

Spring 2022Arch 411 Architectural Design Studio: Integrate University of Nebraska-Lincoln College of Architecture



2022 SGH Concepts / Dri-Design Scholarship Spring 2022 Arch 411 Architectural Design Studio: Integrate University of Nebraska-Lincoln College of Architecture

University of Nebraska-Lincoln

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architecture.unl.edu

Spring 2022

Arch 411 Architectural Design Studio: Integrate.

Continuation of complex problems as it relates to the integration and consideration of environmental stewardship. Emphasizing technological considerations as formal and organizational influences including technical documentation, accessibility, site design, life safety, environmental systems, structural systems, and building envelope systems and assemblies.

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Photographs.

All photos by Angel Coleman unless otherwise noted.

- 4 Sponsors
- 6 Jury: Edwin Harris, Marci Uihlein, and Andrew Wells
- **18 Award of Excellence**: Austin Wahl and Xander Parker
- 26 Award of Honor: Ethan Boerner and Mason Burress
- 34 Preston Doerrfeld and Blake Phillips
- 42 Tymaree Krusemark and Megan Kortenhof

The College of Architecture at the University of Nebraska-Lincoln, in partnership with SGH Concepts (A Division of SGH Redglaze Holdings Inc.) and Dri-Design, has established a student scholarship competition for the fourth-year, undergraduate, architectural design studios. The scholarship recognizes student projects exemplifying outstanding design investigation, resolution, and significance. This opportunity brings together aspiring architects and industry leaders to advance disciplinary knowledge of design, materiality, and innovation.

Following the end-of-semester review, one project from each studio is selected to compete for the SGH Concepts (A Division of SGH Redglaze Holdings Inc.)/Dri-Design Scholarship. These projects are presented to an external jury who are all established practitioners in their fields. A finalist is chosen for producing and communicating a comprehensive architectural project that is a result of design decisions at different scales. To be successful, students demonstrate a high degree of professional dedication, rigor, open-mindedness, and resourcefulness. Projects are rigorously developed and clearly communicate the breadth and depth of investigation.

We thank our sponsors SGH Concepts (A Division of SGH Concepts Redglaze Holdings Inc.), a leading distributor and installer of customized building products, and Dri-Design, a producer of advanced and sophisticated metal wall panel systems.

Spring 2022 - Architecture Design Studio Faculty

Ashley Byars, Vice President Architect & Design, Noddle Companies, Lecturer of Architecture

Craig Babe, AIA, NCARB, Associate Professor of Practice - Architecture

Ryan Hier, AIA, TACK Architecture, Lecturer of Architecture

Beau Johnson, DLR Group, Lecturer of Architecture

David Newton, Assistant Professor - Architecture



SGH CONCEPTS

At the center of our craft is our passion for premium, innovative design. With over 70 years experience in designing and engineering building product solutions for some of the most challenging architectural feats in the market, our focus each day is to find the best way to give form to our clients' vision.

Our team approaches every project with a reverence for making innovative design possible. We are passionate about solving challenges that—in the end—make buildings more beautiful. At SGH Concepts, it is our mission to provide smarter solutions to design opportunities and challenges, from concept to completion. So, whether you are an architect, a general contractor, or an owner, we provide a level of professionalism you demand and a sense of individuality you expect.

We would like to thank Troy Burkey of SGH Concepts for helping establish this program and his continued support of the college and students.



DRI-DESIGN

Founded in Holland, Michigan, in 1995, under the leadership of President Brad Zeeff, Dri-Design has turned the Metal Panel Industry on its ear. With Dri-Design, Zeeff set out to solve what he viewed as the significant shortfalls of traditional metal panel systems: delamination, staining due to the effects of weather on joints and gaskets, a lack of color and texture options, the rising cost of production and inefficient installation practices.

The result of Dri-Design's meticulous engineering, is a 100% recyclable, pressure equalized rain-screen, architectural metal wall panel system that attaches to nearly any substrate without the use of clips or extrusions. The pressure equalized rain-screen design can be installed simply over commercial grade Tyvek onto plywood, or as the most sophisticated outboard insulation pressure equalized rain-screen you can design.

We would like to thank Jason Zeeff of Dri-Design for his continued support of the college and students.



EDWIN HARRIS

EVOKE Studio

As Co-founder of EVOKE and Design Principal, Edwin Harris believes remarkable architecture enhances the lives of everyone. For over a decade, he has consistently generated designs that are decisive and rooted in clear objectives and novel concepts. Harris's design abilities have been recognized throughout his career, with over 35 design awards, including the National Center for Civil and Human Rights and Emancipation Park, Houston.



MARCI UIHLEIN
University of Illinois at Urbana-Champaign

Marci S. Uihlein, P.E., M. ASCE, Assoc. AIA, is an Associate Professor in the School of Architecture at the University of Illinois at Urbana-Champaign. Her research focuses on the structural engineering profession: its history, the professional relationship between architects and engineers, and creativity. She is the past-president of the Building Technology Educators' Society, Vice-President of the Construction History Society of America, and former executive editor for the Taylor & Francis journal Technology | Architecture + Design.



ANDREW WELLS

Dake Wells Architecture

Andrew Wells, FAIA is co-founder of Dake Wells Architecture, a design-centered practice in Springfield and Kansas City, Missouri. His work has been widely recognized with professional awards and publications. Wells believes that good design is achievable at all scales and for all people, and is essential to quality of life.





DISCUSSION PANEL

Craig Babe and David Newton moderate an insightful panel discussion with jury members Edwin Harris, Marci Uihlein, and Andrew Wells. The discussion touched on a range of topics involving architectural practice, the expressive use of materials, and architectural education.









PRE-DELIBERATION









DELIBERATION













Excellence

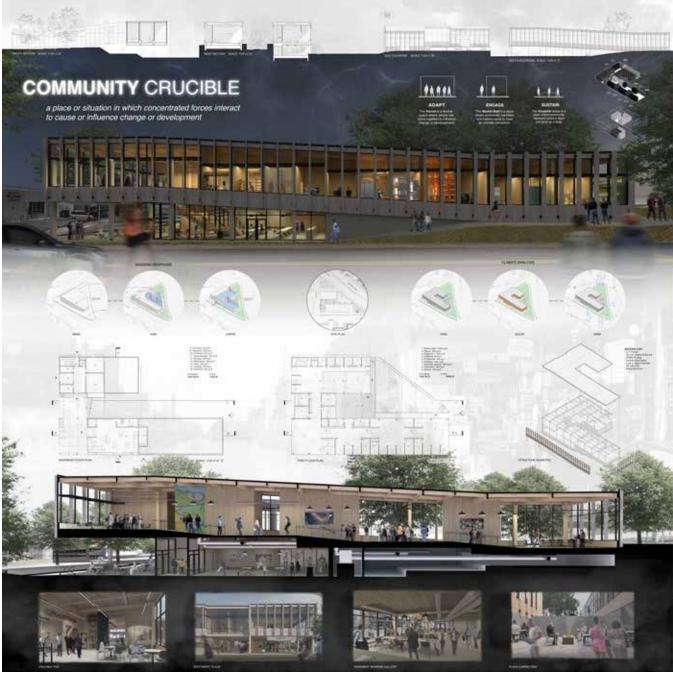
Community Crucible

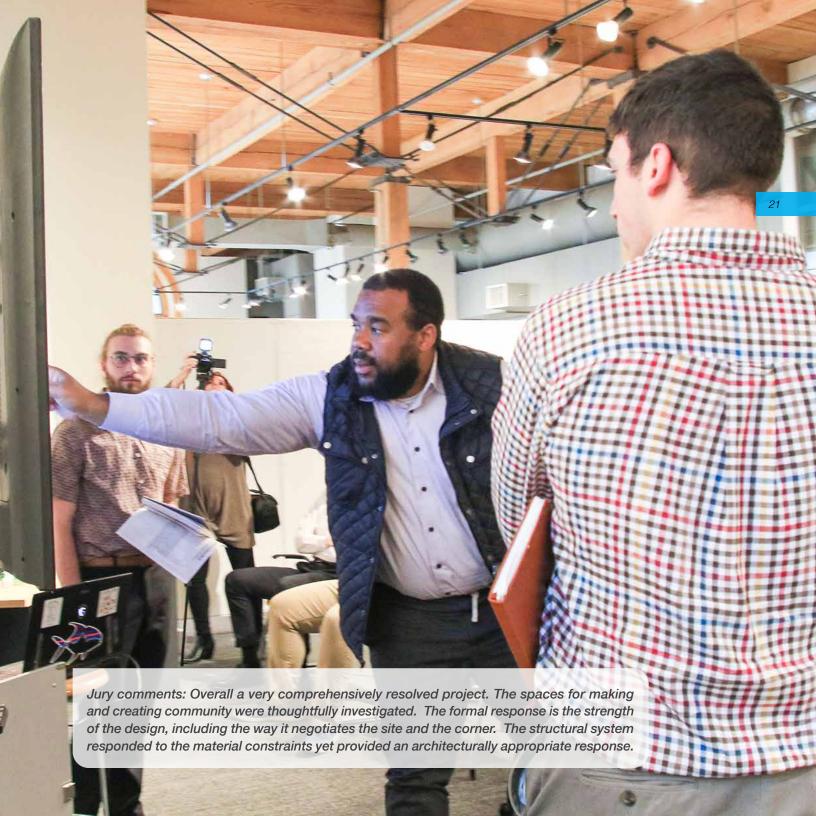
Austin Wahl and Xander Parker Faculty Mentor: Ashley Byars and Ryan Hier

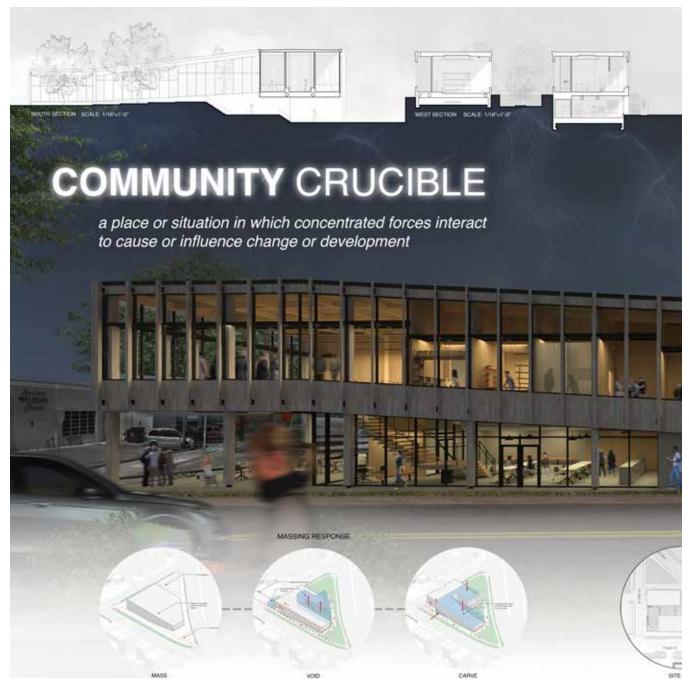
Benson, a historic downtown district located within Omaha, is a community that has experienced growth, as well as decline. The effects of recent decline can still be seen in the community youth, with test scores near the bottom of the entire country, and a vast majority of students qualifying for free and reduced lunch. In the past decade, Benson has started to experience a rapid revitalization. In communities experiencing this intensity of revitalization, it becomes essential to allow the community to take part in the regrowth of its urban fabric. To provide a voice to the people, our project embraces the concept of Community Crucible. A place or situation in which concentrated forces interact to cause or influence change or development. To enact that change our proposal identifies three strategies to facilitate development; adapt, sustain, and engage. Adapt refers to the flexible and loosely fitted program that sits within the project that is ever changing with community needs. Sustain invokes support through the physical preservation of the environment, while encouraging growth of the community. Likewise, engage refers to the intimate interactions that happen within transactional spaces. The community crucible having these strategies existing together allows a community to both grow and take authorship to preserve its culture.











Wahl + Parker | Board 1



Wahl + Parker I Board 2



Wahl + Parker I Board 3



Wahl + Parker I Board 4

Honor

Atelier - Sheldon Museum of Art

Ethan Boerner and Mason Burress Faculty mentor: Beau Johnson

This project explores the use of frame and threshold as devices for increasing engagement with the Sheldon Museum of Art. Designed by Phillip Johnson and completed in 1963, the museum is a jewel box for art. It is located on the "arts campus" portion of the University of Nebraska-Lincoln city campus - adjacent to the arts, architecture, music, and theatre colleges. This project for an addition to the existing museum situates itself within this ecosystem of artistic learning.

The term "Atelier" has no concrete definition besides a space for the creation of art, typically evoking images of the famous artist's studio. The "atelier" and the gallery are often separated both by physical and conceptual distance. This project explores the potential of intertwining these otherwise mutually exclusive spaces. The openness of this term helped generate new ideas for what an addition to an art museum could be.

Working on a small footprint, the addition is a tower arising from the sunken garden that distances the museum from the street. Each level acts as an individual room with its own character and function: a public gallery that engages with the street, a gallery that connects directly to the Sheldon, an archive learning space, and two variations on art-making spaces on the upper levels. Publicly recognizable and accessible entrances are created by cutting through the landscaped plinth. The design imitates the steadfast presence of the Sheldon, the use of curated exterior and interior perspectives, and the interplay between structure and façade.





Atelier | Sheldon Museum of Art













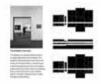




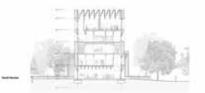


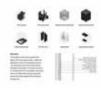




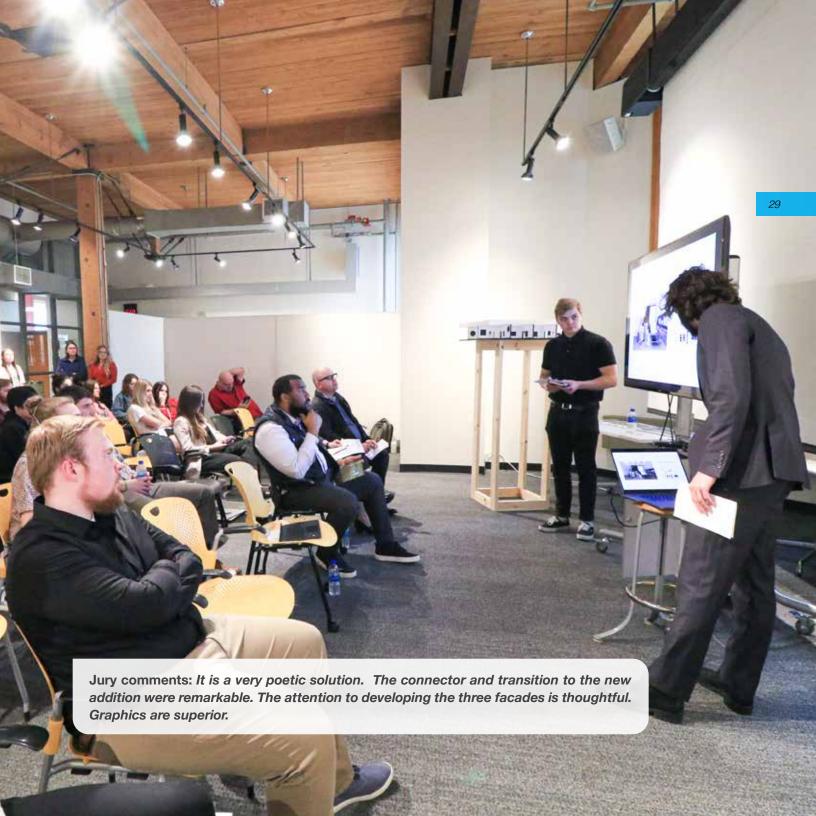






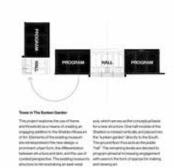




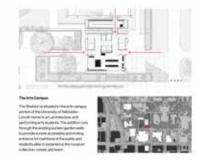


Atelier | Sheldon Museum of Art









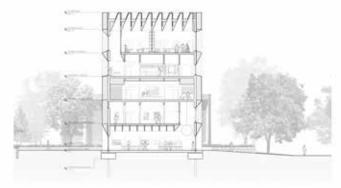


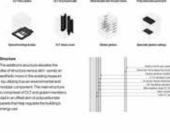


















Market Station

Preston Doerrfeld and Blake Phillips Faculty Mentor: Craig Babe

The Haymarket district in Lincoln, Nebraska, has been reinvented over the last 5-10 years from an industrial zone into Lincoln's primary hub of events and entertainment. Market Station is located between the historic post-industrial area of the Haymarket and an area of new developments located on land reclaimed from the railroad. Market Station seeks to bridge this gap between new and old developments and to be a place of engagement for artists and the community at large. It features a mixed-use program of a market hall, gallery, private studios, and live/work residences as well as a public square that serves as a major gateway through the Haymarket. Market Station can be broken up into four major pieces: the market hall, bar, podium, and the tower. The market hall can host multiple artisans and food vendors throughout the year as well as expand outside into the public square during the harvest season. It seeks to provide fresh food options year-round for resident artists as well as other residents of the Haymarket who do not have many local options for fresh food. The bar connects the market hall and podium and transitions from public to private spaces as you move south. The podium houses a cafe and dining area along the public square, as well as the residential lobby to the south. The tower was built up to the downtown Lincoln height limit to maximize the number of living units and features double-height lofted spaces to provide the maximum amount of natural light for its residents.











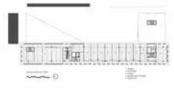


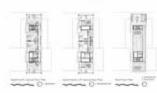








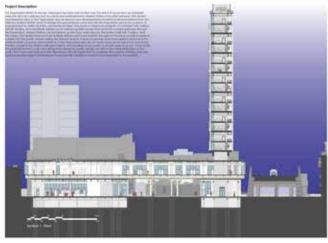




















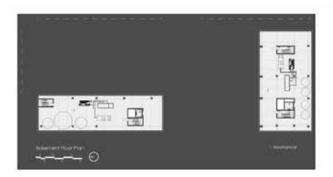
Doerrfeld + Phillips I Board 1







Doerrfeld + Phillips I Board 2



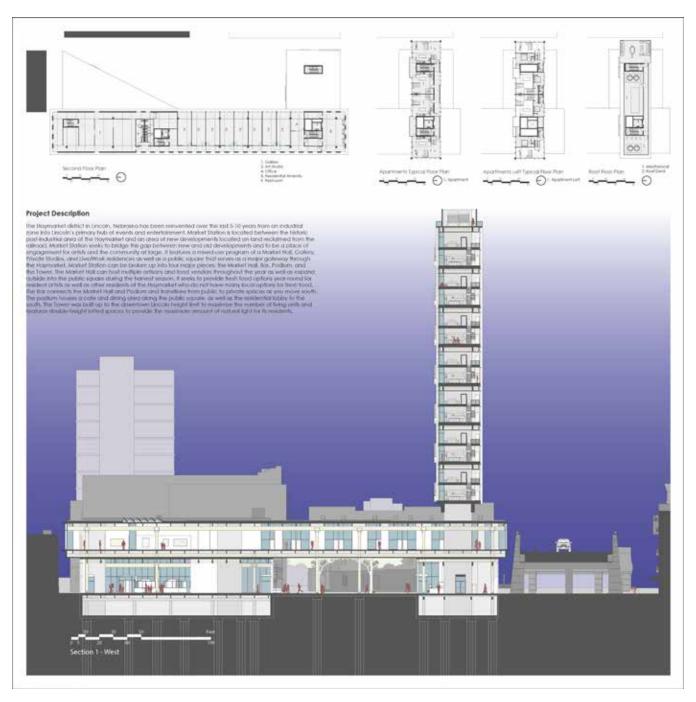








Doerrfeld + Phillips I Board 3



South Commons

Tymaree Krusemark and Megan Kortenhof Faculty Mentor: David Newton

The South Commons provides spaces for encounters that strengthen and further the best interest of the community without a consumer agenda. This is a place where both formal and informal events and progress take place, notably civic engagement. South Lincoln has no platform where community members can exercise democratic processes, such as healthy debate, without a destructive culture. The space will work to unify and stimulate a dull and disconnected area in the style of a contemporary social condenser. A circular form is utilized because it most effectively emphasizes the intersections of public space through a circulation ring in the center of that bleeds into the various programs. This wide intersection allows for various configurations hosting conversation and debate, supported by a central seating depression in the floor and re-configurable dividers providing surfaces to project media upon and new divisions of space. The asymmetrical sectored circle also lends itself to intriguing push and pull distortions complimenting environmental and view framing concerns. This sector strategy is extended into the landscape to create gathering spaces varying in size and program. Materiality was also used in a way to further these goals and curate feelings of innateness, stability, and civic importance. This was accomplished through a palette of expressive sand cast concrete, jagged at an oversized scale on the exterior, and contrasting smooth concrete on the interior. With the use of different textures, the taupe color serves as a unifier, something we hope to see occur among the users of the library.















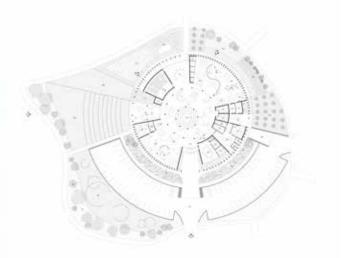
































SOUTH COMMONS

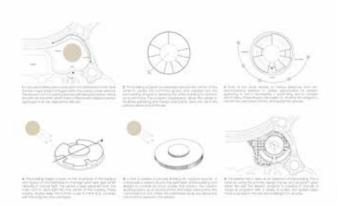
The commons provides spaces for encounters that strengthen and further the best interest of the community—without a consumer agencia. This is a place where both formal and informal events analyzing resistate place in notably civile analogarients South funcion his no platform where community members can exercise democratic processes without hidden regulations or a destructive outbure. This proposal will be a space promoting debate and conversation in a healthy and productive way. The spaces will work to unify and stimulation a rather duff and disconnected area.

The idea of a social condenser to hiffli these goals has been explored time and time again but has yet to realize a form that's successive lasts singler than just a brief moment in time. The works of informous social condenser proponents such as Mosei Ginburg and Rem Rockhass car point us closer to achieving this form by studying their downfalls and improving upon them.

In order to see these goals to histori, we are striving to make the commons a central hub for the community, their of information and polaridation. This process will function best in an environment that finds on appropriate balance between energetic and grounded. Users will be immersed in the clashing of a multifude of programs in the center commons with the intentional lack of seclusion; physically and visually. Reconsignable divides provide surfaces to project media upon and new deviations of space to aid in these processes.

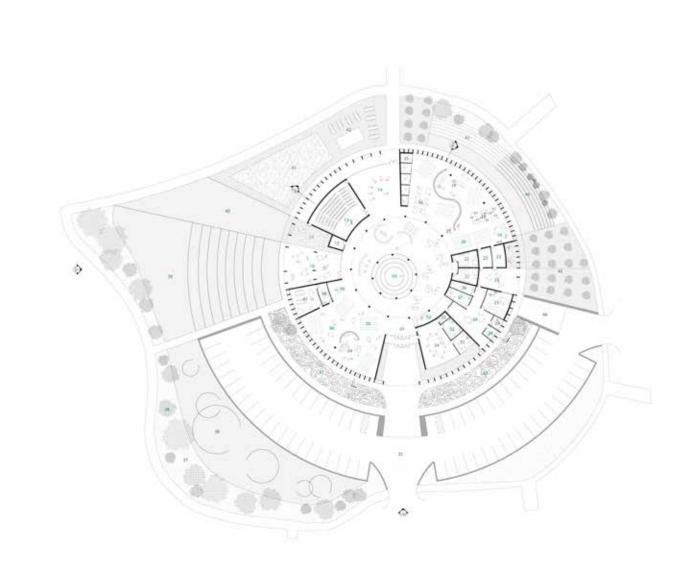
The discular form is utilized because it most effectively emphasizes the intersections of public space through a circularion ring in the center of that bleeds into the various programs. This wild intersection allows for various configurations hosting convenidation and disbate university in previous conditioners, specifically promoting democratic processes. Within the intersection, a central depression in the floor functions as a versitable seating and gathering area Reconfigurable dividers provide surfaces to project media upon and have divisions of space to did in these processes. The asymmetrical sectored article also lends itself to non-hierarchical organizations and intriguing push and public disbations complamenting of environmental and sign financing conforms. Undulating floors work to further informations between the programs sectors. This strategy is continued into the landscape, extending any one formal function to cross gathering appaces verying in size and program.

01 library as commons 02 commons as civic agent









- LENTRANCE 2 MAIN INFO DESK
- 3 COMMONS 4 (EARN THROUGH PLAY
- 5 CHILDREN'S STACKS 6. READING SEATING 7. CHILDREN'S PROGRAM ROOM

- B STORAGE B CHILDRENS INFO DESK ID OUTDOOR SEATING
- IL DUIDOOR READING 12. MECHANICAL ROOM
- TE AUDITORUM 14 COMMUNITY EVENT SPACE
- 15. STUDY ROOMS 16. TABLES AND SEATING
- TZ READING SEATING
- 18. COLLABORATIVE TECH WORKSPACES 19. COPY AND FIRMT 20. ACULT + TEEN STACKS

- 21. ADULT + TEEN INFO DESK 22. RESTROOMS 23. SERVICE ROOMS 24. DUTDOOR EMPLOYEE LOUNGE

- 24 DUTDOON MATCHELL 25 SHIPPING + RECEIVING 26 STORAGE 27 STAFF LOUNCE 25 STAFF WORKSPACE 26 OFFICE ONE 30 DEFICE TWO

- 31. FRENDS OF THE LIBRARY 32. STORAGE 33. RESTROOM
- 34. PUBLIC MEETING
- 36. PARKINO 36. RASED GATHERING APEAS 37. NATIVE GRASS BED 38. TREE LINE

- 39 LARGE EVENT SPACE 40, SOUND BLOCKING PLATEAU
- 41 NATIVE PLANTING BED 42 SWALL EVENT SPACE 43 ORASS TERRACE
- 44. BEADING TERRACE 45. PAVED TREE BARRIER 46. SERVICE ENTRANCE
- 47, BIO RETENTION BED















DETAILS

The main elements of the extenor and interior building envelope are a monotone policitie of taupe expressive sand cost concrete, jagged at an oversized scale on the exterior, and contrasting smooth concrete on the interior, with a radiant velvet finish. Within the use of different textures, the color servis as a unifier, something we hope to see occur among the users of the Abran. The interior is further divided among finish, the calling is a trowel finish, the walls are a sand blasted finish, and the floor is a polished finish. The rest of the envelope consists of glass joined in a seamless manner to give the appearance of a void among the heavy concrete masses. Small accents of copper-colored druminum are as a used in instances of multions and signage. These materials were chosen to curate feelings of innoteness, stability, and ovic importance, intended to promote gathering and

Concrete is the only material that will be altered based on interior vs. exterior placement. The exterior and interior sides of the sandwich wall construction will be a combination of tilt-slab concrete and cost-in-place concrete. Many of this walls will be load-bearing shear walls, providing strength and insulation. In the ourtain wall unitized glazing was chosen to diminish joints in windows in order to emphasize the concrete masses; in other words, create a natural feeling of open-air solids and voids.

Moments of significant expression (a.in the exterior columns and both floor to wall and ceiling to wall connections. This is an important datal to resolve in line with the proposal's main goals, especially to expose the structure and celebrate the strong and solid qualities of civic drohitecture. The columns will be entirely cost in place concrete that give the appearance of a shuctural mullion when interfaced with the curtain walls, in reference to the wall connections to the floor and being there will be a divot in the vertical direction to give the appearance that the floor and being are separate parts. This furthers our goots of creating a commons and utilizing the commons as a civic agent in that the floor appears as a durable platform for the community









MATERIALS

While the building form is contemporary and of its time, the materials chosen would be reflective of vernacular traditions for both civic buildings and local use of materials. The primary material that will be used within the building is concrete, and the secondary material is copper colored aluminum. Concrete is a historic building moterial that has along and not post of being used within our buildings. This use of concrete for the proposed drong, and its mortalities qualities, prodes an another sense for users to make complusers; that this is a civic building. Concrete is a strong material. and has a long Respan which is valuable when being used within a civic center that must stand the test of time. There will be a mis of smooth and rough forms and freshes of concrete that will be used both on the interior and water of the building, Johns in the concrete are fielder to give the feeling of a convot out structure. Coppier-colered automium will be used for accents such as possible. dividing structures, window/door multions, and signage on the interior and exterior of the building. This project will use these materials along with a variety of textures and arrangements to call our sectors, spaces, and arrangements to call our sectors, spaces, and atmospheric within the building and for if it a moter the human scale. The horizontally to give a low profile quality to the building and for if the moter the human scale. The mixing and intersections of the materials provide a connection to the mixing and intersections of the commons with other programs. The chosen moterials will also have a hand in building sustainability and energy savings



- CONCRETE PARAPET COPING
- 2" CONCRETE ROOF SLAB
- 03 9'4" WATER + AIR BARRER
- NR* CLASS I VAPOR BARRER 05 6" POLYISOCYANLISATE INSULATION
- 06 1/2" DENS GLASS SHEATHING CONCRETE BEAM.
- (WAFFLE SLAB COMPONENT)
- 08 SAND-CASTED CONCRETE PANEL
- 09 CONSTRUCTION ADHESIVE 6" EXTRUDED POLYSTYRENE 30
- LOAD-BEARING ELEVENT (R-VALUE 48)
- I/4" CEMENT SEALANT
- 5" AIR GAP
- EXTERIOR DON'T 1/2" FIBER CEMENT SHEET
- 36 COMENT CROUT CONCRETE COLUMN
- 19MM REBAR CONCRETE RENFORCEMENT

- 18 PAVEMENT ANGLED LIGHT

COLUMN

- 2" POLYISOCYANURATE INSULATION (R-VALUE IEI)
- RECONCRETE WAIL

- FLOOR + GROUND
- 22 CONCRETE SIDEWALK 23. FETRATE GRAVES
- 24 GEOTEXTILE
- 25 UNDISTURBED EARTH 26 CONCRETE FOUNDATION WALL
- 27 KEY JOINT AND WATER STOP
- 28 CONCRETE FOOTING
- 4" DRAIN TEE
- 3-1/2' POLYISOCYANURATE INSULATION 30
- 31 1/6" WATER BARRER 32 6" CRUSHED LIMESTONI
- 33 CONCRETE SLAB FLOOR
- FLOOR BEAM CONCRETE POOTING
- 35. SUPPLY HVAC DUCT
- 38 CONCRETE BEAM 37 3" STEEL DECKING
- 2" RISER CONCRETE SHELL
- 39 RETURN HVAC DUCT
- DON'T TALPE, ACID (TCHED, VELVE) FINISH (FLAT)
- UGHT TALPE, TROWEL VELVET FINSH
- (FLAT) I LIGHT TALPE ACCUSTONED, VELVET
- FINISH (JAGGED)

 LIGHT TAUPE, MEDIUM EXPOSED
- AGGREGATE, POLISHED FINISH (FLAT)
- LIGHT GREY, SAND BLASTED, VELVET DINESH (FLAT)





























DESIGN STUDIOS

Ashley Byars, Lecturer **Ryan Hier,** Lecturer

* Austin Wahl and Xander Parker | Excellence

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Haleigh Carr

Josh Dickey

Rianna Gunter

Alexander Parker

Doug Rief

Alyssa Villarreal

Austin Wahl

Kayla Weller

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Craig Babe, Associate Professor of Practice

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Mason Burress Mackenzie Modde
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Jessica Fujan Tymaree Krusemark
Meagan Hollman Sarah Meeves
Ryker Hoy Zitlalic Parra Valencia
Hannah Kettle Sophia Swanson
Louis Khu Allen Weaver

* Studio Finalist



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