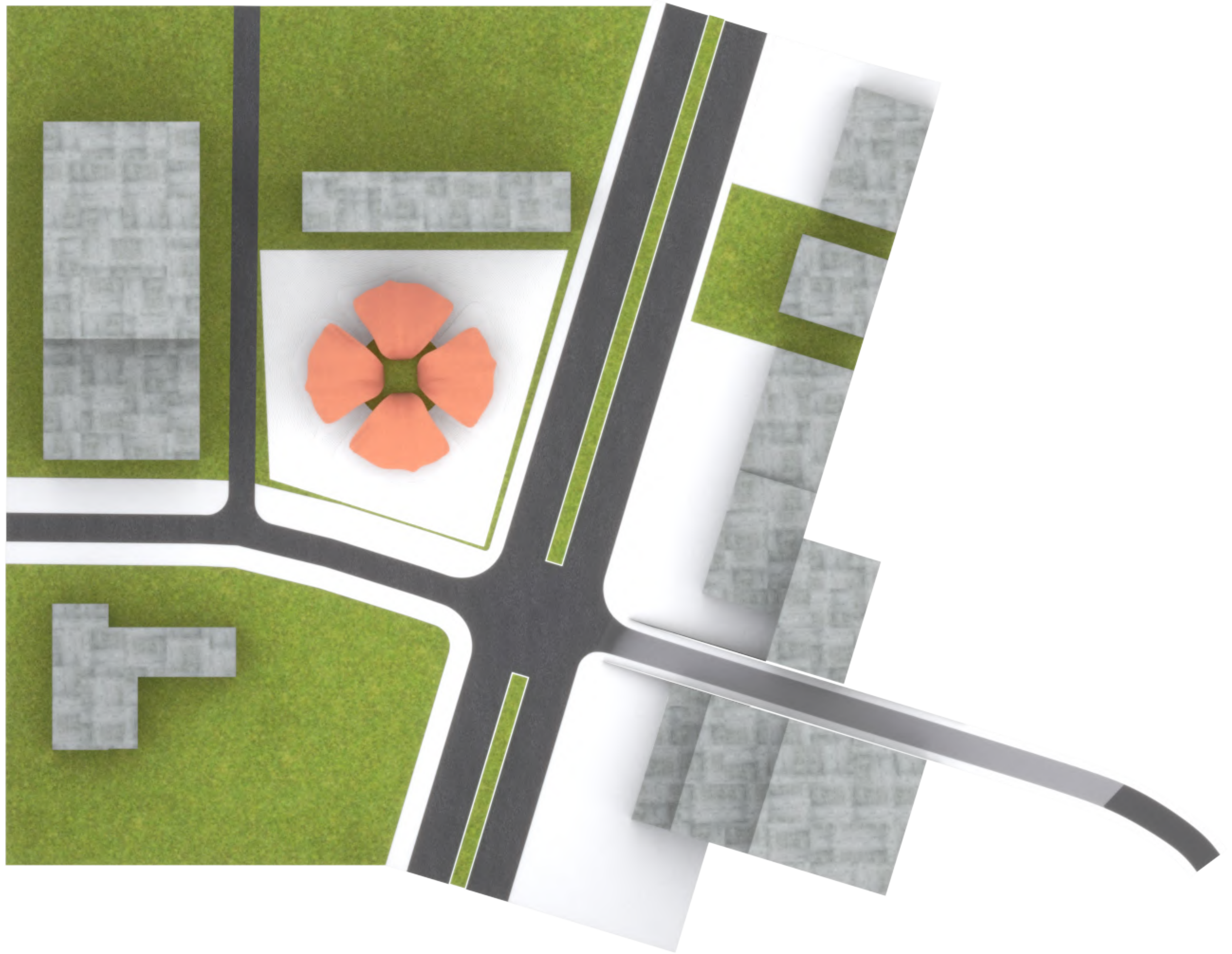


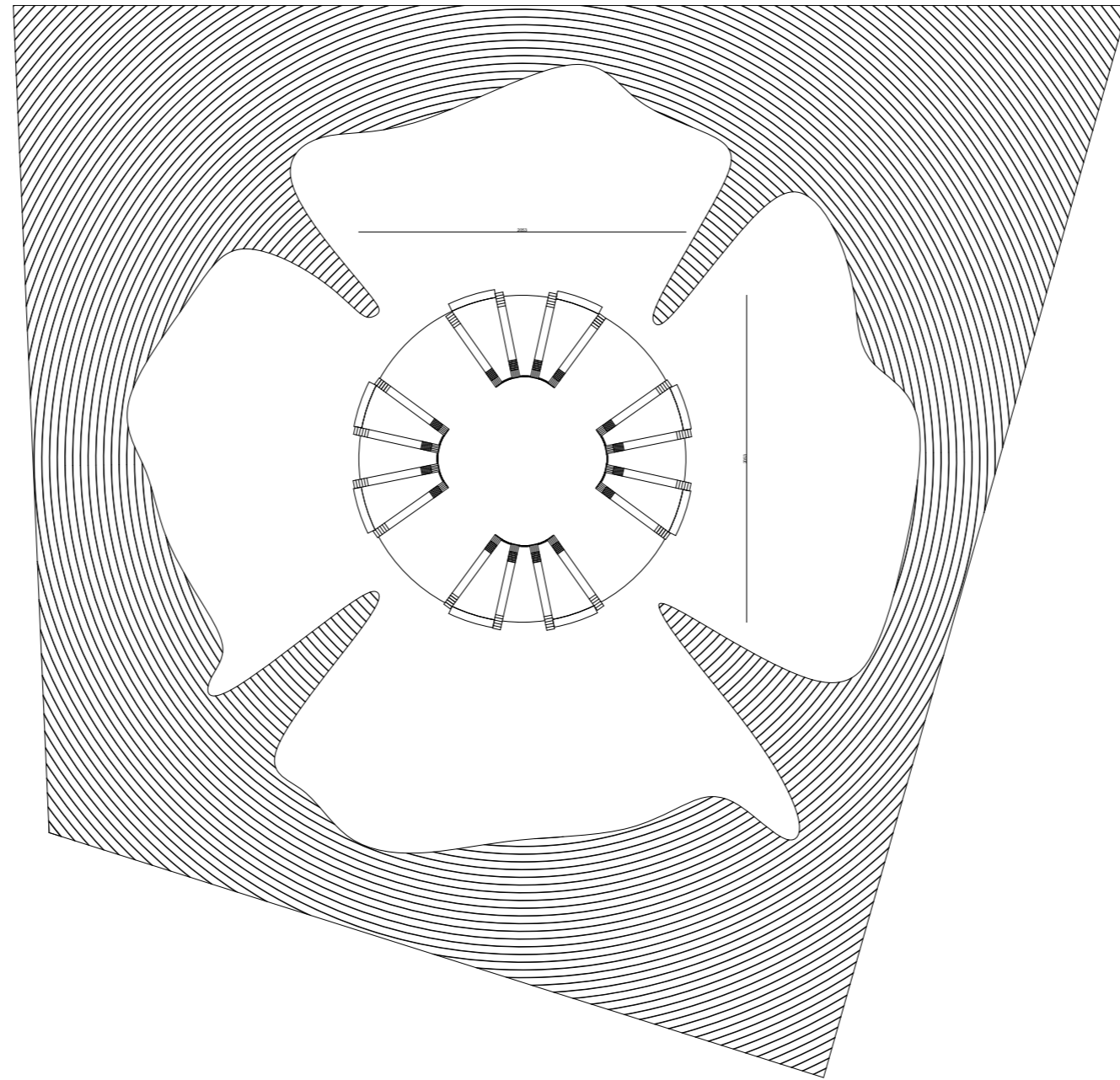
Lever system - Fulcrum



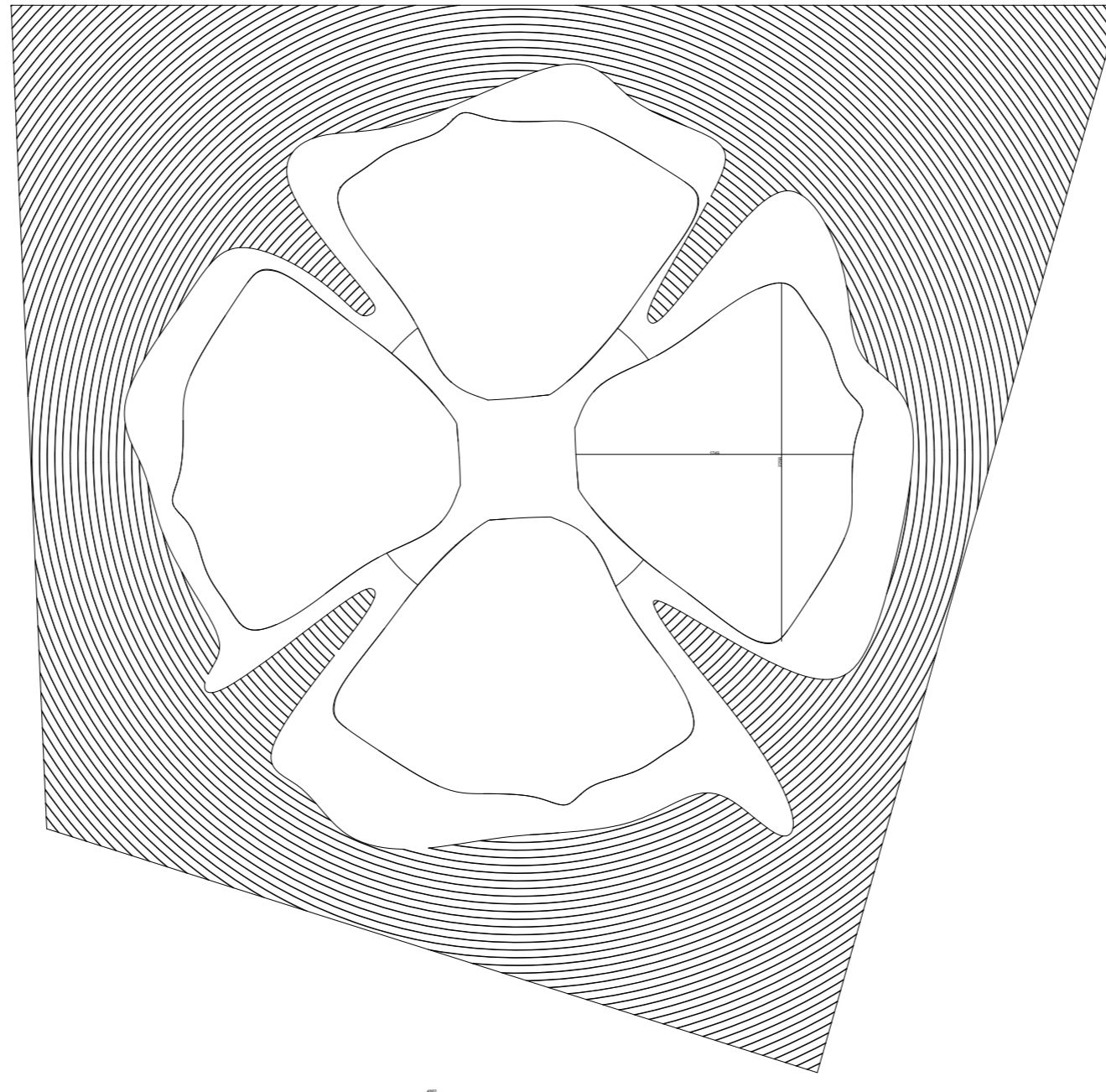
Quarter-elliptic spring





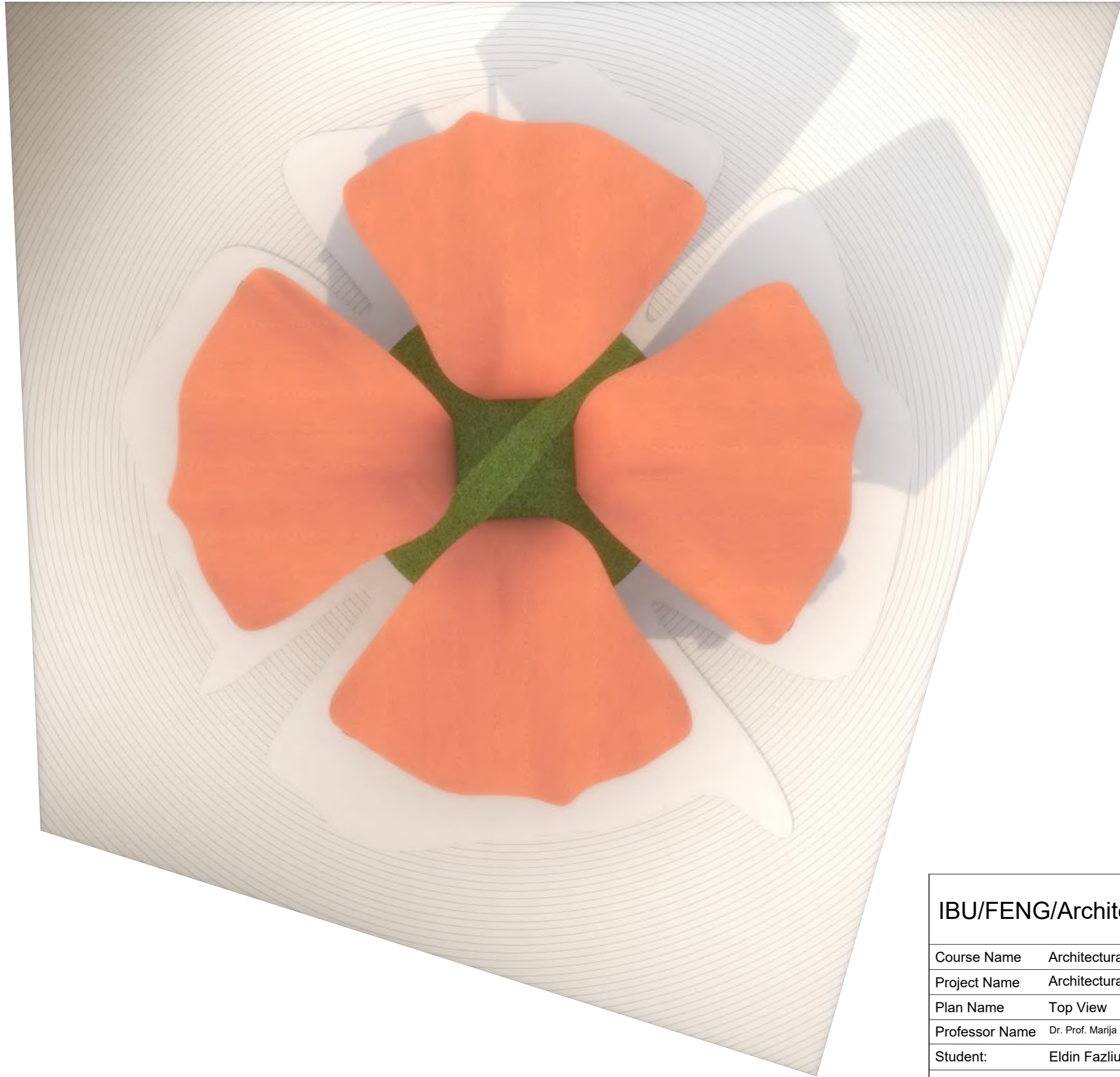


IBU/FENG/Architecture		
Course Name	Architectural Structures	Scale: 1:400
Project Name	Architectural structures	
Plan Name	Top view of Plan	
Professor Name	Dr. Prof. Marija Miloshevska Janakieska	Date: 24.01.2023
Student:	Eldin Fazliu	



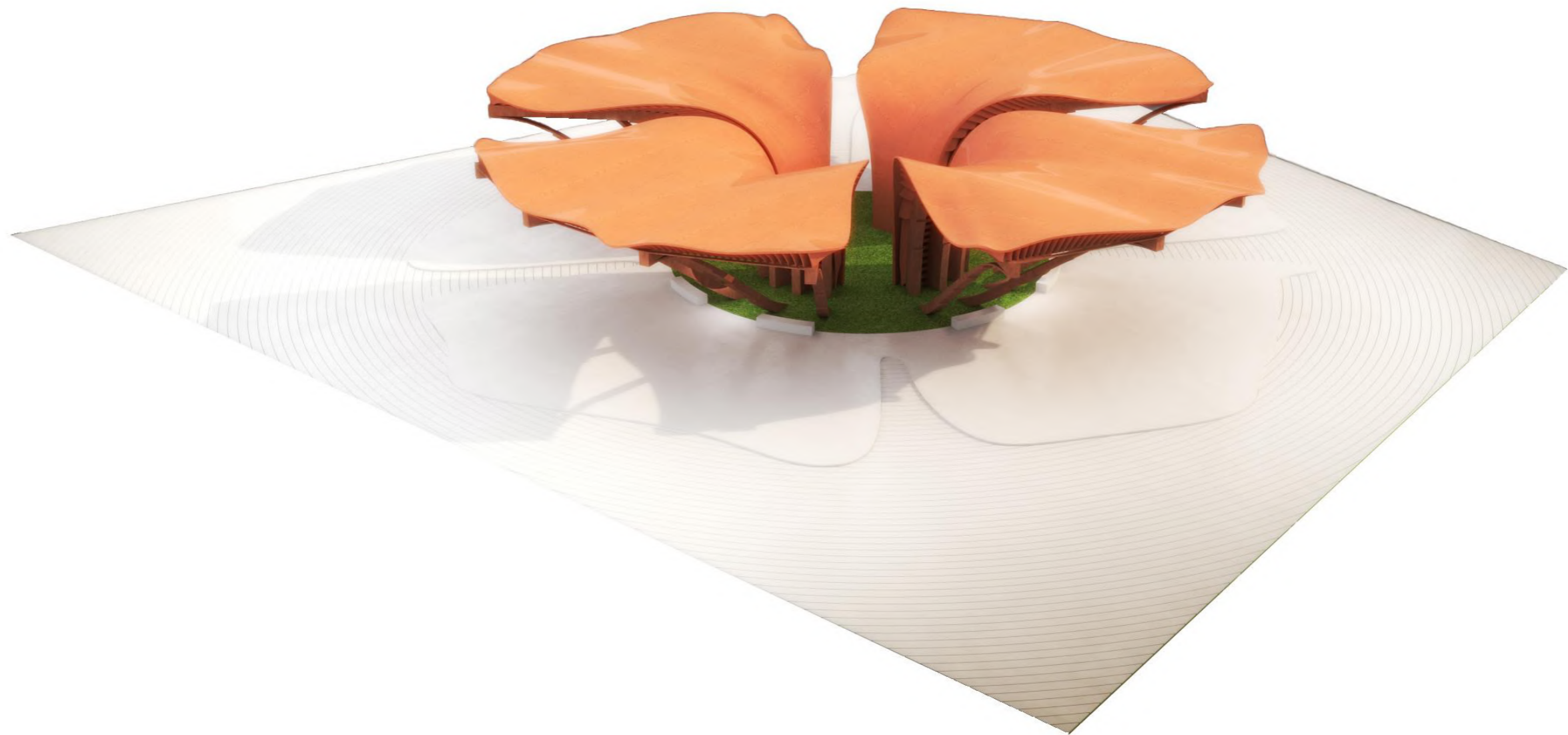
IBU/FENG/Architecture

Course Name	Architectural Structures	Scale: 1:400
Project Name	Architectural structures	
Plan Name	Top view	
Professor Name	Dr. Prof. Marija Miloshevska Janakieska	Date: 24.01.2023
Student:	Eldin Fazliu	



IBU/FENG/Architecture

Course Name	Architectural Structures	Scale: 1:400
Project Name	Architectural Structures	
Plan Name	Top View	
Professor Name	Dr. Prof. Marija Miloshevska Janakieska	Date: 24.01.2023
Student:	Eldin Fazliu	



IBU/FENG/Architecture

Course Name	Architectural Structures	Scale: 1:300
Project Name	Architectural Structures	
Plan Name	Axonometric View	
Professor Name	Dr. Prof. Marija Miloshevska Janakieska	Date: 24.01.2023
Student:	Eldin Fazliu	

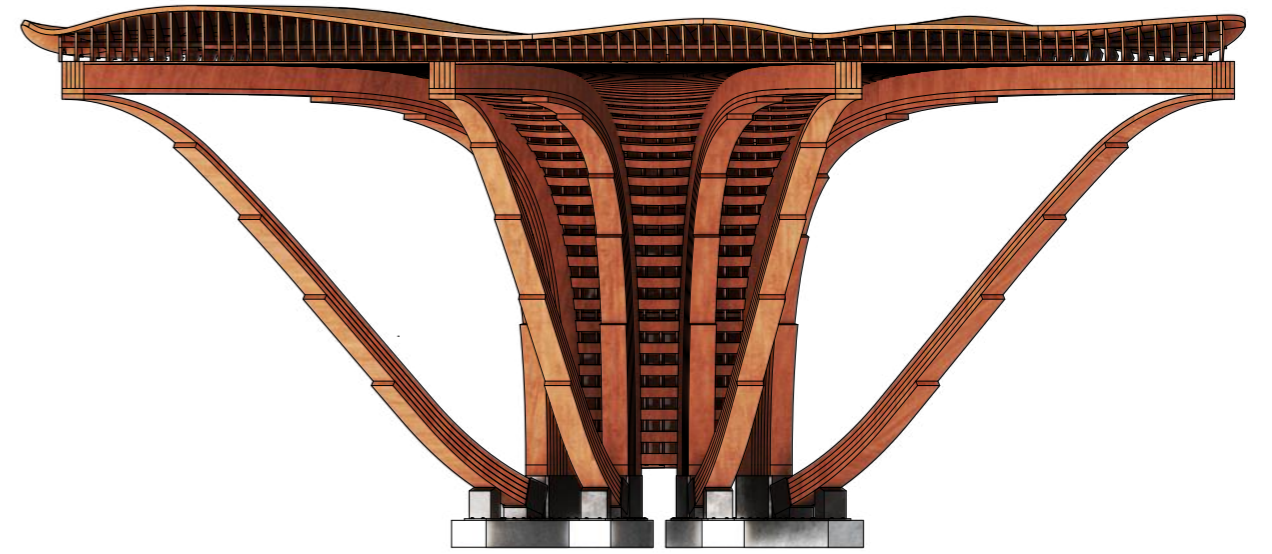


IBU/FENG/Architecture

Course Name	Architectural Structures	Scale: 1:300
Project Name	Architectural Structures	
Plan Name	Elevation of the Structure	
Professor Name	Dr. Prof. Marija Miloshevska Janakieska	Date: 24.01.2023
Student:	Eldin Fazliu	



Back Elevation



Front Elevation



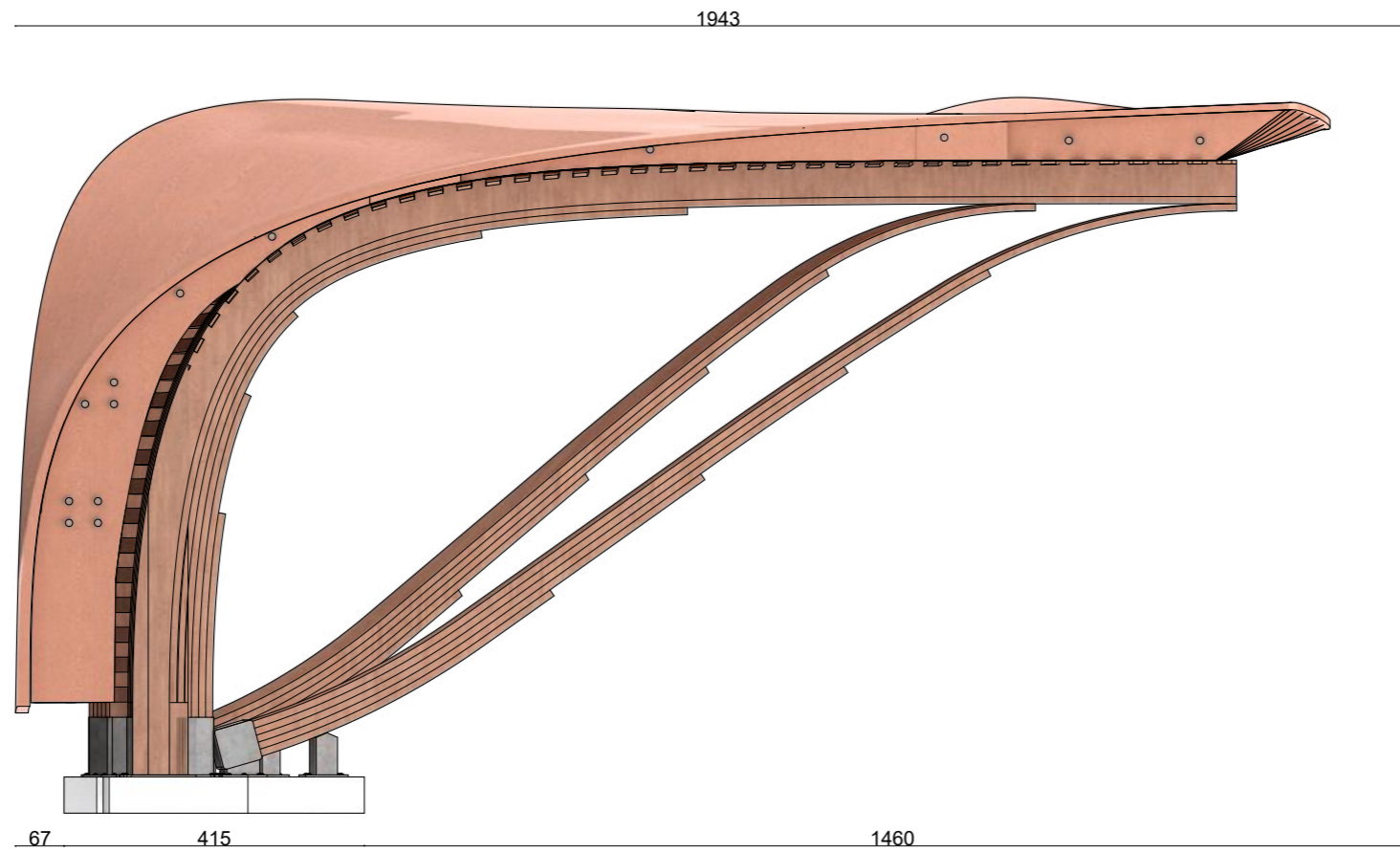
Side Elevation



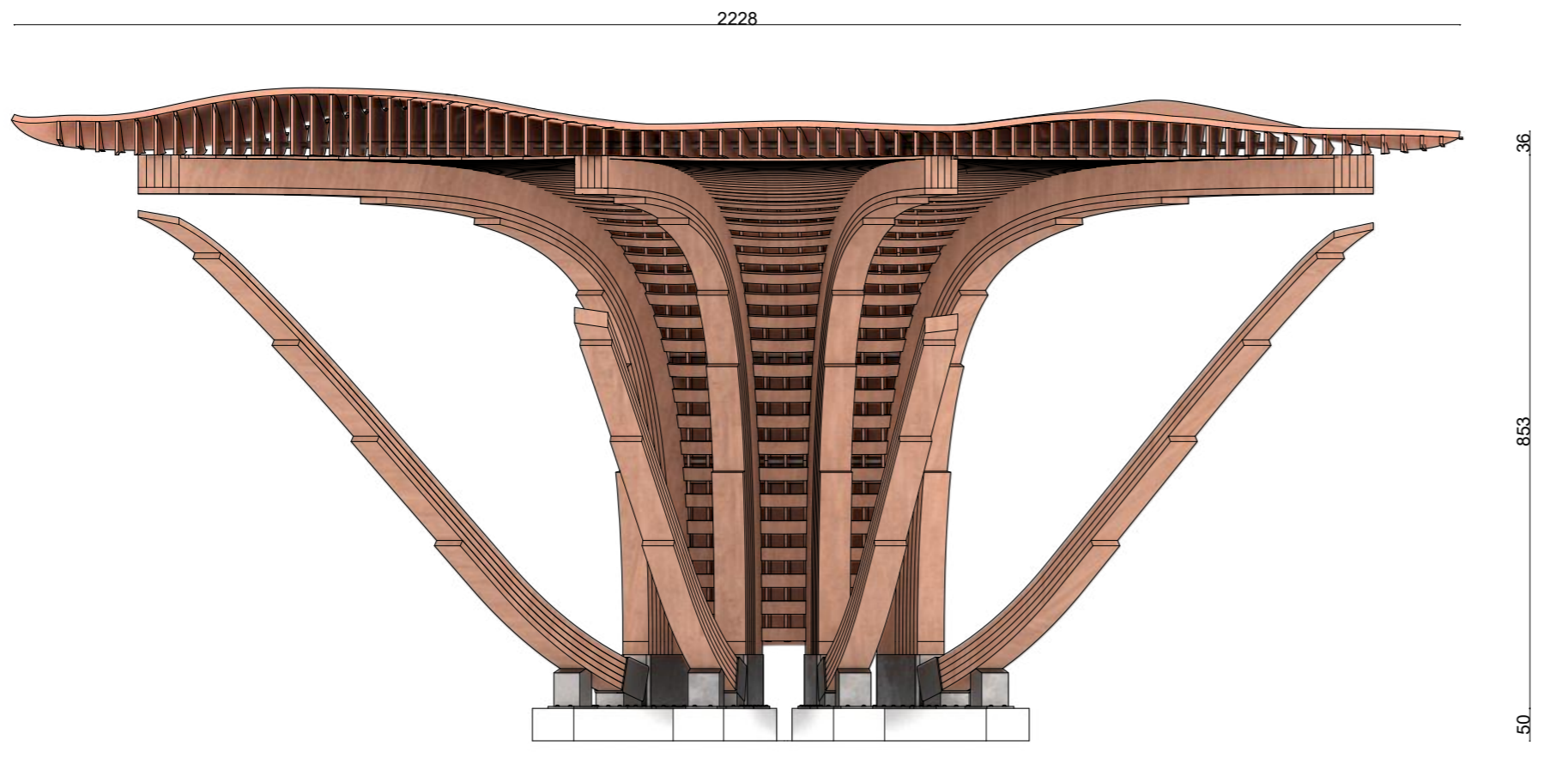
Side Elevation

IBU/FENG/Architecture

Course Name	Architectural Structures	Scale: 1:300
Project Name	Architectural Structures	
Plan Name	Elevation	Date: 24.01.2023
Professor Name	Dr. Prof. Marija Miloshevska Janakieska	
Student:	Eldin Fazliu	

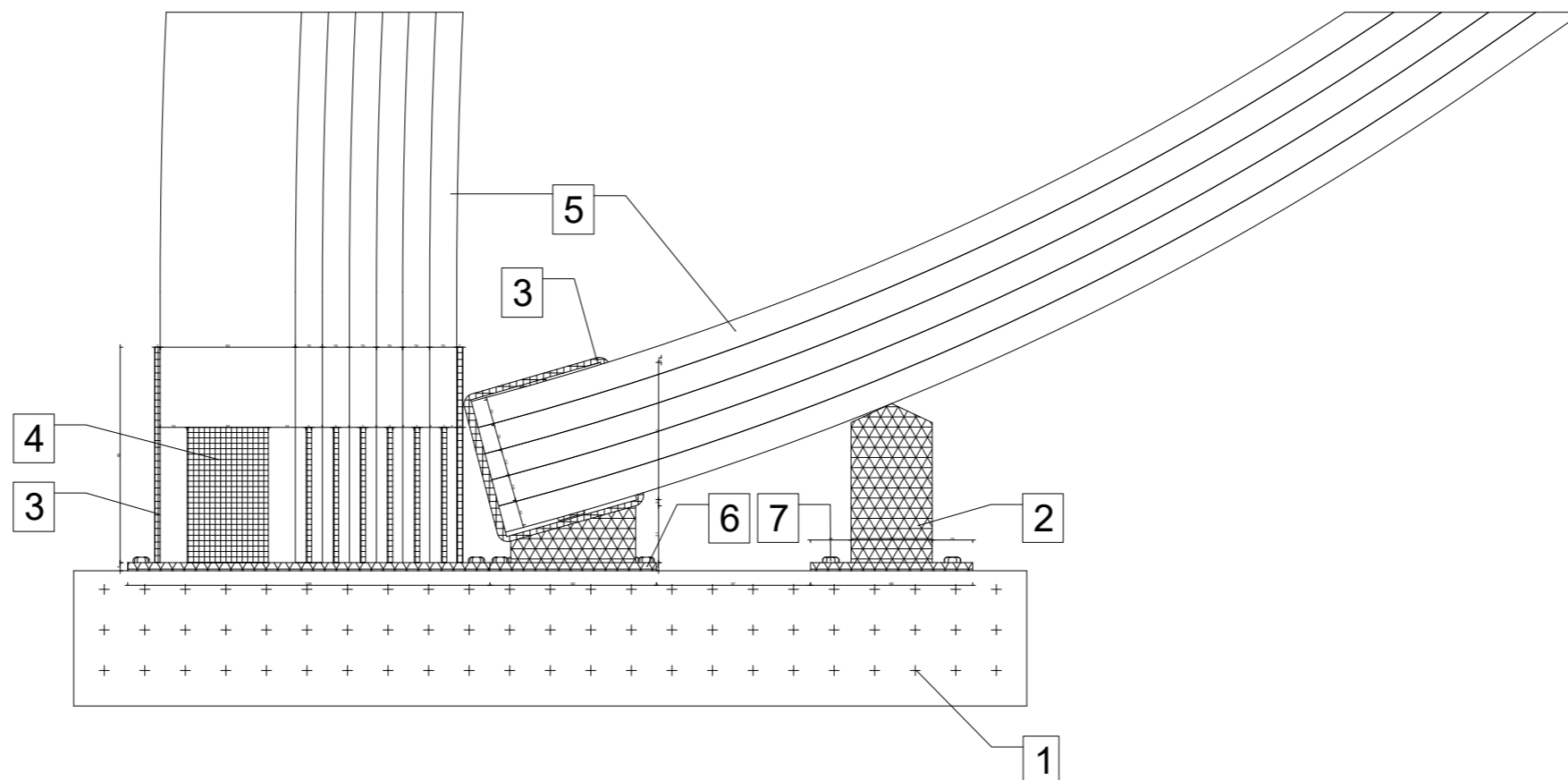


Side Section



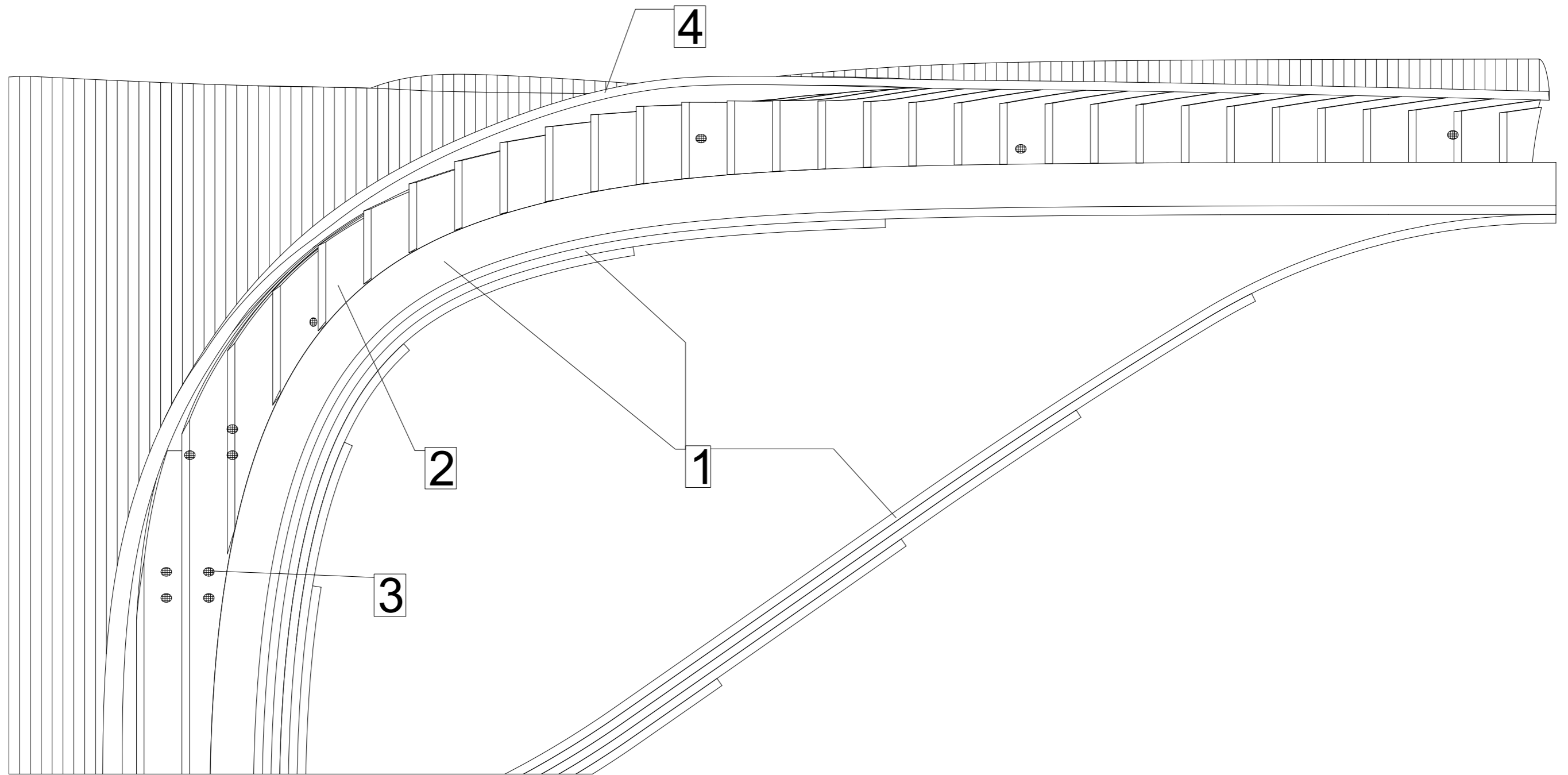
Front Section

IBU/FENG/Architecture		
Course Name	Architectural Structures	Scale: 1:100
Project Name	Architectural Structures	
Plan Name	Front Section & Side Section	Date: 24.01.2023
Professor Name	Dr. Prof. Marija Miloshevska Janakieska	
Student:	Eldin Fazliu	



- 1. Concrete Footing
- 2. Furclum
- 3. Steel
- 4. Steel Reinforcement
- 5. Laminated Veneer Lumber (LVL)
- 6. Steel Plate
- 7. Bolts

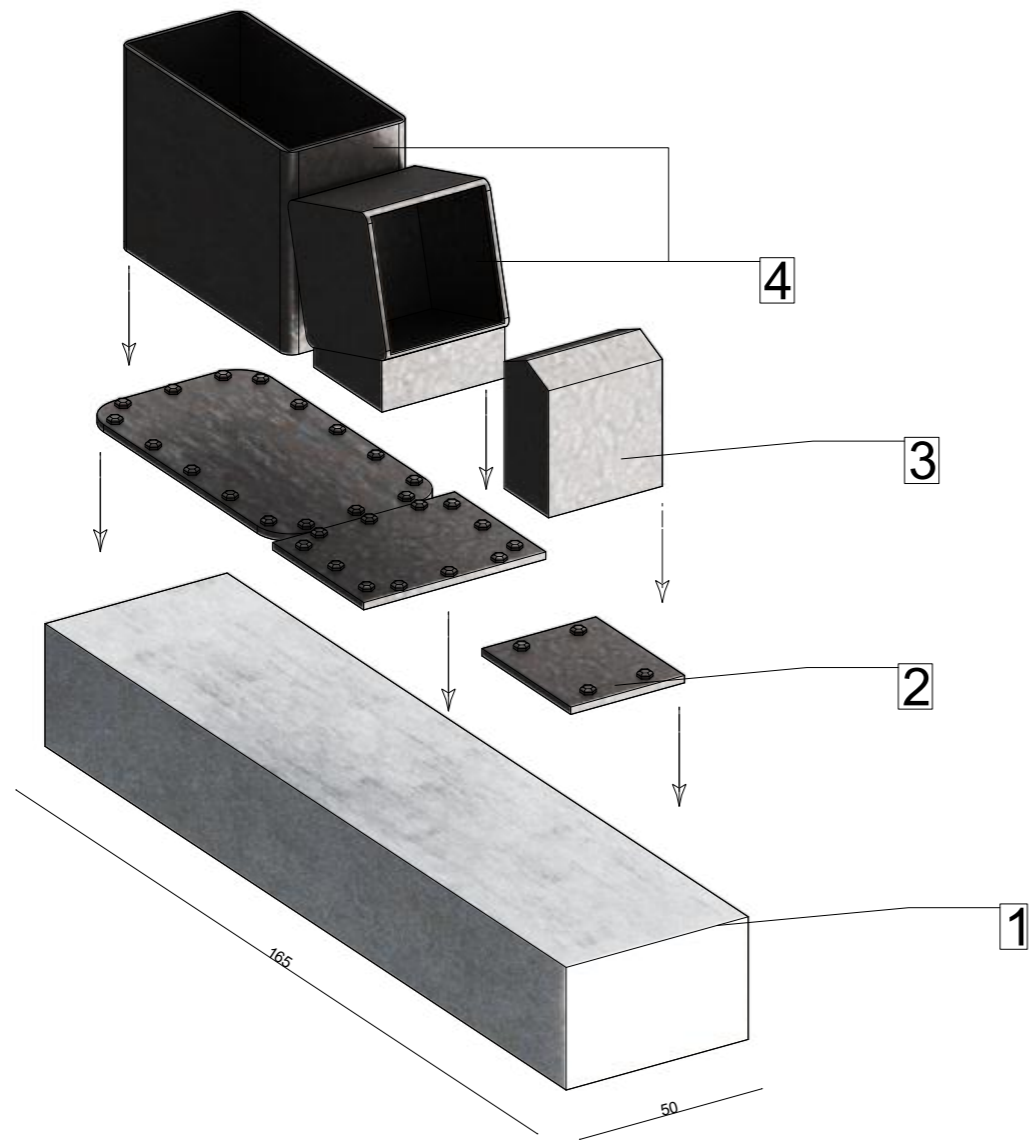
IBU/FENG/Architecture		
Course Name	Architectural Structures	Scale: 1:25
Project Name	Architectural Structures	
Plan Name	Footing Detail	Date: 24.01.2023
Professor Name	Dr. Prof. Marija Miloshevska Janakieska	
Student:	Eldin Fazliu	



1. Laminated Veener Lumber (LVL)
2. Pressure Treated Lumber (PT)
3. Iron Rods
4. Plywood

IBU/FENG/Architecture

Course Name	Architectural Structures	Scale: 1:50
Project Name	Architectural Structures	
Plan Name	Structure Detail	Date: 24.01.2023
Professor Name	Dr. Prof. Marija Miloshevska Janakieska	
Student:	Eldin Fazliu	

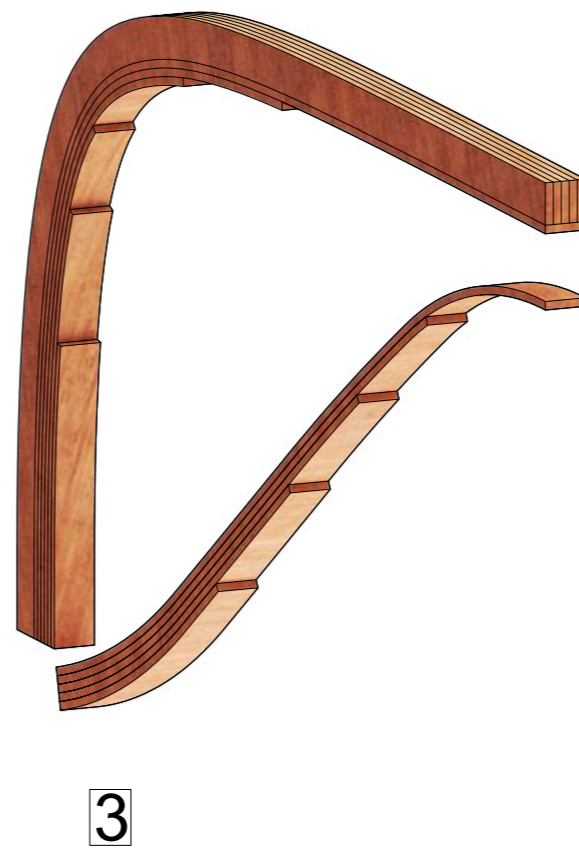
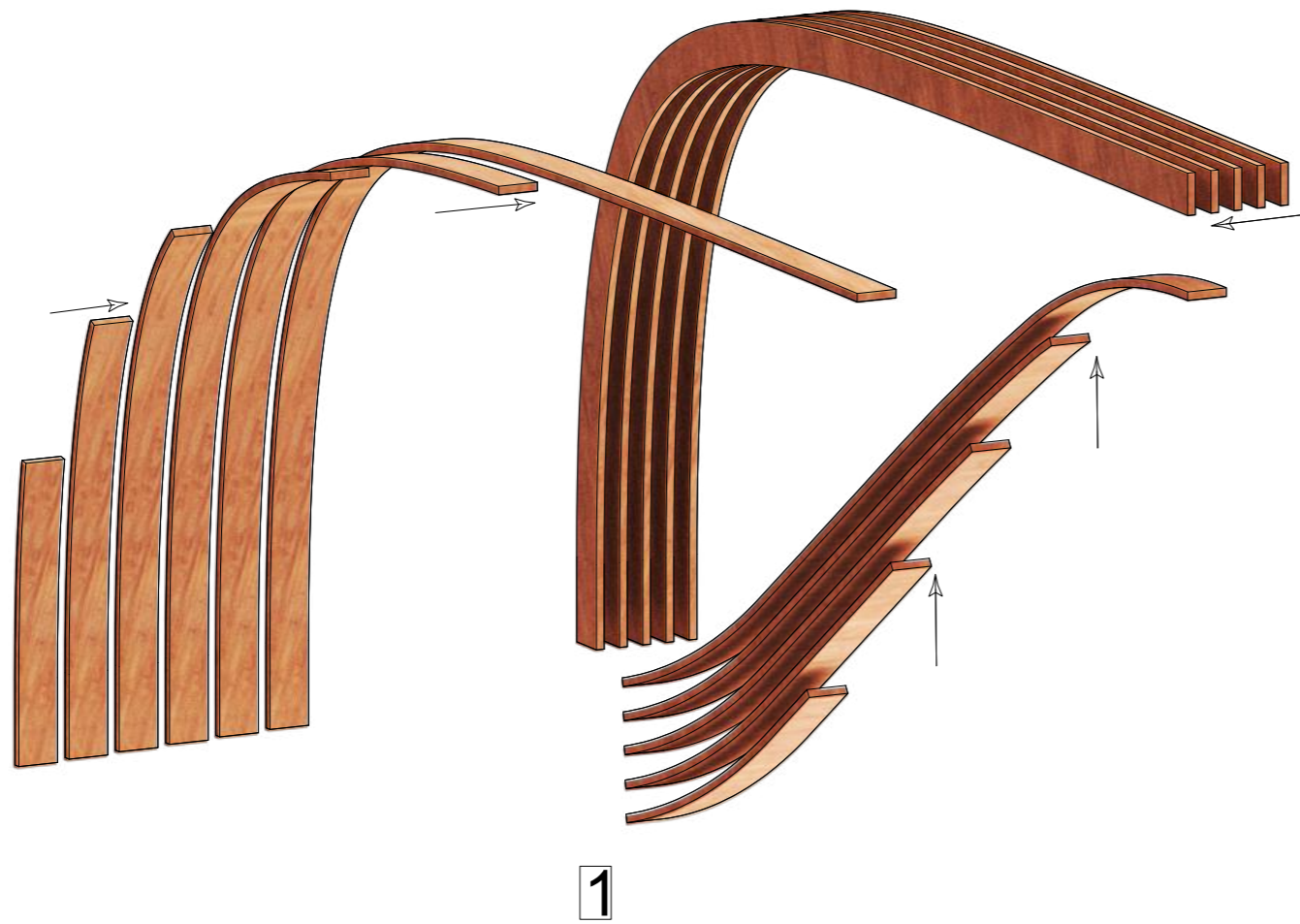


- 1. Concrete Footing
- 2. Steel Plate
- 3. Furclum
- 4. Steel

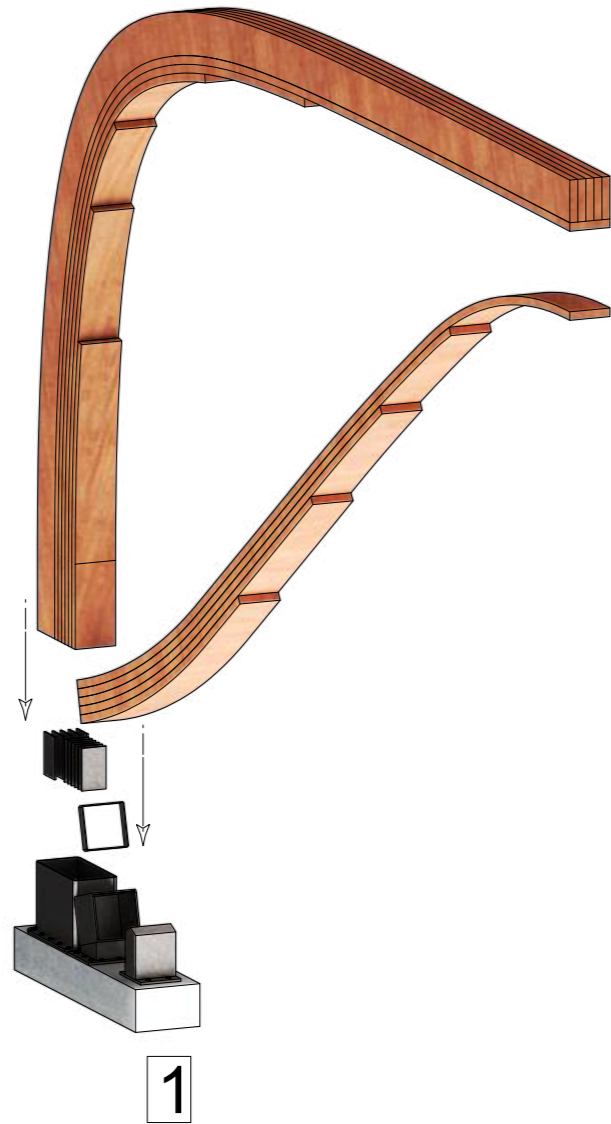


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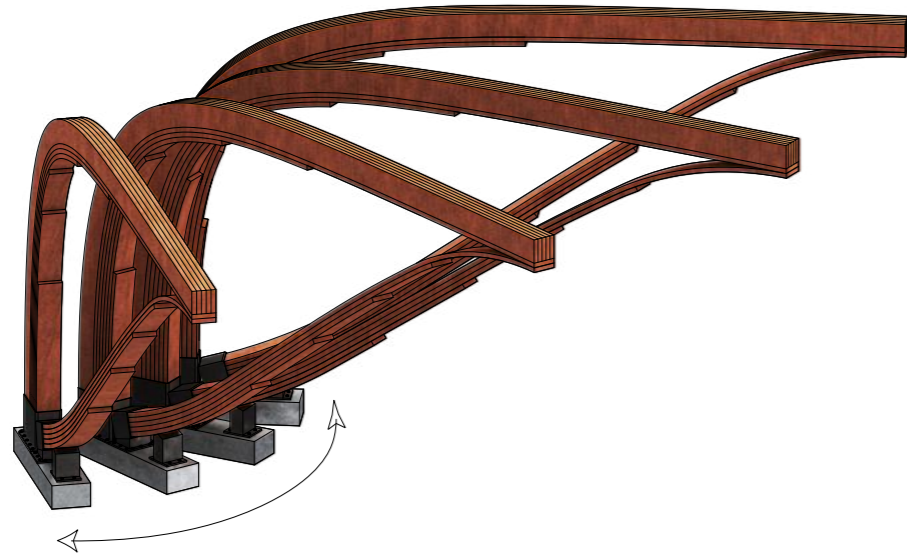
Course Name	Architectural Structures	Scale: 1:100
Project Name	Architectural Structures	
Plan Name	Footing Detail Process	Date: 24.01.2023
Professor Name	Dr. Prof. Marija Miloshevska Janakieska	
Student:	Eldin Fazliu	



IBU/FENG/Architecture		
Course Name	Architectural Structures	Scale: 1:400
Project Name	Architectural Structures	
Plan Name	LVL Gluing process	Date: 24.01.2023
Professor Name	Dr. Prof. Marija Miloshevska Janakieska	
Student:	Eldin Fazliu	



IBU/FENG/Architecture		
Course Name	Architectural Structures	Scale: 1:400
Project Name	Architectural Structures	
Plan Name	LVL and Footing conection	Date: 24.01.2023
Professor Name	Dr. Prof. Marija Miloshevska Janakieska	
Student:	Eldin Fazliu	



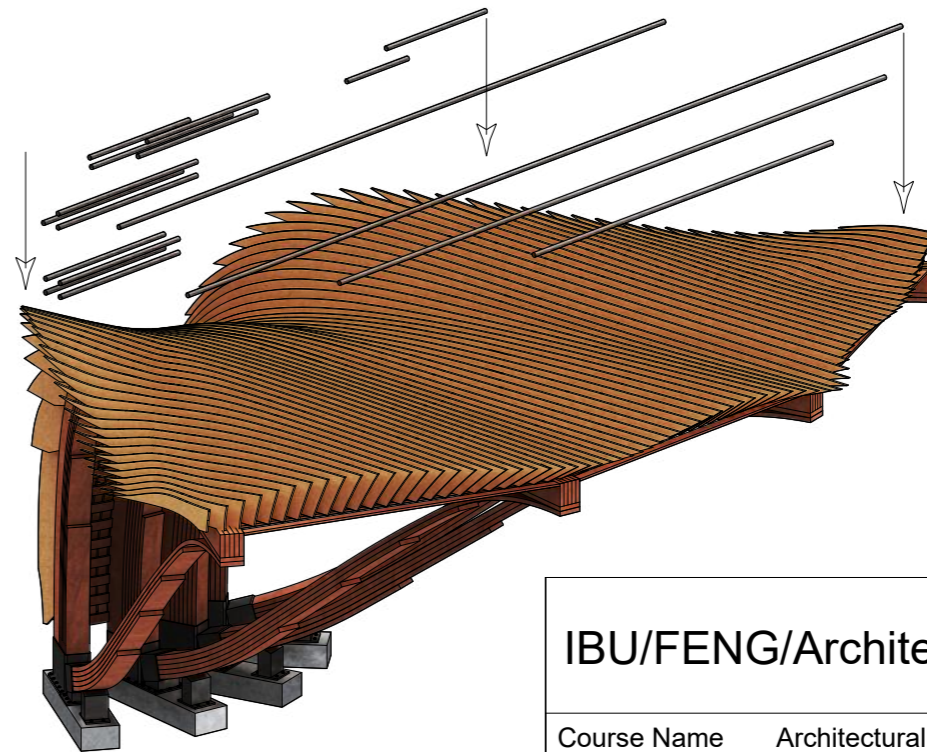
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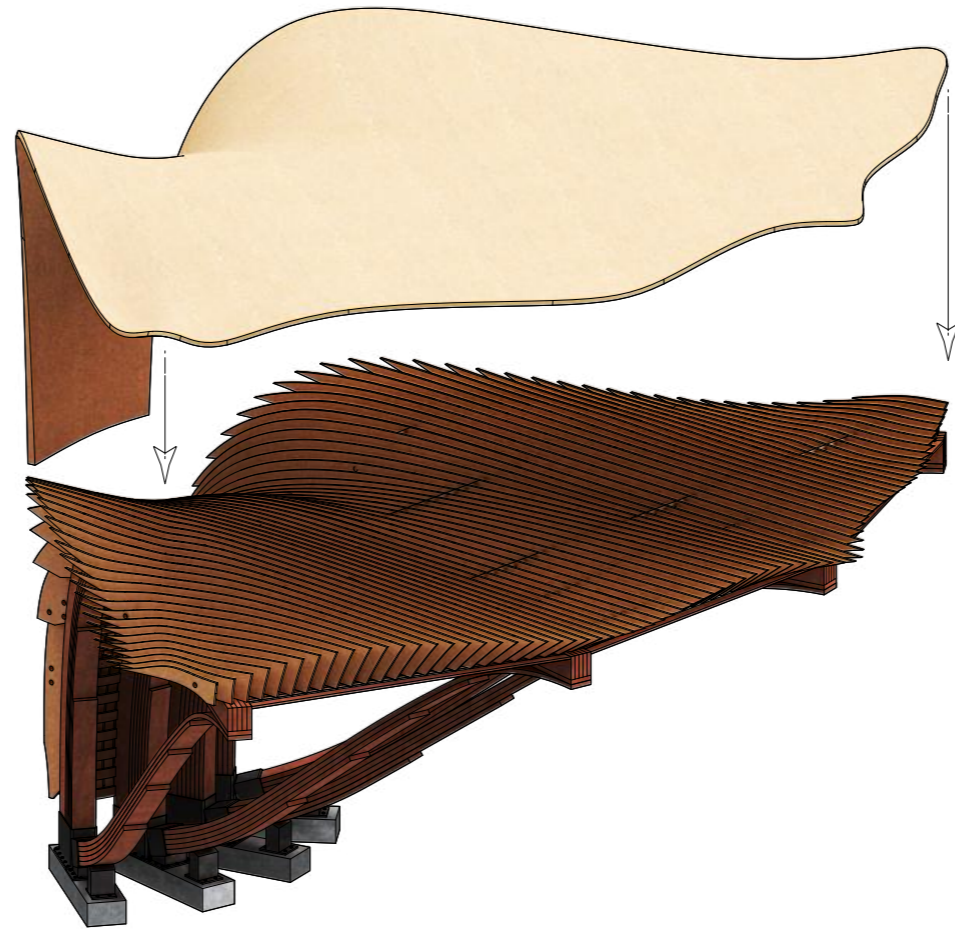
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4

IBU/FENG/Architecture

Course Name	Architectural Structures	Scale: 1:400
Project Name	Architectural Structures	
Plan Name	Structure building process	Date: 24.01.2023
Professor Name	Dr. Prof. Marija Miloshevska Janakieska	
Student:	Eldin Fazliu	



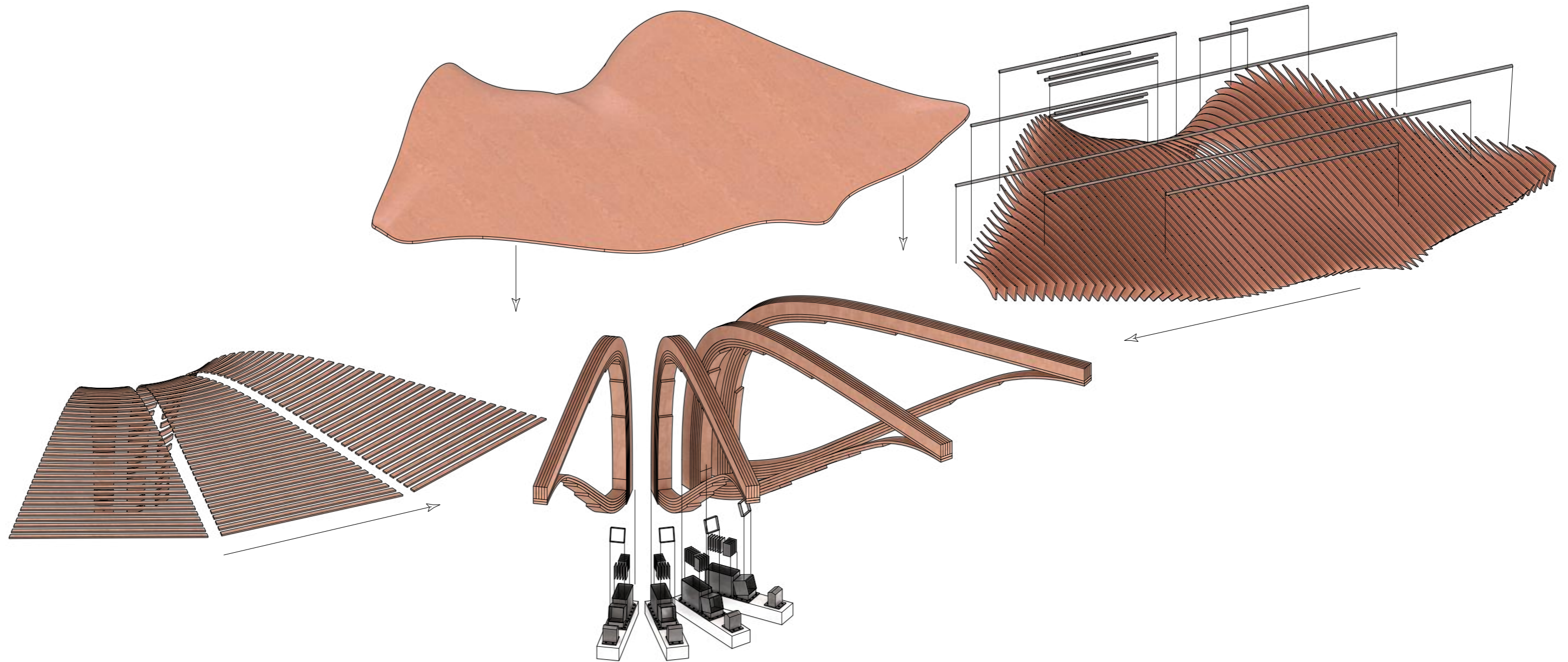
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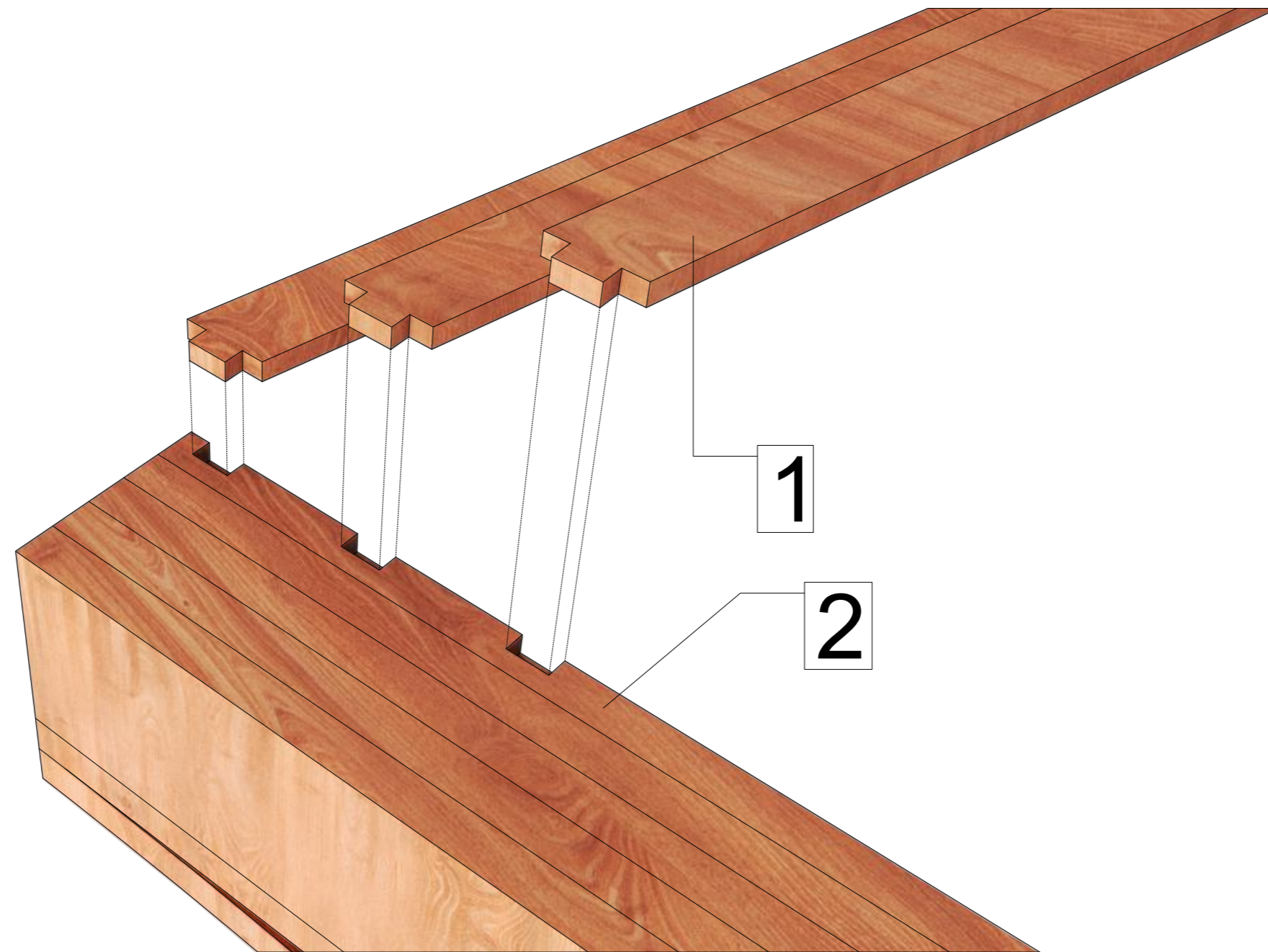
IBU/FENG/Architecture

Course Name	Architectural Structures	Scale: 1:400
Project Name	Architectural Structures	
Plan Name	Structure building process	
Professor Name	Dr. Prof. Marija Miloshevska Janakieska	Date: 24.01.2023
Student:	Eldin Fazliu	



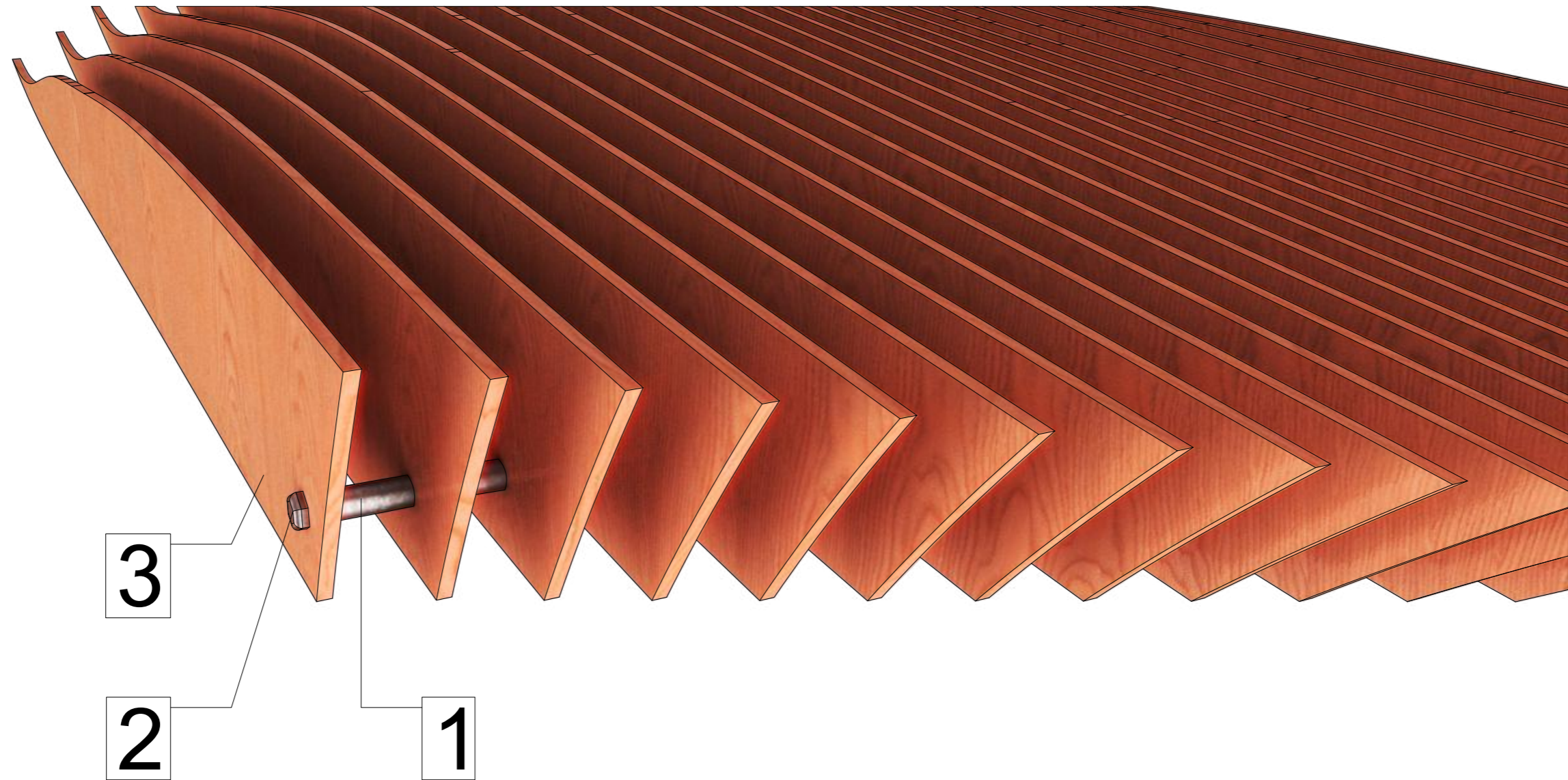
IBU/FENG/Architecture

Course Name	Architectural Structures	Scale: 1:400
Project Name	Architectural Structures	
Plan Name	Structure Explode	Date: 24.01.2023
Professor Name	Dr. Prof. Marija Miloshevska Janakieska	
Student:	Eldin Fazliu	



- 1.Laminated Veener Lumber (LVL)
- 2.Pressure Treated Lumber (PT)

IBU/FENG/Architecture		
Course Name	Architectural Structures	Scale: 1:25
Project Name	Architectural Structures	
Plan Name	Detail	Date: 24.01.2023
Professor Name	Dr. Prof. Marija Miloshevska Janakieska	
Student:	Eldin Fazliu	



- 1. Iron Rod
- 2. Nut
- 3. Pressure Treated Lumber (PT)

IBU/FENG/Architecture		
Course Name	Architectural Structures	Scale: 1:25
Project Name	Architectural Structures	
Plan Name	Detail	Date: 24.01.2023
Professor Name	Dr. Prof. Marija Miloshevska Janakieska	
Student:	Eldin Fazliu	

