

TRANSECTING THE HEART: AN ATRIUM INVESTIGATION

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ABOUT THE PROJECT // ANALYTICAL REPRESENTATION

For this project, we chose an existing architectural work and investigated the makeup of a portion of its structural enclosure. In order to fully grasp how the system works, we drew all the elements of the structure as they work together in the actual building. Through this process we gained an understanding of not only how each element functions but of how the system works as a whole to provide structural support for the building.

ABOUT THE BUILDING // ARCHITECTURAL CONCEPT

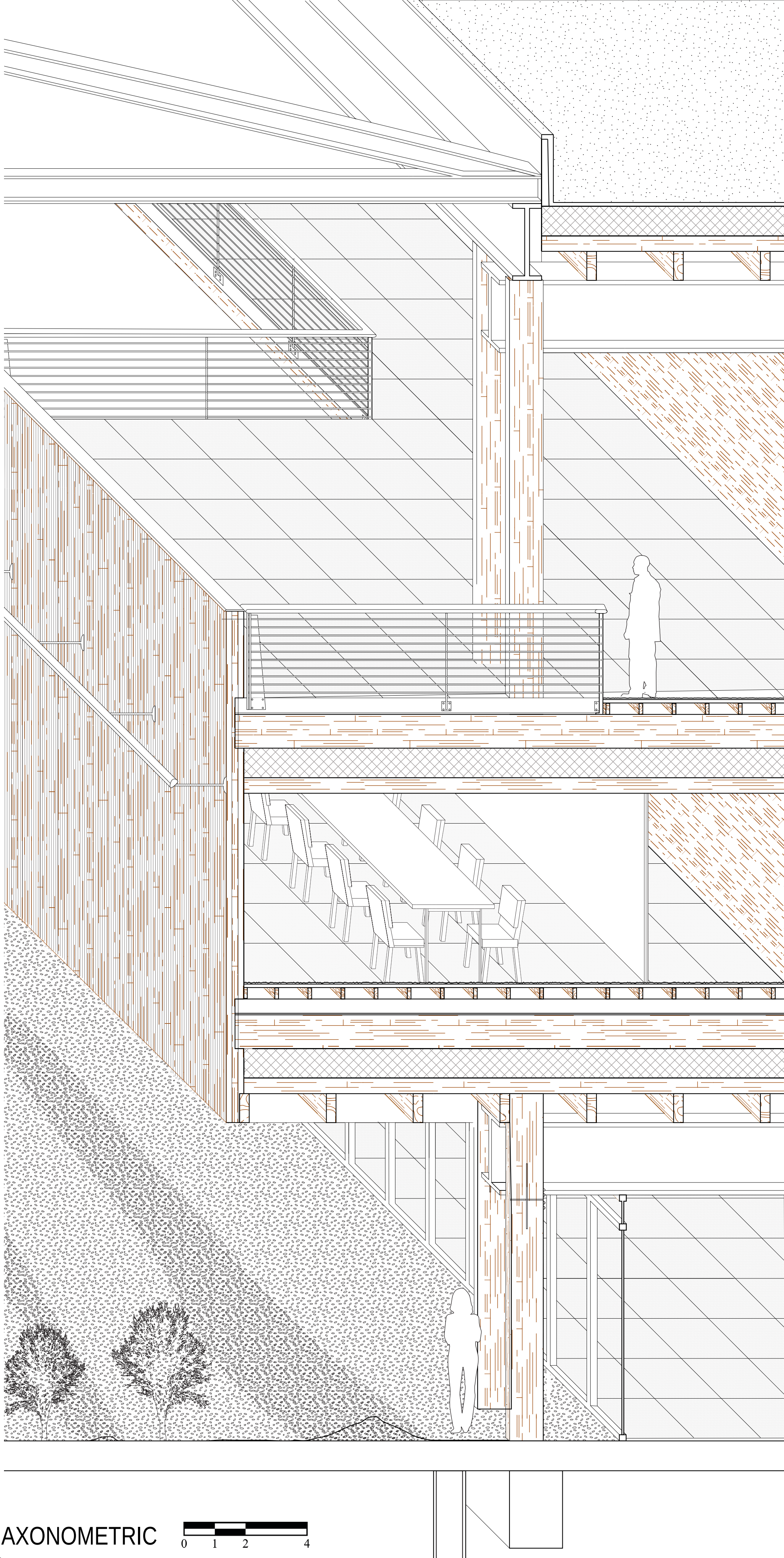
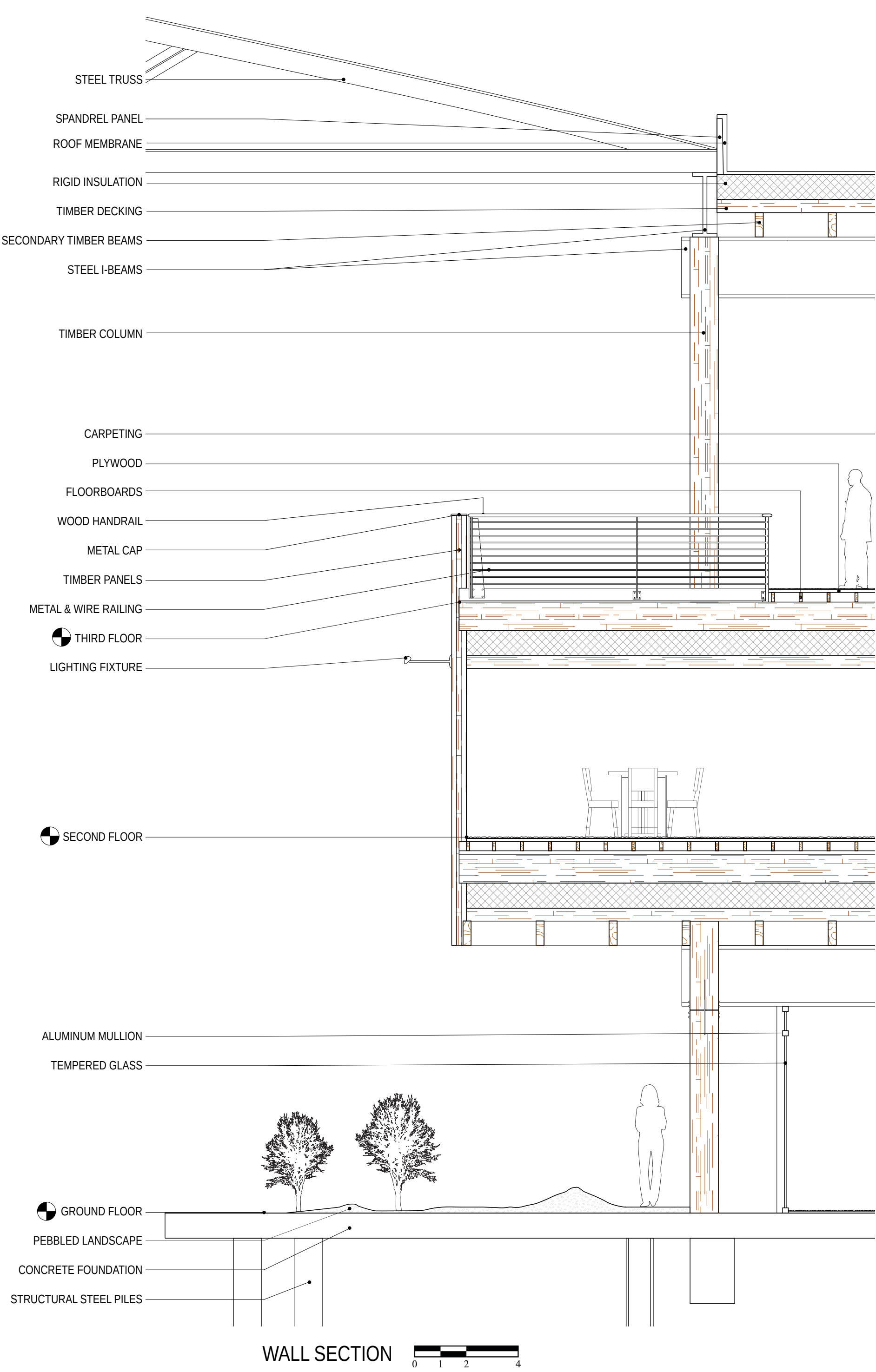
The Federal Center South Building 1202 is the headquarters for the US Army Corp of Engineers (USACE) Northwest District in Seattle, WA. As a model of green building practice and sustainable design, this ZGF Architects project set high standards for collaboration and renewal in architecture. Working with the General Service Association, the architects set their priorities on designing a building that would not only serve the needs of the client, the US Army Corp of Engineers Northwest District Headquarters staff, but would address the environment as well. This building received a LEED Platinum rating and is designed to renew the once-polluted industrial brownfield site and restore the Duwamish River shoreline.



ABOUT THE ENCLOSURE SYSTEM // OUR INVESTIGATION

Our research focused in on a section of the three-story atrium structure with a cantilevered piece. As we looked deeper into the structure, we discovered that not all of it is exposed—and not all of it is timber. The primary horizontal structure consists of steel beams, which support secondary timber beams and timber decking. Certain floor elements are hidden behind panels that closely resemble these beams. These and the timber elements are noted and described in our analytical wall section drawing. Additionally, we analyzed the spatial ordering of these elements in three dimensions through an axonometric drawing. This drawing helped us understand the module and repetitive sequences of the structural system.

From our analysis, it is clear that the architects put a tremendous amount of thought into designing the atrium as an enjoyable space. While the heart of a building is typically an undesired location for most activities, our analytical drawings demonstrate how the atrium in the Federal Center South Building 1202 is both thermally- with the direct sunlight- and aesthetically- with the reclaimed timber- comforting. It is fitting “social heart” for the structure.



MATERIAL+FORM // WORK+WARMTH

An oxbow in a river creates a peninsula with a unique environment, distant from the surrounding land. Similarly, this oxbow-shaped contains a peninsula, an enclosed atrium, with an environment unlike the flowing current of offices that surround it.

The cool modern offices are contrasted with the warmth of the central timber structure. The exposed timber beams and columns consist of wood reclaimed from a warehouse that previously stood on the site. In conversation with the modern oxbow of offices, the timber is reinforced by steel beams, giving it new life.

