



CUSTOMERS FIRST

Getting to Zero Forum
October 10, 2019

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GREEN NEW DEAL PLAN

ENVIRONMENT

ECONOMY

EQUITY



L.A.'s 5 Zeros

Emissions must decline everywhere, as soon as possible.
L.A.'s GND puts our city on the road to a zero carbon future across the board.



Zero Carbon Grid

*Achieve 100%
renewable
energy by 2045*



Zero Carbon Buildings

*100% net-zero carbon
new buildings by 2030
& all buildings by 2050*



Zero Carbon Transportation

*100% zero emission
vehicles in the city by
2050*



Zero Waste

*100% landfill
diversion rate by
2050*



Zero Wasted Water

*100% of our
wastewater
recycled by 2035*

LADWP Rebates & Incentives





HOOVER STREET YARD
611 N HOOVER ST
LOS ANGELES, CA
90004



WEST LOS ANGELES
12300 NEBRASKA AVE
LOS ANGELES, CA
90025



SANTA MONICA



DOWNTOWN

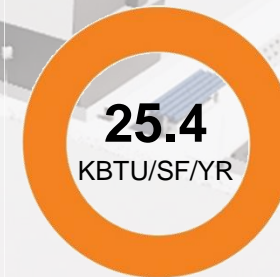
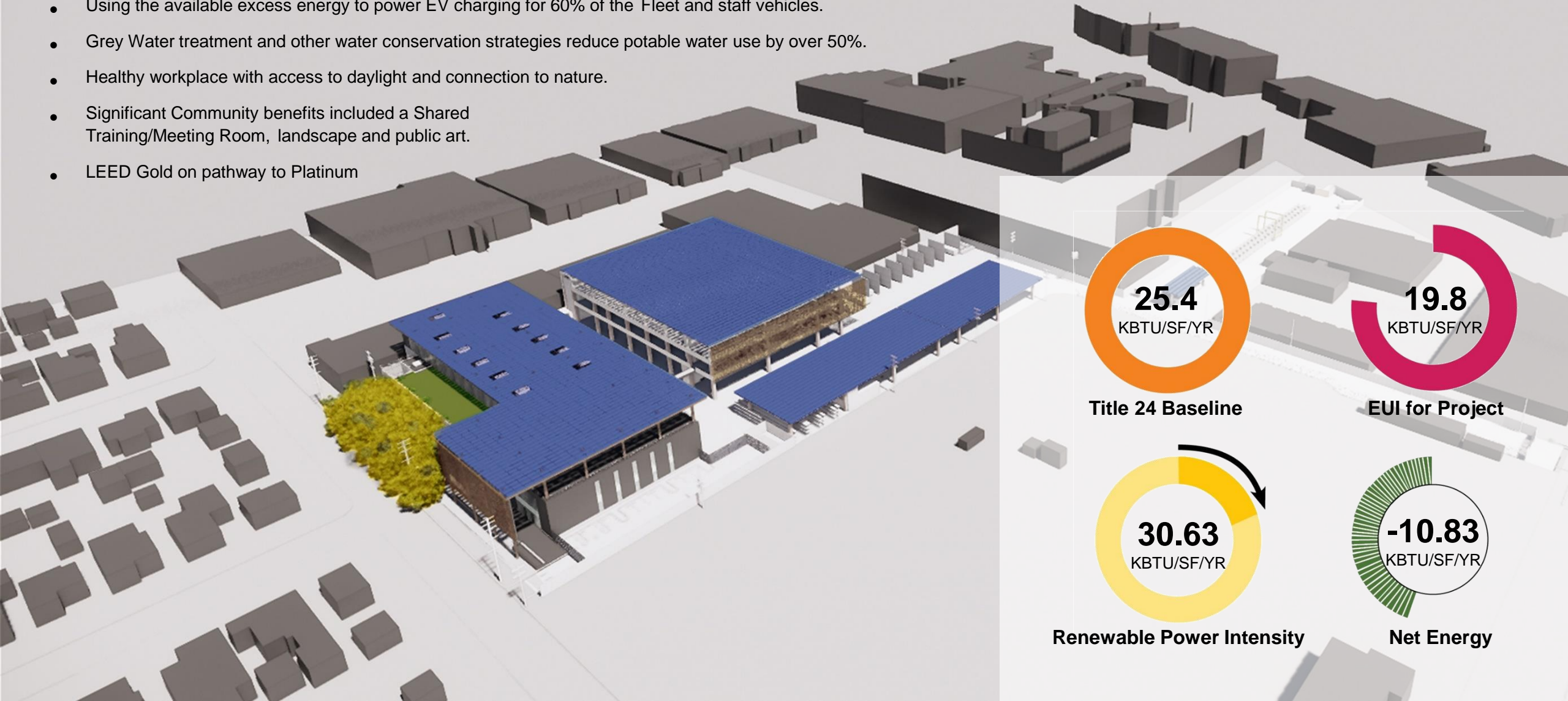




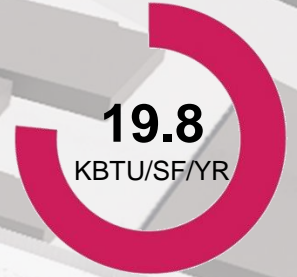
Los Angeles
Department of
Water & Power
DWP

DESIGN INTENT:

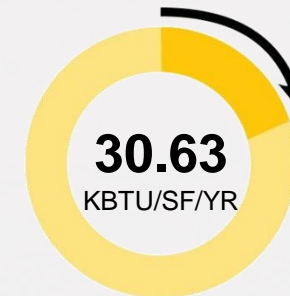
- West Los Angeles Yard is an essential services facility designed to survive the “Big One” and immediately get to work restoring power for the City of Los Angeles
- Regenerative Energy with a combination of Energy Conservation, efficient systems and extensive PV array that supplies 154% of the modeled EUI.
- Using the available excess energy to power EV charging for 60% of the Fleet and staff vehicles.
- Grey Water treatment and other water conservation strategies reduce potable water use by over 50%.
- Healthy workplace with access to daylight and connection to nature.
- Significant Community benefits included a Shared Training/Meeting Room, landscape and public art.
- LEED Gold on pathway to Platinum



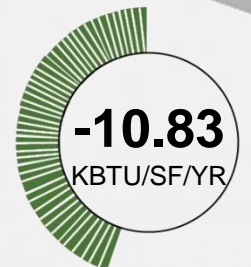
Title 24 Baseline



EUI for Project

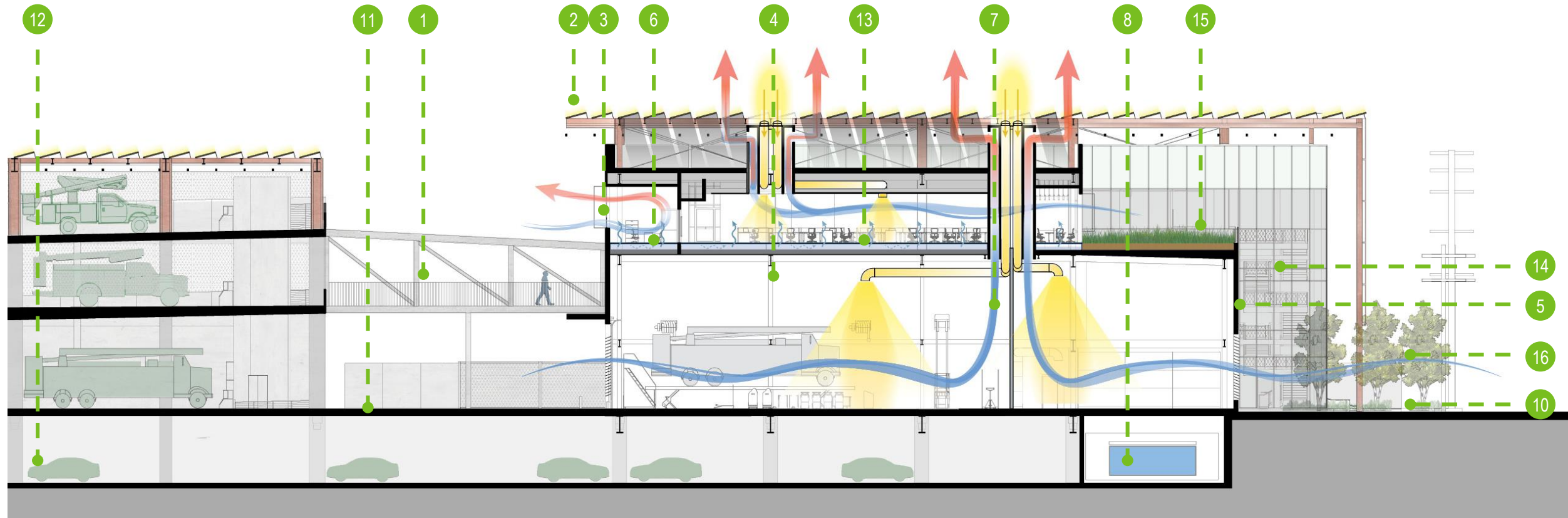


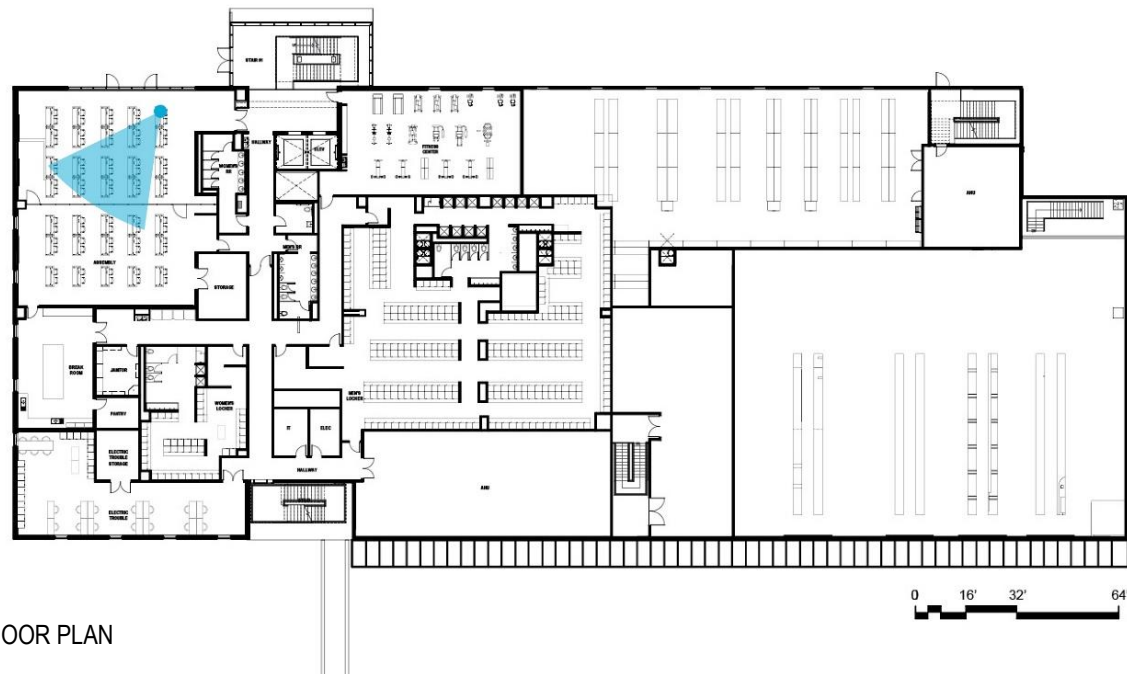
Renewable Power Intensity



Net Energy

- 1 Designed as an **Essential Services** Facility.
- 2 **Regenerative On-Site Renewable Energy** PV array produces 154% of modeled building EUI.
- 3 **Electrochromic Glazing** reducing heat gain and glare.
- 4 Solatubes provide **daylight** to achieve LEED credit level of glare free daylight.
- 5 Thermally broken, insulated Precast Concrete Panels enhance **human comfort with thermal mass**.
- 6 **Hybrid natural ventilation + Displacement HVAC** mechanical system gives users control and reduces energy consumption in the offices
- 7 **Solar Chimneys** with fan assist + radiant heating = code compliant air changes & addresses worker comfort.
- 8 **On-site treatment** of shower and sink **grey water** is re-used for landscape and to flush toilets.
- 9 Site design manages 85 **percentile storm event** and the 25 year, 24 hour peak underground system flows.
- 10 Off-site run-off from the street is treated in the parkway **bio-swale** to reduce pollution.
- 11 **Urban Heat Island** effect is reduced by utilizing 100% concrete paving + extensive shading with PV arrays and landscape.
- 12 Installing **EV chargers for 60% of the fleet vehicle, public and staff parking** contributes to the electrification of transportation and the reduction of GHGEs.
- 13 **Healthy Materials** selected to eliminate harmful chemicals and minimize adverse impacts to human health.
- 14 **Active Stairs** + free employee **Fitness Center** enhance staff wellness.
- 15 **Extensive Green Roof** provides views to nature for the office users.
- 16 **Community Benefits** include enhanced service + access to the Community/Training Room + Public Art (Artist tbd) + enhanced landscape buffer.





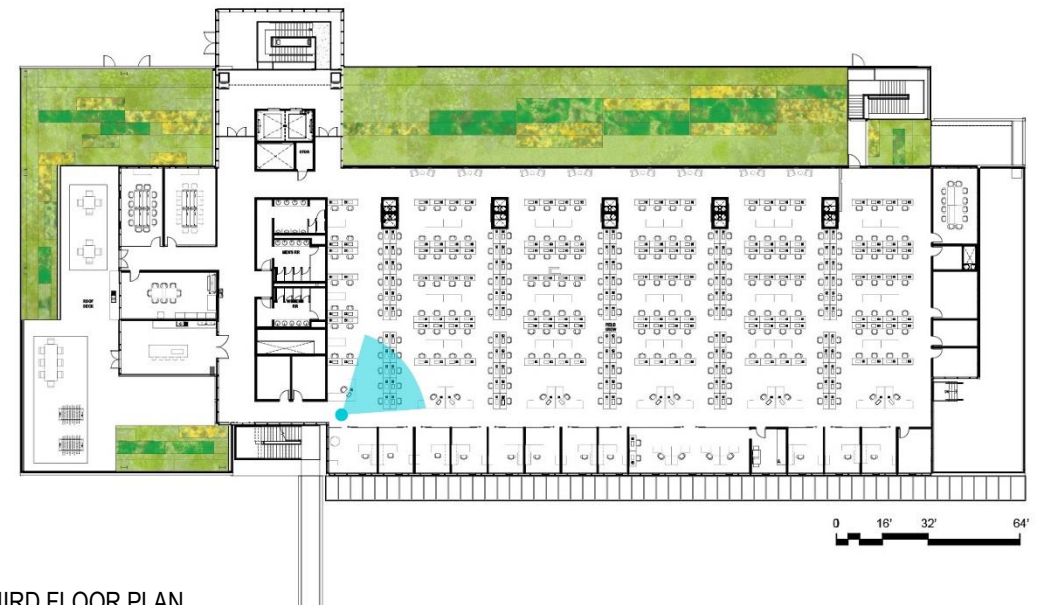
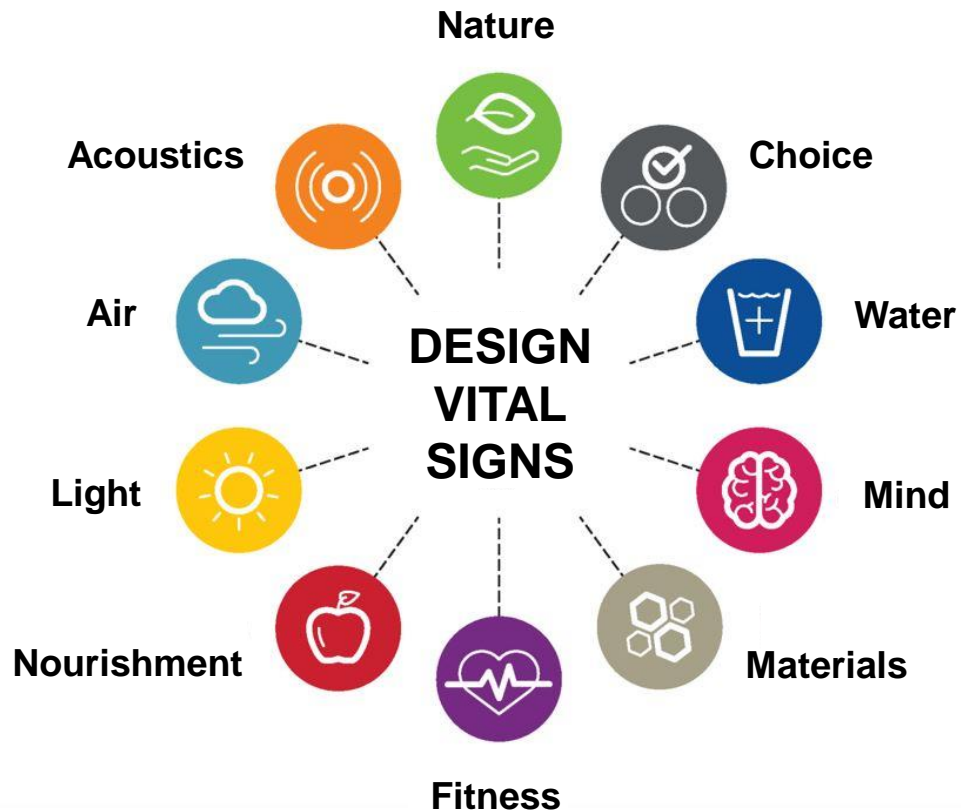
SECOND FLOOR PLAN



GROUND FLOOR PLAN

HEALTH & WELLNESS

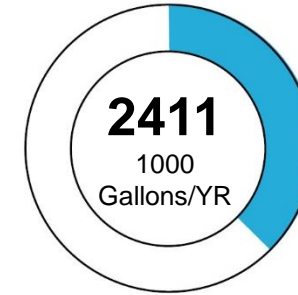
- Interior material selections eliminate chemicals of concern; including those identified by LEED Healthcare credits, WELL feature X08, the Six classes list of harmful chemicals and the Red List Chemicals.
- Wellness is enhanced by attractive stairs to use in lieu of elevators, a free staff fitness center and a generous roof deck for breaks and celebrations.
- Glare-free daylight is provided from a combination of electro-chromic glazing and solatubes.
- Comfort is enhance by allowing individual control of underfloor HVAC or the choice to open windows for natural ventilation.



THIRD FLOOR PLAN

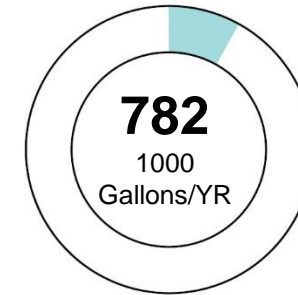
WATER CONSERVATION

- While this yard focuses on the Power Infrastructure, the Owner cares about water. Unlike a typical facility, most of the crew who work here work out in the field and come back for daily showers before heading for home.
- On-site grey water treatment of the water from the showers and the sinks is reused for drip irrigation and flushing of toilets.
- Low-flow fixtures minimize potable water consumption
- Potable water and fire suppression water is stored on-site for emergencies
- LID measures help to treat and detain stormwater from the 85th percentile storm event on-site.
- Off-site run-off from the street is cleaned in a bio-swale to better protect the Pacific from pollution.



Design Water Use

67,000
gal/yr provided for landscape



Provided with Gray Water on Site

715,000
gal/yr provided for w.c.



100% Drought tolerant plants

85th Percentile rainwater
management using LID

REGIONAL BENEFITS

- Electrification of Transportation.
- EV Charging at 60% of both the Fleet and personal vehicles
- Exploration to specify Carbon Cure sequestration in the Concrete = +/-725,000 lbs of CO2 or the equivalent to 380 acres of trees for one year.
- Use of concrete paving = + durability, reduce the Urban Heat Island Effect, reducing the need for cooling throughout the region.

RESILIENCE IS A SUSTAINABLE STRATEGY

- After any major disaster, the Yard will become a 24/7 Emergency Response Center w/ 3 days backup.
- Essential services level structure designed to meet Risk Level 4 to withstand seismic events & remain operational.
- On-site Emergency generators supply power with extended capacity from PV array and back-up battery storage.
- Food and Water rations stored for 150% staff level.
- Fire suppression water stored on-site.
- Limited potable water + grey water for toilet flushing
- Sufficient power for mechanical ventilation + extended comfort provided by natural ventilation
- Ability to convert key functions to sleeping dormitories
- This facility will support the crews who will restore power to the City of Los Angeles.





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