



Saving Life along Portland's Waterfront

Block 8: Fire & Rescue Station 1 and Administrative Offices

Bureau of General Services Modified Design Competition, PDX, OR, 2005

by Fredrick H. Zal, Atelier Z



IMAGE: N.E. Perspective, Hacker / Willis

Saving Life along Portland's Waterfront

Block 8: Fire & Rescue Station 1 and Administrative Offices
Bureau of General Services Modified Design Competition, PDX, OR, 2005

by Fredrick H. Zal, Atelier Z

The volatility of seismic activity is increasing in the Pacific Northwest as smoke plumes out from the explosive Mt. St. Helens just to the North of Portland, Oregon. Following a study that only one of the existing Portland Fire & Rescue [PF&R] stations could function after a massive earthquake, voters approved \$61.1 million to improve City emergency facilities. In a seismic subduction zone event, massive liquefaction of alluvial sands could trigger a failure of the 1920's seawall along the Willamette River's west bank and acreage across Waterfront Park, Naito Parkway and well into the existing PF&R Fire Station 1 and Administrative Offices [FS1/A] site on Block 34. This seawall was ironically built to protect downtown from annual floods, but was back-filled with the sandy loams and silts washed downstream from the volcanic Cascade Mountains.

FS1/A is the primary response facility for all human caused and natural disasters endangering the lives, property and/or environment in Portland. It houses PF&R's command and administrative staff, as well as the elite three company / twelve person emergency response team on Block 34. The seismic retrofitting required for the existing 'Big House' would compromise its tactical operation during construction, so the Portland Development Commission [PDC] encouraged Fire Chief Dave Sprando to just build a new FS1/A on Block 8 instead. Moving the station to the new site causes an unmitigated delay of 15-30 seconds in emergency response time. Knowing that seconds saved in dispatching workers and vehicles equate to the rescue of lives and property, Chief Sprando questioned whether it is appropriate for PDC to compromise PF&R's Fire Management Area [FMA] response core. But, he begrudgingly entered into a Development Disposition Agreement, because PF&R is currently trimming \$5

million from their budget annually and needed PDC's financial assistance. In exchange for the existing 44,198 sq.ft. station site PDC will transfer ownership of 29,500 sq.ft. on Block 8 purchased for \$4.93 million, to the City and contribute \$10.57 million towards new construction. Both sites have panoramic views of Mt. Hood framed by spectacular bridges and delineate the Willamette River's urban edge, which was once bustling, but has been in a process of reclamation since 1974 when the eviscerating Works Progress Administration's highway was ripped out and replaced with McCall Waterfront Park. The new site for FS1/A's relocation is a ¼ block in the Old Town / China Town Historic District, with the historic Globe hotel occupying the remaining quarter. Portland plans for the new FS1/A to be integrated into the existing fabric of the neighborhood in a manner that respects and enhances the current visual framework.

Atelier Z

4912 N.E. 27th AVENUE

PDX OR 97211.6329

v/f.503.236.4855

W W W . F H Z A L . C O M

PDC's vision is to be a catalyst for positive change in creating a world-class city with a vibrant urban core and healthy neighborhoods. Their plans to adaptively reuse the existing FS1/A as a Farmers' Market and 168 housing units would serve as the Phase I catalyst for their Downtown Waterfront Redevelopment Projects. Abutting the existing site is Ankeny Plaza, which currently reeks from loitering, drugs and other illegal activity. PDC's project will potentially breath life back into this core urban area by grafting new home-owners into the neighborhood, and creating much needed pedestrian activity, retail and 24 hour 'eyes on the street'. These new residents will help establish the critical mass needed for an envisioned downtown waterfront mixed-use neighborhood with 1,741 new housing units over three phases on nine blocks. The projects will effectively complete the loop of urban experiences from the South Waterfront, north along downtown's River edge, to the Pearl District, across the proposed Burnside - Couch couplet and back around via the acclaimed Eastbank Esplanade. To realize this vision PDC needs voter-approved funding and \$36 million in private investment.

In 2002, former Mayor Vera Katz "expressed interest that FS1/A be part of her Design Initiative and a design competition be considered [to] inspire quality design of all buildings constructed in the City of Portland, beginning with the City's own facilities and signature developments in which it has a significant investment. Demonstrating design excellence is good business and beneficial to the life of the community by producing innovative and enduring works of architecture that will stand the test of time and be deemed remarkable examples of excellent design for years to come." With this charge, the Bureau of General Services [BGS], PF&R and PDC, solicited Architectural and Engineering Services for new construction of the FS1/A through a "modified competition process" that was divided into two phases: a Request for Qualifications [RFQ #103790] and a Request for Proposals [RFP #104009] competition brief.

Even though the competition's initial RFQ was open internationally, BGS chose to lightly advertise in Washington, Oregon, California and Idaho on Valentines' Day 2005. Staff felt that it would be inappropriate to require qualified professionals to fly cross-country for preliminary meetings with only a flat \$25,000 stipend, even though contracted A/E fees approximate \$1.5 million. Only ten teams responded by the four-week deadline. There was one team from Cincinnati, Ohio; but all others were from the Portland metropolitan area. BGS awarded stipends to three pre-qualified teams on 28 March 2005: Thomas Hacker Architects / Michael Willis Architects; Allied Works Architecture / Peck Smiley Ettlin Architects; and Emmons Architecture / Hennebery Eddy Architects. Per the RFP, teams were required to attend a Station Advisory Committee and Neighborhood Informational Meetings on 5 April 2005. The competition brief called for high quality design, materials and systems in the 17,462 sq.ft. Fire Station; 31,720 sq.ft. of Administration; 3,000 sq.ft. for the Fire Museum; 6,000 sq.ft. for a Learning Center; and 30,000 sq.ft. of underground parking. The competition narrative placed development first over the public or technical requirements of the fire station. The 11"x17" design submittals were juried on 4 May 2005, and had to provide a design concept with green building opportunities, project organization, schedule and services fee. The multi-bureau project advisory team jury was: Amy Miller-Dowell, PDC; Matt Brown, Transportation Department; Arun Jain, Planning Bureau; Rich Rodgers, Commissioner Sten's Office; Greg Acker and Dave Tooze, Office of Sustainable Development; Jeff Joslin, Bureau of Development Services; Dick Ragland and Connie Johnson, BGS; John Klum and Jack Graham, PF&R; and Christine Moody, Purchasing Department.

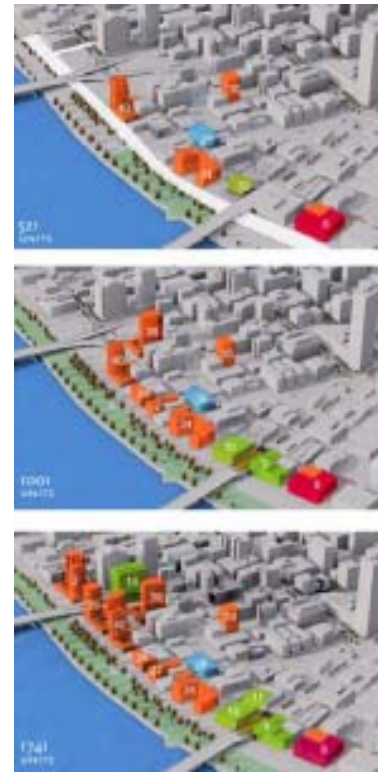
Atelier Z

4912 N.E. 27th AVENUE

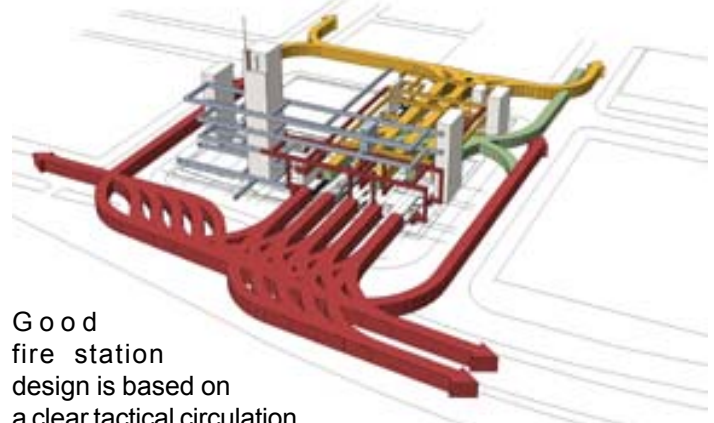
PDX OR 97211.6329

v/f.503.236.4855

W W W . F H Z A L . C O M



IMAGES: Phase Diagrams, PDC
Circulation Diagram, Hacker / Willis

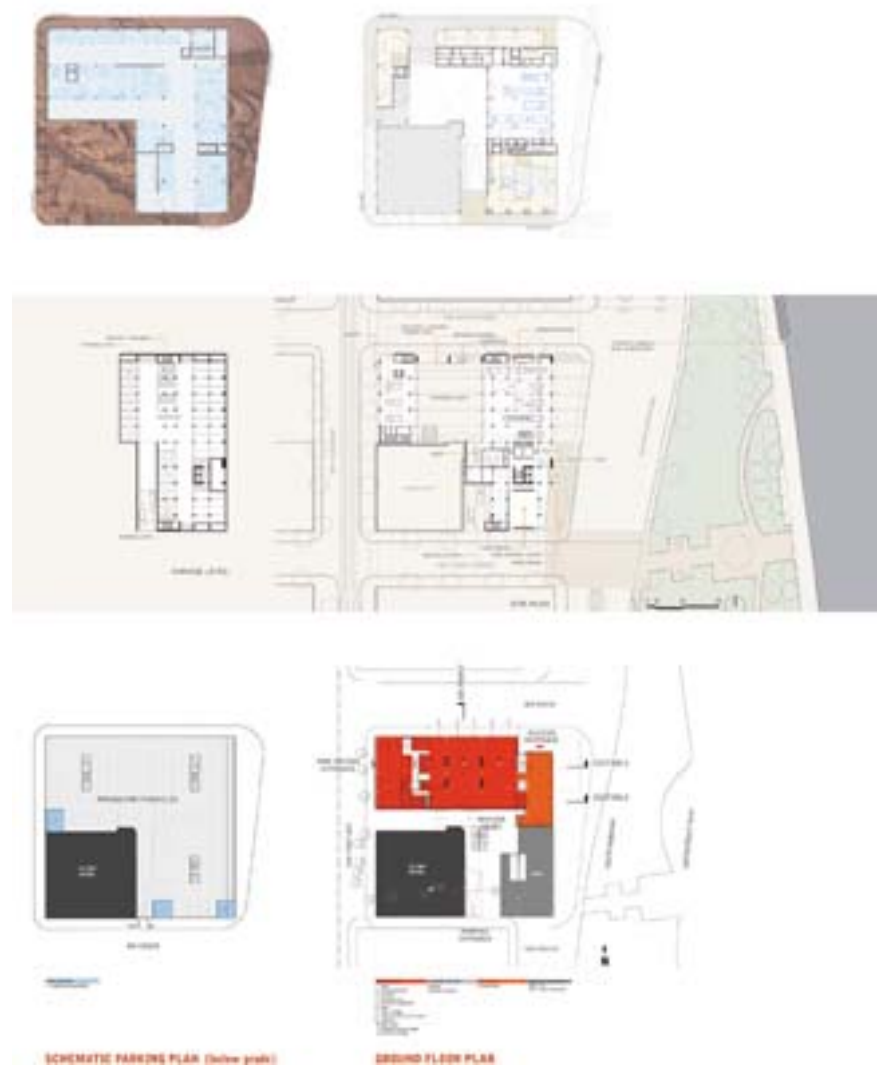


Good fire station design is based on a clear tactical circulation diagram. But, in this competition, the circulation data provided to teams in this RFP was muddled. Two diagrams provided for vehicle access and egress upon the site, preclude truck bays along Naito Parkway because the provided geotechnical report states that "emergency truck exits should not be located on the NE quarter of the Block [due to a seismic hinge point below] and seismic emergency exit movement should be in the opposite direction, not at the intersection of Davis and Naito Parkway." Allied/Ettlin's design followed this advice and efficiently compacted the building onto only a half block, and thereby freeing up a quarter block for potential private development into a commercial / housing tower, mortal flaws to be discussed below. However, nostalgia deeply swayed the jury to have the grand ladder truck bays open onto the heroically visible waterfront as with the existing FS1/A. This seismically conflicting configuration was drawn from Emmons' initial design study plans and perspectives, included in the brief, that pre-dated the geotechnical report

by two years. Juror and Fire Marshal John Klum believes that "the best circulation is depicted in the [Hacker/Willis] scheme. This is primarily because it allows the apparatus [trucks] to respond directly onto NW Naito Parkway for direct access to the main arterial accessing the key bridgeheads for responses to the east side of the river. Approximately one third of FS1/A's responses are into this area and challenge PF&R's ability to meet response time goals for fire and emergency medical response. The ability for all apparatus to edge out and not be in a single file formation to negotiate the signal at [the NE corner] cuts down on response times. Although the [Emmons/Eddy] scheme also has this configuration, the [Hacker/Willis] scheme allows three points of emergency ingress/egress in a seismic event [through the contingent Museum bays]. Another advantage of the [Hacker/Willis] scheme is that it allows direct access to the five drive-through bays when returning from responses" by keeping them to the North, without the interference of the Safety Learning Center & Fire Museum [SLCFM] component designed by Emmons/Eddy. These pragmatic issues of fire and life safety primarily determined the jury's conclusions. The plans included in the brief for FS1/A by Emmons and GBD Architects also depicted this desired third circulation path.

Allied/Ettlin were effectively disqualified from winning the competition due to misdirection in the program narrative written by PDC, which repeatedly emphasized that "a new station could be a positive asset to the community if the design creates active street frontages with programmatic changes" and that such "potential options include retail, office and/or housing components in addition to the fire station, museum and potential learning center, with potential for public-private partnership for development". Allied/Ettlin's submission freed up 33% of the site and punched through the zoning envelope with the most innovative scheme having a 125-foot residential tower. PDC's narrative conflicts with the Station Advisory Committee's recommendation to the design jury that in our post-9/11 financial culture, there are requirements to secure against potential terrorist infiltration, surveillance and car bombing. Plus, the jury felt that the consolidated 1/2 block design constrained the PF&R's future expansion potential, and did not meet PF&R's parking needs due to additional residential parking required, even though the Hacker/Willis design showed it is possible to compact FS1/A parking onto a 1/2 block by using extensive tandem and lift parking stalls.

Emmons/Eddy designed a beautiful interpretive learning center that responded very strongly to the PDC project Stuart Emmons has been co-writing for years with a multi-modal courtyard, alleys and portals. Their SLCFM would certainly encourage a consideration of personal safety with the engulfed pyrotechnic nightmare house. But, the SLCFM is already being designed by Formations Inc. and programmed by the Jeff Morris Fire & Life Safety Foundation under separate contract, similar to Gehry's EMP in Seattle. The brief only asked for a shell design that allowed for 20,000 visitors per year in one contiguous space for both functional and staffing efficiencies. Emmons' conscious divergence from the updated program cost them the project.



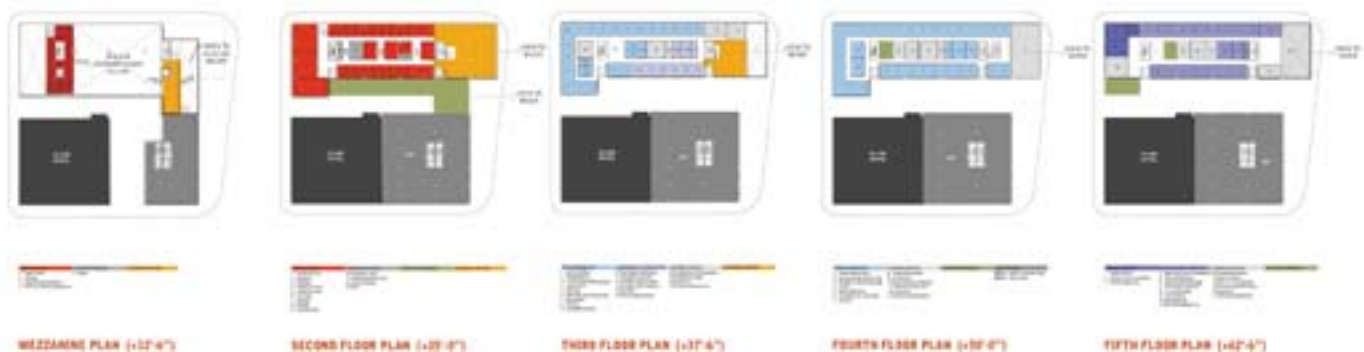
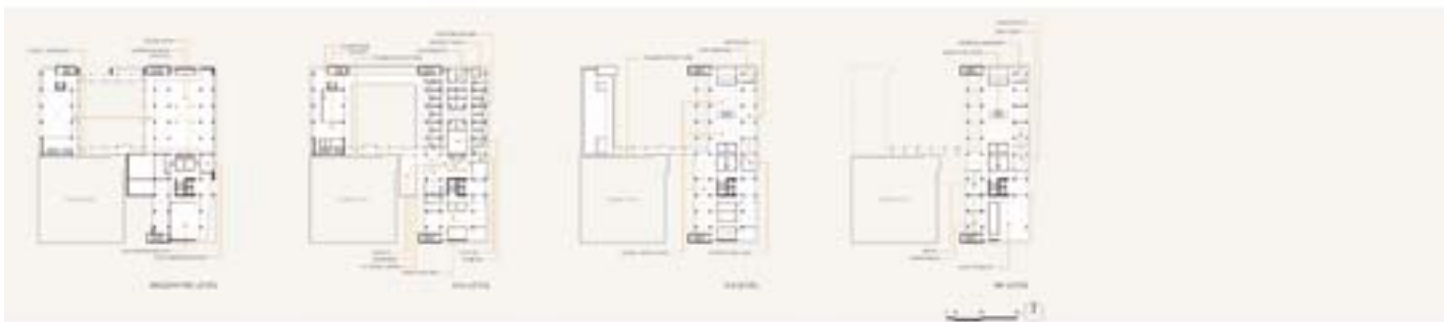
IMAGES:
 "Toolbox + PPE" Diagrams, Hacker / Willis
 Floor Plans [top to bottom]
 Emmons / Hennebery Eddy
 Hacker / Willis
 Allied Works / Peck Smiley Ettlin

Atelier Z



that the design, which uses a similar neo-historic terracotta "shield" to the Allied/Ettlin submission, is a "merging of physical structure and human meaning that transcends historical periods and has an immediacy of impact that gives it great power". Hacker enthusiastically stated that even though it was a team process, he would not have won this competition without having Gustav Kamp on his team. Kamp, the lead architect from Willis, described the project as "a machine for emergency response [with their core design concept being] a 'toolbox' and 'personal protective envelope', where equipment and talent are layered behind a high-tech barrier". Kamp's background of volunteer firefighting, his masters thesis from the University of Pennsylvania entitled "Architecture of Fire: Interactive Community Fire Stations", researched through an internship with the Portland Fire Bureau and used to help create the bond funding FS1/A, and three years of mentorship under Hans Ettlin, against whom he competed in this competition, all inform his intimate knowledge of fire station design and operation. Timothy Eddy knows this is key in the subjective competition milieu where one cannot sit down with the client to hash out preliminary design ideas. Kamp fully understands that "fire stations are symbols of community, and the ideas of that institution outweigh folly or symbolic importance."

The Thomas Hacker Architects / Michael Willis Architects team were given notice of intent to award the commission contract on 16 May 2005. Hacker/Willis won the competition because they designed an archetypal firehouse and clearly explained their design process through eighteen diagrams. They were the highest scoring proposer based upon written evaluation criteria and team presentations. The jury scored the proposals using a maximum 200 point base for Idea Sheet [5], Project Understanding [50], Design Concept including Identification of Green Building Opportunities [60], Project Organization and Schedule [35], Proposed Fee [35], and Diversity in Employment Contracting [15]. Hacker muses





Schematic Design work on FS1/A began in June 2005, and was completed by November 2005. The total construction funding allocated for this project is \$14.4 million. Project Manager Johnson stated that "the project is holding at 40% schematic design, [because] the competition design came in over budget" at \$25 million. After significant program reconciliation, it has been determined that to build the most basic of structures meeting the requirements of a first responder station's program will cost \$20 million. They are hoping to value engineer the design down to \$22 million to keep a number of the urban elements that foster an active waterfront. Occupancy of the project is targeted for December 2008.

Johnson further explained that "the City does not often feel that they have project budgets that can afford additional expense. Our modified competition cost us half what others have, and most of that cost was in the stipends. In this case we felt that because the design [competition submittals] would be so well-developed, we might be able to reduce SD time/cost."

That was not the case. Similarly, the tram project is seriously over budget despite Sarah Graham's defense to the competition jury that their firm has extensive experience bringing projects in on budget and the design was directly based on the competition program provided. The jury had no further questions, and Angéllil Graham Pfenninger Scholl Architecture was awarded the project. Chief Urban Designer and juror Arun Jain quipped that "you can hire the best design team in the world, but architecture can only be as good as the client". Eddy believes that "in the case of both the Tram [competition] and FS1/A, initial budgets prepared by the clients were quite inadequate. Some of [the budget overruns] can be blamed on the current construction economy but I think most of it can be laid to rest on over-optimistic, incomplete early budget analysis that the competition processes inherited. [All three teams] would have been battling the budget in much the same way as the winning firm. They are in a tough spot trying to salvage the project." When interviewed for this article about client's expectations, Thom Mayne spoke eloquently about the Morphosis/DLR teamed Federal Courthouse project in Eugene, Oregon; "Tell me how the program, budget, time frame works, and I will do everything possible to make it articulate. But, don't tell me how it looks! In a pluralistic culture, it is impossible to please everyone. Of course, I want [Judge] Hogan to be happy, he is my client! But, I am going to talk to him... A good piece of architecture will resonate with both the client and the community. The Pompidou Center was forecast to destroy Paris, as was the Eiffel Tower." Mayne's proactive stance of having an educational dialogue with his clients has led to beautiful works of urban architecture around the world. Jain hopes that the City of Portland will go out on a limb as has been done in Eugene for Mayne's courthouse, and in Seattle for their Public Central Library by Koolhaas/LMN, because the Tram is proving to be Portland's 'Eiffel Tower'.





The Eugene Courthouse process informs Portland's evolving Request for Design [RFD] methodology for signature sites. The Courthouse was awarded through a Federal General Services Administration [GSA] design competition advised by Donald Stastny. Portland's RFD process, which came out of former Mayor Katz's City Design Initiative, was drafted directly from the GSA's "Design Excellence" Option III standards for new buildings. This progressive tack for Portland revises current RFP/Q and sole-source consultant methods, and endeavors to embrace emerging design talent on an equal playing field with more seasoned professionals. Johnson added that "one of our goals [in this modified design competition] was to open up the usual RFP selection process to include design firms who were not the 'usual suspects' responding to fire station RFP's". For the FS1/A competition, up to 15% of points awarded to teams during the RFQ were based upon being an emerging small business or having such talent significantly integrated into the team.

With the respected skills that a professional design competition advisor and practitioner provides, Portland's future competitions would be more likely to have a program that would result in a design that can be delivered on budget and schedule, while attracting a diversity of qualified teams from across the nation and beyond. Four other competitions in this RFD process offered excellent opportunities to educate the public about the importance of design for envisioning a city: Block 76 [Competitions Winter 2002/2003] and Living Smart [Competitions Spring 2005], which were both advised by Fredrick Zal; Mt.Tabor Reservoir [2003] by the Water Bureau and Parks Department; and the Portland Aerial Tram [2004], advised by Reed Kroloff. Design competitions have a long history in Portland, and have been tantamount to forming the careers of several practitioners in the FS1/A competition. Eddy started his firm with the Hermosa Beach Pier Design Competition. Brad Cloepfil, principal of Allied, feels that competitions are "a way for young architects to get work. Even if you don't get the project, your work is recognized, and your chances of getting invited are better." [Competitions, Fall 2003] Hacker and Cloepfil, who formerly worked together, won the Arizona Historical Society Design Competition and it spring-boarded what is now Hacker's firm. Thomas Hacker has been privileged to work previously with such well-advised clients for the Eugene Federal Courthouse, Aerial Tram and Block 76 and whole-heartedly supports the process. There are a number of signature sites in Portland, which are tagged for future design competitions. Most eagerly anticipated is the Block 16 office/retail tower RFD at the Morrison Bridgehead along the waterfront in PDC's project Phase III. Portland will continue to actively envision its future by harnessing the talent only available through a design competition process.

IMAGES:

Opposite: Elevation + N.E. Perspective, Allied Works / Peck Smiley Ettlin
 Above: Section + N.W. Perspective, Emmons / Hennebery Eddy
 Below: N.W. Perspective, Hacker / Willis



Fredrick H. Zal, NCARB, is a professional design competition advisor and the principal architect of Atelier Z: an architecture and industrial design studio, which advocates dialogue in the fine + applied arts. By striking a balance between praxis and theoros, Atelier Z passionately engages works with a focus upon theoretical morphology, constructivism and empathy theory. As a Professor of Design and active practitioner, Fredrick's work is published, exhibited and lectured upon nationally.

Atelier Z

4912 N.E. 27th AVENUE

PDX OR 97211.6329

v/f.503.236.4855

W W W . F H Z A L . C O M