



William Leddy, FAIA

William Leddy, FAIA, is a Founding Principal of San Francisco-based LEDDY MAYTUM STACY Architects (LMS^A), the 2017 recipient of the national American Institute of Architects Firm Award. For over 20 years, Leddy and his firm have focused on Mission Driven Design, working with non-profit environmental, educational, affordable housing and social justice organizations to serve their unique missions through innovative design thinking. Their practice is founded upon the belief that architecture is for everyone - that every work of architecture has a profound responsibility to reach beyond its property lines to address the larger challenges our communities face: climate change and resilience; equity and inclusion; housing the underhoused and celebrating the rich diversity of the human condition. Leddy has lectured nationally and internationally on the topics of Universal Design and equity in architecture. He has served as visiting professor at the Southern California Institute of Architecture and the California College of the Arts, as the Howard A. Friedman Visiting Professor at the University of California, Berkeley, and the Pietro Belluschi Distinguished Visiting Professor at the University

of Oregon. A past Chair of the national AIA Committee on the Environment (2013), he currently serves as the AIA California Vice President for Climate Action and Chair of the AIA CA Committee on the Environment.

Equity and Grace in Architecture

William Leddy, FAIA

Everyone deserves Good design

So our firm serves the underserved: unhoused individuals seeking a new start; seniors suffering from AIDS and at risk of homelessness; veterans struggling to find shelter and peace; adults living on the autism spectrum who want independent lives; students preparing themselves for a challenging future; and people with disabilities who all deserve dignified, inspiring spaces in their communities.

Who we serve



- *Permanent homes for the formerly homeless*

But everyone also deserves dignified, safe, and healthy homes.....

- *Schools as a model for a low -carbon future*

Schools as a model for a low -carbon future



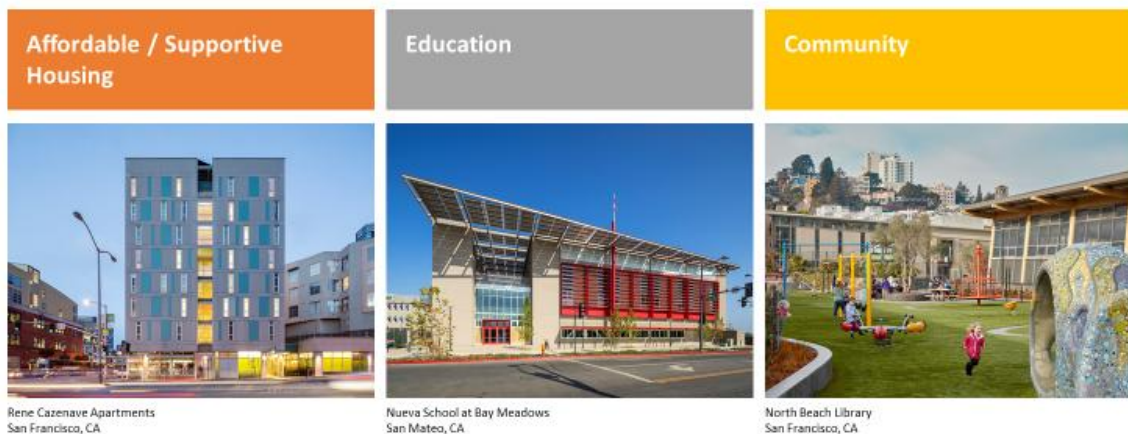
And an education in learning environments that prepare students for a rapidly changing world.

- Design with purpose



This is "design with purpose" – we work to design every building beyond it's property lines to address some of our society's biggest challenges

Mission- Driven Design



As a result, we focus on what we call "mission driven design" – working exclusively with non-profit organizations in three areas: affordable/supportive housing, innovative zero-carbon educational environments, and community centers, primarily for low-income communities. We create high performance, healthy, resilient and Universally Designed environments – all on tight budgets.

Our Broader Context

Let's talk about the context within which we all reside: It will come as no surprise to any of you that we live in a time of unprecedented change and challenge.....

Climate Emergency



.....a rapidly advancing climate emergency – one of the greatest existential threats to our species (and to all living things) in a thousand years....

.... a global pandemic that has sickened over 277M and killed 4.8M individuals worldwide so far....

Black Lives Matter

..... festering racial and ethnic injustice that we witness and experience every day...



....chronic homelessness - with over 580K American citizens living on the streets of our nation....



THEN: Ed Roberts, 1960's



NOW: Still protesting....

... and persistent inequity for people with disabilities



- *These should not be seen as discrete phenomena – they’re all inextricably linked – a combined ecological/societal emergency that cries out for as many creative, integrated solutions as we can collectively produce.*
- *Successfully addressing these challenges together will allow current and future generations to continue to dwell and prosper on this planet.*
- *In this pivotal time, architects have an important role to play.*

- ***We must become creative agents of change, providing the vision and skill to lead our communities toward an equitable, climate-positive future for all.***

Equity in Architecture

- ***Equity is a foundational element in constructing that preferred future***
- ***But, despite the robust national discussion around equity, diversity and inclusion, a wide gulf of understanding still remains between prevailing architectural design values and the making of environments that truly welcome everyone.***
- ***Bridging this gulf requires more than a broader familiarity with the principles and details of Universal Design. It requires that we evolve our shared design ethos to creatively embrace equity and grace as essential elements of best practice in architectural design.***
- ***Much like sustainable design, embedding the values of equity, diversity and inclusion in our built environment requires that we take an integrated design approach.***
- ***Incorporating a few isolated Universal Design strategies in our buildings isn't enough – although that would certainly be a good start. Instead, architecture in our pluralistic society should fully integrate the spirit of access for everyone, regardless of ability, race, ethnicity, age, or gender identity.***

Design dialogue: Seeking Diverse voices

- ***It starts by actively engaging diverse voices throughout the design process, and proceeds with an abiding curiosity, empathy, and respect.***

- ***It ends with the creation of flexible, inspiring environments that warmly welcome all, and celebrate the rich diversity of the human condition.***
- ***We organize extensive community outreach – facilitate design workshops – report back – engage key stakeholders throughout construction***

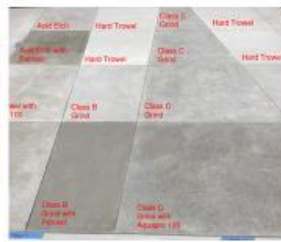
Continuous Feedback Loop+ post Occupancy Evaluation



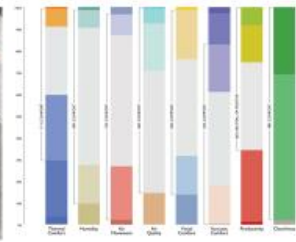
Early design
Student & stakeholder surveys, programming and spatial feedback



Design documents
Material selection, chemical sensitivity feedback, VR & daylight simulations



Construction phase
Mock-ups for texture testing



Post Occupancy
Comfort and satisfaction surveys for fine tuning solutions

Empathic Design : working to understand diverse experiences



- ***In the end, universal ideals become personal. When designing for any community, it's important to find an***

empathetic path to the heart of their values, needs and aspirations.

- ***While working on the Ed Roberts Campus, we were inspired by many of the folks we worked with, but none more so than Jan Garrett. She was then the President of the ERC – an attorney and charismatic disabled rights activist who happened to have been born without arms or legs.***
- ***As we were designing the building – the largest, most public application of Universal Design thinking at the time – we would often ask ourselves: what would Jan think? How could we design a building that would allow Jan to arrive after hours, let herself in, go to her office, complete her work, and go home, all without any assistance from others?***
- ***We would always engage her and many others in the final solutions, but for us, this initial question formed the foundation of our approach to Universal Design. It should really form the foundation of ALL design.***
- ***What would Jan think?***

Dueling Disabilities: mitigating conflict needs

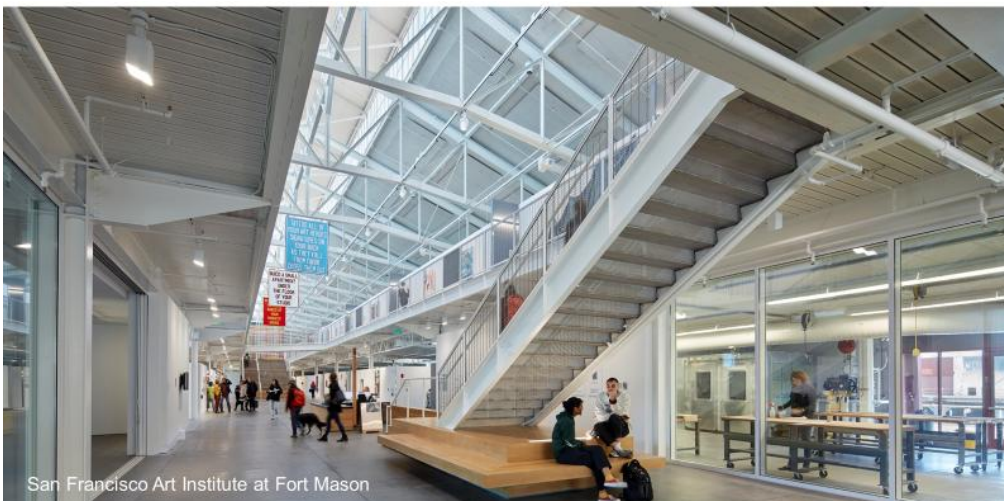


Support dogs present challenges for those sensitive to dander or pest treatments

Floor textures for people with low vision can be disruptive for wheelchair riders

- ***We've discovered that Universal Design isn't exactly universal. What might work for one community might not work so well for another.***
- ***Heavy floor textures designed to provide wayfinding for people with low vision can also become uncomfortable obstacles to wheelchair riders.***
- ***Support dogs present challenges for those allergic to dogs or their chemical pest treatments.***
- ***Navigating through these conflicting needs is part of the challenge of access for everyone.***

Adaptability: Design for Long life, loose fit



San Francisco Art Institute at Fort Mason

- ***"Long life, loose fit is a key sustainable design strategy, but it also makes sense when designing for all.***
- ***No one can fully anticipate the future - a good building adapts easily to changing needs of both program and people.***
- ***It offers flexibility of use: rooms that can be easily reconfigured and flexibility of space: spaces that can be readily expanded or reduced***
- ***The pandemic is a prime example of unforeseen conditions that demand spatial responses***

Post Occupancy Evaluation: Documenting lessons learned

- *Post-occupancy Evaluations for Permanent Supportive Housing*
- *Community Housing partnership POE*
- *Community Housing Partnership POE*

Universal Design and Health Well –being Arrival: Communicating inclusivity



Arrival: communicating_inclusivity



This is another model.....

Acoustics: a welcoming acoustical environments



The acoustical environment is particularly important for people with hearing and sight loss. Here....

Serenity: moments of quiet are good for everyone

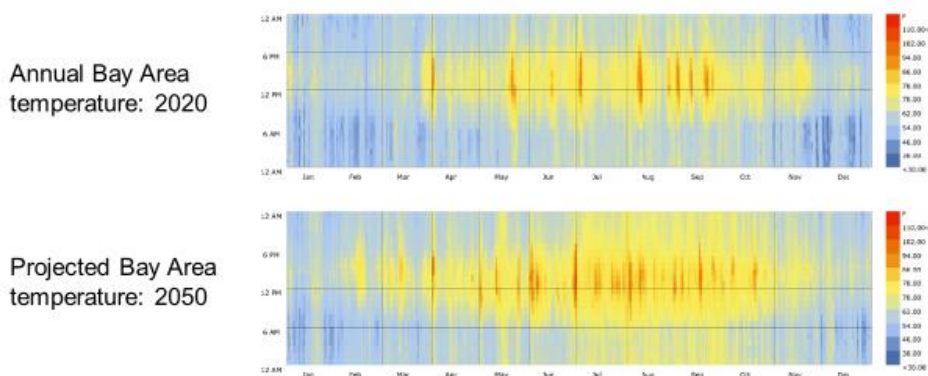


The renowned Mexican architect Luis Barragan famously said "Any work of architecture that does not express serenity is a mistake." While that might be as slight over statement, it's not by much. People on the autism spectrum require environments that offer low sensory stimulation – but I think we could all use more of that!

Health: Super clean indoor air quality

- **Non-toxic materials/IAQ program**
- **Filtered fresh air**
- **Green cleaning program**
- **Smoke and fragrance free environment**
- **HEPA filtered mechanical system**
- **Air Quality test: 50-100% better than LEED IAQ standard**

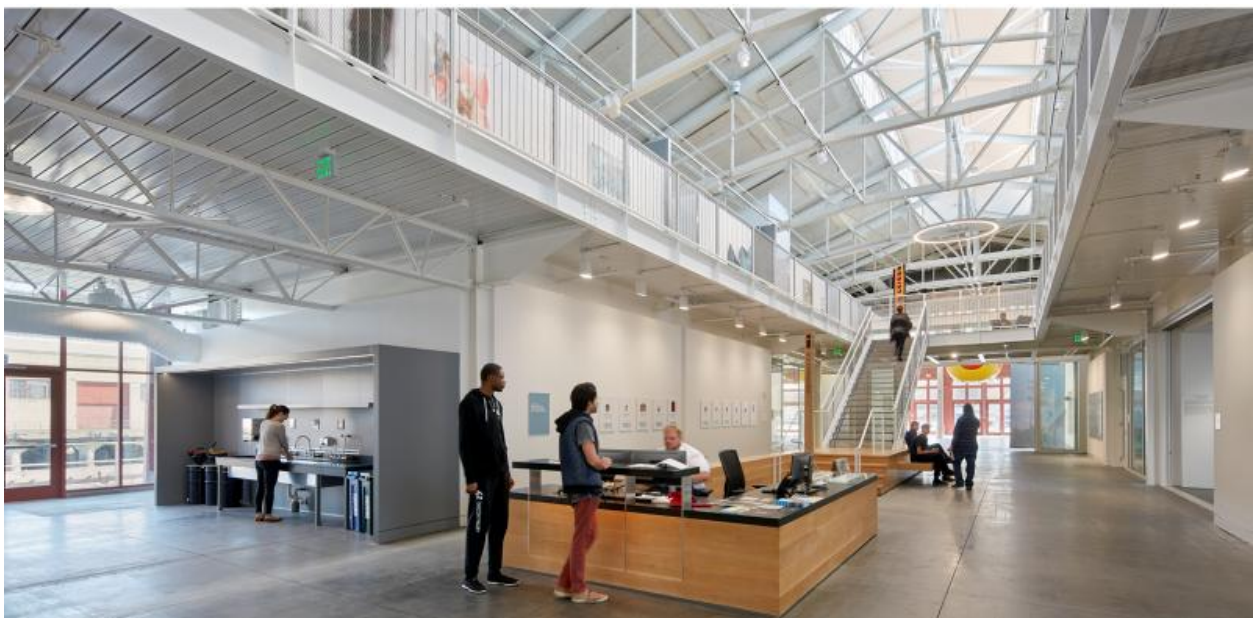
Climate Change: Greater impacts on people with Disabilities



Extreme Weather Threatens People With Disabilities

“Those with disabilities can experience more physical impacts and can be more socially isolated than the able-bodied”
Scientific American, 9/18/2019

- **Day lighting: Balanced, glare-free daylight**



- **Biophilia: connecting with nature supports health and well-being**
- **Resilience: preparing for an uncertain future**

Three Case studies

1. Case study: Ed Roberts Campus : An international center for the disability rights movement



**An international model of Universal Design applied at a civic scale
2011**



long process – story of approvals

A

Universal Design

Creating environments that welcome everyone regardless of their abilities

A working structure:

1. Physical Environment
2. Visual Environment
3. Acoustical Environment
4. Thermal Environment
5. Chemical Environment
6. Electronic Environment

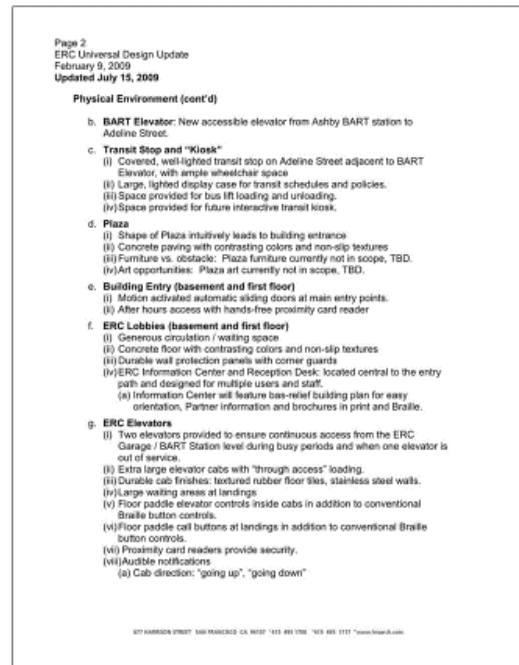
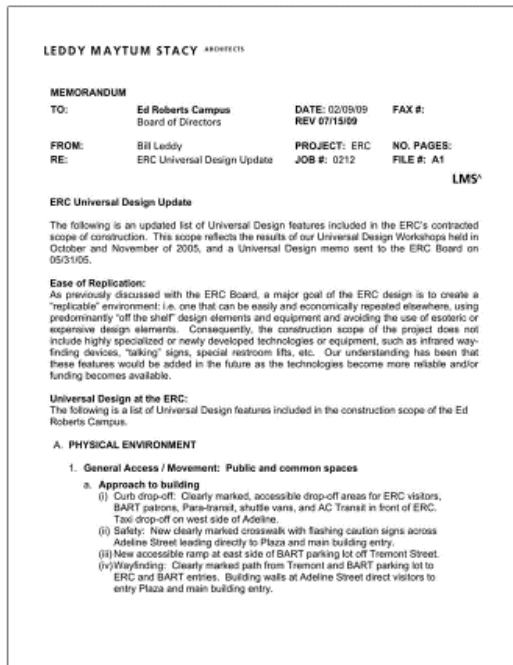


UD Workshops



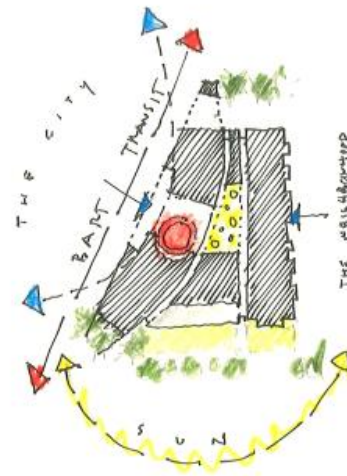
Tactile models

UD working groups – wide participation and representation – discussed in terms of these categories

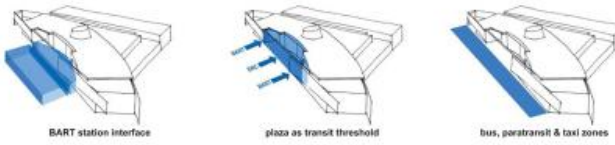




EP ROBERTS CAMPUS 6/07



welcoming people with diverse abilities

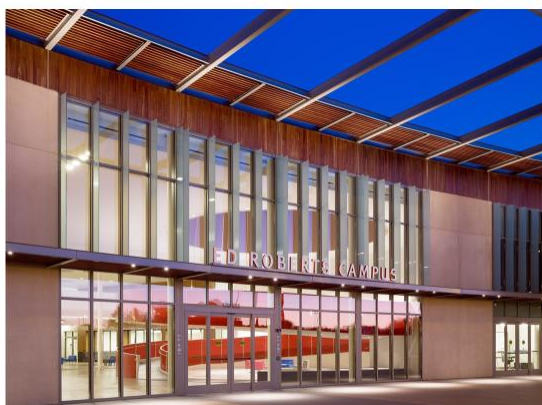
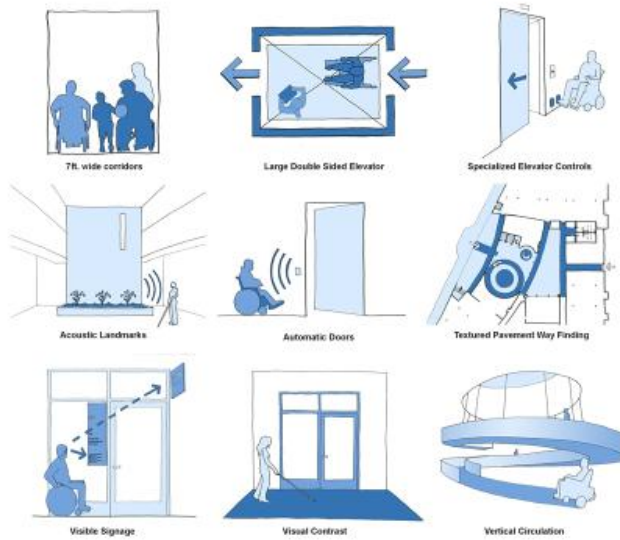


providing convenient mass transit access for all



creating healthy, inviting, resource-efficient spaces



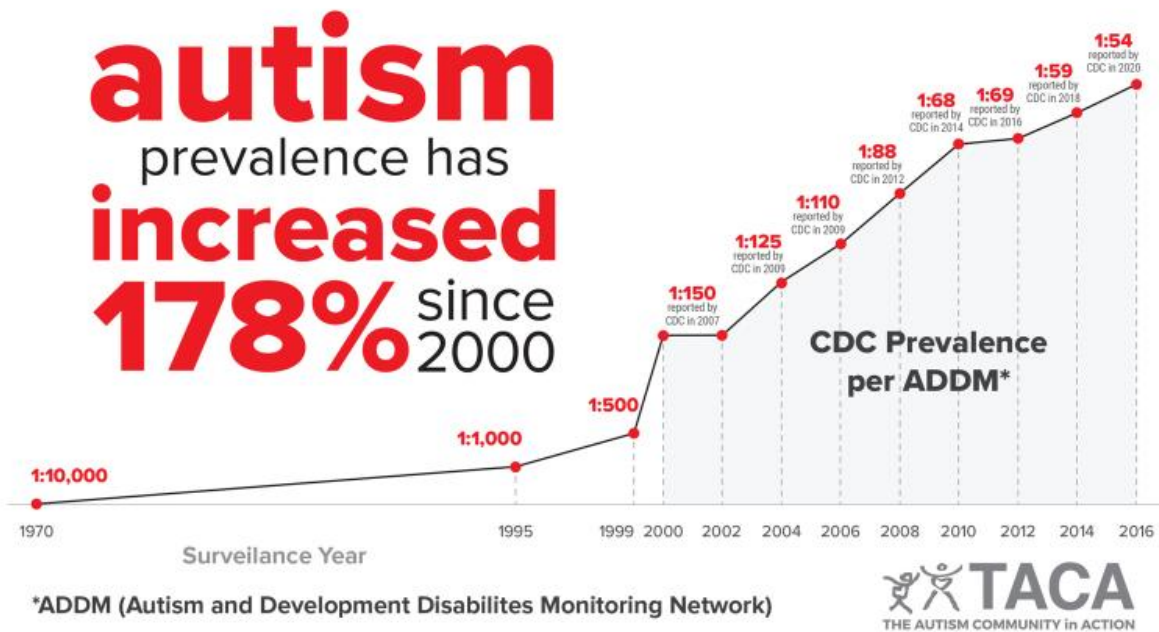




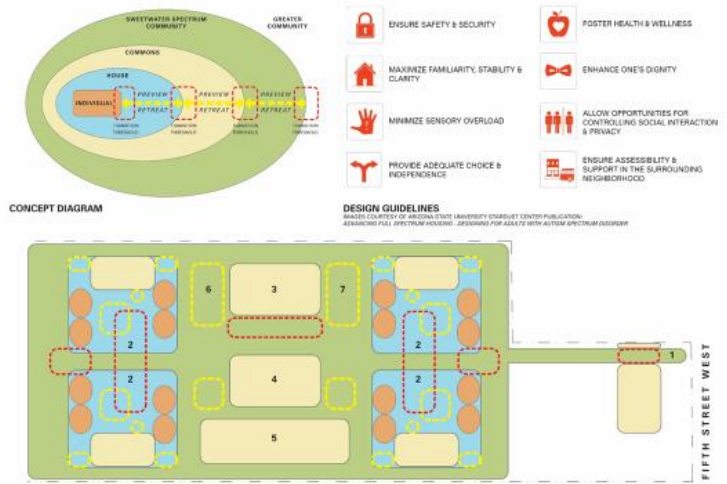
POE / Lessons Learned



2. Case study: Sweetwater Spectrum: A new model for Housing on the autism spectrum



Design for Adults on the Autism Spectrum



SITE PLAN
 1 WELCOME BUILDING 2 PARKING 3 HOUSE 4 STORMWATER TREATMENT BIO-SWALE 5 COMMUNITY CENTER 6 THE COMMONS: PLAZA & LAWN 7 THERAPY POOL & SPAS 8 ORCHARD 9 TRASH 10 STORAGE BUILDING 11 IRRIGATION WELL 12 GREENHOUSE 13 ORGANIC FARM 14 FIRE ACCESS ROAD



SUSTAINABILITY DIAGRAM
 1 ORGANIC FARM 2 IRRIGATION WELL 3 COOL ROOF 4 NATURAL VENTILATION 5 DAYLIGHTING 6 DROUGHT TOLERANT PLANTS 7 SOLAR HOT WATER PANELS 8 SOLAR PV PANELS 9 STORMWATER FILTRATION BIO-SWALE 10 SUN CONTROL 11 RADIANT FLOOR SYSTEM 12 POOL SOLAR PANELS 13 HIGH PERFORMANCE WINDOWS 14 SOLAR TUBE SKYLIGHTS 15 HIGH R-VALUE EXTERIOR WALLS & ROOF 16 PERMEABLE PAVING





3 Case Edwin M.Lee Apartments: Veterans and Low – Income families joined in resilience



- ***A model for healthy living and resilience, the Edwin M. Lee Apartments is the first building in San Francisco to combine supportive housing for both unhoused veterans and low-income families.***
- ***provides 62 apartments for formerly homeless veterans and 57 apartments for low-income families with ground-floor services for families, veterans, neighbors, and the greater community.***

Credit: Wounded Warrior Home

“about one third of the 103,788 returning veterans seen at V.A. facilities between Sept. 30, 2001 and Sept. 30, 2005 were diagnosed with mental illness or a psycho-social disorder.”

“There have been over 1100 major or partial amputations during the Global War on Terror.”

“Current estimates of PTSD in military personnel who served in Iraq range from 12% to 20%”

“Two percent (5.3 million) of the US population currently live with disabilities from a TBI”

“Last month [June 2010] set a tragic record for suicides - more than one per day. Multiple combat tours, bad economy, and family troubles all create incredible stress on today’s soldiers.”

INTRODUCTION

HOMES THAT REBUILD LIVES

A CONCEPT HOME FOR WOUNDED WARRIORS AND THEIR FAMILIES

REBUILDING LIVES

The welcome mat. You're looking at a house unlike any you've ever seen. An architect (captioned) by the core qualities that dramatize the needs of wounded warriors.

There's a dramatic interplay of light and space. The structure is solid, warm, and elegant, and people are drawn to its calm, quiet, and serene.

When you enter a room, you're greeted with a warm, open, and inviting atmosphere. The architecture and all of the details are designed to create a sense of calm, quiet, and serene. It's a place where you can relax and recharge.

For enough information, visit our website: www.woundedwarriorhome.com

Images from the interior of the house, showing a bedroom with a wheelchair, a living area, and a dining area.

THE QUALITY PRINCIPLES

THE FOUNDATION OF THE HOUSE

These seven qualities act as our compass points, inspirations and standards. They're the key to delivering many of the positive life experiences we hope to provide. Our designs work toward answers to this specific range of needs in psychological, social and spatial terms. However important, the little details are all big deals.

WELL-DEFINED, UNDEFINED SPACES
Quality 1: A sense of place
 A sense of place is the key to a sense of belonging. It's the feeling of being at home, of being part of a community. It's the feeling of being seen, of being heard, of being understood. It's the feeling of being accepted, of being loved, of being valued. It's the feeling of being a part of something bigger than yourself.

VISIBLE AND INVISIBLE SECURITY
Quality 2: A sense of safety
 There's a sense of safety, of being protected, of being cared for. It's a sense of security, of being able to relax and recharge. It's a sense of peace, of being able to focus on what's important. It's a sense of calm, of being able to breathe and think clearly.

INSIDE OUT, OUTSIDE IN
Quality 3: A sense of connection
 There's a sense of connection, of being part of a community. It's a sense of belonging, of being able to share and support. It's a sense of unity, of being able to work together and achieve great things. It's a sense of hope, of being able to dream and strive for a better future.

THE UNIQUELY NORMAL
Quality 4: A sense of individuality
 There's a sense of individuality, of being able to express oneself. It's a sense of uniqueness, of being able to stand out and shine. It's a sense of pride, of being able to take ownership and responsibility. It's a sense of accomplishment, of being able to overcome challenges and achieve goals.

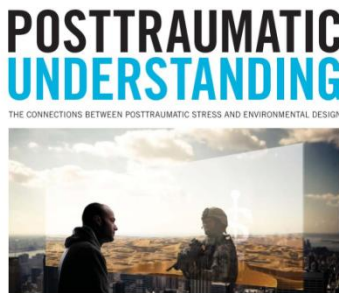
SOCIAL PRIVACY
Quality 5: A sense of balance
 There's a sense of balance, of being able to have both social and private space. It's a sense of harmony, of being able to find a middle ground. It's a sense of respect, of being able to give and receive. It's a sense of understanding, of being able to see things from different perspectives.

MOBILE ROOTS
Quality 6: A sense of flexibility
 There's a sense of flexibility, of being able to adapt to change. It's a sense of resilience, of being able to bounce back from setbacks. It's a sense of growth, of being able to learn and evolve. It's a sense of freedom, of being able to explore and discover.

OLD SELF, NEW SELF
Quality 7: A sense of transformation
 There's a sense of transformation, of being able to become a better person. It's a sense of renewal, of being able to start fresh and begin again. It's a sense of hope, of being able to believe in a better future. It's a sense of faith, of being able to trust in oneself and in others.

DUALITY HOUSE

The house is the harmony of two houses. A balancing act that expresses the need for both social and private space. There are areas dedicated to recreation and space reserved for peaceful personal time. Healing takes many forms and we've tried to design for all of them.



Credit: Perkins + Will

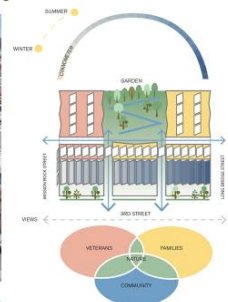
Design attributes:

- Visual transparency
- Calming transitions
- Visible spatial order
- Garden access
- Views to nature
- Social privacy

Design Concept
Veterans and Families Joined Through Nature



The Edwin M. Lee Apartments is San Francisco's first integrated veteran and low-income family housing development.



Level 1 Plan



Veterans and families share access to a terraced central courtyard, and multiple common amenity spaces such as counseling offices, laundry, a kids room, and a community room and kitchen open out to the sunny garden.

Level 2-5 Plan



80% of the project site was reserved for open space and common use.





- ***The project frames a generous internal garden courtyard that balances a range of areas for retrospection, interaction and play.***







Gracr in Architecture

"The society of rooms is knit tighter with the elements of connection which have their own characteristicsIt is good to consider the stair landing as a place to sit near a window with possibly a shelf for a few books. The old man ascending with the young boy can stop here, showing his interest in a certain book, and avoid the explanations of infirmity." Louis Kahn 1971.

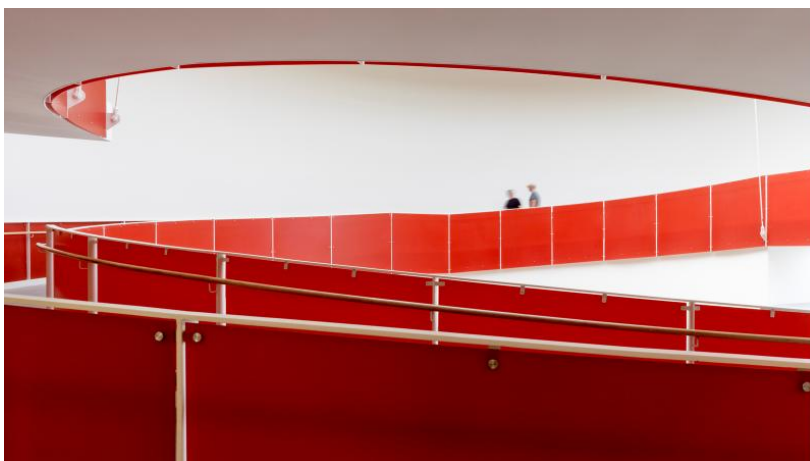


Kahn might not have understood the principles of Universal Design twenty-five years before the term was invented, but he clearly understood the fundamental value of circumstantial grace embedded within them - that is, the special characteristic of

environments that welcome everyone with a timeless generosity of spirit.



These are spaces that don't discriminate between the abled and disabled among us, but rather celebrate the rich diversity of the human condition at many scales. It's an approach that transcends rote compliance with disabled access regulations and seeks a broader, more gracious and integrated definition of "accommodation".



At the Ed Roberts Campus, the helical ramp was our version of Kahn's staircase. We asked ourselves how we could invite everyone to the second floor, making the experience a joy rather than a chore. We also wanted to make a very public expression of Universal Design, displayed to the city as a symbol of the important mission of the ERC. Thus, the ramp was conceived as a

public sculpture, hovering in space, daylit from above, inviting to all.



The responses to design decisions such as this one are often unexpected and add to its value and meaning. Soon after the ERC was occupied, a woman approached me in her wheelchair to tell me how grateful she was to be working in the building. *“I’ve never felt so safe in a building before, knowing that I can evacuate myself in an emergency.”* Months later, I found the space at the center of the ramp filled with white chairs. A young couple - with no connection to the ERC other than they had passed through it on the way to the BART station - had decided that this space would be ideal for their wedding. The bridal procession descended the ramp and entered the center where the ceremony was held – a delightful expression of grace that we had never imagined



I'd like to close with this statement from the AIA Climate Action Plan. Intended to address the climate emergency, I believe it is equally meaningful when directed toward the broader ecological / societal emergency we're now experiencing. Architects and designers have a moral responsibility to take leadership in this moment of peril and focus the transformative power of design thinking to build a better world for everyone.