

Visual Arts Building

Steven Holl 2016

\$50m

126,000 s.f.

396 dollars per square foot

Multiple
Centers of
LIGHT



IOWA
 $\frac{4}{7}$
 $\frac{11}{11}$

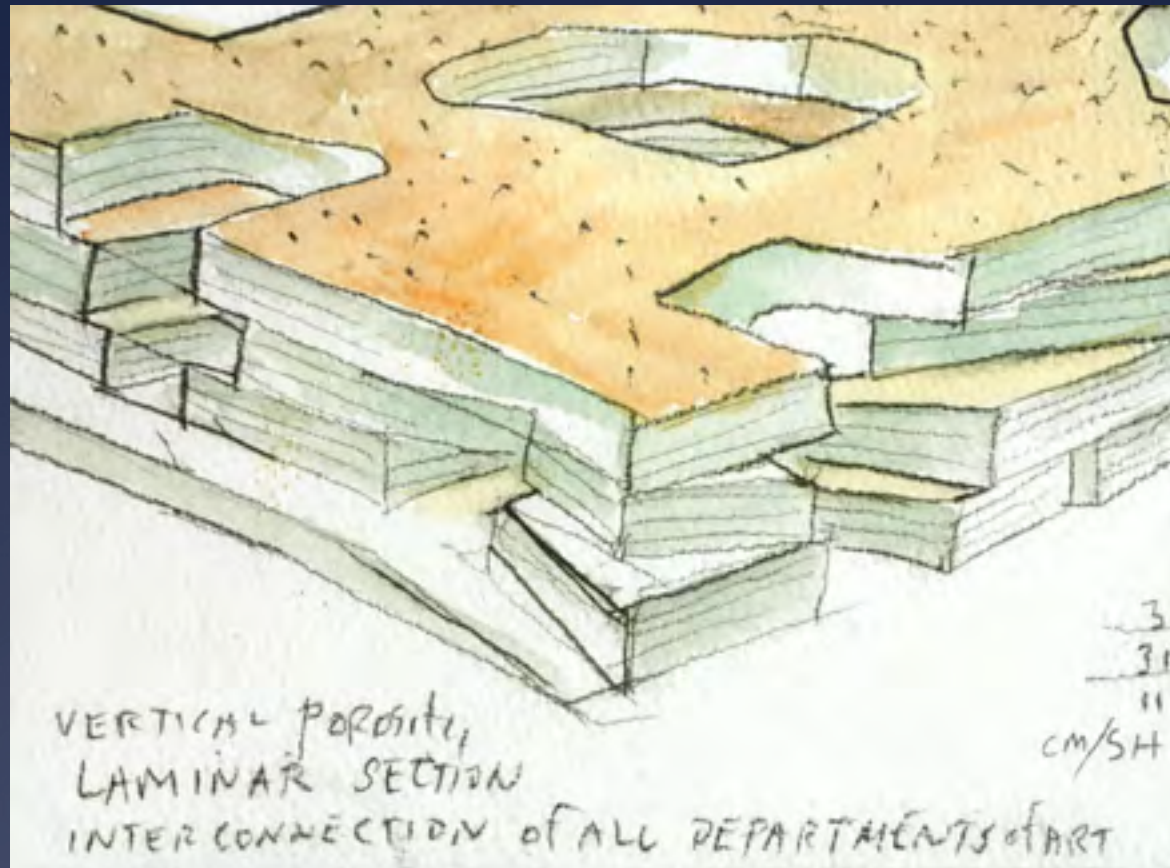
STAIRS AS SOCIAL CONDENSER / INTERCONNECTOR

- 7 cuts of light
- Laminar shift of floor plates to allow balconies

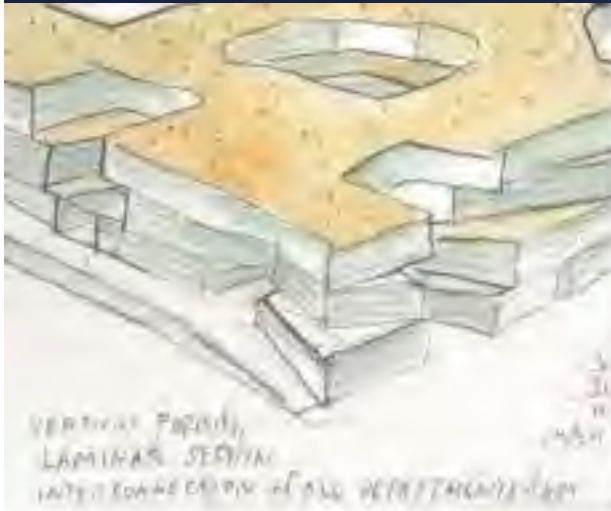


An art school for a collaborative future
Skin is structure





Light cuts connect departments vertically for collaboration



To create balance between the existing Arts Building West, which is horizontally porous and of planar composition, the new Visual Arts Building was specifically designed to be vertically porous and volumetrically composed. Some key points of the design follow.

From the architect:

1. Interconnection: Horizontal Programs, Vertical Porosity

Courtesy of Steven Holl Architects

In a school of the arts today, interconnection and crossover are of fundamental importance. Today digital techniques open up increased interconnection between all the arts. Interconnection between all of the departments is facilitated in the vertical carving out of large open floor plates. Students can see activities ongoing across these openings and be encouraged to interact and meet. Further interconnection is facilitated by glass partitions along the studio walls adjacent to internal circulation.



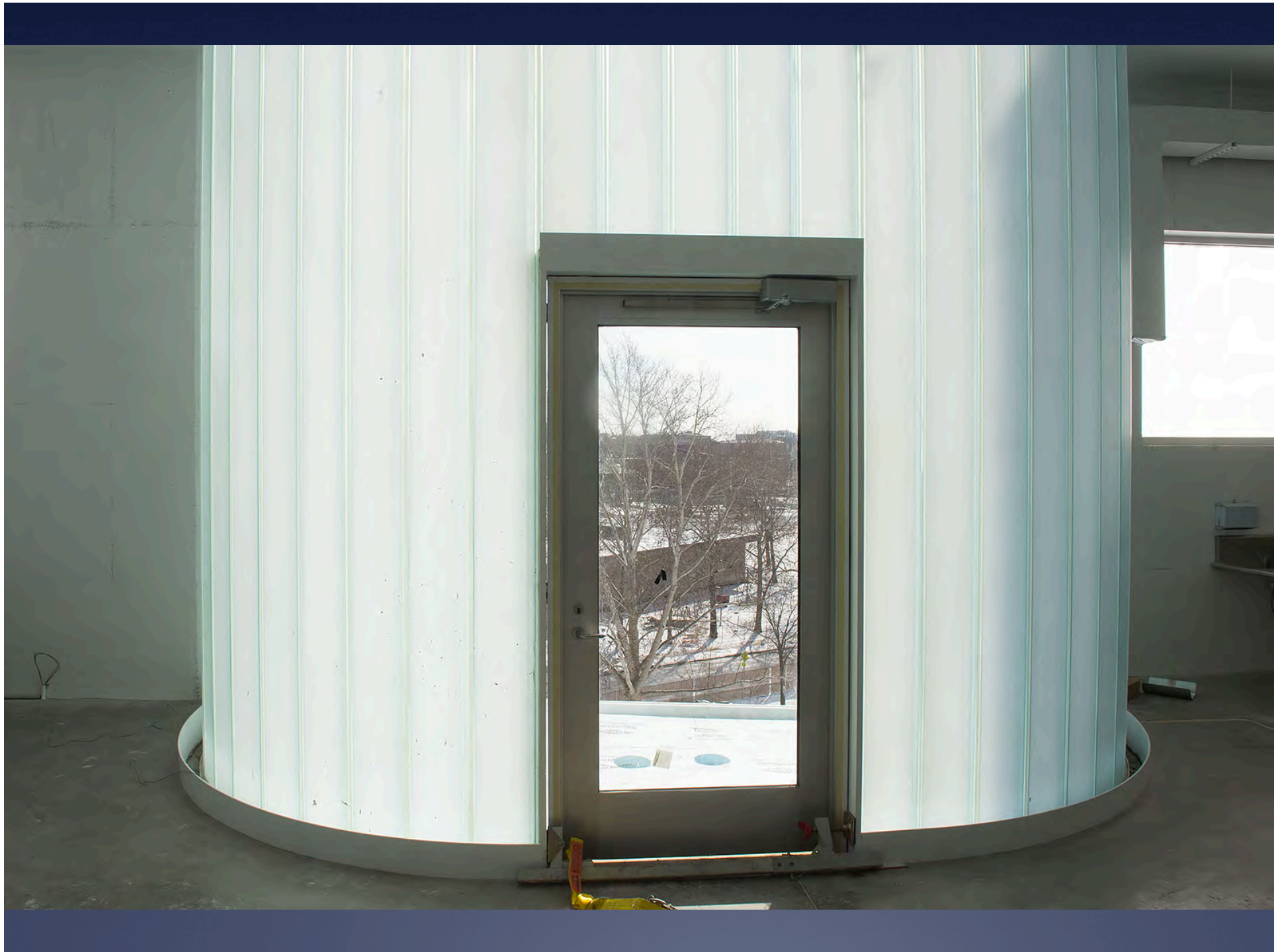
Opposing the horizontality of the older arts building with vertical cuts of light

Seeing each floor as a lamination making up the mass and offsetting the laminations to make balcony spaces



The cuts of light, each subtracted shape is different, each is enclosed with channel glass insulated with nano-gel









Window punctures based on
Fibonacci series, 3, 5 or 8 feet square



Fibonacci series at work, 3, 5, 8



Exterior concrete bearing walls... Ando would not be pleased



Looking up at the laminar offsets in the cuts of light

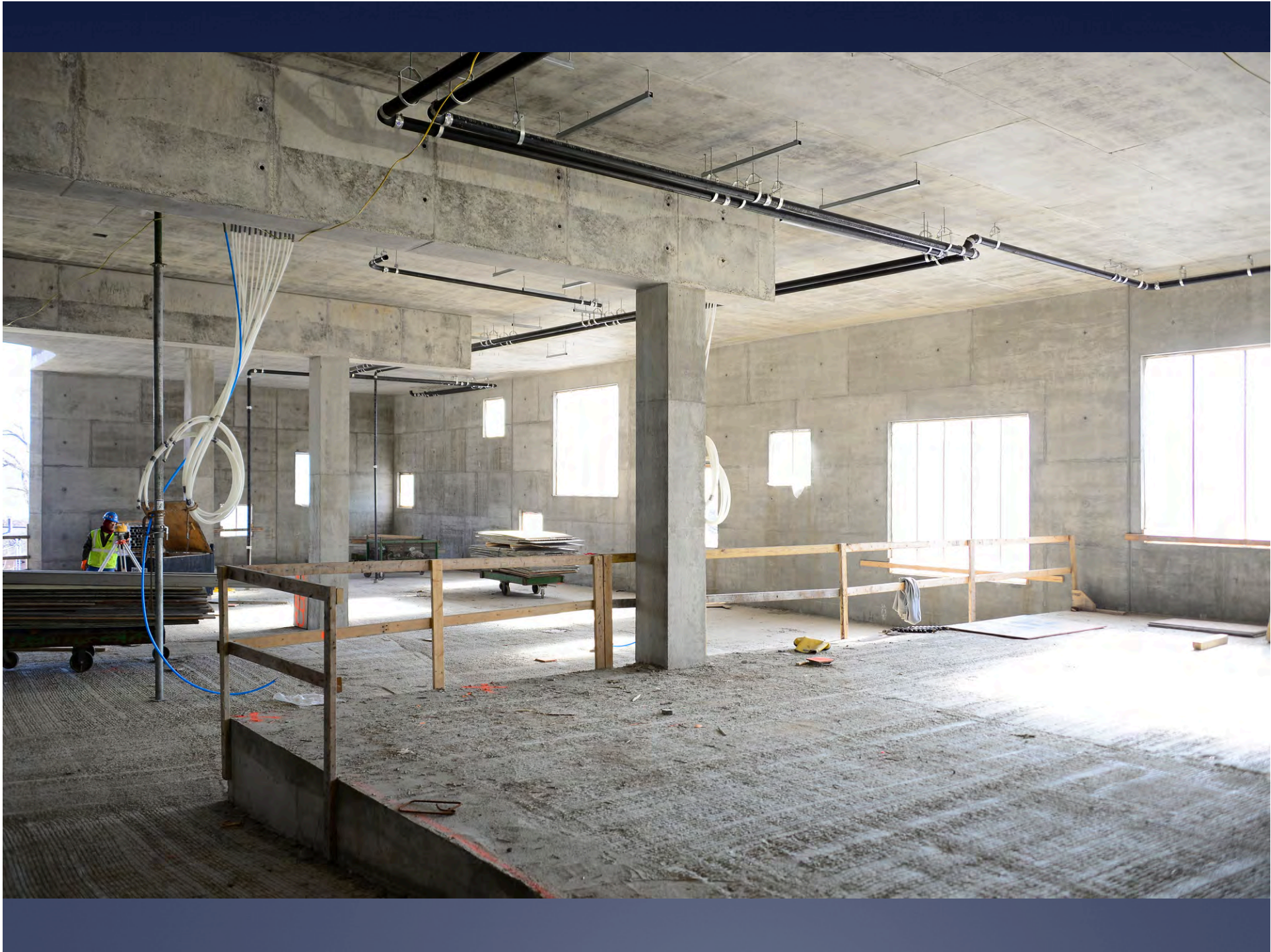


"Bubble Deck"

- 32 foot span
- 12 inch depth
- Integrated radiant heating and cooling



Cast in tubing for radiant heating and cooling







Space as a social condenser
for non-users passing through
from one side of the site to
the other



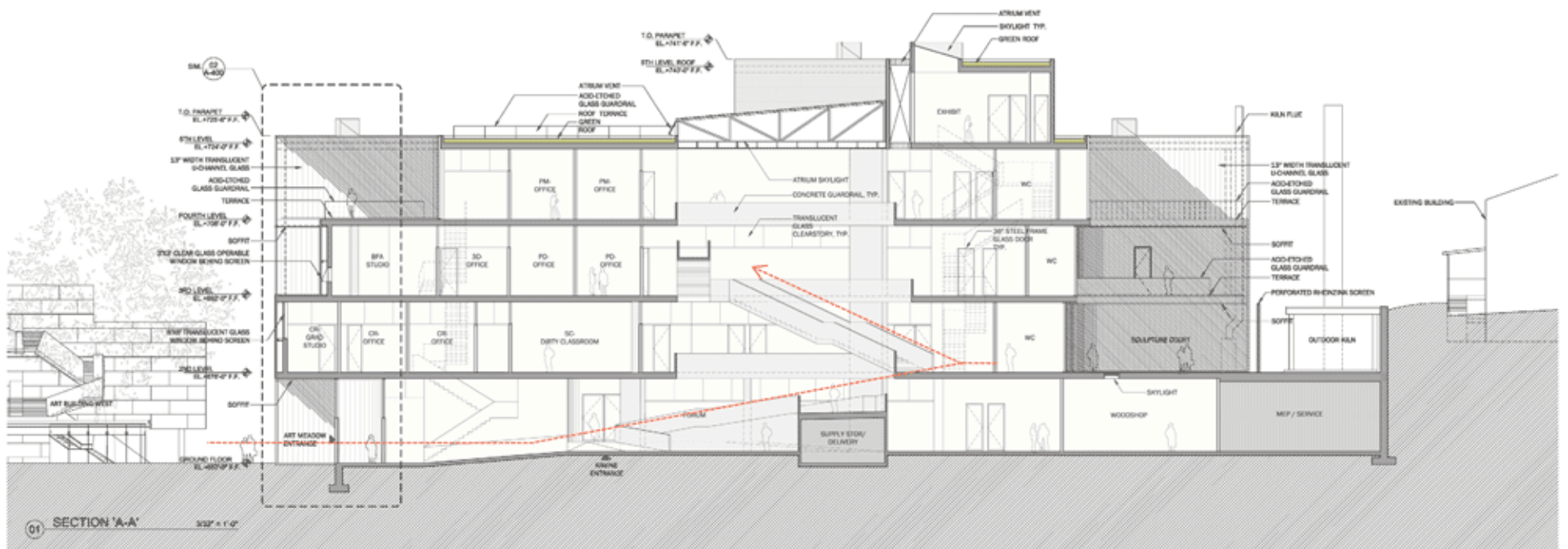


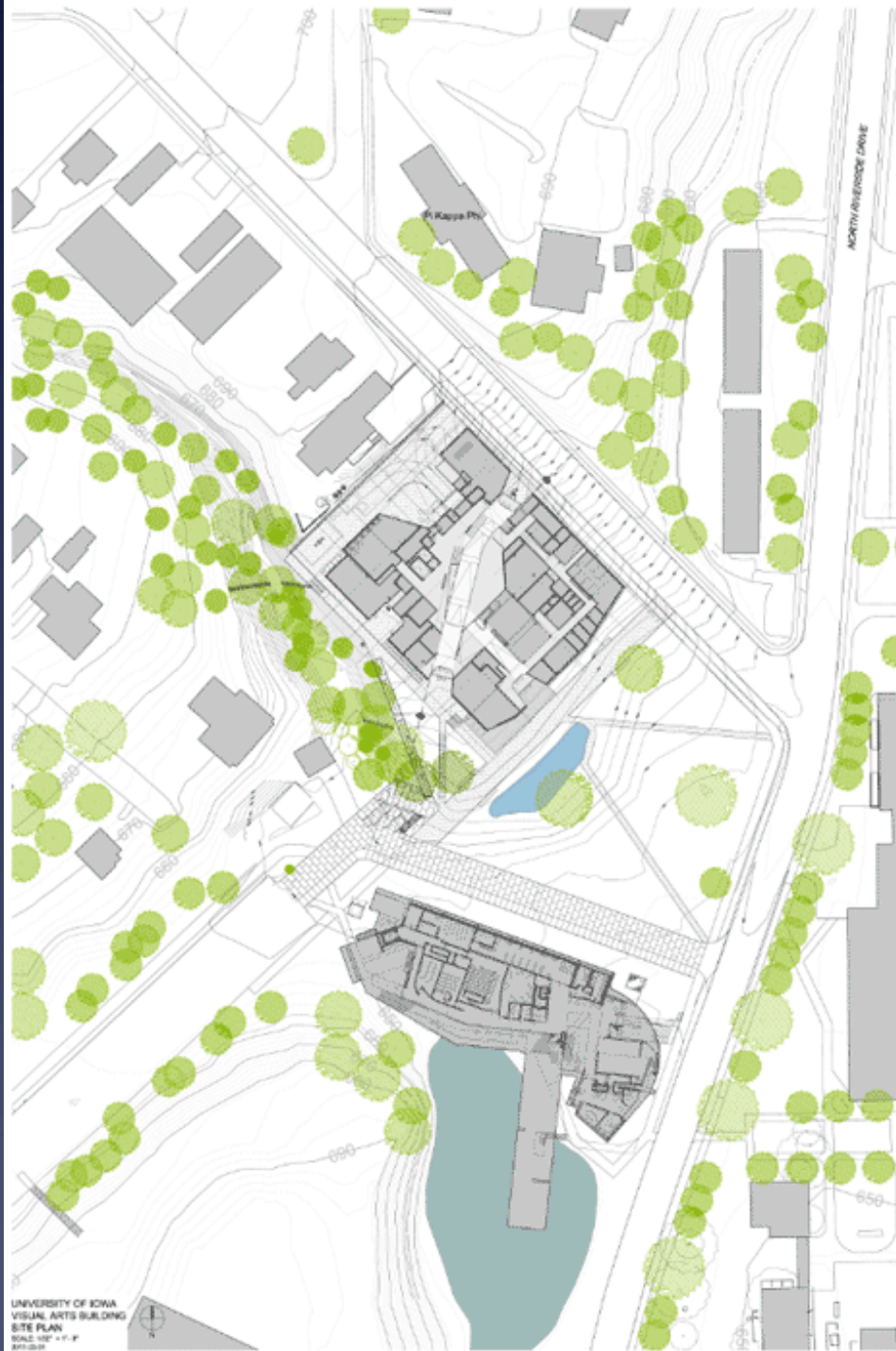
The interdisciplinary community forum space



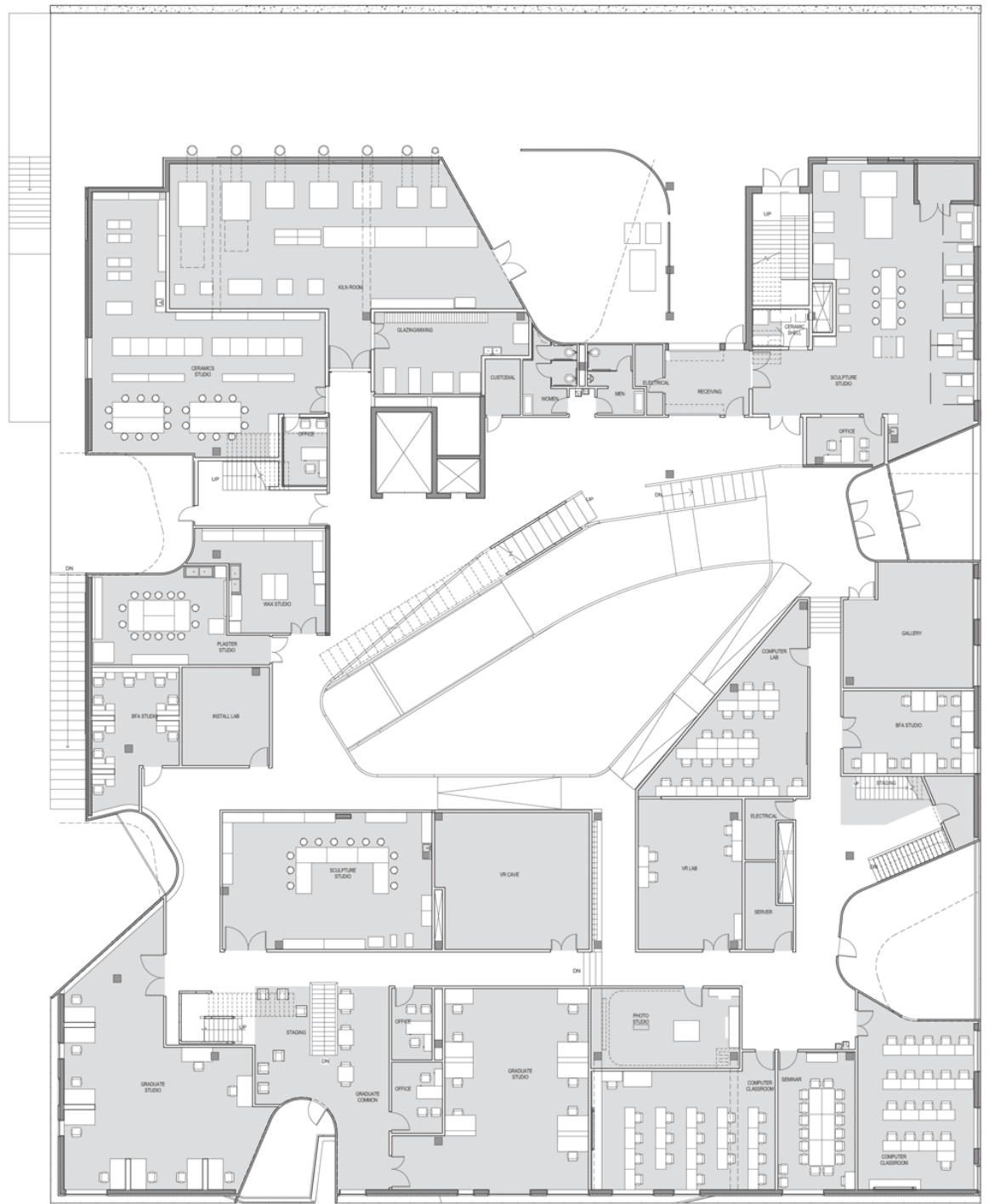


A space for people to exchange ideas...the social condenser





UNIVERSITY OF IOWA
VISUAL ARTS BUILDING
SITE PLAN
SCALE 1/8" = 1'-0"
8/11/2011









Concrete walls overlaid with thermal insulation and rheinzink cladding mesh



“Thermafiber” a mineral fiber batt, mechanically attached to the backup
Made from expanded mineral slag, no rot, no mold food, no UV problem
A good solution where CI is needed for a cavity.





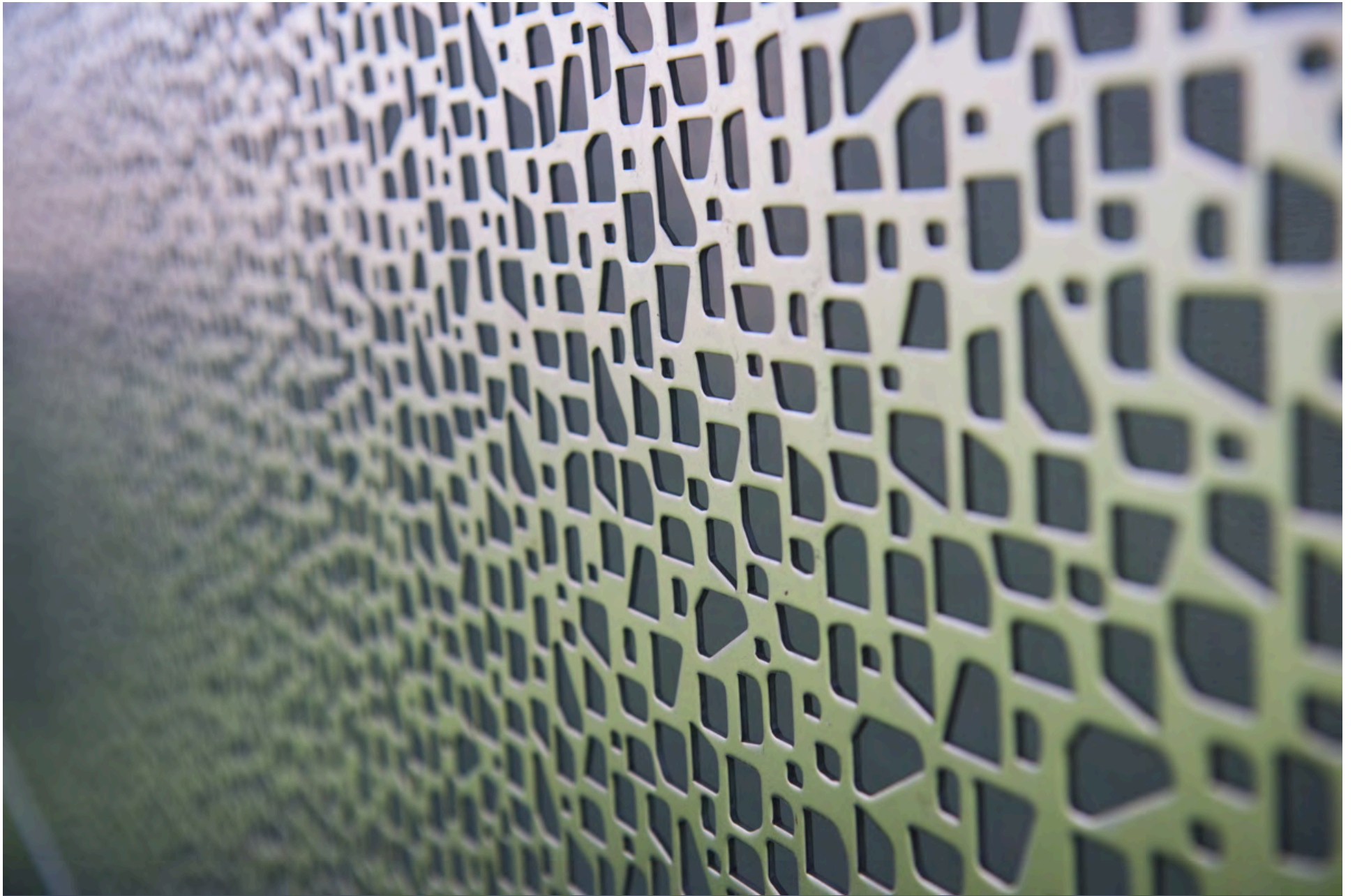




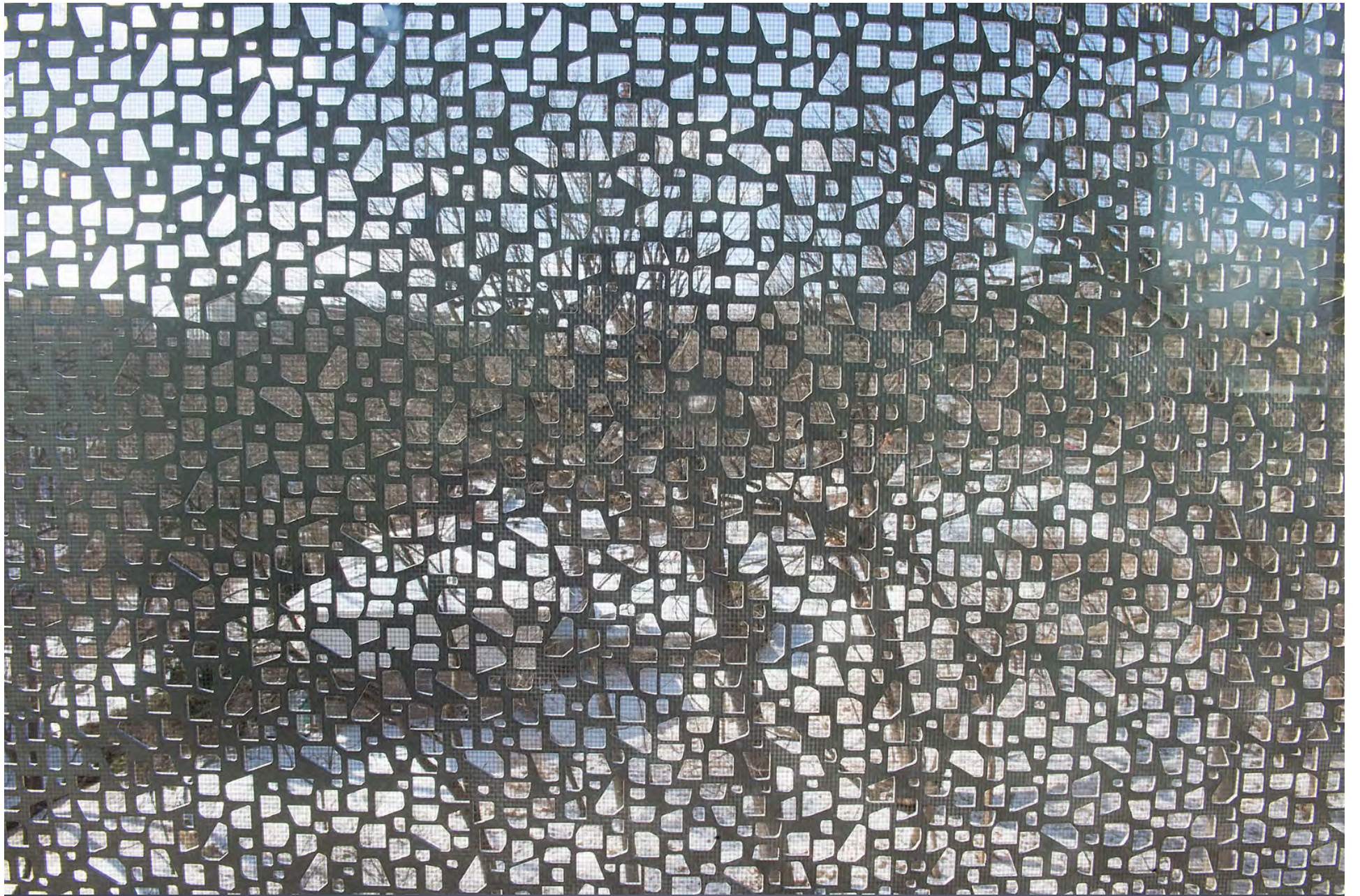


Perforated zinc screen being installed





courtyard geometry makes skin perforations





Perforated screen meets flat zinc panel at the corner

Perforations offer a
radiant surface

Changes from opaque
to translucent through
the day



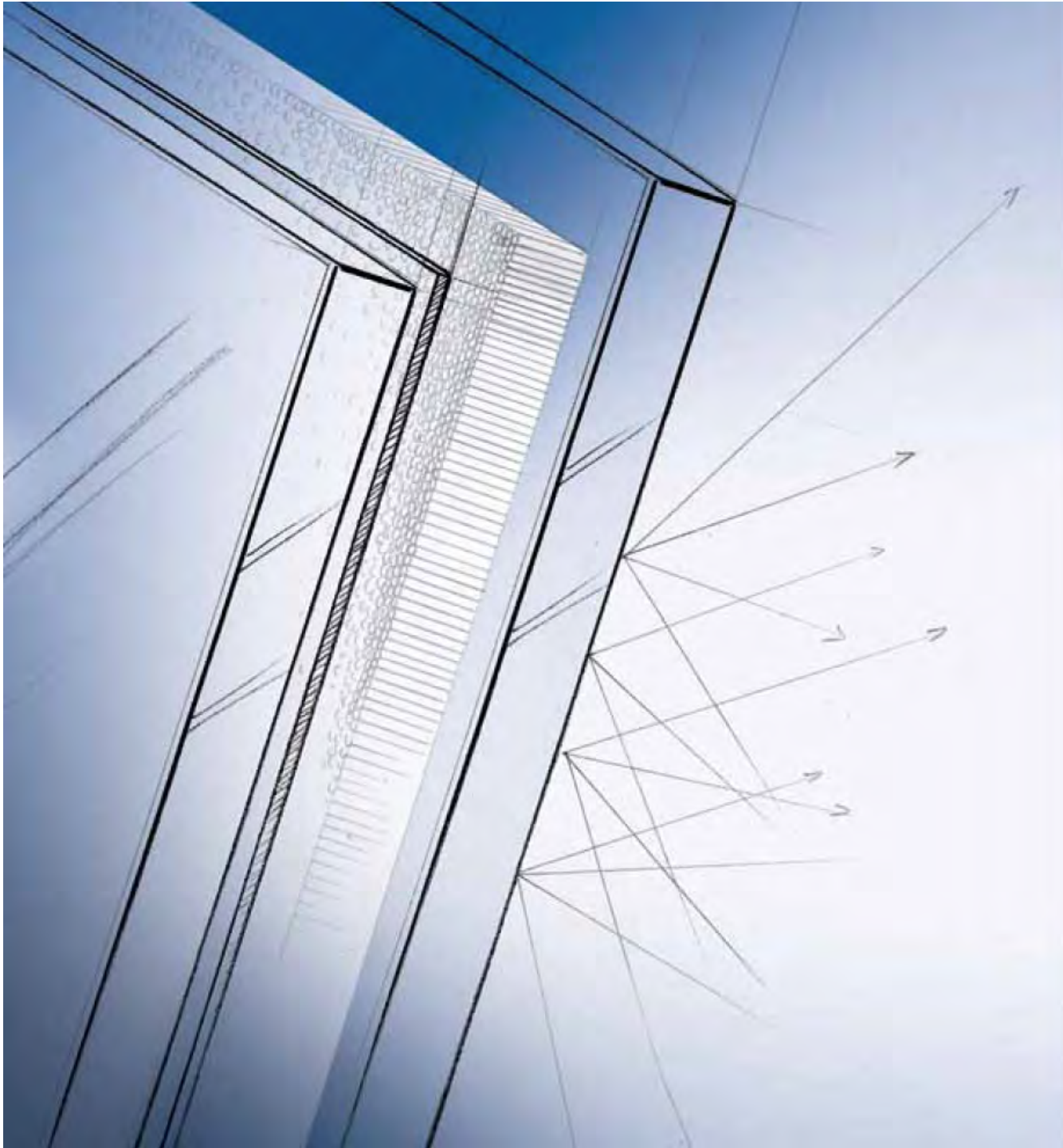




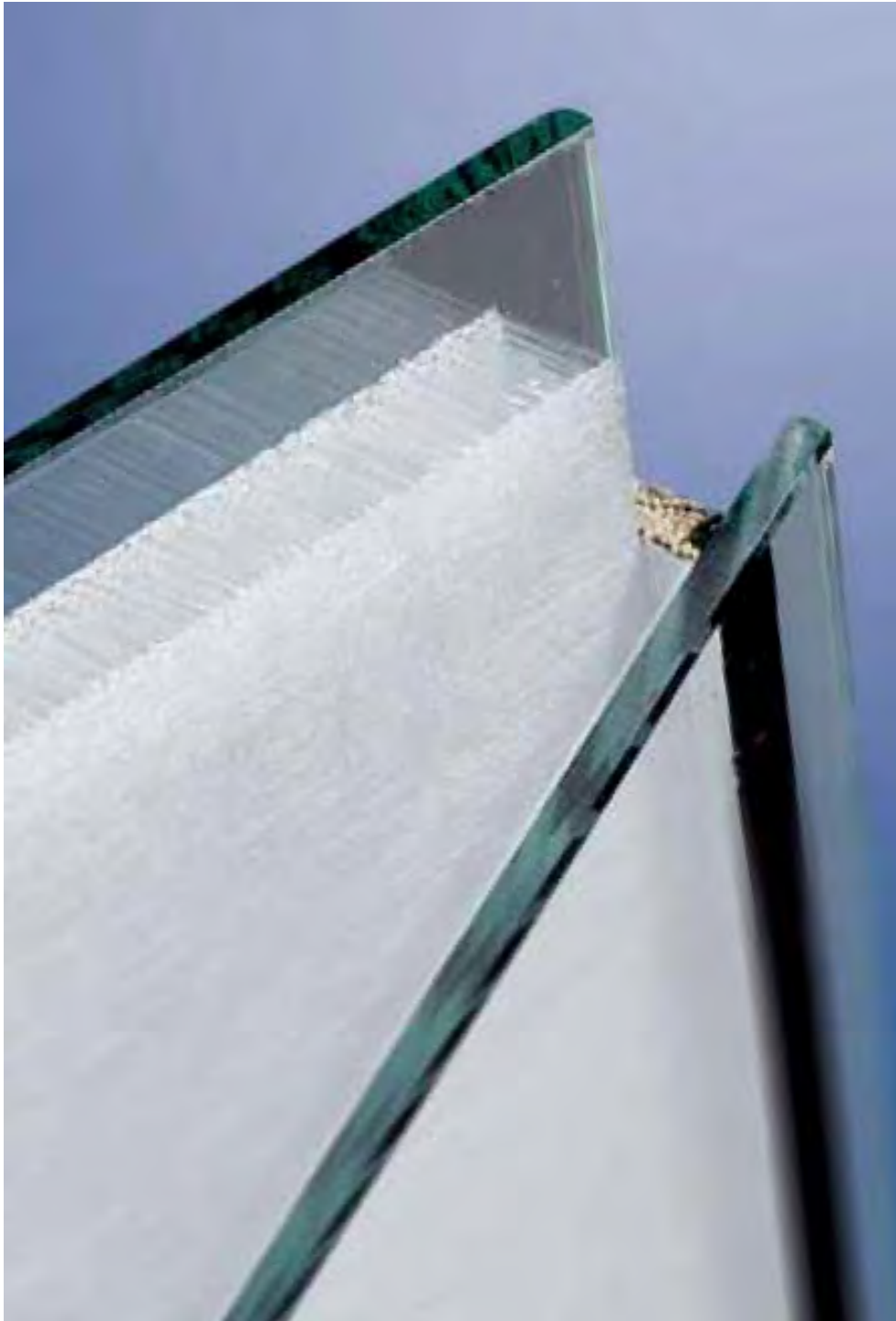
Perforated screen gives depth to surfaces and shades the south side



“okalux” $U = .16$
 $R = 6.25$



Almost eliminate
convective
loops?























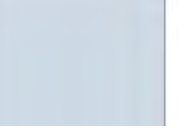




... with channel glass "okapane"



Produkte
Products

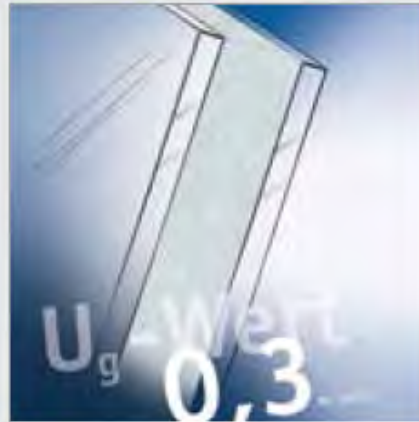
	Ansicht View	Aufbau Fassade Façade with capillary slab	Aufbau Dach Roof with capillary slab	Abmessungen max. [(mm)] ¹ Dimensions max. [(mm)] ¹	Gesamtdicke [mm] Total thickness [mm]	Typ Type	Krypton: U _g -Wert [W/(m ² K)] ² Krypton: U _g -value [W/(m ² K)] ² [Btu/(hr ft ² °F)] ²	Argon: U _g -Wert [W/(m ² K)] ² Argon: U _g -value [W/(m ² K)] ² [Btu/(hr ft ² °F)] ²
OKALUX®				2000 x 4500	ab 16	45/46 32/35 24/28		
OKALUX®+				1230 x 4000	ab 26	37/31 33/21 24/16	0,9 [0.16] 0,9 [0.16] 0,9 [0.16]	1,3 [0.23] 1,3 [0.23] 1,3 [0.23]
OKALUX® K K-Wert (U _g -Wert) optimiert K-value (Btu) optimized				2000 x 6000	ab 30	42/33 37/23 24/18	0,9 [0.16] 0,8 [0.14] 0,8 [0.14]	1,1 [0.19] 1,1 [0.19] 1,1 [0.19]
OKALUX® EVO				2000 x 6000	ab 28	36/22 31/20 41/33	0,8 [0.14] 0,8 [0.14] 0,8 [0.14]	1,0 [0.18] 1,0 [0.18] 1,0 [0.18]
KAPILUX® T Transluzent Translucent				2400 x 6000	ab 42	60/42 52/29 46/26	0,8 [0.14] 0,8 [0.14] 0,8 [0.14]	1,0 [0.18] 1,0 [0.18] 1,0 [0.18]
KAPILUX® W Weiß White				2400 x 6000	ab 42	34/27 30/18 26/16	0,8 [0.14] 0,8 [0.14] 0,8 [0.14]	1,0 [0.18] 1,0 [0.18] 1,0 [0.18]
KAPILUX® WS Weiß / Schräg White / inclined				2400 x 4400	ab 42	34/27 30/18 26/16	0,8 [0.14] 0,8 [0.14] 0,8 [0.14]	1,0 [0.18] 1,0 [0.18] 1,0 [0.18]
OKAPANE®				auf Anfrage on request	auf Anfrage on request	OP 16 OP 24 OP 40		



OKALUX + KAPILUX
Ergänzungssystem zur Objektverglasung
Landscape Supplement

OKALUX
Wir denken anders. Immer wieder.

OKALUX + KAPILUX



OKAGEL
Spezialabstimmung der Isolierverglasung
Special Application with maximum heat insulation

OKALUX
Wir denken anders. Immer wieder.

OKAGEL



OKASOLAR + OKAFLEX
System für große Terrassen, Balkone, Loggien
System with integral sun control system, flexible design

OKALUX
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OKASOLAR + OKAFLEX



OKALUX HPI High Performance Isolierglasmodul
Triple-Pane-Isolierglasmodul
OKALUX HPI High Performance Isolierglasfenster
Triple-Pane-Isolierglasfenster
produced by Sun Energy

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OKALUX HPI



OKATECH
Isolierglas mit Inneverglasung
Insulating Glass with Intrinsic Glass Layer

OKALUX
Wir denken anders. Immer wieder.

OKATECH



OKAWOOD
Isolierglas mit Inneverglasung
Insulating Glass with Intrinsic Glass Layer

OKALUX
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OKAWOOD



OKACOLOR
Einschiebe- und Festverglasung mit Glas
Insertion and fixed installation on glass

OKALUX
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OKACOLOR

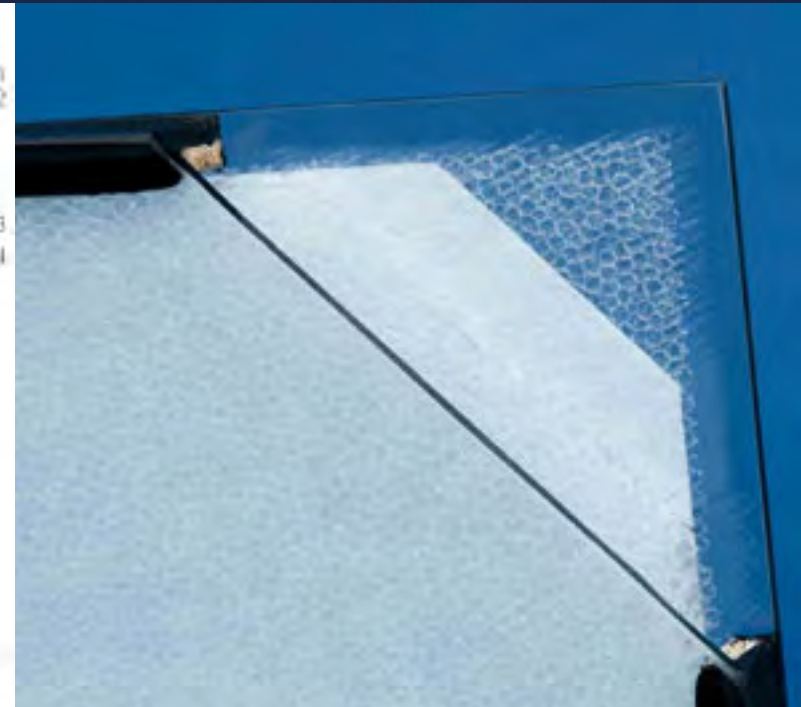
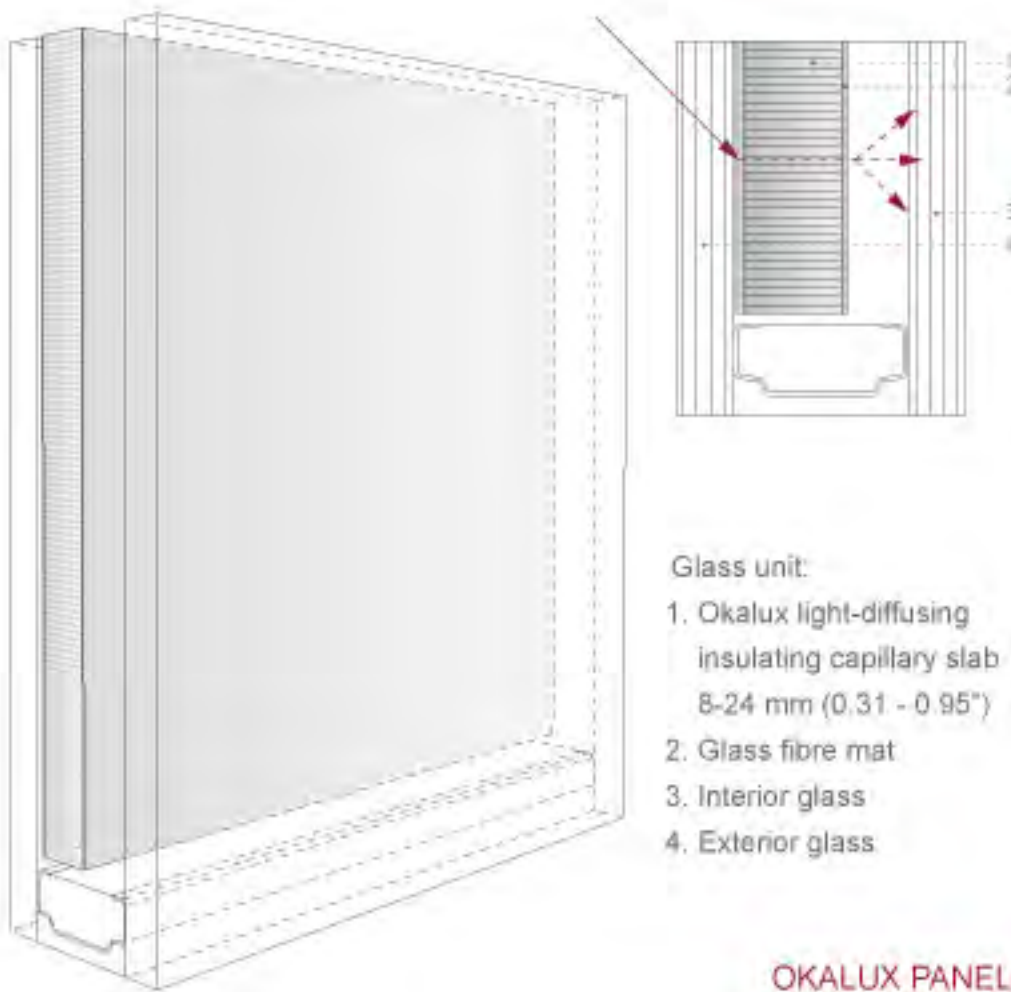


OKALUX Interior
Isoliertes Spezialverglasung für Glas-Trennwände
Insulated Special Glazing for Glass Partitions

OKALUX
Wir denken anders. Immer wieder.

OKALUX Interior

Whats next



Okalux "evo"

U value .18 up to .07
R value 5.5 up to 14.2!!!!
TSET .15

“okagel” Aerogel fill

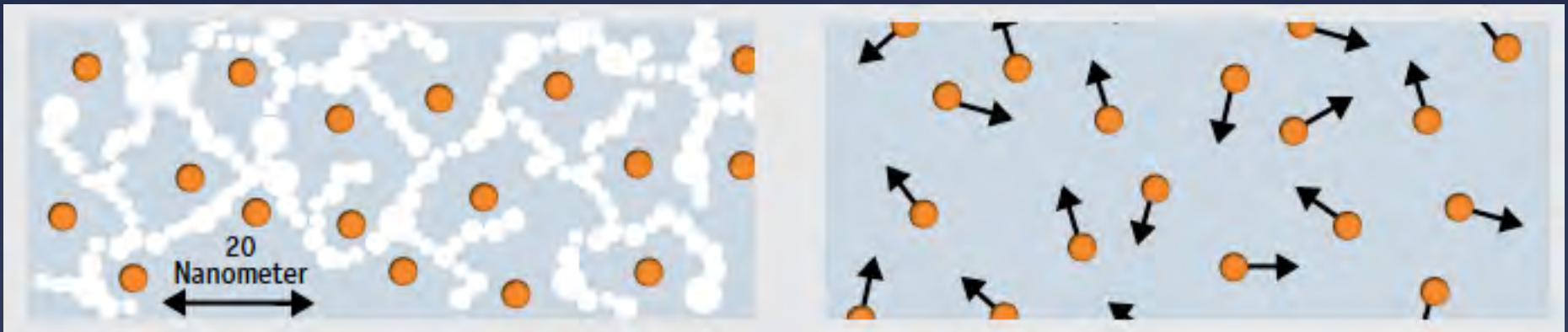




Aerogel = Translucent for daylight

Insulating glass = transparent for vision lite

Insulating glass allows gas molecules to move, convection



Aerogel traps gas to prevent convection

$$U = .11$$
$$R = 9.09$$

Pvc @ tamu

Liberal arts
building roof



125,000 s.f.



