Caroline B. Colella B. Arch Class of 2020 Prof. Sean Patrick Nohelty, Advisor Library Research Award Application Essay Category: Senior Thesis Level

The Journey to the Immigration Station: Using the Hesburgh Libraries to Design for Dignity

Excited to take on thesis as a result of watching upperclassmen reviews for years and formed deeply by my academic and personal experience here at the University of Notre Dame, I knew that I wanted to spend my final year of architecture school completing a project that would be interdisciplinary and representative of all I had learned at Notre Dame – inside and outside of the School of Architecture. Ultimately, I completed "The Immigration Station: Designing for Dignity at the U.S. Mexico Border" a proposal for the design of an immigration station and immigrant services campus located on a strip of the United States/Mexico border in El Paso, Texas. The station was designed using the traditional design principles we learn here at Notre Dame and employs Catholic Social Teaching as a crucial part of the design guidelines. This thesis was an exploration of the use of architecture as a tool for the promotion of human dignity. It all began in the library.

At first my research had nothing to do with architecture but instead focused on Catholic Social Tradition and the immigration issue. Having studied on the 12th floor of the library to for what seemed like countless Structures and Building Technology exams, I knew that's where I would find books on C.S.T.. Once I had strengthened my broad understanding, I consulted the Hesburgh librarians for recommendations to center my C.S.T. research to the encyclicals addressing the immigration crisis in the Americas. It was through reading one recommendation in particular: *Catholic Social Teaching in Global Perspective* by Daniel MacDonald, S.J., that I was able form the grounding of my argument - one can and should use C.S.T. as a basis for design, especially when designing for the most vulnerable.

Over fall break I had the incredible opportunity to travel to El Paso, Texas to document the conditions of my proposed site as well as spend time learning from the people of the community made possible by a grant received from the School of Architecture. Through conversations with librarians, recommendations with professors, and utilization of OneSearch and interlibrary loan, I was able to gather all the information I needed ahead of my trip including access to periodicals and published papers on related research, maps of the area, and additionally

took out a few documentary DVDs, our own Fr. Dan Groody's *Dying to Live: A Migrant's Journey* and *One Border*, *One Body: Immigration and the Eucharist*, from the library's basement video collection. The library resources I consulted were crucial in preparing me for my trip and in formulating my own Catholic perspective on immigration in our nation.

With the start of the spring semester came time to work on the building design. I immediately sought out our Architecture Librarian, Jennifer Parker. Jennifer helped me optimize our library resources as I searched for architectural precedent. We found resources on American civic architecture and designing for democracy and looked into civic Latin America. This fusion of precedents enabled me to create a welcoming, rather than intimidating, experience for migrants as well as a celebration of the process – allowing those who work at the station and those it serves to have a dignified experience. I worked with Jennifer to find books in our collections and any book I found that we did not already have she was able to acquire for our library. Countless hours were spent flipping through books and sketching ideas in Walsh Family Hall Architecture Library.

It was through my research in the Architecture library that I was able to determine additional travel research was needed to determine the aesthetics of the building. Due to the generosity of the de Nicola Center for Ethics and Culture, I gained the once-in-a-lifetime experience of traveling to Chiapas, Mexico. Chiapas proved to be the perfect place to conduct my final research trip. I would never have known it was the place to go without the time spent in the Architecture Library looking at *Architecture and Urbanism in Colonial Chiapas, Mexico* by David Sidney, one of the many books Jennifer and I found together.

The other two invaluable members of our Architecture Library team, Adam Heet and Morgan Wilson, helped me when it came to the 3D representation of my designs. With their help I gained knowledge in SketchUp and was able to build computer model of my site as well as the buildings on the campus. While I used the digital model to understand the spatial relationships I was aiming to create, Morgan was able to take my file and use the 3D printers in our Architecture Library Makerspace to print my designs for a physical model I built by hand. With our Architecture Library Team's help, I convinced guest reviewers at midterm of my design proposal and improved my designs for the final presentation. Due to Coronavirus, I was not able to print the updated final model for my thesis review. However, thanks to Adam and Morgan's

guidance, I have the digital file and cannot wait to finish my model when I return to campus to visit!

As Coronavirus hit mid-thesis semester, it proved particularly challenging to navigate completing our design projects at home rather than in our Walsh Family Hall studios. The Architecture Library team made sure we had every possible resource as we attempted to complete our projects including adding to our database collection and, of course, we had access to our beloved digitized rare books collection. Ultimately, I believe it was my prior and continued utilization of library resources throughout the thesis semester in Hesburgh, in the Architecture Library, and at home with books and 3D programs, that contributed most significantly to the success of the final drawings for my thesis project. I am grateful to our Architecture Library team for teaching me how to use our varied library resources at the very beginning of my education as they proved invaluable in the completion of this project – and more importantly, in helping me get the most out of my Notre Dame education.

Photographic Appendix:

Images are provided to illustrate the design process and utilization of varied library materials. Please see project file document for final presentation drawings.

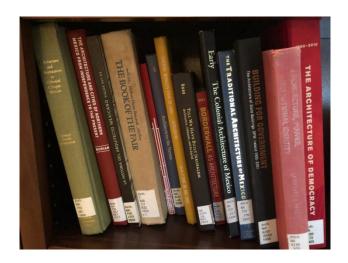


[studio desk at the beginning of the design process utilizing printed images from the Architecture Library's Digitized Rare Books Catalogue]





[midterm review presentation drawings and process hybrid model – base built by hand and proposed buildings printed in the Architecture Library's 3D Makerspace]



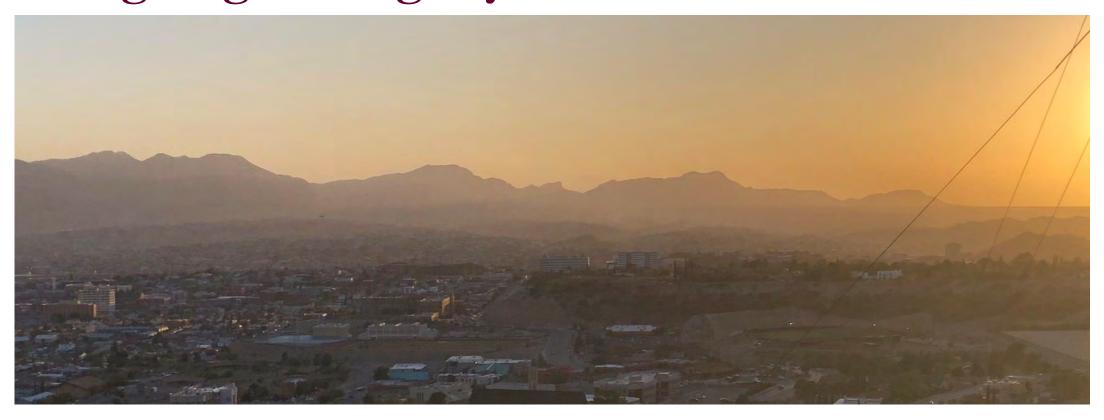
[shelf of library materials saved for continued use even after Coronavirus hit]





[views of Sketchup 3D digital model used as design tool]

the IMMIGRATION STATION: Designing for Dignity at the U.S./Mexico Border



EL PASO, TEXAS, UNITED STATES OF AMERICA

compiled final drawings for Library Research Award submission School of Architecture oral/visual presentation given 4.28.2020

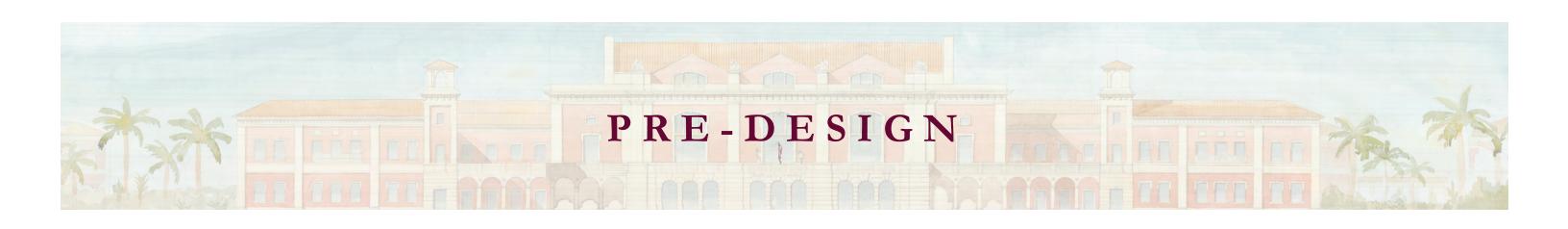
CAROLINE BERNADETTA COLELLA
PROF. SEAN PATRICK NOHELTY
B. ARCH THESIS DESIGN STUDIO 2020
UNIVERSITY OF NOTRE DAME SCHOOL of ARCHITECTURE

THESIS STATEMENT

Architecture is a powerful tool man can employ for the promotion of human dignity. Architecture has the power to convey identity, express welcome, and make humans aware of their inherent value regardless of the situation.

Our built environment is a reflection of who we are and a testament to what we aim to be.

Through the promotion of human dignity and celebration of identity, new traditional architecture on the southern border of the United States will serve as a beacon of hope allowing immigrants and Americans alike to *dare to dream*.



A VISION for HOPE: the 21st century immigration station

"Give me your tired, your poor, Your huddled masses yearning to breathe free,

The wretched refuse of your teeming shore.

Send these, the homeless, tempest-tost to me. I lift my lamp beside the golden door"-Emma Lazarus





continuing the legacy of immigration in the United States.

LEFT and BELOW: Ellis Island, America's first immigration station constructed in 1892. Ellis Island will be examined closely for its architectural, programatic, and urbanistic precedent







RIGHT: Angel Island (programatic precedent)

Texas State Capitol Building and MMW's Chicago World's Fair Complex (American Civic stylistic/ ideological precedent)

BELOW: Latin precedent -Nicaraguain Capital, Puebla, Mexico Opera House, Spanish Colonial churches in Mexico and Honduras



















the APPROACH:

CATHOLIC SOCIAL TEACHING for ARCHITECTURE

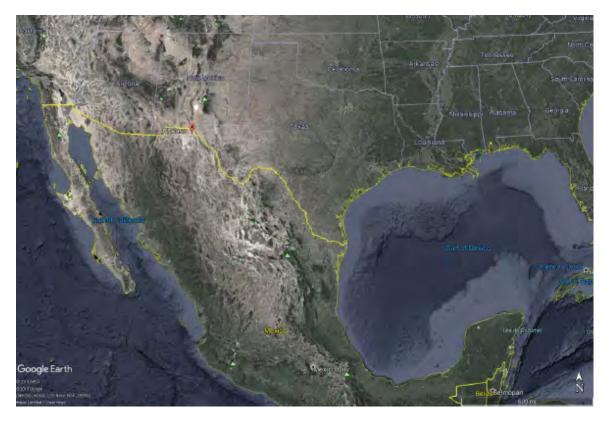


These pillars of Catholic Social Teaching were incorporated as a crucial part of the design guidelines for this thesis design proposal. Catholic Social Teaching is a call to participate in society in a way that celebrates the sanctity of human life and experience in the light of the Gospel. Based on the foundation of human dignity, C.S.T. serves as a reminder that we must respond to the "signs of the times" - or the distress and social queues of our world.

When dealing with architecture, in this case for some of the most vulnerable seeking asylum on the Southern Border of the United States, it is imperative to employ Catholic Social Teaching when pursuing a solution. This design proposal, though secular in nature, serves as an architectural experiment that places the dignity of migrants at the forefront of the immigration discussion, valuing C.S.T. principles in aesthetics and in program.

This informed architecure is a call for a more compassionate bureaucracy and ultimately, a better world.

SITE LOCATION: the United States/Mexico Border - El Paso, Texas



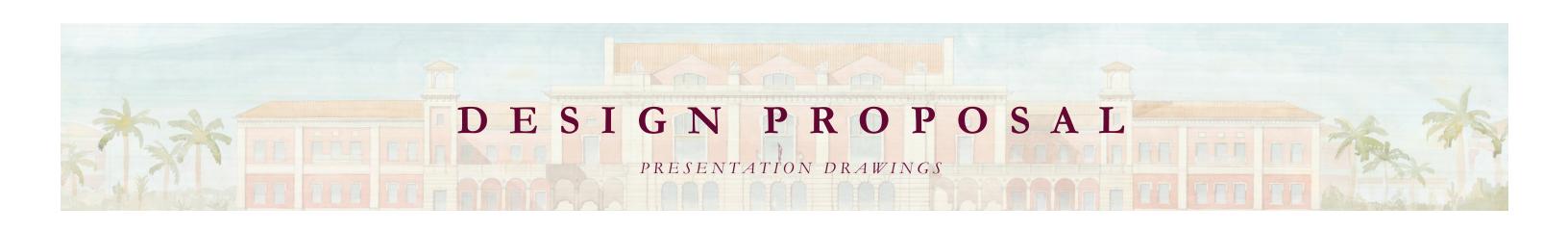
The Station will straddle the U.S. Mexico Boarder with El Paso, TX being the main point of entry to the United States.



This strip of the Border is enclosed by the two neighboring cities Juarez on the Mexican side and El Paso on the American side. Though neighboring cities, the two cities are dramatically different in their stability, safety, infrastructure and urban make up. Also of note is that the cities are both being encroached upon by mountainous terrain from the North and South West.



The selected site is a 0.05 sq. mile site that is currently unoccupied. Just north of the main centers of Juarez and El Paso, this piece of land is the closest piece of land to the cities that is awaiting development and is close enough to both cities to accept those migrants traveling through/around Juarez for entry to the United states while at the same time offers its own distinct sanctuary apart from Juarez that is still only a short distance away from El Paso.





SITE PLAN

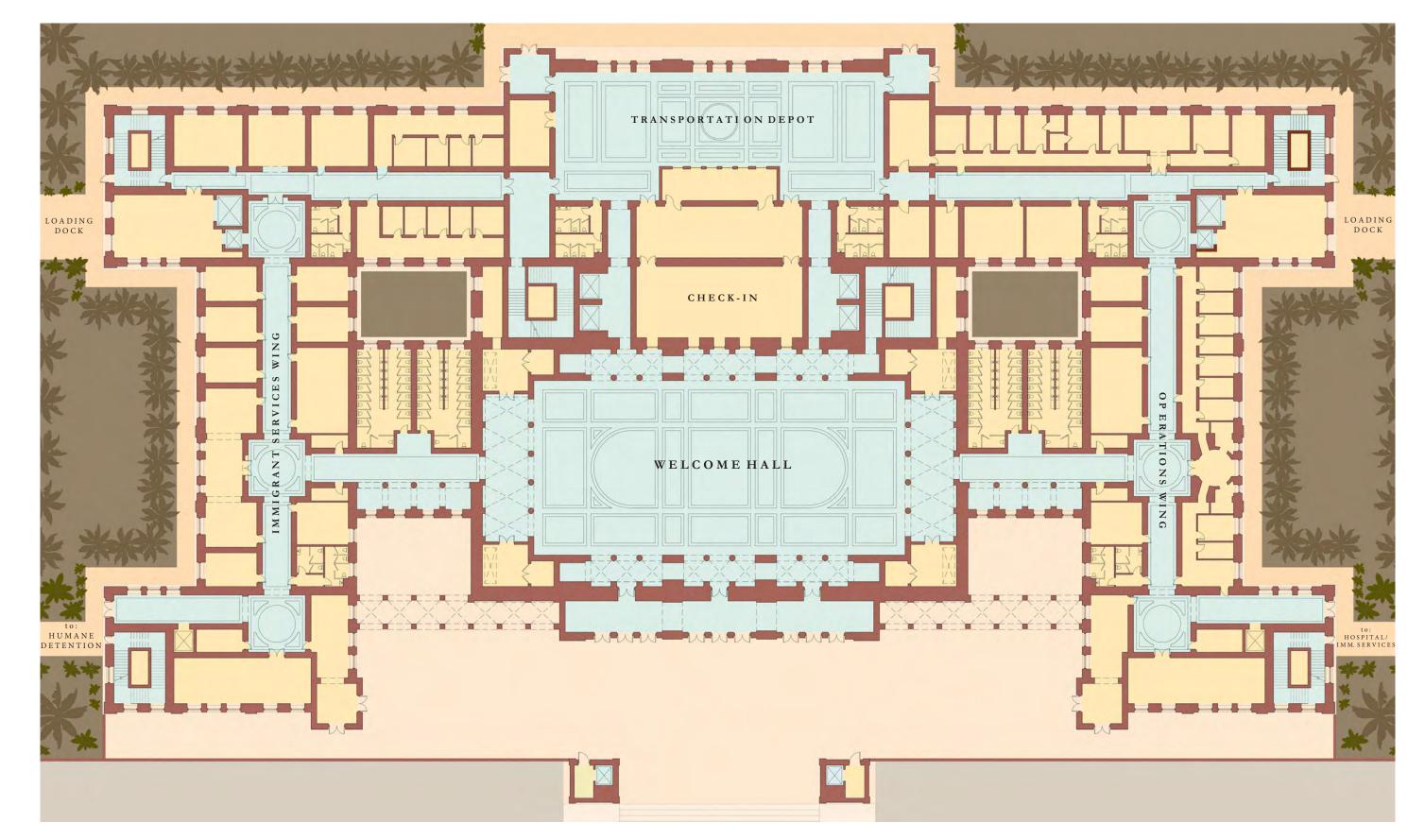
plan shows entirety of design propsal and includes the three phases of building (shown darkest to lightest) as well as the proposed international bridge, resting loggia, and re-routing of the highway I-10 to the campus to serve immigrant needs

site program includes the main processing station and sequence, military requirements, a hospital, an immigrant services quad, and an emergency asylum housing component



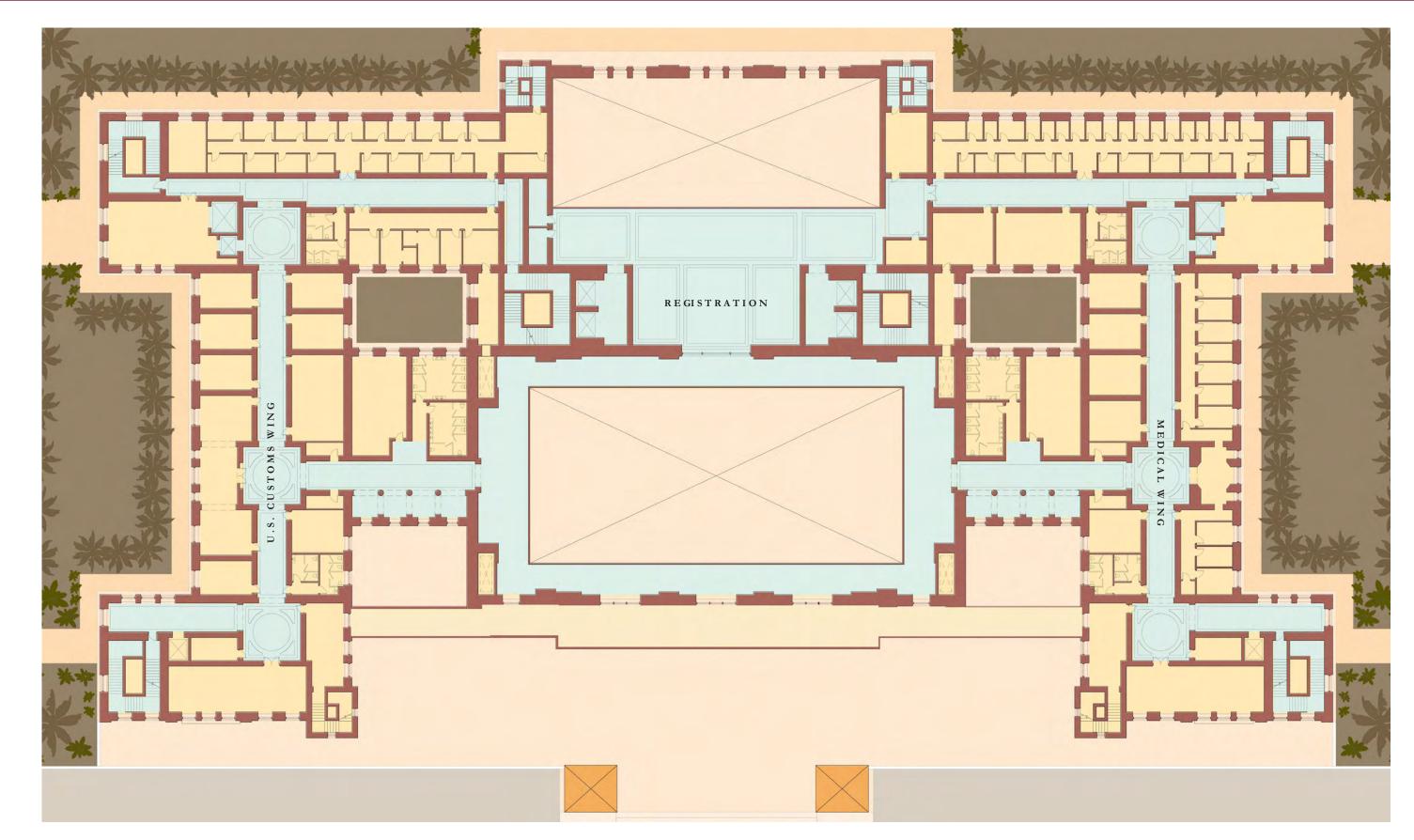
SITE SECTION

section through site juxtaposes the mountain topgraphy on both sides of the border with the site's flat plateau



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GROUND FLOOR PLAN



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SECOND FLOOR PLAN



WELCOME FACADE

main facade for the immigrant's approach

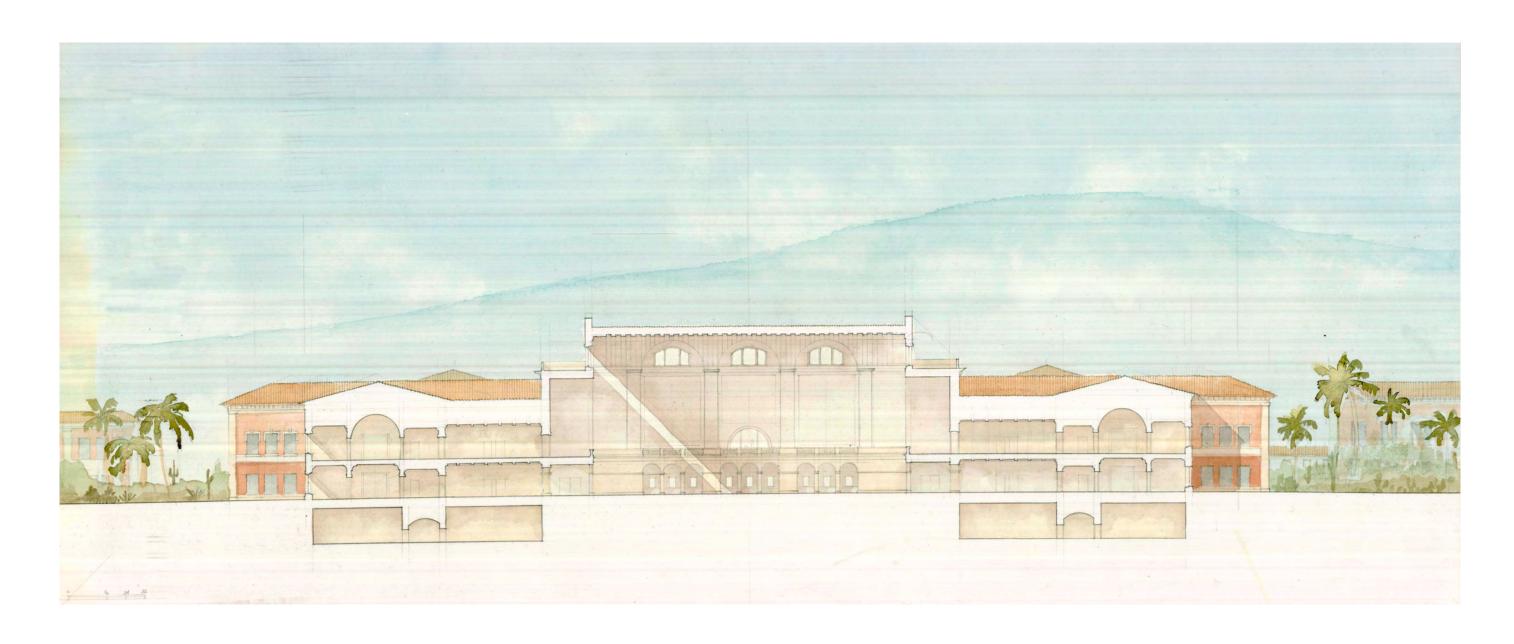
watercolor and pencil on paper | orginal drawing 2.75ft x 6.5ft



REAR STATION ELEVATION

view from reflecting pool plaza, cut through hopital and military buildings

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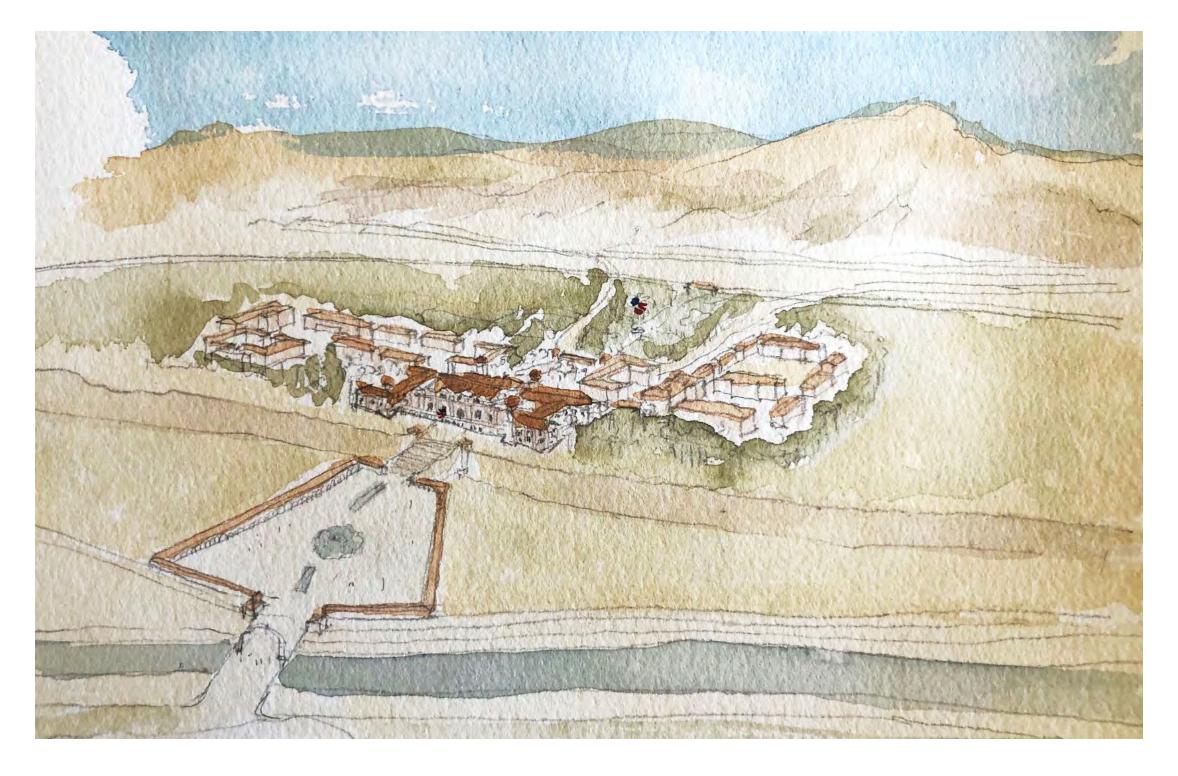
LONGITUDINAL BUILDING SECTION

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TRANSVERSE BUILDING SECTION

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AERIAL VIEW of PROPOSAL

from the Mexican side of the Border

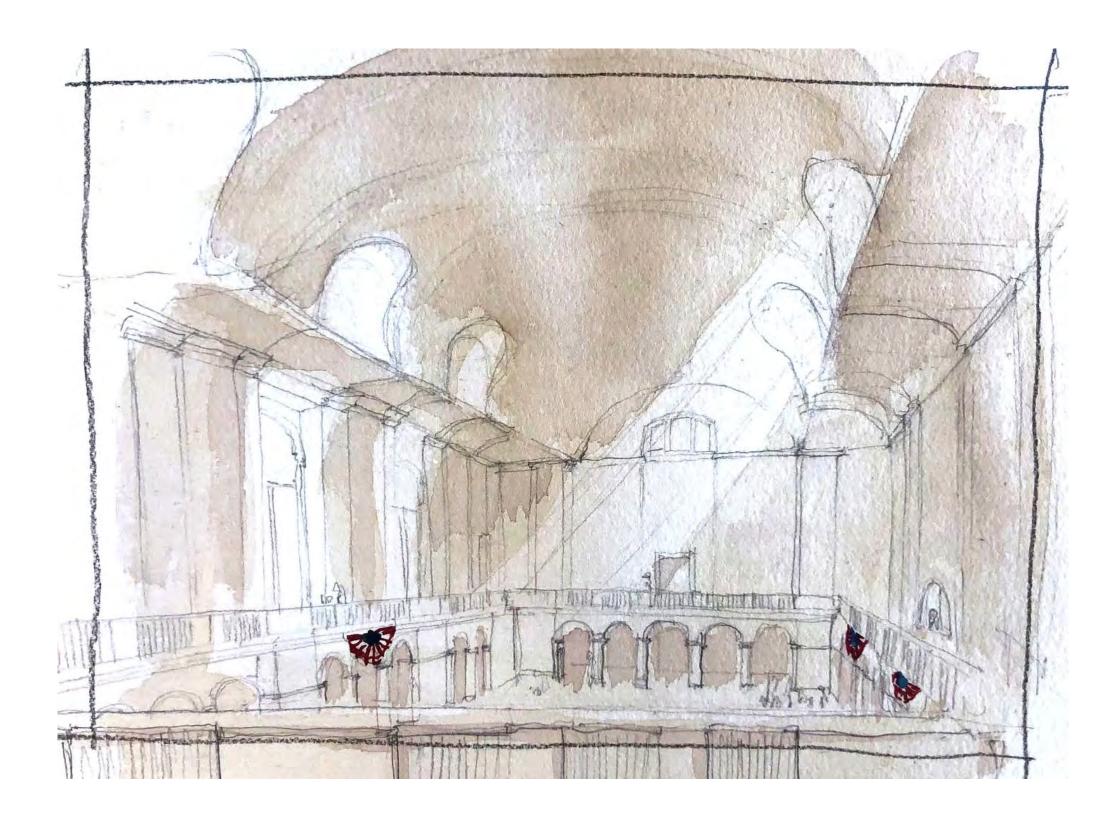
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ENTRANCE VIEW of LOGGIA and COMPLEX

from just past the first security checkpoint

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WELCOME HALL INTERIOR

from the mezzanine balcony

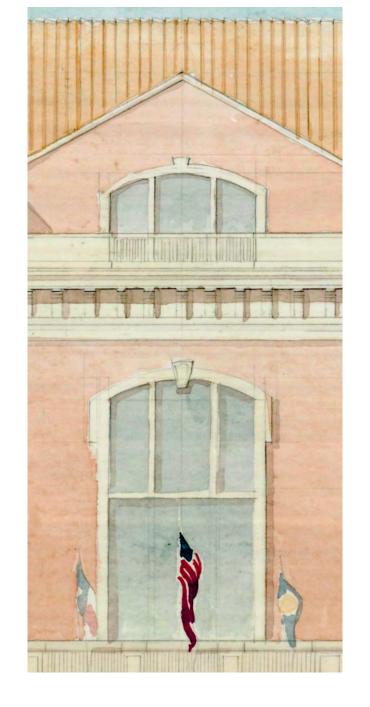
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"HEADED HOME"

perspective from the bus migrants would take as they travel from the station towards their new lives in America







THANK YOU

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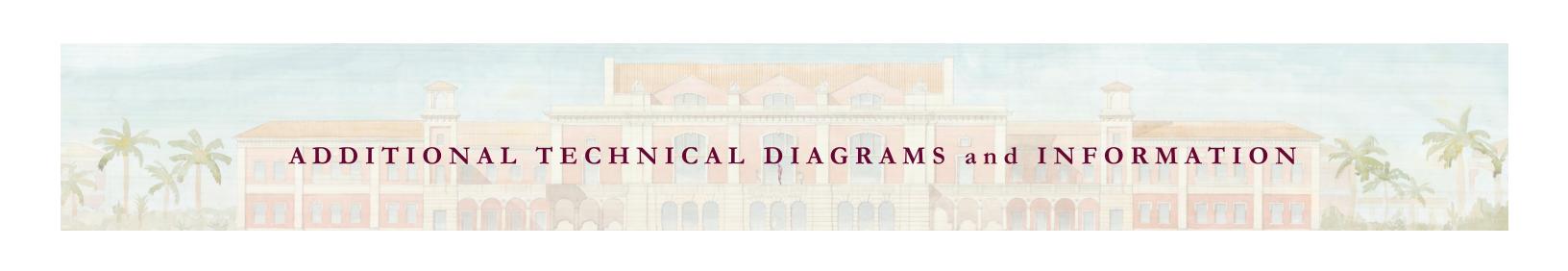
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Project Title: The Immigration Station: Designing for Dignity at the U.S./Mexico Border

Location: El Paso, Texas

Number of Stories: 2 + a basement

Building Height in feet: 85' to the tip of the Welcome Hall hipped roof

Gross Area per floor: 55,000sqft (floor 1)

38,000sqft (floor 2)

Description of Use of Building: The Station is primarily for welcoming/processing asylum seekers at the Southern Border of the United States. The goal is to use architecture as a means to humanize and dignify immigration in America today.

Main General Occupancy Group: A-3 (most closely matches the train station type)

Accessory Occupancy Groups: B, F, I

Special Use Occupancies: none in the main building of the campus

Accounting for How Many Guests Per Day: 2,000

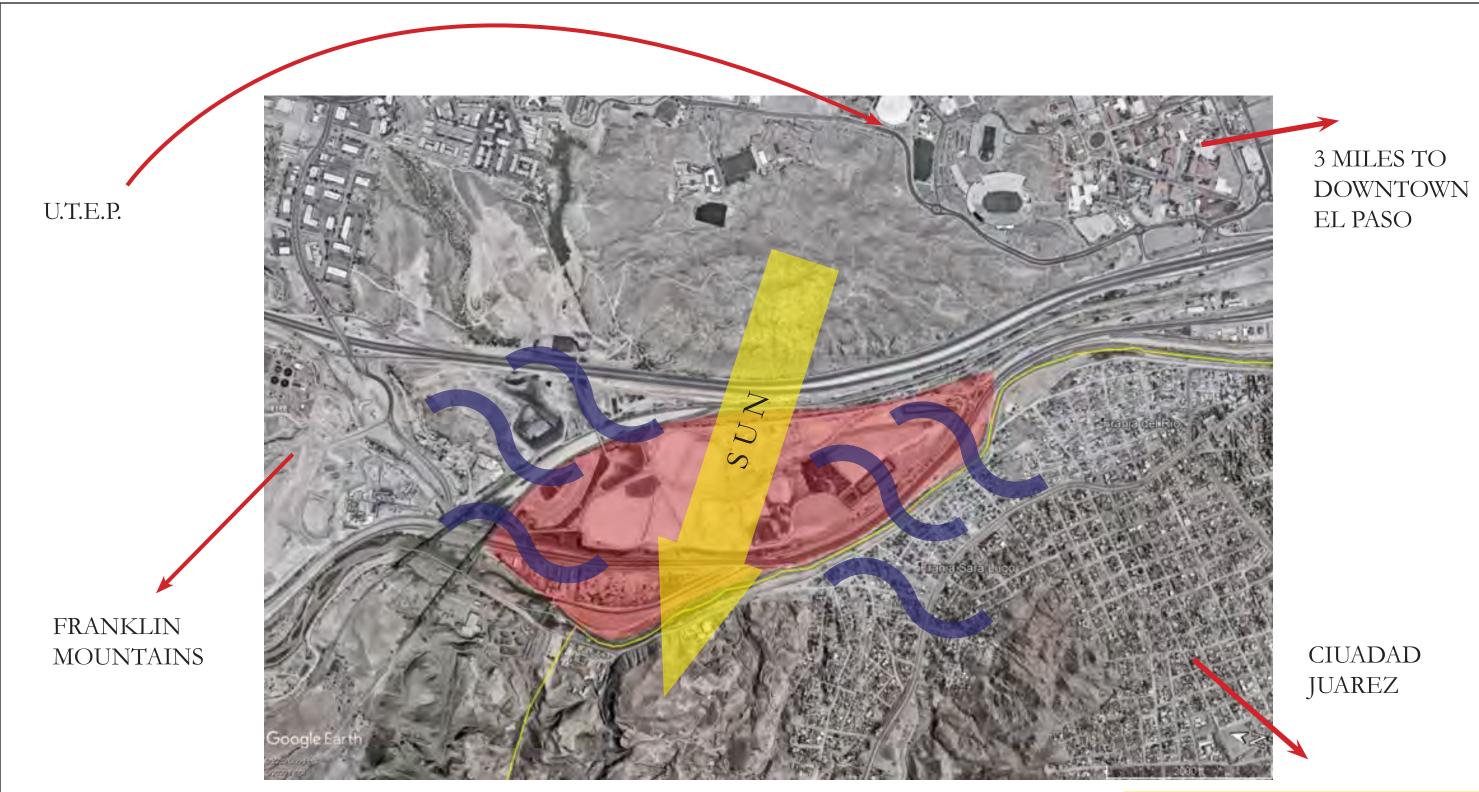
Using Table 503 Chapter 5 of the Building Code:

Construction Type Selected for Main Occupancy: Type 3A Construction

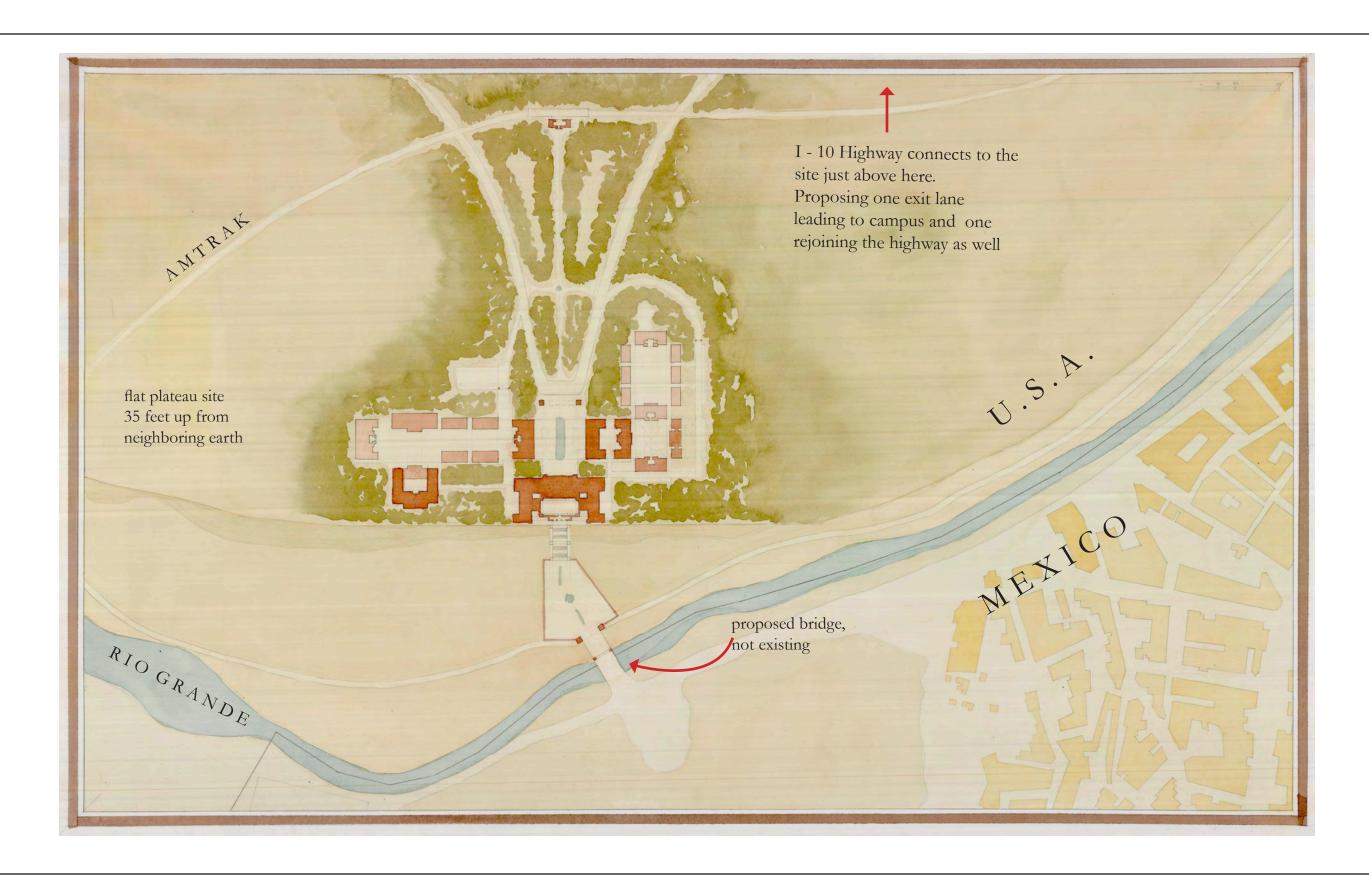
Allowable Height: 60ft

Allowable Modifications due to Sprinklers/Increase in Area Frontage: 60FT+25FT = 85FT = roof hip

TECHNICAL OVERVIEW AND OCCUPANCY INFORMATION for THE STATION



*EL Paso sees on average over 300 days of sun per year



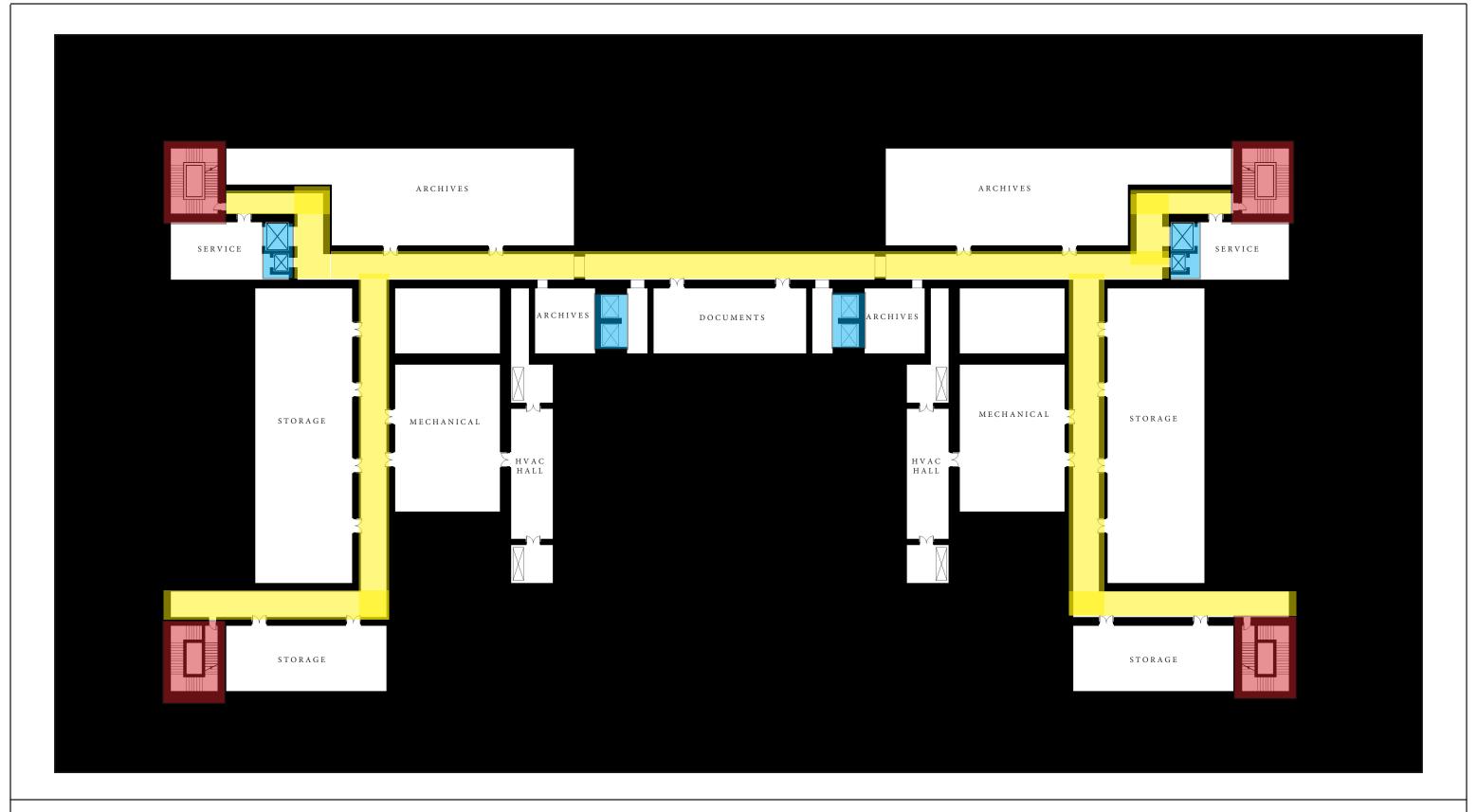
$\begin{array}{lll} S\ I\ T\ E & P\ L\ A\ N \\ \hbox{(Illustrates\ the\ three\ phases\ of\ the\ overall\ masterplan\ \ for\ the\ site.)} \end{array}$





SITE CONDITIONS

vehicular circulationpedestrianloading docksparking areas

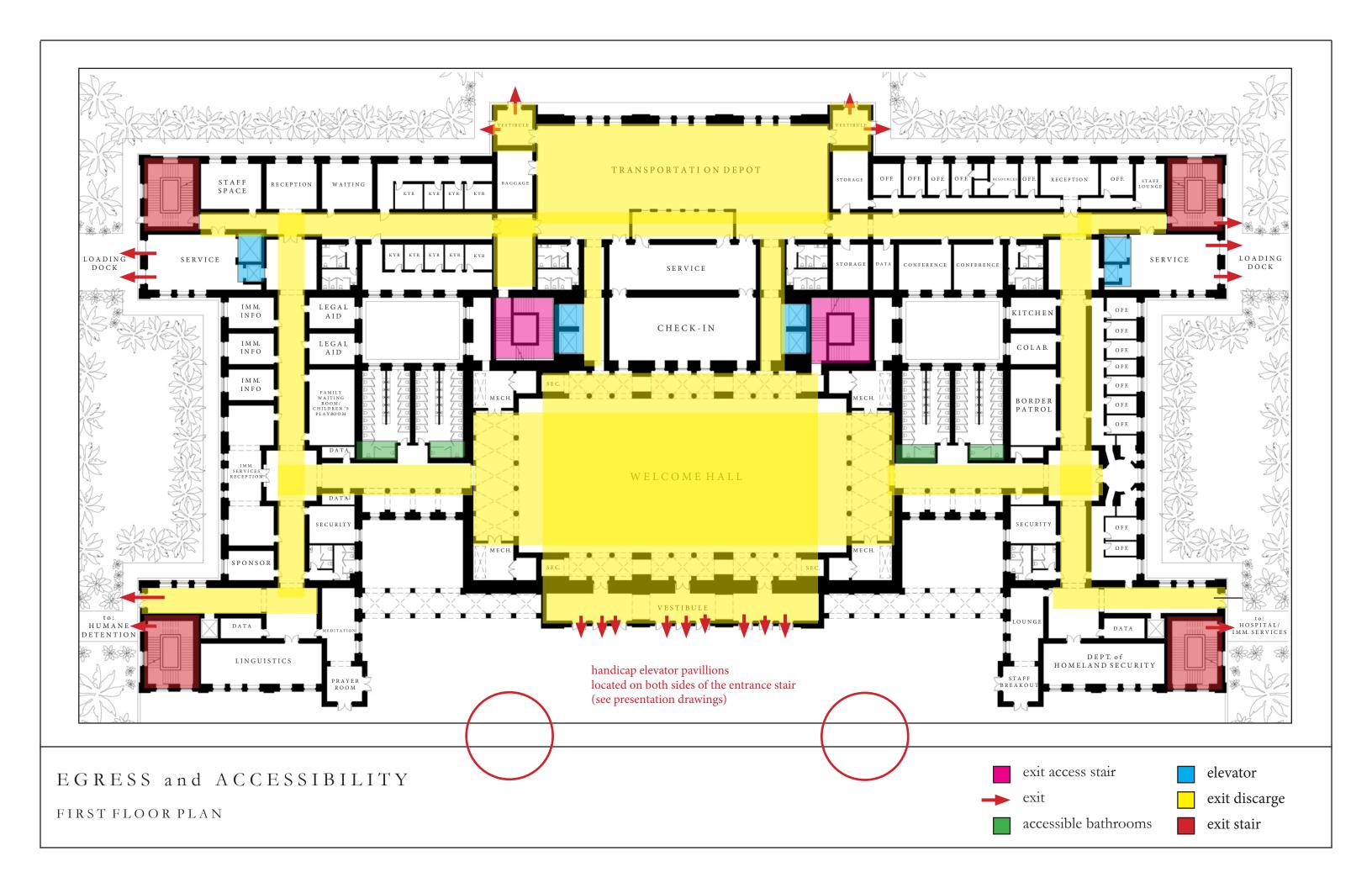


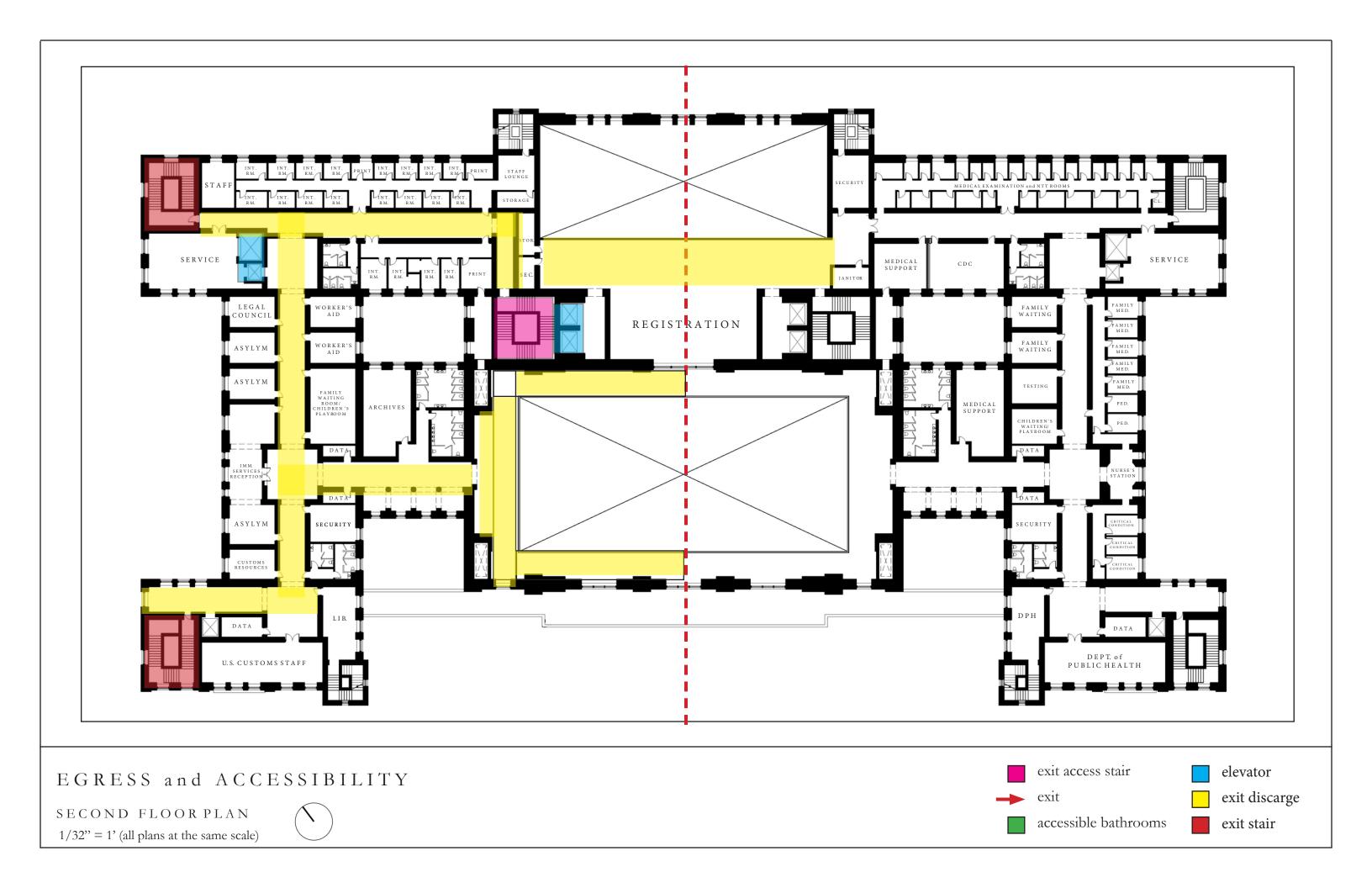
EGRESS and ACCESSIBILITY

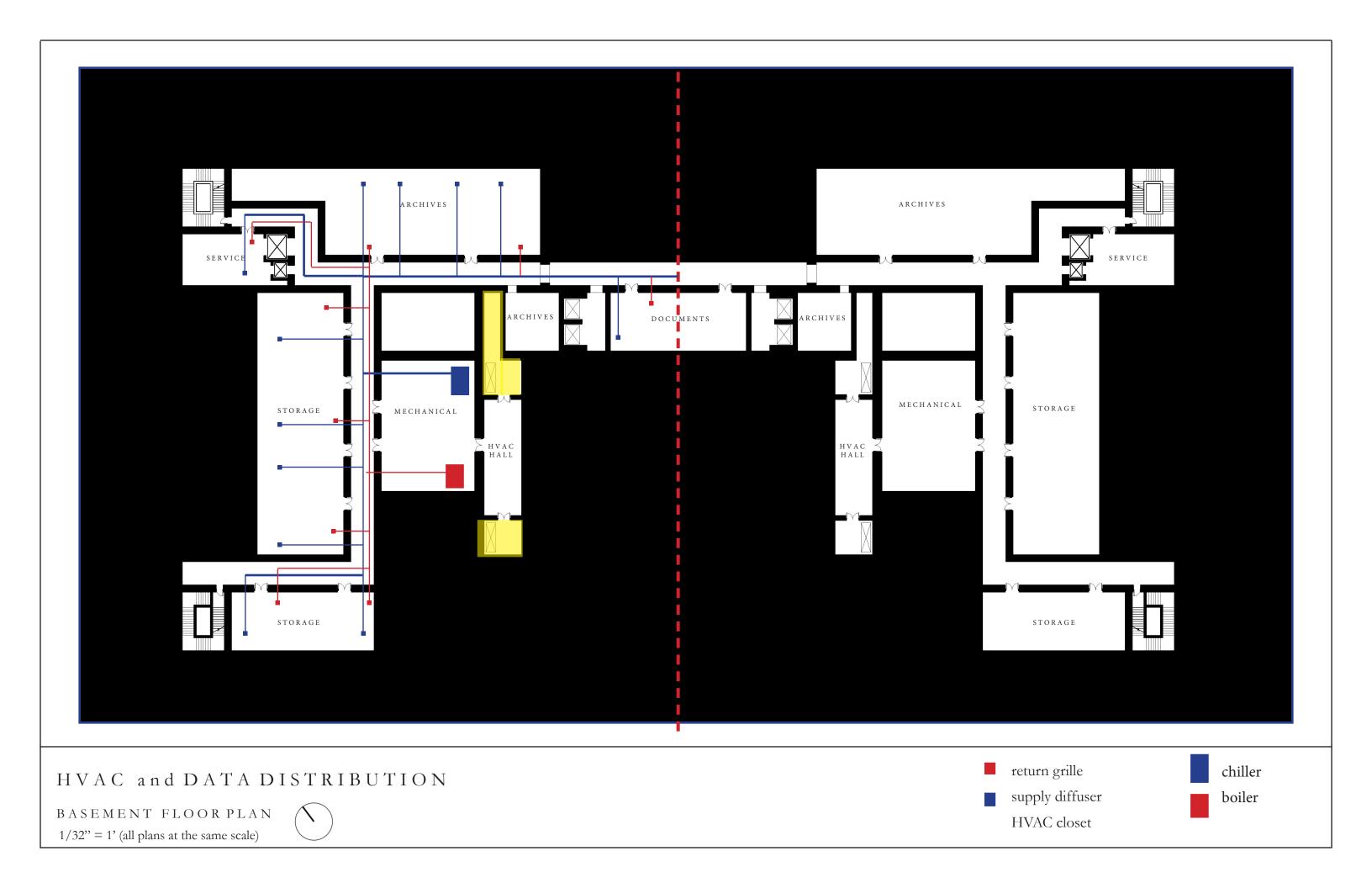
BASEMENT FLOOR PLAN 1/32" = 1' (all plans at the same scale)

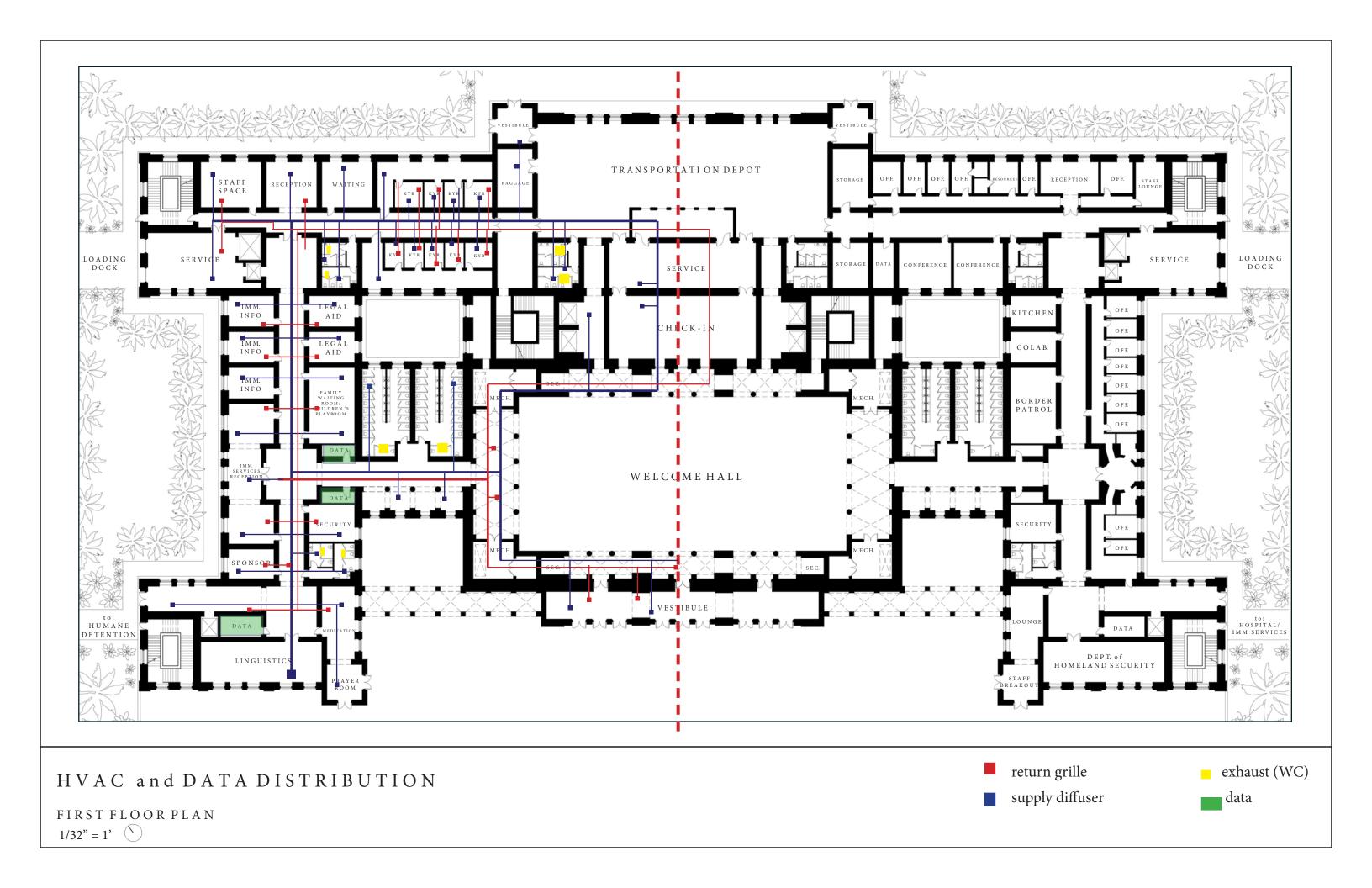


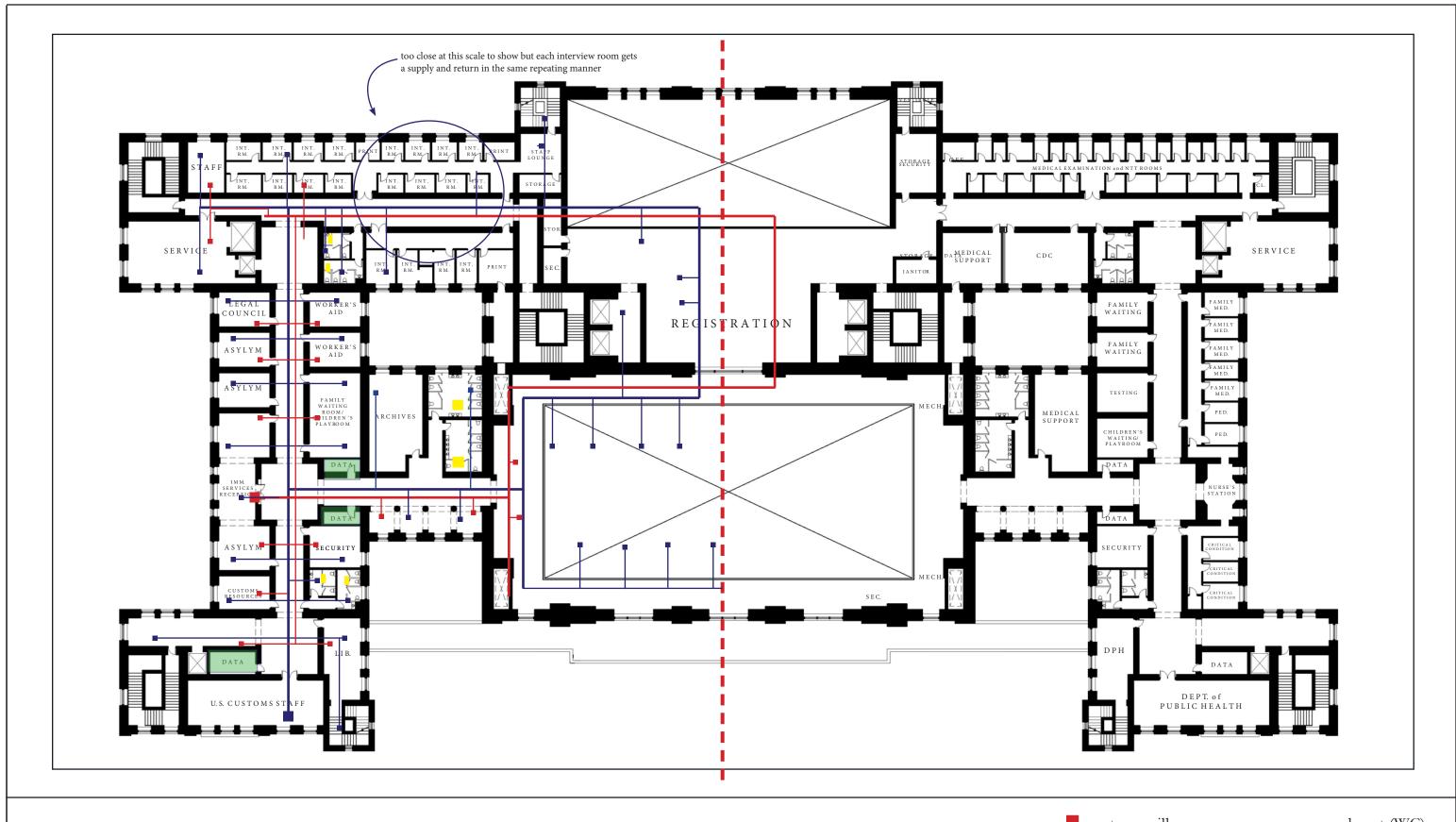
elevator
exit discarge
exit stair











HVAC and DATA DISTRIBUTION

SECOND FLOOR PLAN

1/32" = 1'

return grille

exhaust (WC)

supply diffuser



STRUCTURAL LAYOUT (8" hollow core concrete slab and stone masonry construction)

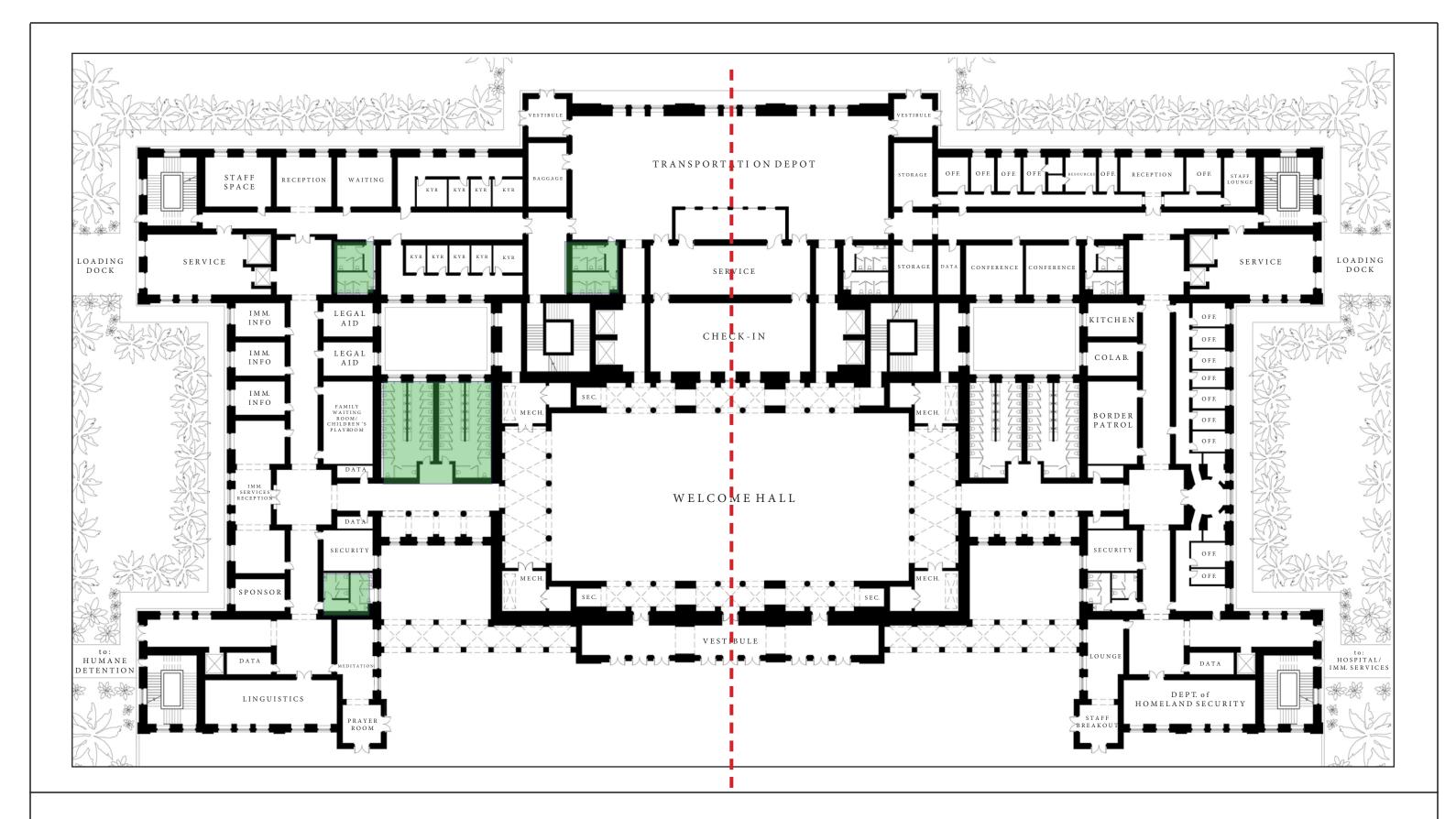
GROUND FLOOR PLAN

1/32" = 1'

-bearing walls and slab placement indicated

-8" slabs may span upto 30ft

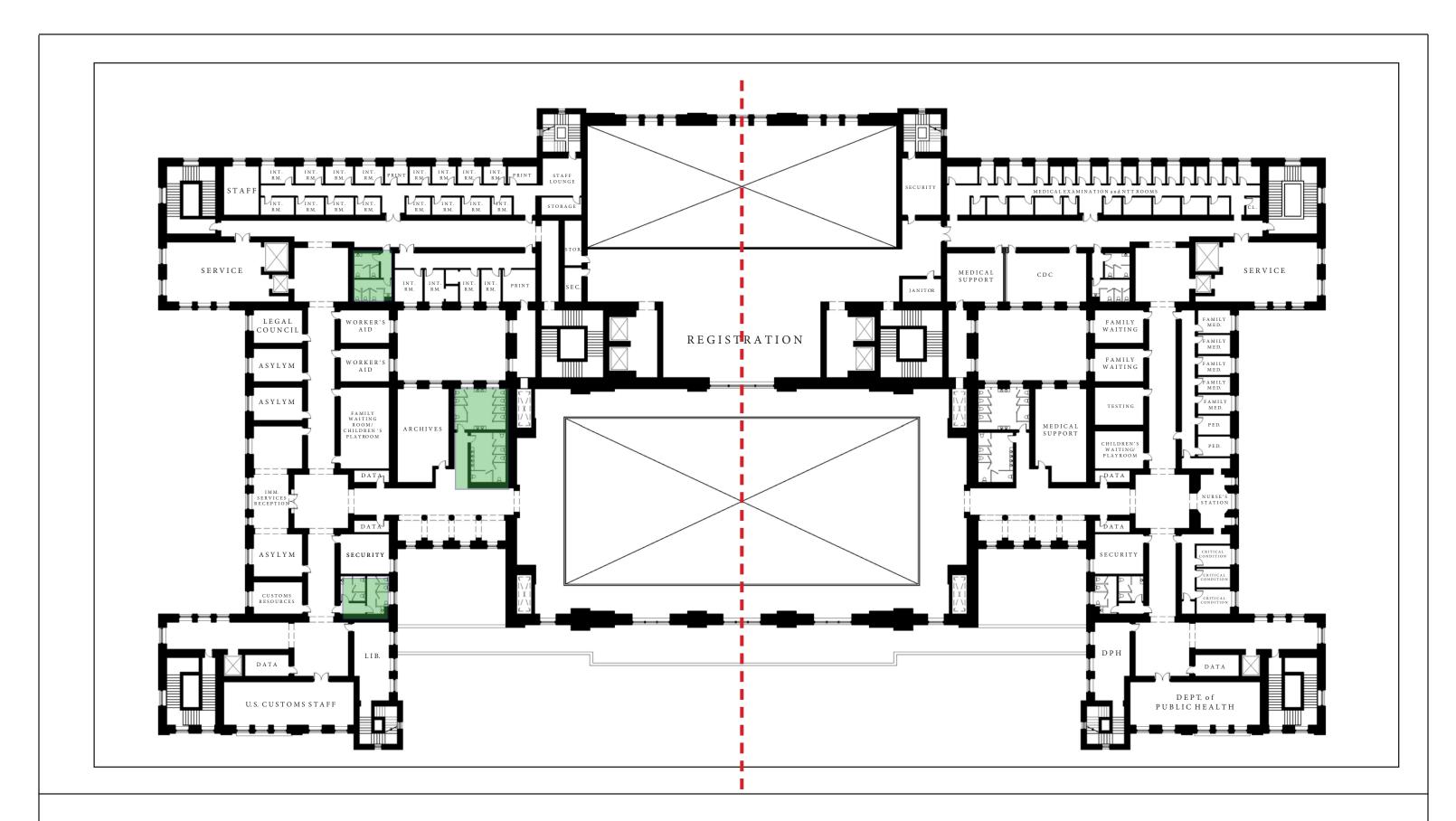
(ref: Studio Companion)



PLUMBING DIAGRAM (shows bathroom locations and wet walls)

FIRST FLOOR PLAN

1/32" = 1'



PLUMBING DISTRIBUTION

SECOND FLOOR PLAN 1/32" = 1'

