



CORDILLERAS HEALTH SYSTEM REPLACEMENT PROJECT

CONCEPT DESIGN REPORT

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01 Executive Summary

Project Description

San Mateo County proposes to replace the existing 117-bed Cordilleras Mental Health Center with new facilities that will transform the campus, and enable the San Mateo County Health System, Behavioral Health and Recovery Services (BHRS) to provide state-of-the-art care for the County's most vulnerable mentally ill residents. The new facility will be a center for client wellness, rehabilitation and recovery in a serene natural setting, that will be designed to encourage the engagement of the larger community in the process of recovery.

Existing Conditions

The Cordilleras Mental Health Center is located on a twenty-acre site at 200 Edmonds Road near Redwood City, on unincorporated County land. The site is wooded and contains a creek that is flanked by steep hills on both sides. The existing building was constructed in 1952, originally serving as a tuberculosis hospital. It was adapted in 1978 for its current use for treatment of people with mental illness. It contains a licensed locked 68-bed Mental Health Rehabilitation Center (MHRC) and a licensed 49-bed Adult Residential Facility serving San Mateo County residents, 18 and older, with long histories of mental illness. The residents of the MHRC are conserved, dependent adults, who meet legal criteria for grave disability, and the majority have been admitted to the program involuntarily. The building itself is maintained at significant annual cost, and its configuration is poorly suited for providing current treatment practices for behavioral health care. A building condition assessment performed in 2014 determined that the building required significant

systems upgrades and repairs.

A portion of the site contains a fenced yard used for a variety of outdoor activities in support of the therapeutic program. The site also contains a fire station and the Canyon Oaks Youth Center. There is limited on grade parking, approximately 65 spaces, inadequate to handle peak loads.

New Program Requirements

The County intends to replace the existing facility with multiple new residential facilities that create a smaller scale, homelike setting that will be more conducive to patient treatment and recovery. In multiple, smaller residences treatment can be tailored to address the needs of individual clients in a more natural environment. Each residential unit will be separately licensed and operated independently by a provider with expertise in the population served. The program will consist of the following elements:

Five MHRC buildings, each housing 16 residents for a total licensed bed capacity of 80. The 16-bed limit per separately licensed building, allows Medicaid reimbursement of 50% of treatment costs, offsetting the increased cost for additional staff and more intensive programming.

Supported Housing Unit for 57 residents in a single multi-story building that will be an unlicensed facility, but which may contain one or more floors of residential units constructed to MHRC standards.

Campus Center containing a 3,000-sf multipurpose room, art room, chapel, conference rooms, administrative offices, and other support spaces.

A variety of outdoor areas to include multiple secure courtyards at each MHRC, communal gathering spaces, sheltered outdoor seating, community gardens, half-court basketball and other functions.

Program details are provided in this report.

Proposed Concept Plan

The plan for the new Cordilleras campus seeks to preserve the beauty and serenity of the existing natural environment and to protect the existing creek, while providing a safe, attractive setting for patient care and community engagement.

A continuous loop road, wraps around an expansive central green space, and bridges the creek at the west end of the site. Three separate and detached MHRC buildings nestle into the hillside on the south side of the central green, and two MHRCs do the same at the north side. Drop-off is located independently for each MHRC from the loop road. The four-story Supported Housing Unit, containing many of the components of the Campus Center on the first floor, is located at the east end of the site, fronting onto the main road, and connected via a covered walkway to a detached covered walkway to a detached multipurpose room. The multipurpose room, which will often be used for community events,

Project Description (cont'd)

will be expressed architecturally as a welcoming pavilion on the site to convey the County's desire for a high level of community engagement.

Each MHRCs has three residential wings that splay out at an angle from the rest of the building, pointing towards the central green. Two of the residential wings contain five beds each, and the third wing contains six. Between the splayed wings are fenced courtyards of varying sizes for client use. The rectangular block of the building, located against the hillside, contains communal functions and staff support areas. An open staff station, positioned at the center of a large open activity space, provides clear lines of sight down the living room of each residential wing. The dining room, entered from the open activity space, has views and access to a private courtyard. Entry for clients and visitors is from the curbside drop-off via a covered walkway to a private entry patio for each MHRC. Staff and service providers enter via a separate door to a staff/service corridor, to avoid disruption to the residents.

The Supported Housing unit is a modified "L" plan. Entry for visitors and clients is from a drop-off area on the loop road to a central waiting and reception area on the first floor. Campus Center rooms, such as art room, retail space, chapel and wellness room, adjoin the lobby. From the lobby, one has an uninterrupted view of the central green space and double doors lead out to it. From these doors, the visitor can walk under cover to the large community room in the separate one-story pavilion to the south. Service entry and loading dock, in a walled enclosure, occur at the west side of the building, with

kitchen and other building support spaces adjacent. Administrative offices are situated at the south wing of the "L" on the first floor. Each of the three upper floors of the building contain two residential wings connected by shared spaces including a central dining/activity room that has a private balcony and a broad view of the central green space.

The new facilities are arrayed on the site to allow the existing building to remain in operation throughout construction and to allow construction of all new buildings in a single phase, followed by demolition of the existing building and final site improvements. An early bid package for site clearing and grading may be issued to accelerate the construction process. Parking is planned for approximately 130 cars, doubling the current available parking on site, and matching the parking count provided in the County's original "Bridging Documents."

The project design is aligned with the County's mandatory requirements and key priorities as discussed with the County's project representatives in the Concept Design workshops.

Client Vision, Mandatory Requirements & Priorities

The County of San Mateo's Cordilleras project team crafted a Vision statement to guide the design of the project and to establish a framework for decision making. As quoted below, the specific vision statements for the Cordilleras facility, in bold type, are linked to the core values of the County in italicized type:

Focus on Wellness – *to be healthy*

The new Cordilleras campus will be dedicated to the whole health and wellness of its clients. The environment of the Center will support and reflect a productive individualized wellness path for all clients.

Promote Respect – *to be livable*

The new Cordilleras Center will provide a strong foundation of assuring dignity and respect for its clients and staff. The Center will emphasize client's choice in a safe environment that inspires prides, motivates the spirit, accommodates diversity in culture and beliefs, instills optimism for personal growth and improves quality of life.

Build Community – *to be collaborative*

The new Cordilleras Center will build strong communities – amongst its own clients, families, staff, and visitors, and add value to the surrounding community. The Center will become an integral part of its social surroundings, with its programs and services valued as innovative assets and its residents respected as citizens.

Heal through Nature – *to be environmentally conscious*

The new Cordilleras Center will capitalize on its beautiful serene natural setting to complement the process of wellness, rehabilitation and recovery. The Center will incorporate progressive sustainable design strategies, efficient building systems, and natural materials to the benefit of healthy people, place and planet.

Strive for Recovery – *to flourish*

The new Cordilleras Center will help clients realize their full potential, achieving their goals for recovery and return to living independently in the community. We will develop a world-class model of care that sets a new standard for excellence, by drawing from current best practices and anticipating future advances in behavioral health care.

Key Design Elements Required

The following are essential requirements, which cannot be compromised in the execution of the design due to functional imperatives and funding constraints:

1. MHRC bed mix for each unit: 75% singles (12 beds), 25% doubles (4 beds)
2. Supported Housing Unit bed mix for the 57 beds: 75% doubles and 25% singles.
3. Separate and independent courtyard for each MHRC.
4. No commingling of patient populations.
5. Individual addresses for each facility.
6. Support services to be independently contracted by providers, however a production kitchen on campus may be required.
7. Independently operated and governed by each provider.
8. Separately licensed by each selected provider.
9. Safe Furniture, Fixture and Equipment appropriate for psychiatric facilities.
10. One floor of Supported Housing Unit built to MHRC delayed egress standards to accommodate patient relocation.
11. Soothing interior design to meet needs of psychiatric population.
12. Focus on access to nature, sunlight and well-being.

Client Vision, Mandatory Requirements & Priorities

Priorities

As part of the Concept Design Workshops with the CannonDesign team, County representatives evaluated the relative importance of twenty-one key project issues, grouped in seven general categories: Logistics, Safety, Engagement, Functionality, Indoor Environment, Connection to Landscape, and Aesthetics. The County representatives were each given sixteen dots and asked to place those dots in any quantity on the items of highest importance to them. It was noteworthy, that dots were applied in all twenty-one categories, indicating the wide range of important considerations for the design. Based on a count of the dots, the issues were ranked in the following order:

- 11 Access to daylight and views
- 8 Normalized Patient environment, emulating home and daily life
- 8 Program and project within budget
- 8 Minimized site phasing
- 7 Investment in materials and massing that minimize institutional character
- 6 Project complete by 2021
- 6 Ligature and tamper resistance
- 5 Flexibility
- 5 Onstage/ offstage – ability to separate staff/ service from patient areas
- 5 Optimized staff and operational efficiency
- 5 Shared community amenities present on campus
- 4 Ability of facility to support volunteer or outreach programs and to reduce stigma
- 4 Clarity of entry/ arrival

- 4 Localized exterior programming dedicated to individual MHRCs and SH Units
- 4 Sightlines and visibility of patient areas
- 4 Durability of finishes and materials – low maintenance
- 3 Decrease obviousness/ awareness of security elements
- 3 Patient choice – variety of options for daytime therapy/ activity spaces
- 2 Centralized exterior programming shared by entire campus
- 2 Elopement protection of exterior spaces
- 1 Patient privacy

Measures of Success

As documented in the County's 2014 Feasibility Study, the following measures of success retain high importance:

- Reduced length of stay at the MHRCs
- Reduced rates of readmissions to the MHRCs
- Reduced admissions to Psychiatric Emergency Services for the Cordilleras population
- Reduced resident to resident and resident to staff altercation
- Increased consumer/ family satisfaction
- Increased staff satisfaction
- Reduced waiting time for the transfer from the San Mateo Medical Center psychiatric inpatient services to the MHRCs which will improve access and patient flow through the healthcare delivery system.

Site Goals

Serving San Mateo County's most vulnerable residents, Cordilleras Health System Replacement Project looks to update its facilities to be at the forefront of holistic treatment through thoughtful design that weaves the built and natural environment. The design team has been involved in the site and landscape concept redesign to update existing facilities and create new spaces for wellness and recovery. Outdoor spaces include open, communal spaces with opportunity for a range of programs and self-contained courtyard gardens to serve clients within the MHRC buildings. The natural environment surrounding the site will heavily influence the landscape character and site programs. The design will thoughtfully integrate various programs into the surrounding environment and work with the existing site's natural beauty to better connect clients to nature. The creek becomes a unique opportunity within the site that can be celebrated and incorporated into the design to create therapeutic spaces.



The overall site design allows for a large open space in the center of the campus creating the opportunity for a range of programs with enough buffer between for clear transitions of space. The Supported Housing is sited toward the "front door" of the site, acting as a gateway into the central communal landscape area. Programming closer to the building will focus on larger, more active communal gathering spaces and activities like sheltered outdoor seating areas, picnic tables, community gardens, and half-court basketball. An open lawn toward the center of the site allows for flexible space for special events and activities while serving as a transition space between the active entry and tranquil creek area. Programming will shift toward more intimate, reflective spaces for healing as one comes closer to the creek area. The creek becomes an amenity for clients and staff with walking paths and interpretive signage, while also providing direct contact with therapeutic natural settings. Private courtyards and patios for each MHRC building provide a familiar and safe environment for the most intensive care clients. These enclosed outdoor spaces will provide sensory interests and calm areas for small gathering. Each private courtyard will have various seating options, walking loops, and gardening opportunities to create a strong connection between the indoor and outdoor space.

Taking cues from the existing topography, hydrology, and natural resources already on site, the design team has designed safe, comfortable spaces that leverage best practices for healing outdoor spaces with recreational and social functionality. Textured perennial plantings and close attention to warm materiality will evoke calm, home-like settings for clients to reach recovery and rehabilitation. Accessible pathways will connect clients with the

central campus core while immersing users in the native environment. Together, the communal gathering areas, private courtyards, fitness opportunities, looped nature paths, and varied programmatic elements aim to foster healing through direct experience and engagement with nature.



Biophilic Design

Biophilic principles were a key consideration in the development of the Concept Design and will continue to inform the development of the design going forward.

The term “biophilia” was coined by the social philosopher Erich Fromm in 1964, and its principles were developed by biologist E.O. Wilson and social ecologist Steven Kellert in the 1980’s. These scientists proposed that human beings have a fundamental dependence on nature, arising from our evolutionary development, that significantly influences the way we think, feel, create, and live our lives. They offered this definition of the term in their 1991 book *The Biophilia Hypothesis*:

“Biophilia is the inherent human inclination to affiliate with nature.”

In the years since, biophilia has become an evidence-based framework for enhancing the connection between people and nature in ways that are beneficial to our physical and mental health. A growing body of research, including recent studies by faculty at Stanford University and UC Berkeley, demonstrates that engagement with the natural environments reduces tension, anxiety, anger, fatigue, confusion and mood disturbance, providing positive restorative value. Studies also suggest that exposure to nature can offer therapeutic value in mental health programs, helping to normalize differences and increase the sense of belonging, especially for those with low levels of wellbeing, depression, dementia, addiction and other behavioral disorders.

These findings are consistent with the values and vision of the San Mateo County Health System and

the specific objectives of the Cordilleras Mental Health facility. The beautiful wooded setting of the Cordilleras site resonates in the core value of the facility: Heal through Nature. It is incumbent on the design team to develop design strategies that enhance the natural setting for the benefit of clients, staff and visitors.

The beneficial effects of biophilia can be activated by site design and architectural design that is cognizant of recent research. In the Cordilleras canyon, enabling exposure to the natural environment is not a difficult task – the setting encourages direct engagement with nature. But design strategies can enhance aspects of this engagement. Forested landscapes offer a tranquil retreat, and an aesthetically compelling context. We have sought to capitalize on the forest setting at Cordilleras by preserving it as much as possible, and maintaining walking paths that extend beyond the developed areas.

The most restorative landscapes, however, are those which offer wide open spaces similar to the savanna-type landscapes, dotted with trees and easy to move across, inhabited by our ancient ancestors. For our ancestors, savannas were places of refuge, where they could be protected from the elements, and places of prospect, where they had good views of visually attractive features as well as possible dangers. The combination of refuge and prospect offered restorative value to our ancestors and modern humans have inherited those genetic predispositions. In our design for the Cordilleras campus we have proposed a large open area at the center of the campus, in which multiple outdoor activity centers will be available to clients, staff and visitors. In the organization of the buildings around this central

green space, we have strived to create conditions of prospect and refuge. For example, from the enclosed courtyards of the MHRCs and from the private and public spaces in the Supported Housing building, expansive views of this open space are available. The architecture will be configured to allow a sense of refuge and protection to the residents as well as outward looking views, so that the benefits of prospect and refuge can coexist – all basic principles of biophilic design. There will be a clear hierarchy of outdoor spaces – from intimate areas, to enclosed courtyards, to covered terraces and open activity areas organized in consideration of the security requirements of the facility.

In addition to responding to the environment in the campus plan and building configurations, as we move forward into Schematic Design other principles of biophilic design will be studied in the architecture of the campus to reinforce the beneficial aspects of nature. Our philosophy of design recognizes that a building can embody characteristics in its aesthetics and features that offer many of the benefits that derive from direct experience of nature. Biophilic design can nurture a love of place and forge connections between people and the environment, creating spaces that are inspirational, restorative and healthy.

There are three pathways to biophilic design that we will explore with the County during the next phase of the work:

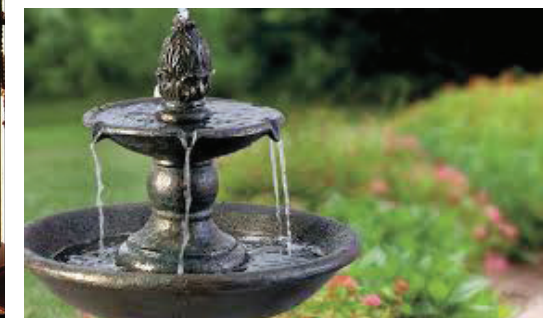
- Direct experience of nature – optimizing access to environmental conditions such as natural light, fresh air, perhaps water features.
- Indirect experience of nature –selection of

Biophilic Design (cont'd)

materials, colors, textures, patterns and processes that are natural or that refer to nature in a symbolic way.

- Experience of space and place – creating spatial characteristics that celebrate aspects of prospect and refuge, such as transitional spaces between inside and outside, porches, trellised courtyards, and window seats. As the Bay Area architect, Charles Moore, said, “The power of outlook is enhanced if some elements in the foreground, like the window itself, serve as bridge between the near and the distant.”

The Cordilleras campus will be home for your clients. As your design professionals, this is at the forefront of our minds, and guides the way in which we will develop the organization and architectural expression of your campus and its buildings. We will avoid creating a place that has characteristics of an institution, but instead find ways to foster feelings of domesticity, where your clients can feel safe, centered, in control, independent, secure, and affiliated with nature.



Civil Engineering

Overall Existing Site Description

The site is located at 200 Edmonds Road in Redwood City, CA. There are three main buildings on the site, The Cordilleras Mental Health Center, Canyon Oaks Youth Center School and the San Mateo County Fire Department Station 18. The mental health center was built in the 1950's and is currently being used by the County as a mental health care facility. The Canyon Oaks building and fire station were constructed in the 2000's and are still in use. The buildings are located at the bottom of a canyon. The upper stretch of Cordilleras Creek flows through the site from the northwest to the southeast. Through the middle of the site, the creek is conveyed underground in a concrete pipe. The elevations of the creek vary through the site from 280' to about 310'. The slopes of the canyon are heavily wooded and relatively steep with an average slope of about 1.5 to 1.

Layout and Paving

The existing facilities on site are accessed by asphalt paved roadways and parking areas. These paved areas will be removed, used for temporary access during construction or kept in service. The only portion of the existing paved areas that may remain in service after construction completion will be the parking lots and access driveway to the Youth Center and Fire Station. [See drawing "Conceptual Site Plan," under 04 Concept Site Plan]

The new site layout will account for one major phase of construction while the existing mental health center remains operational allowing for access to

the youth center and fire station at all times during construction while also allowing for temporary construction facilities, construction parking, staff and visitor parking. The second and final phase of construction will demolish the existing mental health center and construct the remaining sidewalk, hardscape, driveway and parking area paving. [See multiple drawings under 05 Concept Site Phasing]

The new pavement areas will include driveways, parking areas, sidewalks, ramps and open space hardscape. Primary access to the site will be a driveway from the end of Edmonds Road consisting of an internal loop road that accesses drop off areas in front of the five MHRCs and the Supported Housing Building. The new loop road will meet or exceed minimum fire truck access requirements. New parking areas will be established off the loop road meeting the handicap, staff and visitor parking requirements. Sidewalks and ramps will be set at locations and elevations that allow for accessible paths of travel between buildings and drop off areas.

A new maintenance access road to the existing water tank the will be 12' wide and have a weatherized surface.

Final determination of the pavement sections will be during the schematic design phase and will be influenced by the final approach to storm water treatment and the size and locations of the biofiltration basins as well as interface with CEQA exercise. Any of the paved areas could be considered for permeable paving or paver systems in order to reduce the amount of storm water that requires

treatment and sizing of the biofiltration basin.

Earthwork and Soil Nail Walls

It will be necessary to cut into the surrounding canyon side slopes and construct soil nail or mechanically stabilized wall systems to allow for the new flat building pads. The earthwork concept plan shows approximate wall locations and heights, cut and fill depths and earthwork quantities. [See drawing "Concept Earthwork Analysis," under 04, Concept Site Plan]

The concept design for the wall system includes setting walls around a significant portion of project perimeter that vary in height from 1' to 56', with the highest walls at northwest, northeast, and southwest sides of the developed area. The wall system will be included in the construction documents as design-build and will be bid by the construction manager. The goal is to create a set of design-build documents allowing for the most economical wall type and construction approach.

Based on the concept earthwork analysis there will be a substantial amount of earthwork work with approximately 44,000 CY of cut and 35,000 CY of fill generating approximately 9,000 CY of off-haul. This analysis is based on a very approximate grading concept with a focus on building pad elevations, accessibility relationships, and minimum roadway grades. The excavated material from the canyon side slopes will need to be further investigated and analyzed to determine if it is feasible to be used as fill. As the grading design progresses through the

Civil Engineering (cont'd)

schematic design and design development the goal will be to adjust the grades to increase the fill amount such that the site balances with minimum off-haul. Temporary off-site stockpile areas may need to be established by the earthwork contractor in order to allow for the initial construction phase to include construction of all new buildings simultaneously.

Based on the preliminary geotechnical report the existing canyon side slopes consist of material that is marginally rippable by larger pieces of earth moving equipment such as a D10R bulldozer further and could be classified as hard to rock material. Further investigation at the proposed cut locations will be performed to determine if the goal of using the excavated material as reworked on-site general or engineered fill is achievable. The goal will be to determine the most economical way of meeting the site fill requirements with the alternatives being reworking the excavated material and using as fill or off-hauling the excavated material and importing suitable material. The goal will be to minimize cost.

Water and Fire Distribution System

A new potable water and fire protection distribution system will replace the existing system servicing the Mental Health Center, Youth Center, and Fire Station. The new system will provide potable water and fire protection services for the new MHRCs, Supported Housing Building, existing Youth Center and existing Fire Station. The goal will be to create the most economical system that will meet the potable water, fire hydrant and sprinkler system demands. The new system will be designed to meet:

1. Peak potable water system flow demands and residual pressures at each building based on use.
2. Fire hydrant flow and residual pressure requirements per NFPA, State and local fire code requirements.
3. Fire service and sprinkler flow and residual pressure demands for each building.
4. Irrigation system flow & residual pressure demands.

The existing 150,000-gallon water storage tank will need to be further studied to evaluate its condition for continued long-term use and if it is adequately sized to accommodate the potable water system operating volume and fire flow duration. KPFF civil will request any recent studies on the tank and review them, perform a visual inspection, and then document observations regarding long-term use.

The design team will be contacting the County Fire Marshall to confirm minimum fire hydrant flows based on building types and occupancy and the fire flow duration (usually one or two hours). After confirming the fire criteria KPFF civil will perform the necessary calculations to determine if the existing tank has adequate volume to meet the build-out needs.

Two primary alternative approaches (and possible hybrids) will be studied by the design team in order to produce the most economical system. The first alternative will consider a gravity feed system from the water storage tank to the new and existing buildings and the second would be to construct a new central pump station that feeds separate loops for potable water and firewater. The systems are

summarized below and demonstrated in the Concept Utility Plans. [See drawing "Concept Utility Plans - Water System," under 04 Site Plan]

Alternative 1. Gravity Feed System Feed

This system would consist of the following major components:

- Reuse of the existing pump station located near the main site entrance.
- Replacement of the existing line feeding the existing water storage tank with a new 4" line.
- Two new 12" mains connecting from water storage tank to a new 12" water main loop.
- New 12" water main loop within the loop road.
- New fire hydrants.
- New potable water services to MHRCs and Supported Housing Building.
- New fire services to MHRCs and Supported Housing Building.
- Domestic booster pump in Supported Housing Building.
- Possible domestic booster pump in MHRCs where static and residual pressures are marginal.
- Fire booster pumps in MHRC and Supported Housing buildings.
- Meters and backflow preventers in MHRC and Supported Housing buildings.
- Possible upgrade/replacement of existing water storage tank.

Alternative 1 will provide low static pressures at the MHRC building faces which could be as low as 40 psi based on the pad and water tank elevations. There

Civil Engineering (cont'd)

will be a need for larger 12" diameter pipes allowing for minimal pressure losses while meeting the 20 psi residual pressure requirements at the fire hydrants.

Alternative 2. Central Pump Station

This system would consist of the following major components:

- Reuse of the existing pump station located near the main site entrance.
- Replacement of the existing line feeding the existing water storage tank with a new 4" line.
- New central pump station as a stand-alone or inside a new building consisting of domestic and fire booster pumps feeding separate on-site loops.
- New 8" main connecting from water storage tank to a central pump station.
- New 4" domestic water main loop within the loop road connected to central pump station.
- New 8" fire water main loop within the loop road connected to central pump station.
- New fire hydrants feed off of 8" fire loop.
- New potable water services to MHRCs and Supported Housing Building fed off potable water loop.
- New fire services to MHRCs and Supported Housing Building fed off fire loop.
- Meters and backflow preventers in MHRC and Supported Housing buildings.
- Possible upgrade/replacement of existing water storage tank.

The two described alternatives shown in the Concept

Utility Plans or variations of them will be studied by the design team to more detail during the schematic design phases to determine the most cost-effective way of providing potable water, fire protection, and irrigation services to the new and existing buildings. The primary result of this analysis will determine if booster pumps are inside each individual building or if there is a central pump station servicing all of the new buildings through separate looped systems.

Sanitary Sewer Collection System

The project goal is to construct a new sanitary sewer collection system that will replace the existing system servicing the Mental Health Center, Youth Center, and Fire Station while also meeting 72-hour emergency storage requirements. The new system will collect sewer services from each new and existing building and convey discharges to the point of connection at the existing sanitary sewer line in Edmonds Road at the east entrance to the site. The collection system will include underground storage tanks that will detain up to 72-hours of sewer discharge in an emergency situation. This will require underground storage tanks at the outside of each building or one large storage tank for the entire site near the east entrance. [See drawings "Concept Utility Plans - Sanitary Sewer System," under 04 Site Plan]

Sanitary Sewer Alternative 1. (One 72-hr Emergency Storage Tank at Site Entrance)

- 8" sanitary sewer mains.
- Manholes.
- Service connections to new buildings.

- Cleanouts at building services.
- 50,000-gallon emergency storage tank east entrance to accommodate 72-hour emergency storage. Volume is for an order of magnitude purposes only and will be confirmed during schematic development phases.
- Diversion structure at emergency storage tank allowing for redirecting sewer for 72-hour emergency flows.

Sanitary Sewer Alternative 2. (72-hr Emergency Storage Tanks at New Buildings)

- 8" sanitary sewer mains.
- Manholes.
- Service connections to new buildings.
- Cleanouts at building services.
- A 6,000-gallon emergency storage tank at each MHRC. Volume is for an order of magnitude purposes only and will be confirmed during the schematic design phase.
- A 20,000-gallon emergency storage tank at Supported Housing Building. Volume is for an order of magnitude purposes only and will be confirmed during schematic and design development phases.
- Diversion structures at each emergency storage tank allowing for redirecting sewer for 72-hour emergency flows. 6 total.

During the schematic design phase, the goal for the design team will further study the alternatives, focus on meeting the emergency storage requirements and reducing overall all project costs.

Civil Engineering (cont'd)

Storm Drainage Collection, Detention and Treatment System

A new storm drainage collection, detention, and treatment system will replace the existing system conveying Cordilleras Creek, two tributaries, and existing site development. The new system will intercept existing discharges from Cordilleras Creek and tributaries and the new site development.

In order to meet local stormwater treatment C.3 provisions mandated through San Mateo County's MS4 permit, all stormwater from impervious roof and pavement surfaces will need to be treated prior to discharge into the new storm drainage system. To satisfy this goal, a biofiltration basin will be designed to meet these requirements in the central open space area between the buildings. As indicated in the Concept Utility Plans, the rainwater leaders from the buildings and site drainage will be diverted into the biofiltration basin for treatment prior to discharge into the main 36" storm drain line that will discharge into Cordilleras Creek at the downstream end of the site.

During the schematic design phase, KPFF civil will be meeting with the County Building Department Civil Engineer to discuss the stormwater design criteria and detention design criteria and strategies regarding sizing the system and maintaining peak discharges into Cordilleras Creek downstream of the project. Based on the final criteria the sizing of the storm drainage system and required detention volume will be calculated and considered in the design of the collection system and the biofiltration/detention basin.

The storm drainage collection and treatment system demonstrated in the Concept Utility Plans will consist of: [see drawing "Concept Utility Plans - Stormwater," under 04 Site Plan]

- A minimum 36" diameter backbone storm drain line and manholes that will divert Cordilleras Creek through the site and accept and convey treated stormwater prior to discharge into Cordilleras Creek downstream from the site.
- Storm drainage collection system consisting of 12" storm drain lines and catch basins that intercept untreated stormwater and convey to the biofiltration basin.
- Biofiltration basins with bubble up structures and catch basins that are connected to the 36" backbone storm drain line.
- Biofiltration basin will also be sized to accommodate any required stormwater detention required by County of San Mateo.
- Reconstruction of the Cordilleras Creek upstream headwall structure
- Reconstruction of the Cordilleras Creek downstream outfall structure.

Mechanical, Electrical, & Plumbing Systems

HVAC Design Methods

The HVAC design for the project will follow the design standards set forth in the bridging documents for the Codes, Indoor and Outdoor Design Temperatures. Load calculations for the HVAC design will be performed using Trane Trace 700 and outlined in the latest ASHRAE Fundamentals Handbook to meet industry standards. Loads will be run based on final design selections for lighting, envelope, equipment, etc. Block loads will be used for the sizing of centralized equipment so as not to oversize the equipment. A 10% safety factor will be applied to all cooling loads and a 20% safety factor to heating loads to allow for fluctuations in the use of the spaces.

HVAC Design Strategy

The HVAC Design Strategy for the project is to utilize an air cooled variable refrigerant volume system (VRV/VRF) with air cooled condensers installed on the roofs of the individual buildings. The condensers will be connected to fan coil units, distribution boxes, and all isolation devices. The heating and cooling medium will be refrigerant and appropriate isolation valves will be installed in the system to allow for maintenance.

Residence rooms will be provided with dedicated ducted supply and return VRF fan coil units to allow for individual temperature control of the spaces, however temperature control of these spaces will be accomplished remotely by the BMS system. The bridging documents have located these unit above

the ceilings of the toilet rooms of each residence, but we are recommending that these units are located to outside of the residence spaces to allow for easier maintenance and additional resident protection.

Administrative, support, and common spaces will be provided with supply and return VRF fan coil units to allow for zoning of these spaces as per the bridging documents. These spaces will be controlled from the BMS system.

Outside air for each of the spaces will be provided from an Energy Recovery Ventilator installed in each of the MHRCs and within the Supported Housing facility. These units will be equipped with an energy recovery wheel and the outside air ductwork will be fed directly to each VRF fan coil unit for final tempering of the air to the spaces. With the relocation of the VRF fan coil units in the residence rooms as described above, we recommend that the outside air is ducted directly from the ERVs instead of the outside as described in the bridging documents.

The MHRC's are provided with a fan assisted natural ventilation system which can be used when the Living room and associated corridor spaces. This system will consist of louvers with motor operated dampers along the perimeter of these spaces and roof mounted exhaust fans ducted to each individual zone to allow for the air to be brought into the spaces. The natural ventilation system will be used when Outdoor air conditions are within acceptable levels and will be used as a first stage of cooling.

The kitchens of each building will be provided with

a 100% make-up air handling unit to offset the air exhausted by the kitchen hoods. This make-up air handling unit will be provided with a water coil for tempering the outside air. Chilled and heating water for this coil will be provided from a hydronic heat exchange connected to the VRF system. The heat exchanger and associated pumping system will provide 50 degrees water and 110 degree water during the cooling and heating seasons, respectively.

The Multipurpose room will be served from a more traditional system which will utilize a package rooftop unit with heat recovery, demand control ventilation and electric heating. This unit will be provided with economizer capabilities.

Telecommunication rooms will be provided with cooling only split system units. Electrical rooms which contain transformers will be provided with cooling only split systems, all other electrical rooms will be provided with a general exhaust fan.

The Building Management System (BMS) will consist of a centralized BACNET system that will control all of the mechanical equipment. Residence rooms will be provided with temperature sensors that will only report to the VRF control system.

Sustainable HVAC Design Strategy

By using a VRF system for the primary HVAC system we will be able to use the system's ability for simultaneous heating and cooling in zones to provide better thermal comfort control while reducing energy usage. We are also proposing the use of energy

Mechanical, Electrical, & Plumbing Systems (cont'd)

recovery systems for both the air-side and waterside of the systems to generate additional energy savings. The added benefit of a VRF system is the ability of the system to be used in conjunction with a future PV installation to allow for a net-zero ready facility.

Plumbing Systems

The plumbing systems for the project consist of the installation of a complete domestic cold water, domestic hot water, storm, sanitary sewer, and vent system. Sanitary sewer and vent piping will be provided to all of the plumbing fixtures as required and sized as per the California Plumbing Code. All sanitary piping will be routed to 5 feet outside of the building and then connected to the site sanitary systems. Storm drainage will be provided for each building sized per the requirements of the California Plumbing Code and routed to 5 feet outside of the building and then connected to the site storm system. As a part of the Addendum process the grey and rain water collection systems were removed from the project and is no longer being pursued as a part of this project.

Each building will be provided with an independent domestic cold water system from the municipal water sources. Each system will be provided with the necessary primary and secondary backflow prevention. All piping will be routed each of the plumbing fixtures and sized per the requirements of the California Plumbing Code.

Domestic hot water for each of the buildings will be provided from domestic hot water heaters in each of the buildings. The domestic water heater will be

provided primarily from a heat exchanger tied into the building HVAC VRF system with an electric back-up heater. Each building will be provided with a continuous hot water circulating system. All plumbing fixtures will be selected based on the safety and security of the occupants. In addition to the safety and security aspects of the project we will provide low-flow plumbing fixtures to reduce water consumption in each of the buildings. The flow rates as outlined in the bridging documents will be used as a guideline for the water flow rates of each fixture.

Plumbing Sustainable Design

The use of the waste heat from the HVAC VRF system to heat the domestic hot water within the buildings is a sustainable feature that will remain as a part of the project. In addition we are still proposing the use of low flow plumbing fixtures within the buildings which will reduce the water usage of the facility.

Fire Protection Systems

The Supported Housing and MHRC buildings will be protected throughout with a new wetpipe sprinkler system supplied by the public mains. The design and installation will comply with the requirements of NFPA 13 and 24. The Supported Housing building will also be provided with a manual wetpipe standpipe system consisting of hose connections at the intermediate landings of all of the exit stairwells and at locations required by NFPA 14 and Chapter 9 of the California Fire Code. As outlined in the Bridging documents fire protection mains, connections, and hydrants will be provided.

Electrical Systems

The electrical systems for the campus will be provided with both a normal and emergency electrical distribution systems. We will review the installation of either a single PG&E transformer for the site or individual PG&E transformers at each building. The system would consist of the following:

1. A 225 Amp 277/480 V, 3 Phase, 4 wire incoming service will be provided at each of the MHRC's. This will be connected to a PG&E transformer or a site distribution system. Each MHRC will be provided with an individual meter. The lighting and HVAC loads will be served from the 480/277 V panelboards. Step down transformers and panelboards will be provided for the 120/208 V system. Provide a separate 60 AMP circuit breaker to serve the life safety systems.
2. An 800 Amp 277/480 V, 3 Phase, 4 wire incoming service will be provided in the Supported Housing facility. The Supported Housing system will be provided with an individual meter. The lighting and HVAC loads will be served from the 480/277 V panelboards. Step down transformers and panelboards will be provided for the 120/208 V system. Provide a separate 125 AMP circuit breaker to serve the life safety systems.
3. Where receptacles are provided within occupant rooms, they will be tamper-resistant, hospital grade, and provided with GFCI protection. A dedicated circuit for each occupant room and bath will be provided to allow for remote shut-off if necessary for the occupant's safety.
4. The receptacle outlets will be controlled to

Mechanical, Electrical, & Plumbing Systems (cont'd)

conform with Title 24 2016 requirements.

The emergency Electrical distribution system for the campus shall be provided as follows and is consistent with the intent of the bridging documents:

1. A single 1000 KW, 1250 KVA, 1600 A, 277/480 V centrally located emergency standby diesel generator will be installed at the Supported Housing facility. The generator will be installed outside and located within a sound attenuated weatherproof enclosure. The generator capacity will support 80 percent of the electrical loads of the Supported Housing and MHRC buildings. The diesel fuel tank shall be sized with a capacity to allow for a 72 hours at generator full load capacity.
2. The main emergency distribution 1600 A, 277/480V board will be installed in the Supported Housing building main electrical room. The panel board will be provided with a 1600 AT main breaker, one 800 AT breaker to serve the Supported housing life safety and normal power systems, and five 225 AT breakers to serve the MHRC's life safety and normal power systems.
3. Route conduit and wiring from each of these breakers to the respective MHRC's where a separate electrical emergency electrical panel will be provided. For the MHRC's this panel will be rated for 225 AMPS and have a breaker for normal and life safety needs. An separate 125Amp ATS will be provided for normal power and a 60 AMP ATS will be provided for the life safety needs.
4. Within the supported housing facility a 125 AMP Life safety panel shall be provided to serve all of the life safety loads in the building. This panel will be served from both the normal and life safety

panel. A separate 125 AMP ATS will be provided for the life safety loads.

5. At the supported housing facility provide a separate 600 AMP ATS to serve the normal needs for the facility in addition to the 125 AMP ATS described above.
6. Each of the MHRC's will be provided with a separate 60 Amp life safety panels to serve the life safety needs of this space. This panel will be served from both normal and life safety loads of the facility. A separate 60 AMP ATS will be provided for the life safety loads.
7. All panels will have separate power monitoring systems.

A complete lighting system for all indoor, outdoor, and building mounted lighting will be provided. The lighting system will consist from LED sources, incandescent will not be used. In order to reduce the energy consumption associated with the lighting systems we will target a lighting power reduction for the project at 25% below the minimum code requirements in Title 24. The lighting levels and design standards for the spaces as outlined in the bridging documents will be maintained. The lighting control systems will consist of low voltage digital lighting management and local dimming occupancy sensors. Outdoor lighting controls will consist of a low voltage digital management control system. Lighting controls shall conform with 2016 Title 24 requirements.

An automatic, addressable, fire alarm system will be provided to meet the requirements of the California Building Code, California Fire Code. Each of the buildings will be provided with a fire alarm

panel and each fire alarm panel will be monitored at a centralized security station, along with off-site monitoring.

Sustainable Electrical Systems

The requirements to provide a net-zero energy facility are a part of the project and we are assuming at this early stage of the project an approximate amount of 650 kW array. This number is a budget number for the array at this point and we will continue to refine this number throughout the design process.

Technology Systems

The technology design for the Supported Housing building will consist of telecommunications rooms (TR) located on each level. The room located on the first floor of the Supported Housing building will be the Main Point of Entry (MPOE) for telephone and data services for the Supported Housing facility. Each of the MHRC's will be also provided with a MPOE since each MHRC is an independent facility. Telecommunication rooms will be provided with a location to bring all systems to, racks, and wire managers for backbone and horizontal cable management. This includes wire basket cable tray in the corridors and J-hooks elsewhere. Telecommunications cabling from the MPOE to the individual TR's will be fiber optic cabling. Copper backbone network cabling shall be Cat 3 copper cable. Cabling from the TR's to the final point of connections will be Category 6 voice and data cabling.

A Cable Television (CATV) system will be distributed

Mechanical, Electrical, & Plumbing Systems (cont'd)

from the MPOE in the Supported Housing facility and the MHRC's. Cabling and equipment will be wall mounted in each TR and all horizontal cabling will be routed to the final locations for the project.

A zoned intercom and paging system will be provided and have the capabilities to provide program distribution and "all-call" to speakers throughout. Coverage will be provided to offices, conference rooms, corridors, and other common interior and exterior spaces. All speakers shall be individually homerun to the nearest TR and then connected back to the MPOE of each building.

A security system consisting of an Access Control, Internet Protocol (IP) Cameras, and Intrusion Alarm will be provided as a part of this project. All systems will be connected into a single security management system and centrally controlled from a security management system within each building. The system will have the capability to interface with the BMS system.

The access control system shall control locking and unlocking of selected interior and exterior doors. The access control system will be provided with card readers and keypads to allow secured entry into the building.

The IP based camera and surveillance system will have cameras placed to monitor both interior and exterior spaces in concert with the access and intrusion systems. The Intrusion alarm system shall be provided with external and internal door monitoring.

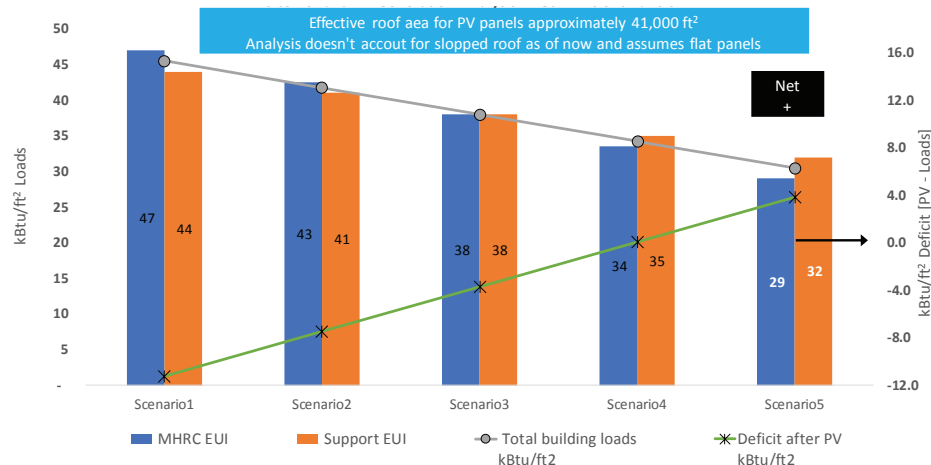
Summary of Photovoltaic (PV) Analysis

Summary of PV Analysis

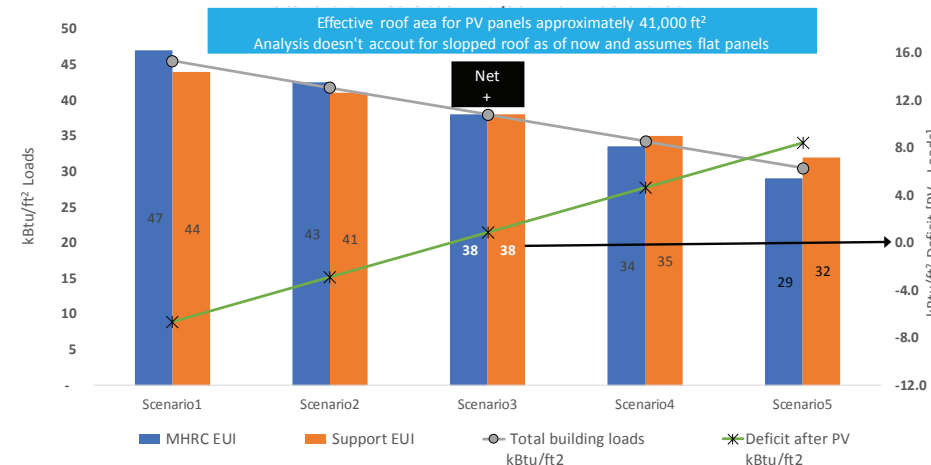
- Roof areas were analyzed in details to identify areas where roof is shaded by nearby surfaces
- Key dates/times were visualized to show problem areas
- Annual image shows to summation of total solar insolation on all roof areas
- Total generation on roof areas was extracted from the analysis
- It was assumed that approximately 40% of roof areas are not available for PV panels due to code access requirements as well as areas near the retaining wall/hill that get less overall solar insolation
- Total available roof area for PV was approximated to be 41,000 square feet
- It was assumed that all PV panels will be flat for this analysis covering the total area above, however if design team tilts portions of the areas toward south façade it will be beneficial
- Multiple rows of tilted solar panels are not recommended due to increased self-shading
- Multiple PV panel efficiencies were analyzed as well
- Higher panel efficiencies can significantly alleviate the site energy use budget from average 30 to 42 Energy Use Intensity (EUI)
- With projected total site EUI of 30, the site energy budget can be met with 15% panel efficiencies



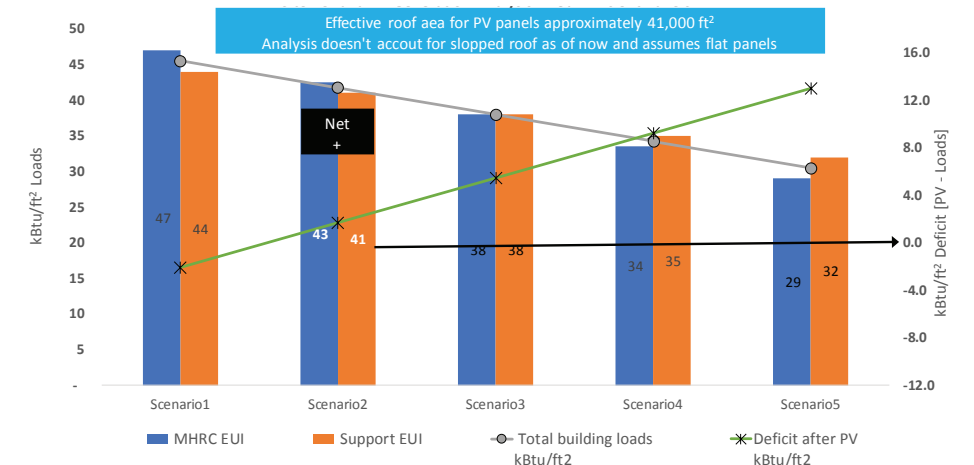
Conceptual Photovoltaic Panel Areas



Site EUI & PV Generation Analysis - 15% Efficient Panels



Site EUI & PV Generation Analysis - 15% Efficient Panels



Site EUI & PV Generation Analysis - 19% Efficient Panels

Staffing & Hours of Use

Staffing and Staff Areas:

Each of the five 16-bed MHRCs will be separately licensed and operated. The facilities shall employ support staff as necessary to perform office work, cooking, house cleaning, laundering, and maintenance of buildings, equipment and grounds.

The 3-floor 57-bed Supported Housing will be licensed by the Department of Social Services under one license and operated by one single operator. In facilities with a licensed capacity of 50 or more clients, one employee shall have full-time responsibility for the organization, conduct and evaluation of planned activities, and shall be given assistance as necessary in order to ensure that all clients participate in accordance with their interests and abilities.

The staff on the campus will include three high intensity staffing models, two medium intensity staffing models and one supported housing models. For more information, refer to staffing model provided to us by San Mateo County Health Systems included in the Appendix.

HOURS OF OPERATION

Site

- Accessible 24 hrs a day, 7 days a week
- Site boundaries not secured

Campus Center

- Monday-Friday: 8:00am-5:00pm
- Saturdays & Weekday Evenings: As needed for scheduled community events

Primary Care

- Tuesdays, Thursdays and Fridays only
- 6 hours per day between hours of 8am-5pm (exact hours to be determined)
- Hours may expand depending on future need.

Loading Dock

- Monday-Friday: 7:00am-4:00pm

Security Electronics Systems

Codes, Guidelines and Standards

The equipment, design, materials and installation will meet or exceed the requirements as set forth in the following codes, guidelines and standards. All State, Local, County or City Ordinances will also apply.

ADA	Americans with Disabilities Act
ANSI	American National Standards Institute, Inc.
CAL/OSHA	California Occupational Safety & Health Administration
CBC	California Building Code
CFC	California Fire Code
NEC	National Electric Code
NECA	National Electrical Contractors Association
NEMA	National Electrical Manufacturer's Association
NESC	National Electrical Safety Code
NFPA	National Fire Protection Association
SFM	California State and Local Fire Marshal
UBC	Uniform Building Code
UFC	Uniform Fire Code
UL	Underwriters' Laboratories

Security Electronics System

1. This project will integrate camera, door control and monitoring and intercom control into a single integrated security electronics system operable via touchscreen controllers located in the Open Team Station within each MHRC building. The security electronics systems will be connected to an exclusive ethernet network with no connections outside of the campus. All security electronics systems will be connected to emergency power.
2. Staff will control and monitor inmate and staff movement through all secured building areas, including the sally port, Living Rooms, Private Rooms and Patient Courtyards via touchscreen controls. Operators in each building will monitor and control all electronic security systems including remote door control, intercom system, video surveillance, and duress alarm system. Each building control station will be staffed at all times, with relief staffing for operator breaks. One (1) touchscreen control panel, with associated video

displays, will be provided for each MHRC Building control location.

3. Touchscreen control panels employing a Graphical User Interface (GUI) will be provided as the primary interface for staff to operate the security control systems. The touchscreen GUI layout will provide a logical means for staff to control and monitor doors, intercoms, help buttons and cameras throughout the facility. The exact layout and configuration of the GUI, including maps, icons, alert tones, etc., will be created in collaboration with the County. Each building will maintain independent control of its security electronics systems at all times.
4. A campus-wide access control system, integrated with the video surveillance system will be provided to facilitate staff movement throughout the restricted areas of each building. Access to individual card holders can be granted or denied to any door in any building on a cardholder by cardholder basis.
5. Control equipment for the security electronics system will be distributed to the security electronics rooms located throughout the facility.
6. The camera system will be network based for recording and real-time camera switching. Any camera shall be assignable by software to any video display monitor in the facility. Two video display monitors will be provided at each Control operator's station. Touchscreen multiplex views will be configurable via the control touchscreens. All cameras will be solid-state high-resolution color IP cameras. All doors remotely controlled from each control location will be visible by camera image. Selected cameras will have video recorded onto network video storage.
7. The camera system will be fully integrated with intercom, door control, and alarm monitoring systems to automatically call-up designated camera views to video display monitors when corresponding devices are active.
8. Door control and monitoring will be accomplished by an industrial programmable logic controller (PLC) based door control system. Sally port doors will be interlocked to prevent simultaneous opening of more than one door in an interlock group.
9. A detention-grade intercom system will be provided for communication between Private Rooms and Open Team Stations. Private Room intercoms will be mounted in the room door jamb. Intercom stations for movement control will be installed on each side of remotely controlled doors.
10. Duress alarms will report to the local team station touchscreen.

Security Electronics Systems (cont'd)

11. A campus-wide access control system, integrated with the video surveillance system, will be provided to allow staff access to restricted locations inaccessible to patients and not required for constant monitoring at the control locations. Selected doors will require control interface to both the access control system and the Door Control PLC.

SECURITY ELECTRONICS SYSTEM CLARIFICATIONS

It is understood that security electronics infrastructure is desired in the SH building to facilitate the possibility of using the patient spaces in a manner similar to the MHRC buildings. This will require that the same security electronics equipment be installed in the SH building. Until the County desires to use the SH building in this manner, the campus-wide access control system can facilitate staff and patient movement within the building.

In order to provide the SH building security electronics infrastructure, control locations for touchscreens and monitors will need to be identified.

If the County desires control of the access to the main loop road, a control location for the remote operation of access gates will need to be identified. It is understood that the intent of this facility is to provide as much as possible open access to the campus. However, consideration should be taken that having the public in close proximity to the secure perimeter of the MHRC buildings introduces security risk such as the introduction of contraband into the secured campus spaces. Also, the possibility for audible communication between patients and the public becomes a possibility when the public has close proximate access to the secure building.

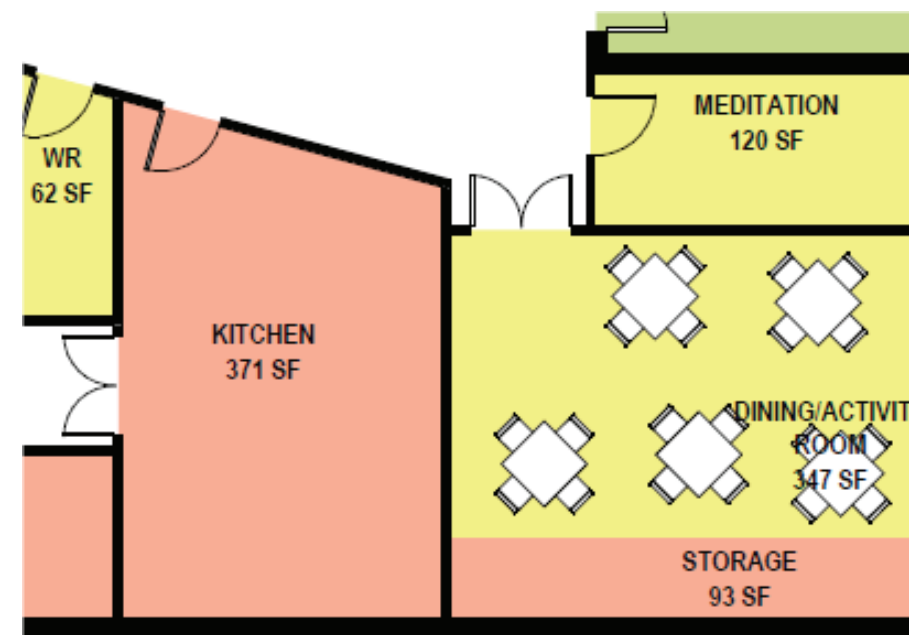
Food Service

MHRC

Section A – General

1. Scope

- The food service design brief narrative and outline specifications are intended to provide a general direction, for the proposed satellite kitchen located at the Mental Health Rehabilitation Center located on the ground level.
- The MHRC Satellite kitchen will be the destination for all food service consumable and non-consumable items. This kitchen will receive and accommodate dry goods / refrigerated items. The areas of the kitchens will be the following; preparation area, cooking/reheating area, receiving area (prepackaged or pre-prepared food), and sanitation area. Meals to be catered; breakfast, morning tea, lunch, afternoon tea, and dinner.



MHRC Level 1

2. Work Included:

- The food service facility shall comply with architectural, structural, plumbing, and mechanical requirements and all documents referred to therein.
- The food service facility will be designed and installed in compliance with San Mateo County and the building department.
- Furnishes, fixtures, food service equipment, and installation will be designed and specified to meet or exceed local Health codes, and generally accepted good practices.

3. System Scope

The following list of systems and components are included within this narrative:

- Ground Level: MHRC Satellite Kitchen (Reheat & Service).
- General Equipment Connections.
- Preliminary Food service Equipment List.
- General Food service Requirements.

Section B – Description of Work

1. MHRC Kitchen – Ground Level

- Adjacent to the dining room and restroom - all consumables and non-consumables will be delivered, stored, unpackaged / prepared, cooked / reheated for daily operations on a minor scale.
- In addition, the satellite kitchen may support external food service activities within the area, if required.
- MHRC Kitchen Area will include; Dry Storage Zone, Refrigeration Zone, Preparation Zone, Cooking/ Reheating Zone, Serving Zone integrated / Cart Zone and Ware Wash Zone.
- The cooking/reheating area will contain a combination of multipurpose equipment to meet all food service and HACCP requirements.
- Pre-prepared food items; delivered, stored, cooked/re-heated will have a

Food Service (cont'd)

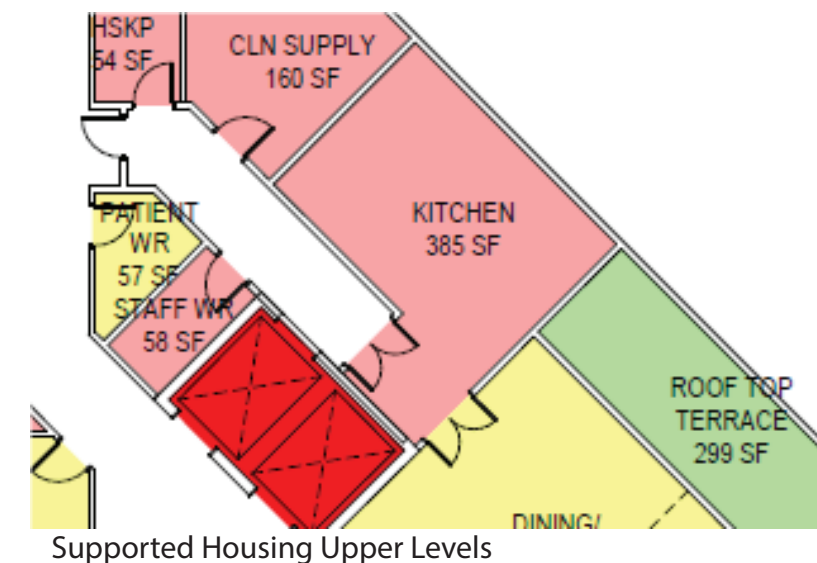
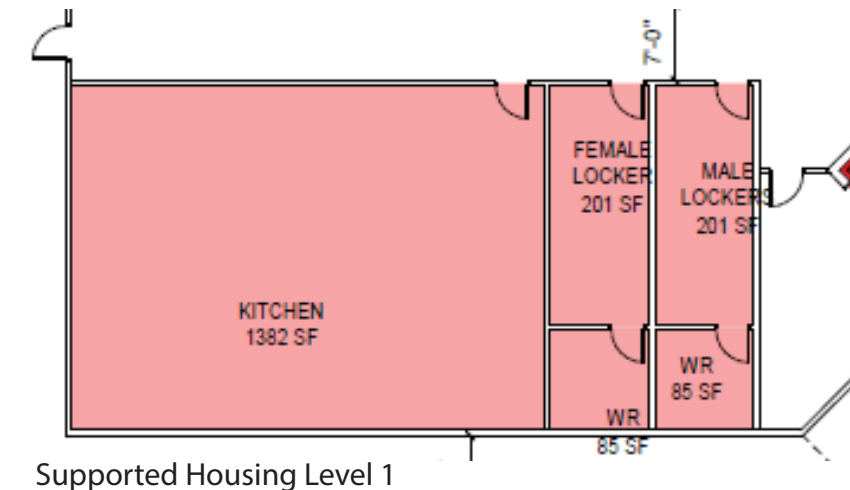
- positive impact to the food service area(s) and model.
- All consumable items are either transferred from the central kitchen area or outsourced in ambient / refrigerated / heated carts and/or a combination of both.
 - Additional, upright display refrigerators can be position within the area for immediate Grab n Go / Support / Storage.
2. General Food & Beverage Equipment Connections:
- Electrical power will be required for specific campus and satellite kitchen. Electrical power to specific equipment shall range from 120 volts or 208 volts, single phase to 3 phase. Size of breakers shall be based on manufacturer's shop drawings.
 - Mechanical connections for Hood Type I (grease hoods) will supplied as part of the construction of the satellite kitchen. In coordination with the mechanical consultant, and nominated Kitchen Equipment Contractor. HVAC requirements, by mechanical consultant.
 - All food and beverage equipment will be sized and plumbed in coordination with plumbing consultant and KEC's nominated plumber contractor. Direct / in direct floor sinks required for food and beverage areas – all floors to fall to a floor waste / sink. A grease trap to be located, and sized by OTHERS.

Campus Center & Supported Housing

Section A – General

1. Scope
- The food service design brief narrative and outline specifications are intended to provide a general direction, for the proposed kitchens located on Level 1 and a satellite kitchen located on level 2.
 - The level 1 Kitchen will be the destination for all food service consumable and non-consumable items. This kitchen will receive and accommodate bulk dry goods / refrigerated items. The identified zones within the kitchen will demonstrate the following; preparation area, cooking/

- reheating area, delivery service, and sanitation area. Meals to be covered breakfast, morning tea, lunch, afternoon, and dinner.
- The level 2 Kitchen will be the destination for all consumable and non-consumable items from the campus kitchen and/or outsourced. The kitchen components will compromise (on a minor scale); housing of dry/ refrigerated items, limited preparation, ability to cook/reheat, service and a sanitization area. Meals to be covered breakfast, morning tea, lunch, afternoon, and dinner.



Food Service (cont'd)

2. Work Included;
 - The food service facility shall comply with architectural, structural, plumbing, and mechanical requirements and all documents referred to therein.
 - The food service facility will be designed and installed in compliance with San Mateo County and the building department.
 - Furnishes, fixtures, food service equipment, and installation will be designed and specified to meet or exceed local Health codes, and generally accepted good practices.

3. System Scope

The following list of systems and components are included within this narrative:

- Level 1: Campus Kitchen (Production & Service) / Level 2: Satellite Kitchen (Reheat & Service).
- General Equipment Connections.
- Preliminary Food service Equipment List.
- General Food service Requirements.

Section B – Description of Work

1. Campus Kitchen – Level 1
 - Adjacent to the loading dock, and female locker room - all consumables and non-consumables will be delivered, stored, prepared, cooked / reheated for daily operations on a major scale.
 - In addition, to supporting the satellite kitchen located on level 2. The campus kitchen will provide support for external food service activities at the Multi-Purpose Room.
 - Campus Kitchen Area will include; Bulk Dry Storage Zone, Bulk Refrigeration Zone, Preparation Zone, Cooking/ Reheating Zone, Serving/Cart Zone and Ware Wash Zone.
 - The cooking area will contain a combination of multipurpose equipment to meet all food service and HACCP requirements.

- Pre-prepared food items; delivered, stored, cooked/re-heated will have a positive impact to the food service area(s) and model.

2. Satellite Kitchen – Level 2

- Adjacent to the clean supply room and dining room - all consumables and non-consumables will be delivered, stored, prepared, cooked / reheated for daily operations on a minor scale.
- Kitchen to provide support and service to the adjacent dining facility.
- Satellite Kitchen Area will include; Dry Storage Zone, Refrigeration Zone, Preparation Zone, Cooking/Reheating Zone, Ware Wash Zone and Servery Zone integrated.
- The cooking area will contain a combination of multipurpose equipment to meet all food service and HACCP requirements.
- Pre-prepared food items; delivered, stored, cooked/re-heated will have a positive impact to the food service area(s) and model.
- All consumable items are either transferred from the central kitchen area in ambient / refrigerated / heated carts and/or a combination of both.
- Additional, upright display refrigerators can be position within the area for immediate Grab n Go / Support / Storage.

3. General Food & Beverage Equipment Connections:

- Electrical power will be required for specific campus and satellite kitchen. Electrical power to specific equipment shall range from 120 volts or 208 volts, single phase to 3 phase. Size of breakers shall be based on manufacturer's shop drawings.
- Mechanical connections for Hood Type I (grease hoods) and Hood type II (heat/ condensate hoods) will be supplied as part of the construction of the campus and satellite kitchen. In coordination with the mechanical consultant, and nominated Kitchen Equipment Contractor. HVAC requirements, by mechanical consultant.
- All food and beverage equipment will be sized and plumbed in coordination with plumbing consultant and KEC's nominated plumber contractor. Direct / in direct floor sinks required for food and beverage areas – all floors to fall to a floor waste / sink. A grease trap to be located, and sized by OTHERS.

Authorities Having Jurisdiction

The Cordilleras Health Systems Replacement Project anticipates the following regulatory agencies in the review and approval of the project:

County of San Mateo

- Planning & Building Department (P&B)
- Project Development Unit (PDU)
- Office of Sustainability (OOS)

CalFire

US Fish and Wildlife Service

US Army Corp of Engineers

Regional Water Quality Control Board

California Department of Fish and Wildlife

California Natural Resources Agency

California Department of Health Care Services

California Department of Social Services

Applicable Code Information

Zoning

- Zone: (Resource Management District) San Mateo County
- Building Height: 36 feet & 3 stories max except by use permit (Chapter 22, Article 2, Section 6405 of the San Mateo County Ordinance Code)
- Setbacks: 50' front, 20' side, 20' rear. See also Zoning Regulations (Jan 2018), Sect. 6319B.
- Separations: Main & Accessory buildings to be 30' apart, minimum
- Parking: TBD
- Development Review Permit (Chapter 23)

MHRC (Mental Health Rehab Center):

- Occupancy Group: I-3, Condition 2
- Construction Type: I-A or I-B, Per California Building Code
- CBC 2016 - 408.1.2, Exception 1 Allows Type II-A, III-A, or V-A if floor area does not exceed 5,200 SF between fire walls of 2-Hour FR construction, with 1 or 1.5 hour rated openings.

Supported Housing:

- Occupancy Group: R-2.1
- Construction Type: To be determined.

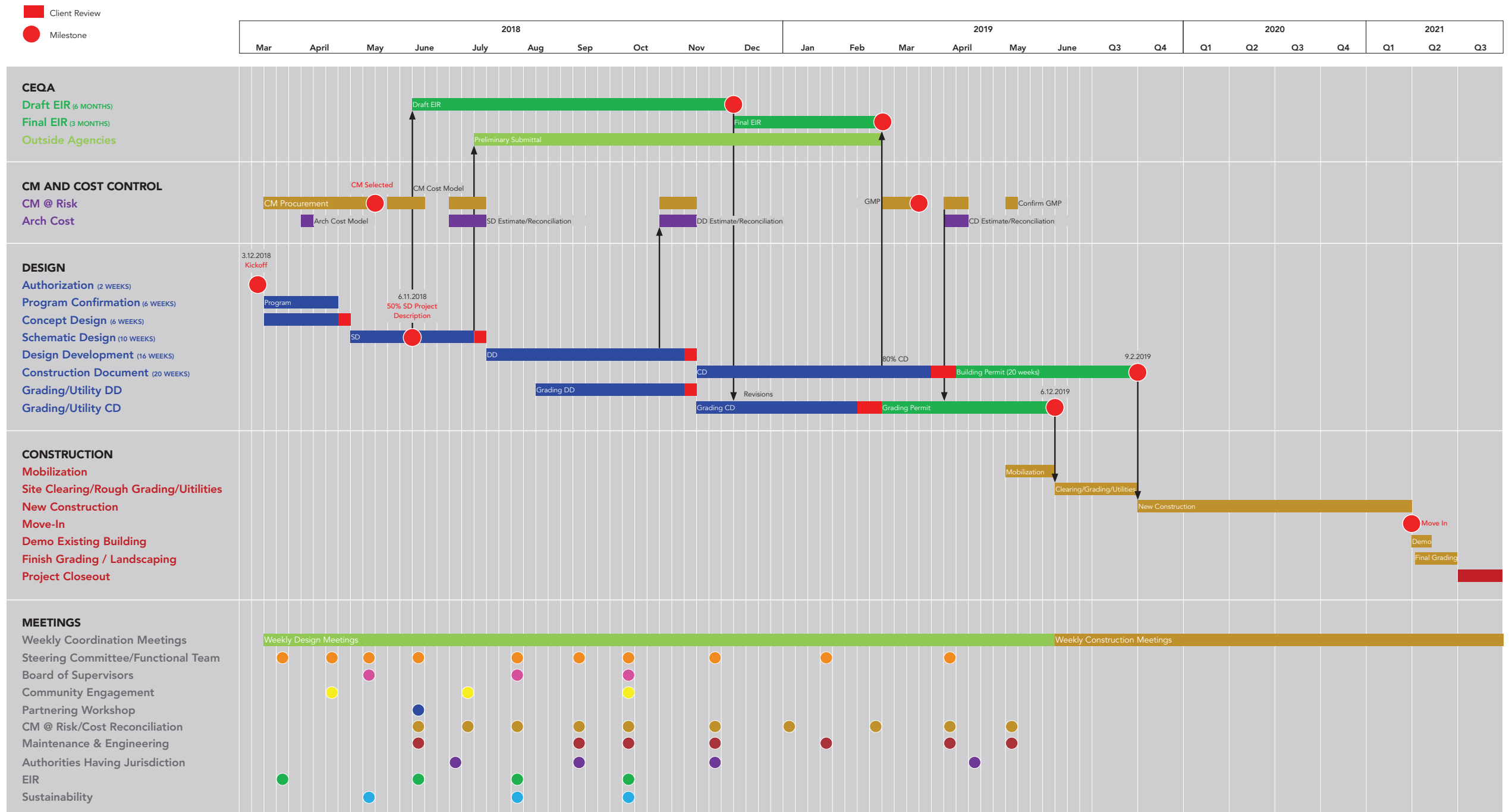
Campus Center:

- Occupancy Group: B / A3 Mixed Use Occupancy
- Construction Type: To be determined.

Third-Party Certification

Per the County of San Mateo Green Building Policy (December 2017), this project is required to achieve Leadership in Energy and Environmental Design (LEED) certification, using version 4, and Zero Net Energy (ZNE). A minimum level of LEED Certified is required, and documentation is reviewed by the Green Business Certification Inc (GBCI). ZNE is based on the amount of energy produced on-site is equal to the amount of electrical and gas energy consumed by the project annually. The county does not current require third party certification for ZNE.

Project Schedule



02 Preliminary Program

Concept Space Program

The following program represents a functional room-by-room summary of the space needs as identified by the County to date through the Conceptual Design phase. It represents a culmination and progression of thought that began with the Reference Design, and has evolved over the past several design workshops as the collective team has worked towards finding an optimal balance between MHRC and Supported Housing building footprints, site opportunities, and functional needs. Notably, it reflects 1 3-wing approach to the MHRC's, inclusive of refinements made to on-stage / off-stage separation, enlarged open common area for patients, and increased access to outdoor space variety. The Campus Center and Supported Housing programs have remained relatively unchanged, maintaining the basic room complement established with the Reference Design.

The grossing factors indicated in the space program have been aligned and tested against the various design options developed during the design phase. This implies a closer fit between the anticipated floor area identified in the space program, and the actual designed area needed to meet the net functional areas and the desired adjacencies, circulation elements, and infrastructure components

SUMMARY

Program	Net SF	Net SF to Gross SF Factor	Gross SF	Comments
MHRC's	37,075	1.485	55,056	Reflects five units
Campus Center	11,710	1.485	17,389	
Supported Housing	20,820	1.650	34,353	Reflects three units
Total	69,605		106,799	

Concept Space Program - MHRC

Element	Proposed Quantity	Proposed Net SF	Total Proposed Net SF	Comments
Key Points / Notes				
1. Bedrooms size aligned with California Building Code, which is larger than FGI Healthcare Guideline minimums				
1.00 Visitor Areas				
1.01 Waiting / Lobby Space	4	25	100	may be integrated with central open area
1.02 Locker Alcove	1	5	5	alcove with 4 to 6 half height lockers
SUBTOTAL			105	
2.00 Client Areas				
2.01 Bedroom, Private	12	120	1,440	
2.02 Bedroom Semi-Private	2	200	400	
2.03 Bathroom	11	50	550	
2.04 Bathroom, Accessible	3	70	210	
2.05 Tub Room	1	120	120	
2.06 Storage, Patient Belongings	0	60	0	Use General Storage
2.07 Meditation / Seclusion	1	120	120	
2.08 Library / Computer Room	0	140	140	Functionality integrated into Living Rooms
2.09 Exercise Room	1	120	120	
2.10 Visitation / Assess. / Interview	2	140	280	
2.11 Toilet, Patient / Visitor	1	50	50	
2.12 TV Room	1	120	120	
SUBTOTAL			3,550	
3.00 Clinical Care Support Areas				
3.01 Care Team Station, Open	1	100	100	
3.02 Care Team Workroom	1	200	200	
3.03 Copy/Print/Office Supply Alcove	1	60	60	
3.04 Medication Room	1	120	120	
3.05 Kitchen	1	380	380	
3.06 Open Dining / Activity Room	1	500	500	
3.07 Enclosed Dining / Activity Room	1	350	350	
3.08 Rehab / Activity Space	1	30	30	
3.09 Living Room	3	250	750	
SUBTOTAL			2,490	

Element	Proposed Quantity	Proposed Net SF	Total Proposed Net SF	Comments
4.00 Staff & General Support				
4.01 Laundry, Residents	1	120	120	stackable washer and dryer (2 each)
4.02 Storage, Clean Supplies	0	10	0	included in item 4.03 below
4.03 Storage, Clean Linen	3	10	30	1 per bed wing
4.04 Soiled Holding / Hskp.	1	100	100	
4.05 Storage, General	1	120	120	
4.06 Office, Facility Director	1	120	120	
4.07 Office, Shared, Nursing/Phys.	1	120	120	
4.08 Office, Shared, Social Wk/Rehab	1	120	120	
4.09 Staff Break / Locker Room	1	140	140	integrated with Staff Workroom
4.10 Toilet, Staff	1	50	50	
SUBTOTAL			920	
5.00 Building Support				
5.01 Sallyport / Vestibule	1	50	50	
5.02 Storage, Maintenance	0	30	0	Exterior access; includes room for waste bin storage
5.03 Technology Room	1	100	100	
5.04 Electrical Room	1	100	100	
5.05 Mechanical Room	1	100	100	
SUBTOTAL			350	
TOTAL NET SQUARE FEET			7,415	Net Square Feet
Subtotal			x 1.1	Grossing Factor: Walls
			8,157	
			x 1.35	Grossing Factor: Circulation
GROSS SQUARE FEET			11,011	Gross Square Feet

Concept Space Program - Campus Center

Element	Proposed Quantity	Proposed Net SF	Total Proposed Net SF	Comments
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Key Points / Notes

1. For concepts with a detached Multi-purpose Room, exterior circulation is not counted within the grossing factor
2. The receiving and loading area is assumed to be an exterior space
3. Head-end MEP spaces are indicative of expected needs, and will be revised as the design and MEP strategies progress

1.00 Visitor Areas

1.01 Reception Desk	1	50	50	
1.02 Waiting Space	4	25	100	
1.03 Toilet/Lav, Accessible, Male	1	230	230	
1.04 Toilet/Lav, Accessible, Female	1	230	230	
SUBTOTAL			610	

2.00 Staff / Administrative Offices

2.01 Campus Office, Administrator	1	120	120	
2.02 Office, Shared, Adult Resource	1	120	120	
2.03 Office, Shared, MHRC 1	1	120	120	
2.04 Office, Shared, MHRC 2	1	120	120	
2.05 Office, Shared, MHRC 3	1	120	120	
2.06 Office, Shared, MHRC 4	1	120	120	
2.07 Office, Shared, MHRC 5	1	120	120	
2.08 Office, Shared, Hotel	1	120	120	
2.09 Workroom, Shared, Volunteers	1	250	250	
2.10 Dietary Director Office	1	120	120	
2.11 Office, Facilities Director	0	120	0	
2.12 Copy / Print / Office Supply	1	50	50	
2.13 Consult Room	2	120	240	
SUBTOTAL			1,620	

3.00 Primary Care / Wellness

3.01 Workroom, Provider/MA	1	150	150	
3.02 Copy / Print / Office Supply	1	25	25	
3.03 Exam / Vitals Room	1	140	140	
3.04 Wellness Room	1	140	140	
3.05 Storage, Supplies / Equipment	1	140	140	
SUBTOTAL			595	

Element	Proposed Quantity	Proposed Net SF	Total Proposed Net SF	Comments
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4.00 Shared Activity Areas

4.01 Chapel	1	200	200	
4.02 Multipurpose Room	1	3,000	3,000	
4.03 Storage, Multipurpose Room	1	400	400	
4.04 Art Room	1	500	500	
4.05 Storage, Art Room	1	30	30	
4.06 Retail	1	150	150	
4.07 Storage, Retail	1	30	30	
4.08 Toilet/Lav, Staff/Client, Access.	1	50	50	
4.09 Alcove, Drinking Fountain	1	20	20	
SUBTOTAL			4,380	

5.00 Dietary

5.01 Kitchen	1	1,470	1,470	
SUBTOTAL			1,470	

6.00 Shared Support

6.01 Conference Room, Medium	1	400	400	Subdividable into 2 smaller rooms via operable partition
6.02 Conference Room, Small	1	200	200	
6.03 Storage, Conference	1	20	20	
6.04 Staff Break Room	1	140	140	
6.05 Staff Locker, Male, Accessible	1	200	200	
6.06 Staff Locker, Female, Accessible	1	200	200	
6.07 Toilet/Lav/Shower, Staff, Male	1	70	70	
6.08 Toilet/Lav/Shower, Staff, Female	1	70	70	
6.09 Housekeeping	1	50	50	
6.10 Storage, General	0	200	0	Included in Storage room adjacent to Multipurpose Room
6.11 Eyewash, Alcove	1	15	15	
6.12 Engineering/Maintenance Shop	1	420	420	
6.13 Storage, Maintenance Shop	1	150	150	
SUBTOTAL			1,935	

**Concept Space Program - Campus Center
(cont'd)**

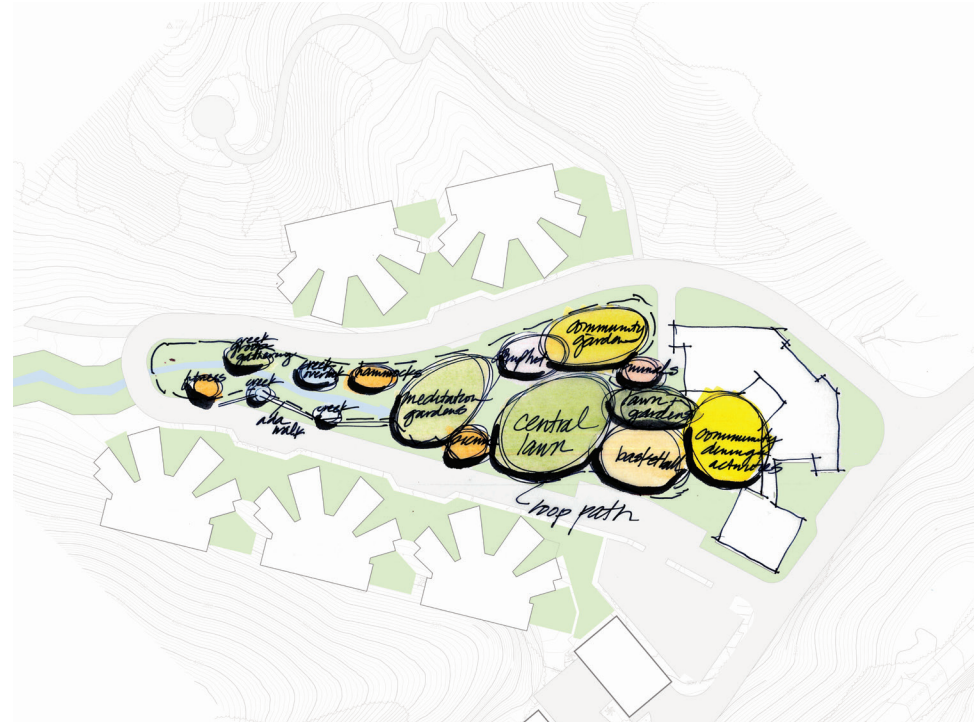
Element	Proposed Quantity	Proposed Net SF	Total Proposed Net SF	Comments
7.00 Building Support				
7.01 Receiving/Staging	0	150	0	Exterior space
7.02 Technology Room	1	100	100	
7.03 Electrical Room	1	100	100	
7.04 Main Technology Room	1	200	200	
7.05 Main Electrical Room	1	200	200	
7.06 Mechanical Room	1	500	500	
SUBTOTAL			1,100	
TOTAL NET SQUARE FEET			11,710	Net Square Feet
			x 1.1	Grossing Factor: Walls
Subtotal			12,881	
			x 1.35	Grossing Factor: Circulation
GROSS SQUARE FEET			17,389	Gross Square Feet

Concept Space Program - Supported Housing

Element	Proposed Quantity	Proposed Net SF	Total Proposed Net SF	Comments
Key Points / Notes				
1. Semi-private Bedroom size aligned with California Building Code, which is larger than FGI Healthcare Guideline minimums				
2. Private Bedroom size enlarged (relative to MHRC's) to work within the planning module of a Semi-Private Room				
3. Dining / Activity room size aligned with FGI Healthcare Guidelines (40sf/patient for dual-purpose dining / activity space)				
1.00 Visitor Areas				
1.01 Lobby / Elevator Vestibule	1	150	150	
1.02 Visitation Room	1	120	120	
1.03 Toilet/Lav, Accessible	2	50	100	
SUBTOTAL			370	
2.00 Client Areas				
2.01 Bedroom, Private	5	140	700	
2.02 Bedroom, Semi-Private	7	200	1,400	
2.03 Bathroom	6	50	300	
2.04 Bathroom, Accessible	6	70	420	
2.05 Tub Room, Accessible	1	140	140	
2.06 Storage, Belongings	2	30	60	May be distributed
2.07 Meditation / Quiet Room	1	140	140	
2.08 Library / Computer	0	140	0	Functionality integrated into Living Rooms
2.09 Exercise Room	1	140	140	
SUBTOTAL			3,300	
3.00 Clinical Care Support Areas				
3.01 Care Team Workroom	0	240	0	
3.02 Office, Director	1	120	120	
3.03 Office, Social Work/Staff	2	120	240	
3.04 Copy/Print/Office Supply Alcove	0	60	0	
3.05 Medication Room	1	120	120	
3.06 Therapy / Interview	0	120	0	Provided as one room under 1.02 above
SUBTOTAL			480	
4.00 Group Areas				
4.01 Kitchen	1	380	380	
4.02 Dining Room	1	760	760	One space for dining and activity use at 40sf per patient; operable partition to allow for use of two spaces
4.03 Storage, Rehab / Activity	1	50	50	
4.04 Living Room	2	300	600	
SUBTOTAL			1,790	

Element	Proposed Quantity	Proposed Net SF	Total Proposed Net SF	Comments
4.00 Group Areas				
4.01 Kitchen	1	380	380	
4.02 Dining Room	1	760	760	One space for dining and activity use at 40sf per patient; operable partition to allow for use of two spaces
4.03 Storage, Rehab / Activity	1	50	50	
4.04 Living Room	2	300	600	
SUBTOTAL			1,790	
5.00 Staff & General Support				
5.01 Laundry, Residents	1	140	140	
5.02 Storage, Clean Supplies / Linen	1	120	120	
5.03 Storage, General	1	120	120	Distributed within bed wings - can be shallow closets or millwork cabinets in Living Rooms / Lounges
5.04 Staff Break / Locker Room	1	120	120	
5.05 Toilet/Lav, Staff, Accessible	2	50	100	
5.06 Housekeeping	1	50	50	
SUBTOTAL			650	
6.00 Building Support				
6.01 Technology Room	1	100	100	
6.02 Electrical Room	1	100	100	
6.03 Mechanical (shaft space)	1	150	150	
SUBTOTAL			350	
TOTAL NET SQUARE FEET				
			6,940	Net Square Feet
Subtotal			x 1.1	Grossing Factor: Walls
			7,634	
GROSS SQUARE FEET				
			11,451	Gross Square Feet
			x 1.5	Grossing Factor: Circulation (Note: the circulation grossing factor is increased for this program, to account for the vertical and horizontal circulation elements necessary to achieve access, adjacency, and other desired functional relationships)

Site Program



The site programs incorporated within the Cordilleras Health System Replacement Project will provide opportunities for a range of activities such as private therapy sessions and outdoor recreation. The design team held a workshop with key stakeholders to determine which programs would be most beneficial to clients, visitors and staff. The following site programs were recommended for inclusion within the campus core:

- Community Garden - of similar size as the existing garden
- Half-size Basketball Court - with flexibility to be used for other court activities like volleyball
- Meditation garden – potentially combined with a small amphitheater
- Looped Creek Walking Path – with small breakout fitness areas and interpretive signage
- Open Lawn

- Sheltered Group Gather/ Community Table
- Forest Gathering Area
- Animal Yard
- Small group gathering areas
- Hammock Grove
- Picnic Areas

In addition, each MHRC building will have a dedicated, enclosed courtyard and outdoor spaces for client’s exclusive use. Each courtyard will include:

- Looped walking Path
- Small Seating Areas
- Gardening Spaces
- Small Group Gathering Areas
- Aesthetically pleasing planting and garden spaces
- Breakout space from indoor dining room



03 Preliminary FF&E List

Architectural Furniture, Furnishings & Equipment

The following preliminary furniture and equipment list represents our team’s initial pass at summarizing reasonable and realistic needs on a room-by-room basis. As furniture and equipment were not primary discussion points during the Concept Design phase, this list has been generated using the following input and methodology:

- Furniture, equipment, and detailed room layout information included with the Reference Design was used as a starting point and basis for this initial list.
- Modifications made to the space program during the Concept Design phase workshops, including adjustments to room function, room quantity, or room size, are reflected in the furniture and equipment list.
- Our team’s food service consultant has been engaged, and an initial list of equipment for the various kitchen spaces has been provided.

Room	Furniture	Equipment	Quantity	Comments
MHRC (5 units)				
Lobby / Waiting Area	Lounge chair		3	
	Side table		2	
Locker Alcove		Locker (1/2 height)	6	
Private Bedroom	Platform bed (psychiatric)		1	Note: 12 instances of this room type
	Bedside table		1	Will depend on layout to determine fit
	Desk		1	
	Desk chair (sled base)		1	
	Wardrobe cabinet		1	Could be built-in instead, depending on design
Semi-private Bedroom	Lounge chair		1	Will depend on layout to determine fit
	Platform bed (psychiatric)		2	Note: 2 instances of this room type
	Bedside table		2	Will depend on layout to determine fit
	Desk		2	
	Desk chair (sled base)		2	
Washroom (Ensuite)	Wardrobe cabinet		2	
	Lounge chair		1	Will depend on layout to determine fit
				Assume tub and any fixtures will be by plumbing contractor
Tub Room				
Storage, Patient Belongings				
Meditation	Sofa		1	
	Glider chair		1	
	Lounge chair		1	
	Side table		1	
Exercise Room		Treadmill	1	
		Exercise Bicycle	1	
Visitation	Sofa		1	
	Lounge chair		2	
	Side table		1	
Interview	Table		1	
	Stacking chair		6	
		Exam table	1	
		Exam light, mobile	1	
		Medical waste bin	1	
		Waste bin	1	
		Clinical stool	1	
		Mobile workstation (WOW)	1	Consider laptops or tablets instead, for portability and securability?
		Glove box holder	1	
		Sharps container, mobile	1	
		Supply cart	1	
Washroom, Visitor / Patient				
TV Room	Sofa		1	
	Side Table		1	
	Entertainment Stand		1	Could be built-in instead, depending on design
		Television	1	
Open Care Team Station		Television protective enclosure	1	Could be built-in instead, depending on design
	Task chair		5	
		Computer	3	Consider laptops or tablets instead, for portability and securability?
		Printer	1	Securable?
Staff Workroom	Table		1	
	Stackable chair		4	
	Lateral file		1	
		Printer	1	

Room	Furniture	Equipment	Quantity	Comments
Medication		Computer	1	
		Supply Cart	1	
		Pharmaceutical Refrigerator	1	Assume undercounter model
		Pharmaceutical waste bin (wall mtd.)	1	
Kitchen				
Note: Refer to separate Food Service Design Brief, which includes preliminary equipment				
Dining / Activity Room (enclosed)	Table		5	
	Stacking chair (sled base)		20	
Dining / Activity Room (open area)	Table		3	
	Stacking chair (sled base)		12	
	Sofa		2	
	Lounge chair		2	
	Side table		2	
Living Room	Sofa		2	Note: 3 instances of this room type
	Lounge Chair		2	
	Table		1	
	Stacking chair (sled base)		4	
	Side Table		2	
Laundry		Washer	1	
		Dryer	1	
Linen Closet				
General Storage		Wire rack shelving unit	4	
Soiled Holding / Housekeeping		Linen hamper	2	
		Garbage truck	1	
		Mop bucket	1	
		Houskeeping cart	1	
Office, Director	Desk		1	
	Task chair		1	
	Stacking chair		2	
	Lateral file		1	
	Side Table		1	
		Computer	1	
		Printer	1	
		Keyboard tray	1	
Office, Shared	Desk		2	Note: 2 instances of this room type
	Task chair		2	
	Lateral file		2	
		Computer	2	
		Printer	1	
		Keyboard tray	2	
Staff Break Room	Table		1	
	Stacking chair		4	
		Refrigerator	1	
		Microwave	1	
		Coffee maker	1	
Washroom, Staff				
Entry Vestibule / Sallyport				
Maintenance Storage		Garbage bin	2	
		Recycle bin	1	

Room	Furniture	Equipment	Quantity	Comments
Campus Center				
Reception Desk	Task chair		1	
		Computer	1	
Lobby / Waiting	Lounge chair		4	
	Side table		2	
Washroom, Male				
Washroom, Female				
Campus Office, Administrator	Desk		1	
	Task chair		1	
	Stackable chair		2	
	Side table		1	
	Lateral file		1	
		Computer	1	
		Printer	1	
		Keyboard tray	1	
Office, Shared	Desk		2	Note: 7 instances of this room type
	Task chair		2	
	Lateral file		2	
		Computer	2	
		Printer	1	
		Keyboard tray	2	
Volunteer Workroom	Desk		3	
	Task Chair		3	
	Table		1	
		Locker (1/2 height)	6	
Copy / Supply		Printer	1	
Consult Room	Table		1	
	Stackable chair		4	
Provider Workroom	Desk		2	
	Task chair		2	
	Lateral file		2	
		Computer	2	
		Printer	1	
		Keyboard tray	2	
Exam	Stackable chair		1	
		Exam Table	1	
		Exam light, mobile	1	
		Medical waste bin	1	
		Waste bin	1	
		Clinical stool	1	
		Mobile workstation (WOW)	1	Consider laptops or tablets instead, for portability and securability?
		Glove box holder	1	
		Sharps container, mobile	1	
		Supply cart	1	
Wellness Room	Stackable chair		2	
	Side table		1	
		Massage table (folding / portable)	1	
		Supply cart	1	

Room	Furniture	Equipment	Quantity	Comments
Supply Storage		Wire rack shelving unit	4	
Chapel	Arm chair		8	
	Bench		2	Could be a built-in millwork element instead of furniture
Multi-purpose Room	Stackable chair		150	
	Table		26	
	Mobile stacking chair stand		15	
		Demountable stage	1	
		Mobile A/V monitor	2	
Multi-purpose Room Storage				
Art Room	Table		6	
	Stackable chair		8	
	Shelving / storage cabinet		4	Could be a built-in millwork element instead of furniture
		Pottery kiln	1	
Storage, Art		Wire rack shelving unit	2	
Retail		Cash register	1	
		Computer	1	
Washroom, Public				
Kitchen				
	Note: Refer to separate Food Service Design Brief, which includes preliminary equipment			
Conference Room, Medium	Table		8	Could be two large conference tables, instead of several smaller tables - depends on flexibility desired
	Task chair		18	
Conference Room, Small	Table		4	Could be one large conference table, instead of several smaller tables - depends on flexibility desired
	Task chair		8	
Storage Alcove, Conference				
Staff Break Room	Table		1	
	Stacking chair		4	
		Refrigerator	1	
		Microwave	1	
		Coffee maker	1	
Staff Locker, Male	Bench		1	
		Locker (1/2 height)	20	
Staff Locker, Female	Bench		1	
		Locker (1/2 height)	20	
Washroom, Male Staff				
Washroom, Female Staff				
Housekeeping		Mop bucket	1	
		Houskeeping cart	1	
Maintenance Shop	Task chair		1	
	Desk		1	
	Stool, adjustable		1	
		Wire rack shelving unit	4	
		Table saw	1	
		Drill press	1	
		Tool cabinet	2	
		Work table	4	
Receiving / Staging (outdoor space)				

Room	Furniture	Equipment	Quantity	Comments
Supported Housing (3 units)				
Lobby				Depending on design option selected, this may be integrated with the main lobby on Level 1
Interview / Visitation Room	Sofa		1	
	Lounge chair		2	
	Side table		1	
		Computer	1	Consider laptops or tablets instead, for portability and securability?
Washroom, Patient / Visitor				
Private Bedroom	Platform bed (psychiatric)		1	Note: 5 instances of this room type
	Bedside table		1	Will depend on layout to determine fit
	Desk		1	
	Desk chair (sled base)		1	
	Wardrobe cabinet		1	Could be built-in instead, depending on design
	Lounge chair		1	Will depend on layout to determine fit
Semi-private Bedroom	Platform bed (psychiatric)		2	Note: 7 instances of this room type
	Bedside table		2	Will depend on layout to determine fit
	Desk		2	
	Desk chair (sled base)		2	
	Wardrobe cabinet		2	
	Lounge chair		1	Will depend on layout to determine fit
Washroom (Ensuite)				
Tub Room				Assume tub and any fixtures will be by plumbing contractor
Storage, Belongings				
Meditation	Sofa		1	
	Glider chair		1	
	Lounge chair		1	
	Side table		1	
Exercise Room		Treadmill	1	
		Exercise Bicycle	1	
Office, Director	Desk		1	
	Task chair		1	
	Stacking chair		2	
	Lateral file		1	
	Side Table		1	
		Computer	1	
		Printer	1	
		Keyboard tray	1	

Room	Furniture	Equipment	Quantity	Comments
Office, Shared	Desk		2	Note: 2 instances of this room type
	Task chair		2	
	Lateral file		2	
		Computer	2	
Medication		Printer	1	
		Keyboard tray	2	
		Computer	1	
		Supply Cart	1	
		Pharmaceutical Refrigerator	1	Assume undercounter model
Kitchen		Pharmaceutical waste bin (wall mtd.)	1	
	Note: Refer to separate Food Service Design Brief, which includes preliminary equipment			
Enclosed Dining / Activity Room	Table		8	
	Stacking chair (sled base)		32	
Storage, Activity				
Living Room	Sofa		2	Note: 2 instances of this room type
	Lounge Chair		4	
	Table		2	
	Stacking chair (sled base)		4	
	Side Table		2	
Laundry		Washer	1	
		Dryer	1	
Clean Supply		Wire rack shelving unit	4	
General Storage		Wire rack shelving unit	4	
Staff Break Room / Lockers	Table		1	
	Stacking chair		4	
		Refrigerator	1	
		Microwave	1	
		Coffee maker	1	
		Locker (1/2 height)	12	
Washroom, Staff				
Housekeeping		Mop bucket	1	
		Houskeeping cart	1	

Kitchen Equipment

DESCRIPTION	QUANTITY
MHRC Satellite Kitchen (5 units)	
Dry Store Area (consumable and non-consumables) – Adjustable Shelving	1
Upright Freezer	1
Upright Refrigerator	1
Hand Sinks	1
Preparation Benches with Sink	1
Extraction Canopy w / supply air	1
Combi Oven – Static w / sheet pan stand	1
Induction Counter Unit	1
Spreader Table	1
Mobile Hot Box	1
Carts/dolly's for staging	TBC
Mobile work table with shelves under	1
U / counter ware wash unit – low temp unit	1
3-Compartment Sink w / tapware	1
Tubular wall shelves – single tier	1
Janitors Closet – Detergent Cupboard, cleaners sink, mop & broom holder	1
Refuse Area – compost, landfill, recycle	1

DESCRIPTION	QUANTITY
SH Campus Kitchen	
Dry Store Room (consumable and non-consumables) – Adjustable Shelving	1
Walk in Freezer – Adjustable Shelving	1
Walk in Refrigerator – Adjustable Shelving	1
Blast Chiller	1
Ice Machine & Ice Caddy	1
Hand Sinks	1
Preparation Benches with Sinks	1
Mixer	1
Slicer	1
Vacuum Machine & bags	1
Extraction Canopy w / supply air	1
Combi Ovens – Static & Roll In Units	3
Braising Pan – Standard or Pressurized	1
Burner Range	1
Spreader Tables	3
Mobile Hot Boxes	2
Carts/dolly's for staging	TBC
Mobile work tables with shelves under	3
Upright refrigeration cabinets.	1
Inlet bench with pre-rinse sink.	1
Pre-rinse spray with tapware.	1
Condensate Canopy	1
Rack Conveyor Ware Washer – high chamber unit	1
Roller Outlet bench with tubular shelves under	1
3-Compartment Sink w / tapware	1
Tubular wall shelves – single tier	2
Janitors Closet – Detergent Cupboard, cleaners sink, mop & broom holder	1
Refuse Area – compost, landfill, recycle	1

DESCRIPTION	QUANTITY
SH Satellite Kitchen	
Dry Store Area (consumable and non-consumables) – Adjustable Shelving	1
Upright Freezer	1
Upright Refrigerator	1
Hand Sinks	1
Preparation Benches with Sink	1
Extraction Canopy w / supply air	1
Combi Ovens – Static w / sheet pan stand	1
Induction Counter Unit	1
Spreader Tables	1
Mobile Hot Boxes	1
Carts/dolly's for staging	TBC
Mobile work tables with shelves under	1
Upright refrigeration cabinets.	1
Inlet bench with pre-rinse sink.	1
Pre-rinse spray with tapware.	1
U / counter ware wash unit – low temp unit	1
3-Compartment Sink w / tapware	1
Tubular wall shelves – single tier	1
Janitors Closet – Detergent Cupboard, cleaners sink, mop & broom holder	1
Refuse Area – compost, landfill, recycle	1

04 Concept Site Plan



Solar & Shading Study - April 27



10:00am



2:00pm



12:00pm



4:00pm

Solar & Shading Study - Spring Equinox (March 20)



10:00am



2:00pm



12:00pm



4:00pm

Solar & Shading Study - Summer Solstice (June 21)



10:00am



2:00pm



12:00pm



4:00pm

Solar & Shading Study - Fall Equinox (September 22)



10:00am



2:00pm



12:00pm



4:00pm

Solar & Shading Study - Winter Solstice (December 21)



10:00am



2:00pm



12:00pm

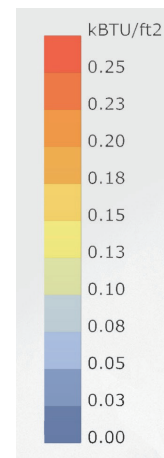


4:00pm

Solar Insolation on Roof Surfaces

These vignettes depict the amount of solar radiation energy on each of the buildings' roof surface, measured in kBtu/ft². The purpose of these diagrams is to show the areas of roof that has a better potential for locating of photovoltaic panels.

The building roof form, for this purpose, is shown flat. As with the shading studies, the 2 MHRCs to the southwest will have reduced radiation due to the retaining wall and tree coverage.

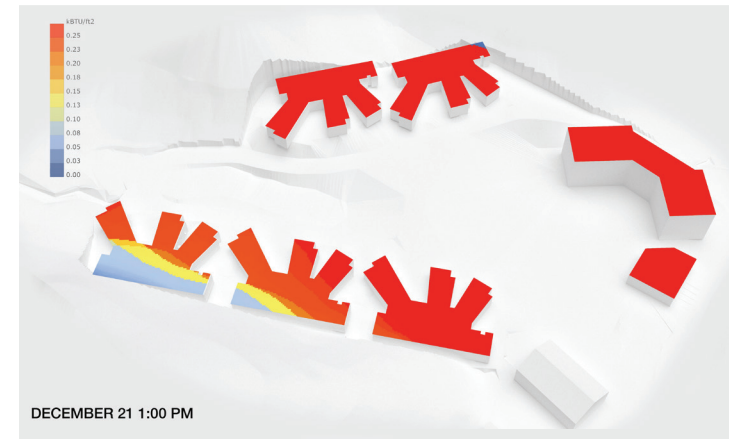


December 21

9:00am



1:00pm

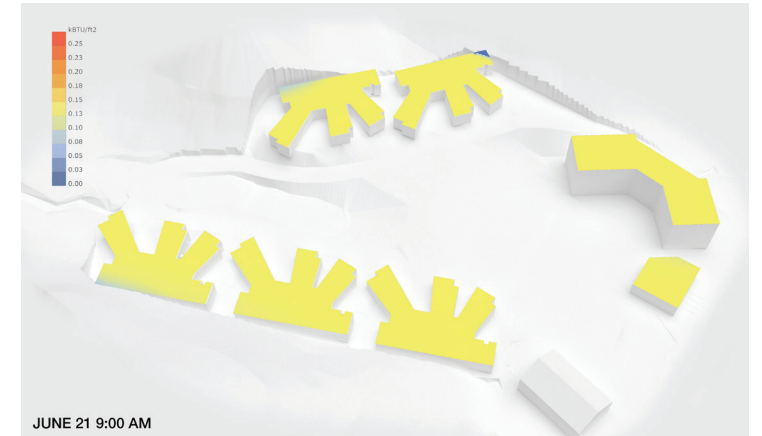


4:00pm

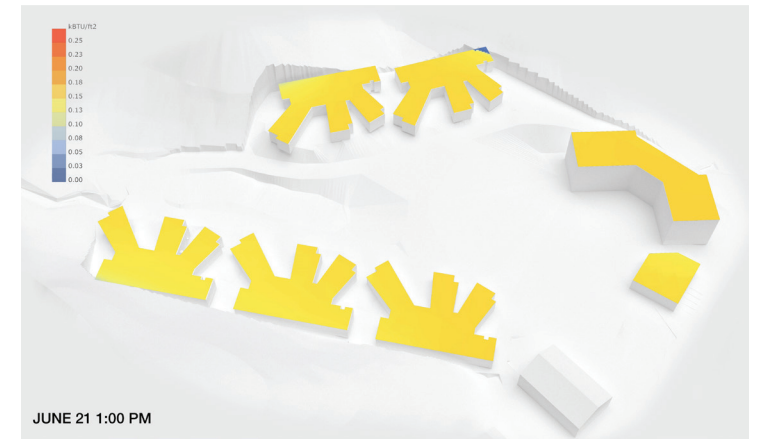


June 21

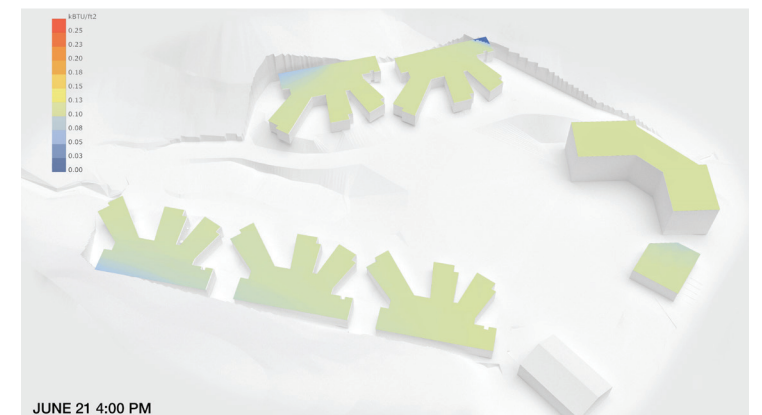
9:00am



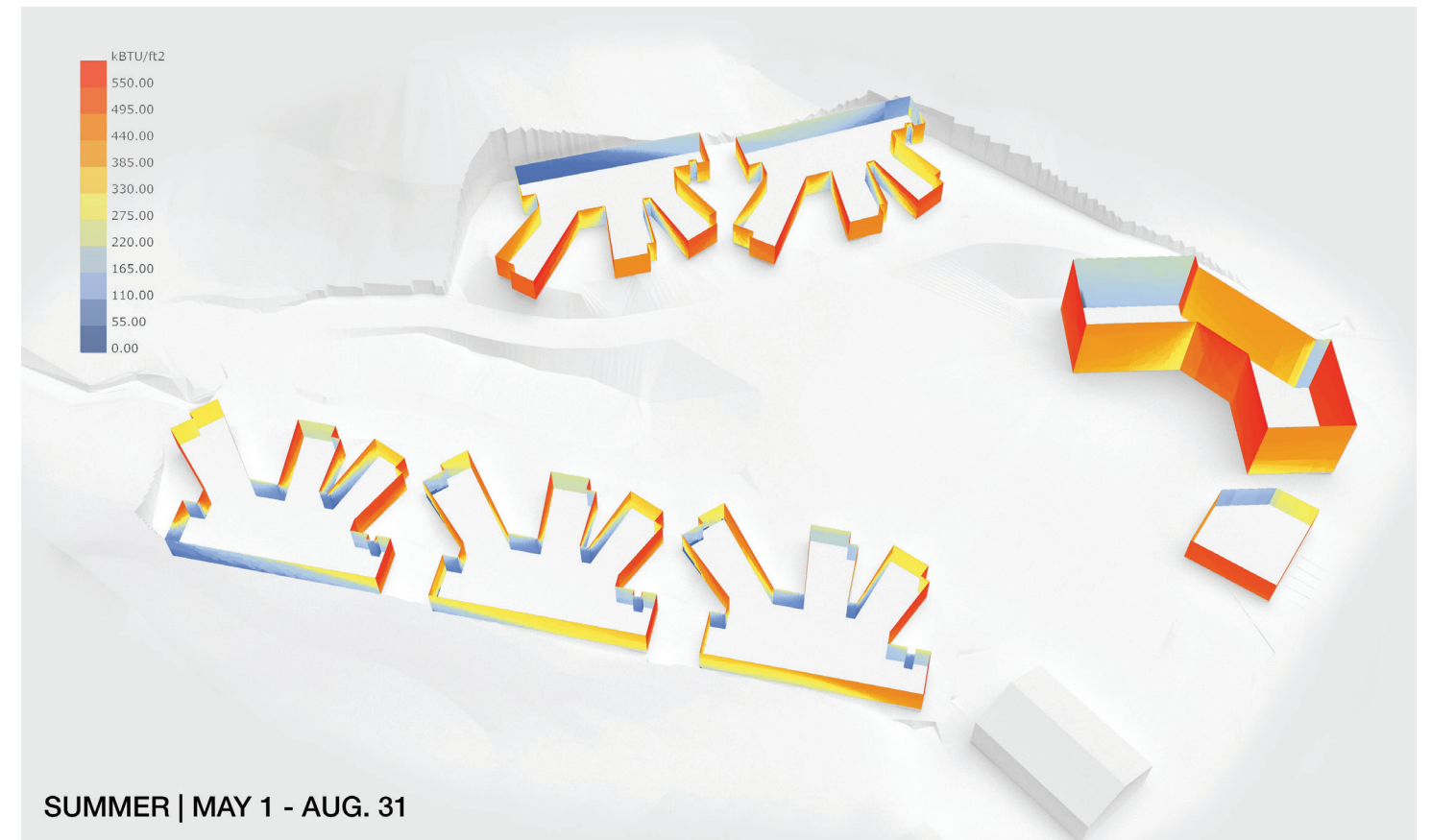
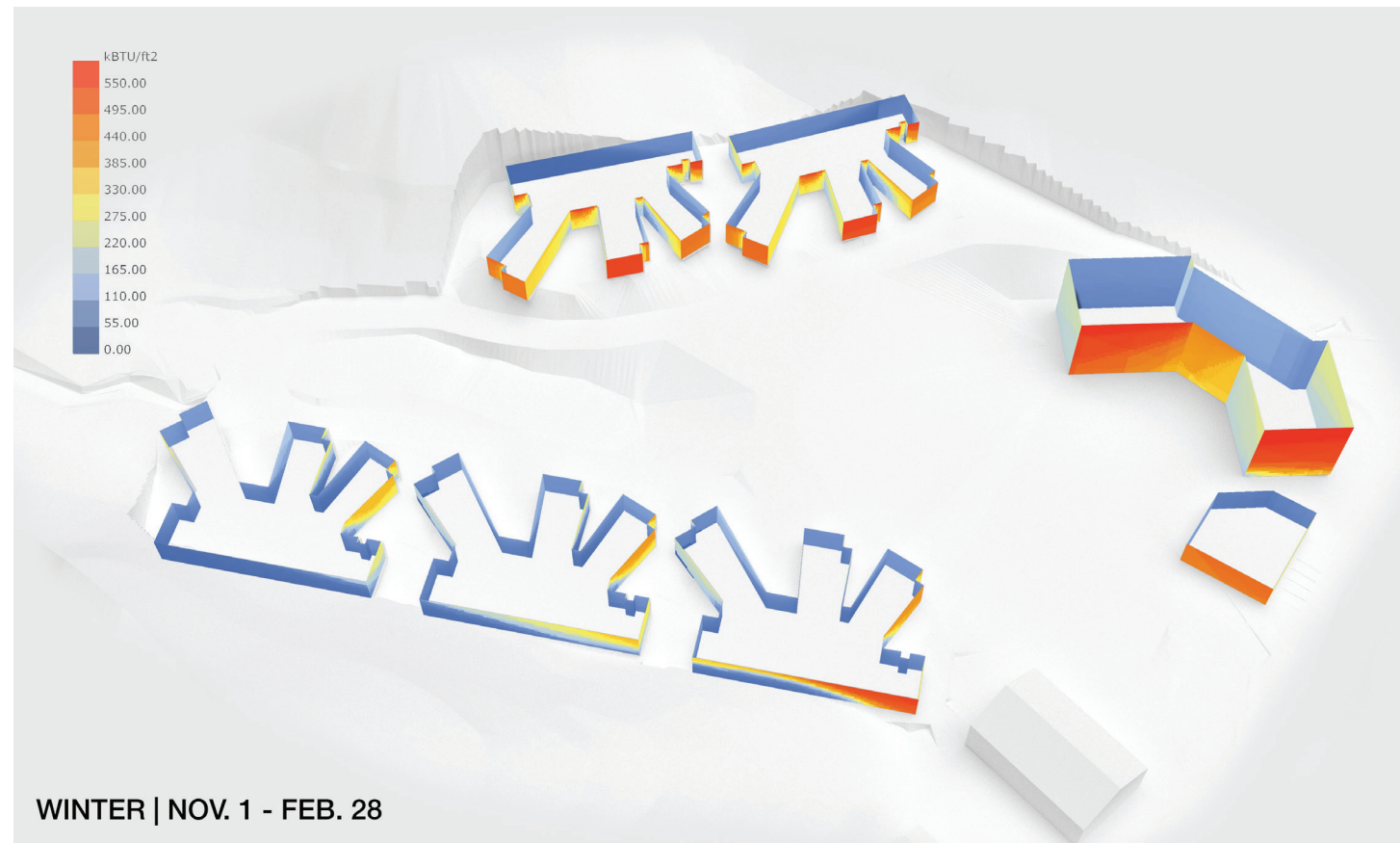
1:00pm



4:00pm



Solar Insolation on Wall Surfaces



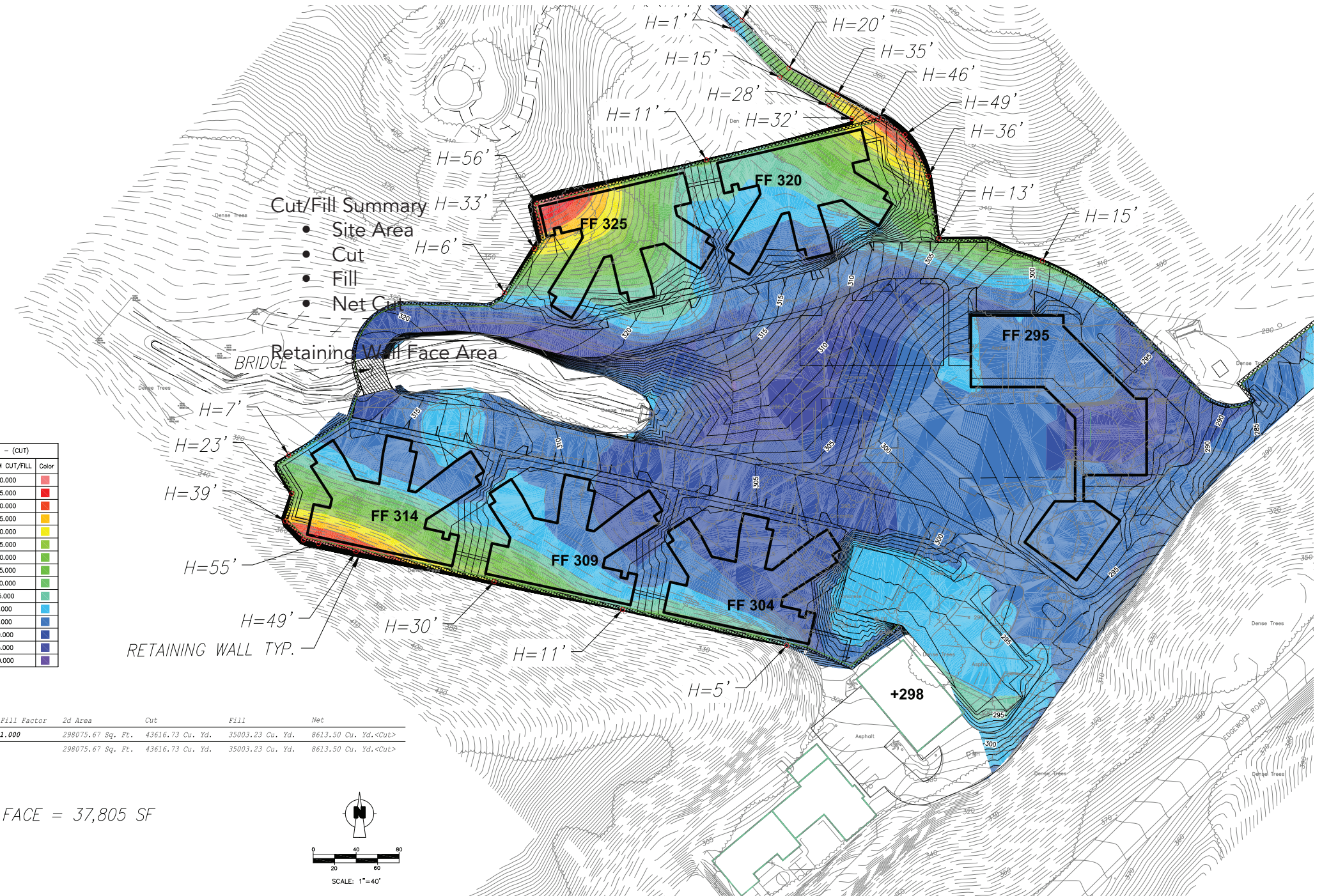
These vignettes depict the amount of solar radiation energy on each of the buildings' walls, measured in kbtu/ft2. The purpose of these diagrams is to understand sun exposure of the exterior enclosure as we begin to look at building fenestration (windows) in the Schematic Design phase.

Concept Earthwork Analysis

Cut/Fill Summary

- Site Area 298,075
- Cut 43,616
- Fill 35,003 cu yd
- Net Cut 8,613 cu yd

Retaining Wall Face Area 37,805 sf



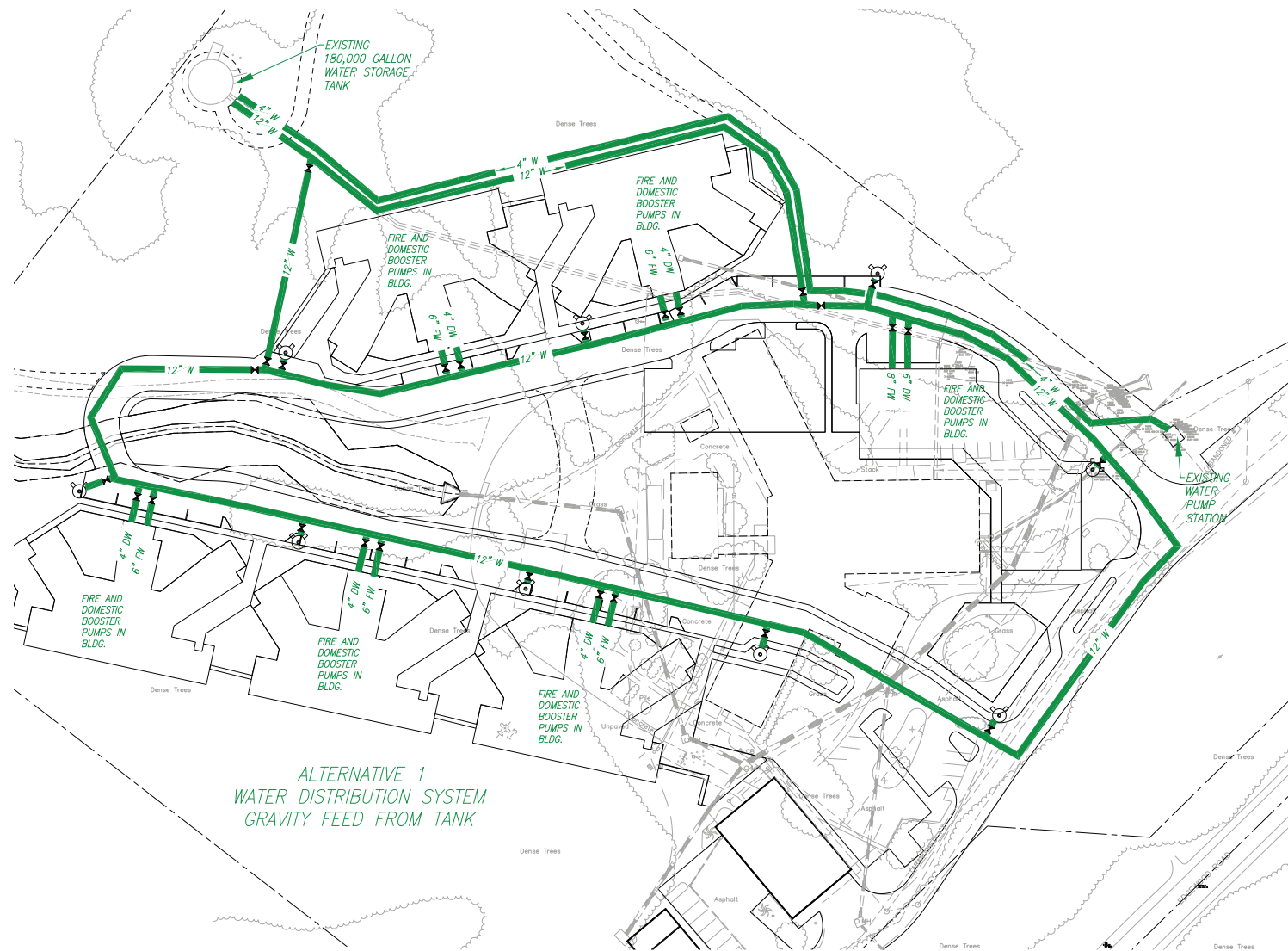
EARTHWORK TABLE + (FILL) - (CUT)			
Number	MINIMUM CUT/FILL	MAXIMUM CUT/FILL	Color
1	-55.000	-50.000	Red
2	-50.000	-45.000	Red-Orange
3	-45.000	-40.000	Orange
4	-40.000	-35.000	Yellow-Orange
5	-35.000	-30.000	Yellow
6	-30.000	-25.000	Light Green
7	-25.000	-20.000	Green
8	-20.000	-15.000	Light Green
9	-15.000	-10.000	Green
10	-10.000	-5.000	Light Green
11	-5.000	0.000	Light Blue
12	0.000	5.000	Blue
13	5.000	10.000	Light Blue
14	10.000	15.000	Blue
15	15.000	20.000	Dark Blue

Cut/Fill Summary

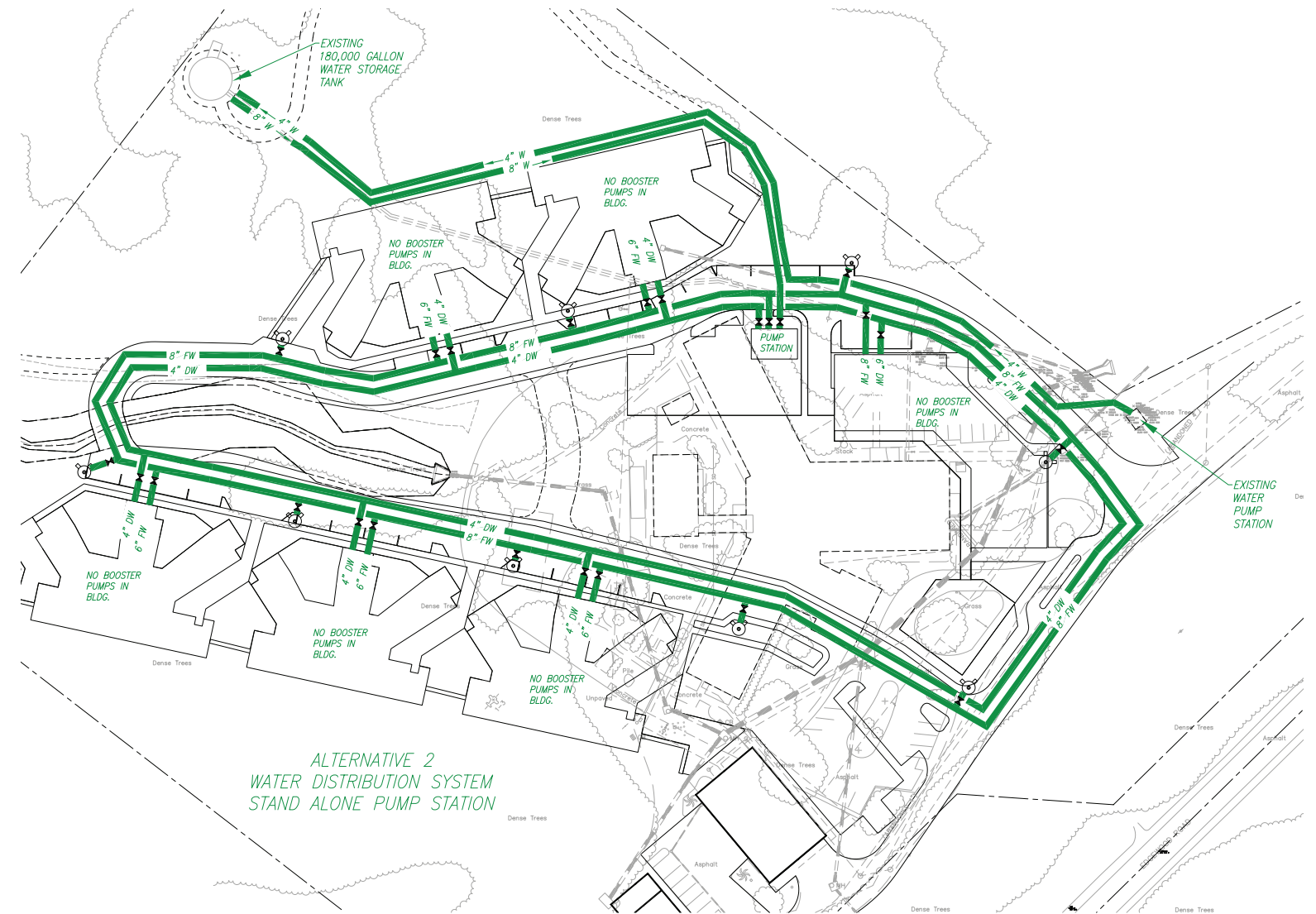
Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
EARTHWORK VOLUME	1.000	1.000	298075.67 Sq. Ft.	43616.73 Cu. Yd.	35003.23 Cu. Yd.	8613.50 Cu. Yd.<Cut>
Totals			298075.67 Sq. Ft.	43616.73 Cu. Yd.	35003.23 Cu. Yd.	8613.50 Cu. Yd.<Cut>

RETAINING WALL FACE = 37,805 SF

Concept Utility Plans - Water System

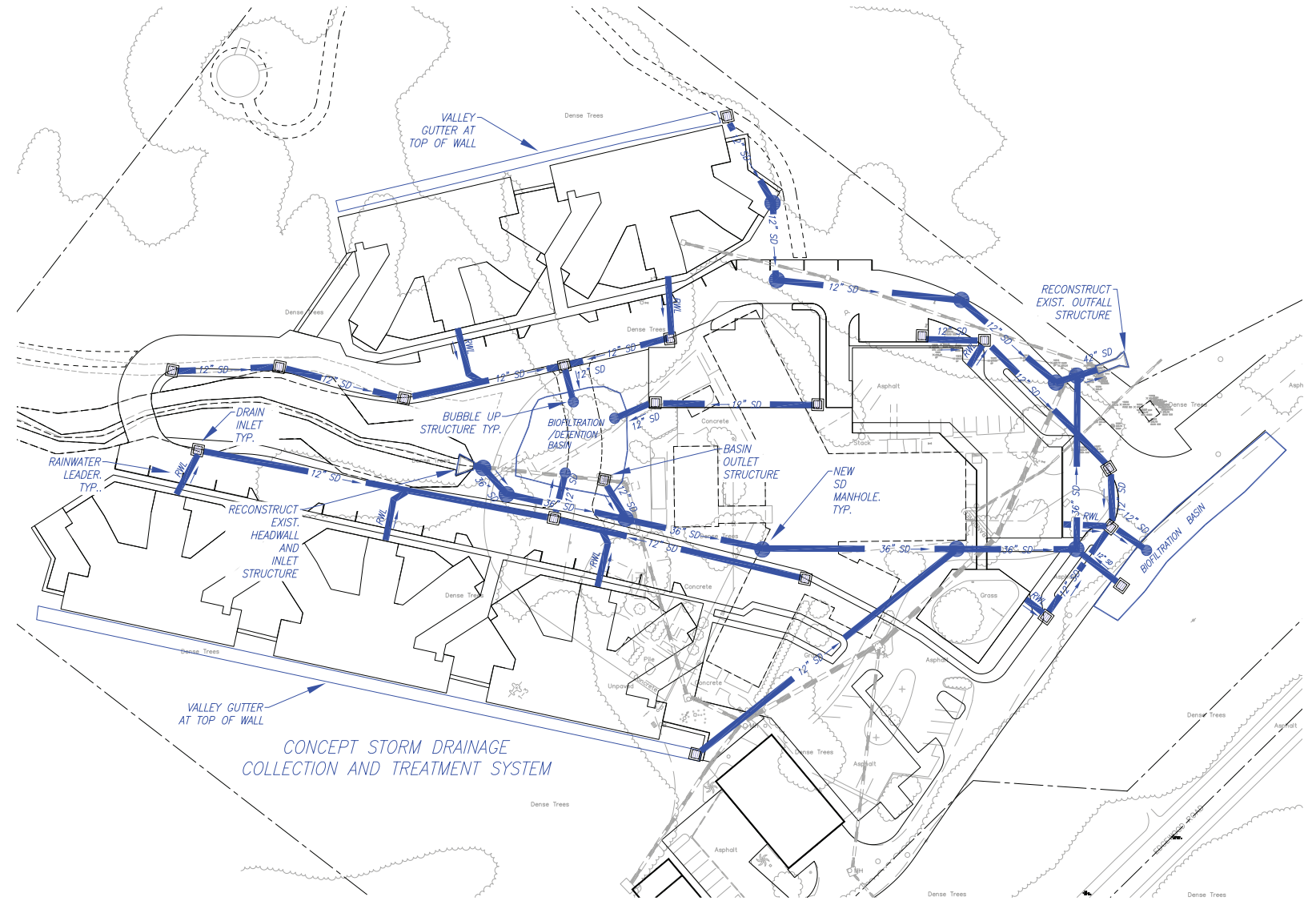


Alternate 1 - Gravity Feed From Existing Water Tank Conceptual Layout



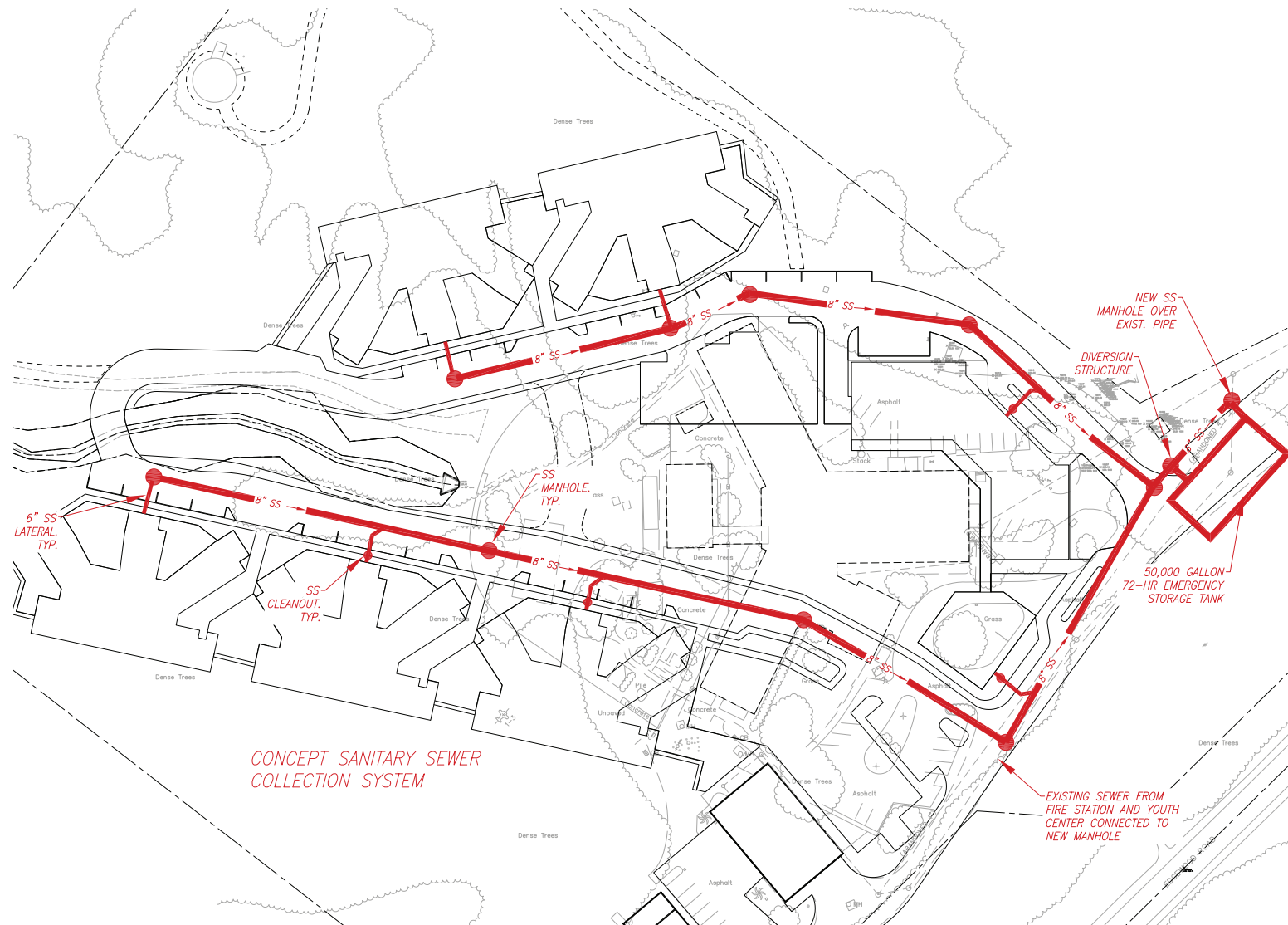
Alternate 2 - Stand-alone Pump Station Conceptual Layout

Concept Utility Plans - Stormwater System

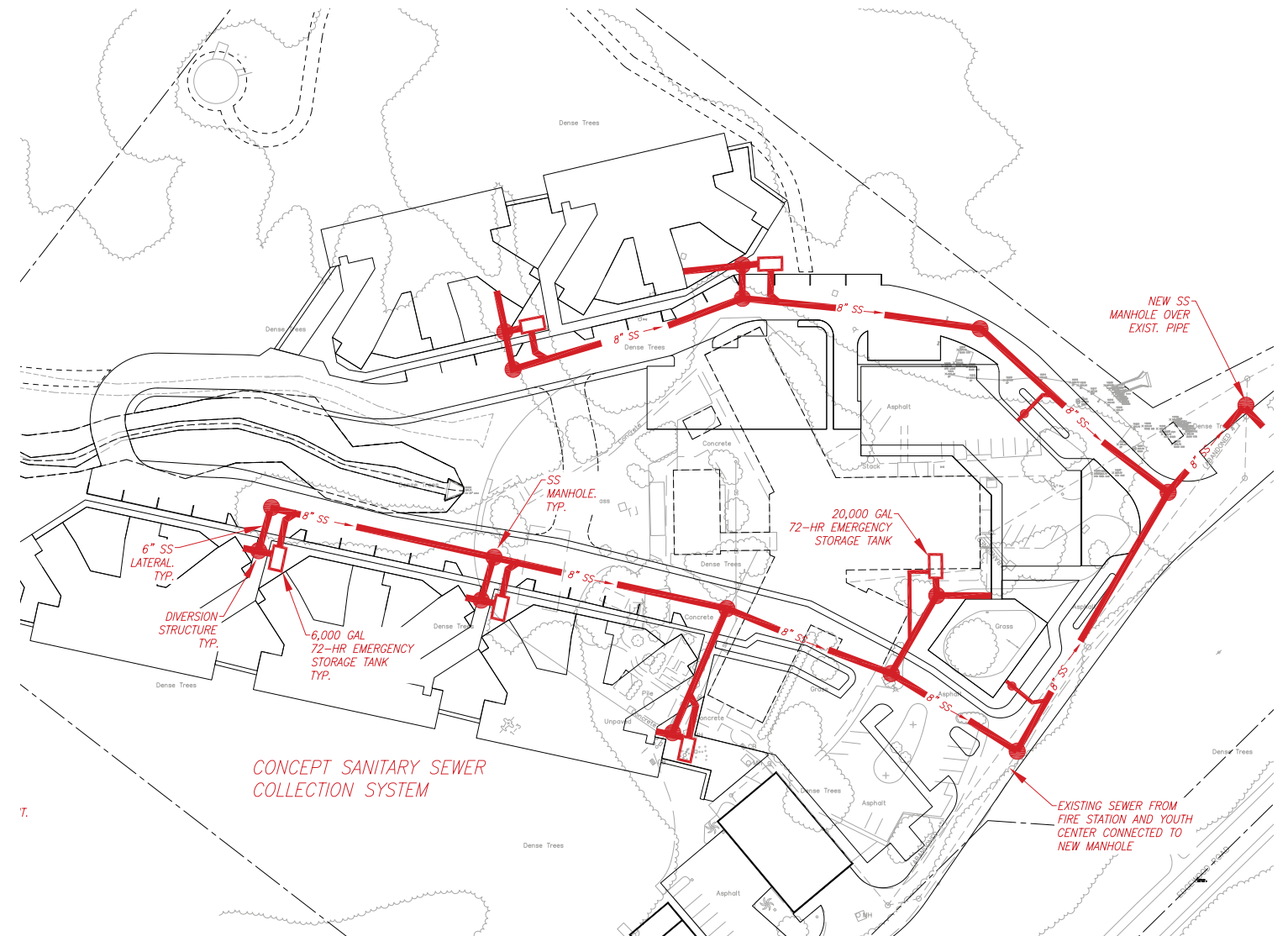


Storm Drainage Collection & Treatment Conceptual Layout

Concept Utility Plans - Sanitary Sewer System



Alternate 1 - Sanitary Sewer Conceptual Layout



Alternate 2 - Sanitary Sewer Conceptual Layout

Site Parking Analysis

SH 1st Floor



SH Floors 2 - 4



MHRC 1st Floor



1,831 SF (@ 4 stalls per 100 sf)	73.24 stalls (73)
6,372 SF (@ 1 stall per 200 sf)	31.9 stalls (32)
Total stalls for SH:	105 stalls

19 beds (@ 1 stall per 5 beds)	3.8 stalls x 3 floors =11.4 stalls (11)
1,037 SF (@ 1 stall per 200 sf)	5.2 stalls x 3 floors =15.6 stalls (16)
Total stalls for SH:	27 stalls

16 beds (@ 1 stall per 5 beds)	3.2 stalls (3)
2,249 SF (@ 1 stalls per 200 sf)	11.2 stalls (11)
Total stalls for MHRC:	14 stalls

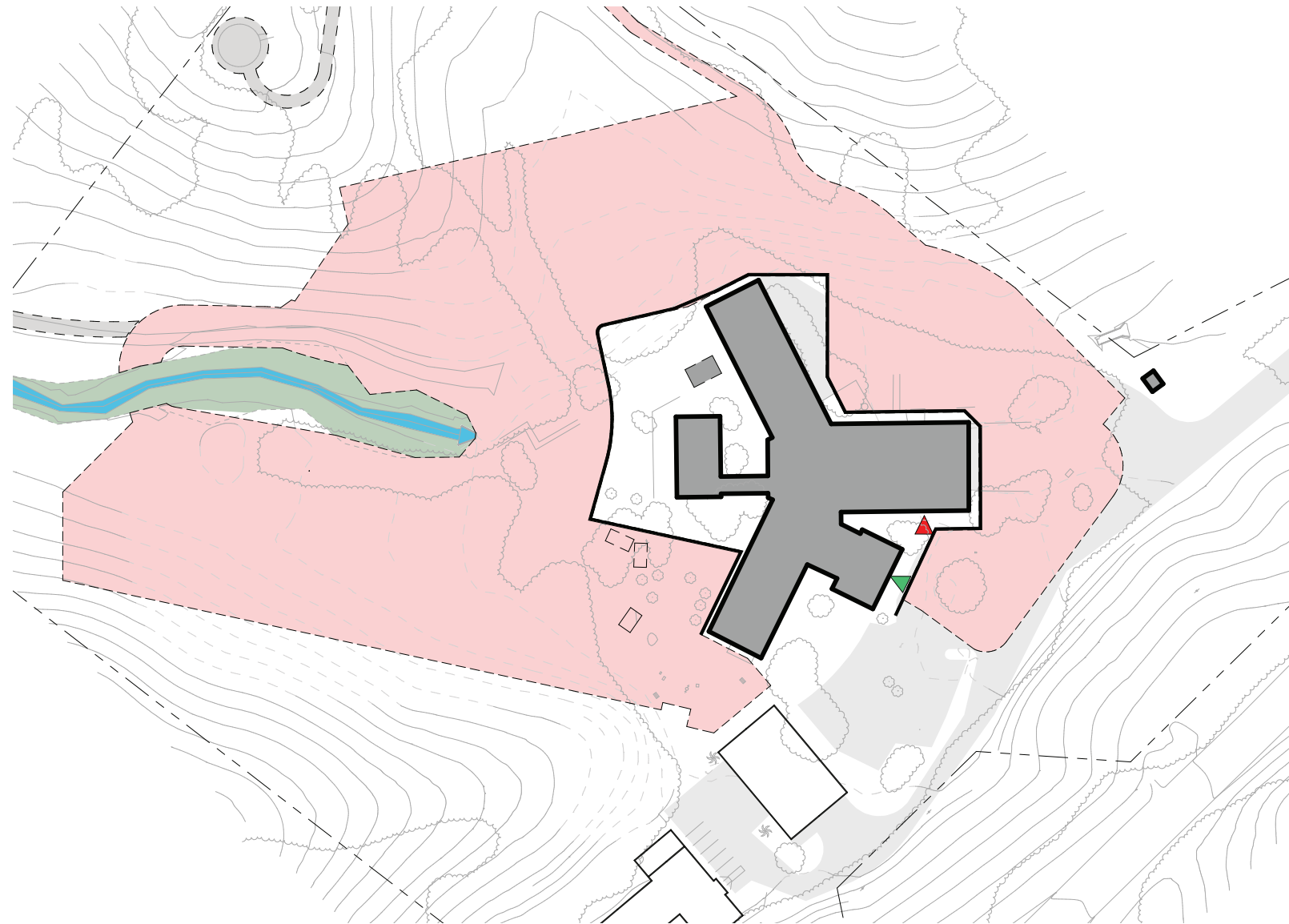
MHRC's	70 stalls
Supported Housing	132 stalls
Total stalls for CHSR:	202 stalls

This preliminary parking study is based on the January 2018 San Mateo County Zoning Code and the concept floor plans for the MHRC and Supported Housing buildings presented in this Concept Phase Report. Section 6619 "Parking Spaces Required" of the Zoning Code shows different parking count formulas based on the use of the facility. For this project, we have assessed that "Convalescent Homes, Skilled Nursing Facilities, Hospitals" (requiring 1 stall per 5 beds), "Dance Halls, Assembly Halls Without Fixed Seats, Exhibition Halls, Meeting Halls, Clubs, Card Rooms" (requiring 4 stalls per 100 sf of floor area), and "Medical or Dental Clinic, Banks, Business Offices, Professional Offices" (requiring 1 stall per 200 sf floor area) are applicable, and are broken down in the diagrams on this page. The bridging documents from HGA suggest 125 stalls for this facility, presumably only based on a parking demand study (reference page 195 of the bridging documents program) and not the zoning code. Further discussions with County of San Mateo Planning & Building is needed to clarify parking requirements. Existing parking counts for Fire Station #18 and Canyon Oaks Youth Center is assumed to remain as existing.

05 Concept Site Phasing

1 - SITEWORK - Site Clearing / Rough Grading / Utilities

- Site Clearing
- Temporary Barrier
- Reduced parking capacity
- Relocation of building service entrance
- Existing main entry unchanged
- Existing recreation area reduced
- Existing auditorium remains in service



Client Bed Count

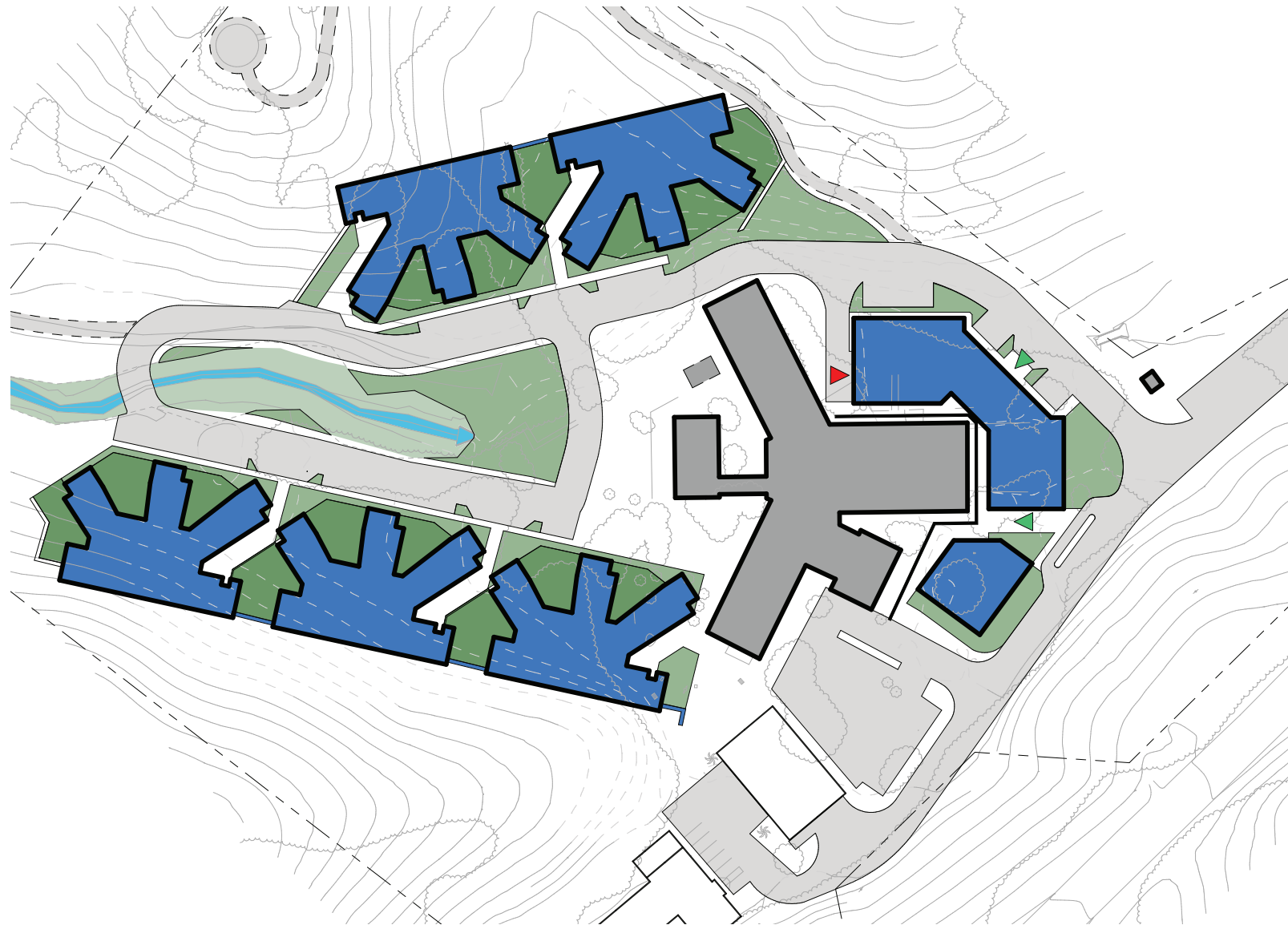
Independent	This Phase		
Existing	49	49	0
New	0	0	57
Secured			
Existing	68	68	0
New	0	0	80
TOTAL	117	117 - 20 = 97	137

2 - NEW CONSTRUCTION - All Buildings

- Building loop road with temporary lollipop configuration
- Demo/Relocation of small structures
- Construct 5 new MHRCs
- Construct new Supported Housing & Campus Center
- Temporary barrier adjusted and reduced
- Existing building and reaction area in use during construction

Client Bed Count

Independent		This Phase	
Existing	49	49	0
New	0	0	57
Secured			
Existing	68	68	0
New	0	0	80
TOTAL	117	117 - 20 = 97	137



3 - DEMOLISH EXISTING BUILDING

- Client Relocation to new buildings
- Site clearing in center
- Demolish existing building
- Temporary Barrier remains in service until demolition and site clearing complete



Client Bed Count

Independent			This Phase
Existing	49	49	0
New	0	0	57
Secured			
Existing	68	68	0
New	0	0	80
TOTAL	117	117 - 20 = 97	137

4 - COMPLETION - Finish Grading / Landscaping

- Complete loop road & parking
- Final site work and landscaping
- Final grading

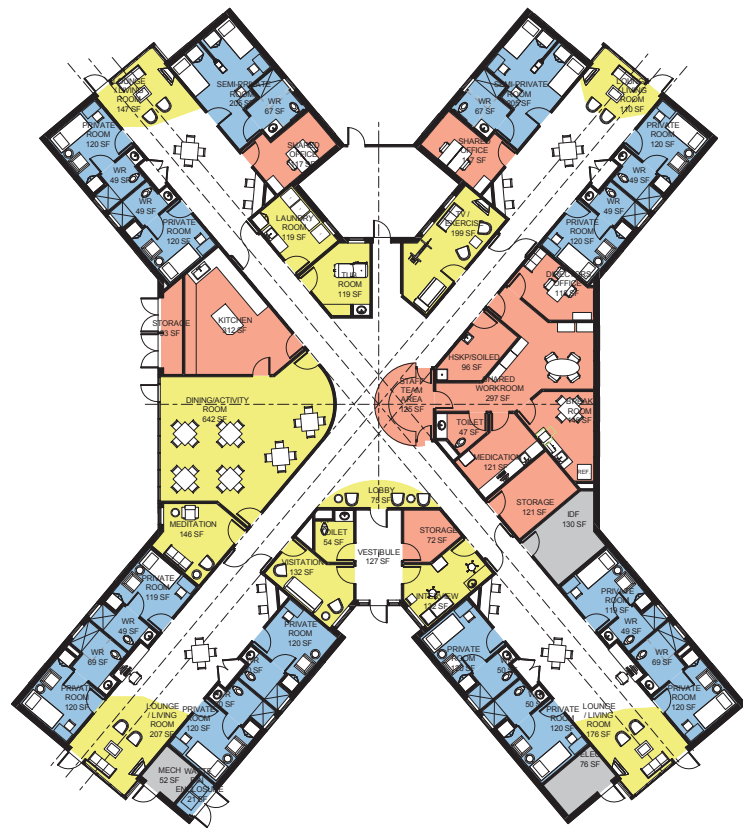


Client Bed Count

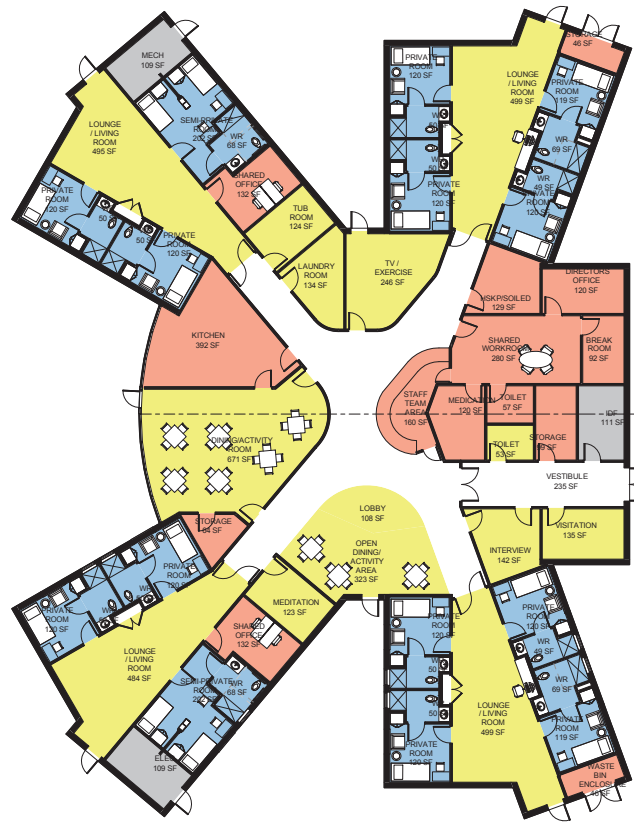
Independent			This Phase
Existing	49	49	0
New	0	0	57
Secured			
Existing	68	68	0
New	0	0	80
TOTAL	117	117 - 20 = 97	137

07 Concept Floor Plans

Alternate Floor Plan Studies



MHRC "X" Layout



MHRC "K" Layout



MHRC "4-finger" Layout

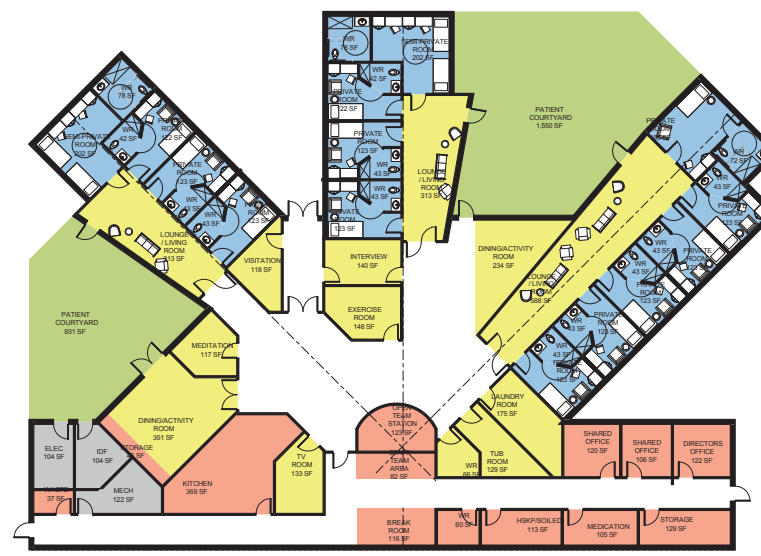
COLOR LEGEND

- BLDG SUPPORT
- CIRCULATION
- CLIENT BEDROOMS
- PUBLIC SPACE
- STAFF SPACE

Alternate Floor Plan Studies (cont'd)



MHRC "3-finger" Layout Option 1



MHRC "3-finger" Layout Option 2



MHRC "3-finger" Layout Option 3

COLOR LEGEND

- BLDG SUPPORT
- CIRCULATION
- CLIENT BEDROOMS
- PUBLIC SPACE
- STAFF SPACE

MHRC 3-Wing Plan



COLOR LEGEND

- BLDG SUPPORT
- CLIENT BEDROOMS
- EXTERIOR PROGRAM
- PUBLIC SPACE
- STAFF SPACE

The MHRC plan selected as basis of design for this Concept Phase is the result of collaborative dialogue and the analysis of multiple options and iterations in tandem with distinct site approaches.

- The “three-finger” configuration satisfied several desired benefits.
- Foremost, the design engaged the canyon edges allowing for improved views and open green space on the whole site, an approach which provided several logistical benefits.
- Clear gradation between private patient space, communal patient space, and staff-only space
- Potential for a larger client courtyard and 2 addition courtyard spaces for more patient, choice, variety, and access to nature.
- Enclosed Dining / Activity Room in addition to a large open activity area
- Distinct Entries – “on-stage / off-stage” separation.

The evolution of the MHRC plan will continue in the schematic design phase to advance the desired balance between functionality, Safety, Campus Engagement, Logistics and the Therapeutic Platform to meet the desired outcomes.

10,850 GSF

Supported Housing Plans

The Campus Center and Supported Housing plan and location are integral in achieving a single phase approach. The Campus Center and Supported housing plan selected as basis of design for this Concept Phase is a hybrid of two similar studies in this location that were presented in Workshop Two (2). Advantages of both options were combined to form a single direction for development in the schematic design phase.

Some desired benefits of this configuration are:

Campus Center

- Loading at Northwest with Back-of-House Circulation
- Kitchen Located with Service spaces and separated from Admin, Clinical functions.
- A single point of arrival on the ground level
- More pronounced lobby / gathering space
- Conference Rooms accessible from the lobby for added flexibility.
- A detached multi-purpose room

Supported Housing

- Back-of-House Circulation
- 2 Distinct Bed Wings
- Central Sub-Dividable Dining / Activity Room with view, daylight, outdoor space.



07 Appendix



CREATING THE FUTURE OF BEHAVIORAL HEALTHCARE IN SAN MATEO COUNTY
Cordilleras Mental Health Center Replacement Project

1. Introductions

CANNONDESIGN

WORKSHOP 1 Agenda

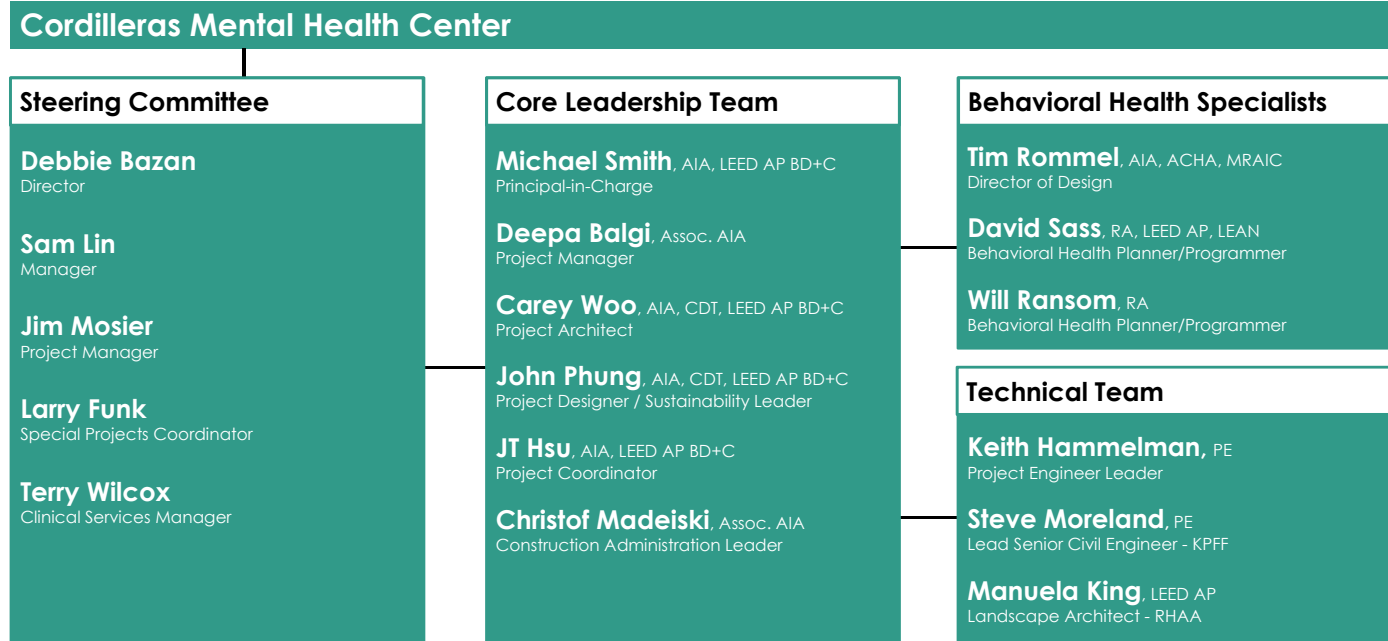
Day 1 - Wednesday March 21				Day 2 - Thursday March 22			
AM	9	1. Introductions	20 Mins	AM	9	11. Visioning + Goal Setting	80 Mins
	9:20	2. Core Team & Communications	20 Mins		10:20	12. Site Design	80 Mins
	9:40	3. Project Schedule	40 Mins		11:40	13. Site Tours	10 Mins
	10:20	4. Break	10 Mins		11:50	14. Recap & Next Steps	10 Mins
	10:30	5. Program Validation	90 Mins				
PM	12	6. Lunch	60 Mins				
	1	7. Sustainable Design Strategies	90 Mins				
	2:30	8. Break	15 Mins				
	2:45	9. Biophilic Design + Domesticity	45 Mins				
	3:30	10. Food for Thought	30 Mins				

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2. Core Team & Communications

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Project Organization



CANNONDESIGN

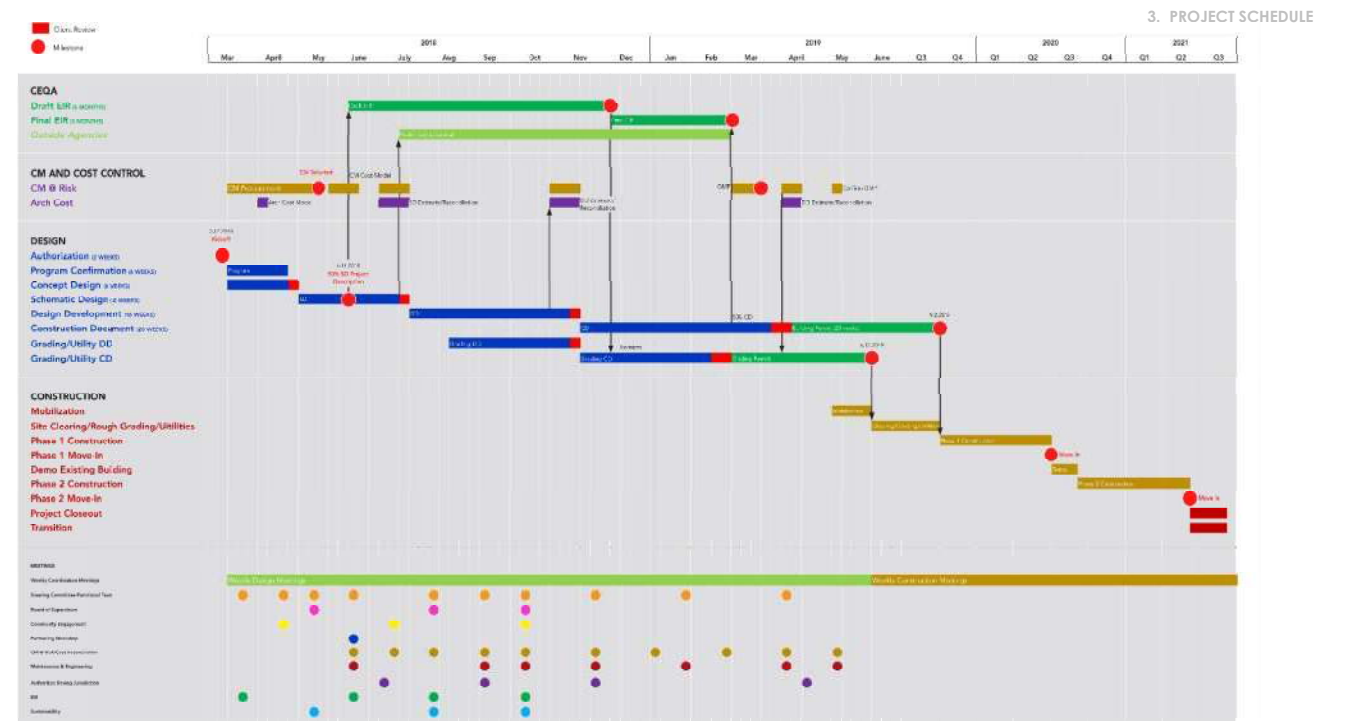
Concept Design Phase Scope

3. Description of Basic Scope of Services by Phase
- 3.1 Research, Concept Design, and Programming Phase
- This phase establishes overall direction for the Project, identifies participants and their defined roles and responsibilities, defines communication protocol and decision-making procedures, and establishes budget and schedule guidelines.
- 3.1.1 Research
- 3.1.1.1 Identify high level vision, goals, and objectives for the Project by conducting visioning/programming workshop(s) and interviewing with users/stakeholders.
 - 3.1.1.2 Identify and document space and program needs to support efficient operations.
 - 3.1.1.3 Define strategies and available/required research to support these requirements.
 - 3.1.1.4 Coordinate and attend two (2) trips with key members of Architect team to four comparable existing facilities if the Owner elects to do so during this phase. Facilities will be collaboratively selected together with Owner's team.
- 3.1.2 Concept Design and Programming
- 3.1.2.1 Architect shall review and utilize any relevant existing information available in all work performed. Architect shall be responsible for verifying any information prior to using it, except with regard to site survey, geotechnical report, hazard survey and abatement, and Owner furnished tests and inspections as required by law or the Contract Documents. Architect shall prepare and present conceptual design to demonstrate understanding of the conceptual program and propose ideas and options about appropriate design solutions.
 - 3.1.2.2 Architect shall coordinate and document square footage requirements of the spaces for the functions and program elements. At the conclusion of this phase, Architect shall submit up to three conceptual plans, architectural space program and a letter of concurrence and/or acceptance of the current and/or revised program to PDU for review, select and approve as the basis for moving forward into Schematic Design.
 - 3.1.2.3 Architect shall develop and utilize space adjacency diagrams to demonstrate the relationship between spaces. Architect shall develop and review the program thoroughly and recommend appropriate adjustments. Updates to the program shall be clearly documented to track where changes are made and submit to PDU for final approval.
 - 3.1.2.4 Architect shall compile a preliminary list of specialized Furniture, Fixture and Equipment ("FF&E"), based on the room data provided in the Reference Design Document. The list shall delineate the needs and objectives of the security control, surveillance and communications as well as other systems.
 - 3.1.2.5 Architect shall furnish all program verification information and preliminary list of specialized FF&E, based on generic products, to PDU for preparation of a detailed Project budget.
- 3.1.3 Phasing, Demolition and Grading Strategy
- The Phasing, Demolition, and Grading package will include:
- 3.1.3.1 Site Plan clearly delineating the area of Work, phasing strategy and demolition extent.
 - 3.1.3.2 Demolition and Grading plans with a statement of work clearly specifying the scope of Work included to facilitate continuous undisturbed operation of the facilities at the existing Cordilleras Health System Hospital facility during the entire project duration, and the timing and sequence for the demolition of the existing buildings.
 - 3.1.3.3 Integration of site remediation plans and specifications prepared by with the Owner's environmental consultant.
 - 3.1.3.4 Work on this package will begin in the Concept Design and Programming Phase and will be finalized in the Design Development Phase and submitted as a separate package for approval by the Authorities Having Jurisdiction, in accordance with the approved Project Schedule.

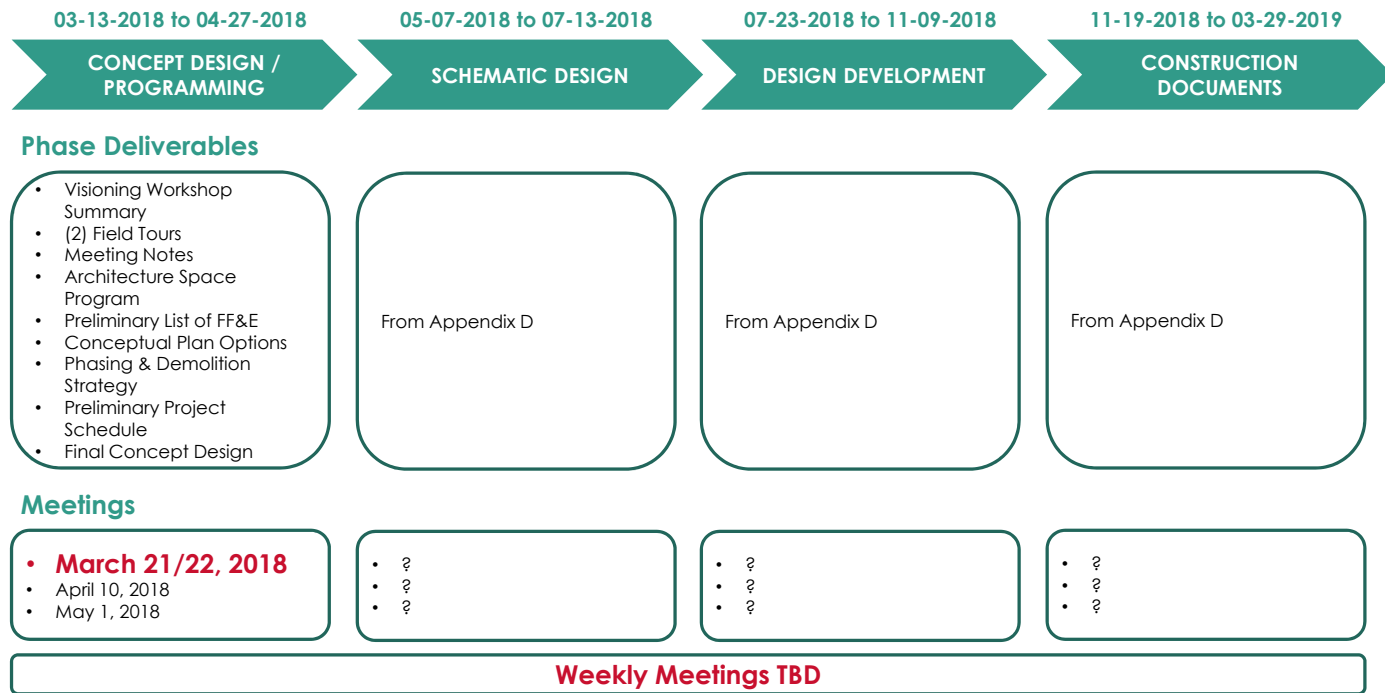
CANNONDESIGN

3. Project Schedule

CANNONDESIGN

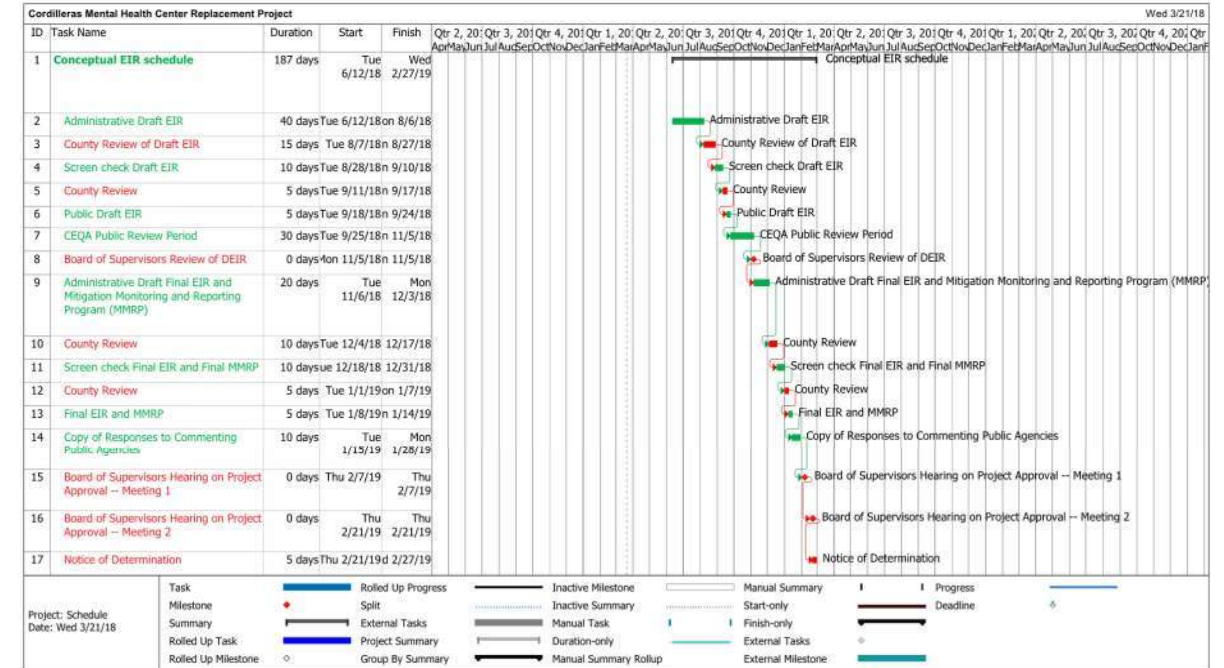


CANNONDESIGN



CANNONDESIGN

EIR Schedule



CANNONDESIGN

CEQA Requirements

Project Description

- Functional Floor Plans
- Site Development Plan
- Phasing
- Mass Grading
- Utilities
- Stormwater Treatment and Detention
- Impact to Endangered Species Habitats
- Impact to Stream Banks

Environmental Permitting

- US Army Corp of Engineers, Section 404
- Regional Water Quality Control Board, Section 401
- California Dept. of Fish and Wildlife -- Lake and Streambed Alteration Agreement
- Nationwide Permit
- U.S. Fish and Wildlife

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Planning & Building Permitting

County Planning Approvals

- Zone RM. Height Limit. Process for Exception
- Parking

County Building Approvals

Erosion Control & Tree Protection Pre-Site Inspection

Stormwater Drainage and Encroachment Permit

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4. Break

We will start back at 10:30am

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5. Program Validation

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Program Summary and Comparison (from Design / Build proposal)

Written Program in RFP		Illus. Program in Ref. Design		Cannon Program from Pursuit	
MHRC's	58,644	MHRC's	59,080	MHRC's	54,500
Campus Center	17,580	Campus Center	17,318	Campus Center	17,246
Supportive Housing	33,415	Supportive Housing	31,409	Supportive Housing	29,140
Total	109,639	Total	107,807	Total	100,885

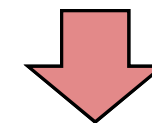
More closely align room sizes with California Building Code and FGI Healthcare Guidelines

- **Align bedroom sizes with California Building Code**
 - CBC calls for 120sf Private / 200sf Semi
 - Note: FGI calls for 100sf Private / 160sf Semi
- **Align Activity / Dining with FGI Healthcare Guidelines**
 - Total of 40sf per patient
 - Note: CBC calls for 30sf per patient

CANNONDESIGN

Program Summary and Comparison (from Design / Build proposal)

Written Program in RFP		Illus. Program in Ref. Design		Cannon Program from Pursuit	
MHRC's	58,644	MHRC's	59,080	MHRC's	54,500
Campus Center	17,580	Campus Center	17,318	Campus Center	17,246
Supportive Housing	33,415	Supportive Housing	31,409	Supportive Housing	29,140
Total	109,639	Total	107,807	Total	100,885



**Actual Area as Designed
in Bridging Documents
116,981 sf**



**Actual Area as Designed
in Design/Build Proposal
104,325 sf**

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MHRC Program and Layout

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MHRC – Key Program ?’s

- **Bedroom Size**
- **Activity / Dining**
 - Total area
 - # of Rooms
 - Access to Exterior
- **Kitchen Size**
- **Laundry, Tub, Meditation Sizes**
- **TV / Quiet & Exercise Rooms**
 - Total area
 - # of Rooms
 - Access to Exterior

Items presumably “off the table”

- **Private / Semi-private ratio**
- **# of Bed Wings**

Storage – Size and Distribution

CANNONDESIGN

MHRC – Benchmarks

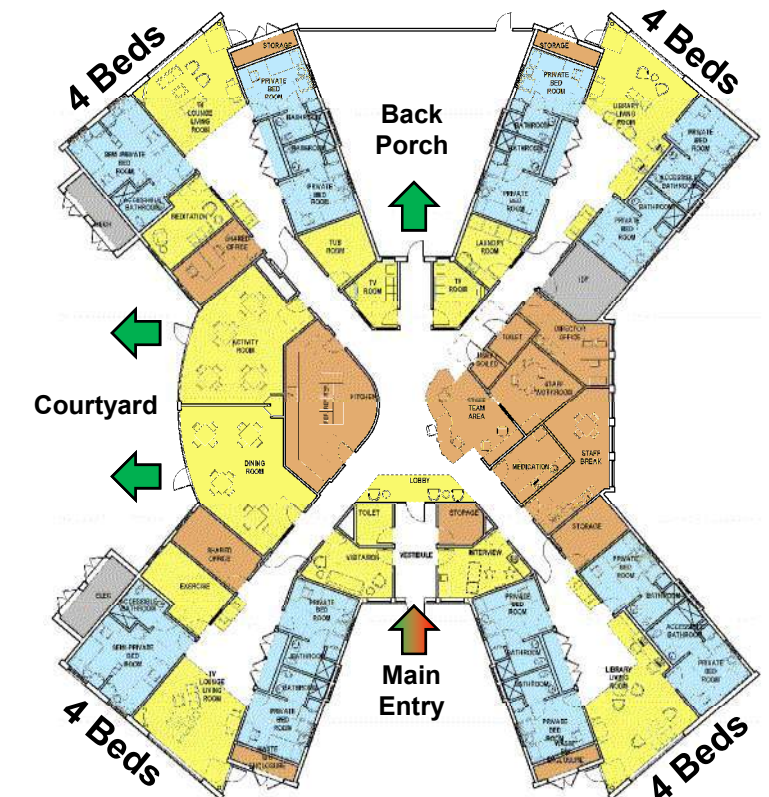
Key Room Benchmarking	California Building Code (CBC Chapter 12 OSHPD)	FGI Design Guidelines	Cordilleras Reference / Bridging Design	Cordilleras Cannon Design Proposal from D/B Pursuit	Sheppard Pratt (Maryland) Private	U. of Ariz. Pima County (Arizona) Public - County	Lindner Center of Hope (Ohio) Private	Virginia Treatment Center for Children (Virginia) Public - State (Adolescent)	Juravinski Centre (Ontario) Public - Provincial	Western State (Virginia) Public - State	Osawatimie State (Kansas) Public - State w/ Private Operator
Unit Size (# beds)	16	16	16	16	17	16	16	16	24	28	50
Bedroom Size (private)	120	100	140	120	135	120	150	190	180	130	120
Bedroom Size (semi-private)	200	160	240	200	200	N/A	N/A	N/A	310	N/A	180
Daytime Space (area per patient)	36	45	130	104	76	68	56	123	69	61	44
Living / Lounge	incl. in below	incl. in below	560	640	660	540	240	1100	540	800	1100
Dining / Activity	480	640	900	640	420	290	480	550	700	800	900
Library / Computer Space	not required	not required	140	incl. in Living	0	0	180	0	0	0	0
Meditation / Sensory Room	not required	not required	140	120	80	0	0	100	0	0	0
Exercise / Recreation	100	not required	140	120	0	0	0	0	0	0	0
Quiet / TV	not required	80	200	140	140	250	incl. in above	220	420	100	200
Consultation / Misc. Room Sizes											
Group Room	not required	225	0	0	285 (x2)	0	180	230	180, 200, 360	0	300 (x2)
Consult / Interview	no minimum req.	100	140	140	120 (x2)	100	100	180 (x2)	110 (x2), 150	110 (x2)	100 (x2)
Visitation	not required	100	140	140	120	130 (x2)	100	180	135	180	100
Laundry	not required	no minimum req.	140	120	75	60	80	190	140	160	80 (x2)
Tub Room	no minimum req.	no minimum req.	130	120	0	0	130	135	130	0	0

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MHRC – Reference Design

Key Objectives / Drivers

- **4-bed clusters**
- **Integrated living rooms**
- **Distributed staff**
- **Access to outdoors**
- **Corridor sightlines**



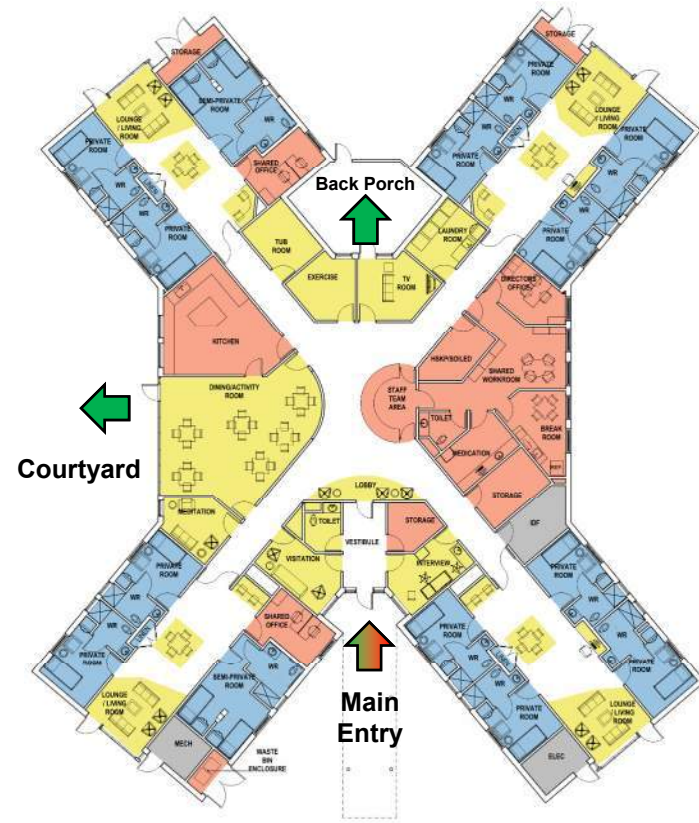
12,375 sf
135' x 151'

MHRC – Design / Build Proposal

Program Impacts

- **Align bedroom sizes with California Building Code**
 - CBC calls for 120sf Private / 200sf Semi
 - Note: FGI calls for 100sf Private / 160sf Semi
- **Align Activity / Dining with FGI Healthcare Guidelines**
 - Total of 40sf per patient (1 @ 640sf vs 2 @ 450sf)
 - Note: CBC calls for 30sf per patient
- **Reduce Tub, Laundry, Meditation, Exercise from 130 or 140 sf to 120 sf**
 - 120sf is larger than CBC or FGI Guidelines for rooms where minimums are given (often 100sf)
- **Reduce to 1 TV / Quiet Room (per Addendum)**
- **Soiled / Hskp. Increased to 100sf**

10,900 sf (1,475 sf smaller)
124' x 150' (11' narrower)

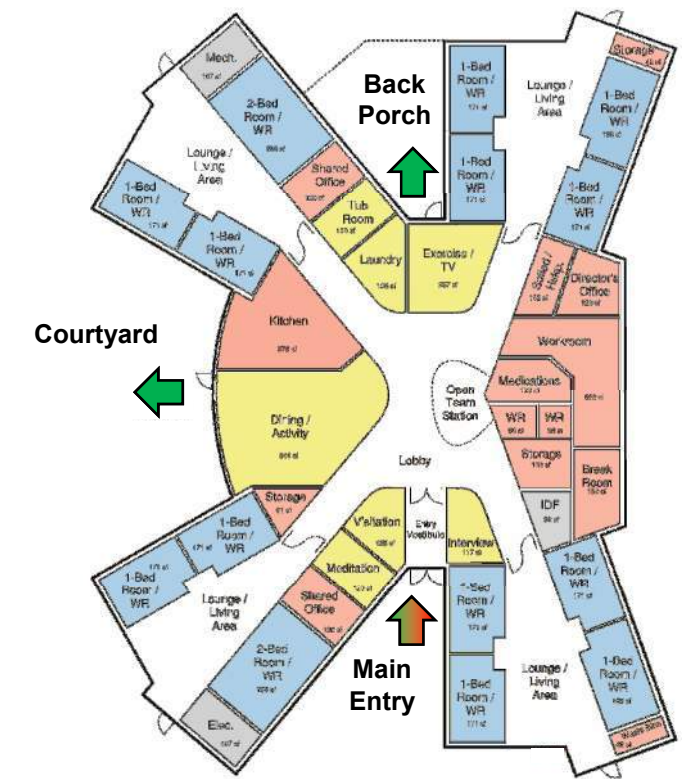


MHRC – Other Opportunities?

Functional Enhancements

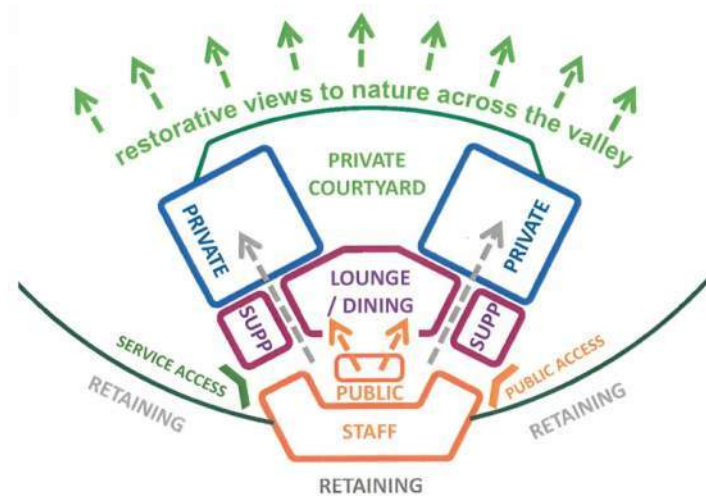
- **Maintain core County Objectives for MHRC's**
- **Compress width**
- **Bed Wing geometry considerations**

10,900 sf (same as previous)
112' x 147' (12' narrower than previous)



MHRC – Other Opportunities?

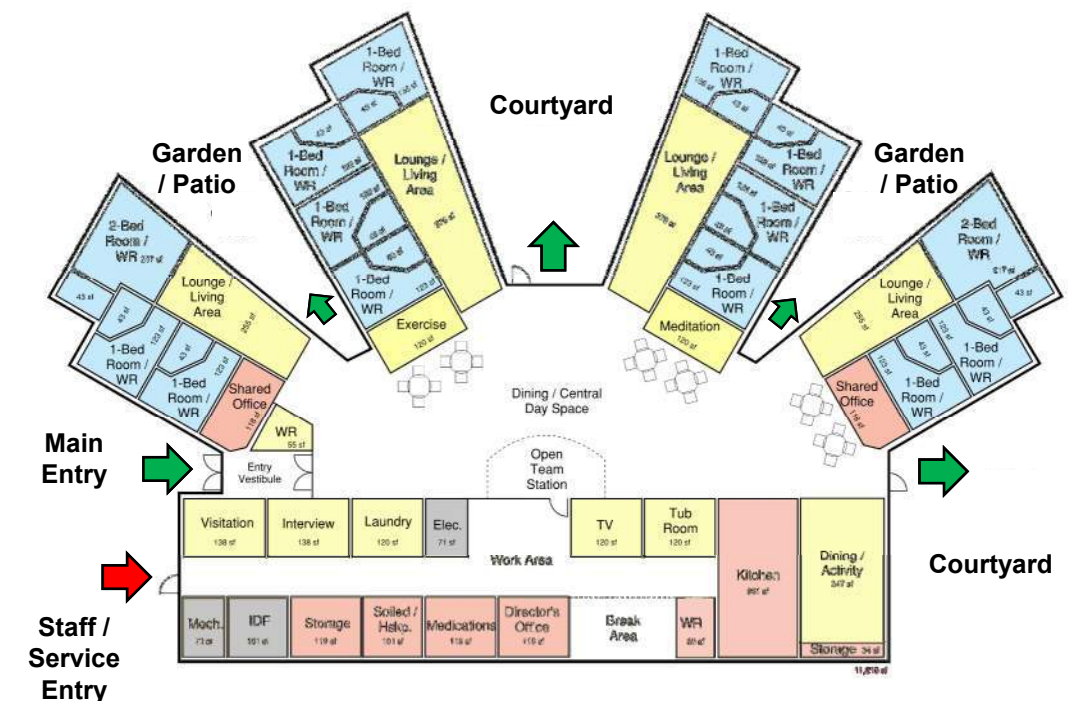
Engaging the Hillside



MHRC – Other Opportunities?

Alternate Site Concept

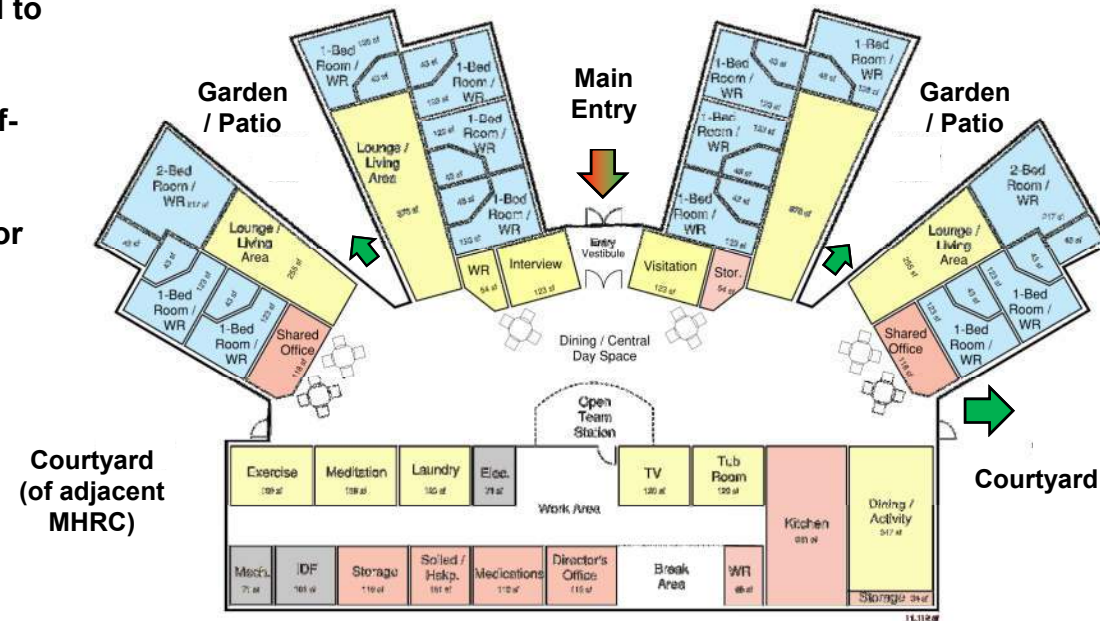
- **Engage MHRC's into hillsides**
- **Explore more on-stage / off-stage separation**
- **Consider open common area / separate Activity**
- **Consider alternate outdoor space access**
- **Internalize MEP rooms**



MHRC – Other Opportunities?

Alternate Site Concept

- Entry similar to “X” layouts developed to date
- Less on-stage / off-stage separation
- Impacts on outdoor space

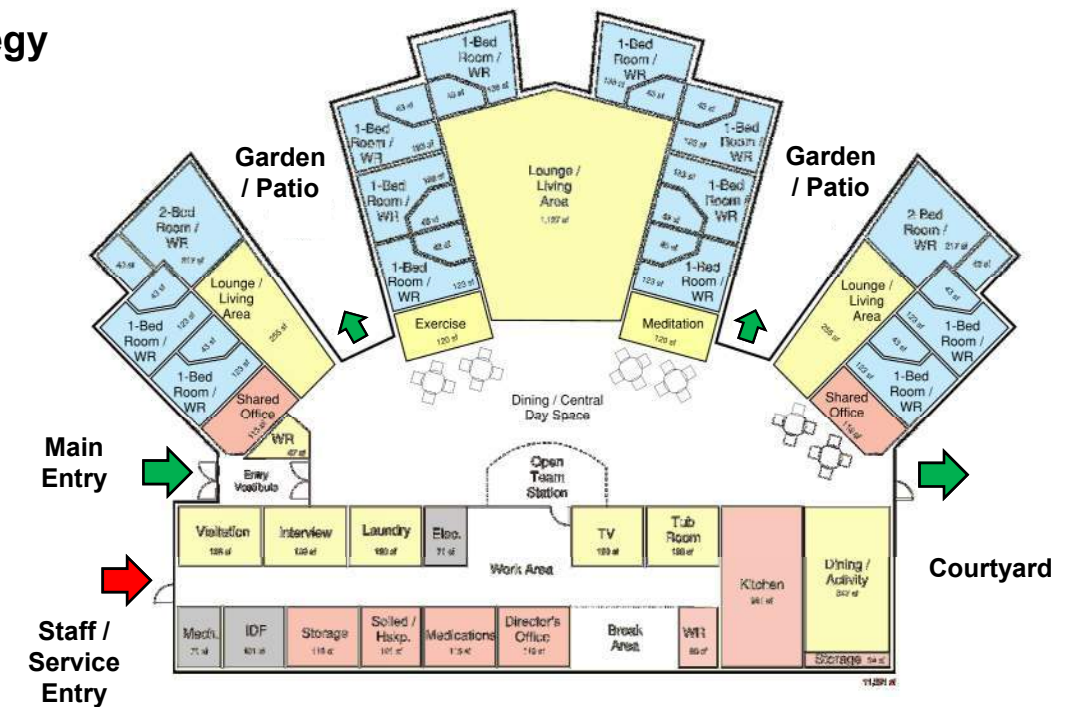


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MHRC – Other Opportunities?

Alternate Site Concept

- Is a 3-wing strategy relevant in this scenario?



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5. PROGRAM VALIDATION

Campus Center / Supportive Housing Program

Campus Center / Supportive Housing – Key Program ?'s

- Bedroom Size
- 2-Bed Rooms: Internal Layout and Relationship to Windows
- Activity / Dining
 - Total area
 - # of Rooms
- Access to Outdoor Space (Large and Small balconies)
- Staff Workrooms on Each SH Floor

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Campus Center (Level 1) – Reference Design

Key Objectives / Drivers

- **Public Zone Amenities**
- **Multi-purpose Room: Interior and Exterior Access**
- **Separate Admin. Zone**
- **Small Clinic**



Supportive Housing – Design / Build Proposal

Level 1 – Campus Center



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Supportive Housing (Levels 2, 3, 4) – Reference Design

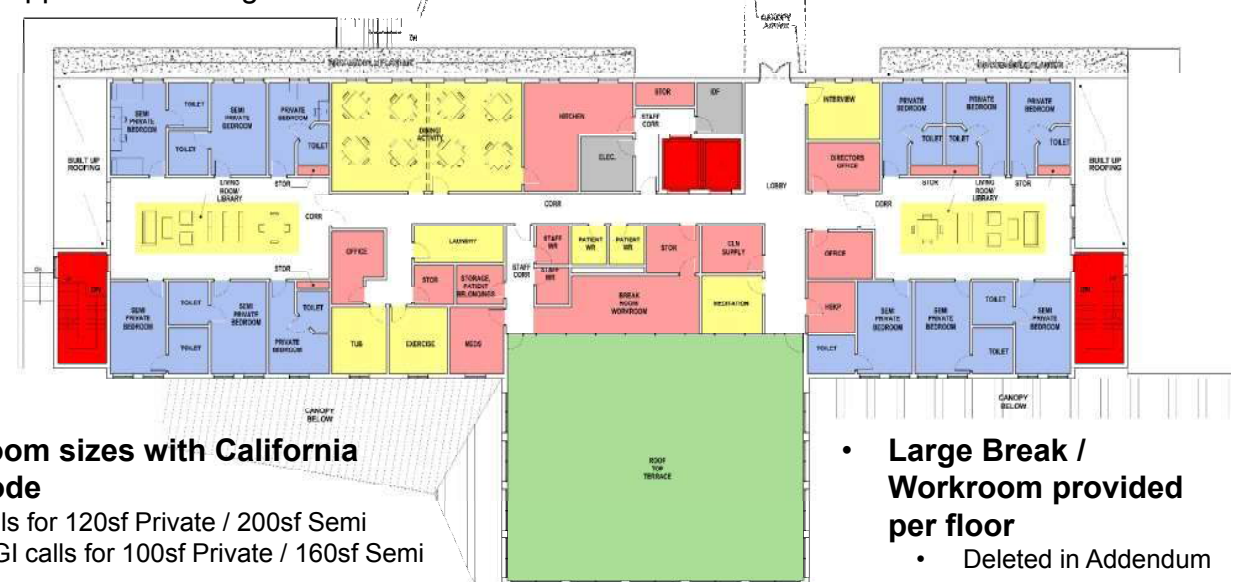
Key Objectives / Drivers

- **2 Bed Wings**
- **Integrated Living Rooms**
- **Access to Outdoor Terraces**
- **Distributed Staff**
- **Not as Restrictive as MHRC's**



Supportive Housing – Design / Build Proposal

Levels 2,3,4 – Supportive Housing Units



- **Align bedroom sizes with California Building Code**
 - CBC calls for 120sf Private / 200sf Semi
 - Note: FGI calls for 100sf Private / 160sf Semi
- **Align Activity / Dining with FGI Healthcare Guidelines**
 - Total of 40sf per patient (2 @ 380sf vs 2 @ 450sf)
 - Note: CBC calls for 30sf per patient
- **Large Break / Workroom provided per floor**
 - Deleted in Addendum

6. Lunch

We will start back at 1:00pm

7. Sustainable Design Strategies

7. SUSTAINABLE DESIGN STRATEGIES



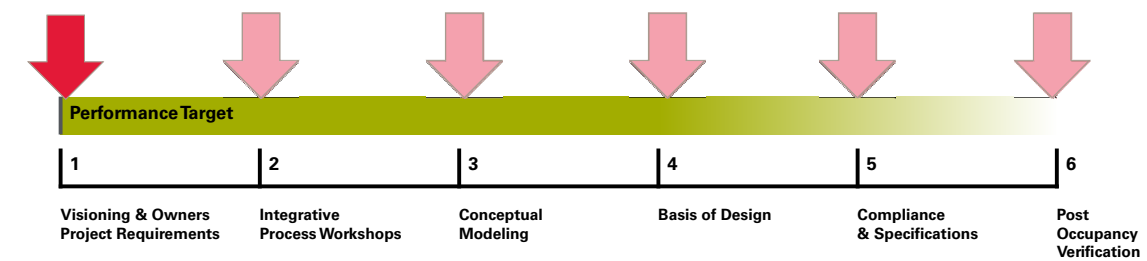
HOW DO YOU DEFINE SUSTAINABILITY?

1. Reuse
2. Conservation
3. Long-lasting
4. Affordable
5. Mitigating impacts
6. Local products
7. Systems
8. Reduced carbon impact
9. Mindset/culture



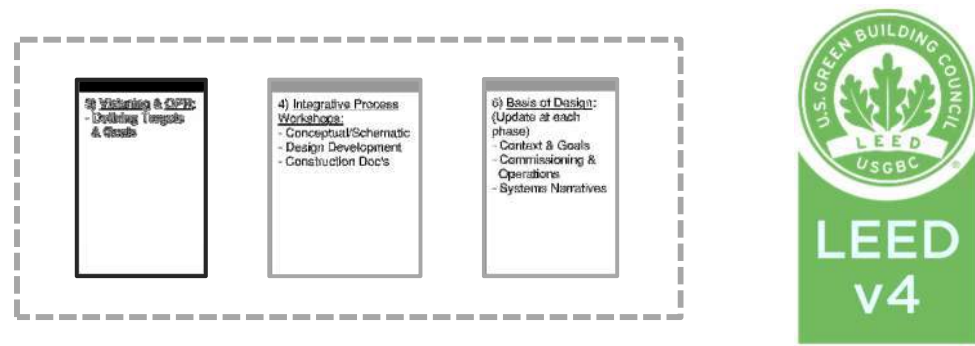
7. SUSTAINABLE DESIGN STRATEGIES

The purpose of this workshop is to ensure that we understand your building performance goals for this project (Engineering Systems, LEED certification, Netzero Energy).



We will document these goals via the Owner's Project Requirements.

The OPR is part of the fundamental commissioning process that is required for LEED.



- The OPR and the basis of design (BOD) are critical to LEED V4 (and 2009) certification since Fundamental Commissioning (Cx) is a prerequisite under EAp1.
- LEED V4 also has a strong emphasis on the integrative design process. These three components of our sustainable design process support the LEED V4 IP credits which are optional but highly valuable.

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Qualitative Goals

TOPIC:	DESCRIPTION:	MEASURABLE OUTCOMES:
INTEGRATED & INNOVATIVE DESIGN	"Sustainability is essential to design excellence, and vice versa. Projects should demonstrate the integration of sustainable performance and design excellence by highlighting how the design was shaped around the project's goals and performance criteria."	<ul style="list-style-type: none"> • Key Design Activities • Third Party Verification
REGIONAL & COMMUNITY DESIGN	"Sustainability is integrally tied to the social, political, cultural and economic health of our communities. Describe how these issues have informed the sustainable elements of this project and how this project has contributed to the richness and resilience of its community."	<ul style="list-style-type: none"> • Transportation
LAND USE & SITE ECOLOGY	"Sustainable design protects and benefits ecosystems, watersheds, and wildlife habitat in the presence of human development."	<ul style="list-style-type: none"> • Site Usage • Storm Water Management
BIOCLIMATIC DESIGN	"Sustainable design conserves resources and maximizes comfort through design adaptations to site-specific and regional climate conditions."	<ul style="list-style-type: none"> • Passive Design Strategies
ENHANCED INDOOR ENVIRONMENT	"Sustainable design creates comfortable interior environments that provide daylight, views, and fresh air."	<ul style="list-style-type: none"> • Lighting Systems • Access to Views • Indoor Air Quality
WATER CONSERVATION AND PROTECTION	"Sustainable design conserves water and protects and improves water quality."	<ul style="list-style-type: none"> • Site Water Use • Building Water Use

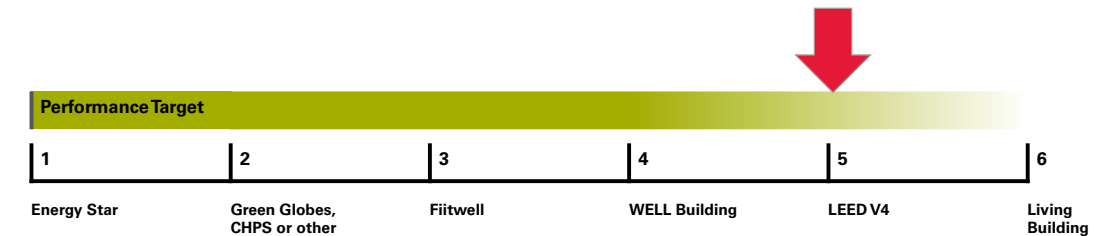
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Qualitative Goals

TOPIC:	DESCRIPTION:	MEASURABLE OUTCOMES:
OPTIMIZED ENERGY PERFORMANCE	"Sustainable design conserves energy and resources and reduces the carbon footprint while improving building performance and comfort. Sustainable design anticipates future energy sources and needs."	<ul style="list-style-type: none"> • Building Energy Use
ENVIRONMENTAL IMPACTS OF MATERIALS	"Sustainable design includes the informed selection of materials and products to reduce product-cycle environmental impacts, improve performance, and optimize occupant health and comfort."	<ul style="list-style-type: none"> • Building Re-Use • Diversion of Construction Waste • Regional Materials • Recycled Materials • Material Health
FUTURE ADAPTABILITY AND RESILIENCY	"Sustainable design protects and benefits ecosystems, watersheds, and wildlife habitat in the presence of human development."	<ul style="list-style-type: none"> • Resiliency • Adaptability
COLLECTIVE FEEDBACK AND LESSONS LEARNED	"Sustainable design strategies and best practices evolve over time through documented performance and shared knowledge of lessons learned."	<ul style="list-style-type: none"> • Measurement and Verification • Post Occupancy Evaluation
OTHER DESIGN GUIDANCE	"These two items are outside of the current AIA COTE measures of excellence lists but are relevant to good, sustainable design nonetheless."	<ul style="list-style-type: none"> • Active Design • Biophilia
BUILDING OPERATIONS	"These four items are also outside of the current AIA COTE measures of excellence list but relevant to sustainable design and good talking points in goalsetting with our clients."	<ul style="list-style-type: none"> • Waste Management • Food Services • Indoor Cleaning & Maintenance • Site Cleaning & Maintenance

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Integrative & Innovative Design: Third Party Verification



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LEED v4 for BD+C: New Construction & Major Renovation Project Checklist

- Integrative Design Process
- Focus on Performance
- Material Transparency
 - Life Cycle Analyses
 - Health Product Declaration

Y	?	N	Credit	Integrative Process	1
11	1	4	16	Location and Transportation	16
0	0	0	16	LEED for Neighborhood Development Location	16
1	0	0	1	Sensitive Land Protection	1
0	0	2	2	High Priority Site	2
4	1	0	5	Surrounding Density and Diverse Uses	5
3	0	2	5	Access to Quality Transit	5
1	0	0	1	Bicycle Facilities	1
1	0	0	1	Reduced Parking Footprint	1
1	0	0	1	Green Vehicles	1
9	1	0	10	Sustainable Sites	10
Y	0	0	Required	Construction Activity Pollution Prevention	Required
1	0	0	1	Site Assessment	1
2	0	0	2	Site Development - Protect or Restore Habitat	2
1	0	0	1	Open Space	1
2	1	0	3	Rainwater Management	3
2	0	0	2	Heat Island Reduction	2
1	0	0	1	Light Pollution Reduction	1
6	5	0	11	Water Efficiency	11
Y			Required	Outdoor Water Use Reduction	Required
Y			Required	Indoor Water Use Reduction	Required
Y			Required	Building-Level Water Metering	Required
1	1	0	2	Outdoor Water Use Reduction	2
4	2	0	6	Indoor Water Use Reduction	6
0	2	0	2	Cooling Tower Water Use	2
1	0	0	1	Water Metering	1
17	16	0	33	Energy and Atmosphere	33
Y			Required	Fundamental Commissioning and Verification	Required
Y			Required	Minimum Energy Performance	Required
Y			Required	Building-Level Energy Metering	Required
Y			Required	Fundamental Refrigerant Management	Required
6	0	0	6	Enhance Commissioning	6
7	11	0	18	Optimize Energy Performance	18
1	0	0	1	Advanced Energy Metering	1
2	0	0	2	Demand Response	2
0	3	0	3	Renewable Energy Production	3
1	0	0	1	Enhanced Refrigerant Management	1
0	2	0	2	Green Power and Carbon Offsets	2
8	3	2	13	Materials and Resources	13
Y			Required	Storage and Collection of Recyclables	Required
Y			Required	Construction and Demolition Waste Management Planning	Required
0	3	2	5	Building Life-Cycle Impact Reduction	5
2	0	0	2	Building Product Disclosure and Optimization - Environmental Product Declarations	2
2	0	0	2	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
2	0	0	2	Building Product Disclosure and Optimization - Material Ingredients	2
2	0	0	2	Construction and Demolition Waste Management	2
15	1	0	16	Indoor Environmental Quality	16
Y			Required	Minimum Indoor Air Quality Performance	Required
2	0	0	2	Enhanced Indoor Air Quality Strategies	2
3	0	0	3	Low-Emitting Materials	3
1	0	0	1	Construction Indoor Air Quality Management Plan	1
2	0	0	2	Indoor Air Quality Assessment	2
1	0	0	1	Thermal Comfort	1
2	0	0	2	Interior Lighting	2
3	0	0	3	Daylight	3
1	0	0	1	Quality Views	1
0	1	0	1	Acoustic Performance	1
5	1	0	6	Innovation	6
4	1	0	5	Innovation	5
1	0	0	1	LEED Accredited Professional	1
4	0	0	4	Regional Priority	4
1	0	0	1	Regional Priority: Specific Credit	1
1	0	0	1	Regional Priority: Specific Credit	1
1	0	0	1	Regional Priority: Specific Credit	1
1	0	0	1	Regional Priority: Specific Credit	1
78	23	6	110	TOTALS	Possible Points: 110
				Certified: 60 to 49 points, Silver: 50 to 59 points, Gold: 60 to 79 points, Platinum: 80 to 110	

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LEED v4 insight: Building Product Disclosure & Optimization

- The materials credits have been completely reconfigured from LEED v2009
- The 3 Building Product Disclosure & Optimization (BPDO) credits in LEED v4 are pushing the industry into new territory.

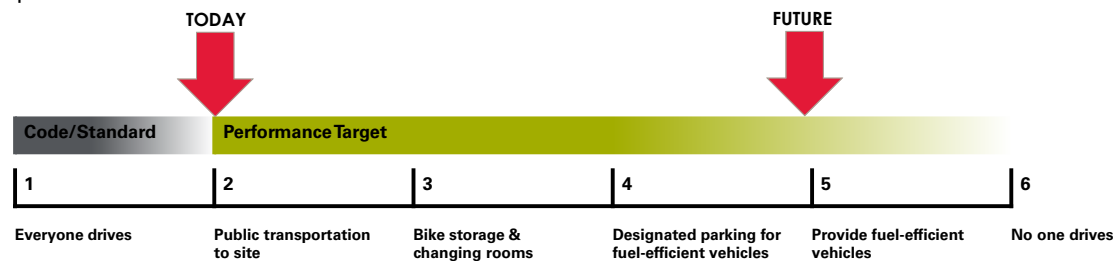
	ENVIRONMENTAL PRODUCT DECLARATIONS (EPDs)	RAW MATERIAL EXTRACTION	MATERIAL INGREDIENTS
DISCLOSURE (1 POINT)	<p>EASY (AND GETTING EASIER ALL THE TIME)</p> <p>20 product-specific EPDs from at least 5 suppliers</p> <p>Industry-average EPDs count of 1/3 value</p> <p>GOOD TARGET FOR EXEMPLARY PERFORMANCE (40 EPDs)</p>	<p>NOT ACHIEVABLE AT THIS TIME</p> <p>Corporate sustainability reports have to include specifics on raw material extraction. Almost none of them do (yet).</p> <p>IN THE FUTURE: Will become viable after we see results from UGBC work with suppliers to define and develop examples of compliant CSRs. Even after that happens, however, it may a while before a critical mass of companies publish them.</p>	<p>EASY (AND GETTING EASIER ALL THE TIME)</p> <p>20 disclosure statements from at least 5 suppliers</p> <p>Lots of disclosure statement options</p> <p>GOOD TARGET FOR EXEMPLARY PERFORMANCE (40 disclosure statements)</p>
OPTIMIZATION (1 POINT)	<p>NOT ACHIEVABLE AT THIS TIME</p> <p>50% (by cost) of products have to show better-than-average performance in several environmental impact categories.</p> <p>No more than 30% can be from structure & enclosure, which is challenging even with new flexibility on that requirement from UGBC.</p> <p>IN THE FUTURE: Will become viable for more projects if/when UGBC approves more certifications as indicative of cross-the-board improvements.</p>	<p>DOABLE (ESPECIALLY WITH THE SWITCH FROM PFC-ONLY TO LEGAL WOOD)</p> <p>25% (by cost) of products have to meet one of the options: take-back program, bio-based, salvaged, recycled content, or "legal wood"</p> <p>No more than 30% can be from structure & enclosure</p> <p>IN THE FUTURE: Watch out for potential changes to the legal wood pilot credit that could make it more restrictive.</p>	<p>NOT ACHIEVABLE FOR MOST PROJECTS</p> <p>25% (by cost) of products have to show: Hazard avoidance</p> <p>OK</p> <p>Supply chain optimization</p> <p>No more than 30% can be from structure & enclosure, which is challenging even with new flexibility on that requirement from UGBC.</p> <p>IN THE FUTURE: Once suppliers get on board with documenting supply chain optimization it should become within reach.</p>

LOCAL MATERIALS COUNT DOUBLE!
(EXTRACTED, MANUFACTURED, & PURCHASED WITHIN 100 MILES)
This could make a difference for wood, aggregate, salvage items in the Raw Material Extraction credit.

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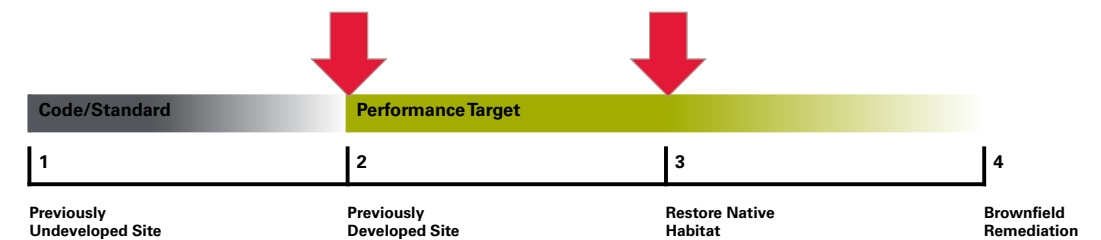
Regional & Community Design: Transportation



- 1 bus stop (morning & afternoon)
- Access to hiking trails via transit
- MHRC van/shuttles
- Sidewalk to enhance community connectivity

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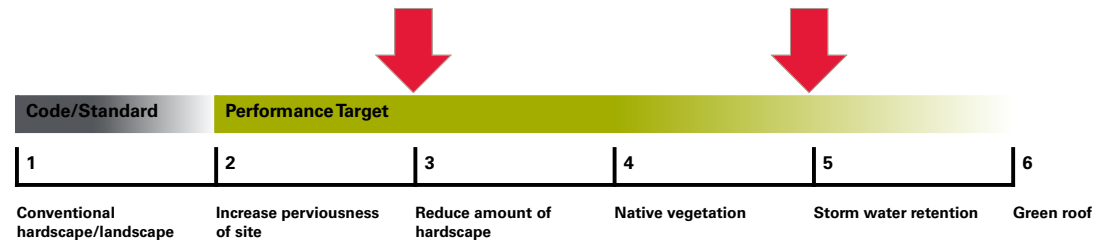
Land Use & Site Ecology: Site Usage



Minimizing fill exports

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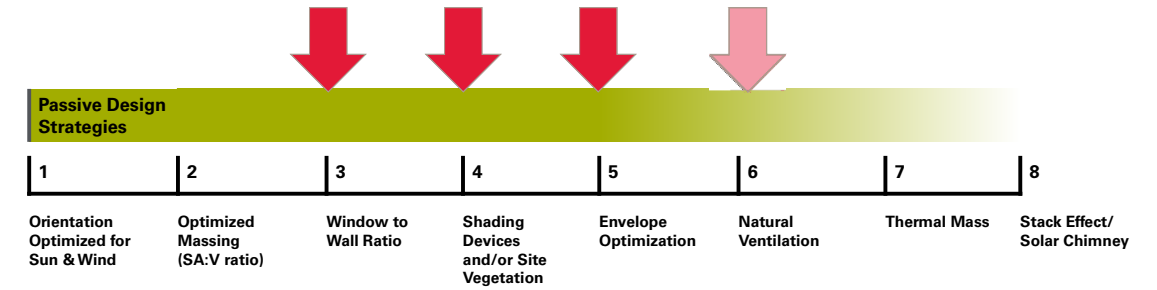
Land Use & Site Ecology:
Stormwater Management



Flood detention
Infiltration
Dryer areas due to climate change, how to mitigate; fire-break, resilience
Urban wildlife interface & abatement
Wooded hillside buffer,
Tree survey & arbor report > tree protection & EIR mitigation measures
Need for existing utility survey via locator (vs record info)
Green roof garden?
Challenged budget / maintenance of green roof

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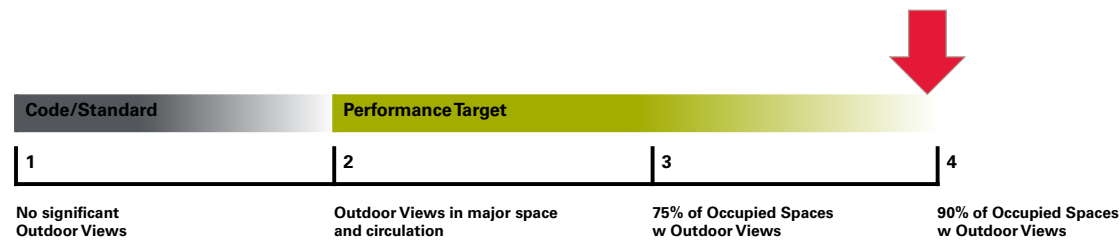
Bioclimatic Design:
Passive Design Strategies



Interface w/ natural ventilation, how operated
Secured buildings > incorporate airflow w/o operable windows
Prefer natural ventilation,

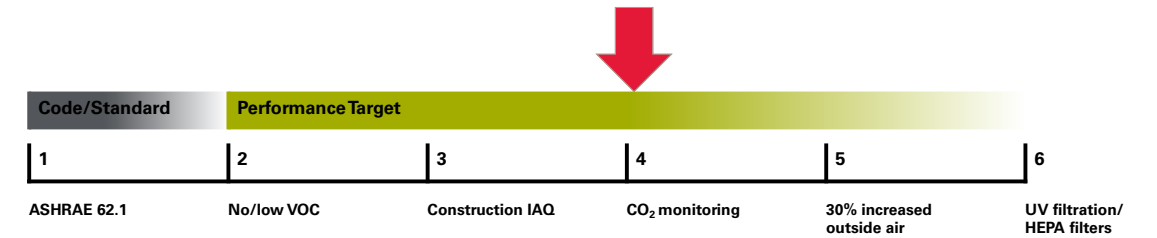
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Enhanced Indoor Environment:
Access to Views



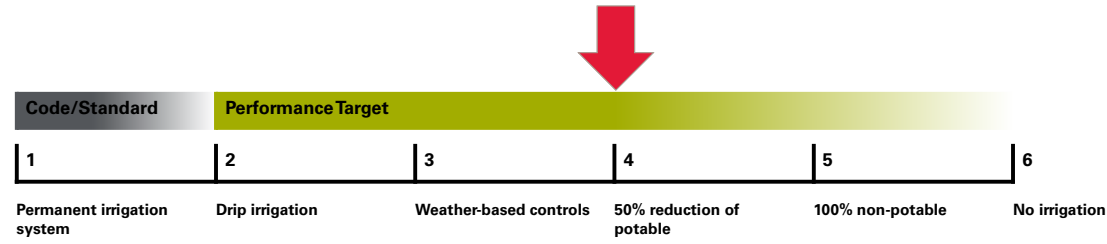
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Enhanced Indoor Environment:
Indoor Air Quality



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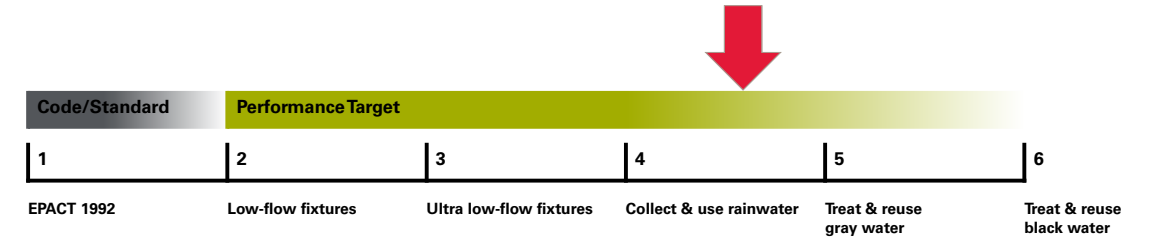
 **Water Conservation & Protection:**
Site Water Use



Reclaimed water? Need to verify safety aspects
Access to water during emergency (earthquake)?

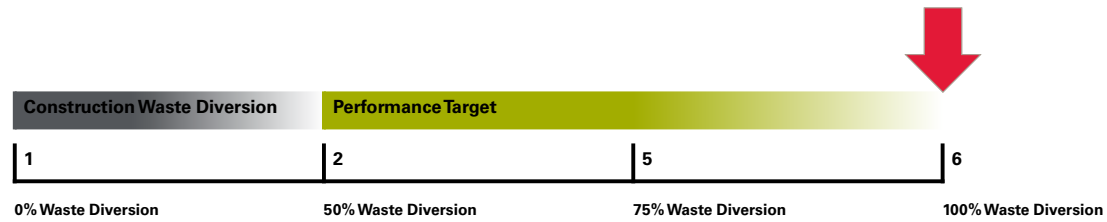
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 **Water Conservation & Protection:**
Building Water Use



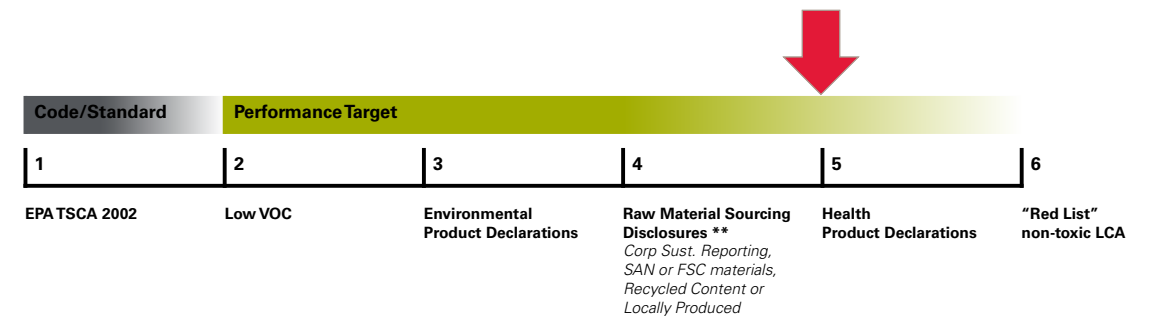
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 **Impacts of Materials:**
Construction Waste Diversion



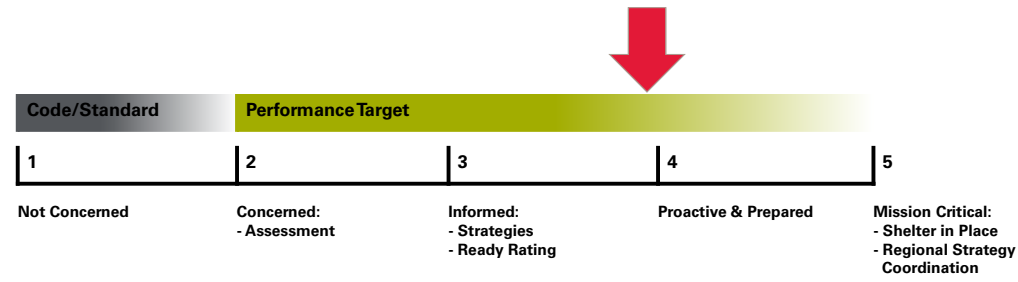
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 **Impacts of Materials:**
Material Health



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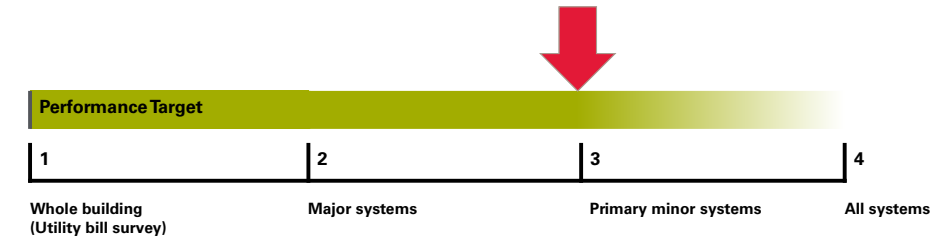
Future Adaptability & Resiliency:
Resiliency



12 hrs emergency power & fuel? CD to provide recommendations
House in place, provide energy for basic items going (frig, heater), water
Verify w/ vendor policy & DPW
Storage containers?
Canyon Oaks youth center connection?

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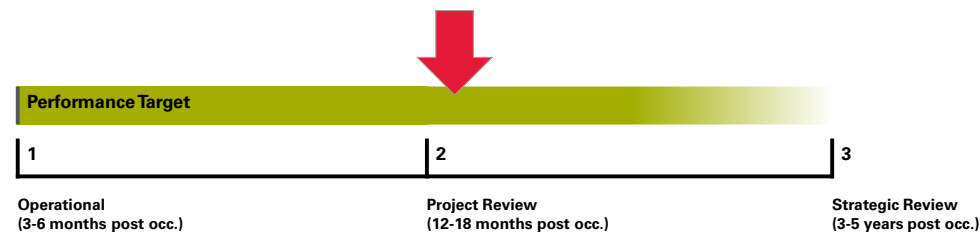
Lessons Learned:
Measurement and Verification



5 MHRCs – design to baseline
Individually metered, monitored via BMS?

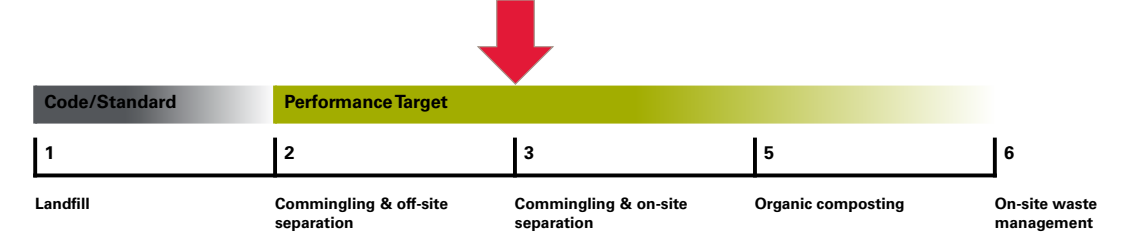
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Lessons Learned:
Post-Occupancy Evaluation



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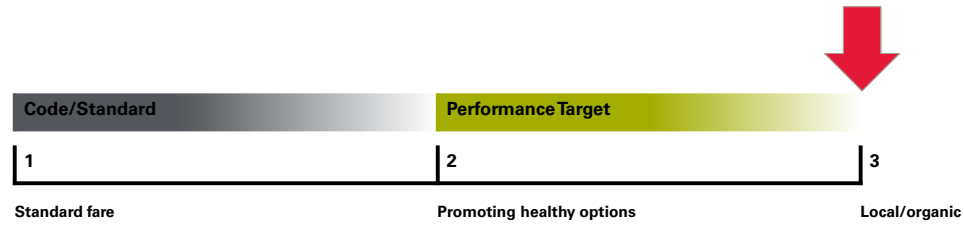
Building Operations:
Waste Management



Review w/ county policy
Prefer 1 location onsite for recycling

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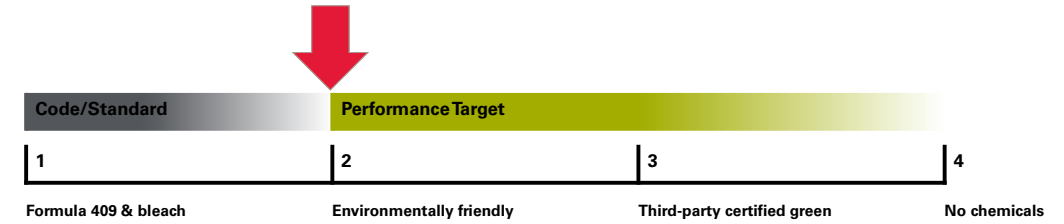
Building Operations:
Food Services



Ea organization will contract w/ 1 vendor?
MHRC warming kitchen + skill-building
Life science kitchen
Using gardens to provide food to kitchen? demonstration

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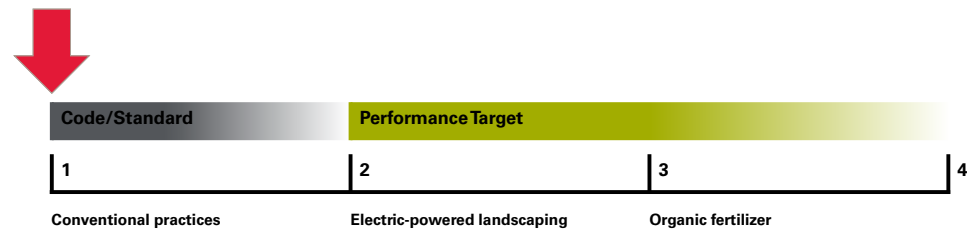
Building Operations:
Indoor Cleaning & Maintenance



May rely on DPW policy / procedures (need to verify housekeeping)

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Building Operations:
Site Maintenance



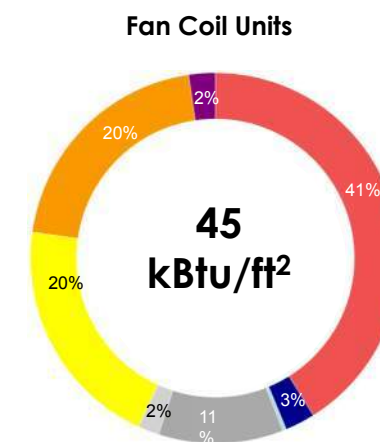
DPW policy?
Indoor air quality plan?

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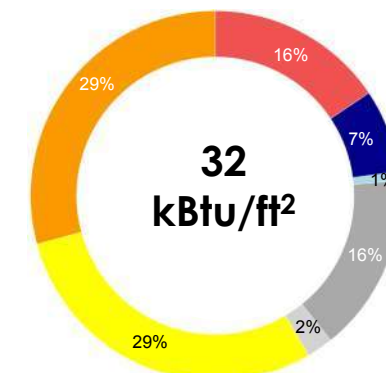
Energy Analysis Sample:
Energy Use Intensity (EUI)



- Heating
- AHU
- Zones
- Humidification
- Interior
- Lighting
- Equipment
- Cooling
- AHU
- Heat Rejection
- Zones
- Pumps
- Fans
- AHU
- Zones

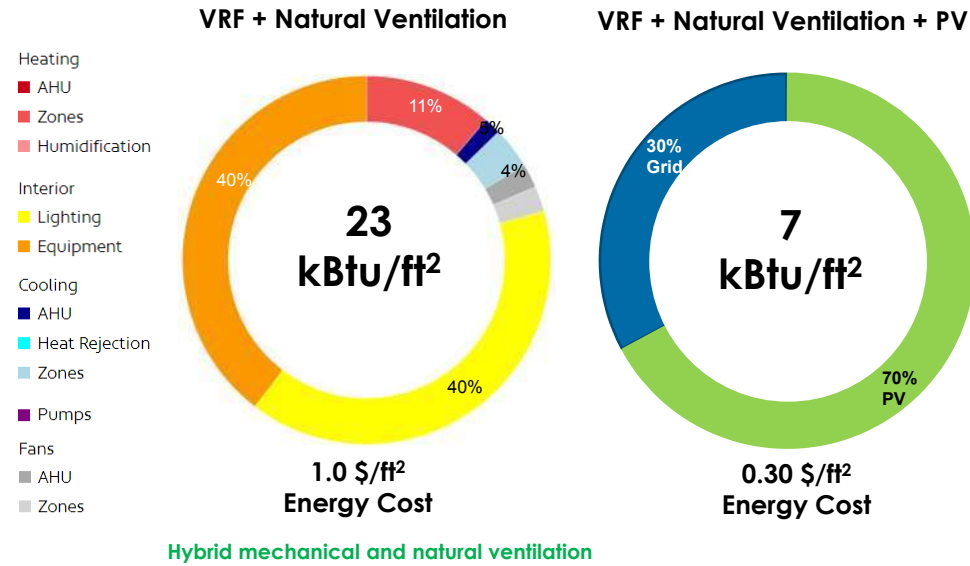
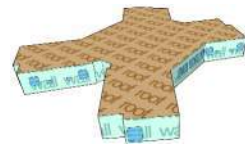


**Variable Refrigerant Flow (VRF)
+ Dedicated Outdoor Air System
+ Energy Recovery Ventilation**



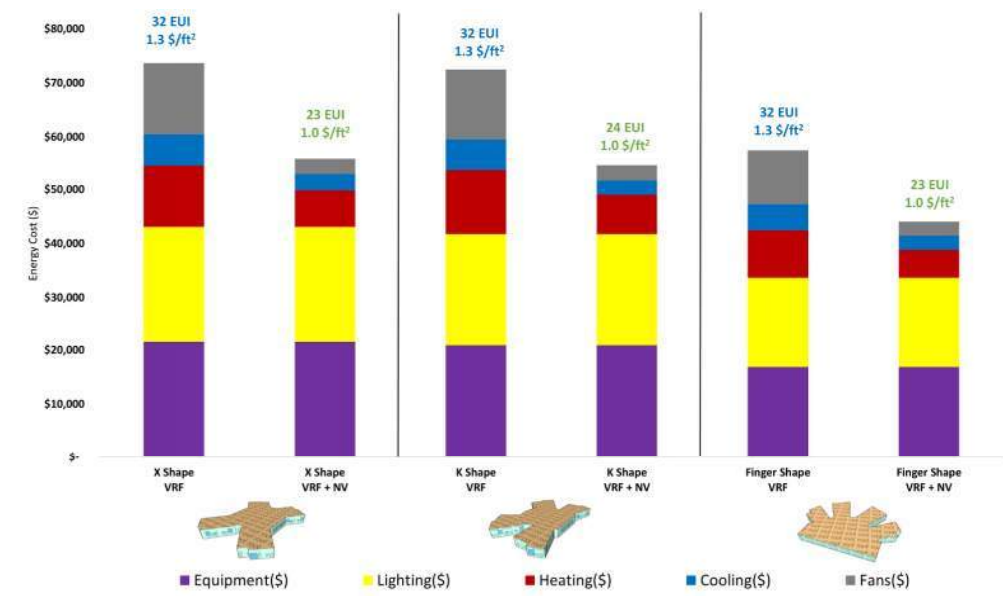
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Energy Analysis Sample: Energy Intensity Analysis



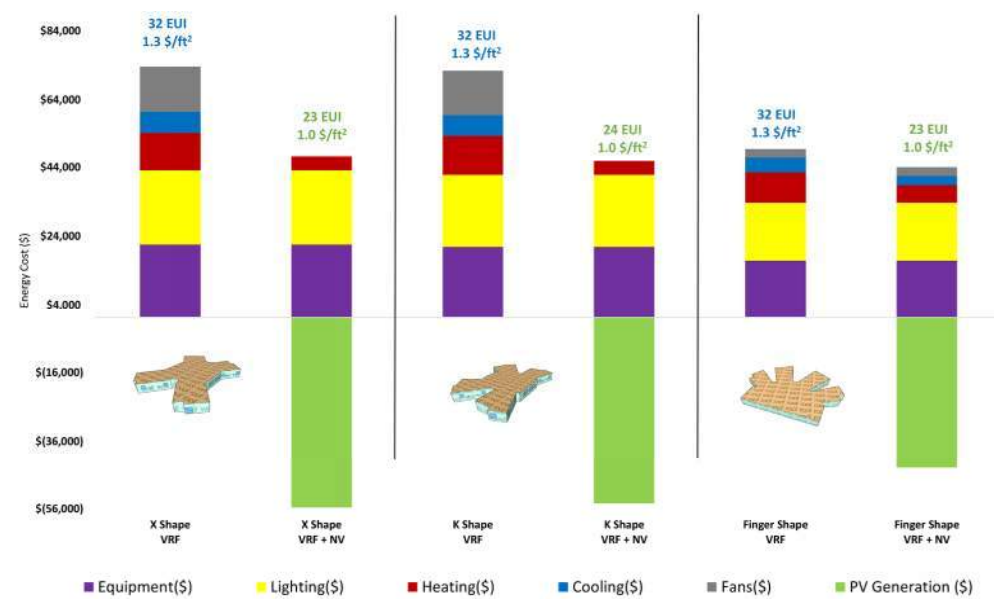
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Energy Analysis Sample: MHRC Annual Energy Cost Comparison



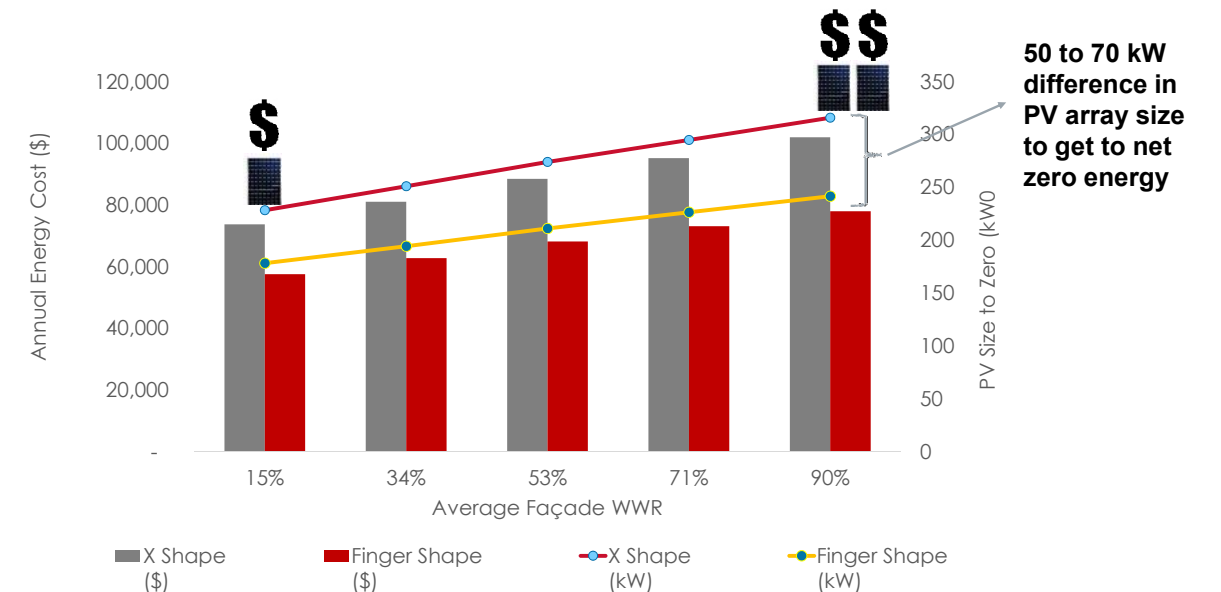
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Energy Analysis Sample: MHRC Annual Energy Cost Comparison with Photovoltaic Generation for Net Zero



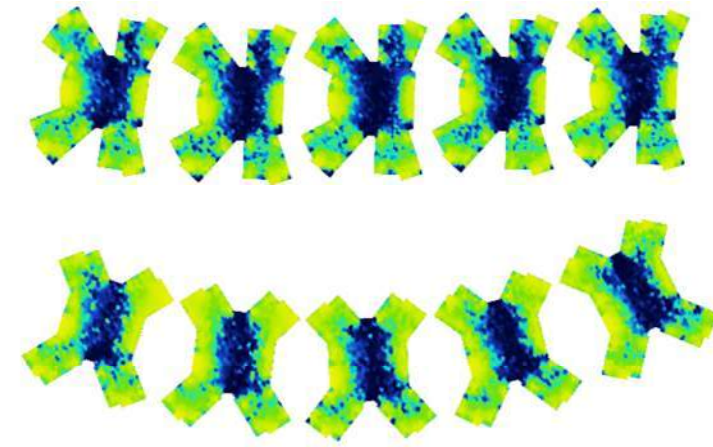
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Energy Analysis Sample: MHRC Window to Wall Ratio (WWR) Sensitivity Analysis of Different Forms



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Energy Analysis Sample:
Daylighting Analysis

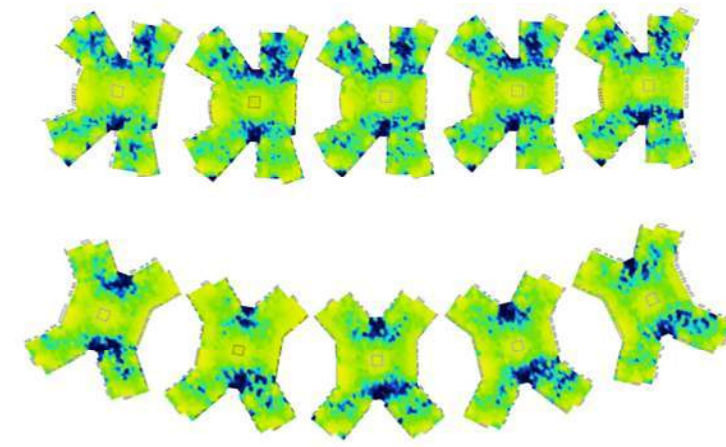


Percentage of occupied hours where illuminance is at least 28 footcandles, measured at 2.79 feet above the floor plate.

■ 0% ■ 25% ■ 50% ■ 75% ■ 100%

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Energy Analysis Sample:
Daylighting Analysis with Skylight at Staff Team Area

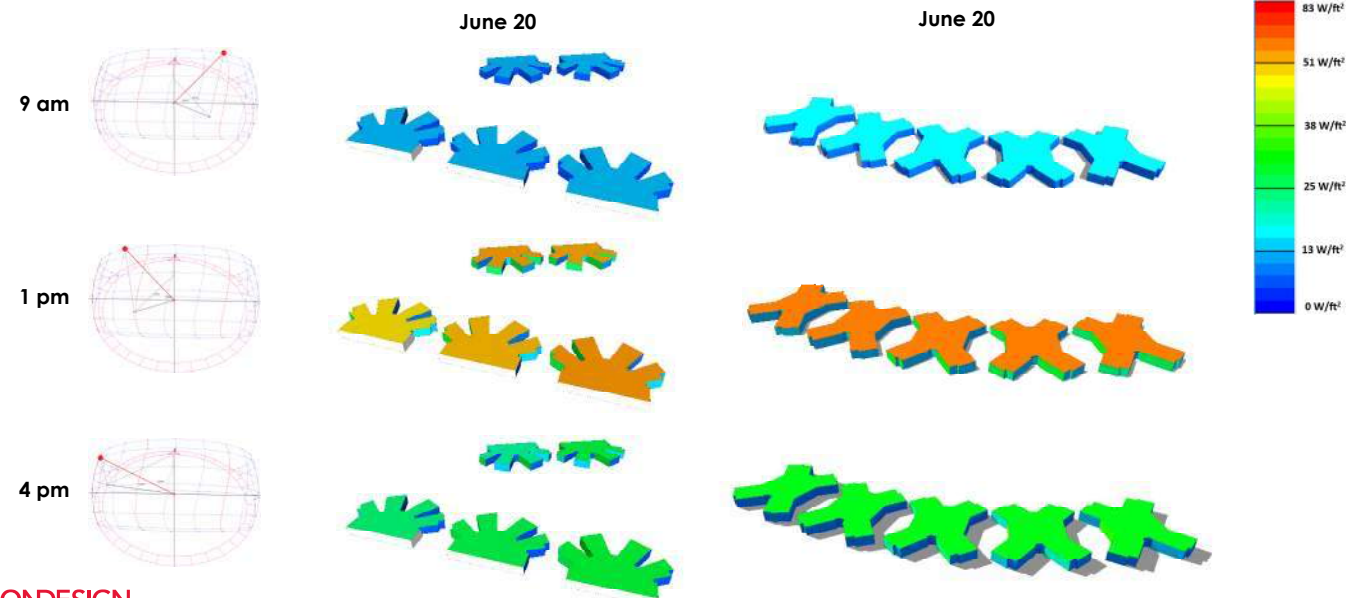


Percentage of occupied hours where illuminance is at least 28 footcandles, measured at 2.79 feet above the floor plate.

■ 0% ■ 25% ■ 50% ■ 75% ■ 100%

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Energy Analysis Sample:
Solar Radiation on Exterior Surfaces



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Future Discussions:
Inputs/Assumptions

Hourly occupancy, equipment and lighting schedules:

- Regular weekdays
- Weekends
- Special events/days anticipating high occupancies
- Security management & interface

Anticipated plug load equipment for each space type (i.e. number of computers, diagnostic, audio/visual, etc.):

- Lobby
- Campus Center
- Support spaces
- Patient rooms
- Laundry
- Fitness
- Maintenance shop tools
- Mobile equipment
- Any special medical devices?
- Are patients allowed to have personal devices plugged in?
- Any on-site refrigeration?
- Kitchen loads?
- Outdoor

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Future Discussions: Inputs/Assumptions

For the space types above, what accommodations for after-hours use are required? (example: security, access control, lighting controls, HVAC controls)

TABLE 9. AFTER-HOURS ACCOMMODATIONS FOR GENERAL USE SPACE TYPE

General Use Space Type	After Hours Use

TABLE 10. AFTER-HOURS ACCOMMODATIONS FOR SPECIAL USE SPACE TYPE

General Use Space Type	After Hours Use

8. Break

We will start back at 2:40pm

9. Biophilic Design + Domesticity

10. Food for Thought

- If you are a member of the community, what first drew you to the new Cordilleras campus, and what surprised and delighted you while you were there?
- If you are a staff member, what differences in patient outcomes did you begin to observe one year after the facility opened?
- If you are a family member, what do you like most about the new Cordilleras campus and its facilities?
- If you are a client, what are some of the things about Cordilleras that give you a sense of comfort, security and belonging – that help you feel at home?

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CREATING THE FUTURE OF BEHAVIORAL HEALTHCARE IN SAN MATEO COUNTY
Cordilleras Mental Health Center Replacement Project

WORKSHOP 1 Agenda

Day 1 - Wednesday March 21			
AM	9	1. Introductions	20 Mins
	9:20	2. Core Team & Communications	20 Mins
	9:40	3. Project Schedule	40 Mins
	10:20	4. Break	10 Mins
	10:30	5. Program Validation	90 Mins
PM	12	6. Lunch	60 Mins
	1	7. Sustainable Design Strategies	90 Mins
	2:30	8. Break	15 Mins
	2:45	9. Biophilic Design + Domesticity	45 Mins
	3:30	10. Food for Thought	30 Mins

Day 2 - Thursday March 22			
AM	9	11. Visioning + Goal Setting	80 Mins
	10:20	12. Site Design	80 Mins
	11:40	13. Site Tours	10 Mins
	11:50	14. Recap & Next Steps	10 Mins

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Breakout Exercise

Review of Questions

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11. Visioning + Goal Setting

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Goals & Aspirations

Activity

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- If you are a member of the community, what first drew you to the new Cordilleras campus, and what surprised and delighted you while you were there?
- If you are a staff member, what differences in patient outcomes did you begin to observe one year after the facility opened?
- If you are a family member, what do you like most about the new Cordilleras campus and its facilities?
- If you are a client, what are some of the things about Cordilleras that give you a sense of comfort, security and belonging – that help you feel at home?

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QUALITATIVE PROJECT GOALS

TOPIC:

FUNCTIONALITY



DESCRIPTION:

THE QUALITY OF PATIENT AND CLINICAL STAFF SPACES AS THEY RELATE TO DESIRED FUNCTIONAL OUTCOMES

ELEMENTS:

- Flexibility and Future Expansion
- Patient-Focused / Active Treatment Model
- Staff Efficiency and Satisfaction
- On Stage / Off Stage Separation

INDOOR ENVIRONMENT



THE QUALITY OF THE INDOOR ENVIRONMENT AS IT RELATES TO ACTIVE ZONE, BED ROOMS AND STAFF AREAS

- Open Environments/ Access to Views (% glazing)
- Privacy
- Intuitive Wayfinding Strategies
- Level of patient control over personal environment

CONNECTION TO LANDSCAPE
"THERAPEUTIC PLATFORM"



THE ROLE OF THE LANDSCAPE AS A HEALING ENVIRONMENT

- Recreational Therapy
- Outdoor Group Rooms / Exterior Programming
- Healing Landscape Features, Restorative Gardens, Labyrinths etc.

AESTHETICS



WHAT ARCHITECTURAL FEATURES ARE IMPORTANT TO THE AESTHETIC YOU ARE TRYING TO ACHIEVE?

- Roof forms
- Materiality/ Durability
- Visible Security – Fences Etc.

ENGAGEMENT



THE LEVEL OF COMMUNITY INTERACTION WITH THE HOSPITAL

- Encouraging Community Involvement / Normalization
- Shared Resources (Gym, Conference Space, Outdoor Rec Therapy)
- Public Outreach, Meetings, Presentations

SAFETY



FINDING A BALANCE BETWEEN SAFETY, FUNCTIONALITY AND NORMALIZATION

- Ligature-Resistance
- Tamper-Resistance
- Privacy
- Access

LOGISTICS



BALANCE OF BUDGET, SCOPE AND SCHEDULE.

- Schedule
- Cost
- Phasing

FUNCTIONALITY



FLEXIBILITY AND ABILITY TO EXPAND IN FUTURE

WRITE-IN

"ON-STAGE / OFF-STAGE" – THE ABILITY TO SEPARATE STAFF/SERVICE FROM PATIENT AREAS

OPTIMIZED STAFF AND OPERATIONAL EFFICIENCY

INDOOR ENVIRONMENT



ACCESS TO DAYLIGHT AND VIEWS

WRITE-IN

PATIENT PRIVACY

PATIENT CHOICE – VARIETY OF OPTIONS FOR DAYTIME THERAPY / ACTIVITY SPACES

CONNECTION TO LANDSCAPE



LOCALIZED EXTERIOR PROGRAMMING DEDICATED TO INDIVIDUAL MHRC'S OR SUPPORTIVE HOUSING UNITS

WRITE-IN

CENTRALIZED EXTERIOR PROGRAMMING SHARED BY ENTIRE CAMPUS

ELOPEMENT PROTECTION AT EXTERIOR SPACES

AESTHETICS

INVESTMENT IN MATERIALS AND MASSING THAT MINIMIZES INSTITUTIONAL CHARACTER

DECREASE OBVIOUSNESS / AWARENESS OF SECURITY ELEMENTS

NORMALIZED PATIENT ENVIRONMENT – EMULATING HOME AND DAILY LIFE

WRITE-IN

ENGAGEMENT

ABILITY OF THE FACILITY TO SUPPORT VOLUNTEER OR OUTREACH PROGRAMS – REDUCING NEGATIVE STIGMA

SHARED COMMUNITY AMENITIES (EDUCATION, RECREATION ETC.) PRESENT ON THE CAMPUS

CLARITY OF ENTRY / ARRIVAL AND PUBLIC DESTINATIONS TO VISITORS

WRITE-IN

SAFETY

LIGATURE AND TAMPER RESISTANCE

SIGHTLINES AND VISIBILITY OF PATIENT AREAS

DURABILITY OF FINISHES / MATERIALS – LOW MAINTENANCE

WRITE-IN

LOGISTICS

COMPLETE BY 2021

PROGRAM / PROJECT WITHIN BUDGET

MINIMIZED SITE PHASING

WRITE-IN

TOTALS

HIGHEST PRIORITY TOPICS

FUNCTIONALITY



INDOOR ENVIRONMENT



CONNECTION TO LANDSCAPE



ENGAGEMENT



SAFETY



AESTHETICS



LOGISTICS



Design Value Matrix

CORDILLERAS MENTAL HEALTH FACILITY

DESIGN VALUE MATRIX Note: Reduction in Site Coverage and Excavation will free up more budget for Preferred and Premium Value Components

	FUNCTIONALITY AND SITE DEVELOPMENT					SYSTEMS AND PERFORMANCE					FINISHES AND QUALITY						
	INTERIM ACCOMMODATION (PHASE 1) CONSTRUCTION	FUTURE EXPANSION	SECURITY SYSTEMS	VEHICULAR CIRCULATION	ACTIVITY AREAS	LANDSCAPE	HAIRSCAPE	ENERGY & SUSTAINABILITY	HVAC	ELECTRICAL	PLUMBING	LIGHTING CONTROL SYSTEMS	CONSTRUCTION SYSTEM	EXTERIOR FINISHES	INTERIOR WALL FINISHES	INTERIOR CEILING FINISHES	ROOFING
PREMIUM	Approximately 135 beds during Phase 1 construction. Full Supportive Housing with 4 MHICs.	Significant onsite expansion capability - 12 beds or more.	All bedrooms areas at SH to be constructed to MHIC standards.	Loop Road	27% or more above Reference Design Document.			Net Zero, 100% Photo Voltaic Array.	Variable Refrigerant Flow with Heat Recovery and Dedicated Outside Air Systems.	LED lighting, Central back-up generator and single electric service to site.	Solar system for water heaters, grey water system, storm water collection system.	Integration of daylighting control with other systems, static and motorized window shades.	MHICs Type 8 CMU bearing walls, metal stud-frame walls, SH Type 1 Concrete at L1, Steel Frame with Metal Stud walls above.	Concrete plaster, fiber cement panels, wood siding.	Integration of daylighting control with other systems, static and motorized window shades.	Acoustical tile and gyp board with moisture and ammonia Metal Stud walls above.	MHICs, One gable roof - 30 years, SH - Membrane on Flat roof.
PREFERRED	105 beds during Phase 1 construction. Full Supportive Housing with 3 MHICs.	Limited onsite expansion capability - 16 beds.	One floor of SH to be constructed to MHIC standards.		10% more than Reference Design Document.	Wood decks at MHIC, composite grates at the truck access in central activity zone.		20% more efficient than CAC Title 24, 50% PV Array.	Variable Heating/ Cooling Levels, Dedicated Outside Air System.	LED lighting, Central back-up generator, multiple electric services.	Distributed water systems, heat recovery water systems, low flow fixtures.	Daylight control system with control of individual fixtures, static shades.	Concrete plaster, fiber cement panels, high performance glazing.	Painted gypsum board, impact resistant at secure areas, limited wood accents, limited acoustical panels.	Acoustical tile and gyp board with limited wood panel.	MHICs, Factory Flat Standing seam metal gable roofs - 30 years, SH - Membrane on Flat roof.	
BASELINE	Approximately 90 beds during Phase 1 construction. Full Supportive Housing with 2 MHICs, see partial Supportive Housing with 4 MHICs.	No onsite expansion capability except with some grading.	High security at MHICs only.	Cut-Dr-Sid.	Per Reference Design Document.	Raised pedestrian surfaces to be textured, colored concrete.		10% more efficient than CAC Title 24, 40% PV Array.	Four Fan Fan Coil Units, Central Chillers/Boilers.	LED lighting, individual metering and back-up generators.	Distributed water system, electric water heaters, low flow systems.	Daylight control system with shades.	MHICs, Type 8 Wood Frame SH, Type 8-A, Concrete at L1, Wood Frame above.	Concrete plaster, cement plaster with good leading coat/liner.	Painted gypsum board, impact resistant at secure areas.	Acoustical tile and gyp board.	MHICs, Asphalt Shingles on gable roofs, SH - Gable roofs, SH - Membrane on Flat roof.

NOVEMBER 3, 2017 CANNONDESIGN

12. Site Design

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Constraints Exhibit

13. SITE DESIGN



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Site Design Considerations

13. SITE DESIGN

- Steep forested terrain & canyon
- Cordilleras Creek & riparian zone
- Habitat for the wood rat
- Stormwater management and treatment
- Phased construction within a tight timeframe
- Maintaining existing operations during construction
- Vehicular and pedestrian circulation
- Maintaining fire & emergency access in all stages
- Promoting outdoor activity
- Relationship & connection to nature
- Encouraging community involvement

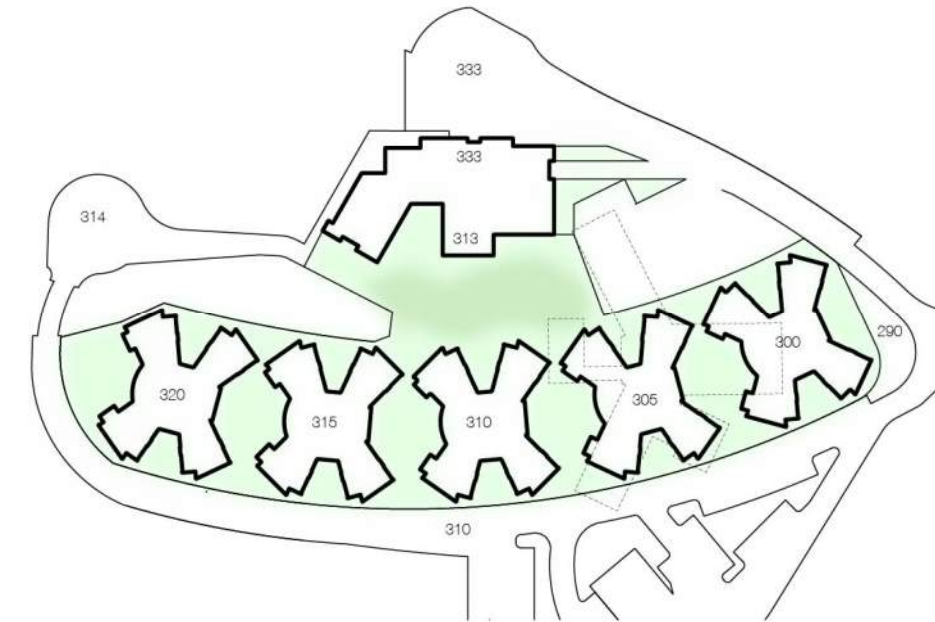
**Can we reduce cost of SITE CONSIDERATIONS ...
... and use the budget for facilities that promote care & recovery?**

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Layout Options

As shown on bridging documents

13. SITE DESIGN

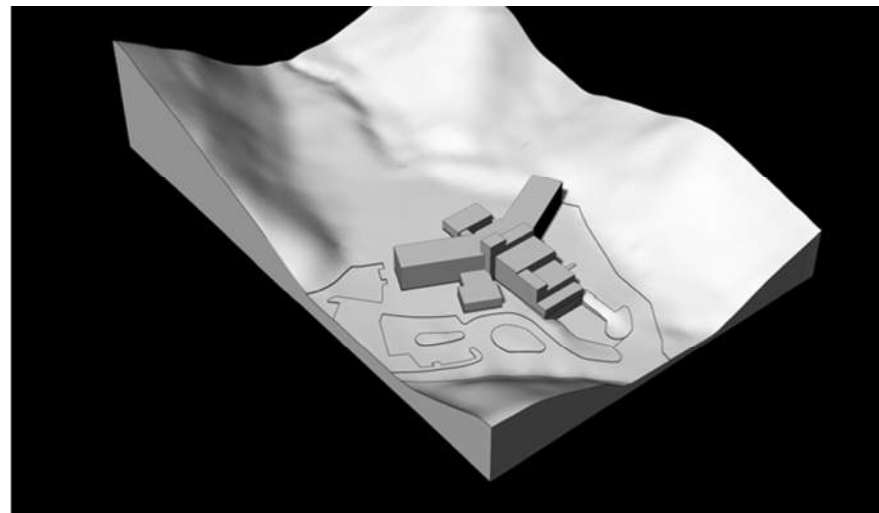


CANNONDESIGN

Layout Options

As shown on bridging documents

13. SITE DESIGN



CANNONDESIGN

Layout Options

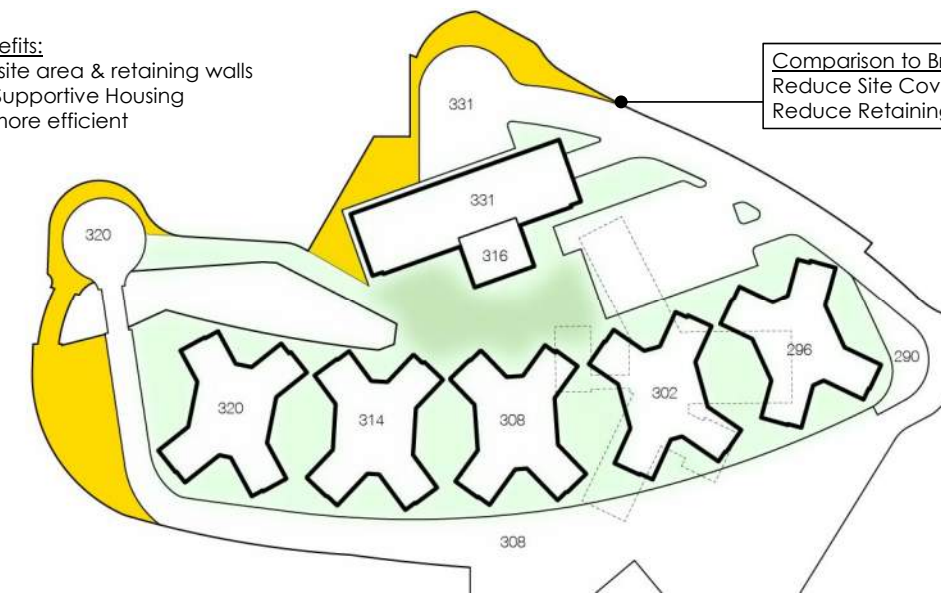
Design-build alternative

13. SITE DESIGN

Option benefits:

- Reduce site area & retaining walls
- Simplify Supportive Housing
- MHRCs more efficient

Comparison to Bridging Documents:
Reduce Site Coverage: 9%
Reduce Retaining Walls from 80' to 58'



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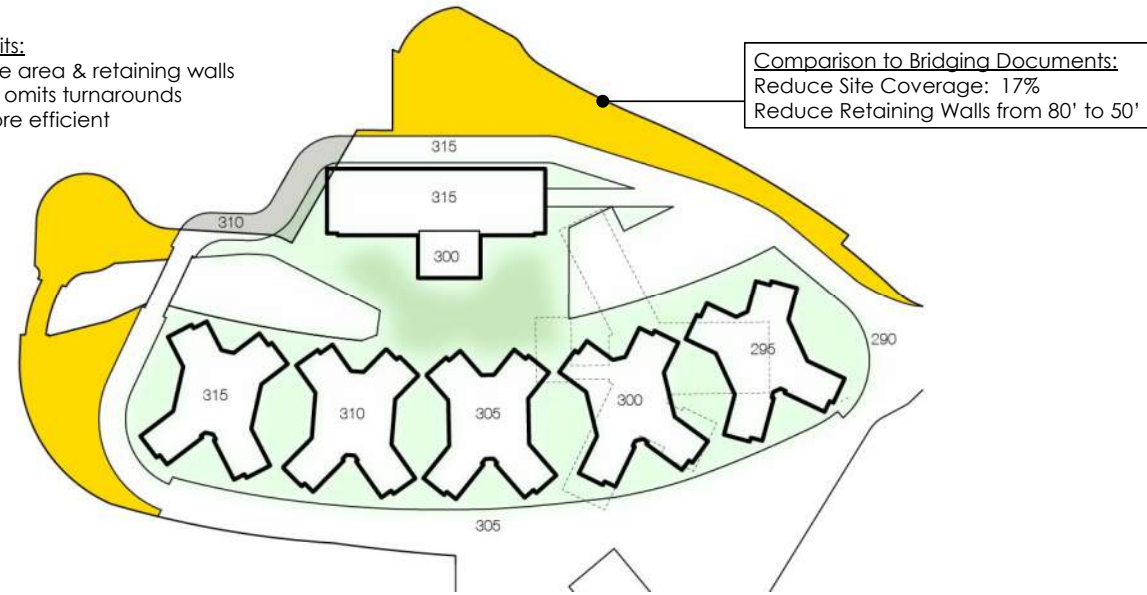
Layout Options

Idea 1: Design-build with loop road

13. SITE DESIGN

Option benefits:

- Reduce site area & retaining walls
- Loop road omits turnarounds
- MHRCs more efficient

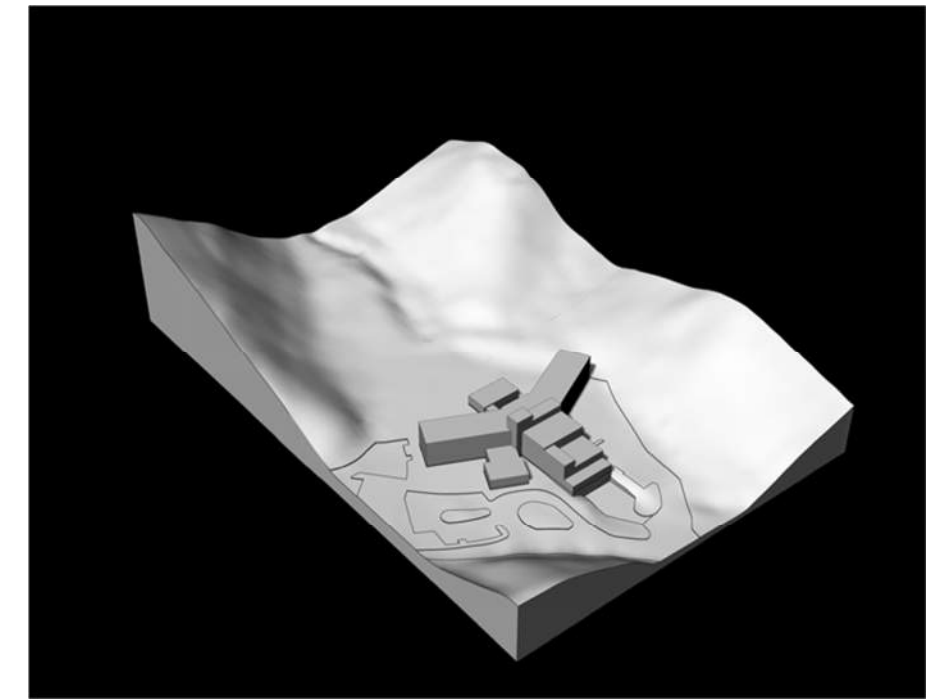


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Layout Options

Idea 1: Design-build with loop road

13. SITE DESIGN

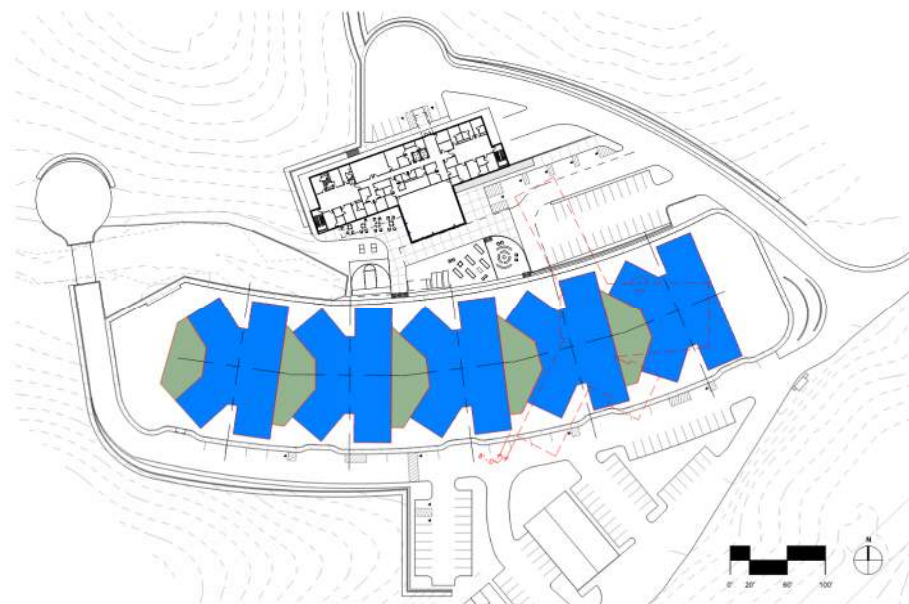


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Layout Options

K Shaped MHRCs

13. SITE DESIGN



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Layout Options

Idea 2: Supportive housing in back

13. SITE DESIGN

Option benefits:

- Reduce site area & retaining walls
- More prominent MHRC buildings
- Supportive housing built in 1st phase



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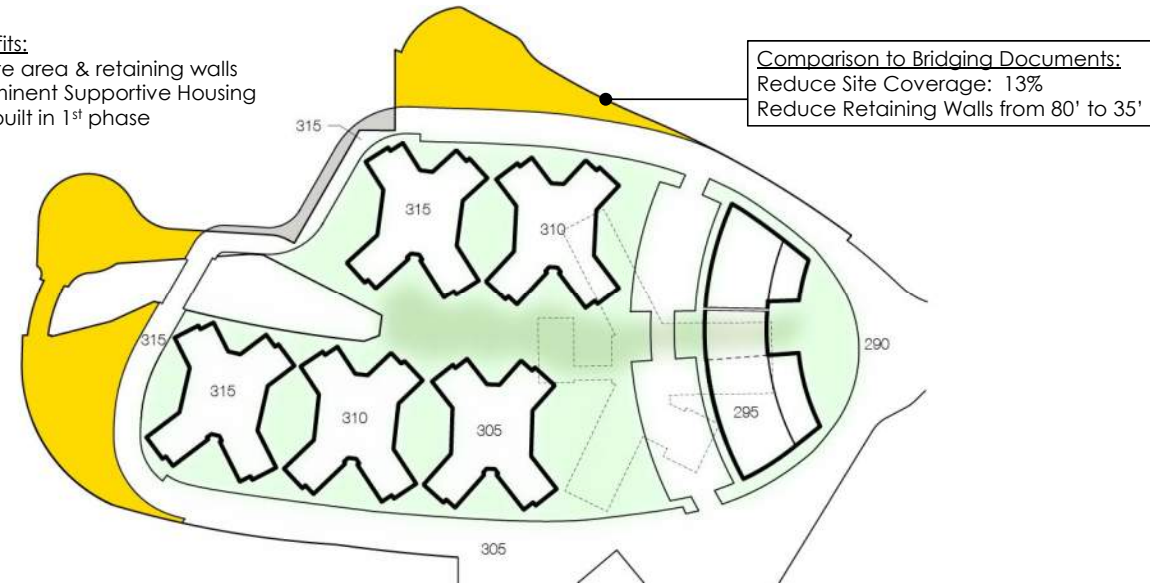
Layout Options

13. SITE DESIGN

Idea 3a: Curved supportive housing in front

Option benefits:

- Reduce site area & retaining walls
- More prominent Supportive Housing
- 4 MHRCs built in 1st phase

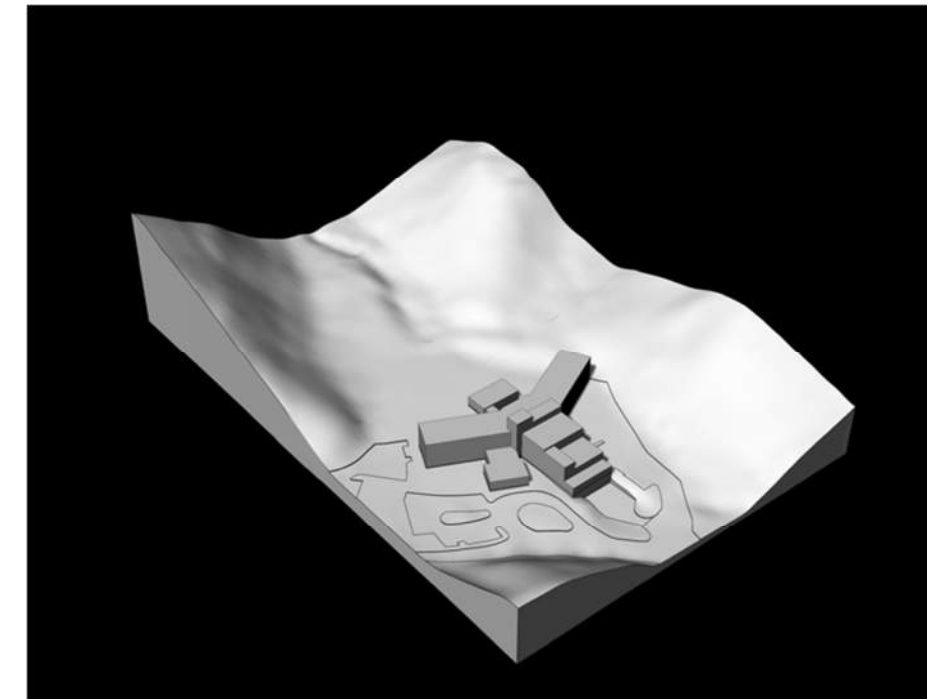


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Layout Options

13. SITE DESIGN

Idea 3a: Curved supportive housing in front



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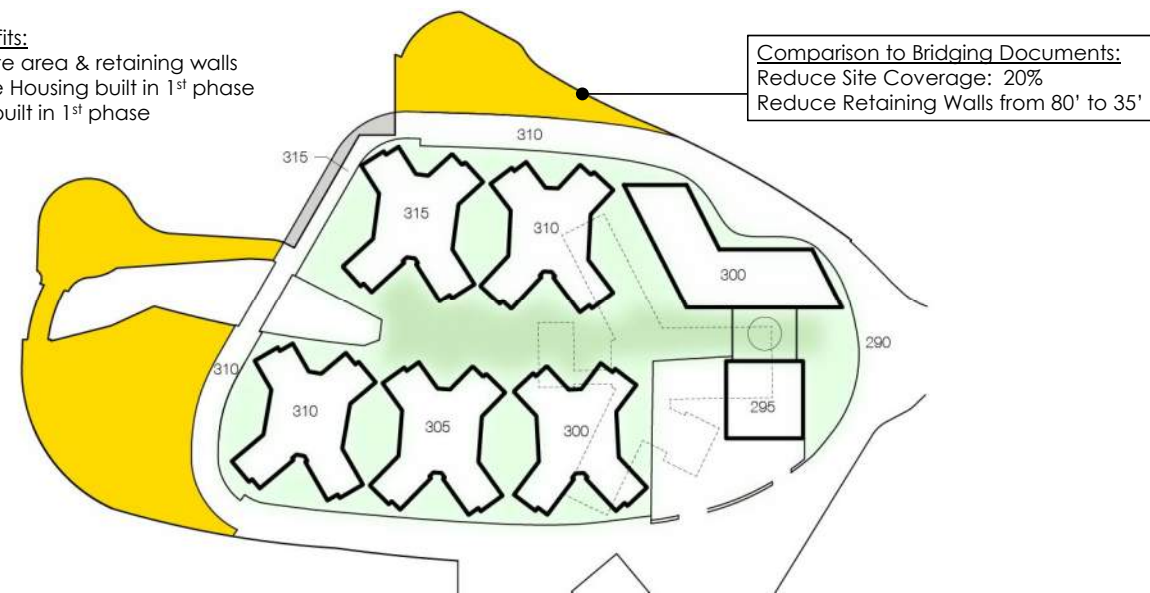
Layout Options

13. SITE DESIGN

Idea 3b: Supportive housing in front, 2 + 3 MHRC

Option benefits:

- Reduce site area & retaining walls
- Supportive Housing built in 1st phase
- 3 MHRCs built in 1st phase

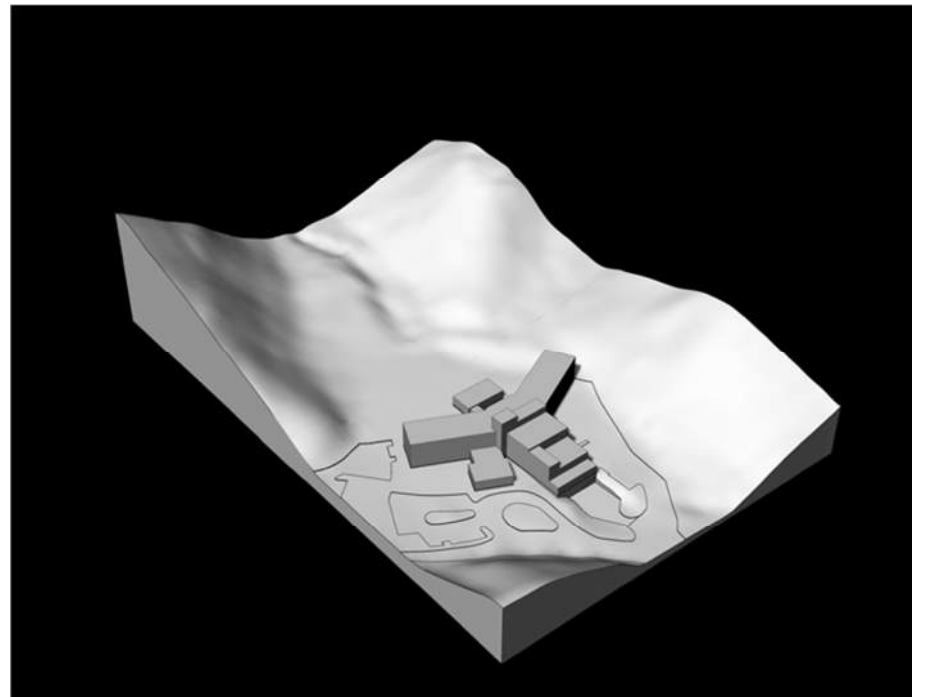


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Layout Options

13. SITE DESIGN

Idea 3b: Supportive housing in front, 2 + 3 MHRC



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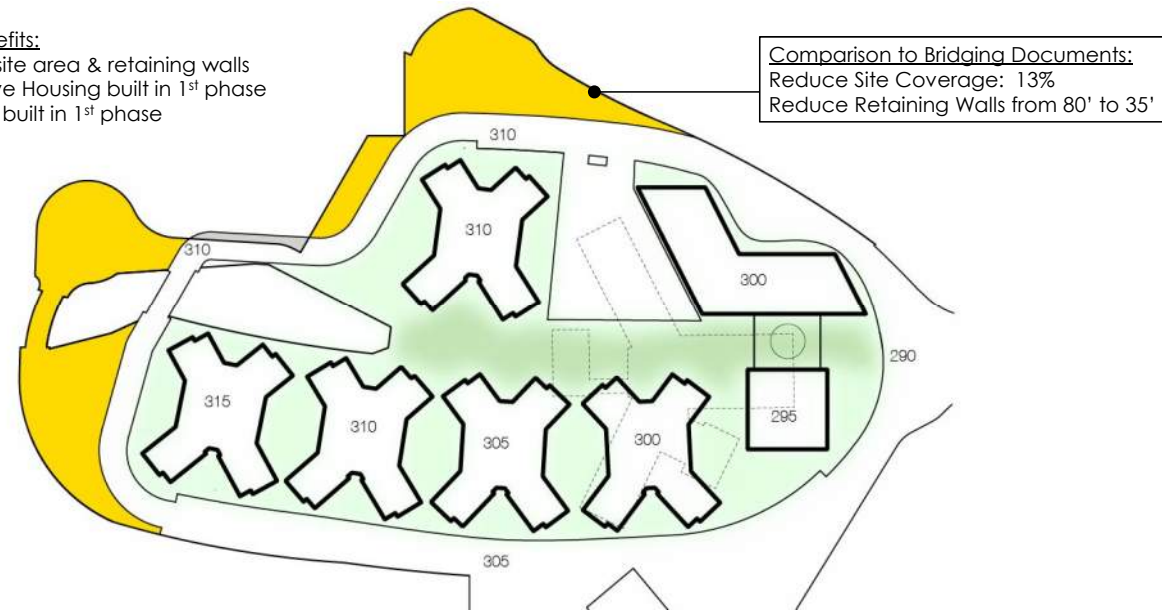
Layout Options

Idea 3c: Supportive housing in front, 4 + 1 MHRC

13. SITE DESIGN

Option benefits:

- Reduce site area & retaining walls
- Supportive Housing built in 1st phase
- 4 MHRCs built in 1st phase



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Layout Options

Idea 4: Single phase building construction

13. SITE DESIGN

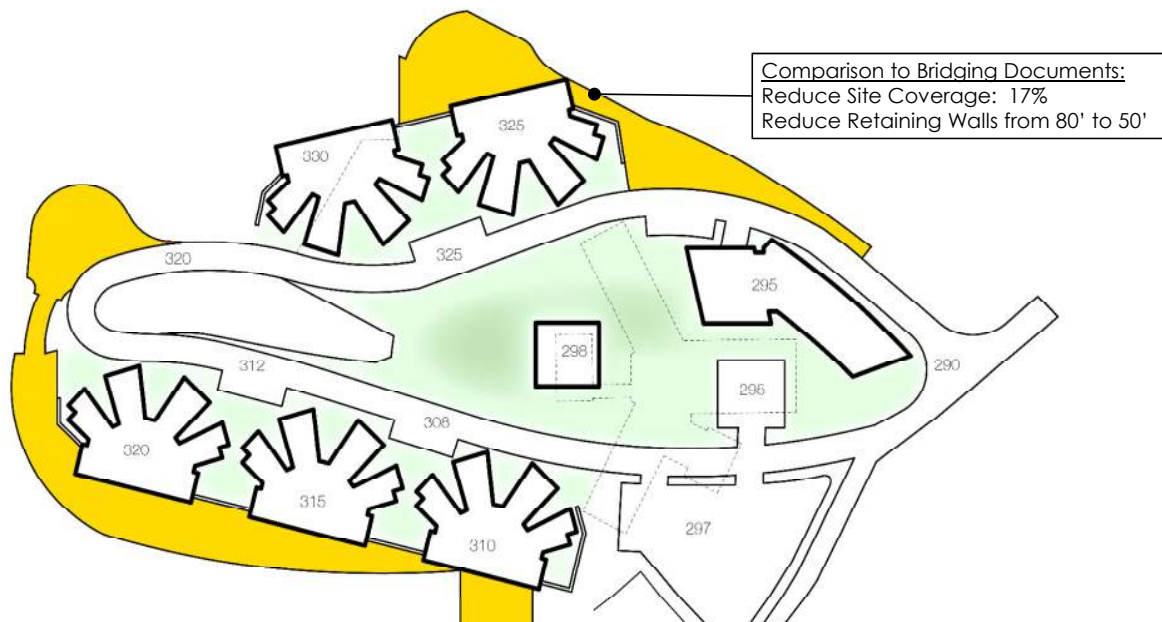


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Layout Options

Idea 4: Single phase building construction

13. SITE DESIGN



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Layout Options

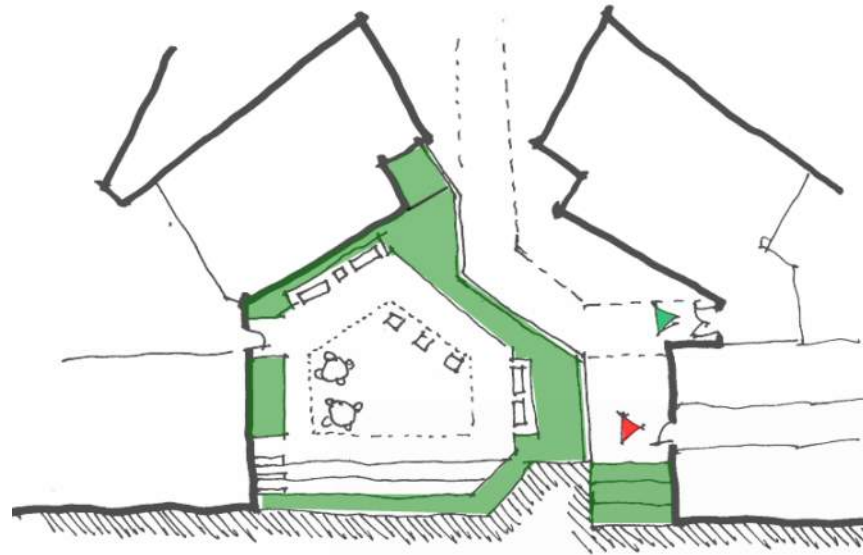
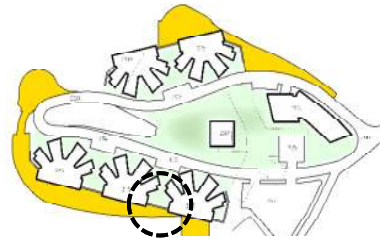
Idea 4: Single phase building construction

13. SITE DESIGN

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Layout Options
Idea 4: Courtyard

13. SITE DESIGN



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13. Site Tours

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14. Recap & Next Steps

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MEETING NOTES

Project Name Cordilleras Health System Replacement Project
 Project Number 005318.00
 Date March 21, 2018 / March 22, 2018
 Time 9:00 AM-4:00 PM / 9:00 AM-12:00 PM
 Place PDU Trailer – 1402 Maple Street, Redwood City

Attendees	Michael Smith	CannonDesign	Jim Mosier	SMC-PDU
	Deepa Balgi	CannonDesign	Sam Lin	SMC-PDU
	John Phung	CannonDesign	Deborah Bazan	SMC-PDU
	Carey Woo	CannonDesign	Kate Werner	MIG-TRA
	Tim Rommel	CannonDesign	Taylor Peterson	MIG-TRA
	David Sass	CannonDesign	Louise Rogers	SMC-HS
	Will Ransom	CannonDesign	David Young	SMC-HS
	Keith Hammelman	CannonDesign	Larry Funk	SMC-HS
	Gustavo Lopez	CannonDesign	Terry Wilcox	SMC-HS
	Steve Moreland	KPFF	Peter Shih	SMC-HS
	Manuela King	RHAA	Tony Burley	IBI Group
	Robin Kim	RHAA	Don Horsley	SMC-Board of Supervisors

Discussion: Fist Visioning Session Day 1: March 21, 2018

INTRODUCTIONS:

1. Terry Wilcox gave introduction and provided some background: Cordilleras opened 100 years ago and is a “sacred healing ground”. It was a TB clinic in 1920. In 1978 the facility opened as a MHRC
2. Request that the team watch the movie, *When Medicine Got it Wrong*.
<http://www.whenmedicine.org/MedW/Home.html>
3. The Board did a feasibility study with HGA in 2013 and crafted a vision statement: Vision statement was distributed (see attached) and reviewed with primary bullets:
 - a. Focus on wellness to be healthy
 - b. Promote respect
 - c. Build Community
 - d. Heal through Nature
 - e. Strive for Recovery
4. The question was posed: “If you could do it over again what would you do differently?” Improve overall metrics for success, residents, staff, lengths of stay and reduce the need for return.
5. Review of the County of San Mateo understanding of Design Parameters for Cordilleras Project. (See attached) The 3 big takeaways:
 - a. Five independent licensed residential programs.
 - b. Organizationally distinct. (management structure, not building program)
 - c. Targeting sub population for each building.
6. Review of Key Design Elements – List provided (See attached) - **We cannot deviate from these requirements for assurance of funding and reimbursement.**

SECTION 1: OBJECTIVES AND GOALS FOR THE WORKSHOP

7. Michael Smith provided an introduction and reviewed of the goals for the workshop.

SECTION 2: CORE TEAM + COMMUNICATION

MEETING NOTES

2

8. All comunication will be filtered through Jim Mosier and Deepa Balgi (If they are not copied the communication never happened)

SECTION 3: PROJECT SCHEDULE

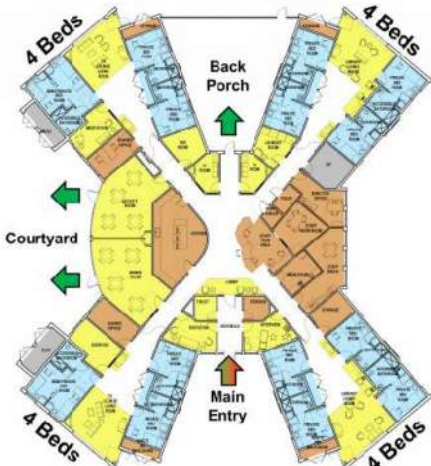
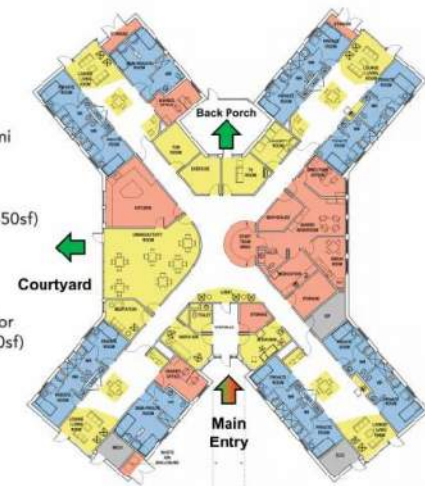
9. Jim Mosier: RFP for CM at risk is going out next week. (3/26/2018)
10. 50% CD will be used to start the EIR (Environmental Impact Report) process. This will include project description.
11. Wildlife resources and environmental impact study, especially concerned with site works.
 - a. Mitigation Plan required for permitting.
 - b. Dusky-footed woodrat relocation in important.
12. Taylor Peterson reviewed the EIR Process.
13. The County permitting process is also important and runs on a parallel track with CEQA.
14. Confirmed that the project does not need to open a new NOP unless a substantial change from the original project.
15. Don Horsley, Supervisor, mentioned that he is personally interested in not using jails to accommodate the needs of behavioural health. Consider a dedication/ memorial donor area in the new facility.
16. Traffic, parking and access increases need to stay on the radar for this review. Parking for community recreational trail access may need to be accommodated. Design team needs to account for construction parking along with the visitor parking.
17. Interaction with the fire department is essential for access and parking.
18. Terry: help to normalize the process during construction. Sound proofing walls with windows. Mitigate the clinical impact of the construction. The clients will be interested in observing the design and construction process.
19. Facility Tours:
 - a. Tour dates and locations need to be defined. Coordinate tours through Jim Mosier.
 - b. The tours will be looking for solutions to very specific problems and patient populations of very distinct models of care.
 - c. IBI gave will be able to provide examples of several locations in Europe to tour.
 - d. The facilities the county had already visited:
 - i. Feasibility Study lists all the places they visited and a spreadsheet that describes what they learned.
 - ii. Massachusetts – village idea
 - iii. North Carolina – farm idea
20. David Young: Integrated technology is of interest.
21. Louise Rogers mentions a Michael Moore film to watch: “The Next Great Invasion” (Movie)

SECTION 4: BREAK

MEETING NOTES

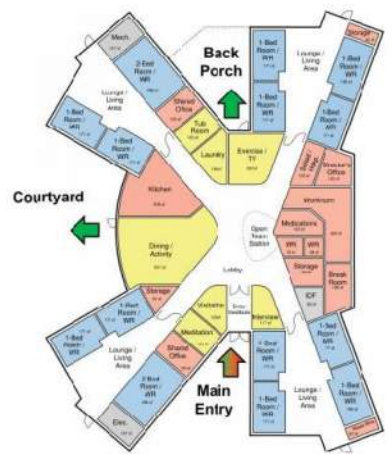
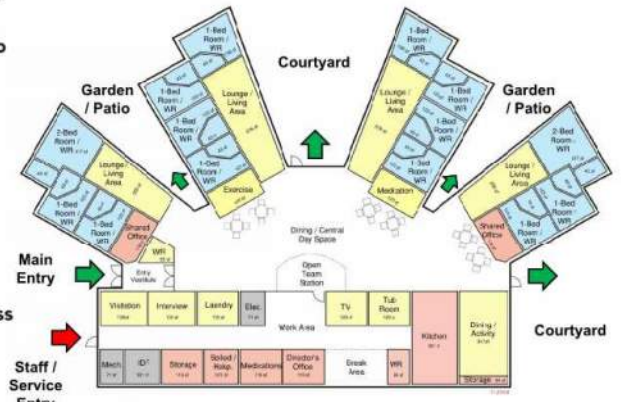
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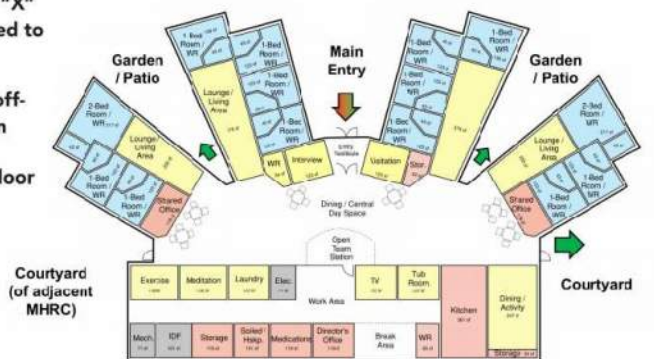
SECTION 5: PROGRAM VALIDATION

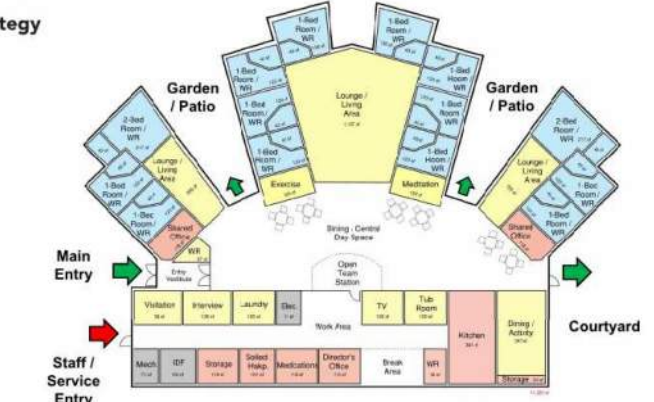
<p>OPTION 1</p> <p>MHRC - Reference Design Key Objective / Drivers</p> <ul style="list-style-type: none"> • 4-bed clusters • Integrated living rooms • Distributed staff • Access to outdoors • Corridor sightlines <p>12,375 sf 135' x 151'</p> 	<ul style="list-style-type: none"> • Takeaway is that 4 wings is more of a minimum.
<p>OPTION 2</p> <p>MHRC - Design / Build Proposal Program Impacts</p> <ul style="list-style-type: none"> • Align bedroom sizes with California building code <ul style="list-style-type: none"> • CBC calls for 120 sf Private / 200sf Semi • Note: FGI calls for 100sf Private / 160 sf Semi • Align Activity / Dining with FGI Healthcare Guidelines <ul style="list-style-type: none"> • Total of 40sf per patient (1 @ 640sf vs 2 @ 450sf) • Note: CBC calls for 30 sf per patient • Reduce Tub, Laundry, Meditation, Exercise from 130 or 140 sf to 120 sf <ul style="list-style-type: none"> • 120sf is larger than CBC or FGI Guidelines for rooms where minimums are given (often 100sf) • Reduce to 1 TV / Quiet Room (per Addendum) • Soiled / Hskp. Increased to 100sf <p>10,900 sf (1,475 sf smaller) 124' x 150' (11' narrower)</p> 	<ul style="list-style-type: none"> • The reduction of activity space from 130 to 100SF per patient was acceptable in the second interview scheme. • Fewer number of bed wings is problematic, it causes larger groups/populations to congregate in hallways • Sightlines get too long • Want a larger variety of spaces / patient choice. • subgroup flexibility with in the units. • Perhaps a smaller bed wing (a tail) for a specialized group. • One pod is envisioned for a more medically complicated patient population and one for a younger population. Acute care populations. • They planned on the worst-case-largest MHCP program for all the units. • Less mobile patients would not have the congregation issues and there may be an opportunity for two distinct pods. • Patient profiles can be provided by the hospital

MEETING NOTES

4

<p>OPTION 3</p> <p>MHRC - Other Opportunities? Functional Enhancements</p> <ul style="list-style-type: none"> • Maintain core County Objectives for MHRC's • Compress width • Bed Wing geometry considerations <p>10,900 sf (same as previous) 112' x 147' (12' narrower than previous)</p> 	<ul style="list-style-type: none"> • They have a good grasp on the quality of outdoor space for each option. • Orientation on site • Visibility should take advantage of the site/views • Liked the elimination of blind spots, very important.
<p>OPTION 4</p> <p>MHRC - Other Opportunities? Alternate Site Concept</p> <ul style="list-style-type: none"> • Engage MHRC's into hillsides • Explore more on-stage / off-stage separation • Consider open common area / separate activity • Consider alternate outdoor space access • Internalize MEP rooms 	<ul style="list-style-type: none"> • Really like the garden patios, more possibilities for outdoor activities that can provide different experiences. • 3D jigsaw. Concerned about the grading of the exterior space. Concerns about site placement. • Concern about safety and fire alarms for staff to accommodate. • On-stage/off-stage is awesome. Like that very much. • Concern about safety and fire alarms for staff to accommodate. • Delivery access as well as how patients arrive and are discharged. • Entry could be shared between two buildings. • Access to the outdoor spaces, number of and quality of plus security of those spaces.

<p>OPTION: 5</p> <p>MHRC - Other Opportunities? Alternate Site Concept</p> <ul style="list-style-type: none"> • Entry similar to "X" layouts developed to date • Less on-stage / off-stage separation • Impacts on outdoor space 	<ul style="list-style-type: none"> • Delivery access as well as how patients arrive and are discharged. • Access to the outdoor spaces, number of and quality of plus security of those spaces. • Really like the garden patios, more possibilities for outdoor activities that can provide different experiences. • On-stage/off-stage is awesome. Like that very much. • Concern about safety and fire alarms for staff to accommodate.
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<p>OPTION: 6</p> <p>MHRC - Other Opportunities? Alternate Site Concept</p> <ul style="list-style-type: none"> • Is a 3-wing strategy relevant in this scenario? 	<ul style="list-style-type: none"> • Jerry does not like the loss of the large patio. • Large break workroom: Building management services provider need to be separate from the care provider. Workroom is meant to accommodate these two entities. • Needs to be thought through more to identify the exact spatial need. • Potential for more conflicts. • Still need /want to have a floor that flips supportive housing to flip use to a MHRC.
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22. **Supportive Housing:**
- Separate entity runs the facility & provides services
 - More workspace could be important
 - Potential to convert a floor into MHRC

- Delayed egress – enough office / open space

SECTION 5: LUNCH

SECTION 9: BIOPHILIC DESIGN

- Louise suggested looking at William Curtis' work linking biophilia to the idea of mindfulness. Patients, staff and the entire system would be interested in the approach this project takes regarding this concept.
- Jerry: Outdoor therapy program is not formal but there are some activities -horticultural / recreational.
- Louise suggested looking at the new Doyle Drive to the golden gate bridge as a precedent.
- San Mateo Building code requires colours that are compatible with the natural surroundings
- Sam Lin suggested we look at the BCJ fireplace design at the Seattle City Hall.

SECTION 8: SUSTAINABLE DESIGN

- How do you define sustainability? - Reuse, conservation, long lasting, affordable, mitigating impact, local products, systems, reduce carbon impact, mindset / culture.
- PDU expressed concern about the department of public works and their ability to maintain and operate the net-zero / sustainable features of the building.
- Transportation:
 - Parking study has been done. Clients are brought by ambulance. Parking space for staff is necessary. Bus services are available 2 times a day (not very reliable).
- Land Use:
 - Flood detention, Infiltration, could use biofiltration, meet C3 Prohibitions, material selection
 - tree survey / arbor forestry report study has been done.
- Bioclimatic design:
 - Secured operable windows, natural ventilation
- Lighting systems:
 - Occupant controlled adjustable lighting in each room. Staff has control to override system. Concerns with staff training about BMS systems.
- Resiliency:
 - 12 hrs of power & water
- Waste management:
 - Policy in place
- Food service:
 - Food would be centrally prepared and then distributed to each MHRC. Kitchen will be more like a life sciences kitchen. Each MHRC would contract independently with food service vendor. Garden produce could potentially be used in kitchen.
- Indoor cleaning & maintenance:
 - DPW (contractor).
- There is a county sustainability office which sets standards for the county.
- CannonDesign will have a more detailed workshop for sustainability after a preferred site plan has been selected.

SECTION 10: FOOD FOR THOUGHT

- Questions were given to attendees to think about overnight and come prepared for an interactive activity for the second day of the visioning workshop.
 - If you are a member of the community, what first drew you to the new Cordilleras campus, and what surprised and delighted you while you were there?
 - If you are a staff member, what differences in patient outcomes did you begin to observe one year after the facility opened?
 - If you are a family member, what do you like most about the new Cordilleras campus and its facilities?
 - If you are a client, what are some of the things about Cordilleras that give you a sense of comfort, security and belonging – that help you feel at home?

MEETING NOTES

7

Discussion: Fist Visioning Session Day 2: March 22, 2018

SECTION 11: VISIONING ACTIVITY

41. Question 1: If you are a member of the community, what first drew you to the new Cordilleras campus, and what surprised and delighted you while you were there?
 - a. Terry: Visit art show at the community center, Good food, Volunteer work, Education about mental illness, worship in the chapel
 - b. Active participation, engagement, de-stigmatization
 - c. Larry Community – Privacy of the site, Serenity, A break from the city noise, Access to nature. Residential scale of the facility compared to the larger center.
 - d. Jim: People know the facility is there but it is not intrusive to the community
 - e. They want anonymity unless the system drives them to visit.
 - f. Terry – wants to draw in the community to use the facility for community events. Neighbours should be included.
 - g. Volunteer lockers to keep belongings in if they want to engage.
 - h. Feel welcomed and greeted. Historical presentation or educational presentation.
 - i. Tim: Facility is looking to have this facility be a new model in de-stigmatization.
 - j. David Young: The facility could facilitate a volunteer program to engage the community.
 - k. Peter: Facility needs to be a community asset.
42. Question 2: If you are a staff member, what differences in patient outcomes did you begin to observe one year after the facility opened?
 - a. Sam: Happier, hopeful, more comfortable, more interactions with staff, gather in public spaces, nice place for families to visit on a more regular basis. Staff likes the building and design. Parking is an issue for visitors
 - b. Jim: happy building management and maintenance staff.
 - c. Larry: Hope for improved wellness, a place for people to go for loved ones, improved access, space available due to high turnover (currently hard to get a bed)
 - d. David: Safety should be very big priority and the perception of safety. Navigating the facility from a functional standpoint. Material suited for their purpose
 - e. Peter: Improved safety & perception of safety for the staff. Ease of navigation of the facility
43. Question 3: If you are a family member, what do you like most about the new Cordilleras campus and its facilities?
 - a. Tony: It is uplifting to arrive on campus, fast & free wifi, Café, nice place to spend some time, comforting to visit your family member who is being well cared for in this beautiful facility,
 - b. Will: Kids visitation. How can we help child visitors not be scared?
 - c. David: Pride in the facility that houses their love ones. No shame.
 - d. Tim: Goal: That this is the last facility that needs to be built because we have affectively serviced the community to take control of their mental health.
 - e. Deborah: Upon arrival families have experienced years of loss and frustration so it is important for families to see their loved ones safe and cared for.
 - f. Louise: Hope for the future. Programs and activities as a Hope generator.
44. Question 4: If you are a client, what are some of the things about Cordilleras that give you a sense of comfort, security and belonging – that help you feel at home?
 - a. Jim: This place is great! Enjoy taking daily walks, playing, learning to cook and gardening.
 - b. David: Clients feel "I don't want to be here because I have issues. I don't have freedom but...There is a community here and I can move around and there is hope for recovery."
 - c. Peter: Enjoy being a part of a community, made new friends, more welcoming unlike an institution.
 - d. Having the freedom of choices.
45. There was some client engagement / solicitation for ideas. Terry will try to provide the summary / documentation from their original visioning.
46. Consider access to a variety of courtyard spaces.
 - o Have a path people could walk without obstruction. They need to walk as part of therapy. (Possibly a labyrinth)
 - o Gardening opportunity
 - o Shaded areas to sit in
 - o Group gathering areas with outdoor furniture
 - o Softened hardscape

MEETING NOTES

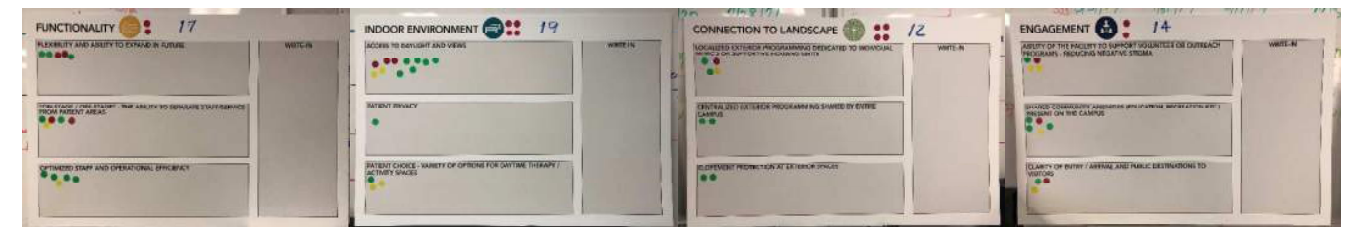
8

- o Fencing: security fencing (transparent or private)
- o Seamless transitions from dining to courtyard
- o Smoke free environment
- o Home like front porch with rockers
- o Seating areas along the paths
- o Existing Horticultural centre should be incorporated into the new design.
- o Contraband and other security concern with the exterior perimeter. Drones are also being used to deliver contraband

SECTION 11: VISIONING ACTIVITY

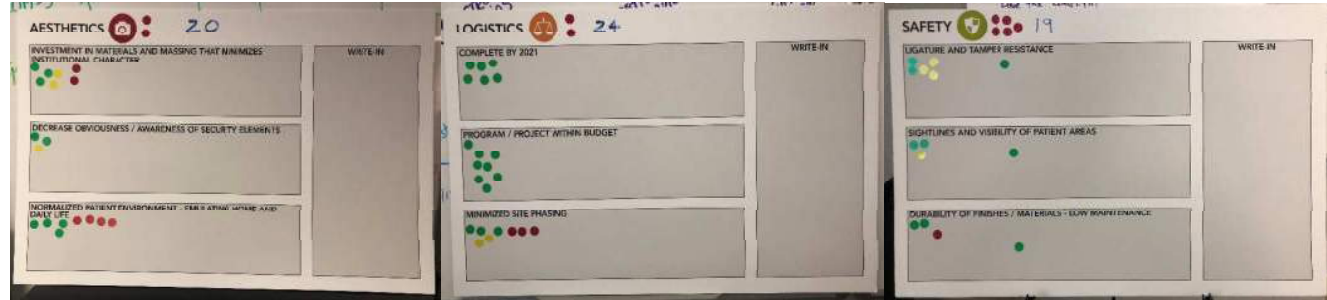
QUALITATIVE PROJECT GOALS

TOPIC:		DESCRIPTION:	ELEMENTS:
FUNCTIONALITY		THE QUALITY OF PATIENT AND CLINICAL STAFF SPACES AS THEY RELATE TO DESIRED FUNCTIONAL OUTCOMES	<ul style="list-style-type: none"> • Flexibility and Future Expansion • Patient-Focused / Active Treatment Model • Staff Efficiency and Satisfaction • On Stage / Off Stage Separation
INDOOR ENVIRONMENT		THE QUALITY OF THE INDOOR ENVIRONMENT AS IT RELATES TO ACTIVE ZONE, BED ROOMS AND STAFF AREAS	<ul style="list-style-type: none"> • Open Environments/ Access to Views (% glazing) • Privacy • Intuitive Wayfinding Strategies • Level of patient control over personal environment
CONNECTION TO LANDSCAPE "THERAPEUTIC PLATFORM"		THE ROLE OF THE LANDSCAPE AS A HEALING ENVIRONMENT	<ul style="list-style-type: none"> • Recreational Therapy • Outdoor Group Rooms / Exterior Programing • Healing Landscape Features, Restorative Gardens, Labyrinths etc.
AESTHETICS		WHAT ARCHITECTURAL FEATURES ARE IMPORTANCE TO THE AESTHETIC YOU ARE TRYING TO ACHIEVE?	<ul style="list-style-type: none"> • Roof forms • Materiality/ Durability • Visible Security – Fences Etc.
ENGAGEMENT		THE LEVEL OF COMMUNITY INTERACTION WITH THE HOSPITAL	<ul style="list-style-type: none"> • Encouraging Community Involvement / Normalization • Shared Resources (Gym, Conference Space, Outdoor Rec Therapy) • Public Outreach, Meetings, Presentations
SAFETY		FINDING A BALANCE BETWEEN SAFETY, FUNCTIONALITY AND NORMALIZATION	<ul style="list-style-type: none"> • Ligature-Resistance • Tamper-Resistance • Privacy • Access
LOGISTICS		BALANCE OF BUDGET, SCOPE AND SCHEDULE.	<ul style="list-style-type: none"> • Schedule • Cost • Phasing



MEETING NOTES

9



	TOTALS	HIGHEST PRIORITY TOPICS
FUNCTIONALITY	17	EVEN SPLIT
INDOOR ENVIRONMENT	19	ACCESS TO DAYLIGHT AND VIEWS
CONNECTION TO LANDSCAPE	12	LOCALIZED MHRC SPACES/PROGRAMS
ENGAGEMENT	14	ACCESS TO DAYLIGHT AND VIEWS
SAFETY	19	LIGATURE AND TAMPER RESISTANCE
AESTHETICS	20	NORMALIZED PATIENT ENVIRONMENT
LOGISTICS	24	PROGRAMMING AND PHASING

- 47. IBI: Lets be tough about doing better.
- 48. Sam: Every aspect should be included in budget. Treat it like your own money. If key elements are not included in the project, then we are not achieving our goals.

SECTION 12: SITE DESIGN

- 49. Terry would like to maintain the exterior area south of the existing building during construction.
- 50. Positive reaction to the idea 1:
 - a. clear and obvious improvements over the bridging documents.
- 51. K-scheme:
 - a. I think they like that they are losing courtyard space with the K scheme to improve the density.
- 52. Idea 2:
 - a. Doesn't have enough swing space between phases. Campus centre should be up front. Idea 2 probably not moving forward.
- 53. Idea 3a:
 - a. Less of an impact on the client flow.

MEETING NOTES

10

- b. Tim: Gradation of client acuity.
 - c. Jim M does not like the idea of breaking up the campus centre into two phases.
 - d. Terry: We need the campus centre in phase one.
 - e. Terry: There could be a phased decanting solution. They see the benefits but there are a lot of logistics to consider.
 - f. Louise: (Thinking that some vacancies may be possible to clear some space). Try to make ourselves some "wiggle room" in terms of impact on patient population and the smoothness of the transition.
54. Idea 4:
- a. Single phase building construction. More MHRC's would be constructed faster so clients wouldn't have to be temporarily relocated. Lots of value to continue exploration. This option brings the road to the center of the site. There are concerns about safety.
55. Things we heard:
- a. Loop road could be either internal or external.
 - b. Supportive housing at "front"
 - c. Not necessary to maintain a 5% slope but we need to make sure their safe pedestrian routes.
 - d. Maximum number of beds in phase 1
 - e. Merit in some of the other MHRC layouts so it's possible to continue to expand our explorations.
56. Recap from day 1:
- a. K is viable but not an ideal trade-off
 - b. Not moving forward with the three-wing approach
 - c. Separation of staff and visitors is very desirable.
57. Next steps.
- a. Come together again in three weeks (April 10, 2018) and leave with a preferred approach.
 - b. Supportive housing at the front with a loop road
 - c. Internal loop road solution
 - d. Study the internal workings of the supportive housing.
 - e. Zoning and organizing the internal portion of the site.
58. Team to stop referring back to the Design Build. Project name is now **Cordilleras Health System Replacement Project**.

To the best of my knowledge, the above items were discussed. Should there be any additions or corrections, please advise CannonDesign in writing within seven days. We will consider these meeting notes an accurate record for proceeding with the necessary "actions", unless informed otherwise as noted.

Prepared by,

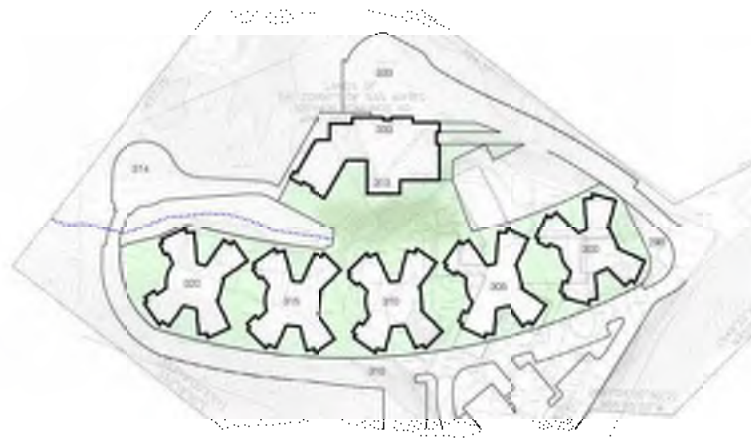
Deepa Balgi
Project manager

Attachments:

- Vision Statements
- Key Design Elements Required for Cordilleras Project
- County of San Mateo Interdepartmental Correspondence
- CannonDesign Presentation

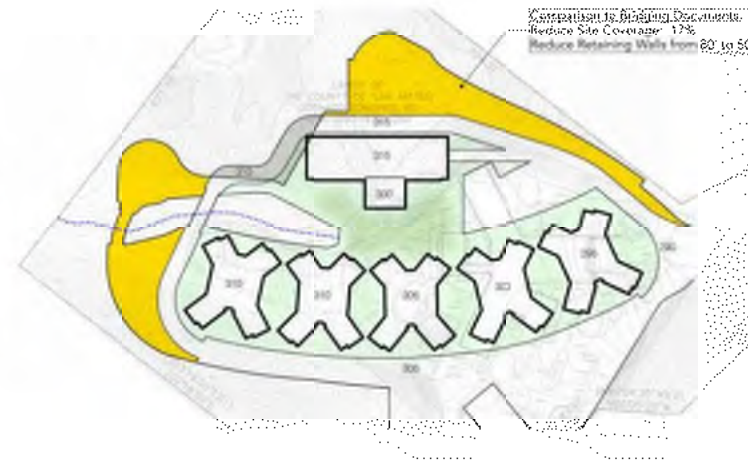
cc: Attendees

BRIDGING DOCUMENTS:



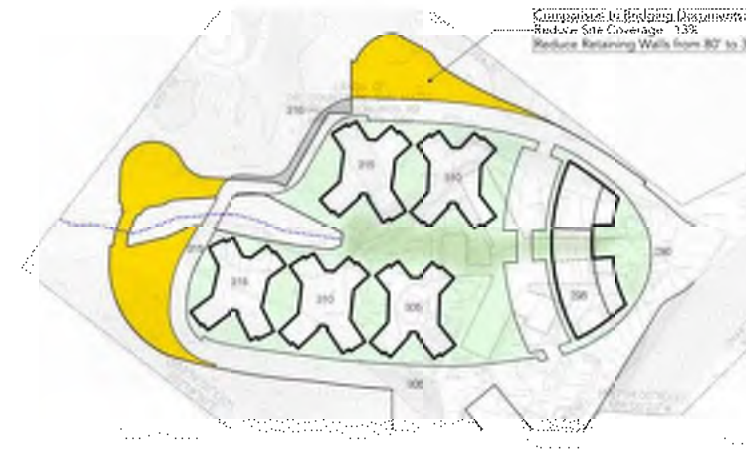
- Tallest retaining wall is 85'
- Two turnarounds
- 3 MHRCs built in 1st phase

**IDEA 1:
DESIGN-BUILD WITH LOOP ROAD**



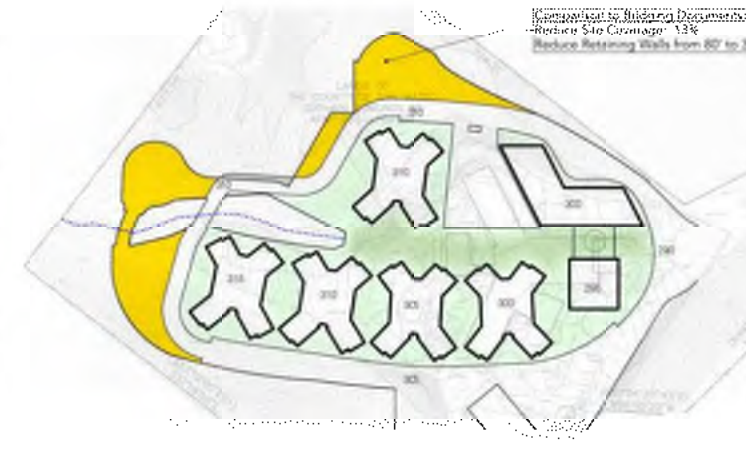
- Reduce site area & retaining walls
- Loop road omits turnarounds
- MHRCs more efficient

**IDEA 3a:
CURVED SUPPORTIVE HOUSING IN FRONT**



- Reduce site area & retaining walls
- More prominent Supportive Housing
- 4 MHRCs built in 1st phase

**IDEA 3c:
SUPPORTIVE HOUSING IN FRONT, 4 + 1 MHRC**



- Reduce site area & retaining walls
- Supportive housing built in 1st phase
- 4 MHRCs built in 1st phase

DESIGN-BUILD ALTERNATIVE:



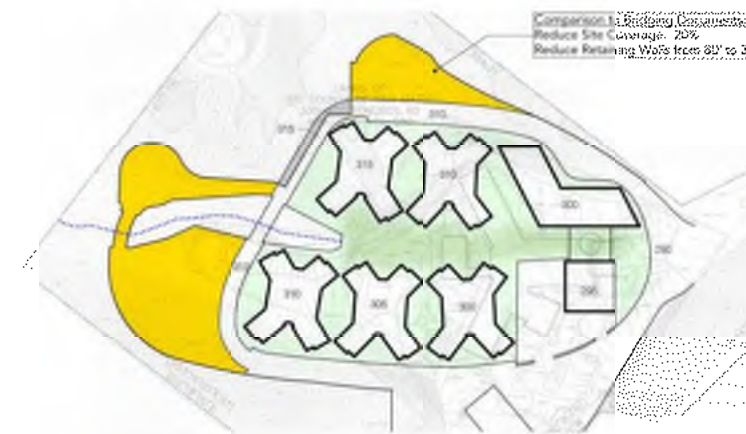
- Reduce site area & retaining walls
- Simplify Supportive Housing
- MHRCs more efficient

**IDEA 2:
SUPPORTIVE HOUSING
IN BACK**



- Reduce site area & retaining walls
- More prominent MHRC buildings
- Supportive housing built in 1st phase

**IDEA 3b:
SUPPORTIVE HOUSING IN FRONT, 3 + 2 MHRC**



- Reduce site area & retaining walls
- Supportive housing built in 1st phase
- 3 MHRCs built in 1st phase

**IDEA 4:
SINGLE PHASE BUILDING CONSTRUCTION**



- Reduce site area & retaining walls
- All buildings may be built in 1st phase
- Organized around central green

LOGISTICS



COMPLETE BY 2021



PROGRAM / PROJECT WITHIN BUDGET



MINIMIZED SITE PHASING



WRITE-IN

TOTAL

24

INDOOR ENVIRONMENT



ACCESS TO DAYLIGHT AND VIEWS



PATIENT PRIVACY



PATIENT CHOICE - VARIETY OF OPTIONS FOR DAYTIME THERAPY / ACTIVITY SPACES



WRITE-IN

TOTAL

19

CONNECTION TO LANDSCAPE



LOCALIZED EXTERIOR PROGRAMMING DEDICATED TO INDIVIDUAL MHRC'S OR SUPPORTIVE HOUSING UNITS



CENTRALIZED EXTERIOR PROGRAMMING SHARED BY ENTIRE CAMPUS



ELOPEMENT PROTECTION AT EXTERIOR SPACES



WRITE-IN

TOTAL

12

AESTHETICS



INVESTMENT IN MATERIALS AND MASSING THAT MINIMIZES INSTITUTIONAL CHARACTER



DECREASE OBVIOUSNESS / AWARENESS OF SECURITY ELEMENTS



NORMALIZED PATIENT ENVIRONMENT - EMULATING HOME AND DAILY LIFE



WRITE-IN

TOTAL

20

ENGAGEMENT



ABILITY OF THE FACILITY TO SUPPORT VOLUNTEER OR OUTREACH PROGRAMS - REDUCING NEGATIVE STIGMA



SHARED COMMUNITY AMENITIES (EDUCATION, RECREATION ETC.) PRESENT ON THE CAMPUS



CLARITY OF ENTRY / ARRIVAL AND PUBLIC DESTINATIONS TO VISITORS



WRITE-IN

TOTAL

14

SAFETY



LIGATURE AND TAMPER RESISTANCE



SIGHTLINES AND VISIBILITY OF PATIENT AREAS



DURABILITY OF FINISHES / MATERIALS - LOW MAINTENANCE



WRITE-IN

TOTAL

19

FUNCTIONALITY



FLEXIBILITY AND ABILITY TO EXPAND IN FUTURE



"ON-STAGE / OFF-STAGE" - THE ABILITY TO SEPARATE STAFF/SERVICE FROM PATIENT AREAS



OPTIMIZED STAFF AND OPERATIONAL EFFICIENCY



WRITE-IN

TOTAL

17

Workshop 2



CREATING THE FUTURE OF BEHAVIORAL HEALTHCARE IN SAN MATEO COUNTY
Cordilleras Health System Replacement Project

1. Introductions

CANNONDESIGN

WORKSHOP 2 Agenda

Tuesday April 10		
AM	9	1. Introduction – Site & Program Overview
		2. Site/Building Concept A
		3. Site/Building Concept B
		4. Site/Building Concept C
PM	12	5. Lunch
	1	6. Landscaping Visioning
	1:45	7. Concept Evaluation
	3:15	8. Next Steps

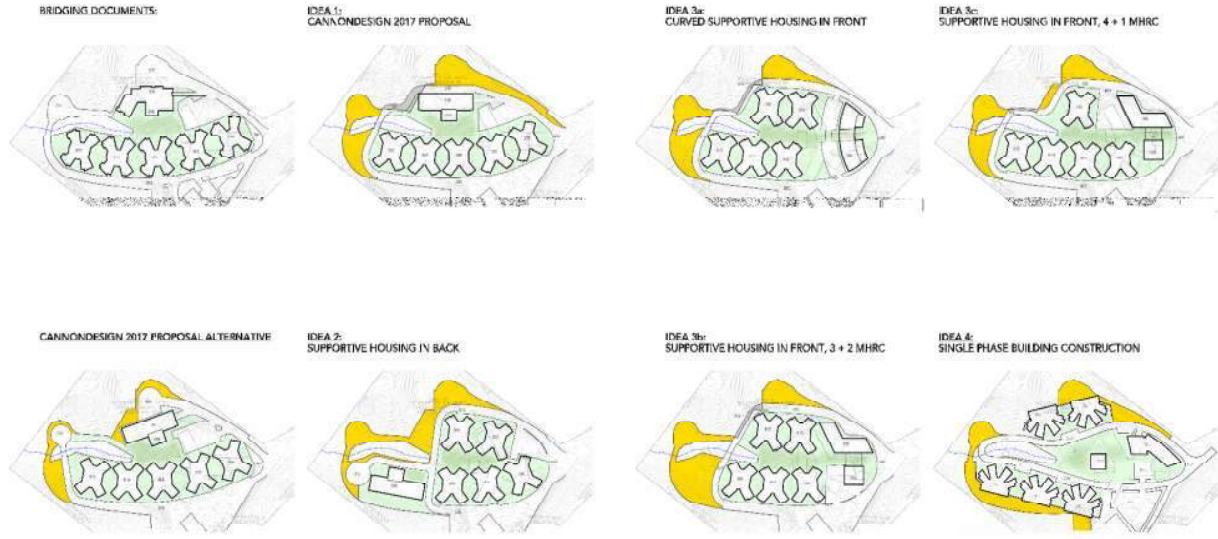
CANNONDESIGN

Concept Design Strategy

CANNONDESIGN

Site Plan
Workshop 1 Studies

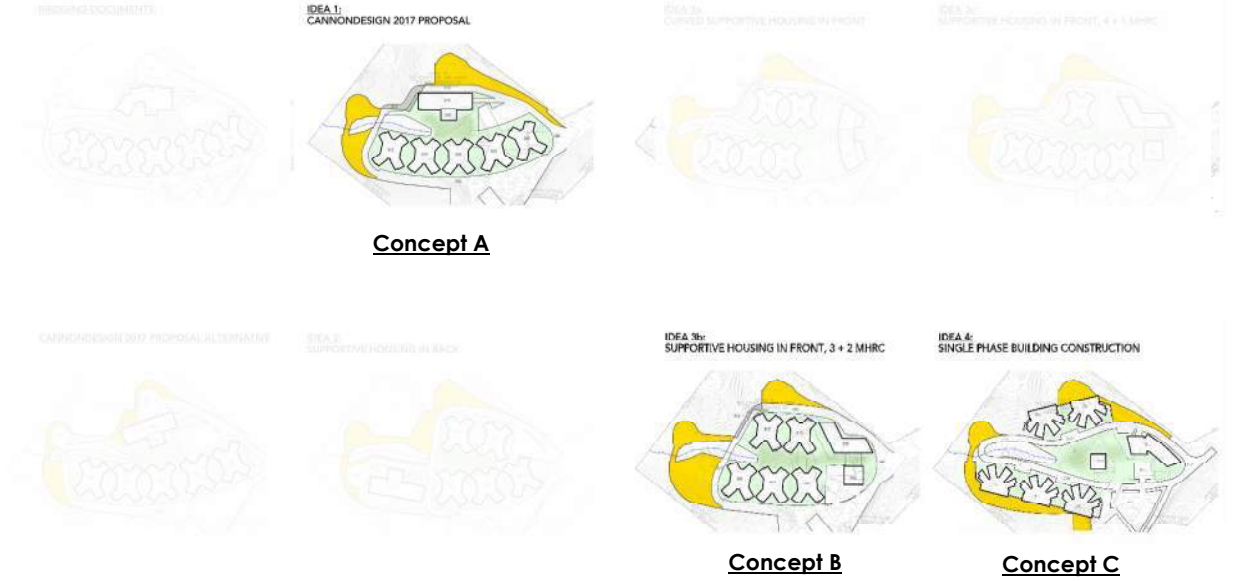
SITE DESIGN



CANNONDESIGN

Site Plan
Workshop 1 Studies

SITE DESIGN



CANNONDESIGN

Site Design Comparison

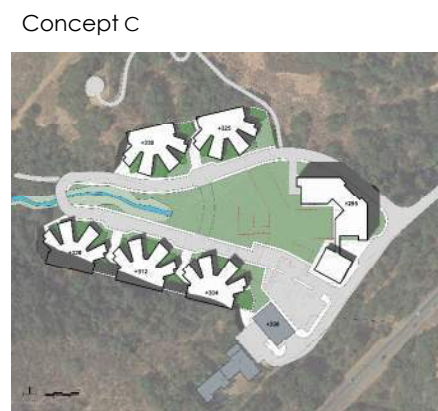
SITE DESIGN



Construct 3 MHRCs & Supportive Housing in 1st phase



Construct 4 MHRCs & Supportive Housing in 1st phase



Construct 5 MHRCs & Supportive Housing in 1st phase

CANNONDESIGN

Existing Conditions

SITE DESIGN



CANNONDESIGN

Concept A

CANNONDESIGN

Concept A

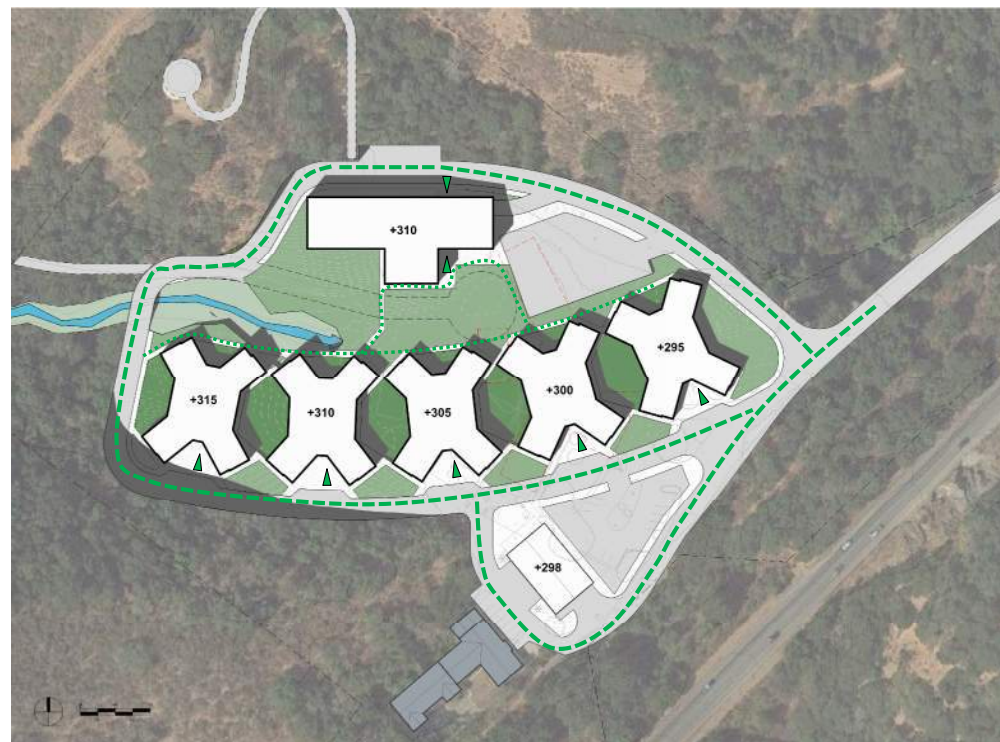
SITE DESIGN



CANNONDESIGN

Concept A Circulation & Open Space

SITE DESIGN

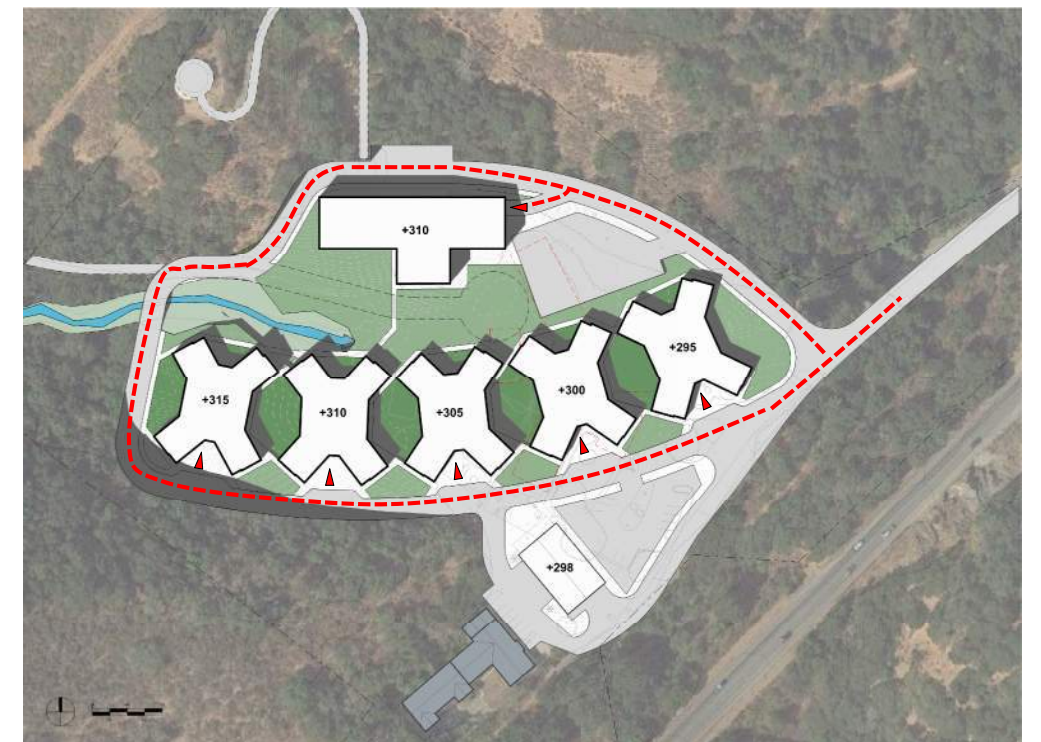


- VISITORS / COMMUNITY ACCESS
- ▶ VISITOR ENTRY
- STAFF/SERVICE ACCESS
- ▶ STAFF/SERVICE ENTRY
- FIRE DEPT ACCESS

CANNONDESIGN

Concept A Circulation & Open Space

SITE DESIGN



- VISITORS / COMMUNITY ACCESS
- ▶ VISITOR ENTRY
- STAFF/SERVICE ACCESS
- ▶ STAFF/SERVICE ENTRY
- FIRE DEPT ACCESS

CANNONDESIGN

Concept A
Circulation & Open Space

SITE DESIGN

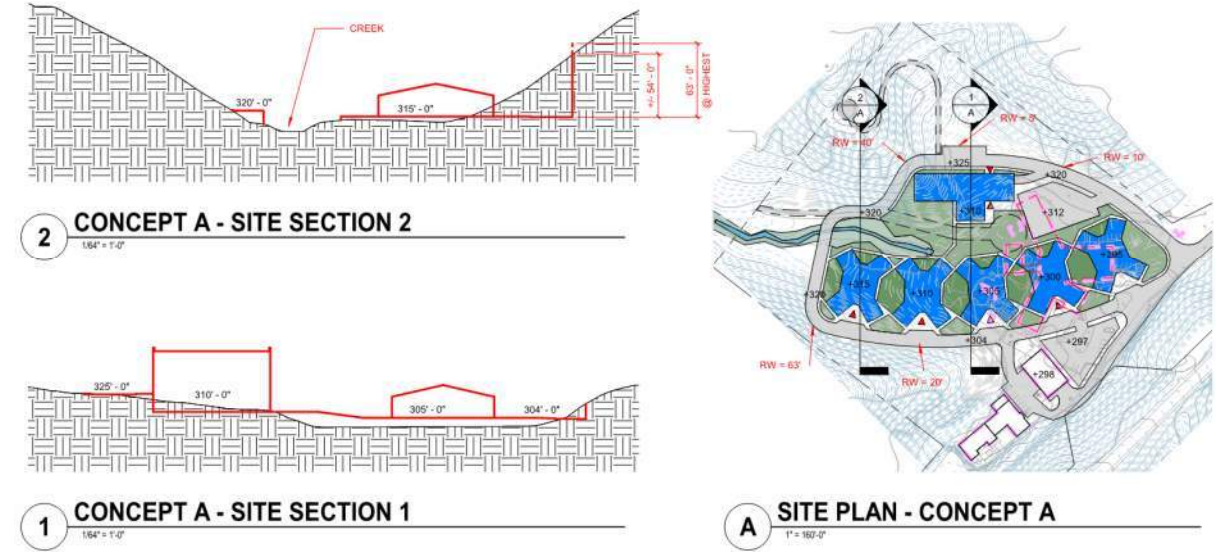
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- FIRE DEPT ACCESS



CANNONDESIGN

Concept A
Site Sections

SITE DESIGN

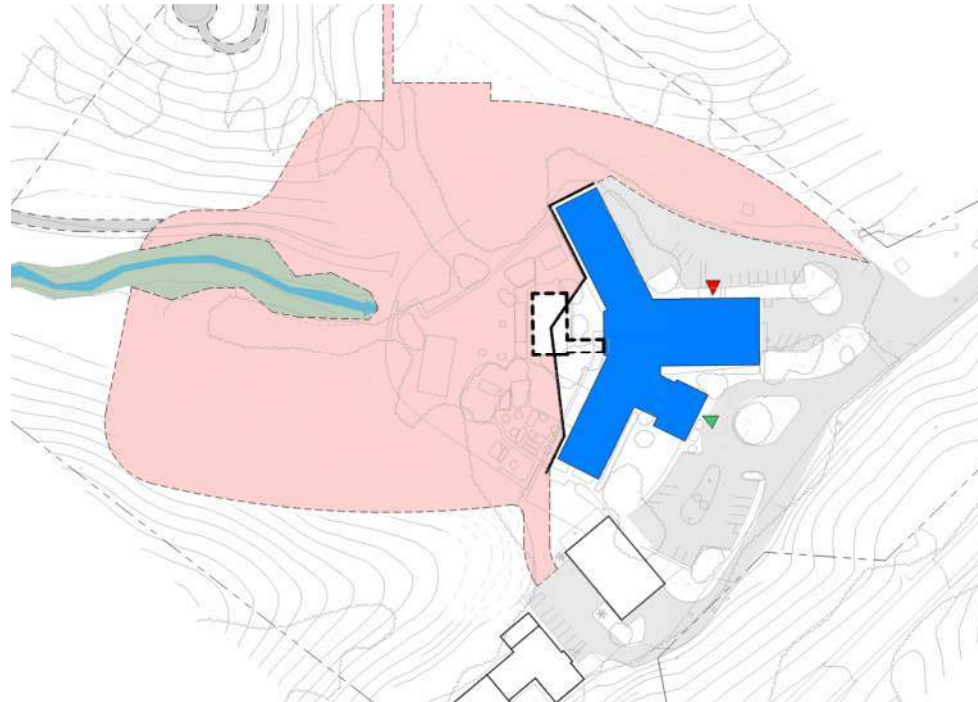


CANNONDESIGN

Concept A: Phasing
Sitework

SITE DESIGN

- Site clearing
- Demolish existing multipurpose room
- Temporary barrier
- Existing service entrance unchanged
- Existing main entry unchanged
- Reduced recreation area



CANNONDESIGN

Concept A: Phasing
Phase 1

SITE DESIGN

- Building loop road with connection between fire station and youth center
- Construct 3 new MHRCs
- Construct new Supportive Housing
- Existing building & some recreation area in use during construction



CANNONDESIGN

Concept A: Phasing Building Demo

SITE DESIGN

- Client relocation to new buildings
- Site clearing
- Demolish existing building



CANNONDESIGN

Concept A: Phasing Phase 2

SITE DESIGN

- Construction 2 MHRCs
- Complete loop road & parking lots
- Final site work & landscaping



CANNONDESIGN

Concept A Phasing & Client Bed Count

SITE DESIGN

	SITWORK	PHASE 1 (before the move)	BLDG DEMO (after the move)	PHASE 2
INDEPENDENT				
EXISTING	49	49	0	0
NEW	0	0	38	57
SECURED				
EXISTING	68	68	0	0
NEW	0	0	67	80
TOTAL	117	117*	105	137

CANNONDESIGN

Concept A Earthwork & Retaining Wall Impacts

SITE DESIGN

Cut/Fill Summary

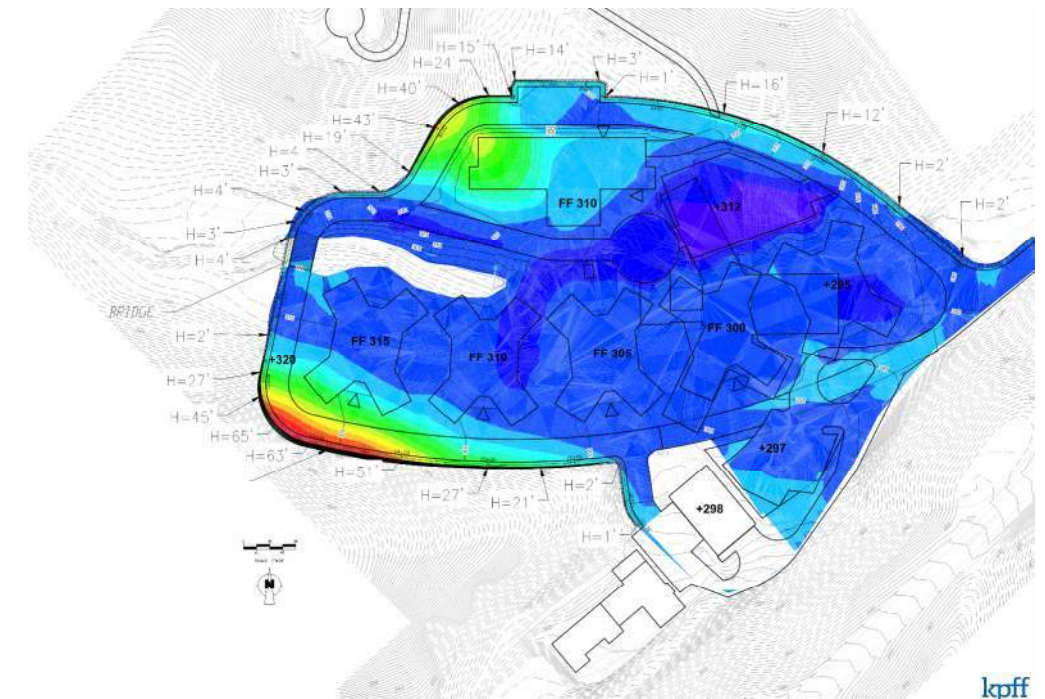
- Site 2d Area 285,445 sq ft
- Cut 48,975 cu yd
- Fill 42,087 cu yd
- Net cut 889 cu yd

Retaining Wall Face Area 27,800 sf

Earthwork / Ret. Wall Cost \$5.8 m

EARTHWORK TABLE (-) CUT (+) FILL			
Number	MINIMUM	MAXIMUM	Color
1	-70.000	-60.000	Red
2	-60.000	-55.000	Red
3	-55.000	-50.000	Orange
4	-50.000	-45.000	Yellow
5	-45.000	-40.000	Yellow
6	-40.000	-35.000	Light Green
7	-35.000	-30.000	Light Green
8	-30.000	-25.000	Green
9	-25.000	-20.000	Green
10	-20.000	-15.000	Light Blue
11	-15.000	-10.000	Light Blue
12	-10.000	0.000	Blue
13	0.000	10.000	Blue
14	10.000	15.000	Dark Blue
15	15.000	20.000	Dark Blue
16	20.000	25.000	Purple

CANNONDESIGN



kpff

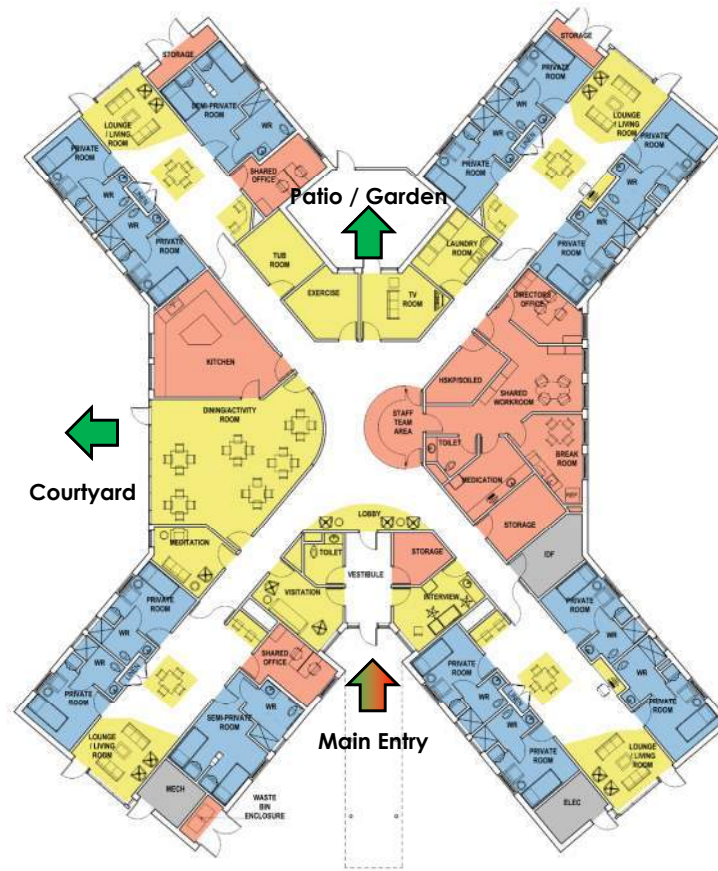
Concept A – MHRC: “X” Layout

Key Points

- Familiar Design – embodies input gathered from previous discussion
- Works well when MHRC’s are arrayed in a row – creates large individual courtyard; privacy considerations against adj. MHRC
- Small secondary outdoor patio / garden
- Single enclosed Dining / Activity Room
- Single Entry

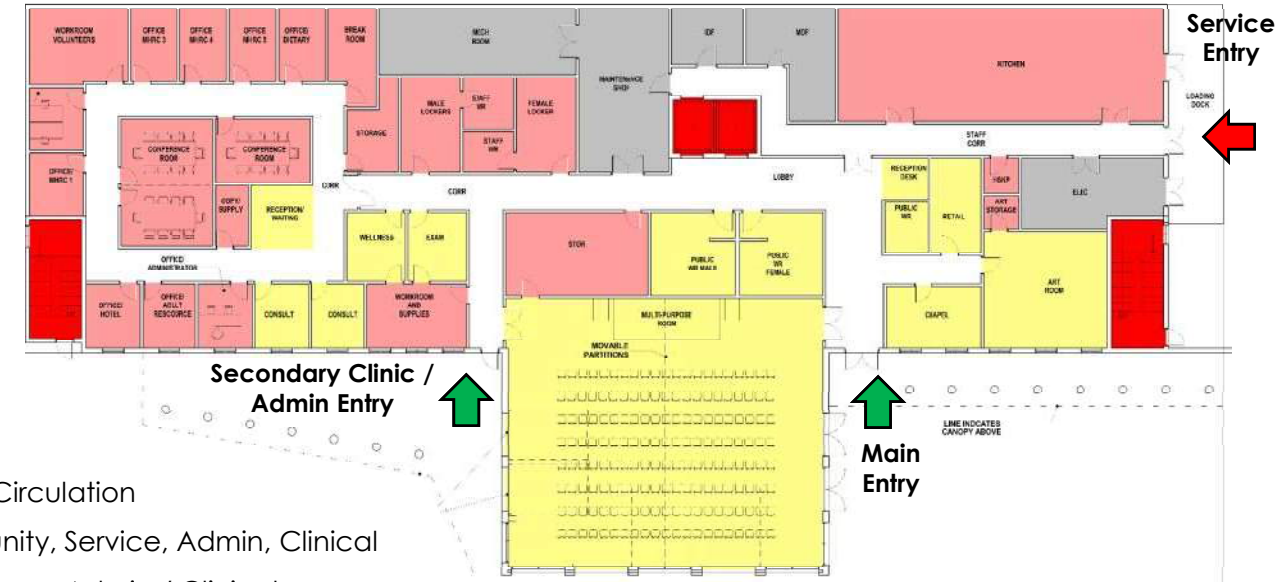
10,900 sf

CANNONDESIGN



Concept A – Supportive Housing

Level 1 – Campus Center



- Loading at East
- Back-of-House Circulation
- Zoning: Community, Service, Admin, Clinical
- Separate entry near Admin / Clinical
- Multi-purpose room engaged; roof occupiable

CANNONDESIGN

Concept A – Supportive Housing

Level 2,3,4 – Supportive Housing Units

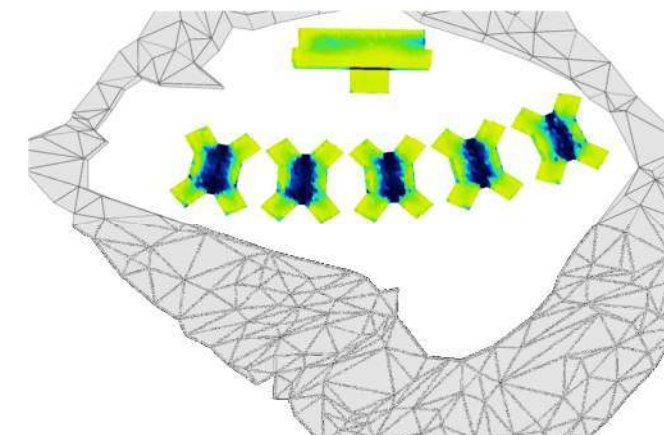
- Simple geometry
- Back-of-House Circulation
- Entry Lobby on Level 2
- 2 Distinct Bed Wings
- Outdoor space at ends of Bed Wings
- Outdoor space above Multi-purpose Room
- Sub-dividable Dining / Activity Room

CANNONDESIGN



Concept A

Daylighting & Energy Use



Percentage of occupied hours where illuminance is at least 45 footcandles, measured at 2.79 feet above the floor plate.



	MHRCs	Support
EUI [kBtu/ft ²]	28	30
Energy cost [\$]	64,000	65,000
PV size needed to zero [kW]	199	401
Total rooftop PV available [kW]		679

- Both MHRC and Support building HVAC systems are assumed to be VRF in combination with natural ventilation to reduce cooling loads.
- Rooftop PV analysis accounts for the impact of shading from topography to estimate how much PV capacity each option offers with MHRC and Support building rooftop areas

CANNONDESIGN

Concept A

SH + 3 MHRCs in Phase 1

SITE DESIGN

KEY FEATURES

- Construct Supportive Housing (SH) & 3 MHRCs in Phase 1.
- Shared recreation area with Campus Center frontage.
- Creek & headwall unchanged
- Secured courtyards between MHRCs

ADVANTAGES / DISADVANTAGES

- Large site disturbance.
- Large private courtyard for each MHRC
- High retaining walls front loop road.
- SH to accommodate secured beds in interim.
- Parking limited prior to final buildout.
- Fire access requirement between MHRCs and SH prevents permanent site furnishings in recreation area
- MHRC access to center green without crossing road



CANNONDESIGN

Concept B

CANNONDESIGN

Concept B

SITE DESIGN



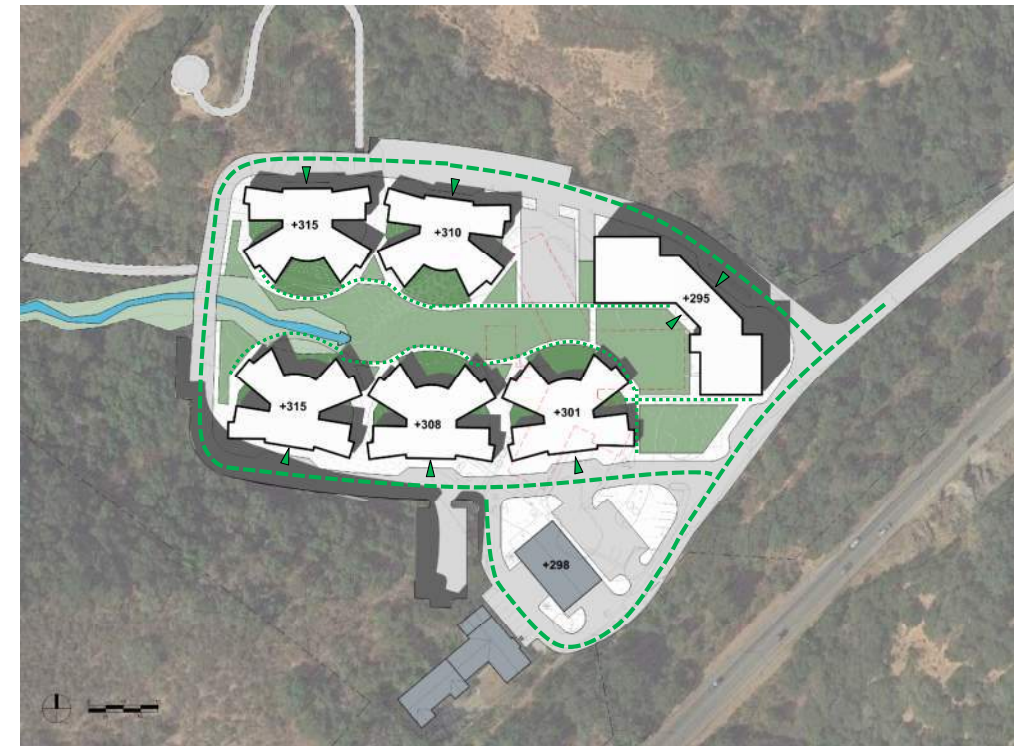
CANNONDESIGN

Concept B

Circulation & Open Space

SITE DESIGN

- VISITORS / COMMUNITY ACCESS
- ▶ VISITOR ENTRY
- STAFF/SERVICE ACCESS
- ▶ STAFF/SERVICE ENTRY
- FIRE DEPT ACCESS



CANNONDESIGN

Concept B
Circulation & Open Space

SITE DESIGN

- VISITORS / COMMUNITY ACCESS
- ▶ VISITOR ENTRY
- STAFF/SERVICE ACCESS
- ▶ STAFF/SERVICE ENTRY
- FIRE DEPT ACCESS

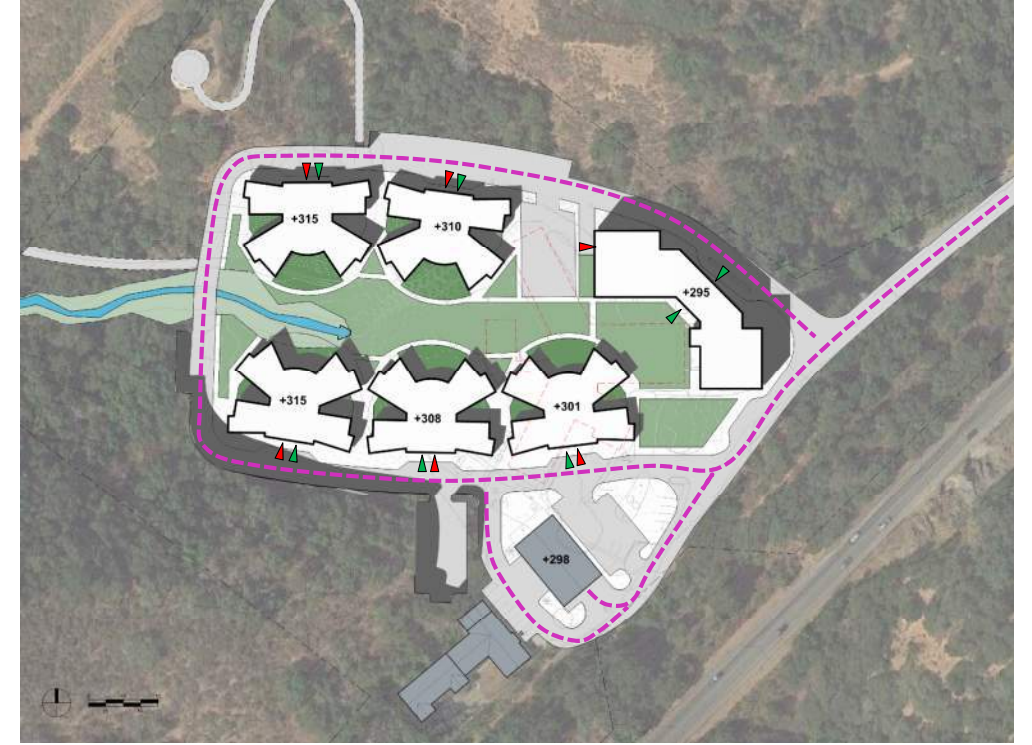


CANNONDESIGN

Concept B
Circulation & Open Space

SITE DESIGN

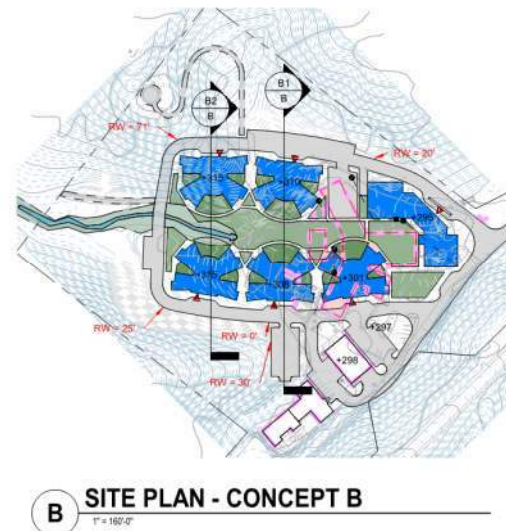
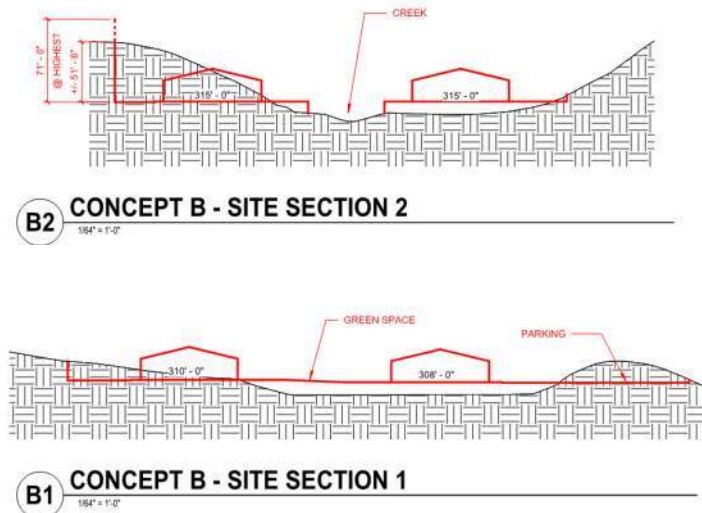
- VISITORS / COMMUNITY ACCESS
- ▶ VISITOR ENTRY
- STAFF/SERVICE ACCESS
- ▶ STAFF/SERVICE ENTRY
- FIRE DEPT ACCESS



CANNONDESIGN

Concept B
Site Sections

SITE DESIGN

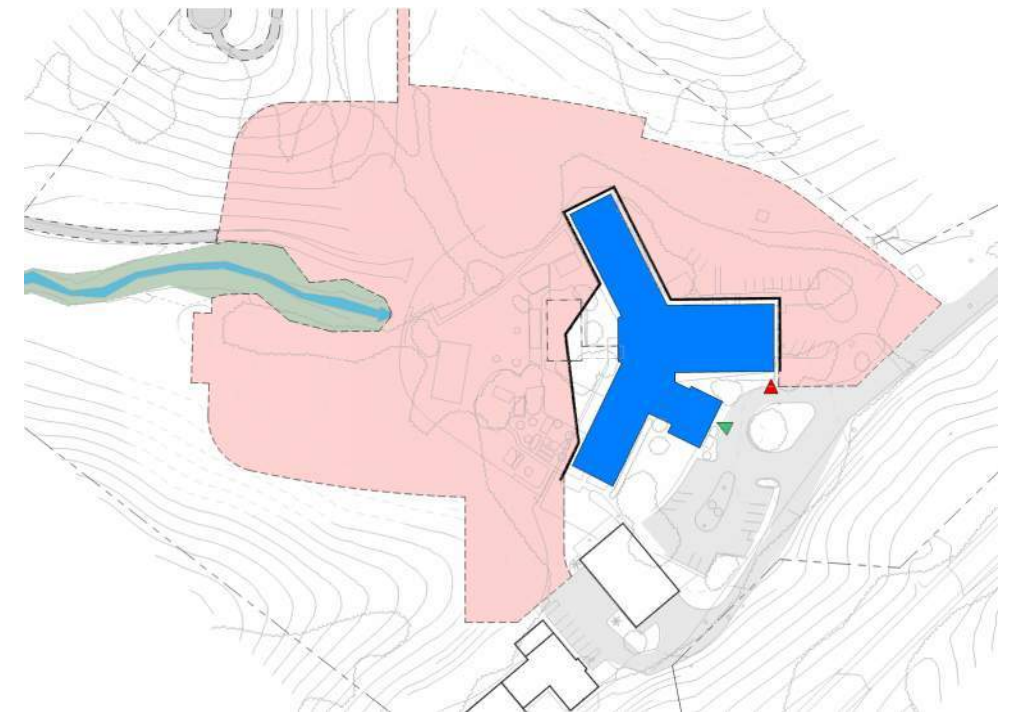


CANNONDESIGN

Concept B: Phasing
Sitework

SITE DESIGN

- Site clearing
- Demolish existing multipurpose room
- Temporary barrier
- Reduced parking capacity
- Relocation of building service entrance
- Existing main entry unchanged

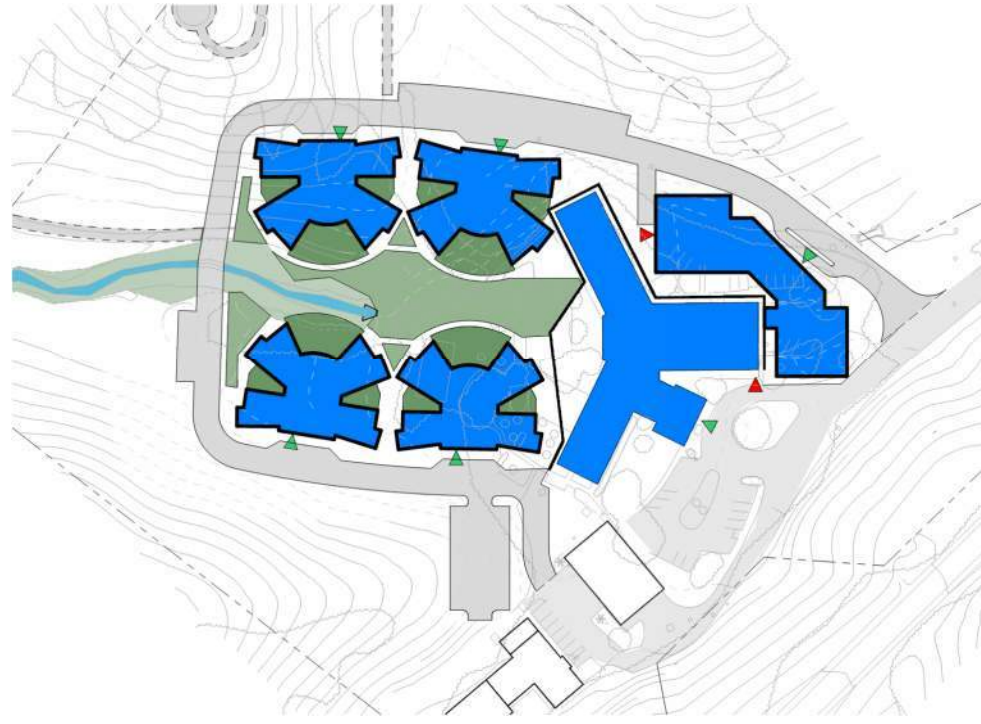


CANNONDESIGN

Concept B: Phasing

Phase 1

- Building loop road with connection between fire station and youth center
- Construct 4 new MHRCs
- Construct new Supportive Housing
- Existing building & some recreation area in use during construction



SITE DESIGN

CANNONDESIGN

Concept B: Phasing

Building Demo

- Client relocation to new buildings
- Site clearing in center
- Demolish existing building



SITE DESIGN

CANNONDESIGN

Concept B: Phasing

Phase 2

- Construct 1 MHRC
- Complete loop road & parking lots
- Final site work & landscaping



SITE DESIGN

CANNONDESIGN

Concept B

Phasing & Client Bed Count

SITE DESIGN

	SITWORK	PHASE 1 (before the move)	BLDG DEMO (after the move)	PHASE 2
INDEPENDENT				
EXISTING	49	49	0	0
NEW	0	0	57	57
SECURED				
EXISTING	68	68	0	0
NEW	0	0	64	80
TOTAL	117	117 - 20* = 97	121	137

CANNONDESIGN

* This assumes that 20 beds of the existing facility are removed from use during construction of the adjacent Supportive Housing.

Concept B Earthwork & Retaining Wall Impacts

SITE DESIGN

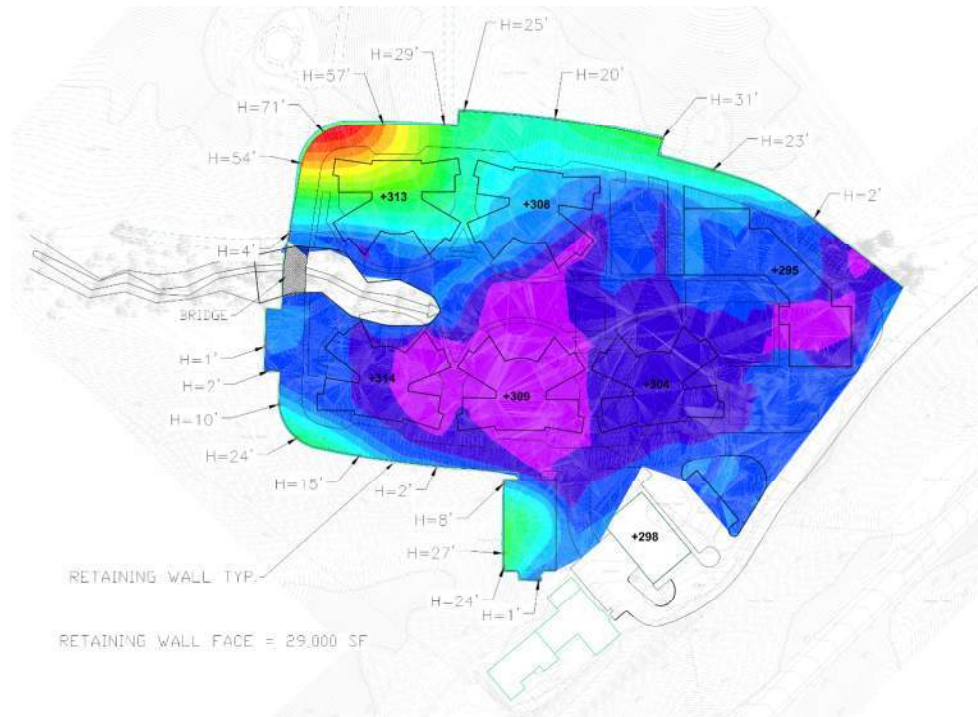
Cut/Fill Summary

- Site 2d Area 252,406 sq ft
- Cut 49,788 cu yd
- Fill 39,563 cu yd
- Cut/Fill Net 10,225 cu yd

Retaining Wall Face Area 29,000 sf

Earthwork / Ret. Wall Cost \$7.0 m

Number	Minimum Elevation	Maximum Elevation	Color
1	-75.000	-70.000	Red
2	-70.000	-65.000	Orange
3	-65.000	-60.000	Yellow-Orange
4	-60.000	-55.000	Yellow
5	-55.000	-50.000	Light Green
6	-50.000	-45.000	Green
7	-45.000	-40.000	Light Blue
8	-40.000	-35.000	Blue
9	-35.000	-30.000	Dark Blue
10	-30.000	-25.000	Very Dark Blue
11	-25.000	-20.000	Black
12	-20.000	-15.000	Dark Purple
13	-15.000	-10.000	Medium Purple
14	-10.000	-5.000	Light Purple
15	-5.000	0.000	White
16	0.000	5.000	Light Blue
17	5.000	10.000	Blue
18	10.000	15.000	Dark Blue
19	15.000	20.000	Black



CANNONDESIGN

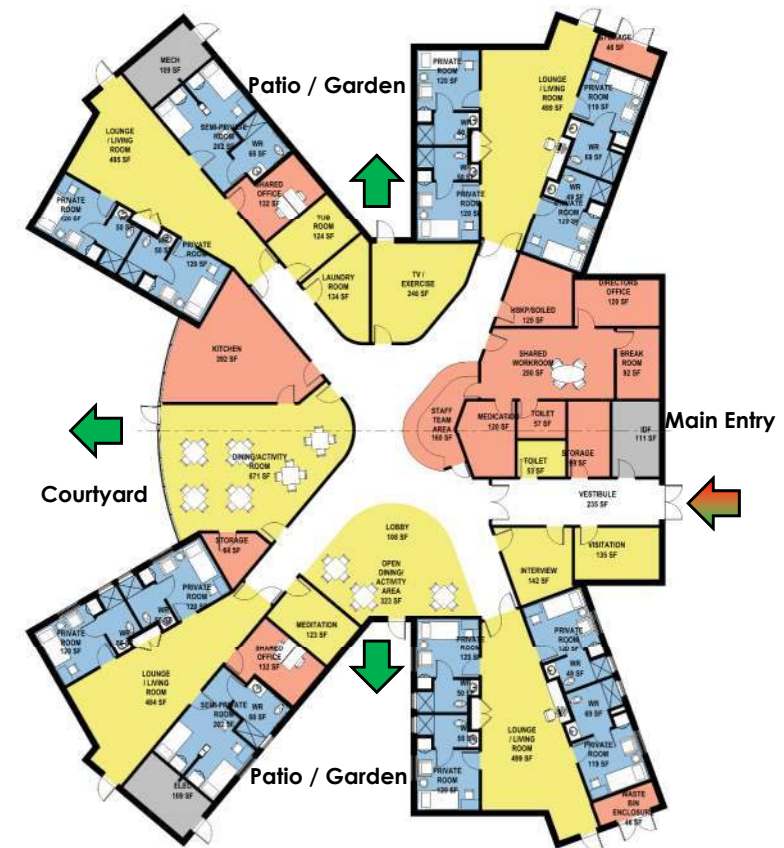
kpff

Concept B – MHRC: “K” Layout Key Points

- Similar to “X” Layout – thus similar overall organization and adjacencies
- Designed for different orientation on the site (rotated 90 degrees):
 - Entry closer to road
 - Entry not as close to bedrooms
 - Large courtyard open to central landscape
 - 2 additional outdoor space options
- Enclosed Dining / Activity Room and moderate open area
- Single Entry; opportunity for an exterior staff entry to Workroom if desired

11,300 sf

CANNONDESIGN

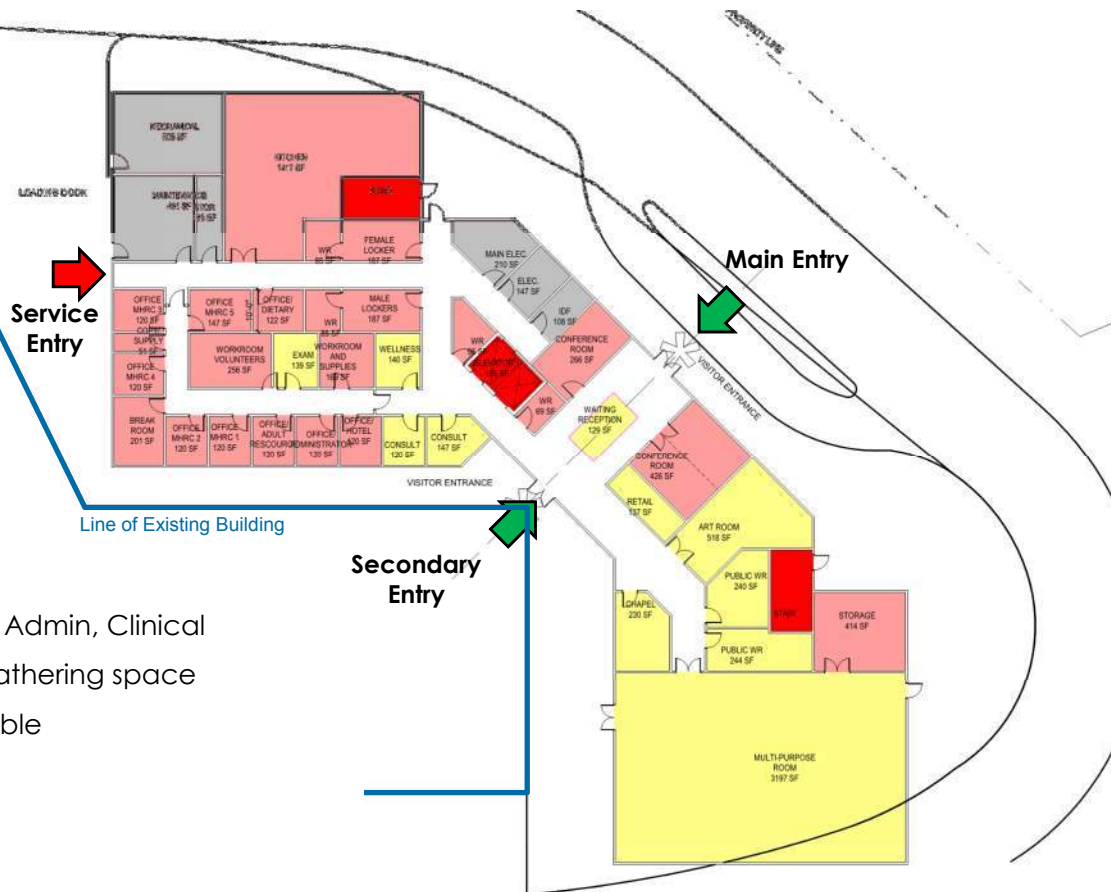


Concept B – Supportive Housing (attached Multi-purpose Room)

Level 1 – Campus Center

- Loading at Northwest
- Back-of-House Circulation
- Zoning: Community, Service, Admin, Clinical
- More pronounced lobby / gathering space
- Conference Rooms more visible
- All Entries on Level 1

CANNONDESIGN



Concept B – Supportive Housing (attached Multi-purpose Room)

Level 2,3,4 – Supportive Housing

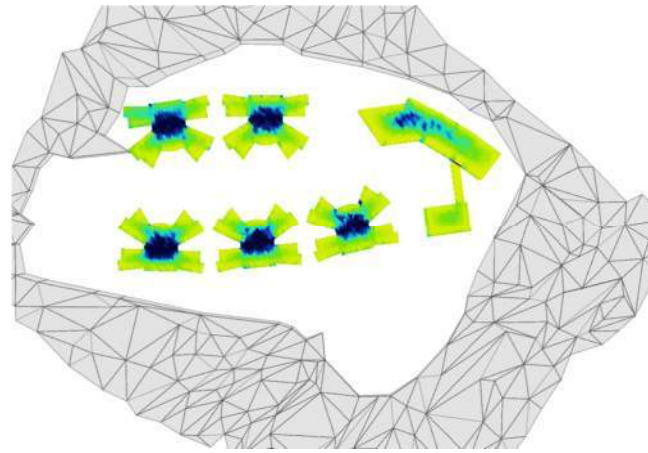
- Back-of-House Circulation
- No dedicated entry lobby on Level 2
- 2 Distinct Bed Wings
- Outdoor space at ends of Bed Wings
- No outdoor space on top of Multi-purpose
- Sub-dividable Dining / Activity Room (view/ daylight)

CANNONDESIGN



Concept B
Daylighting & Energy Use

SITE DESIGN



	MHRCs	Support
EUI [kBtu/ft ²]	29	31
Energy cost [\$]	66,000	73,000
PV size needed to zero [kW]	205	432
Total rooftop PV available [kW]	662	

Percentage of occupied hours where illuminance is at least 46 footcandles, measured at 2.79 feet above the floor plate.

■ 0% ■ 25% ■ 50% ■ 75% ■ 100%

- Both MHRC and Support building HVAC systems are assumed to be VRF in combination with natural ventilation to reduce cooling loads.
- Rooftop PV analysis accounts for the impact of shading from topography to estimate how much PV capacity each option offers with MHRC and Support building rooftop areas

CANNONDESIGN

Biological Constraints

SITE DESIGN



Figure 4
Site Topography and Vegetation
Cordilleras Mental Health Center

- Top of Bank
- Culvert
- Low Flow Channel
- Annual Grassland
- Coastal Sage Scrub
- Developed
- Mixed Live Oak Woodland
- Riparian

CANNONDESIGN

kpff

Concept B
4 MHRCs + SH in 1st Phase

SITE DESIGN

KEY FEATURES

- Construct Supportive Housing (SH) & 4 MHRCs in Phase 1.
- Community functions visible upon entry.
- MHRC secured courtyards adjacent to open recreation area

ADVANTAGES / DISADVANTAGES

- Higher retaining walls at north & lower retaining walls at south.
- Most endangered species habitat impact.
- Retaining walls front loop road.
- Noise & daylight impact of SH construction adjacent to existing.
- SH is not required to have interim secured beds.
- Interim relocation of loading area to existing building needed.
- MHRC access to center green without crossing road.



CANNONDESIGN

Concept C

CANNONDESIGN

Concept C

SITE DESIGN



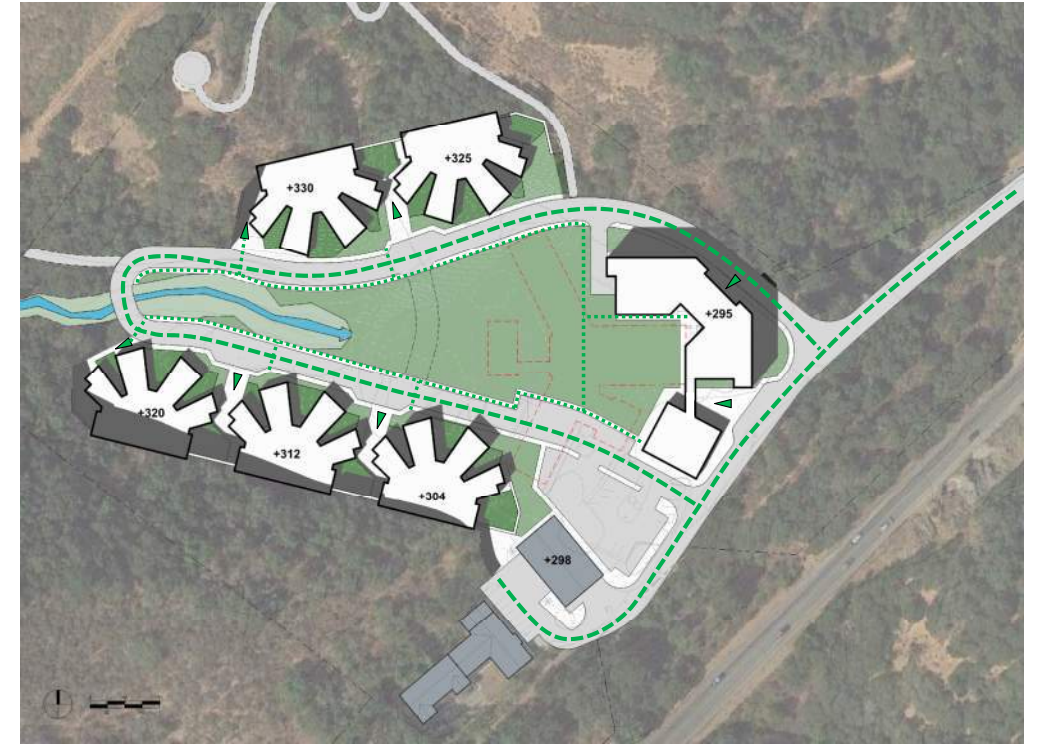
CANNONDESIGN

Concept C

Circulation & Open Space

SITE DESIGN

- VISITORS / COMMUNITY ACCESS
- ▶ VISITOR ENTRY
- STAFF/SERVICE ACCESS
- ▶ STAFF/SERVICE ENTRY
- FIRE DEPT ACCESS

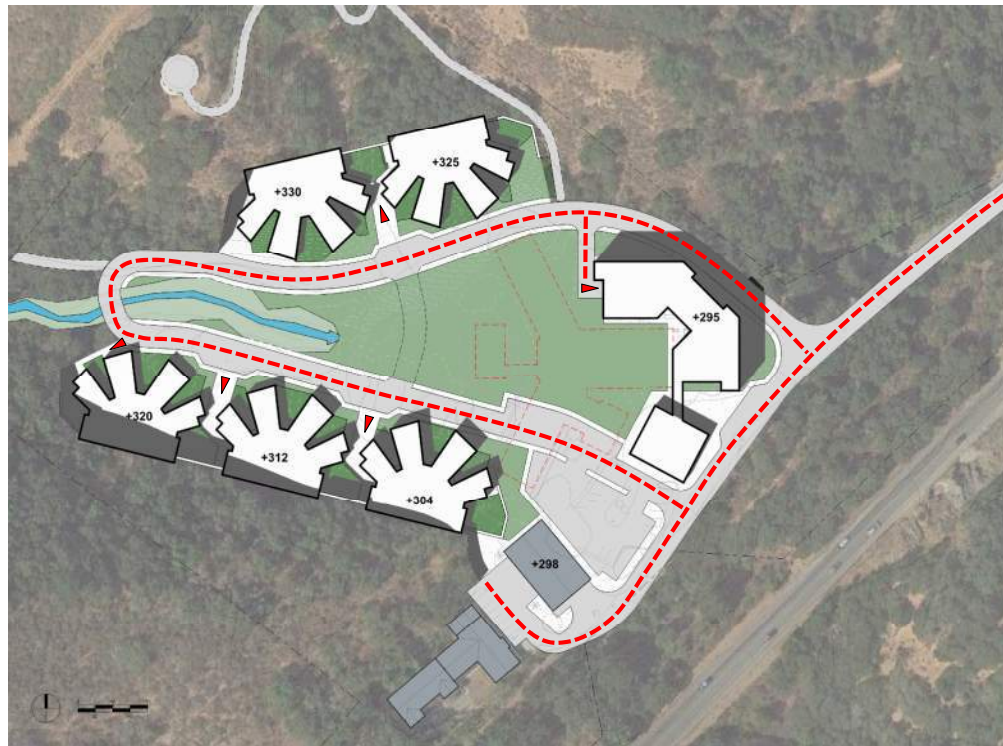


CANNONDESIGN

Concept C

Circulation & Open Space

SITE DESIGN



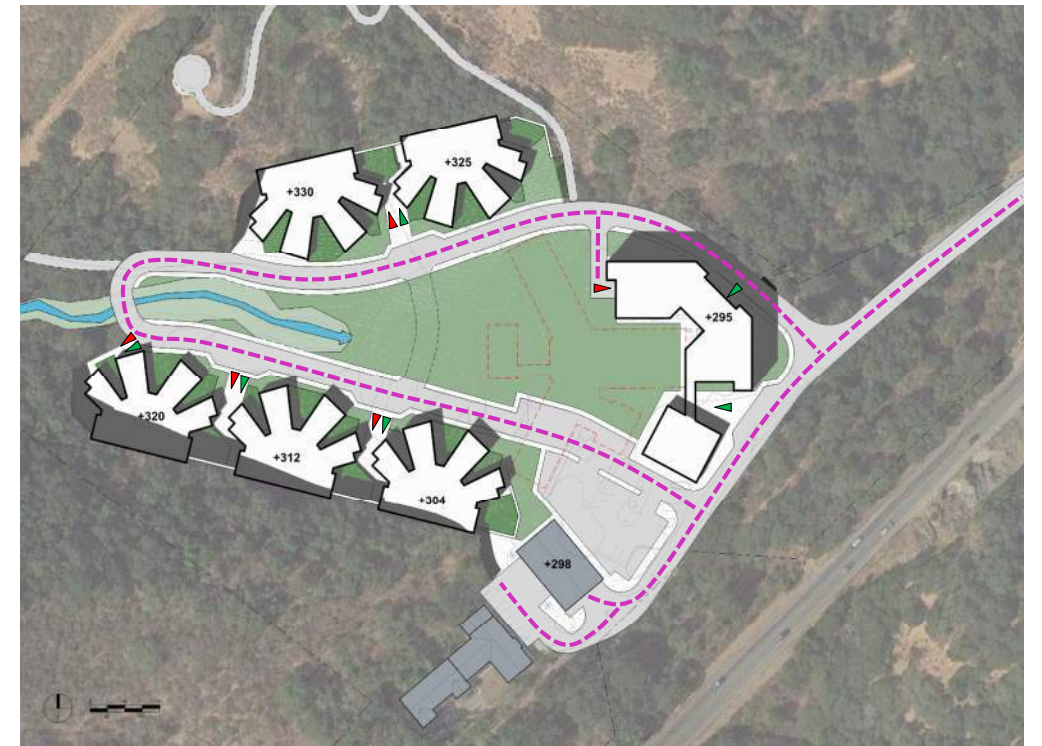
CANNONDESIGN

Concept C

Circulation & Open Space

SITE DESIGN

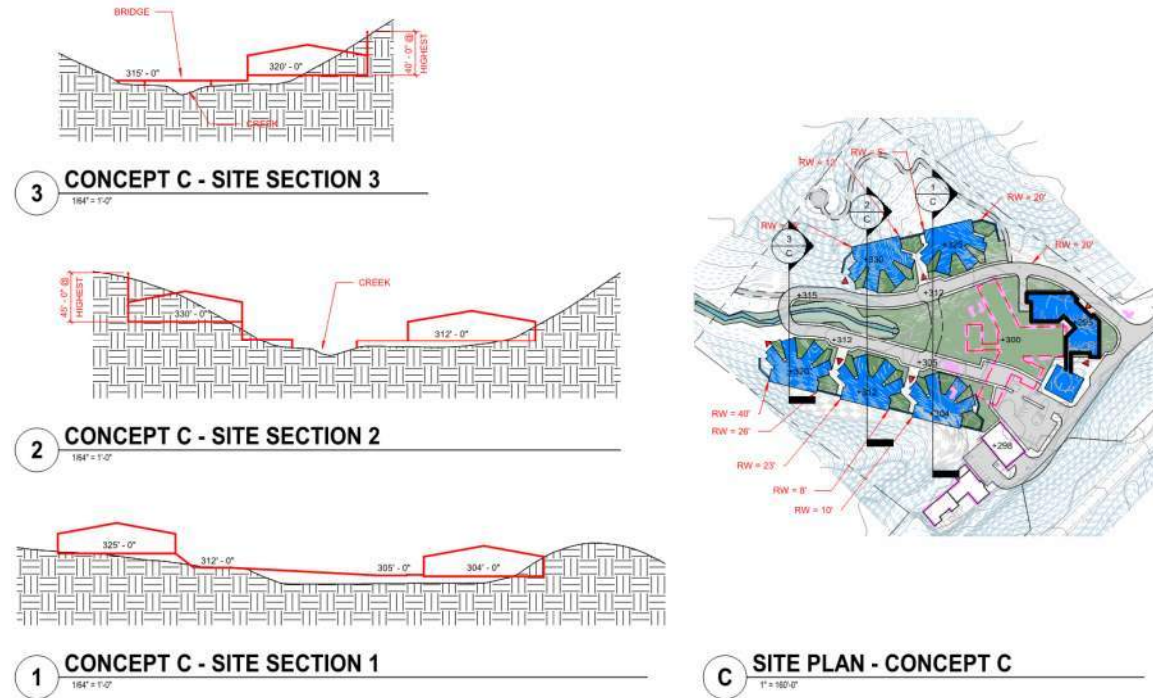
- VISITORS / COMMUNITY ACCESS
- ▶ VISITOR ENTRY
- STAFF/SERVICE ACCESS
- ▶ STAFF/SERVICE ENTRY
- FIRE DEPT ACCESS



CANNONDESIGN

Concept C
Site Sections

SITE DESIGN

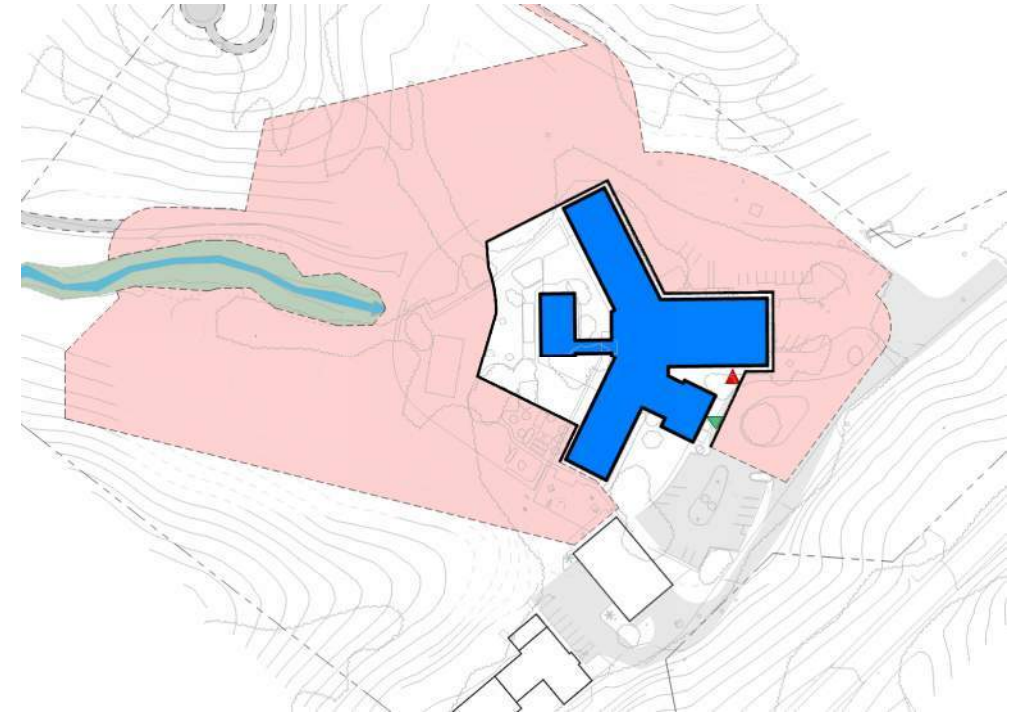


CANNONDESIGN

Concept C: Phasing
Sitework

SITE DESIGN

- Site clearing
- Temporary barrier
- Reduced parking capacity
- Relocation of building service entrance
- Existing main entry unchanged
- Existing recreation area reduced
- Existing auditorium remains in service



CANNONDESIGN

Concept C: Phasing
Phase 1

SITE DESIGN

- Building loop road with lollipop configuration
- Construct 5 new MHRCs
- Construct new Supportive Housing
- Temporary barrier reduced
- Existing building & recreation area in use during construction



CANNONDESIGN

Concept C: Phasing
Building Demo

SITE DESIGN

- Client relocation to new buildings
- Site clearing in center
- Demolish existing building
- Temporary barrier in place with SH



CANNONDESIGN

Concept C: Phasing Completion

SITE DESIGN

- Complete loop road
- Final site work & landscaping



CANNONDESIGN

Concept C Phasing & Client Bed Count

SITE DESIGN

	SITWORK	PHASE 1 (before the move)	BLDG DEMO (after the move)
INDEPENDENT			
EXISTING	49	49	0
NEW	0	0	57
SECURED			
EXISTING	68	68	0
NEW	0	0	80
TOTAL	117	117 - 20* = 97	137

CANNONDESIGN

* This assumes that 20 beds of the existing facility are removed from use during construction of the adjacent Supportive Housing.

Concept C Earthwork & Retaining Wall Impacts

SITE DESIGN

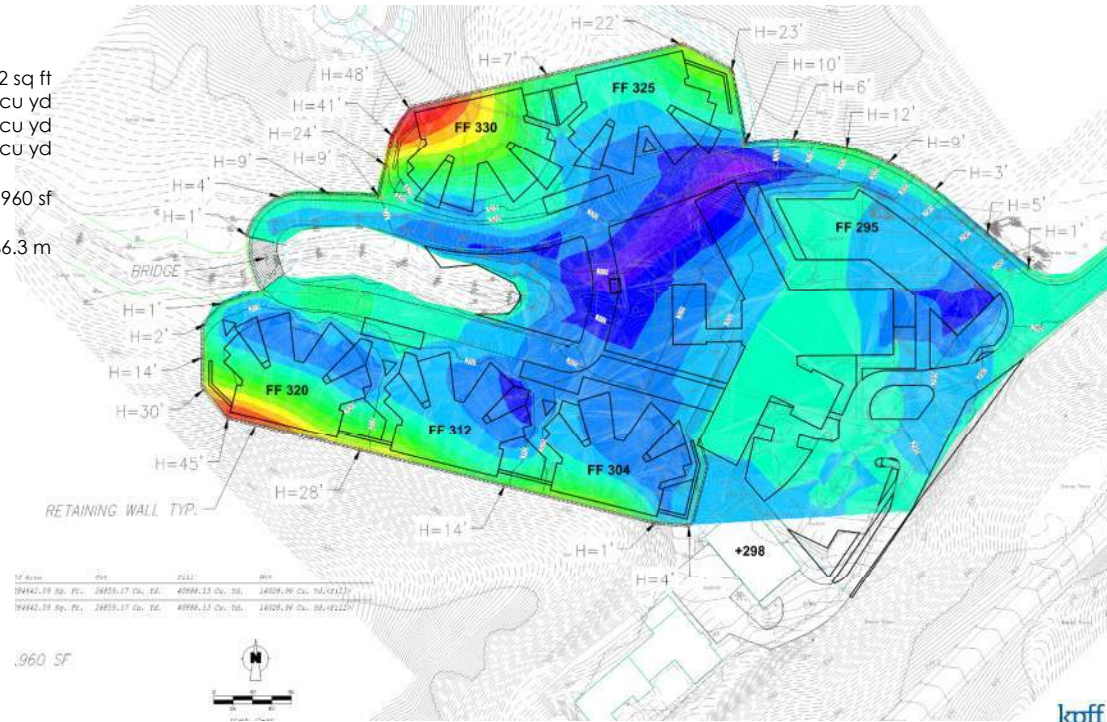
Cut/Fill Summary

- 2d area 284,642 sq ft
- Cut 28,860 cu yd
- Fill 40,890 cu yd
- Cut/Fill Net 14,030 cu yd

Retaining Wall Face Area 23,960 sf

Site rough order of magnitude*: \$6.3 m

Number	MINIMUM CUT/FILL	MAXIMUM CUT/FILL	Color
1	-49.000	-44.000	Red
2	-44.000	-39.000	Orange
3	-39.000	-34.000	Yellow-Orange
4	-34.000	-29.000	Yellow
5	-29.000	-24.000	Light Green
6	-24.000	-19.000	Green
7	-19.000	-14.000	Light Blue
8	-14.000	-9.000	Blue
9	-9.000	-4.000	Dark Blue
10	-4.000	1.000	Very Dark Blue
11	1.000	6.000	Black
12	6.000	11.000	Dark Purple
13	11.000	16.000	Medium Purple
14	16.000	21.000	Light Purple
15	21.000	26.000	Very Light Purple

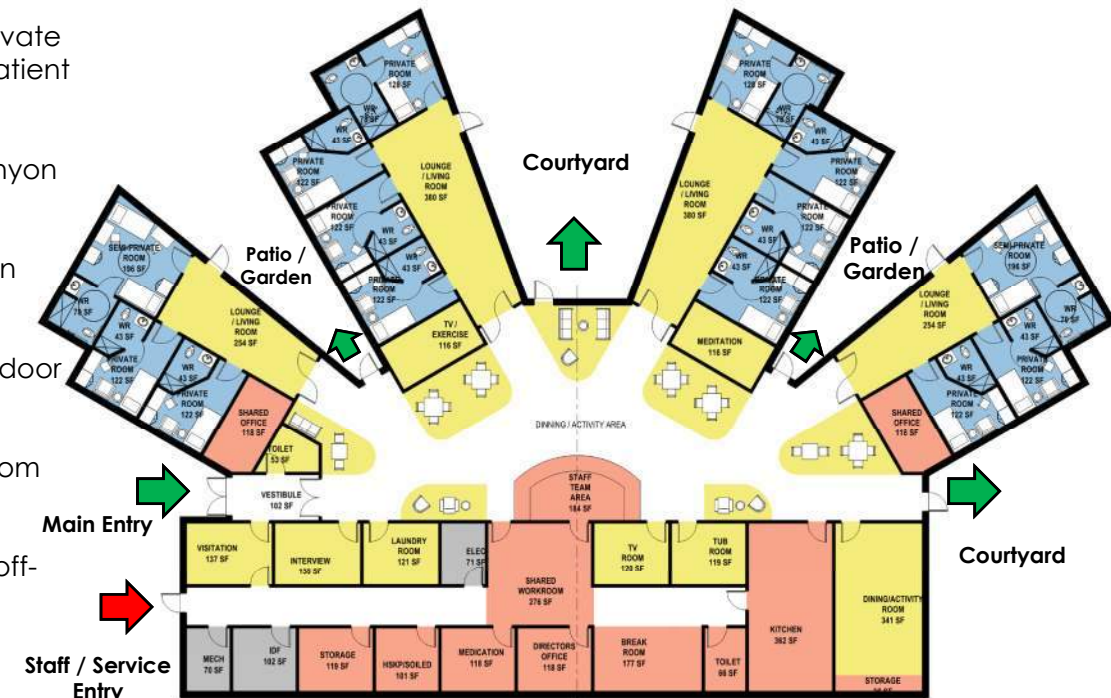


CANNONDESIGN

Concept C – MHRC: “4 Finger” Layout Key Points

- Clear gradation between private patient space, communal patient space, and staff-only space
- Designed to engage the canyon edges
- Different bedroom orientation
- Smaller main courtyard, but potential for 3 additional outdoor spaces
- Enclosed Dining / Activity Room and large open area
- Distinct Entries – “on-stage / off-stage” separation

11,200 sf
CANNONDESIGN

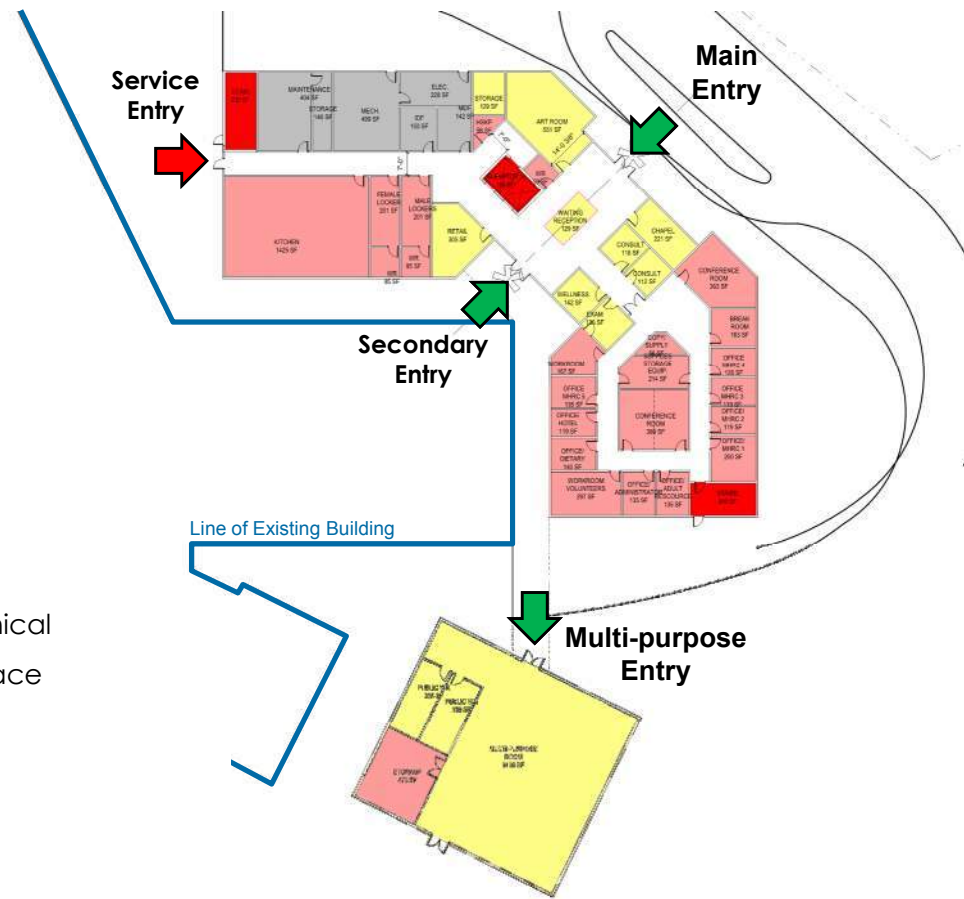


Concept C – Supportive Housing (separate Multi-purpose Room)

Level 1 – Campus Center

- Loading at Northwest
- Back-of-House Circulation – most clear
- Zoning: Community, Service, Admin, Clinical
- More pronounced lobby / gathering space
- All Entries on Level 1
- Covered walk to Multi-purpose Room

CANNONDESIGN

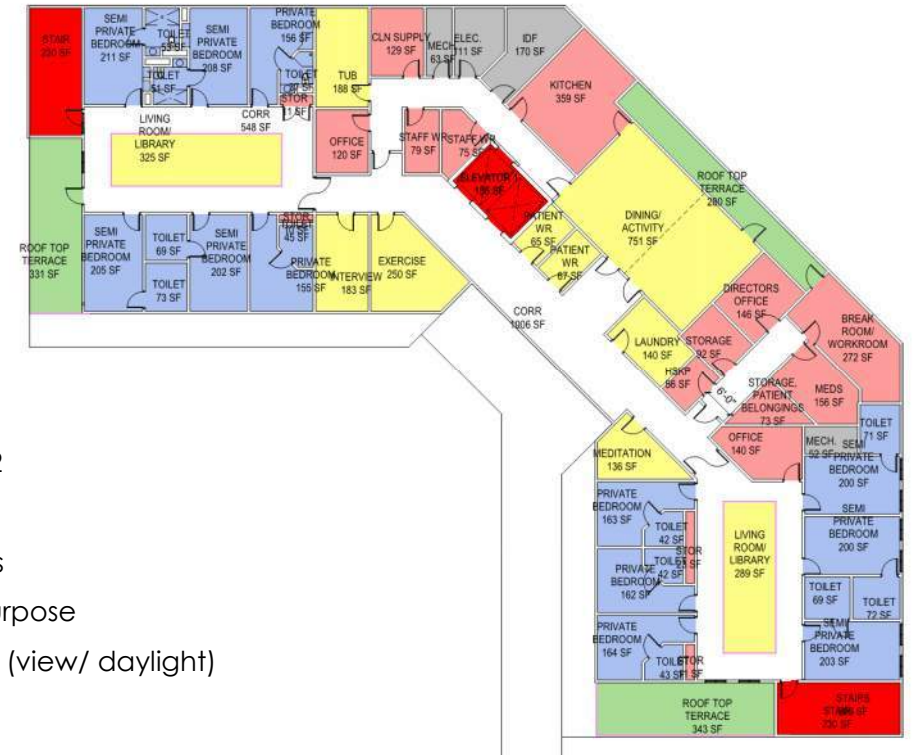


Concept B – Supportive Housing (separate Multi-purpose Room)

Level 2,3,4 – Supportive Housing

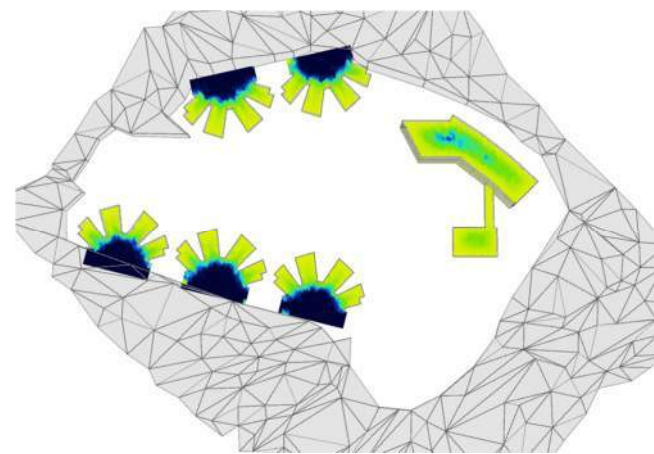
- Back-of-House Circulation
- No dedicated entry lobby on Level 2
- 2 Distinct Bed Wings
- Outdoor space at ends of Bed Wings
- No outdoor space on top of Multi-purpose
- Sub-dividable Dining / Activity Room (view/ daylight)

CANNONDESIGN



Concept C Daylighting & Energy Use

SITE DESIGN



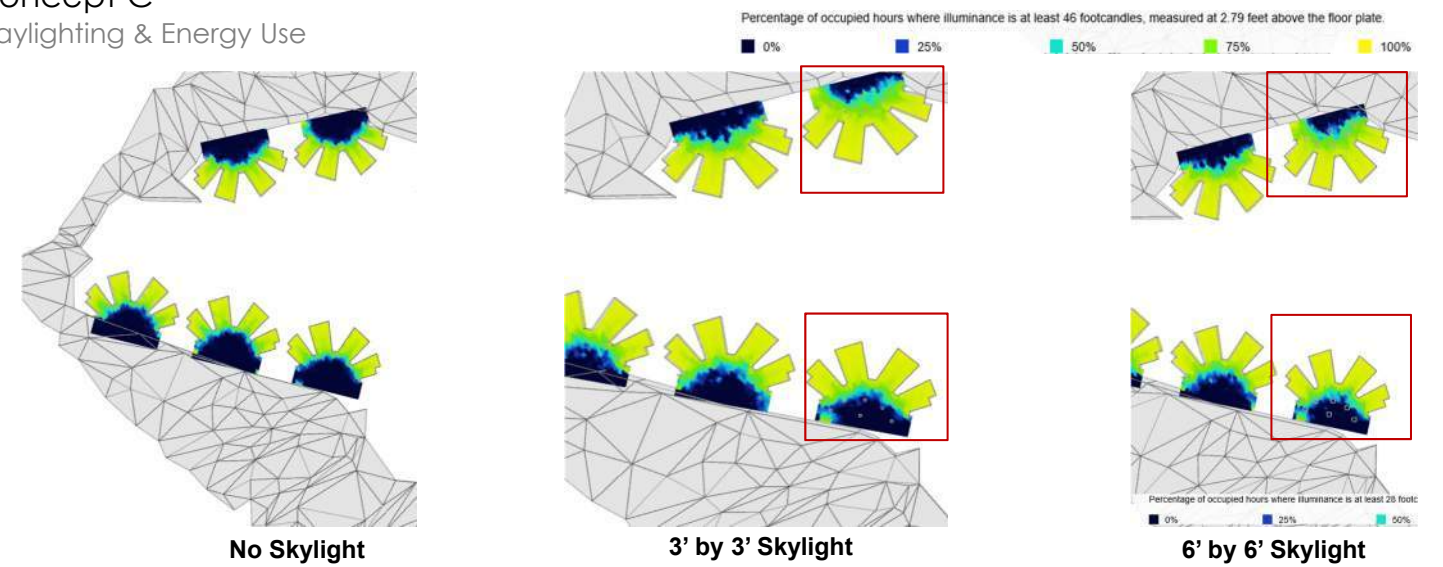
	MHRCs	Support
EUI [kBtu/ft ²]	28	31
Energy cost [\$]	64,000	73,000
PV size needed to zero [kW]	199	426
Total rooftop PV available [kW]	625	

- Both MHRC and Support building HVAC systems are assumed to be VRF in combination with natural ventilation to reduce cooling loads.
- Rooftop PV analysis accounts for the impact of shading from topography to estimate how much PV capacity each option offers with MHRC and Support building rooftop areas

CANNONDESIGN

Concept C Daylighting & Energy Use

SITE DESIGN



- The idea of introducing skylights for the Option C were tested by placing skylights on two MHRCs on the south and north side. To scenarios with 3' and 6' square shape skylights were analyzed.
- It is more effective to use skylights on the MHRCs on the north side of site compared to south side. The adjacent topography near southern MHRCs blocks more daylight even with 6' skylights.

CANNONDESIGN

Concept C

Program built in one phase

SITE DESIGN

KEY FEATURES

- Construct new program in one phase.
- Community functions visible upon entry & frames center green
- Large center green space.
- MHRC nestled in hillside to minimize retaining wall heights
- MHRC configuration allows focus on connection to green space.

ADVANTAGES / DISADVANTAGES

- Retaining walls are less visible behind MHRC buildings
- Noise & daylight impact of SH construction adjacent to existing
- SH is not required to have interim secured beds.
- Existing facility recreation yard can exist through construction
- Interim relocation of loading area to existing building needed.
- Crossing vehicular road needed to get to center green space.
- MHRC has smaller, multiple courtyards



CANNONDESIGN

BED COUNT DURING PHASED CONSTRUCTION

	Concept A	Concept B	Concept C	Notes
During Phase 1 Construction; Existing Building Remains in Use	117	97 *	97 *	*Rooms Facing SH Site to be removed from use during construction (20 beds)
Completion of Phase 1 and Demolition of Existing Building	105 **	121 ***	137 ****	**3 MHRCs and SH Complete; ***4 MHRCs and SH Complete; ****All Buildings Complete
At Project Completion	137	137	137	

CANNONDESIGN

Program Summary and Comparison

SITE DESIGN

Concept A		Concept B		Concept C	
MHRC's ("X")	54,693	MHRC's ("K")	56,326	MHRC's ("4 Finger")	56,252
Campus Center	17,389	Campus Center	17,389	Campus Center	17,389
Supportive Housing	34,353	Supportive Housing	34,353	Supportive Housing	34,353
Total	106,435	Total	108,068	Total	107,994

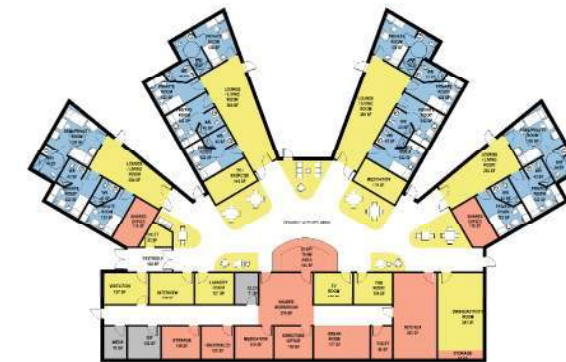
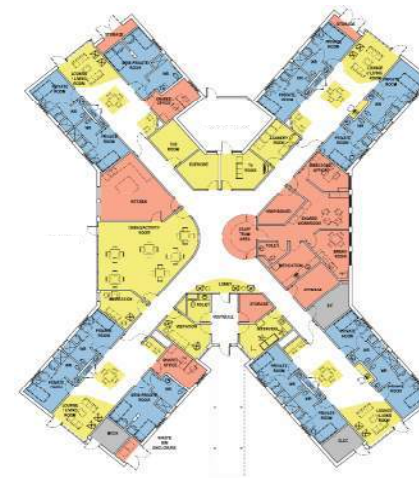
- Program is similar and consistent across each Concept
- Exception: "K" and "4 Finger" MHRC's include more open activity / dining space

CANNONDESIGN

MHRC Comparison

SITE DESIGN

Concept A		Concept B		Concept C	
MHRC's ("X")	54,693	MHRC's ("K")	56,326	MHRC's ("4 Finger")	56,252



CANNONDESIGN

Supportive Housing Comparison

SITE DESIGN

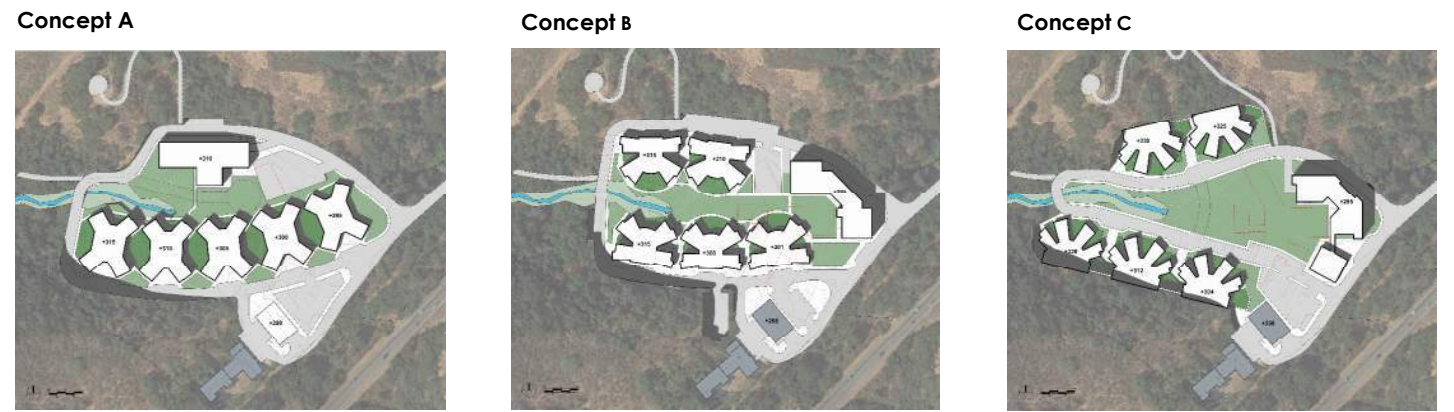
Concept A		Concept B		Concept C	
Campus Center	17,389	Campus Center	17,389	Campus Center	17,389
Supportive Housing	34,353	Supportive Housing	34,353	Supportive Housing	34,353



CANNONDESIGN

Site Design Comparison

SITE DESIGN



- Concept A**
 - Construct 3 MHRCs & Supportive Housing in 1st phase
 - Site Development Area: 285,444 sf (most)
 - Retaining Wall Face Area: 27,800 sf
 - Grading: 889 cu. yd. net cut
 - Site rough order of magnitude*: \$5.8 m (\$20/sf)
- Concept B**
 - Construct 4 MHRCs & Supportive Housing in 1st phase
 - Site Development Area: 252,406 (least)
 - Retaining Wall Face Area: 29,000 (most)
 - Grading: 10,225 cu. yd. net cut
 - Site rough order of magnitude*: \$7.0 m (\$28/sf)
- Concept C**
 - Construct 5 MHRCs & Supportive Housing in 1st phase
 - Site Development Area: 284,642 sf
 - Retaining Wall Face Area: 23,960 (least)
 - Grading: 14,029 cu. yd. net fill
 - Site rough order of magnitude*: \$6.3 m (\$22/sf)

CANNONDESIGN

* Site ROM is provided to compare pricing for the 3 site configurations based only on rough grading and retaining wall areas. Key exclusions: building demolition & construction, final grading, landscaping, escalation, & project soft costs.

Lunch

We will start back at 1:00pm

CANNONDESIGN

Landscaping Visioning

CANNONDESIGN

Overall Landscape Visioning

LANDSCAPE DESIGN

KEY OBJECTIVES

- Character for landscape
- Programming for exterior spaces
- How program fits into concepts

CANNONDESIGN

rhaa
LANDSCAPE ARCHITECTURE + PLANNING

Overall Landscape Character

Clean and Modern

LANDSCAPE DESIGN



CANNONDESIGN

rhaa
LANDSCAPE ARCHITECTURE + PLANNING

Overall Landscape Character

Home Style

LANDSCAPE DESIGN



CANNONDESIGN

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LANDSCAPE ARCHITECTURE + PLANNING

Overall Landscape Character

Out in Nature

LANDSCAPE DESIGN



CANNONDESIGN

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LANDSCAPE ARCHITECTURE + PLANNING

Program Preferencing

LANDSCAPE DESIGN



CANNONDESIGN

rhaa

Concept A Open Space Typologies

LANDSCAPE DESIGN

- Usable Space
- Private Space
- Creek Zone

CANNONDESIGN



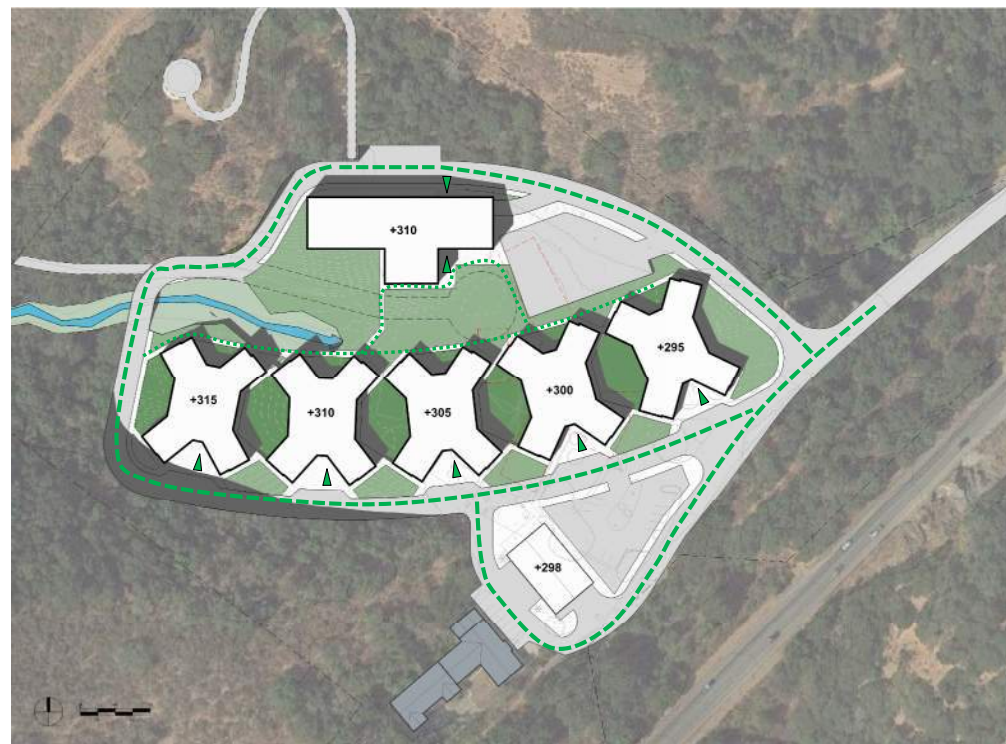
rhaa

Concept A Circulation & Open Space

LANDSCAPE DESIGN

- VISITORS / COMMUNITY ACCESS
- VISITOR ENTRY
- STAFF/SERVICE ACCESS
- STAFF/SERVICE ENTRY
- FIRE DEPT ACCESS

CANNONDESIGN

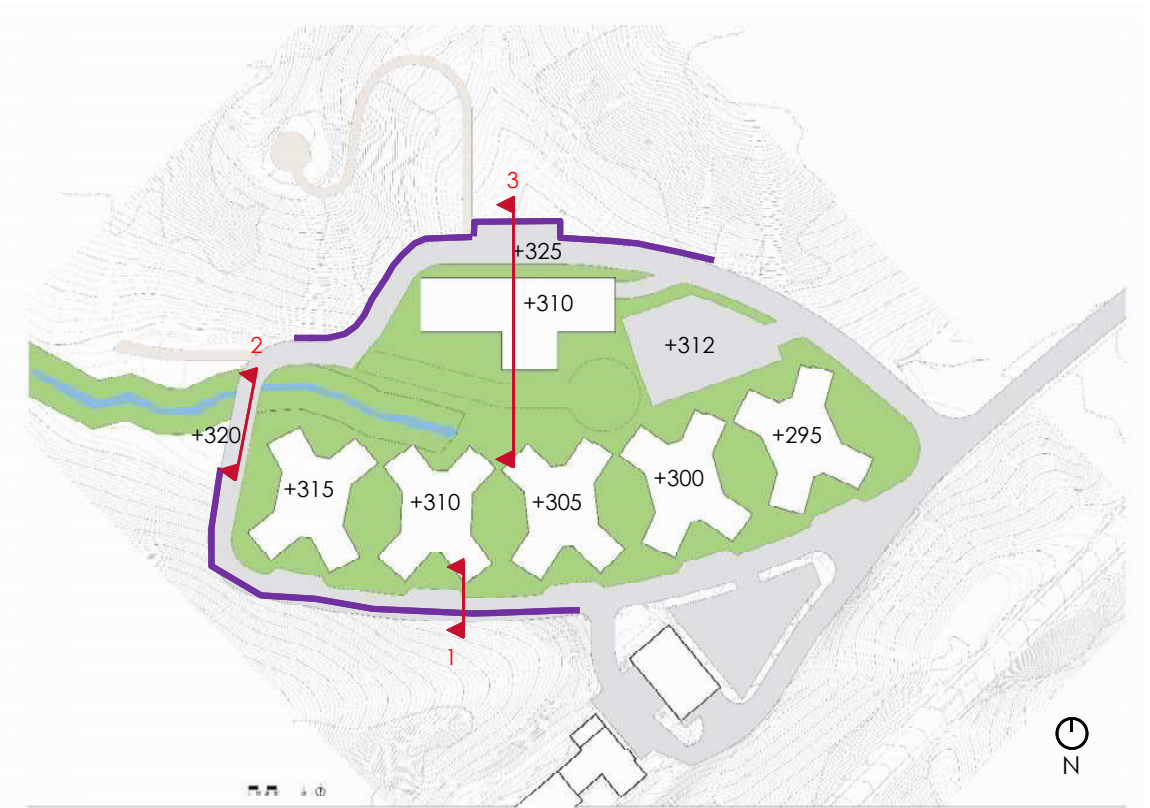


Concept A Site Sections

LANDSCAPE DESIGN

- Retaining Wall

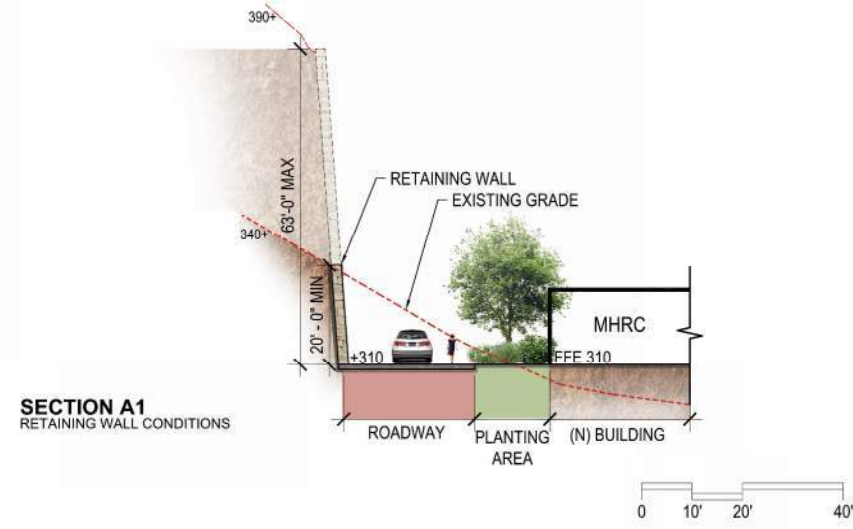
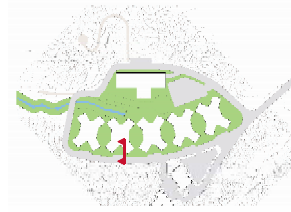
CANNONDESIGN



rhaa

Concept A
Retaining Wall Conditions

LANDSCAPE DESIGN

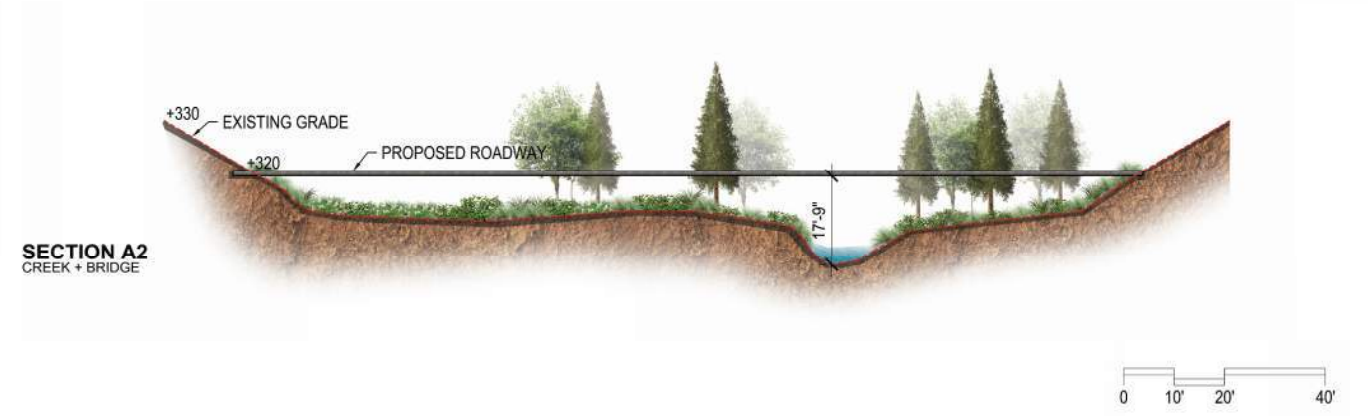
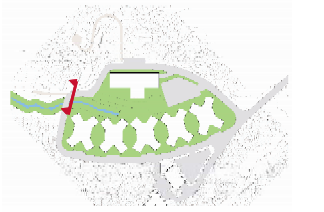


CANNONDESIGN

rhaa

Concept A
Creek

LANDSCAPE DESIGN

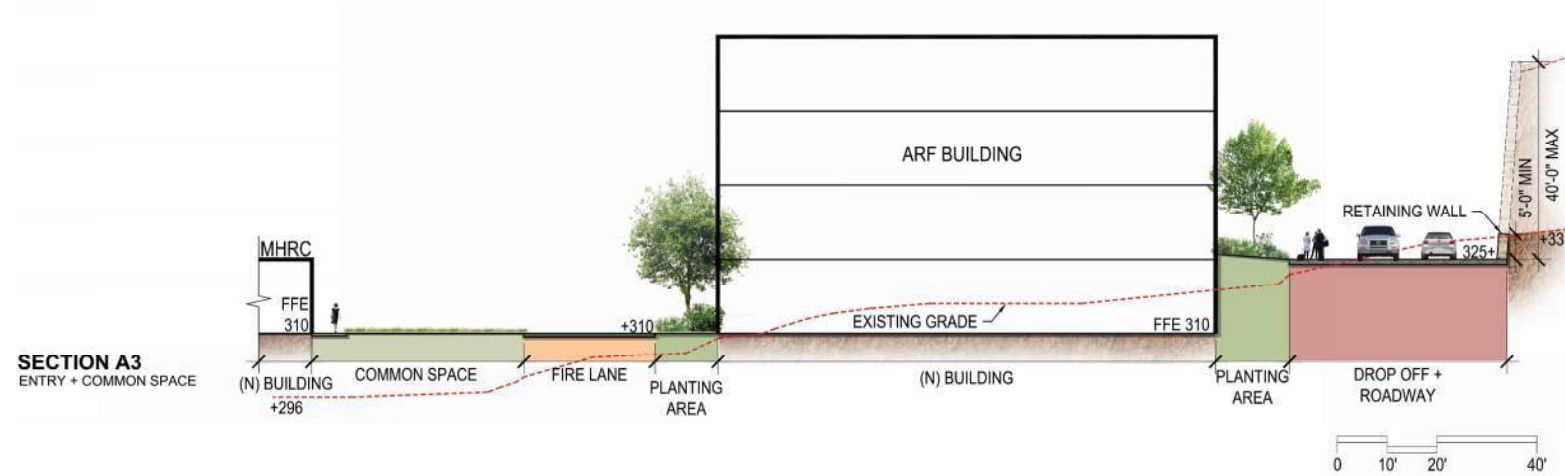


CANNONDESIGN

rhaa

Concept A
ARF Entry + Common Space

LANDSCAPE DESIGN



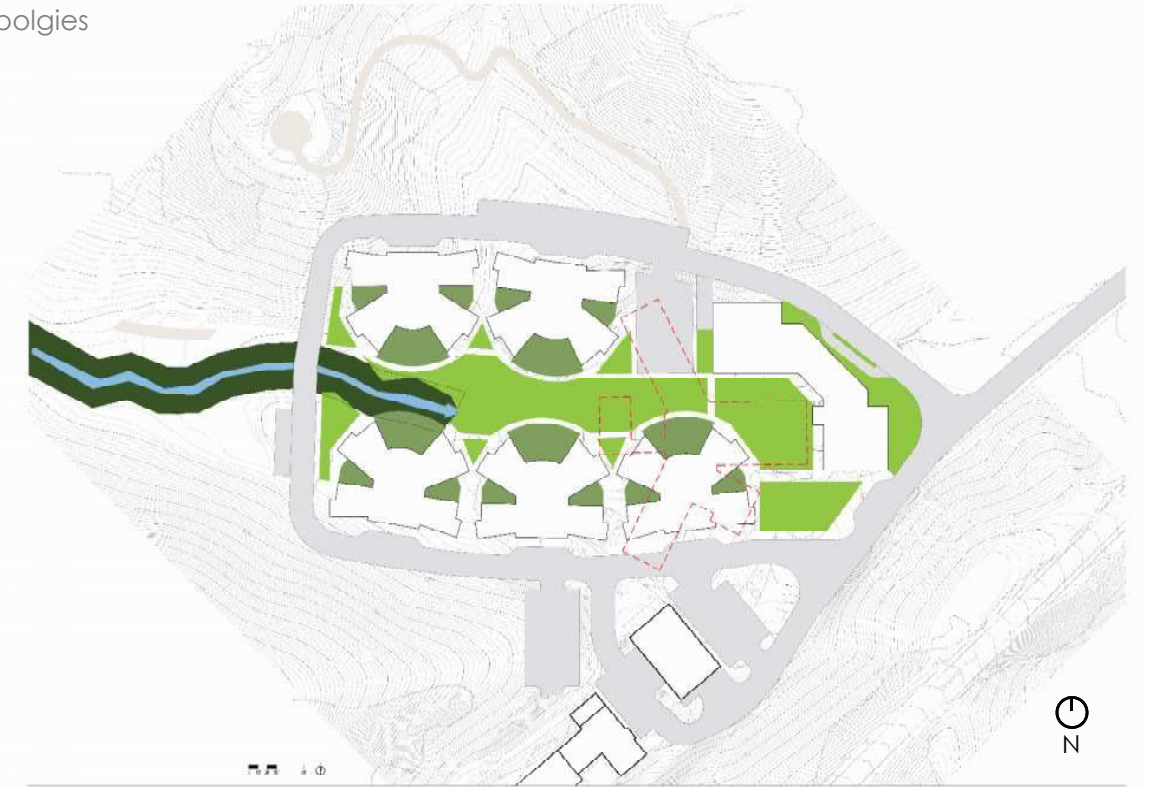
CANNONDESIGN

rhaa

Concept B
Open Space Typologies

LANDSCAPE DESIGN

- Usable Space
- Private Space
- Creek Zone



CANNONDESIGN

rhaa

MEETING NOTES

Project Name Cordilleras Health System Replacement Project
 Project Number 005318.00
 Date April 10, 2018
 Time 9:00 AM-3:30 PM
 Place PDU Trailer – 1402 Maple Street, Redwood City

Attendees	Michael Smith Deepa Balgi John Phung Tim Rommel David Sass Will Ransom Keith Hammelman Gustavo Lopez Steve Moreland Ivor John Maasin	CannonDesign CannonDesign CannonDesign CannonDesign CannonDesign CannonDesign CannonDesign CannonDesign KPFF KPFF	Jim Mosier Sam Lin Louise Rogers Larry Funk Terry Wilcox Tony Burley Manuela King Robin Kim	SMC-PDU SMC-PDU SMC-HS SMC-HS SMC-HS IBI Group RHAA RHAA
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Discussion: Concept Design Phase Workshop #2: April 10, 2018

INTRODUCTIONS:

1. Michael Smith gave introduction and provided some background from last workshop:
 - a. Hope as a generator
 - b. The idea of building strong communities
 - c. Sustainability Strategies
 - d. Minimizing the impact on the beautiful setting
 - e. Fostering attributes of domesticity
2. Overview of last meeting presentation items:
 - a. 8 site plan options
 - b. 5 MHRC layouts but no supportive housing options
3. 3 new site plans / MHRC's that have been detailed for this meeting to progress and narrow the focus to one or two design options for schematic design phase
4. Deepa Balgi went over the agenda for today's meeting
5. Site / Program Overview:
 - a. John Phung went over the new 3 site plan options. Concept A, B & C.

Concept A



Concept B



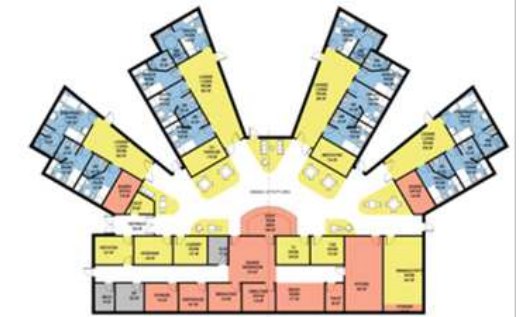
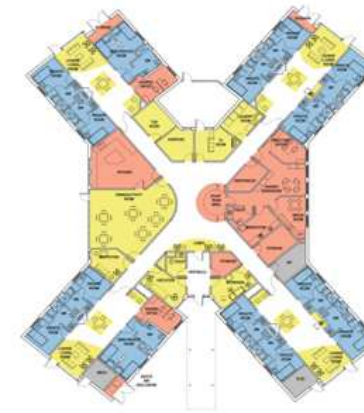
Concept C



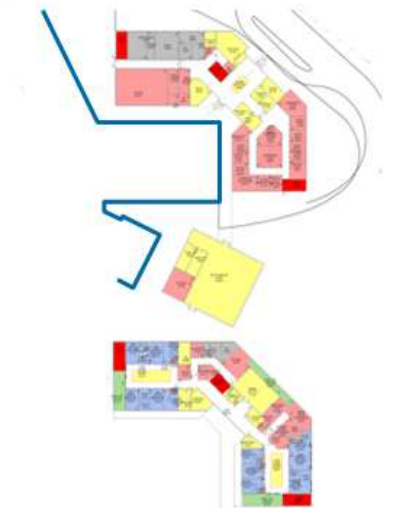
MEETING NOTES

2

Concept A		Concept B		Concept C	
MHRC's ("X")	54,693	MHRC's ("K")	56,326	MHRC's ("4 Finger")	56,252



Concept A		Concept B		Concept C	
Campus Center	17,389	Campus Center	17,389	Campus Center	17,389
Supportive Housing	34,353	Supportive Housing	34,353	Supportive Housing	34,353



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SECTION 1: SITE / BUILDING CONCEPT A:

6. Supportive Housing around the same location as bridging documents. Need for paved area in the middle of site for fire truck access.
7. A question was raised if the loop around meet Cal Fire requirements. Turn around on right side of H.S. might lose some parking spaces.
8. Phasing:
 - a. Multi-purpose room must be demolished because of proximity of MHRC.
 - b. South east area can be used by clients during construction
 - c. Temporary scenario for fire trucks to gain access

MEETING NOTES

3

- d. Fun for people to watch construction
 - e. Terry would like to see actual schedule & schedule benefits
 - f. Terry would like a look ahead schedule during construction, so they can plan clients' schedule based on the construction schedule.
9. Jim likes that this concept because it takes care of site work all at once.
- a. Terry: Can we figure out how long it's going to take for the excavation and site work? They need to know the duration of impact to the residents. Jim mentioned it could be a month or two.
 - b. Noise or vibrations awareness to let residents know what's coming and be able to prepare them.
10. Earthwork:
- a. Minimize the amount of earthwork
 - b. Being close to having a balanced site
 - c. Large excavators cutting into the hillside
 - d. We need to study the impact on the neighbours and the community. What kind of complaints will this generate from neighbours?
11. MHRC "X":
- a. Floor plan hasn't changed since last meeting
 - b. Jim: "X" scheme is desired for security and safety
 - c. Tony: End of "X"s are defensible spaces.
 - d. Big courtyard, secondary outdoor spaces are small. Outdoor spaces increase in the other schemes.
 - e. One main entry and central point of clear visibility.
 - f. Residents might not like that all room entries look into the lobby (privacy concerns)
 - g. Sam mentioned that the patio/garden areas will be in shade.
 - h. The scheme needs further studies of circulation and flow
12. Supportive Housing:
- a. The county does not have control over the efficiency of food distribution; this is up to the vendors.
 - b. SH kitchen could also be (in the future) a production space for the whole site
 - Kitchen should have the infrastructure to provide for all MHRCs and SH (the entire resident population and the staff). Full capacity for all meals that are required.
 - All these programs should have a functional kitchen because the programs can change in the future.
 - Tour the kitchen for lessons learned
 - c. Because of federal regulations the vendors will have to be independent (reimbursement requirements)
 - d. SMC cannot be involved in any of the vendor operations. (food, laundry etc.)
 - e. Feedback:
 - The lobby can be bigger or more comfortable seating and tables.
 - Clients and visitors can have access to all entries. Michael asked if there is a desire for a two-story lobby space to create a sense of arrival. Tony mentioned that it would help the legibility of the building if both entrances are somehow connected.
 - Institutional look with long skinny hallways should be avoided.
 - f. Everyone should read bridging documents
 - g. All buildings must have space available for 3 days of emergency food and water supplies.
13. Daylighting:
- a. Jim asked if it is possible to use space by water tower for PVs.
 - b. Canopies over parking spaces can also be used for PVs in order to reach net zero. Might not be able to use all roof space because of skylights or architectural shape

SECTION 2: SITE / BUILDING CONCEPT B:

14. Sound wall goes around the whole existing HS. They will have to vacate some clients from the north wing.
- a. Loop road goes around and connects with fire station.
 - b. Compare the cost of relocating of a few clients vs. the cost of extra height of the sound wall.
 - Sound walls 12' high
 - Move out clients from floor 3
 - The question was asked if the sound wall was really going to be worth the money and if it was going to work.
 - Terry will review the bed situation in the existing facility.

MEETING NOTES

4

- b. Jim suggested that CHS come up with a cost per patient. We need to assess the cost of relocation vs their clinical wellbeing.
15. Site:
- a. The buildings are tucked further into the hillside.
 - b. Highest retaining wall is 71 feet
 - c. Raising the MHRCs on north would decrease the retaining wall on the north side but increase wall height by the creek
 - d. Think creatively of the characteristics of the site
 - e. **Do a site comparison of shadow studies. How is the hillside going to affect the site?**
16. MHRC "K":
- a. Big difference is the rotation of the "K".
 - b. Upside is that courtyard is opening to views and not facing another building.
 - (2) patio gardens on either side is an advantage.
 - b. Single entrance. There could be a secondary entrance for staff.
 - c. There is no direct entrance from the exterior to the Kitchen.
 - d. Tony suggested that the team look at a lesser number of hallways with more beds.
 - Study a (2) 5s and (1) 6 room suites
 - e. Louise likes concept B more than A. The courtyards are looking outward.
17. Supportive Housing:
- a. More generous reception.
 - b. Flexibility in spaces.
 - c. Service entry further removed from entry point
 - d. Concerned about higher level outdoor space (rooftop garden)
 - It is a security and safety issue. More security will diminish the whole experience roof garden experience.
 - Not a loss to give up rooftop, more outdoor spaces (gardens) on the ground level has higher value.
 - e. SMC-HS like the formal reception & two entrances.
 - f. Creates a threshold for campus
 - g. From community perspective this has a beautiful entrance of campus
 - h. Larry: This has a better definition of arrival on campus and protects the MHRCs on the back.
 - i. Breaks down the stigma.
18. Daylighting:
- a. More PV space because of large building footprint

SECTION 3: SITE / BUILDING CONCEPT C:

19. This is a single-phase option.
20. Community space is detached from the SH. Like Concept B. Building pads raised to accommodate retaining walls.
21. Site:
- a. Can retain existing auditorium during construction.
 - b. All done in one phase
 - Road does not go loop around the campus because of existing building; however, after demo phase this would be completed.
 - Jim mentioned that this option would probably shave off 8 months of construction because of single phase.
 - c. How would we manage safety for pedestrians in inner road? Concerns for crossing the road to get to the central green. One-way loop would help.
 - d. Sam likes the openness of the campus in this option.
 - Design opportunities for walking paths along the creek to open green space
 - e. This option must bring in site fill. Retaining walls no longer have visual impact on site
 - f. Most appealing from the point of view of less violation of the canyon.
 - g. Not as packed and can keep the auditorium during phase 1
 - h. Advantages: great views
 - i. Disadvantages: Accessibility
 - Need to find a balanced approach of circulation from buildings to roads & green space
 - j. It was suggested to the design team to explore an option to try to avoid the bridge over the creek.

MEETING NOTES

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- 22. MHRC "4 fingers"
 - a. 2 different entries
 - b. Advantage of having the rooms at the edge of wings is to provide great views and harmony.
 - c. The option lends itself to diversity.
 - d. Find a more efficient way for kitchen, too far from entry point
 - e. Tony suggested that it would be less formal if it was not symmetrical
 - f. 3 fingers could create larger courtyards
 - g. Phenomenal
- 23. Supportive Housing:
 - a. Like Concept B but multipurpose room is detached. Breezeway can be another entry for the community.
 - b. Terry likes having the separate auditorium; easier to have community events, but challenging to manage due to distance from the lobby and reception.
 - c. Kitchen is better located since it is closer to the MHRCs. However, it is farther away from the auditorium.
 - d. Kitchen route is important for transit of food to MHRCs and the auditorium.
- 24. Daylighting:
 - a. PVs can be located close to water tank

SECTION 4: LUNCH

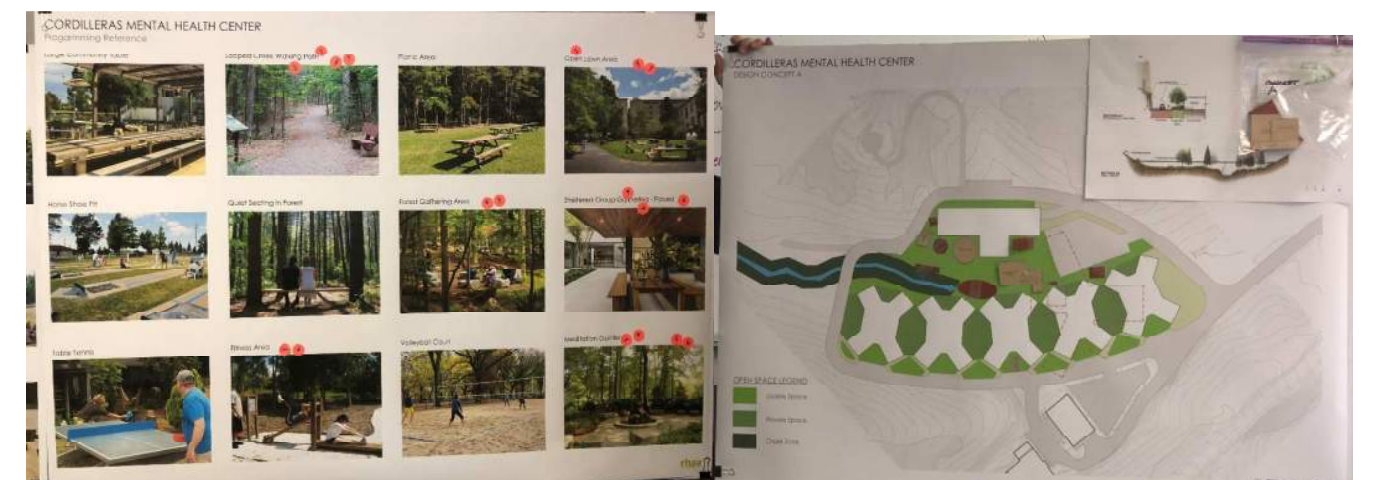
SECTION 5: LANDSCAPING VISIONING

- 25. Overall Landscape Character:
 - a. Most popular vote (3) for 'Out in Nature' concept
 - Using the site's context and natural beauty as a driver for the landscape design
 - Allowing elements of the surrounding natural site to create places for therapeutic recovery and inspire design of new space
 - b. One vote for 'Home Style' concept
 - Outdoor private spaces at MHRC Buildings to incorporate this concept
 - Creating a welcoming environment for residents
 - c. No votes for 'Clean and Modern'
 - d. Suggestion to combine elements from 'Out in Nature' and 'Home Style' moving forward
- 26. Programming Preference:
 - a. Half-court Basketball Court
 - Good exercise for either one person or a group of people
 - Could share use; i.e. volleyball court or another activity
 - b. Fitness Area
 - Walking space would be more used than an outdoor fitness area
 - Loop path would be preferred with break off spaces from path to do activities (small steps)
 - Stopping points with interpretive signage about flora and fauna
 - Creek Walk Path
 - Fitness area could potentially be used if small scale
 - c. Open Lawn
 - Open flexible space for event and activities
 - d. Shelter Group Gathering
 - Want protection from sun and rain
 - e. Animal Yard
 - Wanted by both staff and community and expected to be incorporated in design
 - f. Community Garden
 - Current one is well used
 - Already said to be incorporated in design
 - Existing garden size is adequate and desired
 - g. Amphitheatre
 - No need for large amphitheatre, would not be used for performances
 - Small scale amphitheatre could be combine with mediation space
 - Could potentially be an overlook
 - Potential extension to auditorium space

MEETING NOTES

6

- h. Picnic Areas
 - Small seating spaces / picnic areas wanted for visiting families
- i. Ping Pong
 - Could be rolled out from auditorium and be an outdoor extension of that space
- 27. Overall Concept Comments
 - a. Concept A: Impact of creek and fire lane greatly restricts open space usage
 - b. Concept B: Constrained, linear, communal programs too close together, competing programs can conflict (ex. Basketball too close to meditation garden)
 - c. Concept C: Open, more space between elements and transition room between spaces
 - d. General comments:
 - Small gathering preferred
 - Design should fit into environment
- 28. Small Private Courtyard Spaces
 - a. Small seating areas
 - b. Gardening spaces
 - c. Enough space to gather / sit / eat outside
 - d. Aesthetically pleasing plants and garden spaces
 - e. Room for small group activities
 - f. Places for patients to meet one on one with family
 - g. Breakout space from indoor dining room



MEETING NOTES

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SECTION 6: CONCEPT EVALUATION

29. David led the Concept Evaluation exercise and went through all the criteria with the team and rated them. Concept C was the clear winner.
30. Concerns about Concept C:
 - a. How are the clients going to circulate down to the site from MHRC's?
 - Find a solution to transition between open space and MHRC without having to take steps
 - Transition should be easy and convenient
 - Concerns about ADA
 - Exterior stairs are acceptable if required in addition to the accessible ramp.
 - Terry mentioned that it would be nice to just have ramps especially due to the aging population.
31. Federal criteria: "Clients are not accepted if they cannot exit building independently. Clients in wheelchairs is rare"
32. **Pursue Concept C and move it forward to schematic design**
33. Detached community center for the SH has its positives and negatives, but no clear decision was made.
34. Keith would like to get information on back up emergency generator's running time and trash collection. SMU-HS ready to talk about it at next meeting or at a more convenient time.
35. MHRC's: Licensed by the state of CA. Required continuous running time (72 hrs of running time is preferred)
36. Trash / waste pick up: The local scavenger can come on a weekly basis and pick up waste at each building. Small container should be at a convenient location that won't disrupt the site.
37. Kitchen to have enough storage for 72 hrs worth of emergency supplies
38. The design team to check all codes for MHRCs.
39. Terry mentioned that the staffing models are complete for the MHRCs and can be sent out soon. This will help with parking analysis.

MEETING NOTES

8

CORDILLERAS HEALTH SYSTEM REPLACEMENT PROJECT
SITE EVALUATION

	CONCEPT A	CONCEPT B	CONCEPT C
SAFETY			
VIABILITY / SECURITY	1	1	3
ASPECT / SECURITY	3	3	1
ACCESSIBILITY			
GRADE OF ACCESS FOR PUBLIC	2	1	2
RELATIONSHIP OF BUILDING ON THE CAMPUS	3	1	1
CONNECTIVITY FROM ADJACENT CAMPUS CENTER	3	1	1
VIABILITY / ACCESSIBILITY OF CAMPUS CENTER	3	1	1
ENVIRONMENTAL QUALITY			
ACCESS TO NATURAL	4	1	1
OUTDOOR SPACE	3	1	1
VIEW & RELATIONSHIP TO NATURE	3	1	1
FUTURE USES AVAILABLE TO THE CAMPUS	3	1	1
AVAILABILITY OF BIODIVERSITY	3	1	1
PERFORMANCE			
ACCESS AND VISIBILITY OF PUBLIC SPACE	2	1	1
SEPARATION OF EAST / WEST / NORTH / SOUTH / VEHICLE TRAFFIC / PUBLIC	3	1	1
QUANTITY AND VARIETY OF PLANTING / TREES	3	1	1
PARKING AVAILABILITY	1	1	1
FINANCIAL			
COST	2	1	1
SQUARE FOOTAGE OF SITE DISTURBANCE	2	1	2
DISRUPTION TO EXISTING OPERATION DURING CONSTRUCTION	3	2	1
ADDITIONAL OPPORTUNITIES FOR FUTURE GROWTH	3	3	1
TOTAL	55	34	28

SECTION 7: CONCLUSION & NEXT STEPS

40. The design team will be submitting a report on April 27th which will conclude the Concept Design Phase.
41. The design team will present report on May 1st.
42. The review meeting is to be on the following week on May 8th and this will also be the Schematic Design Phase kick-off.
43. Jim suggested discussing the facility tours at a later date and time.

To the best of my knowledge, the above items were discussed. Should there be any additions or corrections, please advise CannonDesign in writing within seven days. We will consider these meeting notes an accurate record for proceeding with the necessary "actions", unless informed otherwise as noted.

Prepared by,

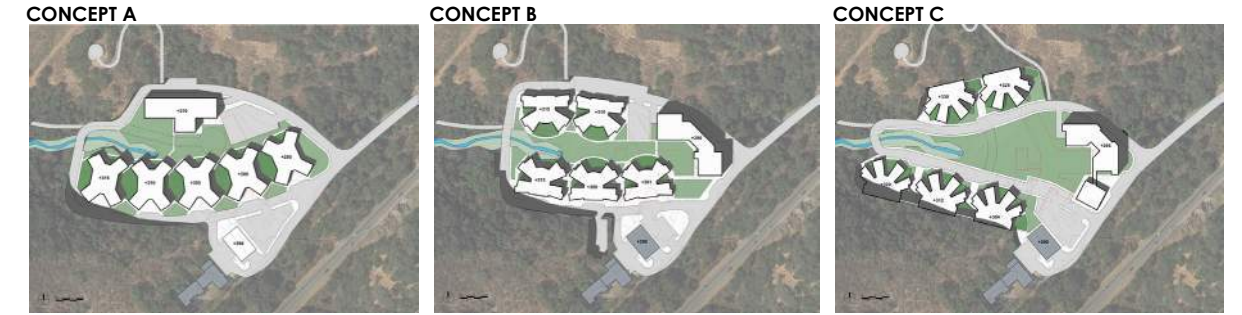
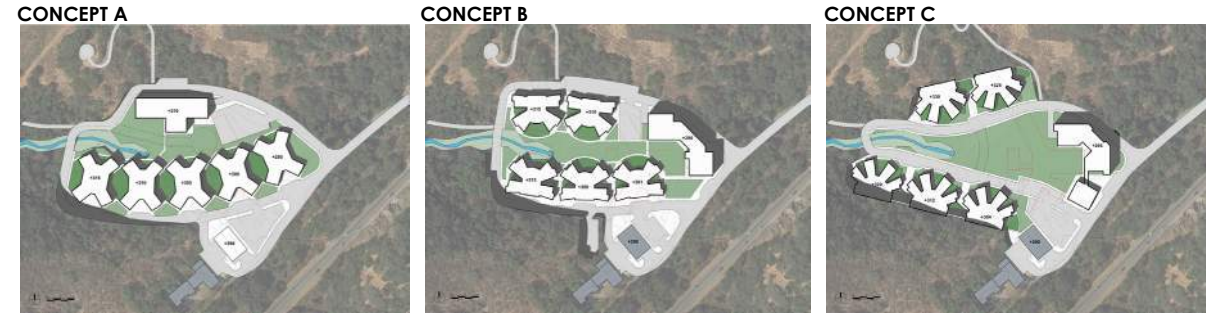
Deepa Balgi
Project manager

Attachments:

- CannonDesign Presentation
- Program
- Comparison Handout
- Concept Evaluation Matrix

cc: Attendees

CORDILLERAS HEALTH SYSTEM REPLACEMENT PROJECT
SITE EVALUATION



SAFETY	WALKABILITY / BIKEABILITY	1	1	3
	SAFETY / SECURITY	3	2	1
ENGAGEMENT	EASE OF ACCESS FOR PUBLIC	3	1	2
	RELATIONSHIP OF BUILDINGS ON THE CAMPUS	3	1	1
	CONNECTIVITY FROM MHRC TO CAMPUS CENTER	3	1	2
	VISIBILITY / ACCESSIBILITY OF CAMPUS CENTER	3	1	1
THERAPEUTIC PLATFORM	ACCESS TO NATURAL DAYLIGHT	3	1	2
	OUTDOOR SPACE IMMEDIATELY ADJACENT TO MHRC	3	2	1
	VIEWS & RELATIONSHIP TO NATURE	3	2	1
	OUTDOOR SPACE AVAILABLE TO THE CAMPUS	3	2	1
FUNCTIONALITY	AVAILABILITY OF BEDS	3	2	1
	BED MIX	3	2	1
	ACCESS AND VISIBILITY OF MHRC ENTRY	2	1	3
	SEPARATION OF STAFF /SERVICE FROM PATIENT / VISITOR TRAFFIC IN MHRC	3	2	1
	QUANTITY AND VARIETY OF DAYTIME SPACE FOR PATIENTS ON MHRC	3	2	1
	PARKING AVAILABILITY	-	-	-

LOGISTICS	COST	2	3	1
	SQUARE FOOTAGE OF SITE DISTURBANCE	2	1	2
	DISRUPTION TO EXISTING OPERATION DURING CONSTRUCTION	3	2	1
	CONSTRUCTION DURATION IMPACT	3	2	1
	OPPORTUNITIES FOR FUTURE GROWTH	3	3	1
TOTAL	55	34	28	



Clean and Modern



Out in Nature



Home Style



CORDILLERAS MENTAL HEALTH CENTER

Programming Reference

Basketball Court - Full Size



Basketball Court - Half Size

1 4



Bocce Court



Community Garden - Large

2

5

yes



Hammock Grove

1



Creek Overlook



Play Feature



Farm Animal Yard

2



Forest Amphitheater - Large



Tiered Gathering Area

maybe



Labyrinth Garden

maybe



Small Group Seating Area

maybe



CORDILLERAS MENTAL HEALTH CENTER

Programming Reference

Large Community Table



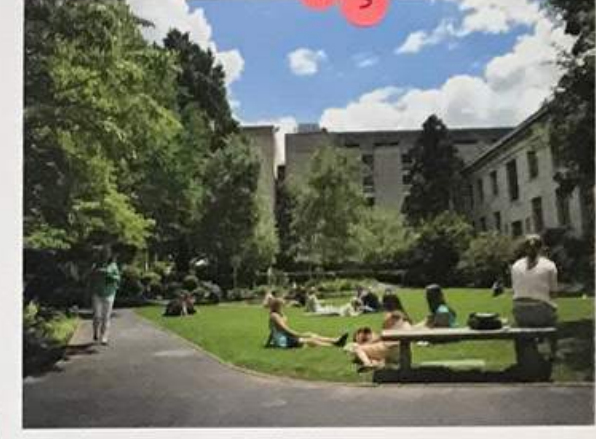
Looped Creek Walking Path



Picnic Area



Open Lawn Area



Horse Shoe Pit



Quiet Seating In Forest



Forest Gathering Area



Sheltered Group Gathering - Paved



Table Tennis



Fitness Area



Volleyball Court



Meditation Garden





OPEN SPACE LEGEND

- Usable Space
- Private Space
- Creek Zone



OPEN SPACE LEGEND

-  Usable Space
-  Private Space
-  Creek Zone





OPEN SPACE LEGEND

- Usable Space
- Private Space
- Creek Zone



**San Mateo County Behavioral Health and Recovery Services (BHRS)
Cordilleras Replacement Modeling Analysis
Annual Operating Budget, Intensive Medically Challenged Program**
Section 1: Staffing Budget

Position	Mon	Tues	Wed	Thurs	Fri	Sat	Sun	Total Shifts	Total FTEs	Staff Code	R&B %
Average Census	15.20	15.20	15.20	15.20	15.20	15.20	15.20	15.20			
AM Staff											
Director of Nursing	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	N	0%
RN Charge	-	-	-	-	-	1.00	1.00	2.00	0.40	N	0%
LVNs/LPTs	2.00	2.00	2.00	2.00	2.00	1.00	1.00	12.00	2.40	L	0%
Recovery Specialist	1.00	1.00	1.00	1.00	1.00	2.00	2.00	9.00	1.80	R	0%
Rehab Therapists	1.00	1.00	1.00	1.00	2.00	1.00	1.00	8.00	1.60	R	0%
Rehab Activity Leaders/Peer Couns.	-	-	-	-	-	1.00	1.00	2.00	0.40	R	0%
Program Director	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	C	0%
Social Worker III	-	-	-	-	-	-	-	-	-	C	0%
Food Service/Housekeeping	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.40	E	100%
Regional Administrator	0.10	0.10	0.10	0.10	0.10	-	-	0.50	0.10	A	0%
Administrator	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	A	0%
Business Office Mgr/AA	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	A	0%
Medical Records Tech/Reception	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	A	0%
Total AM Staff	10.10	10.10	10.10	10.10	11.10	7.00	7.00	65.50	13.10		
PM Staff											
LVNs/LPTs	2.00	2.00	2.00	2.00	2.00	2.00	2.00	14.00	2.80	L	0%
Social Worker III	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	C	0%
Recovery Specialist	2.00	2.00	2.00	2.00	2.00	2.00	2.00	14.00	2.80	R	33%
Food Service/Housekeeping	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.40	E	100%
Total PM Staff	6.00	6.00	6.00	6.00	6.00	5.00	5.00	40.00	8.00		
NOC Staff											
LVNs/LPTs	2.00	2.00	2.00	2.00	2.00	2.00	2.00	14.00	2.80	L	0%
Recovery Specialist	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.40	R	33%
Total NOC Staff	3.00	3.00	3.00	3.00	3.00	3.00	3.00	21.00	4.20		
Total Facility Staffing	19.10	19.10	19.10	19.10	20.10	15.00	15.00	126.50	25.30		

Staffing Projections

**San Mateo County Behavioral Health and Recovery Services (BHRS)
Cordilleras Replacement Modeling Analysis
Annual Operating Budget, Intensive Behaviorally Challenged Program**
Section 1: Staffing Budget

Position	Mon	Tues	Wed	Thurs	Fri	Sat	Sun	Total Shifts	Total FTEs	Staff Code	R&B %
Average Census	15.20	15.20	15.20	15.20	15.20	15.20	15.20	15.20			
AM Staff											
Director of Nursing	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	N	0%
RN Charge	-	-	-	-	-	1.00	1.00	2.00	0.40	N	0%
LVNs/LPTs	-	-	-	-	-	-	-	-	-	L	0%
Recovery Specialist	3.00	3.00	3.00	3.00	3.00	2.00	2.00	19.00	3.80	R	0%
Rehab Therapists	1.00	1.00	1.00	1.00	2.00	2.00	2.00	10.00	2.00	R	0%
Rehab Activity Leaders/Peer Couns.	-	-	-	-	-	1.00	1.00	2.00	0.40	R	0%
Program Director	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	C	0%
Social Worker III	-	1.00	1.00	1.00	1.00	1.00	-	5.00	1.00	C	0%
Food Service/Housekeeping	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.40	E	100%
Regional Administrator	0.10	0.10	0.10	0.10	0.10	-	-	0.50	0.10	A	0%
Administrator	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	A	0%
Business Office Mgr/AA	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	A	0%
Medical Records Tech/Reception	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	A	0%
Total AM Staff	10.10	11.10	11.10	11.10	12.10	8.00	7.00	70.50	14.10		
PM Staff											
LVNs/LPTs	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.40	L	0%
Social Worker III	-	-	-	-	-	-	-	-	-	C	0%
Recovery Specialist	3.00	3.00	3.00	3.00	3.00	3.00	3.00	21.00	4.20	R	33%
Food Service/Housekeeping	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.40	E	100%
Total PM Staff	5.00	5.00	5.00	5.00	5.00	5.00	5.00	35.00	7.00		
NOC Staff											
LVNs/LPTs	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.40	L	0%
Recovery Specialist	2.00	2.00	2.00	2.00	2.00	2.00	2.00	14.00	2.80	R	33%
Total NOC Staff	3.00	3.00	3.00	3.00	3.00	3.00	3.00	21.00	4.20		
Total Facility Staffing	18.10	19.10	19.10	19.10	20.10	16.00	15.00	126.50	25.30		

**San Mateo County Behavioral Health and Recovery Services (BHRS)
Cordilleras Replacement Modeling Analysis
Annual Operating Budget, Intensive Behaviorally Challenged with Trauma Focus Program**
Section 1: Staffing Budget

Position	Mon	Tues	Wed	Thurs	Fri	Sat	Sun	Total Shifts	Total FTEs	Staff Code	R&B %
Average Census	15.20	15.20	15.20	15.20	15.20	15.20	15.20	15.20			
AM Staff											
Director of Nursing	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	N	0%
RN Charge	-	-	-	-	-	1.00	1.00	2.00	0.40	N	0%
LVNs/LPTs	-	-	-	-	-	-	-	-	-	L	0%
Recovery Specialist	3.00	3.00	3.00	3.00	3.00	2.00	2.00	19.00	3.80	R	0%
Rehab Therapists	1.00	1.00	1.00	1.00	2.00	2.00	2.00	10.00	2.00	R	0%
Rehab Activity Leaders/Peer Couns.	-	-	-	-	-	1.00	1.00	2.00	0.40	R	0%
Occupational Therapist	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	C	0%
Program Director	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	C	0%
Social Worker III	-	1.00	1.00	1.00	1.00	1.00	-	5.00	1.00	C	0%
Food Service/Housekeeping	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.40	E	100%
Regional Administrator	0.10	0.10	0.10	0.10	0.10	-	-	0.50	0.10	A	0%
Administrator	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	A	0%
Business Office Mgr/AA	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	A	0%
Medical Records Tech/Reception	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	A	0%
Total AM Staff	11.10	12.10	12.10	12.10	13.10	8.00	7.00	75.50	15.10		
PM Staff											
LVNs/LPTs	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.40	L	0%
Social Worker III	-	-	-	-	-	-	-	-	-	C	0%
Recovery Specialist	3.00	3.00	3.00	3.00	3.00	3.00	3.00	21.00	4.20	R	33%
Food Service/Housekeeping	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.40	E	100%
Total PM Staff	5.00	5.00	5.00	5.00	5.00	5.00	5.00	35.00	7.00		
NOC Staff											
LVNs/LPTs	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.40	L	0%
Recovery Specialist	2.00	2.00	2.00	2.00	2.00	2.00	2.00	14.00	2.80	R	33%
Total NOC Staff	3.00	3.00	3.00	3.00	3.00	3.00	3.00	21.00	4.20		
Total Facility Staffing	19.10	20.10	20.10	20.10	21.10	16.00	15.00	131.50	26.30		

Staffing Projections

**San Mateo County Behavioral Health and Recovery Services (BHRS)
Cordilleras Replacement Modeling Analysis
Annual Operating Budget, Medium Intensity Program**

Section 1: Staffing Budget

Position	Mon	Tues	Wed	Thurs	Fri	Sat	Sun	Total Shifts	Total FTEs	Staff Code	R&B %
Average Census	15.20	15.20	15.20	15.20	15.20	15.20	15.20	15.20			
AM Staff											
Director of Nursing	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	N	0%
RN Charge	-	-	-	-	-	1.00	1.00	2.00	0.40	N	0%
LVNs/LPTs	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	L	0%
Recovery Specialist	2.00	2.00	2.00	2.00	2.00	2.00	2.00	14.00	2.80	R	0%
Rehab Therapists	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	R	0%
Rehab Activity Leaders/Peer Couns.	-	-	-	-	-	1.00	1.00	2.00	0.40	R	0%
Program Director	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	C	0%
Social Worker III	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	C	0%
Food Service/Housekeeping	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.40	E	100%
Regional Administrator	0.10	0.10	0.10	0.10	0.10	-	-	0.50	0.10	A	0%
Administrator	0.50	0.50	0.50	0.50	0.50	-	-	2.50	0.50	A	0%
Business Office Mgr/AA	0.75	0.75	0.75	0.75	0.75	-	-	3.75	0.75	A	0%
Medical Records Tech/Reception	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	A	0%
Total AM Staff	10.35	10.35	10.35	10.35	10.35	5.00	5.00	61.75	12.35		
PM Staff											
LVNs/LPTs	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.40	L	0%
Social Worker III	-	-	-	-	-	-	-	-	-	C	0%
Recovery Specialist	3.00	3.00	3.00	3.00	3.00	3.00	3.00	21.00	4.20	R	33%
Food Service/Housekeeping	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.40	E	100%
Total PM Staff	5.00	5.00	5.00	5.00	5.00	5.00	5.00	35.00	7.00		
NOC Staff											
LVNs/LPTs	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.40	L	0%
Recovery Specialist	2.00	2.00	2.00	2.00	2.00	2.00	2.00	14.00	2.80	R	33%
Total NOC Staff	3.00	3.00	3.00	3.00	3.00	3.00	3.00	21.00	4.20		
Total Facility Staffing	18.35	18.35	18.35	18.35	18.35	13.00	13.00	117.75	23.55		

**San Mateo County Behavioral Health and Recovery Services (BHRS)
Cordilleras Replacement Modeling Analysis
Annual Operating Budget, Transitional Supportive Housing Program - Phase 2**

Section 1: Staffing Budget

Position	Mon	Tues	Wed	Thurs	Fri	Sat	Sun	Total Shifts	Total FTEs	Staff Code	R&B %
Average Census	54.15	54.15	54.15	54.15	54.15	54.15	54.15	54.15	54.15		
AM Staff											
Director of Nursing	-	-	-	-	-	-	-	-	-	N	0%
RN Charge	-	-	-	-	-	-	-	-	-	N	0%
LVNs/LPTs	-	-	-	-	-	-	-	-	-	L	0%
Recovery Specialist	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.40	R	0%
Rehab Therapists	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.40	R	0%
Peer Professional	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.40	R	0%
Program Director	-	-	-	-	-	-	-	-	-	C	0%
Social Worker III	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	C	0%
Food Service/Housekeeping	2.00	2.00	2.00	2.00	2.00	1.00	1.00	12.00	2.40	E	100%
Regional Administrator	-	-	-	-	-	-	-	-	-	A	0%
Administrator	0.50	0.50	0.50	0.50	0.50	-	-	2.50	0.50	A	0%
Business Office Mgr/AA	0.50	0.50	0.50	0.50	0.50	-	-	2.50	0.50	A	0%
Medical Records Tech/Reception	1.00	1.00	1.00	1.00	1.00	-	-	5.00	1.00	A	0%
Total AM Staff	8.00	8.00	8.00	8.00	8.00	4.00	4.00	48.00	9.60		
PM Staff											
LVNs/LPTs	-	-	-	-	-	-	-	-	-	L	0%
Social Worker III	-	-	-	-	-	-	-	-	-	C	0%
Recovery Specialist	2.00	2.00	2.00	2.00	2.00	2.00	2.00	14.00	2.80	R	33%
Peer Professional	1.00	1.00	1.00	1.00	1.00	1.00	1.00	7.00	1.40	R	33%
Total PM Staff	3.00	3.00	3.00	3.00	3.00	3.00	3.00	21.00	4.20		
NOC Staff											
Recovery Specialist	3.00	3.00	3.00	3.00	3.00	3.00	3.00	21.00	4.20	R	33%
Peer Professional	-	-	-	-	-	-	-	-	-	R	0%
Total NOC Staff	3.00	3.00	3.00	3.00	3.00	3.00	3.00	21.00	4.20		
Total Facility Staffing	14.00	14.00	14.00	14.00	14.00	10.00	10.00	90.00	18.00		