



SAN MATEO COUNTY
HEALTH SYSTEM

Cordilleras Mental Health Center Replacement Project



Design Build Entity Briefing
April 6, 2016

Feasibility Study

“The goal of the project is to transform Cordilleras - one of the County’s most important resources in the continuum of care for its most vulnerable mentally ill residents - into a center for consumer wellness, rehabilitation and recovery that leverages every aspect of the built and natural environment, the best practices for treatment, and the expertise of providers, family members, consumers and community.”

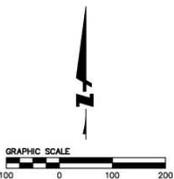
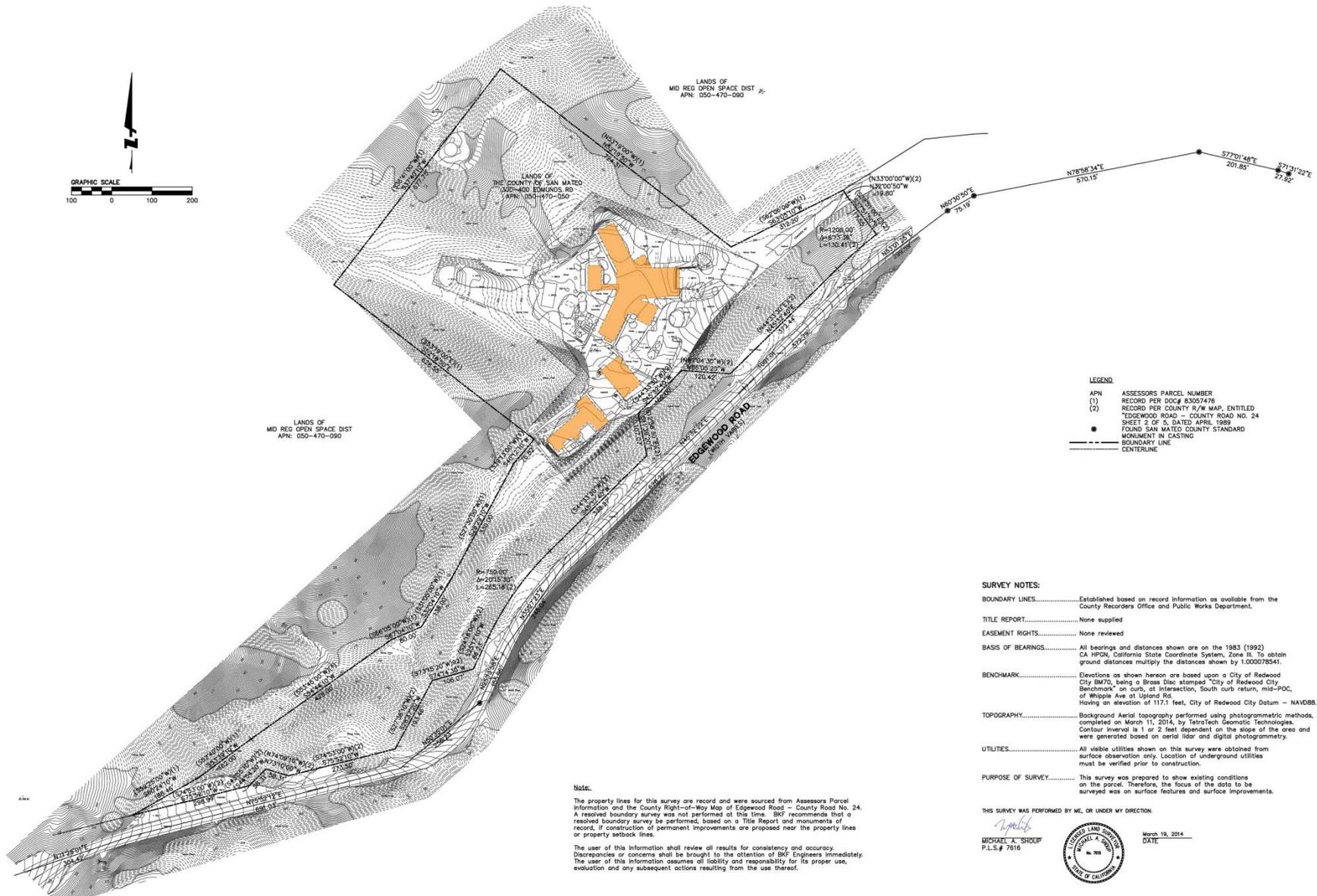
Feasibility Study to Replace Cordilleras Mental Health Center 2014



Site Map



Site Survey



LEGEND

- APN ASSESSORS PARCEL NUMBER
- (1) RECORD PER DOC# 83057476
- (2) RECORD PER COUNTY R/W MAP, ENTITLED EDGEWOOD ROAD - COUNTY ROAD NO. 24 SHEET 2 OF 5, DATED APRIL 1989
- FOUND SAN MATEO COUNTY STANDARD MONUMENT IN CASTING
- BOUNDARY LINE
- CENTERLINE

SURVEY NOTES:

BOUNDARY LINES..... Established based on record information as available from the County Recorders Office and Public Works Department.

TITLE REPORT..... None supplied

EASEMENT RIGHTS..... None reviewed

BASIS OF BEARINGS..... All bearings and distances shown are on the 1983 (1992) CA HPGN, California State Coordinate System, Zone III. To obtain ground distances multiply the distances shown by 1.000078541.

BENCHMARK..... Elevations as shown hereon are based upon a City of Redwood City BM70, being a brass disc stamped "City of Redwood City Benchmark" on curb, at intersection, South curb return, mid-POC, of Whipple Ave at Upland Rd. Having an elevation of 117.1 feet, City of Redwood City Datum - NAVD83.

TOPOGRAPHY..... Background Aerial topography performed using photogrammetric methods, completed on March 11, 2014, by TetraTech Geomatic Technologies. Contour interval is 1 or 2 feet dependent on the slope of the area and were generated based on aerial lidar and digital photogrammetry.

UTILITIES..... All visible utilities shown on this survey were obtained from surface observation only. Location of underground utilities must be verified prior to construction.

PURPOSE OF SURVEY..... This survey was prepared to show existing conditions on the parcel. Therefore, the focus of the data to be surveyed was on surface features and surface improvements.

Note:

The property lines for this survey are record and were sourced from Assessor's Parcel Information and the County Right-of-Way Map of Edgewood Road - County Road No. 24. A resolved boundary survey was not performed at this time. BIF recommends that a resolved boundary survey be performed, based on a Title Report and monuments of record. If construction of permanent improvements are proposed near the property lines or property setback lines.

The user of this information shall review all results for consistency and accuracy. Discrepancies or concerns shall be brought to the attention of BIF Engineers immediately. The user of this information assumes all liability and responsibility for its proper use, evaluation and any subsequent actions resulting from the use thereof.

THIS SURVEY WAS PERFORMED BY ME, OR UNDER MY DIRECTION.

[Signature]
 MICHAEL A. SHOUF
 P.L.S.# 7516

March 19, 2014
 DATE

Site Analysis

Key Site Concerns

Steeply Sloped Site

Cordilleras Creek

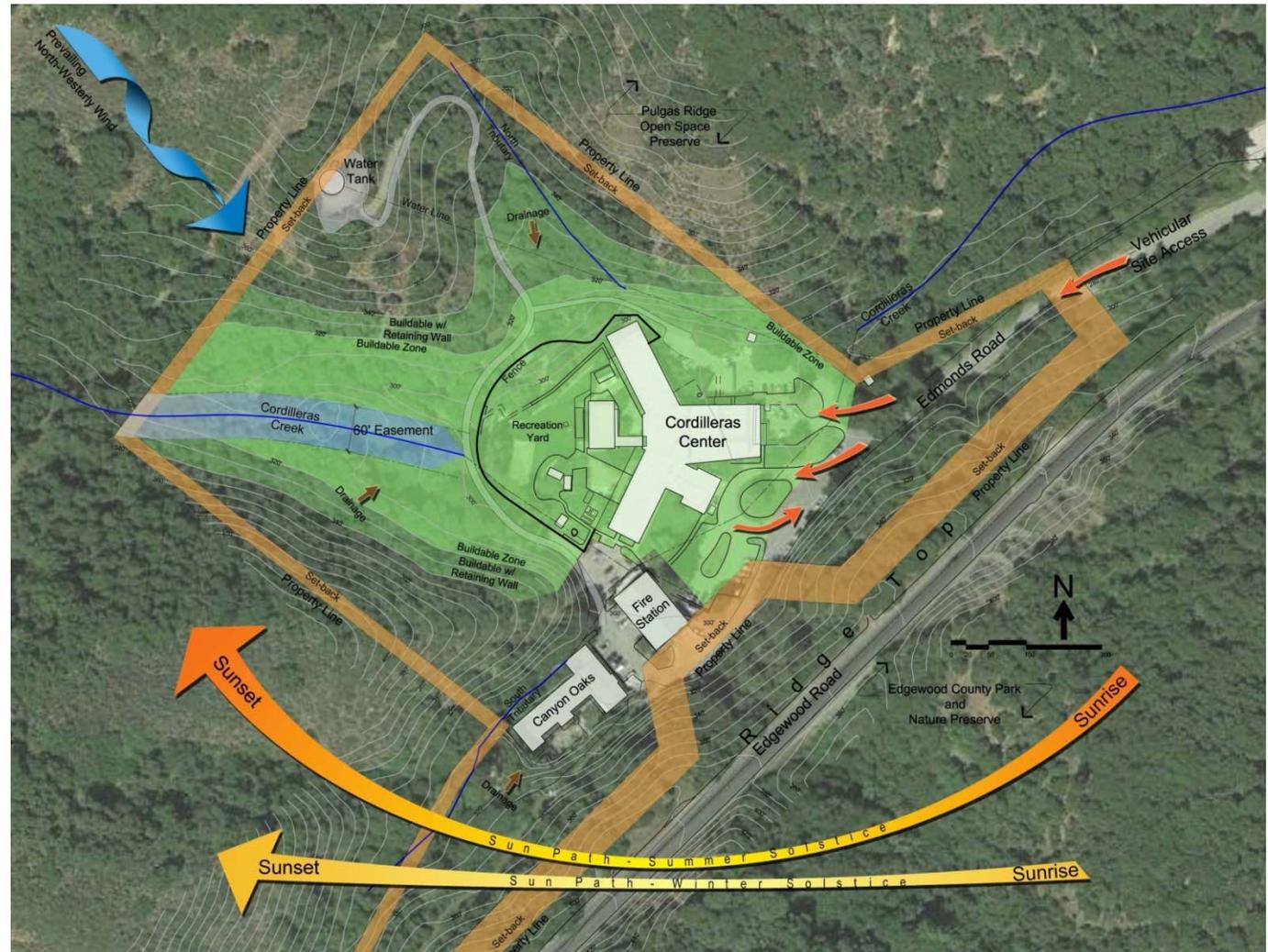
Wildlife Habitat

Tree Removal and Replacement

Water Tank and Lines

Fire Truck Access

Access to Fire Station and Canyon Oaks



Site Photos



Sustainable Design - Opportunity

The Cordilleras Mental Health Center has a sensitive population of residents who will benefit from a healthy building and environment.

The 24-hour occupancy of the Cordilleras Center magnifies the health impact from the environment, positive and negative.

A strong sustainable design approach, combined with the site's serene natural setting, creates an opportunity for a truly exemplary health campus.



Sustainable Design – Regulatory Context

2001. County of San Mateo Board of Supervisors adopted a **Sustainable Building Policy** that requires all new buildings over 5000 sf to be built to the highest practicable Leadership in Energy & Environmental Design rating (LEED), and to be certified through the U.S. Green Building Council (USGBC).

2004. County published the San Mateo Countywide **Sustainable Buildings Guidelines and Checklist** to help guide new construction projects towards building green.

2010. County passed mandatory **Green Building Ordinance**, requiring adherence to Compliance Matrix with set minimum LEED standards.

Today, the County requirements adhere to CALGreen, California Green Building Standards Code.



Sustainable Design – Approach

2013. California revised building energy codes, Title 24, mandating that all buildings be built to achieve **Zero Net Energy** (ZNE) performance standards: Residential 2020 / Non-residential 2030.

To meet the challenges of these guidelines and laws, and to realize Cordilleras' vision, the feasibility study proposes the **Zero Net Energy performance standard as a basis-of-design.**

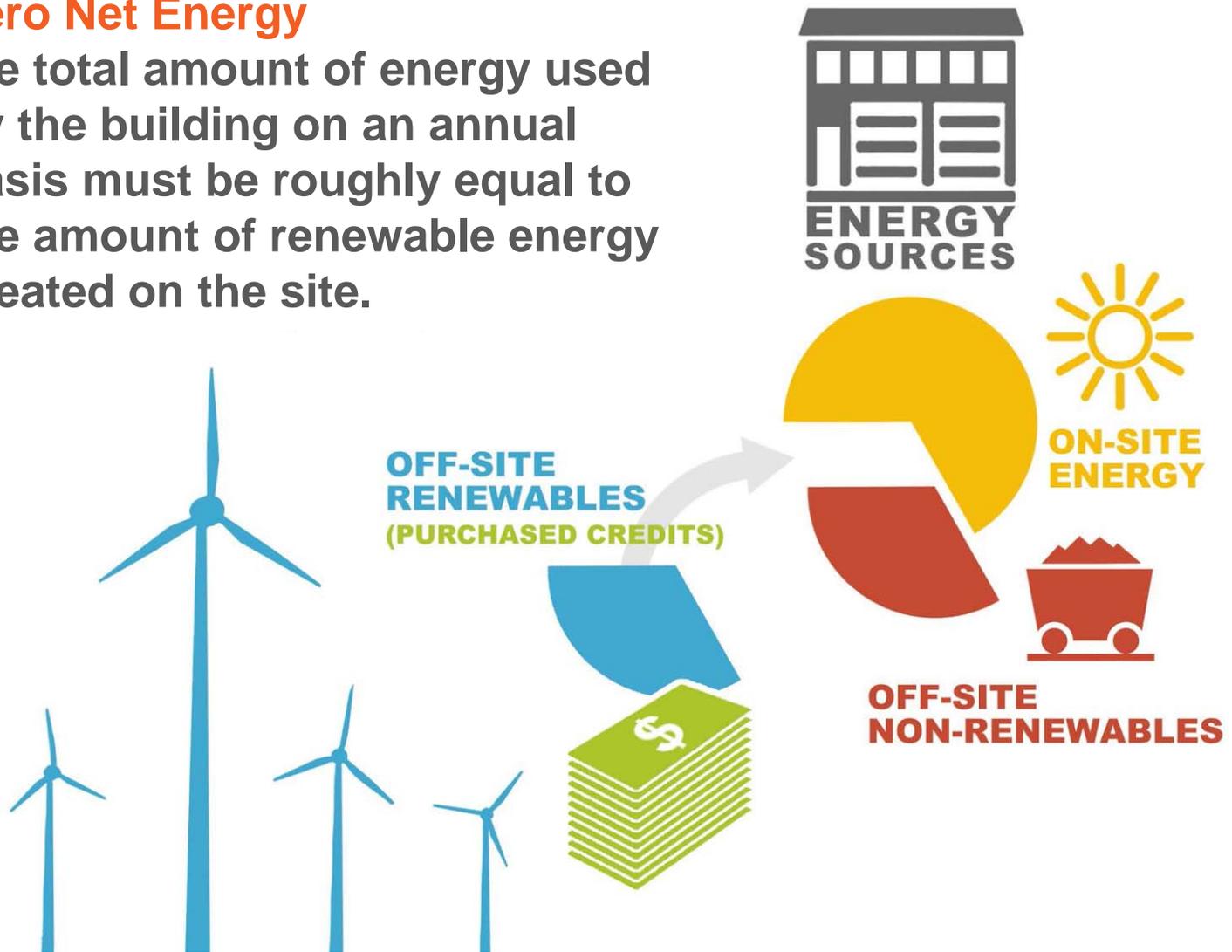
By pursuing a ZNE strategy, the project will also meet many of the requirements necessary to achieve a **LEED Gold rating**, which is a requirement of this project.



Sustainable Design – Feasibility Study Approach

Zero Net Energy

the total amount of energy used by the building on an annual basis must be roughly equal to the amount of renewable energy created on the site.



Sustainable Design

Goals for Building and Systems Sustainable Design

- **Net Zero Energy building with possible Living Building Certification**
- **Renewable energy source**
- **Low maintenance**
- **Ease of controllability**

Design Per Program - Codes

2013 CBC

MHRC –

- Occupancy I-3, Condition 2 (Institutional)
- Construction Type 1A or 1B
- Type II-A, III-A, or V-A allowed for single story of less than 5200 sf between 2-hr fire walls

ARF –

- Occupancy R2.1 (Residential)
- Construction Type V-A permitted, limited to 10,500 sf per floor

Campus Center –

- Occupancy B (Business)
- Construction Type V-A or V-B permitted, limited to 18,000 sf per floor

Design Per Program – Functional Relationships

- **Allow for client and staff choice in the building spaces. A choice between semi-private and private rooms offers less conflict. Choice in activity, dining or social interaction space offers some control of one's environment and how to spend time; alone or with others, inside or outside or in an activity or not.**
- **Zone the building between “on-stage” and “off-stage”. Primary (“Front” door) and secondary entries, centralize staff workroom, dining room, and activity rooms are considered “on-stage” while bedrooms and living rooms would be considered “off-stage”. Visitors and staff should not have to walk “through” or past client bedrooms for daily activities.**
- **Centralize social areas (“on-stage”) and decentralize quiet/ private areas (“off-stage”).**
- **Create zones that break down the long double loaded narrow dimly lit corridors. Open corridors with access to natural views and daylight are preferred.**
- **Locate similar type functions closer together to allow for multiple functionality of space.**
- **For safety reasons and collaboration reasons, a centralized staff zone is preferred.**
- **Clear uninterrupted line of sight between the staff zones and client bedrooms, activity rooms, dining, and entry points is critical for safety.**

Design Per Program – Functional Relationships

- **Locate support rooms close to the staff zone for easy access and deliveries from outside.**
- **Locate kitchen/ dining close to an entry for deliveries and waste removal.**
- **Consider dining and multi-purpose room adjacency for flexibility. Moveable partitions may be used to sub-divide the multi-purpose room and/or between dining and the multi-purpose room for larger group activities.**
- **Locate group activity and dining spaces with outdoor access opportunities.**
- **Create smaller “living room” spaces that allow medium sized semi-intimate areas closer to bedrooms.**
- **Locate toilet room adjacent to each other for efficient use of plumbing.**
- **Standardize MHRC buildings to allow flexibility in client placement. This offers opportunities for improved client placement which can lead to a faster recovery, creating potential vacancies for others in the acute care system.**
- **Standardize rooms such as bedrooms and toilet rooms into single units or multiple room units that allows the flexibility of client placement or off-site mass production opportunities.**