# STATE OF WASHINGTON

Department of Social and Health Services

## Predesign Study

Project No. 2016-440

Child Study & Treatment Center CLIP Expansion Building

October 25, 2016

906 Columbia Street SW, Suite 400, Olympia, WA 98501

KMB architects

# STATE OF WASHINGTON

Department of Social and Health Services

# Predesign Study

Child Study & Treatment Center Expansion Building

Prepared By
KMB architects

October 25, 2016

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October 25, 2016

Penny Koal, Project Manager
Washington State Department of Social & Health Services
Operations & Support Services Division
Capital Programs
PO Box 45848
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As requested, for your review is the draft the predesign report for the proposed expansion at the Child Study & Treatment Center (CSTC).

This predesign report evaluates alternatives and recommends funding for the construction of needed space for additional capacity at CSTC. Through the process of this predesign effort, we've learned that providing adequate space for patients is fundamental to realizing the Department of Social & Health Services' mission to "transform lives".

If you have any questions, please contact our office.

KMB architects,

Edward F. Schilter

Ed Schilter, Principal Architect

RE: Child Study and Treatment Center
Subject: Predesign Report

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# Acknowledgements

KMB would like to thank the stakeholders who participated and assisted in this study by providing time, energy, historical perspective, valuable ideas, feedback and input.

## Child Study and Treatment Center

Washington State Department of Social and Health Services
Behavioral Health Administration
8805 Steilacoom Blvd SW,
Lakewood, WA 98498

## Stakeholders

Rick Mehlman, PhD, CSTC CEO
Erik Logan, RN, CSTC Director of Nursing
April Rose, CSTC Director of Administration and Support Services
Francesca Dewalt, PhD, Orcas Cottage Program Director
Carl Gray, CSTC Safety Officer
Rocky Lane, CSTC Maintenance Supervisor

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## Predesign Consultant Team

| | |
|---|---|
| KMB architects | Architect |
| Inventrix | Mechanical Engineer |
| DEI Electrical Consultants | Electrical / Security Electronics Engineer |
| KPFF | Civil Engineer |
| JB Iringan Consulting | Cost Estimating |

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# Section 1 - Executive Summary

*Summarize the problem, opportunity, or program requirements; alternatives considered; preferred alternative; and why it was chosen.*
*Include basic cost information.*

## Problem

There is a critical need for additional secure adolescent psychiatric hospital beds in the State of Washington. Additional beds are needed for inpatient court ordered Forensic evaluations and restoration under RCW 10.77 and for youth admitted as voluntary or under civil commitment law (RCW 71.34). The State does not currently have dedicated juvenile forensic inpatient beds. Youth referred to the state for forensic evaluations (via RCW 10.77) often wait several weeks for a bed, and when admitted, are housed in units with both voluntary and civilly committed youth. DSHS is committed to achieving a 7-day maximum admission timeline.

The population of youth with severe psychiatric needs currently challenges state and local government resources for juvenile justice, child welfare, developmental disability and mental health. State facilities are best equipped and staffed to treat and house the most psychiatrically complex youth. Many of these patients present acute security and safety challenges. However, housing resources are limited and existing state managed facilities are burdened beyond capacity.

The Child and Study Treatment Center (CSTC), located adjacent to Western State Hospital in Lakewood, Washington is the state's only accredited psychiatric hospital for children. CSTC provides 24-hour in-patient treatment services to both voluntary and civilly committed youth. CSTC manages the state and federally funded Children's Long Term Inpatient Program (CLIP). 47 of the State's 83 CLIP beds are provided at the CSTC campus. CSTC also provides juvenile court-ordered forensic services including; evaluations of competency to stand trial, mental state at time of offense, risk assessment of harm to themselves or others and competency restoration therapies.

## Opportunities

- The existing CSTC campus is the best prepared site for increasing state managed psychiatric youth care. The campus has the administration, maintenance and support facilities to accommodate the additional beds. Existing school district resources are available to maintain a quality educational program. A master-planned site for the proposed facility is available with room for future expansion. Utilities are available to support the expansion.

- Shorter wait times for bed space results in better outcomes for families and communities struggling to manage youth in need of a safe, therapeutic and structured environment.

- The design of a new facility will address the security and clinical needs of highly aggressive youth. This includes the separation of youth with different legal statuses to reduce the risk of staff and patient injuries.

- CSTC provides nationally recognized state-of-the-art care for the most psychiatrically complex youth in the state. CSTC staff are highly trained professionals using evidence based treatment, trauma informed care, trauma focused cognitive behavior therapy, adventure based recreational therapy, substance abuse treatment and prevention programs, and sexual safety programs.

Two Alternatives were explored

| Alternative | Conclusion |
|---|---|
| 1. Maintain CSTC Program As-Is | No action will not solve the problem. The most vulnerable and severely affected patients, best treated by the State, will suffer for the lack of bed space. No action lessens the ability of the State to comply with recent court decisions. No action decreases the State's ability to provide modern well designed secure treatment facilities that work to reduce patient-to-staff and patient-to-patient injuries. |
| 2. Build a New 18-Bed Facility | The creation of an 18-bed cottage will provide the necessary additional beds anticipated for inpatient court ordered forensic services for juveniles and significantly shorten wait times for youth admitted as voluntary or under civil commitment law (RCW 71.34). The proposed new 18-bed cottage would include eight (8) designated forensic beds and ten (10) CLIP beds and would provide segregation of patients with different legal statuses. The design of the proposed facility will also address the security and clinical needs of highly aggressive youth, thus reducing the risk of staff and patient injuries. Construction of a new 18-bed secure therapy unit is the preferred alternative. |

Estimated Cost

The estimated total project cost is $12.6 million dollars. A detailed cost estimate and C-100 is included in the body of the report.

# TAB - Section 2

# TAB - Section 2

# Section 2 - Problem Statement

## Operational Needs

*A. Identify the problem, opportunity or program requirement that the project addresses and how it will be accomplished.*

### Overview

The Child Study & Treatment Center (CSTC) was established on the campus of Western State Hospital in 1961. CSTC is designed and staffed to provide inpatient psychiatric treatment to children from 6-17 years of age who cannot be served safely in less restrictive settings within the community. CSTC provides state of the art care for the most psychiatrically complex youth in Washington State. CSTC's professional staff are involved in clinical research, and are active nationally in developing standard of care guidelines and practices for diagnosing and treating youth with serious emotional disturbances.

CSTC provides care for 31 adolescents and 16 children on three inpatient residential cottages. The current total bed space is approximately 47 beds (15-16 beds per cottage). These cottages were constructed in the 1980's. The cottages have been remodeled in recent years but no significant bed capacity additions have occurred. The existing cottages are expected to continue functioning for the foreseeable future.

There has been an increasing need for youth psychiatric beds in Washington State since the current cottages were constructed. In lieu of constructing and operating state run beds, DSHS has contracted with private partners to provide additional beds. Currently 10 beds are contracted at the Navos Behavioral Healthcare Center for Children, Youth and Families in Burien, 13 beds are contracted at the Tamarack Center in Spokane, and 13 beds are contracted at the Pearl Street Center/Comprehensive in Tacoma. Additional private partnership beds are not readily available. The private partnership facilities are not as well equipped as CSTC to care for the most complex patients. Because of this, private facilities have a history of declining admittance of children with the highest level of care needs. By default, CSTC's population is the most challenging with the most complex needs for security and therapy. Additionally, CSTC is the only facility providing court ordered forensic services for juveniles per RCW 10.77. The need for additional bed space for children in need of the highest level of care needs is a major factor driving the need for the state to increase the number of state run psychiatric beds for children.

The limited number of beds available has created a wait listing condition for the existing beds at CSTC. The recent Trueblood v. DSHS ruling addressed the wait listing condition for adult psychiatric hospital beds at the adjacent Western State Hospital. DHSH is committed to meeting the 7-day maximum admission timeline for the juvenile population as well. The Trueblood case states that:

> *"The State of Washington is violating the constitutional right of some of its most vulnerable citizens. The State has consistently failed to provide timely competency evaluation and restoration services, services needed to determine whether individuals understand the charges against them and can aid in their own defenses, which is required in order for them to stand trial. By failing to provide competency evaluation and restoration service within seven days of a court order, the State fails to provide both the substantive and procedural due*

*process required by the Constitution. Our jails are not suitable places for the mentally ill to be warehoused while they wait for services. Jails are not hospitals, they are not designed as therapeutic environments, and they are not equipped to manage mental illness or keep those with mental illness form being victimized by the general population of inmates. Punitive settings and isolation for twenty-three hours each day exacerbate mental illness and increase the likelihood that the individual will never recover."*

Children are not a part of the Trueblood ruling but the concerns raised in the Trueblood case are relevant for juvenile forensic patients as well. DSHS intends to apply the Trueblood time frames for evaluation and restoration of forensic children assigned to CSTC. In addition to Trueblood, In RE: the Detention of N.P. v DSHS, the practice of maintaining a CLIP waiting list based on bed availability was challenged based on language in RCW 71.34, which states that for youth committed for 180 days of involuntary treatment: "the secretary shall accept immediately or place the minor in a state-funded long-term evaluation and treatment facility". Further, in RE: the detention of D.W. et al. v DSHS, the State's Supreme Court affirmed that boarding psychiatric patients in non-psychiatric facilities awaiting treatment is unlawful.

The current mixing of the 10.77 forensic youth and the CLIP youth at CSTC creates potential liability issues. The proposed new cottage will house two seperate juvenile patient populations. A separate wing or pod with eight (8) beds will be provided for the 10.77 population for court ordered forensic competency evaluation and restoration. These beds will be separated from the CLIP voluntary and civilly committed population and will facilitate compliance with the DSHS 7-day admission timeline for forensic patients. Currently at CSTC, youth court ordered to inpatient forensic services are not seperated from the CLIP population as they are prioritized to the top of the CLIP waitlist for the next available bed in Orcas Cottage due to RCW 10.77 admission time lines. This causes longer wait times for youth on the CLIP waitlist.

The new cottage will separate the two populations (8 beds for 10.77 forensic youth and 10 beds for the CLIP youth) for safety and because the programming for these groups is very different for each group of patients. The CLIP patients are typically referred to CSTC for longer-term mental health treatment (3-6+ months), wheras the court ordered 10.77 forensic patients are referred to CSTC for a shorter period (15 days to 3 months) for competency evaluation and/or competency restoration treatment (to address legal charges). The new building will provide separate wings or pods for each population which will allow for more effective treatment and focus on patient needs which minimizes the length of stay.

The need for the additional beds is immediate and it takes time to create new bed space and employ staff. This project is projected to be ready for patient occupancy in January of 2019. Building new beds, one cottage at-a-time, will help minimize the strain on the stakeholders and help avert a potential crisis for treatment beds. No action will only facilitate falling farther behind bed space needs and increase the risk of further duress from the courts the Joint Commission (the accreditation body) and CMS (Center for Medicare & Medicaid Services - the federal funding body).

Aside from the potential issues with the courts, the reality is that there are children that need this high level of psychiatric care and the State has the responsibility for that care. CSTC is the appropriate location to design and build additional state managed beds for the following reasons:

1. CSTC has a nationally recognized, state-of-the-art treatment program. This project is an opportunity for Washington to provide an example for other states seeking to improve psychiatric care of children.

2. The advantage of operating cost efficiencies exist at CSTC where administration, security, maintenance functions are currently in place.

3. CSTC has existing school facilities with adequate existing space to accommodate the increase in

population. CSTC has an established working arrangement with the Clover Park School District to provide educators for the school facility at CSTC.

4. A buildable site is available on the CSTC campus avoiding any land acquisition cost. The chosen site is consistent with the current master plan and has existing infrastructure to support the new building.

5. CSTC has an established teaching and recruitment program for psychiatric professionals. The internship program with the University of Washington as well as other existing training and volunteer programs enables CSTC to continue to fill openings for new and required additional staff.

6. CSTC has an established community support network. Contributors include the Lions Club, L&I Adopt a Family, the Just Because Club and others.
7. Community opposition to the project is expected to be minor. The proposed cottage will not be visible from surrounding residential areas.

In summary, the proposed CSTC CLIP Expansion project supports the misison of DSHS, "To transform lives". The proposed expansion will provide needed expansion of beds to increase access to programs and services designed to promote the best possible outcomes for children and families in Washington State suffering from severe mental health issues. Programs and services offered are directly or indirectly tied to the "Results Washington" objectives.

- Healthy People - Healthy Youth and Adults
- Safe People - Public
- Supported People
    - Protection and Prevention
    - Stability and Self Sufficiency
    - Quality of Life

*B. Identify and explain the statutory or other requirements that drive the project's operational programs and how these affect the need for space, location or physical accommodations. Include anticipated population projections (growth or decline) and assumptions.*

Desired care levels, existing state statutory requirements and recent legal decisions compel DSHS to significantly reduce wait lists for individuals needing long term psychiatric treatment at the state hospitals. These individuals include defendants awaiting competency evaluations or treatment to restore competency to stand trial, patients on long-term involuntary commitment orders and persons housed in non-psychiatric facilities awaiting a state hospital bed. Failure to admit these individuals with time frames established by the courts could result in multiple show cause hearings and monetary penalties.

DSHS is seeking to construct an 18-bed treatment facility to facilitate a reduction in the wait listing of youth need long-term inpatient psychiatric care. It is expected that the new facility will reduce staff injuries by providing a secure environment that allows for safe and effective treatment.

The current cottages are nearly 30 years old. Rather than building additional bed space in subsequent years DSHS has contracted with private partners to add beds. However, private facilities have been declining service to children with severe needs and the number of private beds available has actually decreased in recent years, putting even more stress on the CSTC's CLIP program.

CSTC is Washington State's only accredited psychiatric hospital for children/adolescents providing long-term 24-hour

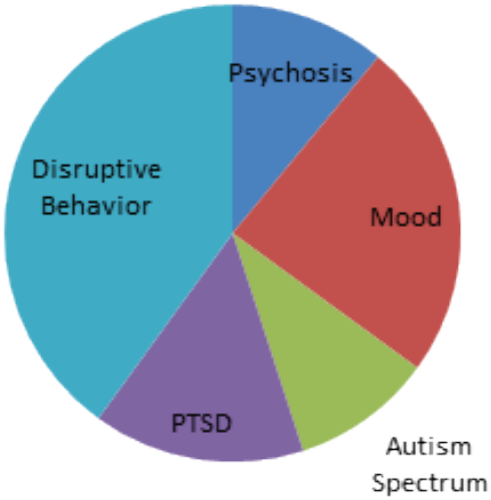
inpatient treatment. CSTC is a state licensed Hospital and governed by the Joint Commission standards as well as Department of Health regulations. CSTC is part of the state and federally funded Children's Inpatient Program (CLIP) and provides forty-seven (47) of the state's eighty-three (83) CLIP beds. In addition to the CLIP beds which provide inpatient care for voluntary and civilly committed youth, CSTC provides court-ordered forensic services under RCW 10.77. Upon order of juvenile courts statewide, the CSTC Forensic Service conducts evaluations of competency to stand trial, and mental state at the time of the offense, and/or risk of harm to self or others, and provide inpatient treatment for competency restoration under RCW 10.77.

Population and Projections:

There are 83 existing beds in four CLIP facilities:

| | | |
|---|---|---|
| Child Study and Treatment Center in Lakewood | 47 beds | State-run |
| Navos Behavioral Healthcare Center for Children Youth & Families in Burien | 10 beds | Contracted |
| Tamarack Center in Spokane | 13 beds | Contracted |
| Pearl Street Center/Comprehensive in Tacoma | 13 beds | Contracted |

The average lengths of hospitalization at CSTC vary from approximately 7 months for adolescents to one year or more for preadolescents. Since January, 2007, CSTC has averaged 71 admissions annually. Approximately 21% of the youth we serve are state dependent. The ethnic distribution reflects the state's population: ~ 75% Caucasian, 12 % African-American, 4 % Native American, with the remainder Asian, Pacific Islander or mixed heritage. Approximately three-fourths of patients are male. The diagnostic groupings of our clientele are depicted in the figure below:




CSTC receives referrals through the Children's Long-term Inpatient Program (CLIP) administration, a contractual service managed by the Division of Behavioral Health & Recovery. In addition to CSTC's 47 inpatient hospital beds, the beds in three privately operated inpatient psychiatric residential treatment facilities around the state also receive referrals through CLIP. CSTC typically provides beds for longer-term inpatient treatment of children with the most severe emotional and behavioral disturbances in the state.

All CLIP services, including those at CSTC, are billable under Medicaid and 42 CFR 441 Subpart D—Inpatient Psychiatric Services for Individuals Under Age 21 in Psychiatric Facilities or Programs. This level of care is carved-out from the waiver/Regional Support Networks (RSNs) who then have no fiscal responsibility for the cost of CLIP care. The RSNs do manage local voluntary referrals to CLIP. Children and youth may be voluntarily referred to the statewide CLIP administration for review of medical necessity for admission. Youth who are 13 and over may also be involuntarily

committed to CLIP (RCW 71.34.760) on a 180 day commitment order.

Children and youth from the age of 5 up through their 18th birthday, regardless of their Medicaid status, are eligible for CLIP. Most have multiple psychiatric issues, multiple past psychiatric hospitalizations, complex family and legal pictures, co-occurring developmental disabilities, medical needs, and substance issues.

- 83% are already enrolled in Medicaid. All qualify for Medicaid upon admission due to their categorical need (long-term inpatient services).
- 24% are under age 13 – children between ages 5 – 10 may only be serve at CSTC's Camano Cottage, the only 16 beds within the CLIP system providing services to preadolescents of this age range.
- 21% of all CLIP admissions are in state custody
  - For 6 – 11 year olds, this number jumps to 35%.
- 45% of youth in CLIP are involuntarily committed – only available to youth ages 13 – 17.
- 55% are voluntary admissions – all children under 13 are voluntary, as well as a proportion of adolescents.

The waiting list for admittance, increased demand to accommodate more "complex needs" patients and future space needs projections are the driving force behind the need for additional housing. The proposed 18-bed unit is based upon current therapeutic models for developing a "home-like" normalized setting to best accommodate therapy programs. Project stakeholders have analyzed population projections and have concluded this proposed expansion will positively affect the ability of CSTC to alleviate legal pressure and accommodate backlog of unadmitted patients and families.

Due to the CLIP waitlist ranging widely from one week to the next, the chart below depicts a more accurate picture of the overall wait times throughout the year for youth waiting admission to a CLIP treatment Program:

| Cumulative Yearly Data | # of Admissions | Waited more than 30 days |
|---|---|---|
| FY2011 | 93 | 35% |
| FY2012 | 102 | 24% |
| FY2013 | 104 | 35% |
| FY2014 | 105 | 49% |
| FY2015 | 106 | 63% |
| FY2016 | 102 | 43% |

The average wait time for a CLIP Program can range from 30-90 days depending on the youth's age, level of acuity, and overall treatment needs. However, youth 15-17 years of age, with the highest levels of acuity, and psychiatric treatments often has the longest average wait times for admission to CLIP due to the following factors:

- Child Study and Treatment Center (CSTC) 15 bed "Orcas" Cottage is the only no-denial CLIP program in the state that is specifically designed and programmed to meet the needs of adolescents in this age range with the most serious psychiatric illnesses.
- Orcas Cottage is the only CLIP Program that is resourced to provide inpatient court ordered Forensic Services, (i.e. Forensic Evaluations and Restoration) for juveniles, 15-17 years old, under RCW 10.77.068 which establishes admission timeframes to state hospitals at seven days or less for Forensic Services.
- Youth court ordered to inpatient Forensic Services are prioritized to the top of the CLIP waitlist for the next available bed in Orcas Cottage due to RCW 10.77 admission time lines. This causes longer wait times for youth on the CLIP wait list.

Limited CLIP bed capacity has resulted in extended wait times for youth requiring the highest level of psychiatric care

available in our state. Extensive wait times for admission to a CLIP program impacts referral patterns of providers in the community and acute hospitals and contributes to youth waiting in alternate facilities such as juvenile detention facilities and emergency departments, which are not equipped to manage their high level of psychiatric needs. Youth waiting in acute hospitals decrease capacity at short-term Evaluation and Treatment (E&Ts) centers needed for other children and youth experiencing acute behavioral health crisis. Systematically, many youth served in CLIP are also being served by more than one DSHS child-serving agency and improved admission times for these youth will assist in decreasing cross-system challenges and may decrease the use of more costly alternatives.

The number of admissions is informed by the CLIP system capacity (# of beds) and Length of Stay:

| Year | Admissions |
|---|---|
| 2012 | 109 |
| 2013 | 110 |
| 2014 | 116 |
| 2015 | 102 |
| 2016 | 102 |

In Fall of 2015, Behavioral Health Administration (BHA) projected that CLIP would need at minimum 10 additional CLIP beds while Juvenile Forensic Services would need between 5-7 beds dedicated to Forensic Services to improve timely access to CLIP and meet statutory time lines for Forensic Services. It is important to consider that the above projections do not account for Contracted CLIP Programs increasingly contracting with private insurance companies at a higher rate than the current State CLIP rate, resulting in further depletion of available CLIP beds or the potential for additional CLIP Programs to close (2 in the past decade have close) due to low CLIP reimbursement bed rate impacting CLIP Programs. This affects the ability to adequately staff and provide the required services necessary to operate a CLIP Program and serve our youth with the highest behavioral health needs in our state.

Proposed Property, Codes, Laws and Regulations Affecting the Proposed Project:

The City of Lakewood and the West Pierce Fire District will be the lead permitting agencies for the proposed construction. CSTC is located adjacent to Western State Hospital in Lakewood Washington. Property details are as follows:

General Information

### Property Information

| | |
|---|---|
| Parcel Number: | 0220321000 |
| Size: | 461.50 acres |
| Site Address: | 8200 87TH AV SW<br>Lakewood, Washington 98498 |
| Legal Owner: | State of Washington<br>ATTN: Business Office<br>9601 Steilacoom Blvd SW<br>Tacoma WA 98498-7213 |
| Comprehensive Land-Use Designation: | Public and Semi-Public Institutional |
| Zoning Designation: | Public/Institutional (PI) |
| Centers of Local Importance (CoLI): | Fort Steilacoom/Oakbrook |
| Western State Hospital Master Site Plan | December 10, 1996 |
| DSHS/Lakewood Interlocal agreement | March 30, 1999 |
| Public Facilities Permit: | Land-Use Permit #LU98059 |
| National Register of Historic Places: | Fort Steilacoom #77001350 |

The property that WSH is situated on was originally the home of Fort Steilacoom. Fort Steilacoom was one of earliest outposts of European settlement in the Northwest. The Fort was later expanded and converted to Western State Hospital. In 1974 the site of Western State Hospital was nominated and subsequently entered into the National Register of Historic Places as the Fort Steilacoom Historic District.

Shortly after the city of Lakewood's incorporation in 1996, the Washington State Department of Social and Health Services (DSHS) completed a master plan for the WSH campus. In 1998 DSHS applied for and received a public facilities permit from the City to formally acknowledge proposed improvement projects within the master plan. The WSH public facilities permit (LU98059) was approved by the Hearing Examiner on September 22, 1998, and formally ratified by the City on March 30, 1999 after adoption of an inter-local agreement.

The City of Lakewood is the primary Authority Having Jurisdiction (AHJ) having the responsibility to administer and enforce locally adopted land-use, construction and life safety codes. Pierce County Fire Protection District #3, under an Inter-local Agreement with city, has the responsibility to review plans, issue permits, perform fire code inspections and enforce the provisions of the International Fire Code.

DOH has review and permitting authority over the construction and licensing of hospitals. DOH adopts and enforces the Washington State Building Code in addition to certain other codes and standards listed below. DOH reviews plans, issues permits for construction, and performs inspections.

The Washington State Patrol, Office of the State Fire Marshal (OSFM) works closely with the DOH and has the responsibility to perform fire and life safety inspections in licensed care facilities. Additionally OSFM has authority over the fire sprinkler industry including plan review and inspections.

Tacoma Public Utilities – Tacoma Power has the responsibility to review plans, issue permits, perform electrical code inspections and enforce the provisions of the National Electrical Code (NFPA 70), city.

The Washington State Department of Archaeology & Historic Preservation (DAHP) – Built Environment Unit has review authority over projects within the Fort Steilacoom Historic District under authority of Executive Order 05-05.

The Department of Health and Social Services (DSHS) is SEPA lead agency for DSHS initiated proposals.

## Authority Having Jurisdiction (AHJ) Contacts

### City of Lakewood

| | | |
|---|---|---|
| Community Development/Planning Director: | Mr. David Bugher | (253) 983-7739 |
| Community Development/Building Manager | Mr. Frank A. Fiori | (253) 983-7716 |
| Community Development/Planning Official: | Ms. Nancy Craig | (253) 983-7817 |

### Pierce County Fire Protection District #3

| | | |
|---|---|---|
| Asst. Fire Marshal / Plan Reviewer: | Mr. Rod Pearce | (253) 564-1623 |
| Fire Inspector: | Mr. Matt Owens | (253) 564-1623 |

### Washington State Department of Health

| | | |
|---|---|---|
| Construction Review Services: | Mr. Clynn Wilkinson | (360) 236-2944 |

### Tacoma Public Utilities – Tacoma Power (Electrical)

| | | |
|---|---|---|
| Electrical Plan Review, Permitting & Inspection: | Mr. Lane Peckham | (253) 502-8432 |
| | Mr. Marshall Swayze | (253) 396-3301 |

### Washington State Patrol

| | | |
|---|---|---|
| State Fire Marshall's Office: | Ms. Barbara McMullen | (360) 596-3911 |

### Department of Archaeology & Historic Preservation

| | | |
|---|---|---|
| Built Environment Unit – Historical Architect: | Mr. Nicholas Vann | (360) 586-3079 |

## Laws, Codes & Standards

### Abbreviation Legend

Revised Code of Washington – RCW
Washington Administrative Code – WAC
Lakewood Municipal Code – LMC
National Fire Protection Association – NFPA
International Code Council – ICC
International Association of Plumbing and Mechanical Officials – IAPMO
American Society for Healthcare Engineering – ASHE
Facilities Guideline Institute – FGI
United States Code – USC
Code of Federal Regulations – CFR
American with Disabilities Act – ADA
State Environmental Policy Act – SEPA

## Laws & Statutes

State Building Code: Chapter 19.27 RCW
Energy-Related Building Standards: Chapter 19.27a RCW
Electricians and electrical installations 19.28 RCW
Barrier Free: Chapter 70.92 RCW
Hospital Licensing and Regulation: Chapter 70.41 RCW
Architects: Chapter 18.08 RCW
Engineers and Land Surveyors: Chapter 18.43 RCW
Fire Sprinkler System Contractors: Chapter 18.160 RCW
State Environmental Policy: Chapter 43.21C RCW
The National Historic Preservation Act of 1966: 16 USC Chapter 470
Americans with Disabilities Act of 1990: 42 USC Chapter 126

## Codes & Standards

ICC, International Building Code – 2015 edition (Chapters 51-50 WAC & 15A.5.020A & 15A.5.060 LMC)
ANSI/ICC, Accessible and Usable Buildings – ICC/ANSI A117.1-2009 edition (Chapter 51-50 WAC)
ICC, International Existing Building Code – 2015 edition (Chapters 51-50 WAC & 15A.5.020G LMC)
ICC, International Mechanical Code – 2015 edition (Chapters 51-52 WAC & 15A.5.020C LMC)
ICC, International Fire Code – 2015 edition (Chapters 51-54A WAC & 15A.5.020D & 15A.5.080 LMC)
ICC, International Energy Conservation Code, Commercial – 2015 edition (Chapters 51-11C WAC & 15A.5.020A LMC)
ICC, International Performance Code – 2015 edition (Chapters 15A.5.020H LMC)
ICC, International Property Maintenance Code – 2015 edition (Chapters 15A.5.020I & 15A.5.090 LMC)
IAPMO, Uniform Plumbing Code – 2015 edition (Chapters 51-56 WAC & 15A.5.020E LMC)
NFPA 70, National Electrical Code – 2008 edition (Chapters 296-46B WAC & 15A.25 LMC)
NFPA 99, Health Care Facilities Code – 2012 edition (Chapters 246-320-500 (3)(e) WAC)

NFPA 101, Life Safety Code – 2012 edition (Chapters 246-320-500 (3)(b) WAC)
Washington State Building Code (Chapter 246-320-500 (3)(c) WAC)
FGI Guidelines for Design and Construction of Hospitals and Outpatient Facilities – 2014 (Chapter 246-320-600 WAC)
SEPA Rules (Chapter 197-11 WAC)
City of Lakewood – Protection and Preservation of Landmarks (2.48 LMC)
City of Lakewood – Public Works – Permits (12A.04 LMC)
City of Lakewood – Environmental Rules & Procedures (14.02 LMC)
City of Lakewood – Zoning Districts (18A.30 LMC)
City of Lakewood – Development Standards (18A.50 LMC)
National Register of Historic Places (36 CFR Part 60)
The Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR Part 68)
2010 ADA Standards for Accessible Design (28 CFR 35.151 & 36 CFR part 1191)

Life Safety & Health Care Facilities Codes and Facility Guidelines Institute for Hospitals (FGI) Guidelines
Washington State Department of Health (DOH) Construction Review Services will review and permit alterations to the licensed hospital under the State Building Code, Life Safety Code, Health Care Facilities Code and FGI Guidelines.

C. Explain the connection between the agency's mission, goals, and objectives; statutory requirements; and the problem, opportunity, or program requirements.

DSHS Mission: "People are healthy. People are safe. People are supported. Taxpayer resources are guarded."

CSTC Mission:

The CSTC Team makes every effort to

**promote and preserve each child's right**

- To be safe at all times
- To be cared for and nurtured
- TO LIVE IN A STABLE ENVIRONMENT
- To receive guidance in ways that foster healing, hope, recovery, and growth
- To have choices
- To be given unlimited opportunities to develop pride, dignity, and self-respect
- To have a voice
- TO HOPE AND DREAM
- To safely play, explore and experiment
- To acquire knowledge, skills, and life experience
- To be given unlimited opportunities to earn the respect of others
- To plan for the future
- To experience joy every day
- To start over or move on

Joint Commission Mission: "All people experience the safest, highest quality, best health across all settings."

Connections:

- CSTC requires state-of-the-art facilities in order to fulfill the DSHS mission to "Transform Lives"
- CSTC requires adequate bed space and modern treatment facilities in order to reach their mission to "work effective with "children, families, and communities to promote effective treatment, healing and growth in a safe and nurturing environment".
- CSTC requires safe facilities to appropriately separate patients with differing legal statuses to best avoid patient and staff injury.
- The people of Washington State require adequate bed space to achieve the Joint Commission Vision that "All people experience the safest, highest quality, best health across all settings."
- Washington's patients and families need access to modern mental health facilities designed according to established evidence based treatment programs that are safe to fulfill the DSHS vision that "People are healthy. People are safe People are supported."

## D. Describe in general terms what is needed to solve the problem.

The new 18 bed CSTC Cottage will provide an additional 10 CLIP beds that serve adolescents, 15-17 years old with the most serious psychiatric illnesses and highest levels of aggression; as well as provide 8 additional beds dedicated to Forensic Services for juveniles court ordered under RCW 10.77.068 and meet seven-day admission performance targets. This population of youth currently challenges the resources of juvenile justice, child welfare, developmental disability and mental health services.

The new secure cottage will include eight (8) designated forensic beds that will ensure compliance with the seven day admission timelines mandated by Trueblood v DSHS, and will allow for the segregation of patients with different legal statuses. Currently the State does not have dedicated 10.77 juvenile forensic inpatient beds. Youth referred for forensic evaluations via RCW 10.77 often wait several weeks for a CSTC bed, and when admitted are housed on the adolescent units with voluntary and civilly committed youth.

The design of the facility and the treatment program will specifically address the security and clinical needs of highly aggressive youth, thus reducing the risk of staff injuries due to patient-to-staff violence. The addition of ten adolescent CLIP beds will result in significantly shorter wait times for admission. Shorter wait times result in better outcomes for families and communities struggling to manage youth in need of a safe, therapeutic, and structured environment.

The construction of additional bed space at CSTC is the most logical location for increasing state operated CLIP beds. The existing campus has the administration and maintenance staff and facilities to support the additional beds. The existing school buildings are large enough and the well established connection with the Clover Park School District to supply teachers is in place to maintain a quality education program. A buildable site exists and existing utilities are believed to be able to support the new building. A land use planning action may be required, but would be consistent with the planned use of the property and is not expected to be opposed.

## E. Include any relevant history of the project, including previous predesigns that did not go forward to design or construction.

- No existing predesign studies are known to exist for the proposed CSTC / CLIP expansion.
- The existing approved campus masterplan for CSTC shows two (2) future cottages where the proposed project is to be located.

# TAB - Section 3

# TAB - Section 3

# Section 3 - Analysis of Alternatives
## (Including the Preferred Alternative)

*A. Describe all alternatives that were considered, including the preferred alternative. Alternatives may include co-location, renovation, leased space, new construction, or other options explored.*

i. A no action alternative. Describe the programmatic outcome of not addressing the problem or opportunity.

The treatment program at CSTC has been nationally recognized for providing state of the art care for the most psychiatrically complex youth in Washington State. However, the addition of ten adolescent CLIP beds will result in significantly shorter wait times for admission. Shorter wait times result in better outcomes for families and communities struggling to manage youth in need of a safe, therapeutic, and structured environment. The need for beds is not going to go away. This project can help the State maintain rather than compromise their nationally recognized care of children with the most severe emotional and behavioral disturbances in the state.

Currently the State does not have dedicated 10.77 juvenile forensic inpatient beds. Youth referred for forensic evaluations via RCW 10.77 (court mandated competency, capacity and restoration assessments for youth charged with criminal acts) often wait several weeks for a CSTC bed (not in alignment with trueblood), and when admitted are housed on the adolescent units with voluntary and civilly committed youth. The wait time currently exposes DSHS to possible penalties but not being able to segregate the Forensic youth from the voluntary and civilly committed youth creates a safety concern and concerns with respect to the quality of the therapeutic environment at CSTC. This condition will continue unless new beds are constructed.

ii. The advantages and disadvantages of each alternative. Please include a high-level summary table with your analysis.

After a series of discussions with the stakeholders in July and August of 2016 it was determined that for this Pre-Design effort there was really only one option in addition to the Do Nothing option. The stakeholders determined that there was not any existing space at CSTC that was available to be reconfigured for use as a cottage. The idea of potentially using existing space at the adjacent Western State Hospital contained several fatal flaws. The mixing of adult and adolescent psychiatric populations is problematic because per RCW 13.04.116 a juvenie may only be held in an adult facility for a limited number of hours (i.e. for a court appearance where no juvenile detention facility is available) and the juvenile is to be separated from the sight and sound of adult offenders in secure facilities. While not specifically mentioning psychiatric hospitals the statute seems likely to apply. Similar language is found in the “Juvenile Justice and Delinquency Prevention Act of 1974, reauthorized in 2002. This federal legislation is relevant due to federal funds being used to operate the program at CSTC distributed by CMS (Center for Medicaid Services) and also administered through the Washington State Department of Health Licensing Requirements. The adolescent patients in the CLIP program will need to walk to the school buildings at CSTC. The only building at Western State Hospital that would be close enough is Building 29 which is needed for the more dangerous adult population and would require closing of roads open to the public on campus, for the CLIP population to walk to the school buildings.

It was determined that there was an overwhelming benefit to locating the new building adjacent to the existing CSTC cottages and the proposed site had clear cost and function advantage over the

few other buildable locations at the CSTC campus. The location has been indicated on the campus master plan for this purpose since at least 1996.

The alternatives are listed below:

| Alternative | Description |
|---|---|
| #1 | Do Nothing |
| #2 | New 18 Bed Clip/Forensic Cottage Living/Treatment Unit (Cottages) |

*iii. Cost estimates for each alternative.*

*a) Provide enough information so decision makers have a general understanding of the project costs.*

SUMMARY
*Uniformat II - Level 2*

| | |
|---|---|
| Project | **CSTC CLIP EXPANSION** |
| Location | Lakewood, WA |
| Architect | KMB Architects |
| Estimator | J B Iringan Consulting |
| Design Phase | Pre-Design Estimate |
| Date: | 9/6/2016 |

| Item/Description | | | TOTAL |
|---|---|---|---|
| A. Substructure | | | |
| A10. Foundations (Footings & Slab on Grade) | | | 294,579 |
| B. Shell | | | |
| B10. Superstructure (Floor & Roof Framing) | | | 405,626 |
| B20. Exterior Enclosure | | | 658,187 |
| B30. Roofing | | | 278,561 |
| C. Interiors | | | |
| C10. Interior Construction (Partitions, Doors & Fittings) | | | 927,114 |
| C20. Stairs | | | 7,500 |
| C30. Interior Finishes (Wall, Floor & Ceiling) | | | 333,853 |
| D. Services | | | |
| D10. Conveying Systems | | | 0 |
| D20. Plumbing | | | 358,651 |
| D30. HVAC | | | 1,034,261 |
| D40. Fire Protection | | | 109,440 |
| D50. Electrical | | | 839,375 |
| E. Equipment & Furnishings | | | |
| E10. Equipment | | | 168,871 |
| E20. Furnishings | | | 9,984 |
| F. Special Construction & Demolition | | | |
| F10. Special Construction | | | 0 |
| F20. Selective Building Demolition | | | 0 |
| G. Building Sitework | | | |
| G10. Site Preparation | | | 131,071 |
| G20. Site Improvements | | | 369,118 |
| G30 Site Mechanical Utilities | | | 152,020 |
| G40 Site Electrical Utilities | | | 161,250 |
| **TOTAL DIRECT COST** | | | **6,239,461** |
| General Conditions Including site overhead | | 10% | 623,946 |
| General Contractor's Overhead and Profit | | 5% | 343,170 |
| Design Contingency | | 9.10% | 656,119 |
| Security Premium | | 3% | 235,881 |
| **TOTAL BUILDING & SITEWORK COST AT BID TODAY** | 19,727 SF | $410.53 | **$8,098,578** |

Notes: This estimate assumes union wage rate, public bid
Does not include WSST, Escalation, Change orders nor Construction Contingency

Page 1 of 1

| Alternative | Advantages | Disadvantages |
|---|---|---|
| #1 Do Nothing | No funds are expended. | No added beds. Youth needing treatment are delayed or denied access to treatment at a state run institution nationally recognized for state-of-the-art care. |
| | | Possible court penalties for waitlisting. |
| | | The problem will continue to grow until a larger crisis exists. |
| | | Staff safety and staff retention issues continue. |
| #2 New Cottage | Youth needing treatment have more access to better treatment at a state run institution that is nationally recognized for state-of-the-art care. | Additional staffing wil be required. |
| | Improve the quality of life of more patients. | |
| | More treatment opportunities for staff/patients. | |
| | Separate Forensic beds from CLIP beds. | Increased operations budget. |
| | Appropriate Boy/Girl separation strategies. | |
| | Attract and retain quality staff. | |
| | Improve staff and patient safety/ security. | Over time, there will be a larger physical plant to be maintained. |
| | Less cost now than later. | |
| | Provide a model for other states to study. | |

*b) To compare the life cycle costs of different alternatives, use OFM's Life Cycle Cost Model (RCW 39.35B.050). Include the completed life cycle cost spreadsheet as an appendix.*

The following table provides a summary of costs associated with each alternative:

| Alternative | Cost Estimate |
|---|---|
| #1 - Do Nothing | $0 |
| #2 - New Cottage | $12.6 million (hard and soft costs) |

*iv. Schedule estimates for each alternative. Estimate the start, midpoint and completion dates.*

Alternative #2 - New Cottage:

Below is a tentative completion schedule for each of the major phases of the new CLIP cottage.

| | |
|---|---|
| 10/21/2016 | Predesign Complete |
| 11/1/2016 - 12/1/2016 | Site Investigations and Testing |
| 11/1/2016 – 1/11/2017 | Schematic Design Phase |
| 12/1/2016 – 4/15/2017 | Land Use Planning Process |
| 1/11/2017 – 4/12/2017 | Design Development Phase |
| 4/12/2017 – 7/26/2017 | Construction Documents |
| 6/7/2017 – 7/12/2017 | Owner / Agency Reviews |
| 7/1/2017 – 7/25/2017 | Funding Approval For Construction |
| 7/27/2017 – 8/24/2017 | Bidding |
| 9/1/2017 – 9/18/2017 | Bid Award |
| 10/2/2017 – 10/2/2018 | Construction |
| 1/3/2019 | Patient Occupancy Begins |

*3B. The purpose of the predesign is to explore alternatives. If there are no viable alternatives to the preferred alternative, contact an OFM capital budget anaylst for approval.*

The predesign stakeholder group does not see another viable high level major alternative to the preferred alternative described in this study. Several lower level alternatives (final site location within 200 feet in either direction, variations of mechanical system, pitched roof vs flat roof, etc.) can be studied during Schematic Design.

The general site area proposed to be used has the powerful advantage over other locations of being close to the existing cottages. This is significant for safety. When an emergency occurs in one of the cottages (and the occurence of some emergencies is just a reality in psychiatric hospitals), staff from other cottages can

provide support to the staff in the cottage where an emergency occurs. This is current standard operating procedure (for operational cost efficiency). Therefore locating the new cottage within running response distance is a significant design consideration. Locating the new cottage adjacent to the existing cottages also will be helpful for CSTC staff to monitor the adolescent patients movement from the cottages to other locations on campus, particularly to the school.

There is not an existing structure on campus that can be converted for use as this cottage treatment/living unit.

# TAB - Section 4

# TAB - Section 4

# Section 4 - Detailed Analysis of Preferred Alternative

## Space Programming

*A. Describe the Preferred Alternative in detail including the following:*

*i. Nature of space – how much of the proposed space will be used for what purpose (i.e.,* ***office, lab, conference, classroom, etc.):***

The preferred alternative is to build a new 18 bed cottage with an overall square footage of approximately 19,725 GSF (gross square feet) plus a secure fenced sport court and outdoor space with a footprint of approximately 2, 500 SF. An open air covered area of approximately 1,000 SF is proposed within the fenced outdoor space. The building will be sited on a large existing lawn area adjacent to the existing cottages. The fenced outdoor space will be located between the new building and the existing cottages to visually shield the outdoor area from public view (to discourage any interaction between the children and the public). The new building will be closer to Steilacoom Blvd. than the other cottages but will have a vegetated buffer of approximately 200 feet from the patient occupied portion of the building. Landscaping will be provided around the building to visually shield the patient room windows from Steilacoom Blvd. and reduce noise from the traffic along Steilacoom Blvd. and the play fields on the opposite side of Steilacoom Blvd.

The building will consist of a CLIP Resident area, 10.77 Forensic Resident Area, support staff offices and support spaces such as mechanical, electrical, housekeeping and food service pantry. Spaces are housed under the 19,725 GSF and are dependent upon one another for the facility to function properly.

*ii. Occupany Numbers:*

The CLIP Resident Area will have 10 single occupant sleeping rooms for the CLIP Residents. Since a separation between boys and girls sleeping rooms is desirable but the actual number of boys vs. girls will fluctuate the recommended layout provides a group of 4 sleeping rooms for boys separated from a group of 4 sleeping rooms for girls and provides 2 separate swing rooms.

The 10.77 Forensic Resident Area will have 8 single occupant sleeping rooms for the 10.77 Forensic Residents consisting of a group of 4 sleeping rooms for boys separated from a group of 4 sleeping rooms for girls. The 10.77 Forensic residents will have less freedom of movement and more supervision than the CLIP residents. If the number of boys vs. girls is not balanced the staff will need to monitor the sleeping rooms appropriately.

The staffing at the cottage will be split into 3 shifts. The total staffing numbers are as follows within a 24 hour period:

- Nursing Staff: 2 staff, up to 4-5 staff at shift changes
- CLIP and 10.77 Forensic Resident Staff:
  - Day Shift: 7 staff total (3-4 in each area of CLIP or Forensic)
  - Swing Shift: 7 staff total (3-4 in each area of CLIP or Forensic)
  - Graveyard: 2-2.5 staff

- Pantry: 3 full time staff
- Offices: 9 full time staff
  - (1) UW Contracted Psychiatrist
  - (1) WMS Psychologist / Program Director
  - (1) Forensic Evaluator
  - (1) Post Doctorate Fellow
  - (2) PSW3
  - (2) PCCC3
  - (1) Senior Secretary
- Custodial: 1 full time staff
- Recreational Therapist: 1 full time staff

Maximum staffing at cottage can fluctuate from 20 to 35. Additional staff have offices at the main administrative Building. Staff mentioned above have offices and / or spaces specific to their needs located within the building to help facilitate with youth restoration.

### *iii. Basic Configuration of the Building, Including Square Footage and the Number of Floors*

The building is envisioned to consist of 3 major groupings of spaces typically referred to as the CLIP Resident Area, the 10.77 Forensic Resident Area, and the Staff/Support Area. The building needs to separate the CLIP program youth from the 10.77 Forensic program youth as these two population should not have any interaction. However the physical space requirements for the CLIP Resident Area and the space requirements for the 10.77 Forensic Resident Area are quite similar. A portion of the Staff/Support Area has interaction with both the CLIP and 10.77 Forensic Resident Areas but the main Staff/Support Area that has interaction with the public needs to be isolated from the CLIP and 10.77 Forensic Areas.

The resultant configuration envisioned has a core area of the portion of the Staff/Support Area that has interaction with the CLIP Resident Area, the 10.77 Forensic Resident Area and the main Staff Area with 3 wings radiating out from the core area (one wing for the CLIP Resident Area, one wing for the 10.77 Forensic Resident Area, and one wing for the main Staff/Support Area that has interaction with the public. A bubble diagram depicting the proposed size and relationships of all programmed spaces is included at the end of this paragraph. A detailed space list of the programmed spaces and sizes proposed for each space is also included at the end of this paragraph.

Area: 17,269 NSF / 19,725 GSF (excluding covered area at fenced outdoor space).

Main Level: All patient areas should be located on the main floor for safety and ADA accessibility. Some patients will have episodes of violent behavior requiring staff to physically escort them (while they are resisting) to the seclusion room or other location. Therefore for staff and patient safety, the use of stairs should be avoided. Also stairs create a risk for a patient to inflict self-harm upon themselves.

The CLIP and 10.77 Forensic Resident Areas should have an exterior door leading to the core area of the campus for staff to respond to an emergency at another unit on campus and for the patients to go to the school buildings. There also needs to an exterior door with a secure vestibule for new patients to be brought directly into the Resident Area (i.e. following transport to the building in a secure vehicle)

without going through the Staff/Support areas. These doors will also be used to bring other personnel not based at the building into the Resident areas for conferences, etc. involving the patient to avoid disruptions and the need for hard construction in the main Staff areas.

Any additional exterior doors required by code shall be provided.The main Staff/ Support area is not intended to have patients in this area at any time. The entrance to the Staff/Support corridor will be the public entry for the building. A separate exterior door will be provided for service deliveries at the Food Service Pantry and the staff will typically enter/exit via an exterior door at the Staff Break Room where the staff lockers will be (50 lockers).

The Staff/Support spaces that interact with the Resident and other Staff Spaces such as the Medicine (Dispensing) Room, the Nurse Station, the Exam Room, the Food Serving spaces, and Storage spaces are located in the core area for convenient access to each of the 3 wings of the building.

The CLIP Resident Area and the 10.77 Forensic Resident Area will each have a central day hall area that also serves as the circulation access to the program and resident use rooms surrounding the day hall which include the multi-purpose room, dining room, TV room, laundry room, and day hall rest room. The resident sleeping rooms are accessed from the day hall, but the intent was to create a short wing off of the day hall for the sleeping rooms in order to reduce the transmission of what is going on in the day hall into the sleeping rooms and avoid the shark tank condition that occurs when sleeping room doors open directly into the day hall. The Seclusion suite of rooms is also accessed from the day hall but through an intervening “low stim” room which creates a bridge from the activity in the day hall and the isolation of the seclusion room.

Upper Level:

A partial upper level is proposed for the staff only mechanical, electrical, telecom, utility spaces required to serve the building. The area would be located above the core Staff/Support spaces for efficient distribution of ductwork, piping and conduits. The intent is to have a pitched roof for a residential appearance in keeping with the existing CSTC campus cottages and use the attic like space for the building utilities. The existing cottages at CSTC have a partial basement area for mechanical, electrical, telecom, utility space and that could be done but it is expected to cost less to use the volume of the roof structure and not have to worry about ground water in the basement. The partial upper level would be accessed by a stair leading to an exterior door so that the maintenance staff can work on the equipment without having to enter the occupied portion of the building.

Daylight:

Daylight is highly valued as a component of a therapeutic environment and as such will be provided at sleeping rooms and particularly at the day hall and dining rooms through the use of high windows or skylights. Daylighting also needs to be addressed with caution – for safety of staff and residents, daylighting needs to be done in such a way as not to create areas of glare that can obscure one’s vision or line of sight.

Ceiling Height:

Ceiling height becomes a balancing act in an adolescent psychiatric cottage. A

homelike atmosphere is considered to be therapeutic which would suggest 8 foot ceilings in sleeping rooms and other small rooms. However, the use of higher ceilings largely stops abuse of the strucutre and improves safety from suicide by hanging. The ceilings in the sleeping rooms and most other rooms in the CLIP and 10.77 Forensic Resident areas will be approximately 10 feet high.

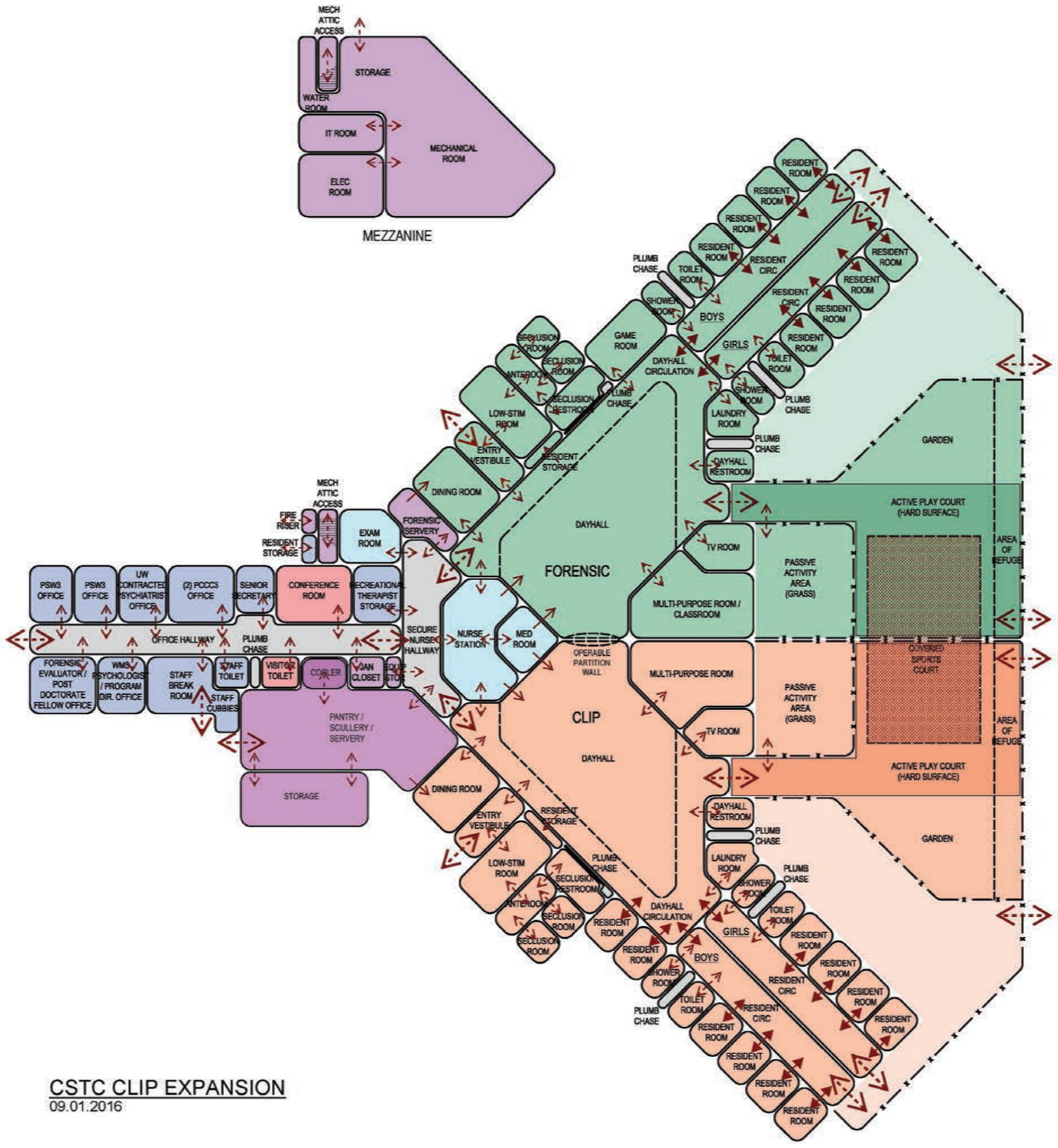
Walls: The exterior walls are envisioned to include brick veneer to match the campus standard. Whether the entire walls will be brick or just portions of the walls will need to be studied during the design phases.

Typically the interior walls in the patient areas should be fully grouted CMU (concrete block) for enduring resistance to abuse and can also be used for load bearing structural purposes. However the typical look of CMU can be considered institutional rather than homelike. Therefore the CMU walls will typically be coated with veneer plaster which is also a hard durable surface but when painted can look like a residential wall. Unfortunately while CMU is an excellent structural material it is a poor insulating material so at the exterior walls continuous rigid insulation will be added. The thickness of the exterior walls consisting of CMU, a layer of 2-3 inches of rigid insulation, an air space required behind brick veneer and then 4 inches of brick veneer will result in a wall approximately 16 inches thick. The thickness of the exterior wall is not the most cost effective wall, but does provide an enduring construction (many brick buildings look the same as they did 30 years ago) requiring very little maintenance and the thick wall assembly will block out road or other exterior noise.

Interior walls in non-patient areas such as the main Staff/Support area can be standard office metal stud wall with standard gypsum wallboard. Attention will be paid to sound isolation for private conversations which will likely occur in these rooms. Sound insulation and/or other materials will be added to these walls to augment the sound isolation performance of these walls.

Summary:

A bubble diagram depicting the proposed size and relationships of all programmed spaces is included at the end on the following page. A detailed space list of the programmed spaces and sizes proposed for each space is also included in the following pages.


MECH ATTIC ACCESS
STORAGE
WATER ROOM
IT ROOM
MECHANICAL ROOM
ELEC ROOM
MEZZANINE
RESIDENT ROOM
RESIDENT CIRC
TOILET ROOM
SHOWER ROOM
PLUMB CHASE
BOYS
GIRLS
GAME ROOM
DAYHALL CIRCULATION
SECLUSION ROOM
ANTEROOM
SECLUSION RESTROOM
LOW-STIM ROOM
ENTRY VESTIBULE
RESIDENT STORAGE
LAUNDRY ROOM
DAYHALL RESTROOM
GARDEN
ACTIVE PLAY COURT (HARD SURFACE)
AREA OF REFUGE
DINING ROOM
FORENSIC SERVERY
EXAM ROOM
FIRE RISER
FORENSIC
DAYHALL
TV ROOM
PASSIVE ACTIVITY AREA (GRASS)
MULTI-PURPOSE ROOM / CLASSROOM
PSW3 OFFICE
UW CONTRACTED PSYCHIATRIST OFFICE
(2) PCCC3 OFFICE
SENIOR SECRETARY
CONFERENCE ROOM
RECREATIONAL THERAPIST STORAGE
OFFICE HALLWAY
SECURE NURSES HALLWAY
NURSE STATION
MED ROOM
OPERABLE PARTITION WALL
COVERED SPORTS COURT
FORENSIC EVALUATOR / POST DOCTORATE FELLOW OFFICE
WMS PSYCHOLOGIST / PROGRAM DIR. OFFICE
STAFF BREAK ROOM
STAFF TOILET
VISITOR TOILET
COOLER
JAN CLOSET
EQUIP STOR
STAFF CUBBIES
PANTRY / SCULLERY / SERVERY
STORAGE
CLIP
MULTI-PURPOSE ROOM
CSTC CLIP EXPANSION
09.01.2016

*iv. Space needs assessment. Compare the project space needs to currently recognized space planning guidelines, such as DES's Space Allocation Guidelines or the Facilities Evaluation and Planning Guide for four-year higher education facilities. Identify the guidelines used. OFM will provide new space use policy guidance in Jul 2016.*

Below are some of the documents that were reviewed when determining the size space needs of the facility.

- Design Guide for the Built Environment of Behavioral Health Facilities, Edition 7.1, April 2016.
- Standards for Juvenile Training Schools
- 2014 FGI Guidelines for the Design and Construction of Hospitals and Outpatient Facilities.
- Washington State Amendments - WAC 246-322-140(1)(a).
- Washington State DOH Licensing Requirements

Specific Rooms that these Guidelines were applied to:

- Seclusion Room Requirements. Several codes can be used to determine the size of the Seclusion Room. For this Pre-Design study, the 2014 FGI was used as an alternate method and means. Per Section 2.1-2.4.3.2 of the FGI, the room needs to be at least 60 SF with a minimum wall length of 7'-0". This code is also referenced in the Design Guide for the Built Environment of Behavioral Health Facilities.
- Resident Room Requirements. Rooms are sized based off of the Washington State Amendments - WAC 246-322-140(1)(a) with a minimum of 80 SF (100 SF preferred) usable floor space in a single bedroom and FGI Guidelines.

Resident Space Requirements. Resident Spaces located in the CLIP and 10.77 Forensic Areas of the Building were viewed on resident and staff occupant loads, furniture and functionality of the space to create a warm, residential environment that still is open enough for safety and security in the event of a patients violent outburst.

Staff Space Requirements. Staff Spaces were sized to be equivalent to a standard office and to meet the needs of the specific personnel to reside in such spaces.

Resident Support Spaces. Resident Support Spaces, such as the Pantry/Scullery/Servery, Exam room, Med Room, etc. are based on code requirements (separation of functions within food service spaces for proper food prep, serving and scullery) and space requirements for proper function at casework, doors and equipment.

Support Function Requirements. Support Functions are sized based off of preliminary review of mechanical, electrical, fire suppression requirements and spacing needs for service, installation and integrating with other trades.

Summary:

A Square Foot Matrix and selected room data sheets depicting proposed programmed spaces, sizes and functional relationships is included at the end on the following page.

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**CSTC ADDITIONAL CLIP CAPACITY** 9/1/2016

**CSTC EXPANSION** D1638

| SPACE | # | NET AREA (SF) | TOTAL AREA (SF) | ADJACENCIES | REMARKS |
|---|---|---|---|---|---|
| **SPACES WITH PUBLIC INTERACTION** | | | | | |
| Conference Room | 1 | 195.00 | 195.00 | Recreation Therapy Storage, Forensic Pod (Game Room) | 10 residents + 6 staff @ 12 SF ea based on special needs of residents |
| Visitor Toilet | 1 | 50.00 | 50.00 | Public Hallway | |
| **Sub-Total** | | | **245.00** | | |
| | | | | | |
| **CLIP RESIDENT SPACES** | | | | | |
| CLIP Resident Rooms | 10 | 100.00 | 1,000.00 | | FGI Guidelines, WAC 246-322-140(1)(a) |
| CLIP Resident Storage | 1 | 20.00 | 20.00 | | |
| Laundry Room | 1 | 85.00 | 85.00 | | washer /dryer, soil sink, folding counter |
| CLIP Resident Toilet Room | 2 | 60.00 | 120.00 | | |
| CLIP Resident Shower Room | 2 | 50.00 | 100.00 | | |
| CLIP Day Hall Restroom | 1 | 65.00 | 65.00 | | |
| CLIP Day Hall | 1 | 1,250.00 | 1,250.00 | | 10 residents + 4 staff @ 89 SF |
| CLIP Dining Room | 1 | 200.00 | 200.00 | | 12 SF per Resident + staff (16 total), include circulation |
| CLIP TV Room | 1 | 120.00 | 120.00 | | assume 10 residents @ 12 SF ea minimum |
| CLIP Multi-Purpose Room | 1 | 360.00 | 360.00 | | |
| Entry Vestibule | 1 | 120.00 | 120.00 | Low-Stim, Day Hall | |
| Seclusion Room | 2 | 60.00 | 120.00 | Anteroom | FGI Guidelines |
| Seclusion Anteroom | 1 | 85.00 | 85.00 | Low-Stim, Seclusion, Restroom | |
| Seclusion Restroom | 1 | 90.00 | 90.00 | Anteroom | |
| Low-Stimulation Room | 1 | 200.00 | 200.00 | Anteroom | |
| **Sub-Total** | | | **3,935.00** | | |
| | | | | | |
| **FORENSIC RESIDENT SPACES** | | | | | |
| Forensic Resident Rooms | 8 | 100.00 | 800.00 | | FGI Guidelines, WAC 246-322-140(1)(a) |
| Forensic Resident Storage | 1 | 20.00 | 20.00 | | |
| Laundry Room | 1 | 85.00 | 85.00 | | washer /dryer, soil sink, folding table |
| Forensic Resident Toilet Room | 2 | 60.00 | 120.00 | | |
| Forensic Resident Shower Room | 2 | 50.00 | 100.00 | | |
| Forensic Day Hall Restroom | 1 | 65.00 | 65.00 | | |
| Forensic Day Hall | 1 | 1,250.00 | 1,250.00 | | 10 residents + 4 staff @ 89 SF |
| Forensic Dining Room | 1 | 200.00 | 200.00 | | 12 SF per Resident + staff (16 total), include circulation |
| Forensic TV Room | 1 | 120.00 | 120.00 | | assume 10 residents @ 12 SF ea minimum |
| Forensic Classroom / Multi-Purpose | 1 | 360.00 | 360.00 | | |
| Forensic Game Room | 1 | 160.00 | 160.00 | | assume 10 residents @ 16 SF ea minimum |
| Entry Vestibule | 1 | 120.00 | 120.00 | Low-Stim, Day Hall | |
| Seclusion Room | 2 | 60.00 | 120.00 | Anteroom | FGI Guidelines |
| Seclusion Anteroom | 1 | 85.00 | 85.00 | Low-Stim, Seclusion, Restroom | |
| Seclusion Restroom | 1 | 90.00 | 90.00 | Anteroom | |
| Low-Stimulation Room | 1 | 200.00 | 200.00 | Anteroom | |
| **Sub-Total** | | | **3,895.00** | | |
| | | | | | |
| **STAFF SPACES WITH RESIDENT INTERACTION** | | | | | |
| Exam Room | 1 | 140.00 | 140.00 | | sink, locking cabinets |
| Medication Room | 1 | 120.00 | 120.00 | Medication window to Day Hall | sink, locking cabinets, refrig. |
| Nurse Station | 1 | 320.00 | 320.00 | Medication room | views both spaces |
| **Sub-Total** | | | **580.00** | | |
| | | | | | |
| **STAFF SPACES** | | | | | |
| UW Contracted Psychiatrist Office | 1 | 120.00 | 120.00 | | |
| WMS Psychologist / Program Director | 1 | 120.00 | 120.00 | | |
| Forensic Evaluator / Post Doctorate Fellow | 1 | 160.00 | 160.00 | | 2 person office - shared |
| PSW3 Office | 2 | 100.00 | 200.00 | | 2 separate offices |
| PCCC3 | 1 | 160.00 | 160.00 | Senior Secretary | 2 person office - shared |
| Senior Secretary | 1 | 80.00 | 80.00 | PCCC3 | |
| Recreational Therapist Storage | 1 | 120.00 | 120.00 | Classroom, Forensic (Game Room) | shelves for 10"wx20"dx12"h boxes (18), rec. equip, butcher paper, rolling cart |
| Staff Break Room with Storage Cubbies | 1 | 250.00 | 250.00 | | exterior windows, sink, microwave, fridge, coffee maker, lower and upper cabinets with 12" x 12" x 18"d (50) cubbies |
| Staff Toilet | 1 | 50.00 | 50.00 | | size varies - ADA compliant |
| Resident Storage | 1 | 20.00 | 20.00 | | |
| **Sub-Total** | | | **1,280.00** | | |
| | | | | | |
| **SUPPORT SPACES** | | | | | |
| Pantry with cooler, Scullery & Servery | 1 | 850.00 | 850.00 | servery window to CLIP Dining | |
| Storage / Mech. | 1 | 260.00 | 260.00 | | |
| Forensic Servery | 1 | 100.00 | 100.00 | servery window to Forensic Dining | |
| Fire Riser | 1 | 80.00 | 80.00 | | |
| Janitor Closet | 1 | 50.00 | 50.00 | | |
| Mechanical Access Stair | 1 | 50.00 | 50.00 | | |
| Equipment Storage Room | 1 | 20.00 | 20.00 | janitor, hallway | |
| **Sub-Total** | | | **1,410.00** | | |
| | | | | | |
| **SUPPORT SPACES IN MEZZANINE** | | | | | |
| Mechanical Room | 1 | 1,200.00 | 1,200.00 | MEZZANINE | |
| Electrical Room | 1 | 240.00 | 240.00 | MEZZANINE | |
| Communications Room | 1 | 144.00 | 144.00 | MEZZANINE | 8' wide minimum |
| Water Storage Room | 1 | 100.00 | 100.00 | MEZZANINE | |
| Storage | 1 | 300.00 | 300.00 | MEZZANINE | |
| | | | **1,984.00** | | |
| | | | | | |
| **Total Net SF including Mezzanine SF** | | | **13,329.00** | | |
| **Gross SF Factor (.48%)** | | **1.480** | **19,726.92** | | |
| | | | | | |

| CIRCULATION SPACES / PLUMBING CHASES (AREA BELOW IS INCLUDED IN OVERALL GROSS BUILDING AREA) | | | | | |
|---|---|---|---|---|---|
| Office Hallway Circulation | 1 | 500.00 | 500.00 | Staff / Offices | Doors opening to the hall required to be 6'-0" |
| Secure Nurse Hallway Circulation | 1 | 320.00 | 320.00 | Nurse, Exam, Forensic Day Hall, CLIP Day Hall | Patient / Resident Circulation Halls required to be 8'-0" |
| CLIP Day Hall Circulation | 1 | 700.00 | 700.00 | Day Hall, Multi-purpose, TV Room, Dining, Entry Vestibule, Secure Nurse Hallway | Circulation at perimeter of Day Hall for doorways and circulation to & from other spaces, allowing Day Hall to function as a gathering / activity space with different furntiure arrangements. |
| CLIP Resident Room Circulation - Girls | 1 | 430.00 | 430.00 | Restroom, Shower, Resident Rooms, Day Hall Circ, Exterior | Separate Circulation / Hallway from Male Residents for Visual and Acoustic Separation. Exiting at end for emergencies and access to other facilities |
| CLIP Resident Room Circulation - Boys | 1 | 430.00 | 430.00 | Restroom, Shower, Resident Rooms, Day Hall Circ, Exterior | Separate Circulation / Hallway from Female Residents for Visual and Acoustic Separation. Exiting at end for emergencies and access to other facilities |
| Forensic Day Hall Circulation | 1 | 700.00 | 700.00 | Day Hall, Multi-purpose, TV Room, Game Room, Dining, Entry Vestibule, Secure Nurse Hallway | Circulation at perimeter of Day Hall for doorways and circulation to & from other spaces, allowing Day Hall to function as a gathering / activity space with different furntiure arrangements. |
| Forensic Resident Room Circulation - Girls | 1 | 430.00 | 430.00 | Restroom, Shower, Resident Rooms, Day Hall Circ, Exterior | Separate Circulation / Hallway from Male Residents for Visual and Acoustic Separation. Exiting at end for emergencies and access to other facilities |
| Forensic Resident Room Circulation - Boys | 1 | 430.00 | 430.00 | Restroom, Shower, Resident Rooms, Day Hall Circ, Exterior | Separate Circulation / Hallway from Female Residents for Visual and Acoustic Separation. Exiting at end for emergencies and access to other facilities |
| Misc. Plumbing Chases | 1 | 110.00 | 110.00 | | |
| **Sub-Total** | | | **4,050.00** | | |
| | | | | | |
| | | | | | |

**Notes:**

**1. Outdoor Exercise Areas - 15 SF per resident, but not less than 1500 SF of unencumbered space. Provide space for basketball court (volleyball), benches (not near fence), raised planting beds. PROVIDE SPACE = 2,475 SF. Secure Fenced Area for end of corridor exiting: 1700 SF.**

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## Room Data Worksheet

Space Number:

Department: **CLIP Unit**

Space Name: Staff Offices

Relationship: Staff Only Area

Program Area: 80 – 160 SF (See Space Chart)

Remarks: Standard commercial construction since no patients in area. Provide sound isolation between offices.

Wall Construction: CMU at exterior and corridor walls. Standard GWB over metal studs between offices.

*Full Height Walls:* Stop above ceiling *Security Walls:* N/A

Room Finishes: *Base:* Rubber *Wall:* Paint

*Floor:* Carpet Tile *Ceiling:* Susp. Acoustic

Door Construction / Type: Std. HM

*Hardware:* Commercial *Security Hardware:* N/A

Windows: Aluminum w/ 1" Insulated Glass

Electrical / Tel. / Data: *Telecom:* Yes *Data:* Yes (2)

*Fax:* Senior Secretary Only *CCTV:* Senior Secretary Only

Electrical / Lighting: Recessed Lay-In Fixtures at ceiling

HVAC: Grille at ceiling

Plumb / Fire Protection:

*Sink(s):* N/A *Floor Drain(s):* N/A

*Sprinklers:* Yes *Drinking Fountain(s):* N/A

Casework: Movable Office Furniture Only

Room Accessories:

Computer / Equipment: (Operating Budget)

Furniture: Desk, Chairs, Shelf Unit, File Cabinet

# Room Data Worksheet

Space Number:

Department: **CLIP Unit**

Space Name: Staff Break Room

Relationship: Staff Offices

Program Area: 250 SF

Remarks: Staff may choose to use exterior door at Staff Break Room in lieu of main entry door at corridor.

| | | | | |
|---|---|---|---|---|
| Wall Construction: | CMU at exterior and corridor walls. Std. GWB over metal studs elsewhere. | | | |
| | *Full Height Walls:* | Stop above ceiling | *Security Walls:* | N/A |
| Room Finishes: | *Base:* | Rubber | *Wall:* | Paint |
| | *Floor:* | Carpet Tile / Sheet Vinyl | *Ceiling:* | Susp. Acoustic |
| Door Construction / Type: | Std. HM | | | |
| | *Hardware:* | Commercial | *Security Hardware:* | Electric Lock at Exterior Door |
| Windows: | Aluminum w/ 1” Insulated Glass | | | |
| Electrical / Tel. / Data: | *Telecom:* | Yes | *Data:* | Yes |
| | *Fax:* | N/A | *CCTV:* | N/A |
| Electrical / Lighting: | Recessed Lay-In Fixtures at ceiling | | | |
| HVAC: | Grille at ceiling, Exhaust Fan | | | |
| Plumb / Fire Protection: | | | | |
| | *Sink(s):* | Double bowl in base cabinet | *Floor Drain(s):* | N/A |
| | *Sprinklers:* | Yes | *Drinking Fountain(s):* | N/A |
| Casework: | Kitchenette base and upper cabinets | | | |
| Room Accessories: | 50 Staff Lockers (12”x18”x12”); Whiteboard / Tackboard | | | |
| Computer / Equipment: | Refrigeration (Operating Budget) | | | |
| Furniture: | Movable Table and Chairs | | | |

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## Room Data Worksheet

Space Number:
Department: **CLIP Unit**

Space Name: Conference Room
Relationship: Staff Offices

Program Area: 195 SF

Remarks: Need to verify if patients will ever be in this room; Staff meetings, meeting with public.

| | | | | |
|---|---|---|---|---|
| Wall Construction: | CMU at exterior and corridor walls. Std. GWB over metal studs elsewhere. | | | |
| | *Full Height Walls:* | Stop above ceiling | *Security Walls:* | N/A |
| Room Finishes: | *Base:* | Rubber | *Wall:* | Paint |
| | *Floor:* | Carpet Tile | *Ceiling:* | Susp. Acoustic |
| Door Construction / Type: | Std. HM | | | |
| | *Hardware:* | Commercial | *Security Hardware:* | N/A |
| Windows: | Aluminum w/ 1" Insulated Glass | | | |
| Electrical / Tel. / Data: | *Telecom:* | Yes (2) | *Data:* | Yes (4) |
| | *Fax:* | No | *CCTV:* | Yes (1) |
| Electrical / Lighting: | Recessed Lay-In Fixtures at Ceiling | | | |
| HVAC: | Grilles at Ceiling | | | |
| Plumb / Fire Protection: | | | | |
| | *Sink(s):* | No | *Floor Drain(s):* | No |
| | *Sprinklers:* | Yes | *Drinking Fountain(s):* | No |
| Casework: | No | | | |
| Room Accessories: | Whiteboard / Tackboard | | | |
| Computer / Equipment: | (Operating Budget) | | | |
| Furniture: | Movable Table and Chairs | | | |

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# Room Data Worksheet

Space Number:
Department: **CLIP Unit**
Space Name: Staff / Visitor Toilets / Janitor Rooms
Relationship: Staff Wing
Program Area: 50 SF
Remarks: Confirm if a separate women's toilet room is needed.

| | | |
|---|---|---|
| Wall Construction: | Moisture Resistant GWB over metal studs. | |
| | *Full Height Walls:* Stop at ceiling | *Security Walls:* N/A |
| Room Finishes: | *Base:* Sheet Vinyl Cove | *Wall:* FRP Wainscot; Paint |
| | *Floor:* Commercial Sheet Vinyl | *Ceiling:* Paint |
| Door Construction / Type: | Std. HM | |
| | *Hardware:* Commercial | *Security Hardware:* N/A |
| Windows: | N/A | |
| Electrical / Tel. / Data: | *Telecom:* N/A | *Data:* N/A |
| | *Fax:* N/A | *CCTV:* N/A |
| Electrical / Lighting: | Abuse Resistant Lens | |
| HVAC: | Grille at Ceiling, Exhaust Fan | |
| Plumb / Fire Protection: | | |
| | *Sink(s):* Commercial | *Floor Drain(s):* Yes |
| | *Sprinklers:* Yes | *Drinking Fountain(s):* N/A |
| Casework: | N/A | |
| Room Accessories: | Yes, Standard Toilet Accessories, Mirrors, Mop Holder, Grab Bars | |
| Computer / Equipment: | N/A | |
| Furniture: | N/A | |

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# Room Data Worksheet

Space Number:

Department: **CLIP Unit**

Space Name: Pantry / Scullery / Servery

Relationship: Dining Rooms

Program Area: 850 SF / 100 SF (2)

Remarks: Staff only spaces that interface with the patient dining rooms

| | | |
|---|---|---|
| Wall Construction: | CMU w/ FRP wainscot up 8 feet (painted block above) | |
| | *Full Height Walls:* Stop above ceiling | *Security Walls:* Common w/ Dining |
| Room Finishes: | *Base:* Sheet Vinyl Cove | *Wall:* FRP up 8 feet (Paint above) |
| | *Floor:* Sheet Vinyl | *Ceiling:* Susp. Vinyl Face Acoustic |
| Door Construction / Type: | 14 gauge HM with half lite (security glazing) | |
| | *Hardware:* Commercial | *Security Hardware:* N/A |
| Windows: | N/A | |
| Electrical / Tel. / Data: | *Telecom:* Yes | *Data:* Yes |
| | *Fax:* N/A | *CCTV:* N/A |
| Electrical / Lighting: | Recessed Lay-In Fixtures at ceiling | |
| HVAC: | Grille at ceiling, Exhaust Fans | |
| Plumb / Fire Protection: | | |
| | *Sink(s):* Yes, multiple | *Floor Drain(s):* Yes |
| | *Sprinklers:* Yes | *Drinking Fountain(s):* N/A |
| Casework: | Storage Cabinets | |
| Room Accessories: | Some Food Service Equipment | |
| Computer / Equipment: | (Operating Budget) | |
| Furniture: | Stainless Steel Tables, Racks, Etc. | |

## Room Data Worksheet

Space Number: Department: **CLIP Unit**

Space Name: Exam Room Relationship: All Patients

Program Area: 140 SF

Remarks: Needs privacy from Day Halls but also needs convenient access from patient areas.

| | | | | |
|---|---|---|---|---|
| Wall Construction: | CMU with veneer plaster for smooth, cleanable surface. | | | |
| | *Full Height Walls:* | Stop at ceiling | *Security Walls:* | Yes |
| Room Finishes: | *Base:* | Sheet Vinyl Cove | *Wall:* | Paint |
| | *Floor:* | Sheet Vinyl | *Ceiling:* | AR GWB |
| Door Construction / Type: | 14 gauge HM w/ Special Kingsway Vision Panel | | | |
| | *Hardware:* | Anti-Ligature | *Security Hardware:* | N/A |
| Windows: | N/A | | | |
| Electrical / Tel. / Data: | *Telecom:* | Yes | *Data:* | Yes (3) |
| | *Fax:* | Confirm if needed | *CCTV:* | Camera |
| Electrical / Lighting: | Rated for abuse resistance and use in medical space; Exam Light. | | | |
| HVAC: | Grille in ceiling; exhaust fan; negative pressure space. | | | |
| Plumb / Fire Protection: | | | | |
| | *Sink(s):* | Bar Sink in Base Cabinet | *Floor Drain(s):* | Verify |
| | *Sprinklers:* | Anti-ligature | *Drinking Fountain(s):* | N/A |
| Casework: | Base Storage Cabinet with lockable drawers and lockable upper cabinets. | | | |
| Room Accessories: | Whiteboard, Tackboard, Mirror, Anti-Ligature Coat Hooks | | | |
| Computer / Equipment: | (Operating Budget) | | | |
| Furniture: | Exam Table, Stool, Chair | | | |

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# Room Data Worksheet

Space Number:

Department: **CLIP Unit**

Space Name: Nurses Station

Relationship: Patient Areas

Program Area: 320 SF

Remarks: Staff only room. Needs to serve both the CLIP and Forensic Patient Day Halls while not allowing vision from one Day Hall to the other Day Hall through the Nurses Station. At shift change the nurses (and potentially some floor staff) from both shifts meet briefly in the space (doubling the normal occupant load) to pass information from the staff leaving to the staff coming in.

| | | | | |
|---|---|---|---|---|
| Wall Construction: | CMU | | | |
| | *Full Height Walls:* | Up to floor above | *Security Walls:* | Yes |
| Room Finishes: | *Base:* | Rubber | *Wall:* | Paint |
| | *Floor:* | Carpet Tile | *Ceiling:* | Susp. Acoustic |
| Door Construction / Type: | 14 gauge HM w/ half lite (security glazing) | | | |
| | *Hardware:* | Anti-Ligature | *Security Hardware:* | Electric Lock |
| Windows: | HM Relight w/ security glazing | | | |
| Electrical / Tel. / Data: | *Telecom:* | Yes (4); Master Intercom | *Data:* | Yes (8) |
| | *Fax:* | Yes | *CCTV:* | Camera Monitor |
| Electrical / Lighting: | Recessed Lay-In Fixtures at ceiling; Door & Lighting Control Panels | | | |
| HVAC: | Grille at ceiling, Positive Pressure | | | |
| Plumb / Fire Protection: | | | | |
| | *Sink(s):* | Confirm if sink is required | *Floor Drain(s):* | N/A |
| | *Sprinklers:* | Yes | *Drinking Fountain(s):* | N/A |
| Casework: | Workstation Countertop | | | |
| Room Accessories: | Whiteboard / Tackboard (2) | | | |
| Computer / Equipment: | (Operating Budget) | | | |
| Furniture: | Stools, Movable drawer/file cabinets that slide under counter. | | | |

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# Room Data Worksheet

Space Number:
Department: **CLIP Unit**

Space Name: Medicine Room
Relationship: Day Halls

Program Area: 120 SF

Remarks: Staff only Medicine Room needs to have a service window to each Day Hall for pill line and have work counter, lockable cabinets, for medicine storage, medical records, etc.

| | | | | |
|---|---|---|---|---|
| Wall Construction: | CMU | | | |
| | *Full Height Walls:* | Up to floor above | *Security Walls:* | Yes |
| Room Finishes: | *Base:* | Rubber | *Wall:* | Paint |
| | *Floor:* | VCT | *Ceiling:* | Susp. Acoustic |
| Door Construction / Type: | HM w/ half lite (security glazing) | | | |
| | *Hardware:* | Commercial | *Security Hardware:* | Unique<br>Restricted Key |
| Windows: | 14 gauge HM relight w/ security glazing and pass opening for distributing medicine. | | | |
| Electrical / Tel. / Data: | *Telecom:* | Yes | *Data:* | Yes (2) |
| | *Fax:* | Yes | *CCTV:* | Camera |
| Electrical / Lighting: | Recessed Lay-In Fixtures at ceiling | | | |
| HVAC: | Grille at ceiling, Needs separate cooling for drug storage. | | | |
| Plumb / Fire Protection: | | | | |
| | *Sink(s):* | Bar Sink in counter | *Floor Drain(s):* | Verify |
| | *Sprinklers:* | Yes | *Drinking Fountain(s):* | N/A |
| Casework: | Counter with lockable drawers and lockable upper cabinets. | | | |
| Room Accessories: | Whiteboard / Tackboard | | | |
| Computer / Equipment: | (Operating Budget) | | | |
| Furniture: | Stool, Undercounter Refrigerators (lockable), Mobile wire shelving units | | | |

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# Room Data Worksheet

Space Number:

Department: **CLIP Unit**

Space Name: Dining Rooms

Relationship: Day Hall; Servery

Program Area: 200 SF

Remarks: Room will likely be used for program activities or conferences in between meals.

| | | | | |
|---|---|---|---|---|
| Wall Construction: | CMU w/ Veneer Plaster for smooth hard, cleanable surface | | | |
| | *Full Height Walls:* | Stop at Ceiling | *Security Walls:* | Yes |
| Room Finishes: | *Base:* | Rubber | *Wall:* | Paint |
| | *Floor:* | VCT | *Ceiling:* | Perforated GWB |
| Door Construction / Type: | 14 gauge HM w/ half lite (security glazing); 42" wide | | | |
| | *Hardware:* | Anti-Ligature | *Security Hardware:* | N/A |
| Windows: | Aluminum Exterior Windows with insulated security glazing | | | |
| | HM Relights with security glazing for observation | | | |
| Electrical / Tel. / Data: | *Telecom:* | Yes (for conf. use/intercom) | *Data:* | Yes (for program uses) |
| | *Fax:* | No | *CCTV:* | Camera |
| Electrical / Lighting: | Abuse Resistant | | | |
| HVAC: | Grille in Ceiling, Negative Pressure | | | |
| Plumb / Fire Protection: | | | | |
| | *Sink(s):* | No | *Floor Drain(s):* | Verify |
| | *Sprinklers:* | Anti-ligature | *Drinking Fountain(s):* | Water Station Connection |
| Casework: | No | | | |
| Room Accessories: | Whiteboard / Tackboard; Acoustic Panels (sacrificial) on walls above 8 feet. | | | |
| Computer / Equipment: | (Operating Budget) | | | |
| Furniture: | Detention Tables with fixed seats | | | |

# Room Data Worksheet

Space Number:
Department: **CLIP Unit**

Space Name: Vestibules / Anterooms
Relationship: Seclusion, Day Hall

Program Area: 85 – 120 SF

Remarks: These are for security purposes involving patient movement when patient may be resisting.

| | | |
|---|---|---|
| Wall Construction: | CMU w/ Veneer Plaster | |
| | *Full Height Walls:* Stop at ceiling | *Security Walls:* Yes |
| Room Finishes: | *Base:* Rubber | *Wall:* Paint |
| | *Floor:* VCT | *Ceiling:* AR GWB |
| Door Construction / Type: | 14 gauge HM w/ Special Kingsway Vision Panel | |
| | *Hardware:* Anti-ligature (electric) | *Security Hardware:* Electric Locks |
| Windows: | N/A | |
| Electrical / Tel. / Data: | *Telecom:* N/A | *Data:* N/A |
| | *Fax:* N/A | *CCTV:* Camera |
| Electrical / Lighting: | Abuse Resistant | |
| HVAC: | Grilles at ceiling | |
| Plumb / Fire Protection: | | |
| | *Sink(s):* N/A | *Floor Drain(s):* N/A |
| | *Sprinklers:* Anti-ligature | *Drinking Fountain(s):* N/A |
| Casework: | N/A | |
| Room Accessories: | N/A | |
| Computer / Equipment: | N/A | |
| Furniture: | N/A | |

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# Room Data Worksheet

Space Number:

Department: **CLIP Unit**

Space Name: Low Stim Rooms

Relationship: Day Hall, Seclusion

Program Area: 200 SF

Remarks: Space may be able to be less SF, if not needed as a treatment room when not being used for Low Stim function.

| | | |
|---|---|---|
| Wall Construction: | CMU w/ Veneer Plaster | |
| | *Full Height Walls:* Stop at ceiling | *Security Walls:* Yes |
| Room Finishes: | *Base:* Rubber | *Wall:* Paint |
| | *Floor:* VCT | *Ceiling:* Perforated GWB |
| Door Construction / Type: | 14 gauge HM w/ Special Kingsway Vision Panel | |
| | *Hardware:* Anti-Ligature | *Security Hardware:* N/A |
| Windows: | Aluminum w/ insulated security glazing | |
| Electrical / Tel. / Data: | *Telecom:* Yes | *Data:* Conduit/Box only |
| | *Fax:* N/A | *CCTV:* Camera |
| Electrical / Lighting: | Abuse Resistant | |
| HVAC: | Grilles at ceiling | |
| Plumb / Fire Protection: | | |
| | *Sink(s):* N/A | *Floor Drain(s):* N/A |
| | *Sprinklers:* Anti-ligature | *Drinking Fountain(s):* N/A |
| Casework: | Base storage cabinet with countertop | |
| Room Accessories: | Whiteboard / Tackboard | |
| Computer / Equipment: | N/A | |
| Furniture: | N/A | |

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# Room Data Worksheet

Space Number:
Department: **CLIP Unit**

Space Name: Seclusion Rooms / Seclusion Restrooms
Relationship: Day Hall

Program Area: 60 SF / 90 SF

Remarks: Must comply with FGI and DOH Standards

| | | | | |
|---|---|---|---|---|
| Wall Construction: | CMU w/ Veneer Plaster | | | |
| | *Full Height Walls:* | Stop at ceiling | *Security Walls:* | Yes |
| Room Finishes: | *Base:* | Epoxy | *Wall:* | Epoxy Coating |
| | *Floor:* | Epoxy | *Ceiling:* | Acoustic Plaster, Painted |
| Door Construction / Type: | Detention | | | |
| | *Hardware:* | Detention | *Security Hardware:* | Electric Lock |
| Windows: | Abuse Resistant Tubular Skylight | | | |
| Electrical / Tel. / Data: | *Telecom:* | N/A | *Data:* | N/A |
| | *Fax:* | N/A | *CCTV:* | Camera |
| Electrical / Lighting: | Detention | | | |
| HVAC: | Grille at ceiling | | | |
| Plumb / Fire Protection: | | | | |
| | *Sink(s):* | N/A | *Floor Drain(s):* | Yes |
| | *Sprinklers:* | Anti-ligature | *Drinking Fountain(s):* | N/A |
| Casework: | N/A | | | |
| Room Accessories: | Anti-Ligature Grab Bars and Robe Hook, Detention Mirror | | | |
| Computer / Equipment: | N/A | | | |
| Furniture: | Possible Detention Chair | | | |

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# Room Data Worksheet

Space Number:
Department: **CLIP Unit**
Space Name: Resident / Patient Rooms (sleeping rooms)
Relationship: Day Hall
Program Area: 100 SF
Remarks: Comply with FGI and DOH standards

| | | | | |
|---|---|---|---|---|
| Wall Construction: | CMU w/ Veneer Plaster Coating | | | |
| | *Full Height Walls:* | Stop at ceiling | *Security Walls:* | Yes |
| Room Finishes: | *Base:* | Rubber | *Wall:* | Paint |
| | *Floor:* | VCT | *Ceiling:* | AR GWB |
| Door Construction / Type: | 14 Gauge HM with Special Kingsway Vision Panel | | | |
| | *Hardware:* | Anti-ligature | *Security Hardware:* | Electric Lock |
| Windows: | Aluminum w/ insulated security glazing | | | |
| Electrical / Tel. / Data: | *Telecom:* | Intercom | *Data:* | N/A |
| | *Fax:* | N/A | *CCTV:* | N/A |
| Electrical / Lighting: | Abuse Resistant | | | |
| HVAC: | Grille at ceiling | | | |
| Plumb / Fire Protection: | | | | |
| | *Sink(s):* | N/A | *Floor Drain(s):* | N/A |
| | *Sprinklers:* | Anti-ligature style | *Drinking Fountain(s):* | N/A |
| Casework: | N/A | | | |
| Room Accessories: | N/A | | | |
| Computer / Equipment: | (Operating Budget) | | | |
| Furniture: | Bed, Desk, Chair, Open Shelf Unit | | | |

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# Room Data Worksheet

Space Number:

Department: **CLIP Unit**

Space Name: Day Halls

Relationship: Patient Spaces

Program Area: 1,250 SF

Remarks: Provide natural light through ceiling

| | | | | |
|---|---|---|---|---|
| Wall Construction: | CMU w/ Veneer Plaster | | | |
| | *Full Height Walls:* | Yes | *Security Walls:* | Yes |
| Room Finishes: | *Base:* | Rubber | *Wall:* | Paint |
| | *Floor:* | VCT; Carpet Tile | *Ceiling:* | Perforated GWB |
| Door Construction / Type: | 14 Gauge HM | | | |
| | *Hardware:* | Anti-ligature | *Security Hardware:* | Electric Locks |
| Windows: | HM Relights with security glazing | | | |
| Electrical / Tel. / Data: | *Telecom:* | Yes | *Data:* | Yes |
| | *Fax:* | N/A | *CCTV:* | Camera and Cable TV |
| Electrical / Lighting: | Abuse Resistant | | | |
| HVAC: | Grilles at ceiling | | | |
| Plumb / Fire Protection: | | | | |
| | *Sink(s):* | Bar sink in base cabinet | *Floor Drain(s):* | N/A |
| | *Sprinklers:* | Anti-ligature | *Drinking Fountain(s):* | N/A |
| Casework: | Locking Storage Cabinets; Patient Lockers | | | |
| Room Accessories: | Signage; Acoustical Wall Panels at high area. | | | |
| Computer / Equipment: | (Operating Budget) | | | |
| Furniture: | Weighted (sand filled) or bolted down tables and chairs recommended for psychiatric facility use. | | | |

# Room Data Worksheet

Space Number:

Department: **CLIP Unit**

Space Name: Multi-Purpose Rooms

Relationship: Day Halls

Program Area: 360 SF

Remarks:

| | | | | |
|---|---|---|---|---|
| Wall Construction: | CMU w/ Veneer Plaster Coating | | | |
| | *Full Height Walls:* | Stop at ceiling | *Security Walls:* | Yes |
| Room Finishes: | *Base:* | Rubber | *Wall:* | Paint |
| | *Floor:* | VCT | *Ceiling:* | AR GWB |
| Door Construction / Type: | 14 gauge HM w/ half lite (security glazing) | | | |
| | *Hardware:* | Anti-ligature | *Security Hardware:* | N/A |
| Windows: | No Windows | | | |
| | HM Relights with security glazing | | | |
| Electrical / Tel. / Data: | *Telecom:* | Yes | *Data:* | Yes (2) |
| | *Fax:* | N/A | *CCTV:* | Camera |
| Electrical / Lighting: | Abuse Resistant | | | |
| HVAC: | Grilles at ceiling | | | |
| Plumb / Fire Protection: | | | | |
| | *Sink(s):* | N/A | *Floor Drain(s):* | N/A |
| | *Sprinklers:* | Anti-ligature | *Drinking Fountain(s):* | N/A |
| Casework: | Base storage cabinets with countertop | | | |
| Room Accessories: | Whiteboards / Tackboards; Acoustical Panels high on walls | | | |
| Computer / Equipment: | (Operating Budget) | | | |
| Furniture: | Weighted (sand filled) Chairs and Tables | | | |

Child Study & Treatment Center Expansion Building
Project No. 2016-440
Predesign Study

# Room Data Worksheet

Space Number:

Department: **CLIP Unit**

Space Name: TV Rooms

Relationship: Day Halls

Program Area: 120 SF

Remarks:

| | | | | |
|---|---|---|---|---|
| Wall Construction: | CMU w/ Veneer Plaster Coating | | | |
| | *Full Height Walls:* | Stop at ceiling | *Security Walls:* | Yes |
| Room Finishes: | *Base:* | Rubber | *Wall:* | Paint |
| | *Floor:* | VCT | *Ceiling:* | Perforated GWB |
| Door Construction / Type: | 14 gauge HM w/ half lite (security glazing) | | | |
| | *Hardware:* | Anti-ligature | *Security Hardware:* | N/A |
| Windows: | No windows | | | |
| | HM Relights w/ security glazing | | | |
| Electrical / Tel. / Data: | *Telecom:* | Yes | *Data:* | Yes (2) |
| | *Fax:* | No | *CCTV:* | Camera and Cable TV |
| Electrical / Lighting: | Abuse Resistant | | | |
| HVAC: | Grilles at ceiling | | | |
| Plumb / Fire Protection: | | | | |
| | *Sink(s):* | N/A | *Floor Drain(s):* | N/A |
| | *Sprinklers:* | Anti-ligature | *Drinking Fountain(s):* | N/A |
| Casework: | Base storage cabinet with countertop | | | |
| Room Accessories: | Whiteboard / Tackboard; Acoustical Panels high on wall. | | | |
| Computer / Equipment: | (Operating Budget) | | | |
| Furniture: | Weighted (sand filled) chairs | | | |

Child Study & Treatment Center Expansion Building
Project No. 2016-440
Predesign Study

# Room Data Worksheet

Space Number:
Department: **CLIP Unit**

Space Name: Laundry Rooms
Relationship: Day Halls

Program Area: 85 SF

Remarks:

| | | | | |
|---|---|---|---|---|
| Wall Construction: | CMU w/ Veneer Plaster | | | |
| | *Full Height Walls:* | Stop at ceiling | *Security Walls:* | Yes |
| Room Finishes: | *Base:* | Rubber | *Wall:* | Paint |
| | *Floor:* | VCT | *Ceiling:* | AR GWB |
| Door Construction / Type: | 14 gauge HM w/ half lite (security glazing) | | | |
| | *Hardware:* | Anti-ligature | *Security Hardware:* | N/A |
| Windows: | No windows | | | |
| | HM Relight with security glazing | | | |
| Electrical / Tel. / Data: | *Telecom:* | N/A | *Data:* | N/A |
| | *Fax:* | N/A | *CCTV:* | Camera |
| Electrical / Lighting: | Abuse Resistant | | | |
| HVAC: | Grilles on ceiling; Exhaust Fan | | | |
| Plumb / Fire Protection: | | | | |
| | *Sink(s):* | Single compartment deep sink in counter with anti-ligature skirt. | *Floor Drain(s):* | Yes |
| | *Sprinklers:* | Anti-ligature | *Drinking Fountain(s):* | N/A |
| Casework: | Countertop (with sink); Lockable Upper Cabinets | | | |
| Room Accessories: | Anti-ligature robe hooks | | | |
| Computer / Equipment: | N/A | | | |
| Furniture: | Mobile Laundry basket rack | | | |

Child Study & Treatment Center Expansion Building
Project No. 2016-440
Predesign Study

# Room Data Worksheet

Space Number:
Department: **CLIP Unit**

Space Name: Resident-Patient Toilet / Shower Rooms
Relationship: Patient Rooms

Program Area: 60 / 50 SF

Remarks:

| | | | | |
|---|---|---|---|---|
| Wall Construction: | CMU w/ Epoxy Coating | | | |
| | *Full Height Walls:* | Stop at ceiling | *Security Walls:* | Yes |
| Room Finishes: | *Base:* | Epoxy | *Wall:* | Epoxy |
| | *Floor:* | Epoxy | *Ceiling:* | Moisture Resistant AR GWB |
| Door Construction / Type: | 14 gauge HM w/ Special Kingsway Vision Panel | | | |
| | *Hardware:* | Anti-ligature | *Security Hardware:* | N/A |
| Windows: | N/A | | | |
| Electrical / Tel. / Data: | *Telecom:* | N/A | *Data:* | N/A |
| | *Fax:* | N/A | *CCTV:* | N/A |
| Electrical / Lighting: | Abuse Resistant | | | |
| HVAC: | Grilles at ceiling | | | |
| Plumb / Fire Protection: | | | | |
| | *Sink(s):* | Anti-ligature type | *Floor Drain(s):* | Yes |
| | *Sprinklers:* | Anti-ligature type | *Drinking Fountain(s):* | N/A |
| Casework: | N/A | | | |
| Room Accessories: | Anti-ligature Grab Bars, Toilet Accessories, Mirror | | | |
| Computer / Equipment: | N/A | | | |
| Furniture: | N/A | | | |

Child Study & Treatment Center Expansion Building
Project No. 2016-440
Predesign Study

# Room Data Worksheet

Space Number:

Department: **CLIP Unit**

Space Name: Game Room

Relationship: Day Hall

Program Area: 160 SF

Remarks: Provided at Forensic Wing only since the Forensic patients do not get to leave the unit (i.e. to go to school building) like the CLIP patients do.

| | | | | |
|---|---|---|---|---|
| Wall Construction: | CMU w/ Veneer Plaster | | | |
| | *Full Height Walls:* | Stop at ceiling | *Security Walls:* | Yes |
| Room Finishes: | *Base:* | Rubber | *Wall:* | Paint |
| | *Floor:* | Carpet Tile | *Ceiling:* | Perforated GWB |
| Door Construction / Type: | 14 gauge HM w/ half lite (security glazing) | | | |
| | *Hardware:* | Anti-ligature | *Security Hardware:* | N/A |
| Windows: | Aluminum w/ insulated security glazing | | | |
| Electrical / Tel. / Data: | *Telecom:* | Yes | *Data:* | Conduit/Box only |
| | *Fax:* | N/A | *CCTV:* | Camera and Cable TV |
| Electrical / Lighting: | Abuse Resistant | | | |
| HVAC: | Grilles at ceiling | | | |
| Plumb / Fire Protection: | | | | |
| | *Sink(s):* | N/A | *Floor Drain(s):* | N/A |
| | *Sprinklers:* | Anti-ligature | *Drinking Fountain(s):* | N/A |
| Casework: | Lockable base storage cabinet with countertop | | | |
| Room Accessories: | Whiteboard / Tackboard | | | |
| Computer / Equipment: | N/A | | | |
| Furniture: | Weighted Chairs and Tables by owner | | | |

Child Study & Treatment Center Expansion Building
Project No. 2016-440
Predesign Study

# Room Data Worksheet

Space Number:
Department: **CLIP Unit**

Space Name: Sports Court Areas
Relationship: Day Hall

Program Area: 1,500 SF +/- for each resident wing

Remarks: Need to evaluate if one large area or 2 smaller areas will serve the program best.

| | | | | |
|---|---|---|---|---|
| Wall Construction: | Chain Link Fencing | | | |
| | *Full Height Walls:* | 12 feet high = angle top | *Security Walls:* | non-climb mesh |
| Room Finishes: | *Base:* | N/A | *Wall:* | Non-Climb Galv. Mesh |
| | *Floor:* | Concrete, Grass | *Ceiling:* | Open top |
| Door Construction / Type: | Chain Link Gate with key lock | | | |
| | *Hardware:* | Heavy Duty Commercial | *Security Hardware:* | N/A |
| Windows: | N/A | | | |
| Electrical / Tel. / Data: | *Telecom:* | N/A | *Data:* | N/A |
| | *Fax:* | N/A | *CCTV:* | Cameras |
| Electrical / Lighting: | Abuse Resistant | | | |
| HVAC: | N/A (open air space) | | | |
| Plumb / Fire Protection: | | | | |
| | *Sink(s):* | N/A | *Floor Drain(s):* | N/A |
| | *Sprinklers:* | N/A | *Drinking Fountain(s):* | N/A |
| Casework: | N/A | | | |
| Room Accessories: | Basketball Basket, Backboard, Padded Pole | | | |
| Computer / Equipment: | N/A | | | |
| Furniture: | Picnic Tables | | | |

*B. Site Analysis:*

*i. Identify Site Studies that are Completed or Under Way*

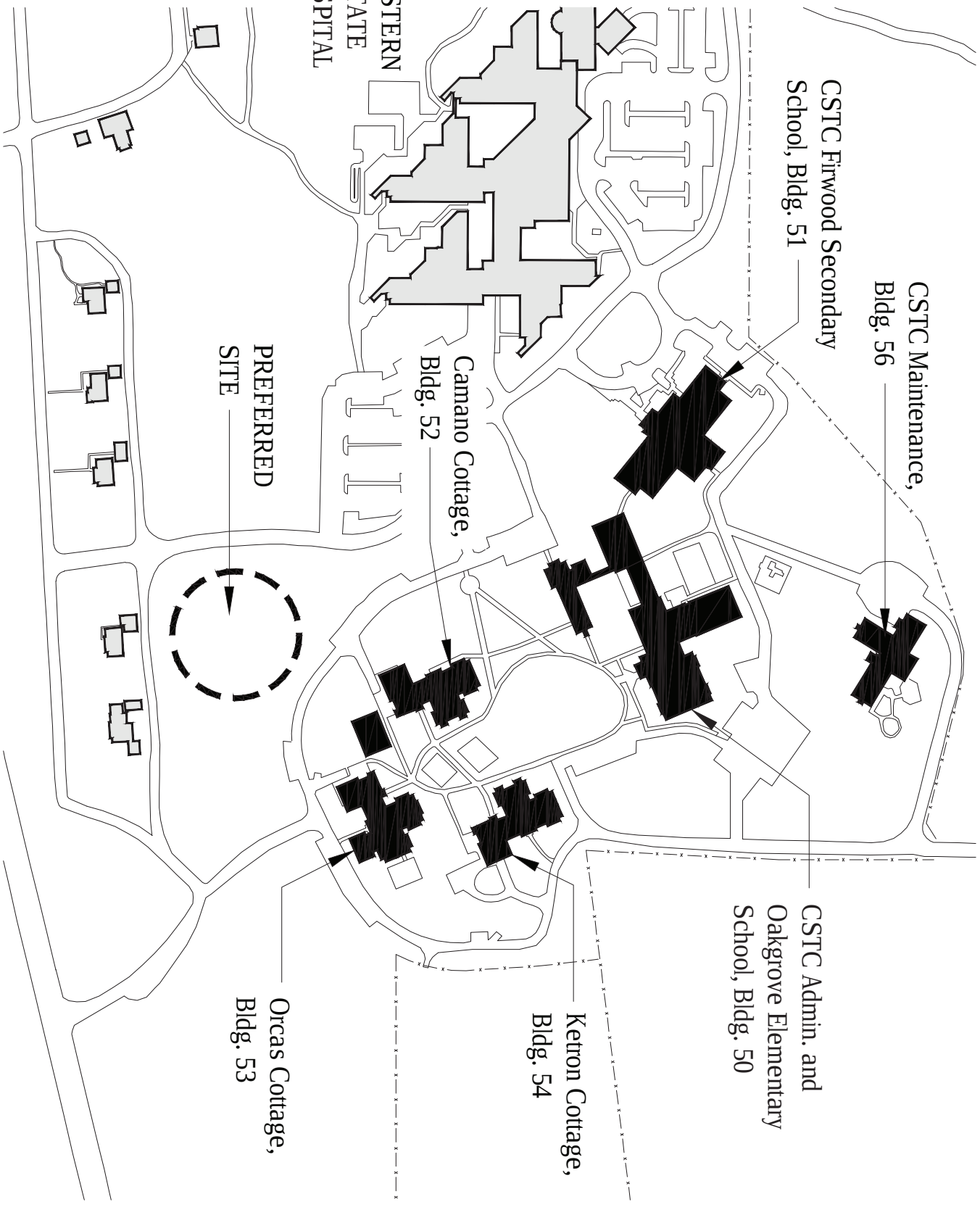
We are not aware of any previous site studies.

Human activity is known to have occurred in the area in the 1800's. The project site is near the site of Fort Steilacoom. It is not known if Cultural Resources are present on the site but may be present. DAHP has indicated that an archaeological survey of the site will be necessary due to the site's close proximity to a registered archaeological site (API105). It is possible that archaeological monitoring of any excavation or other ground disturbing activity will be required and that soils being disturbed will have to be stockpiled for analysis if artifacts are present. It is uncertain and cannot be predicted with certainty what the potential cost of archaeologist monitoring, artifact documentation, cleaning, cataloging, and archiving could amount to.

Locating of existing utilities, topographical and utility surveying and geotechnical investigation will need to occur during the schematic design phase. Inspection of existing utilities may be appropriate.

*ii(a). Location:*

See the following site diagram.


WESTERN STATE HOSPITAL
CSTC Firwood Secondary School, Bldg. 51
CSTC Maintenance, Bldg. 56
Camano Cottage, Bldg. 52
PREFERRED SITE
CSTC Admin. and Oakgrove Elementary School, Bldg. 50
Ketron Cottage, Bldg. 54
Orcas Cottage, Bldg. 53

### *ii(b). Building Footprint and its Relationship to Adjacent Facilities and Site Features*

Separation from the existing cottage buildings should be limited if possible in order to reduce the time it takes for staff in the other buildings to run to the new building to assist in the event of a fight, suicide attempt, attack on staff, or other dangerous condition.

Maintaining a buffer space between Steilacoom Blvd. and the building is desirable to reduce street noise and vision from the public. In general not attracting attention to the building and screening the patients from public view should be a design goal. While exterior view is a goal for patient spaces, the sight of people outside the building can agitate some patients. The use of landscaping for screening on the public sides of the building would be a simple, low cost method of addressing these concerns.

The openness of the roads on the WSH/CSTC campus have not been a serious problem to date. However there is risk when access to the roads is not restricted. The project proposes to re-route the CSTC campus vehicle traffic to a slightly more circuitous route to the Administration building (still using existing roads). Costs associated with new road signage and added paving at the corners of the existing roads may be required.

This project is projecting the addition of 35 parking spaces. Typically 35 parking spaces will not trigger a traffic study and is therefore not expected to trigger turn lanes, traffic signals, or other improvements along Steilacoom Blvd. Any traffic impacts will be determined either by the land use action required for this project or the City of Lakewood.

An update to the WSH/CSTC Campus Master Plan is planned. The update to the current Master Plan (occuring separate from this predesign) may identify long term growth considerations not currently known.

See aerial view, site plan, building exterior studies and floor plan on the following pages.

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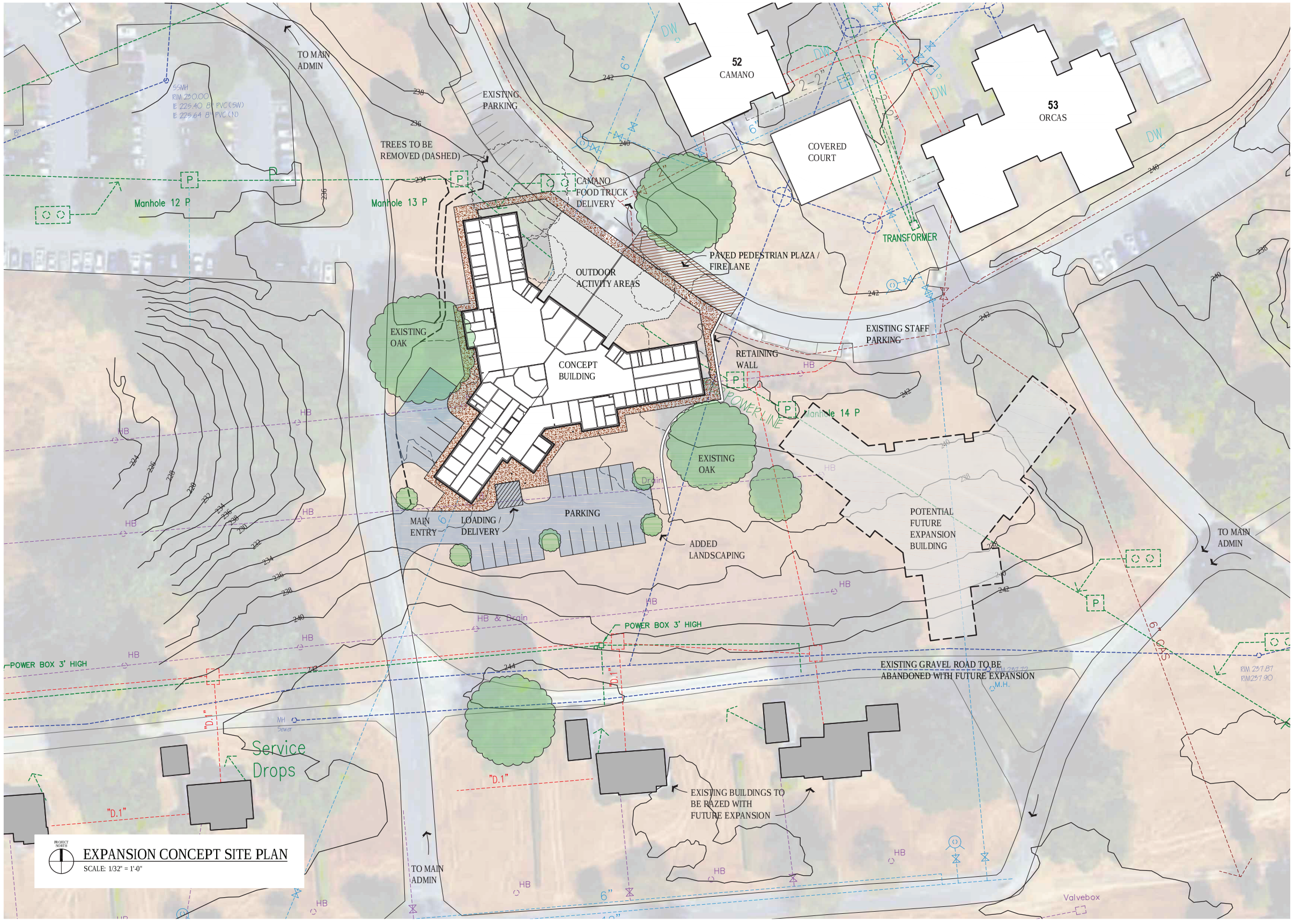
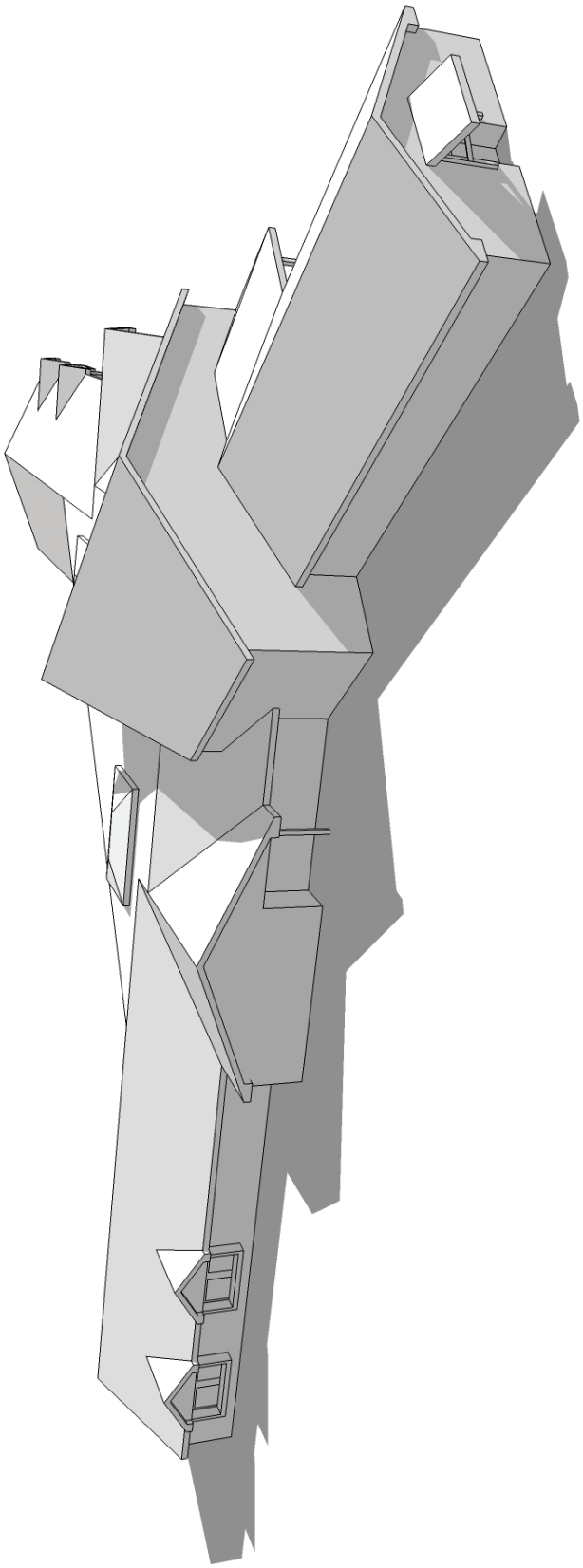
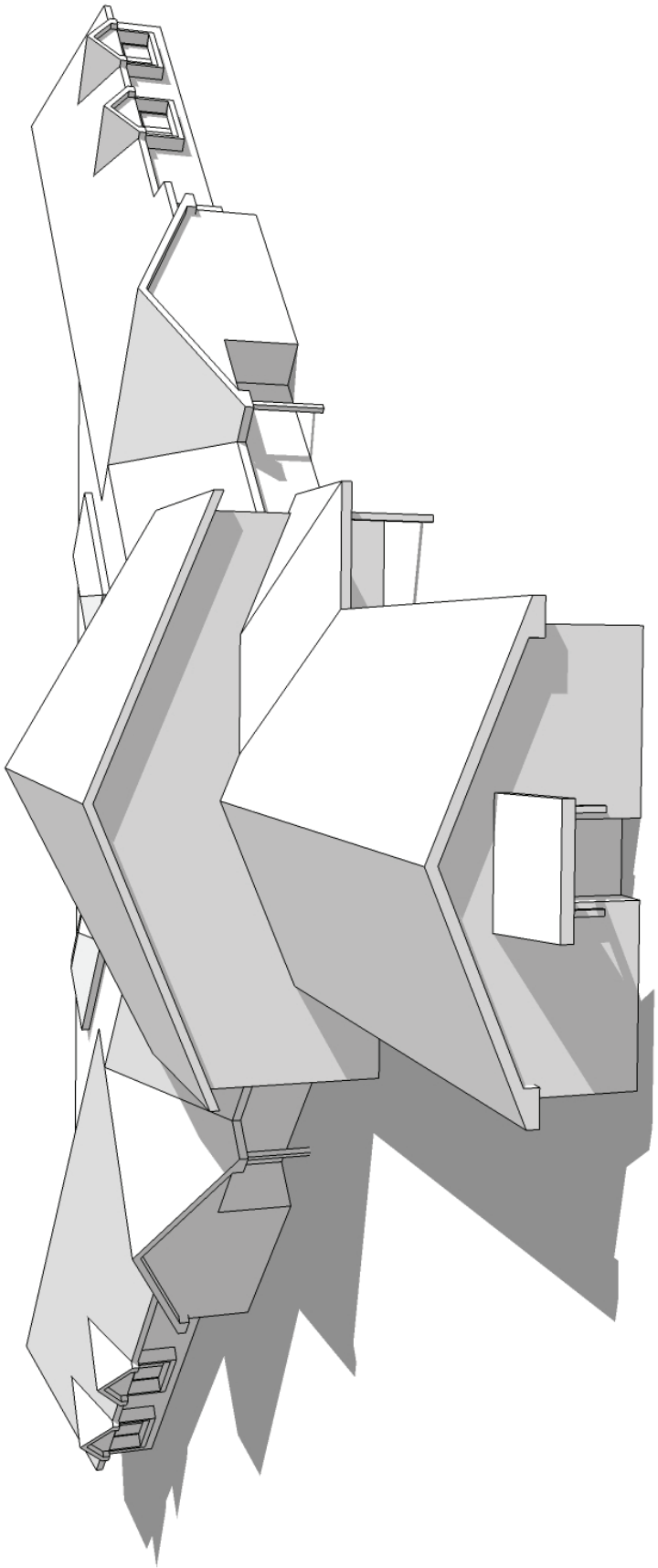
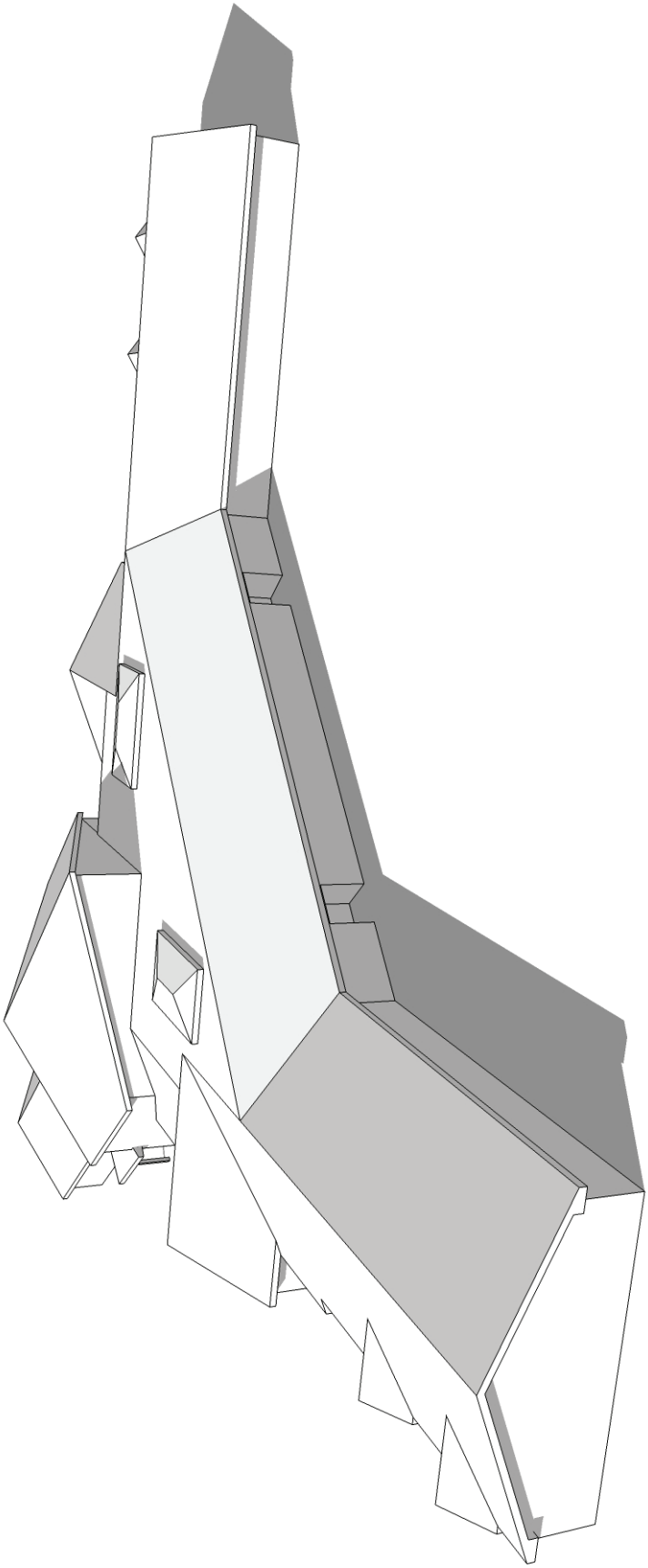
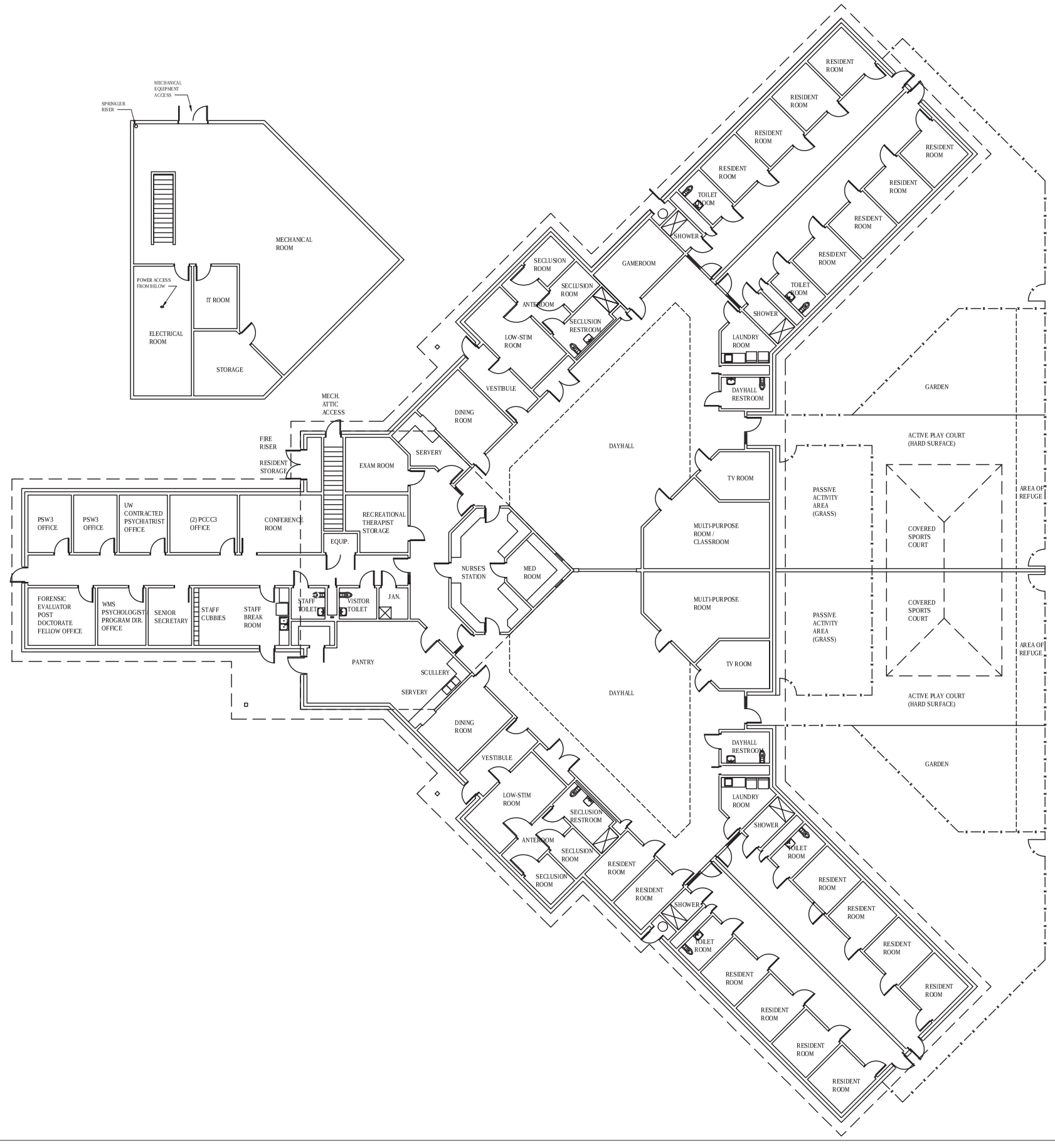
Fort St
Steilacoom Blvd SW
Steilacoom Blvd SW
Fort St
Steilacoom Bl
Google


TO MAIN ADMIN
EXISTING PARKING
TREES TO BE REMOVED (DASHED)
52 CAMANO
53 ORCAS
COVERED COURT
CAMANO FOOD TRUCK DELIVERY
TRANSFORMER
Manhole 12 P
Manhole 13 P
Manhole 14 P
PAVED PEDESTRIAN PLAZA / FIRE LANE
OUTDOOR ACTIVITY AREAS
EXISTING OAK
CONCEPT BUILDING
RETAINING WALL
EXISTING STAFF PARKING
POWERLINE
EXISTING OAK
MAIN ENTRY
LOADING / DELIVERY
PARKING
ADDED LANDSCAPING
POTENTIAL FUTURE EXPANSION BUILDING
TO MAIN ADMIN
POWER BOX 3' HIGH
HB & Drain
EXISTING GRAVEL ROAD TO BE ABANDONED WITH FUTURE EXPANSION
Service Drops
EXISTING BUILDINGS TO BE RAZED WITH FUTURE EXPANSION
TO MAIN ADMIN
Valvebox
EXPANSION CONCEPT SITE PLAN
SCALE: 1/32" = 1'-0"








MECHANICAL EQUIPMENT ACCESS
SPRINKLER RISER
MECHANICAL ROOM
POWER ACCESS FROM BELOW
IT ROOM
ELECTRICAL ROOM
STORAGE
MECH. ATTIC ACCESS
FIRE RISER
RESIDENT STORAGE
EXAM ROOM
SERVERY
DINING ROOM
VESTIBULE
SECLUSION ROOM
SECLUSION ROOM
ANTEROOM
SECLUSION RESTROOM
LOW-STIM ROOM
GAMEROOM
RESIDENT ROOM
TOILET ROOM
SHOWER
LAUNDRY ROOM
DAYHALL RESTROOM
DAYHALL
GARDEN
ACTIVE PLAY COURT (HARD SURFACE)
TV ROOM
PASSIVE ACTIVITY AREA (GRASS)
COVERED SPORTS COURT
AREA OF REFUGE
MULTI-PURPOSE ROOM / CLASSROOM
PSW3 OFFICE
PSW3 OFFICE
UW CONTRACTED PSYCHIATRIST OFFICE
(2) PCCC3 OFFICE
CONFERENCE ROOM
RECREATIONAL THERAPIST STORAGE
EQUIP.
NURSE'S STATION
MED ROOM
FORENSIC EVALUATOR POST DOCTORATE FELLOW OFFICE
WMS PSYCHOLOGIST PROGRAM DIR. OFFICE
SENIOR SECRETARY
STAFF CUBBIES
STAFF BREAK ROOM
STAFF TOILET
VISITOR TOILET
JAN.
PANTRY
SCULLERY
SERVERY
DINING ROOM
VESTIBULE
LOW-STIM ROOM
ANTEROOM
SECLUSION ROOM
SECLUSION ROOM
SECLUSION RESTROOM
RESIDENT ROOM
RESIDENT ROOM
SHOWER
TOILET ROOM
DAYHALL
DAYHALL RESTROOM
LAUNDRY ROOM
GARDEN
ACTIVE PLAY COURT (HARD SURFACE)
TV ROOM
PASSIVE ACTIVITY AREA (GRASS)
COVERED SPORTS COURT
AREA OF REFUGE
MULTI-PURPOSE ROOM

*ii(c). Stormwater Requirements:*

The site slopes to the north (toward the inner body of the campus) and is currently lawn area. There is also a large natural depression to the west just across the existing road along the west boundary of the site. This depression may be of some use for storm water retention for this project and other future projects or paving.

The existing stormwater system at CSTC is a drywell system and is believed to be working adequately. The construction of the proposed facility will trigger storm drainage requirements and permitting consistent with Pierce County's adopted stormwater manual. The County requires adherence to the 2012 Washington State Department of Ecology (DOE) Stormwater Manual which requires water quality treatment and detention facilities to be located within the project's site.

As part of the current CSTC Expansion Project, a storm drainage infiltration and water quality treatment system will be designed and constructed. Low impact design (LID) techniques will be reviewed and implemented to meet DOE requirements, as well as, achieve LEED credits for sustainable sites. Low impact design elements may include rain gardens and permeable pavements. Infiltration rates for soils within the project area are high enough to allow full infiltration of the design storm events onsite. Initial estimates show that a 200 CY infiltration pond would be necessary to meet flow control requirements.

In the existing condition, the site has no stormwater quality or quantity systems. This project would bring the site up to current DOE and Pierce County standards, enhance the quality of the stormwater discharge from the facility and control flows from the site.

*ii(d). Ownership of the Site and Any Acquisition Issues:*

The proposed project site is part of the state owned Western State Hospital / CSTC campus operated by DSHS. Therefore there are no acquisition issues.

*ii(e). Easements and Setback Requirements:*

The new building is expected to be at least 200 feet from the nearest property line (Steilacoom Blvd). There are existing buildings (which may be removed in the future) on the campus between the proposed project site and Steilacoom Blvd. No setback issue should exist per se. However the project will almost certainly trigger a land use action (the level of which has not been ascertained at this time) for the City of Lakewood. All site issues will be identified by whichever level of land use action is determined to be needed during the schematic design phase.

There are electrical and gas utility lines near the building footprint that may have easements that will be identified when a survey of the site is prepared during the schematic design phase. Depending on the outcome of the definition of utility easements the final placement of the building could shift slightly for best advantage with respect to easements.

The water, sewer, and telecom systems on campus are state owned and therefore will not have any easements but could have some effect on the final location of the building for best advantage with respect to utilities.

The site and surrounding area has a number of oak trees of various ages which may have historical significance and provide habitat for animals. The intent is to place the building to avoid oak tree removal or damage if possible. A certified arborist will be contracted to evaluate and inventory the oak trees located onsite and provide recommendation on required distances from the trees for protection during construction.

*ii(f). Potential Issues with the Surrounding Neighborhood, During Construction and Ongoing Once Operational:*

No potential issues have been identified at this time. The land use action for the City of Lakewood will include a public notice of the planned project which should identify if any issues do exist. CSTC has been in existence at this site since 1961 and currently has a substantial buffer between the buildings and any neighboring homes. The buffer is substantial in distance and vegetation and the parients do not leave the site. The patients of the new building will not be outside the building on the public side of the building. Windows into resident occupied spaces will be screened with plantings, elevation changes, screen walls or retaining walls.

*ii(g). Utility Extensions or Relocation Issues*

The preferred alternative site location is situated in such a way as to maximize the availability of existing utilities serving the site and minimize relocation of existing utilities. Sanitary sewer service will be extended from an existing gravity sewer main located immediately south and east of the building site. A gravity sanitary sewer lateral will be connected to this main line and extended to the new building.

Relocation of an existing 8-inch water main will be required to allow for construction of the CSTC facility. Currently the 8-inch diameter water main travels north easterly through the proposed site. This mainline would be intercepted southwest of the site and rerouted for approximately 300 linear feet before rejoining the existing main north east of the proposed project site. The domestic water and fire department connection will be provided from this main. New fire hydrants will be added.

Electrical and natural gas facilities are located immediately northeast of the proposed project site. These utilities will require minimal extensions To provide services to the site. The existing underground main power line is believed to be near the proposed sport court and will be accurately located for safety and to properly locate the building, the covered open air structure at the outdoor area and the fence posts for the security fencing around the outdoor activity area.

*ii(h). Potential Environmental Impacts:*

(i) Green space and natural amenities that need to be preserved or accorded special treatment;

The site and surrounding area has a number of oak trees of various ages which provided habitat for a number of animals. The preferred alternative is situated such that impacts to this habitat are minimized.

*(ii) Required or potential site mitigation, including history of possible contamination;*

There are no known critical areas located on or adjacent to the proposed project site. No wetlands, contaminated soils, or other sensitive areas have been identified.

*(iii) Wetlands and shoreline impacts, including a wetlands delineation and* ***the need to fill wetlands.***

No shoreline impacts, the civil engineer indicates no wetlands have been identified. We are not aware of whether or not a wetlands specialist has ever inspected the site and prepared a report.

*(i) Shoreline Jurisdiction Issues;*

No nearby shoreline.

*(v) Requirements for the State Environmental Policy Act, National Environmental Policy Act, or an Environmental Impact Statement;*

The land use action for the City of Lakewood and the Building permit process for the City of Lakewood will include the SEPA process.

*(vi) Other Regulatory Requirements, such as Hydraulic Project Approval and U.S. Army Corps of Engineers Permits*

None anticipated, but this will be confirmed during the land use action for the City of Lakewood. None required on a recent addition to the adjacent Orcas Cottage.

*ii(i). Parking and Access Issues, Including Improvements Required by Local Ordinances, Local Road Impacts and Parking Demand*

The proposal is to construct adequate on-site facilities for all guests and staff parking needs. Approximately 35 parking stalls are proposed for the facility and these would comprise a mix of ADA accessible, guest, and staff parking stalls. The site is accessed off Steilacoom Blvd, a 4-lane principal arterial, with an average daily traffic in excess of 15,000 trips per day. The proposed project will not require any additional access or frontage improvements as the site is located within the greater DSHS campus and the number of trips per day generated by this facility is negligible when compared to traffic volumes on adjacent streets.

*ii(j). Impact on Surroundings and Existing Development with Construction Lay-Down Areas and Construction Phasing*

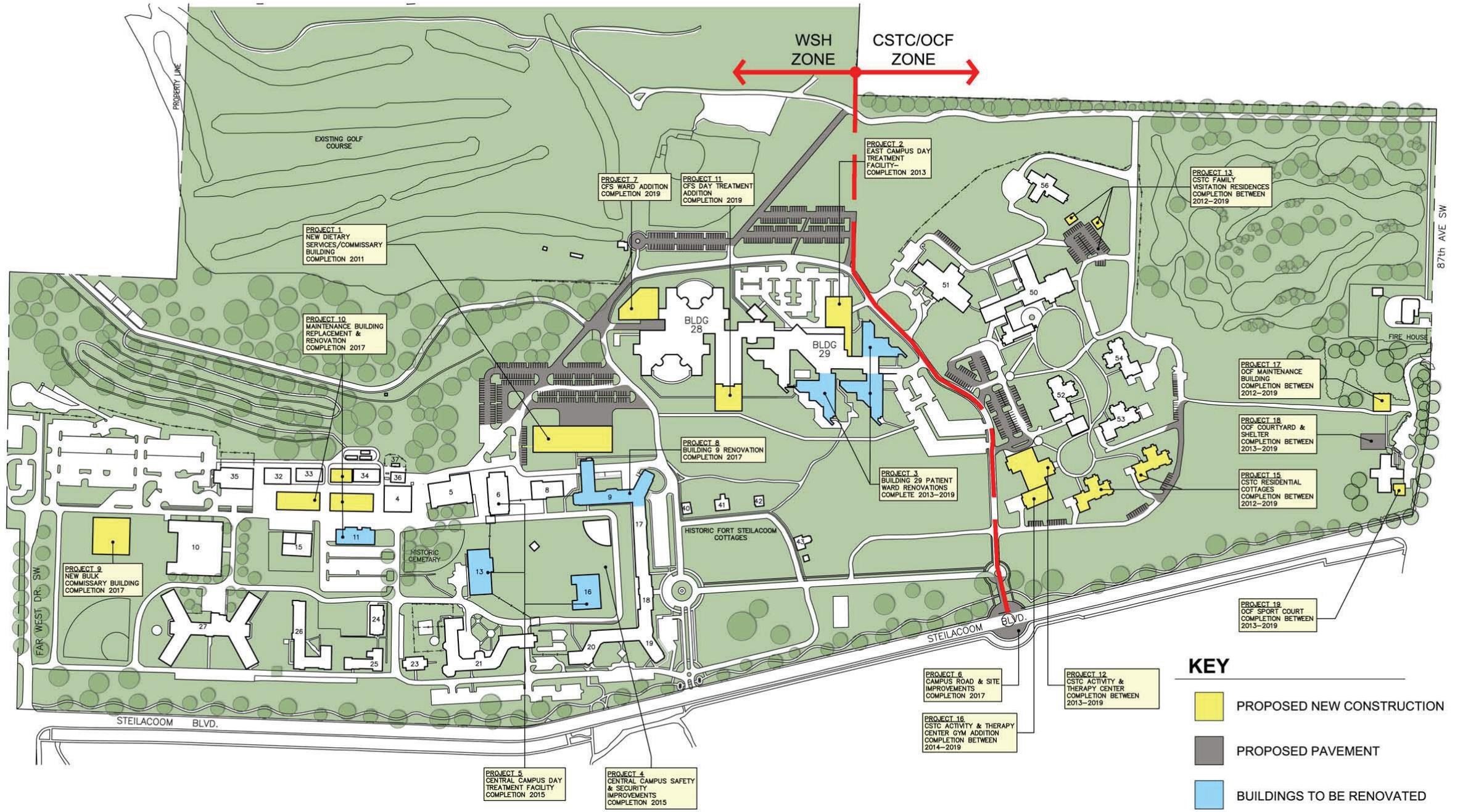
The construction traffic will use the same entries to the campus and access roads on the campus as staff and deliveries will be using. These vehicles will pass by a few multi-family housing units on the east boundary of the campus (87th Ave SW).

The construction traffic will follow a route that has been used on previous construction projects at CSTC and the laydown areas will also be located where there has been previous construction project contractor laydown. The safety concerns are the same as with previous projects at CSTC in that there can be children outside on the campus that may not use or be capable of using good judgement around vehicles. All vehicle traffic (existing and new) has to be slow and the drivers need to expect the children to behave unpredictably and therefore must be able to stop suddenly. Safe construction vehicle movement on the site will be a point of emphasis during construction including a safety officer, safety meetings, signage and temporary barriers along the roadways and around the construction site.

*4C. Identify Whether the Proposed Project is Consistent with Applicable Long-Term Plans (Such as the Thurston County and Capitol Campus Master Plans and Agency or Area Master Plans) as Required by RCW 43.88.110.*

The proposed project is consistent with the current Campus Master Plan (1996) and the draft Campus Master Plan (2008 – not formally adopted). The City of Lakewood has requested that DSHS work with the city to update the 1996 Master Plan document which may be a requirement imposed for permitting this project. We are not aware of any Master Plan issues driving the City of Lakewood's request for an updated Master Plan other than the number of years that have passed since there was an update to the Master Plan of record.

See Campus Master Plan Update drawing developed in 2008 on the following page (note: most new construction anticipated to occur between 2008-2016 when the drawing was created in 2008 has not occurred).




WESTERN STATE HOSPITAL
MASTER PLAN UPDATE

N

PROPOSED CAMPUS CONFIGURATION
NOT TO SCALE

NAC ARCHITECTURE

*4D. Consistency with Other Laws and Regulations*

*(i) High-performance public buildings (Chapter 39.35D RCW). All state-funded buildings 5,000 square feet or more are required to be designed, constructed, and* ***certified to at least a LEED silver standard. Provide documentation that indicates*** *the preferred option is consistent with the following.*

*The project will be required to use LEED 2016 Version 4 as a standard which will* ***target 50 to 59 points range to achieve Silver Certification.***

The current LEED scorecard can be seen on the following page.

## LEED v4 for BD+C: New Construction and Major Renovation

Project Checklist

Project Name: CSTC CLIP Unit
Date:08/02/16

| Y | ? | N | | | |
|---|---|---|---|---|---|
| 1 | | | Credit | Integrative Process | 1 |

| 3 | 4 | 23 | Location and Transportation | | 16 |
|---|---|---|---|---|---|
| | | 16 | Credit | LEED for Neighborhood Development Location | 16 |
| 1 | | | Credit | Sensitive Land Protection | 1 |
| | | 2 | Credit | High Priority Site | 2 |
| 2 | 1 | | Credit | Surrounding Density and Diverse Uses | 5 |
| | | 5 | Credit | Access to Quality Transit | 5 |
| | 1 | | Credit | Bicycle Facilities | 1 |
| | 1 | | Credit | Reduced Parking Footprint | 1 |
| | 1 | | Credit | Green Vehicles | 1 |

| 6 | 4 | 0 | Sustainable Sites | | 10 |
|---|---|---|---|---|---|
| Y | | | Prereq | Construction Activity Pollution Prevention | Required |
| 1 | | | Credit | Site Assessment | 1 |
| | 2 | | Credit | Site Development - Protect or Restore Habitat | 2 |
| | 1 | | Credit | Open Space | 1 |
| 2 | 1 | | Credit | Rainwater Management | 3 |
| 2 | | | Credit | Heat Island Reduction | 2 |
| 1 | | | Credit | Light Pollution Reduction | 1 |

| 6 | 3 | 2 | Water Efficiency | | 11 |
|---|---|---|---|---|---|
| Y | | | Prereq | Outdoor Water Use Reduction | Required |
| Y | | | Prereq | Indoor Water Use Reduction | Required |
| Y | | | Prereq | Building-Level Water Metering | Required |
| 1 | 1 | | Credit | Outdoor Water Use Reduction | 2 |
| 4 | 2 | | Credit | Indoor Water Use Reduction | 6 |
| | | 2 | Credit | Cooling Tower Water Use | 2 |
| 1 | | | Credit | Water Metering | 1 |

| 17 | 8 | 8 | Energy and Atmosphere | | 33 |
|---|---|---|---|---|---|
| Y | | | Prereq | Fundamental Commissioning and Verification | Required |
| Y | | | Prereq | Minimum Energy Performance | Required |
| Y | | | Prereq | Building-Level Energy Metering | Required |
| Y | | | Prereq | Fundamental Refrigerant Management | Required |
| 4 | 2 | | Credit | Enhanced Commissioning | 6 |
| 10 | 3 | 5 | Credit | Optimize Energy Performance | 18 |
| 1 | | | Credit | Advanced Energy Metering | 1 |
| | 1 | 1 | Credit | Demand Response | 2 |
| 1 | 1 | 1 | Credit | Renewable Energy Production | 3 |
| 1 | | | Credit | Enhanced Refrigerant Management | 1 |
| | 1 | 1 | Credit | Green Power and Carbon Offsets | 2 |

| 4 | 7 | 2 | Materials and Resources | | 13 |
|---|---|---|---|---|---|
| Y | | | Prereq | Storage and Collection of Recyclables | Required |
| Y | | | Prereq | Construction and Demolition Waste Management Planning | Required |
| | 3 | 2 | Credit | Building Life-Cycle Impact Reduction | 5 |
| 1 | 1 | | Credit | Building Product Disclosure and Optimization - Environmental Product Declarations | 2 |
| 1 | 1 | | Credit | Building Product Disclosure and Optimization - Sourcing of Raw Materials | 2 |
| 1 | 1 | | Credit | Building Product Disclosure and Optimization - Material Ingredients | 2 |
| 1 | 1 | | Credit | Construction and Demolition Waste Management | 2 |

| 11 | 4 | 2 | Indoor Environmental Quality | | 16 |
|---|---|---|---|---|---|
| Y | | | Prereq | Minimum Indoor Air Quality Performance | Required |
| Y | | | Prereq | Environmental Tobacco Smoke Control | Required |
| 2 | 1 | | Credit | Enhanced Indoor Air Quality Strategies | 2 |
| 3 | | | Credit | Low-Emitting Materials | 3 |
| 1 | | | Credit | Construction Indoor Air Quality Management Plan | 1 |
| 2 | | | Credit | Indoor Air Quality Assessment | 2 |
| | | 1 | Credit | Thermal Comfort | 1 |
| 2 | | | Credit | Interior Lighting | 2 |
| | 3 | | Credit | Daylight | 3 |
| | | 1 | Credit | Quality Views | 1 |
| 1 | | | Credit | Acoustic Performance | 1 |

| 3 | 3 | 0 | Innovation | | 6 |
|---|---|---|---|---|---|
| 2 | 3 | | Credit | Innovation | 5 |
| 1 | | | Credit | LEED Accredited Professional | 1 |

| 3 | 1 | 0 | Regional Priority | | 4 |
|---|---|---|---|---|---|
| 1 | | | Credit | Regional Priority: Specific Credit | 1 |
| 1 | | | Credit | Regional Priority: Specific Credit | 1 |
| 1 | | | Credit | Regional Priority: Specific Credit | 1 |
| | 1 | | Credit | Regional Priority: Specific Credit | 1 |

| 54 | 34 | 37 | TOTALS | Possible Points: | 110 |
|---|---|---|---|---|---|

**Certified:** 40 to 49 points, **Silver:** 50 to 59 points, **Gold:** 60 to 79 points, **Platinum:** 80 to 110

*(ii) Greenhouse gas emissions reduction policy (RCW 70.235.070), including consideration of:*

*(a) The state's limits on the emission of greenhouse gases established in RCW 70.235.020;*

The LEED green building strategy and points system encourage projects to pursue high-value emission reduction strategies. The new CLIP building will contribute to the State's goal of greenhouse gases emission reductions by integrating emissions reduction strategies throughout the project, including energy efficiency, water efficiency, location efficiency and materials management.

*(b) Statewide goals to reduce annual per capita vehicle miles traveled by 2050, in accordance with RCW 47.01.440, except that the agency shall consider **whether project locations in rural counties, as defined in** RCW 43.160.020, will maximize the reduction of vehicle miles traveled;*

The project size is less than 1/4 mile from a bus stop (intersection of Steilacoom Blvd and 87th Ave SW). There is a path worn into the proposed building site from staff at WSH walking back and forth to the bus stop.

*(c) Applicable federal emissions reduction requirements.*

The new CLIP building will include applicable federal emission reduction requirements if the apply to this project and are a practical and cost effective means of achieving LEED points towards Silver certification.

*(iii) Archeological and cultural resources (Executive Order 05-05 and Section 106 of the National Historic Preservation Act of 1966). Consult with the Department of **Archaeology and Historic Preservation (DAHP), the Governor's Office of Indian** Affairs (GOIA), and affected Tribes, as appropriate. A letter from DAHP on the impact of potential sites on cultural resources must be include as an appendix.*

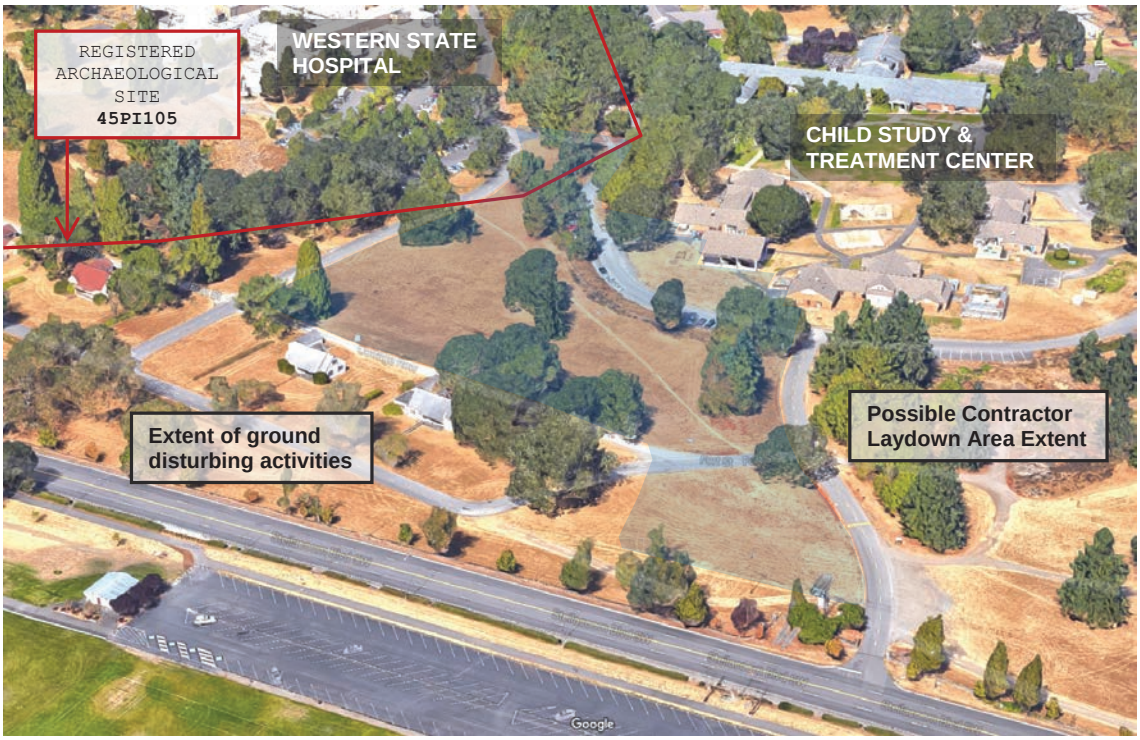
The DAHP letter is included in the appendix. The proposed building site is outside of the adjacent registered archaeological site 45PI105. Except one small area of existing vehicle circulation needing minor improvements to the existing paving for vehicles to more safely access the CSTC campus core area. The whole campus of Western State Hospital / CSTC presents a complication for DSHS with respect to the archaeology provisions of Executive Order 05-05. The campus is located in the general area of Fort Steilacoom and thus human activity on the site dates back to the 1800's. However the site has been heavily used having had numerous buildings built and removed which incurred grading that has moved debris and artifacts around on the site. Today, artifacts found may have originally been in a totally different location. Additionally, the site has been heavily dug up for underground utilities over the history of the site so the ground has been greatly disturbed already. All the previous ground disturbance could result in substantial archaeology cost to comply with 05-05 but until the excavation occurs it is difficult to know the extent of the 05-05 cost to the project.

See map of potential extent of ground disturbing activities on following page.

**PLEASE ATTACH A COPY OF THE RELEVANT PORTION OF A 7.5 SERIES USGS QUAD MAP AND OUTLINE THE PROJECT INPACT AREA.**
USGS Quad maps are available on-line at http://maptech.mytopo.com/onlinemaps/index.cfm

## Project Location

**Township:** 20N **Range:** 2E **Section:** 32
**Address:** 9601 Steilacoom Blvd SW **City:** Lakewood, WA **County:** Pierce




**Mail this form to:**

Department of Archaeology and Historic Preservation
1063 S. Capitol Way, Suite 106
P.O. Box 48343
Olympia, WA 98504-8343

or E-mail to:

Robert Whitlam, Ph.D.
*State Archaeologist, DAHP*
(360) 586-3080
rob.whitlam@dahp.wa.gov

*(Within 30 days DAHP will mail their opinion back to you.)*

Please be aware that this form may only initiate consultation. For some projects, DAHP may require additional information to complete our review such as plans, specifications, and photographs. An historic property inventory form may need to be completed by a qualified preservation professional.

*(v) Americans with Disabilities Act Implementation (Executive Order 96-04)*

The new CLIP building and site will be designed to comply with ADA Accessibility Guidelines and the 2009 ICC / ANSI A117.1 Standard on Accessible and Useable Buildings and WAC Chapter 51-50.

*(vi) Compliance with planning under Chapter 36.70A RCW, as required by RCW 43.88.0301*

The new CLIP building is located within the City of Lakewood and is compatible with current growth management plans.

*(vii) Information Required by RCW 43.88.0301(1)*

The Predesign consultant team has made efforts to fully define costs associated with this project. See Predesign project diagrams and a detailed estimate included under Section 5 of this study.

It is understood that a value-engineering analysis and constructability review will be conducted during subsequent design phases (cost of VE analysis and constructability review are incorporated into the C-100 form).

*(viii) Other Codes or Regulations*

ICC, International Building Code – 2015 edition (Chapters 51-50 WAC & 15A.5.020A & 15A.5.060 LMC)
ANSI/ICC, Accessible and Usable Buildings – ICC/ANSI A117.1-2009 edition (Chapter 51-50 WAC)
ICC, International Existing Building Code – 2015 edition (Chapters 51-50 WAC & 15A.5.020G LMC)
ICC, International Mechanical Code – 2015 edition (Chapters 51-52 WAC & 15A.5.020C LMC)
ICC, International Fire Code – 2015 edition (Chapters 51-54A WAC & 15A.5.020D & 15A.5.080 LMC)
ICC, International Energy Conservation Code, Commercial – 2015 edition (Chapters 51-11C WAC & 15A.5.020A LMC)
ICC, International Performance Code – 2015 edition (Chapters 15A.5.020H LMC)
ICC, International Property Maintenance Code – 2015 edition (Chapters 15A.5.020I & 15A.5.090 LMC)
IAPMO, Uniform Plumbing Code – 2015 edition (Chapters 51-56 WAC & 15A.5.020E LMC)
NFPA 70, National Electrical Code – 2008 edition (Chapters 296-46B WAC & 15A.25 LMC)
NFPA 99, Health Care Facilities Code – 2012 edition (Chapters 246-320-500 (3)(e) WAC)
NFPA 101, Life Safety Code – 2012 edition (Chapters 246-320-500 (3)(b) WAC)
Washington State Building Code (Chapter 246-320-500 (3)(c) WAC)
FGI Guidelines for Design and Construction of Hospitals and Outpatient Facilities – 2014 (Chapter 246-320-600 WAC)
SEPA Rules (Chapter 197-11 WAC)
City of Lakewood – Protection and Preservation of Landmarks (2.48 LMC)
City of Lakewood – Public Works – Permits (12A.04 LMC)
City of Lakewood – Environmental Rules & Procedures (14.02 LMC)
City of Lakewood – Zoning Districts (18A.30 LMC)
City of Lakewood – Development Standards (18A.50 LMC)
National Register of Historic Places (36 CFR Part 60)
The Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR Part 68)
2010 ADA Standards for Accessible Design (28 CFR 35.151 & 36 CFR part 1191)

## *E. Problems that Require Further Study*

Additional investigation in the following areas is needed to properly design the new building.

1. Archaeologist survey and report of the area proposed for ground disturbance.
2. Certified Arborist survey and recommendations for protection of oak trees in project area.
3. Geotechnical investigation including determination of infiltration rates for soils within the project area.
4. Utility locates and potholing to confirm depth of utilities.
5. Consultation with the Office of the Chief Information Officer (OCIO).
6. Topographical site survey including all surface features, trees, etc. and known utility and easement information.
7. Confirm level of land use action required with City of Lakewood and confirm documents needing to be submitted to initiate and accompany the land use action.
8. SEPA

## ***F. Requirements of Significant Components***

The new CLIP building will be designed to be in compliance with ADA Accessibility Guidelines (ADAAG) and Washington State barrier free codes including ANSI A117.1, "Accessible and Usable Buildings and Facilities" Additionally, the new building will be designed to be compliant with The Joint Commission and the Facilities Guidelines Institute, "Guidelines for Design and Construction of Hospitals and Outpatient Facilities".

The new building design will endeavor to provide a psychiatric therapeutic environment that is also durable enough to withstand abuse. The finishes will be selected to be more homelike than traditional institutional finishes. Daylight is a key component of a therapeutic environment.

Safety and security will affect the plan layout to provide for staff observation of patients (sight lines, generous relights) and security camera system. Attention to security will also be part of the electronic locking and intercom systems. The plan layout will accommodate separation of the populations within the building (CLIP residents, Forensic residents, boys and girls). The latest developments in anti-ligature design and anti-ligature products will be incorporated to reduce the risk of patient suicide.

The significant components of the mechanical and electrical systems are outlined in the following narratives from Inventrix Engineering and DEI Electrical Consultants.

612 Woodland Square Loop SE, Suite 100 Lacey, WA 98503 360.292.7230 kpff.com

August 26, 2016

Subject: DSHS CSTC Expansion Pre-Design
CSTC CLIP Civil Narrative Preferred Alternative

***STORMWATER:***

The construction of the proposed facility will trigger storm drainage requirements and permitting consistent with Pierce County's adopted stormwater manual. The County requires adherence to the 2012 Washington State Department of Ecology (DOE) Stormwater Manual which requires water quality treatment and detention facilities to be located within the project's site.

As part of the current CSTC Expansion Project, a storm drainage infiltration and water quality treatment system will be designed and constructed. Low impact design (LID) techniques will be reviewed and implemented to meet DOE requirements, as well as, achieve LEED credits for sustainable sites. Low impact design elements may include rain gardens and permeable pavements. Infiltration rates for soils within the project area are high enough to allow full infiltration of the design storm events onsite. Initial estimates show that a 200 CY infiltration pond would be necessary to meet flow control requirements.

In the existing condition, the site has no stormwater quality or quantity systems. This project would bring the site up to current DOE and Pierce County standards, enhance the quality of the stormwater discharge from the facility and control flows from the site.

***UTILITY EXTENSION OR RELOCATION ISSUES (PREFERRED ALTERNATIVE):***

The preferred alternative site location is situated in such a way as to maximize the availability of existing utilities serving the site and minimize relocation of existing utilities. Sanitary sewer service will be extended from an existing gravity sewer main located immediately south and east of the building site. A gravity sanitary sewer lateral will be connected to this main line and extended to the new building.

Relocation of an existing 8-inch water main will be required to allow for construction of the CSTC facility. Currently the 8-inch diameter water main travels north easterly through the proposed site. This mainline would be intercepted southwest of the site and rerouted for approximately 300 linear feet before rejoining the existing main north east of the proposed project site. The domestic water and fire department connection will be provided from this main.

Electrical and natural gas facilities are located immediately northeast of the proposed project site. These utilities will require minimal extensions of these utilities to provide services to the site.

CSTC CLIP Civil Narrative Preferred Alternative
August 26, 2016
Page 2

***POTENTIAL ENVIRONMENTAL IMPACTS:***

There are no known critical areas located on or adjacent to the proposed project site. No wetlands, contaminated soils, or other sensitive areas have been identified.

The site and surrounding area has a number of oak trees of various ages which provided habitat for a number of animals. The preferred alternative is situated such that impacts to this habitat are minimized.

***PARKING & ACCESS:***

The proposal is to construct adequate on-site facilities for all guests and staff parking needs. Approximately 35 parking stalls are proposed for the facility and these would comprise a mix of ADA accessible, guest, and staff parking stalls. The site is accessed off Steilacoom Blvd, a 4-lane principal arterial, with an average daily traffic in excess of 15,000 trips per day. The proposed project will not require any additional access or frontage improvements as the site is located within the greater DSHS campus and the number of trips per day generated by this facility is negligible when compared to traffic volumes on adjacent streets.

***TESTING / STUDIES / REPORTS:***

Prior to commencing final design a site specific geotechnical investigation should be performed to evaluate existing soil conditions. The investigation should include determination of design infiltration rates, subgrade preparation requirements, and foundation recommendations.

Topographic site survey and utility locates will also be required. Site survey should map existing site topography, utilities, hardscape, trees and vegetation.

In conjunction with the topographic survey, a certified arborist should be contracted to evaluate and inventory the various oak trees located onsite. This evaluation should include the condition of each tree, recommendations for removal (if required) and procedures for protecting the trees during construction.

During construction a 3rd party special inspector should be engaged to test for subgrade compaction requirements as defined in the geotechnical report.

## Electrical Narrative

### A. BUILDING ELECTRICAL

#### Electrical Service

1. Service to the building will be provided from the existing 4.16 KV site distribution system. A new 208Y/120 Volt pad-mounted transformer shall be dedicated to the new building. Generator power is provided by an existing 1500 KW generator feeding the CSTC Campus. Aluminum conductors will be allowed on all feeders over 100 amps to keep costs as low as possible.

#### Building Distribution

1. The building distribution system will consist of a service switchboard with distribution to branch circuit panels located throughout the building. The service switchboard will be located on the second floor near all the mechanical loads to keep the feeders short to be economical. All switchboards and panelboards shall have a minimum of 25% spare capacity and spaces for future loads.

#### Branch Circuits

1. All branch circuits 100 amps and smaller shall be copper conductors. Voltage drop will be limited to 3% on any branch circuit.

#### Fire Alarm

1. The building will have a separate fire alarm system that can be networked together which will be connected to the existing campus fire alarm system. It shall be compatible with an Edwards Signaling fire alarm system. Each individual building fire alarm system will consist of a fire alarm control panel (FACP), detection devices, reporting devices, and the associated network equipment.
2. The system will be designed to meet the intent of the International Fire Code, the NFPA 72 National Fire Alarm Code, and the Americans with Disabilities Act.

#### Interior Lighting

1. Interior lighting will comply with the Washington State Non-Residential Energy Code while incorporating energy efficient LED fixtures and utilizing automatic lighting controls which include the use of occupancy sensors, photocells, and lighting control panels. Average lighting levels for the building will be provided according to the Illumination Engineering Society (IES) recommendations. Lighting levels for the following typical spaces will be:

Resident Rooms: 30-50 footcandles
Offices: 50 footcandles
Circulation: 20 footcandles
Classrooms: 50 footcandles
Conference Rooms: 30 footcandles
Storage: 15 footcandles
Mechanical/Electrical: 30 footcandles
Sec. Elec./IT Rooms: 50 footcandles

## Electrical Narrative

### B. Security Electronics

#### Access Control

1. The building will have a Vicon VAX IP based electronic access control system. There will be a control point in the Nurses Room via a computer or touch panel. A video system shall be installed to monitor and record all patient activity in the building, such that the access control system and video system are integrated to provide video of all door events.

#### Video System

1. Digital video cameras will be provided for monitoring purposes. All exterior doors, and common areas shall be monitored and recorded, along with the exterior of the building. The cameras shall be IP type and shall be recorded on a ViconNet VMS System.

#### Intercom

1. There shall be an intercom station at the main entry that connects to the senior secretary's office for door release.

### C. Site

#### Fire Alarm

1. The building fire alarm system will be connected to the existing facility via the telecommunications outside plant cabling infrastructure. The FACP will be connected to the IT room via fiber cabling, which is then connected to the existing facility through the outside plant cabling infrastructure. All pathways and cables for the system will be designed using TIA/EIA Standards.

#### Security Electronics

1. Building security electronics shall have the ability to interface with the existing campus system via fiber cables.

#### Site Electrical

1. The new primary system will be an extension of the existing 4.16 KV electrical distribution on the site. The new primary will be from the existing 4.16 KV service via a new primary feeder from building 53.
2. The new power cabling will be routed from the existing transformer at building 53 to the new trans former location.
3. All 4.16 KV cables shall be copper 3/0 through concrete encased underground duct banks. New duct banks shall be provided.

#### Exterior Lighting

1. Exterior lighting levels are determined based on security and function in the area. Fence lines will maintain a 3.0 footcandle minimum for camera considerations. Yard areas around the buildings will maintain a minimum of 1.5 footcandles for general purpose.
2. The exterior lighting system is designed to minimize the light pollution and light trespass while providing excellent visibility and visual comfort. To minimize light pollution, all luminaires comply with IESNA 'full cut-off' definition and 'Dark Sky Requirements. Luminaires will be mounted on poles with fixture heads similar to the existing campus. New fixtures shall be LED type.

## Mechanical Narrative

### Code Requirements

The mechanical systems will be designed to conform, at a minimum, to the following codes and standards. Code Year shall be dictated by the code year applicable at the time of scheduled building permit intake.

- International Building Code
- International Mechanical Code
- International Fire Code
- Uniform Plumbing Code
- The National Fire Protection Association (NFPA) Codes, Standards, Recommended Practices, Manuals an Guides; as appropriate
- Washington State Boiler and Unfired Pressure Vessel Code
- Washington State Non-Residential Energy Code
- ASHRAE Standard 62.1, Ventilation for Acceptable Indoor Air Quality
- ASHRAE Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings
- USGBC, LEED-NC v4, all Prerequisites and Silver Certification
- Weather Data, per ASHRAE
- Applicable State and Local Codes and Ordinances
- Americans with Disabilities Act (ADA)

### Design Conditions

The HVAC systems design will be based on the following design conditions:

- Indoor design temperature:
  - Cooling:
    - Indoor: 75° F DB
  - Heating:
    - Indoor: 70° F DB
- Outdoor design temperature:
  - Winter:
    - 24° F DB
  - Summer:
    - 86° F DB, 66° F WB

### Ventilation:

In accordance with IMC and ASHRAE Standard 62.1, with the following noted specific requirements:

- Office Areas: 5 cfm/person + 0.06 cfm/ft2
- Cells (w/out Plumb): 5 cfm/person + 0.12 cfm/ft2
- Dayrooms: 5 cfm/person + 0.06 cfm/ft2
- Conference/Meeting: 5 cfm/person + 0.06 cfm/ft2
- Multipurpose Assembly: 5 cfm/person + 0.06 cfm/ft2
- Break Rooms: 5 cfm/person + 0.06 cfm/ft2
- Classroom: 10 cfm/person + 0.12 cfm/ft2
- Corridors/Vestibules: 0.06 cfm/ft2
- Storage Rooms: 0.12 cfm/ft2
- Demand control ventilation will be required for densely occupied spaces larger than 500 sf per code.

### Exhaust:

In accordance with ASHRAE Standard 62.1, with the following noted specific requirements:

- Restrooms and Shower Rooms: 12 air changes per hour/ 70cfm per fixture or shower, Negative to adjacent areas
- Locker Rooms: 0.5 cfm/ft2 exhaust, Negative to adjacent areas
- Janitor Closets: 1 cfm/ ft2 exhaust, Negative to adjacent areas

• Building pressurization and infiltration: The buildings will be designed to operate at a positive pressure relative to outdoors. Specific requirements for negative pressures in individual spaces will be provided as specified in the exhaust conditions above.

### Maintainability

Maintainability and accessibility is of primary concern for the mechanical systems. Working clearances, clear walkup space, filter pull clearances, coil access and overall accessibility are of the highest priority for this project. Special consideration will be given to the location of the equipment, so that equipment can be maintained from outside of the living spaces in the building wherever possible. In addition, where rooftop equipment is required, placement of this equipment will be coordinated with architectural design for ease of access.

### Mechanical

Systems will conform with the requirements of the Washington State Energy Code. A central Air Handler will be provided to condition outside air, either as a Dedicated Outdoor Air System (DOAS) providing minimum outside air to all occupied spaces or as a traditional Air Handler to mix outside air with return air and condition the building. Energy recovery will be provided in the Air Handler or DOAS system, to minimize energy consumption associated with tempering of ventilation air. The Air Handler or DOAS system will be variable volume. This system will provide demand-controlled ventilation to all densely occupied spaces (reducing ventilation to these spaces during off-peak occupancy periods).

Local fan coil units served with ventilation air from a DOAS unit (Option 1), and single duct VAV units served by a central air handling unit (option 2), will be considered during ELCCA evaluation.

Central cooling will be provided by either an air-cooled or heat recovery chiller or by simultaneous heating and cooling air-to-water heat pump modules. Central heating will be provided by either high efficiency boilers or by simultaneous heating and cooling air-to-water heat pump modules. A separate boiler will likely be needed as backup for the heat pumps in the event of a power outage. An ELCCA evaluation will determine the best central plant considering the potential for heat recovery and life cycle payback.

It is assumed for this building to have approximately (20) zones for the building, considering all of the multi-occupant spaces such as dayhalls, dining rooms, classrooms, and TV Rooms. See attahed for preliminary zone map diagram.

Isolated systems, individual space temperature control zones, independent exhaust systems, and pressure differentials will be providing as required. The IT and electrical room will be provided with a dedicated cooling or independent exhaust fan. Room used to store medication will be provided with dedicated cooling to control space temperature to a lower setpoint than surrounding spaces, as required.

Systems and equipment will be selected to minimize the 40-year life-cycle cost of the facility, including institutional quality equipment with long service life.

Unit heaters will provide freeze protection for mechanical and electrical rooms. Exhaust fans will provide ventilation for the mechanical and electrical rooms.

Heating water will be distributed throughout the building to serve the individual equipment for each zone, where it will be used to provide heat to building air systems.

Distribution piping will copper or steel. Soldered, press, screwed, flanged, and grooved couplings/fittings will be allowed.

Chilled water will be distributed either to the centralized air handler located in the mechanical mezzanine or throughout the building to serve the individual equipment for each zone, where it will be used to provide cooling to building air systems.

Distribution will be copper or steel. Soldered, press, screwed, flanged, and grooved piping will be allowed.

The following specific requirements have also been provided:
Mechanical, Riser and Electrical Room: Exhaust fan providing 10 air changes per hour; unit heater for freeze protection.

### Energy Management and Controls System

A Direct Digital Control (DDC) system will monitor and control the CSTC CLIP Expansion, and will interface with any existing campus Energy Management and Controls Equipment at the CSTC, with the following additional notations: Non-adjustable, commercial grade, wall-mounted thermostats in office areas only. Flat plate security thermostats everywhere else.

- Main control panel located in mechanical room with LCD interface with graphical user interface. Also tied to any existing EMCS servers located on campus.
- Water, gas and electric meters connected to DDC system via pulse initiators with graphical meter screens.
- Monitoring and trending of all utilities.
- Outdoor air monitoring at all ERV's and make-up air locations.

- Demand control ventilation in densely occupied spaces.

## Plumbing

Plumbing systems calculated per Uniform Plumbing Code. Maximum system velocity of 8 feet per second for cold water and 5 feet per second for hot water.

Domestic Water: Potable water will be piped to all plumbing fixtures. Reduced pressure backflow preventers or vacuum breakers will be used where necessary to protect the water supply.

Domestic Building Service: water service main will enter the building to water service entrance. Water service room shall have direct access from exterior of building. Once in water service room a water service meter and duplex reduce pressure backflow preventers will be provided. Pressure reducing valves will be installed if required to excessive incoming water pressure.

Domestic Cold and Hot Water Piping: Type K or L hard-drawn copper with solder joints or pressed fittings above grade. Type K copper tubing or PEX (trap primer lines only) below slab, no joints below slab where possible, brazed joints where necessary.

Soil, Waste, Vent and Storm Drain Piping: Cast iron with no-hub couplings with heavy duty bands.

Roof Drainage: For flat roof areas, interior drainage and overflow piping will be provided.

Domestic Hot Water: Gas storage type water heater, storage at 140° F with mixing valve for distribution at 120° F. In addition to, solar hot water panels will be provided on the roof to capture as much hot water load as possible. Due to limited hot water usage the solar hot water will be a drain back style panel system to allow the system to turn on and off as needed with building load.

Water Heater: Round, glass-lined tank with integral insulation; Natural Gas. Provided with expansion tank, seismic restraint, and recirculation system.

All plumbing piping will be insulated to meet or exceed the minimum values per the Washington State Energy Code. Piping Insulation: Per ASHRAE 90.1.

All domestic water supply piping, valving, stops, and fixtures are lead-free. Valving: Zone valving will be provided to isolate defined plumbing zone throughout the building Valves will also be provided for each toilet room, bank of fixtures and equipment.

Floor drains are provided as required. All floor drains are provided with p-traps and trap primers.

Plumbing Fixtures:

- Staff Water Closets: Wall-mounted; automatic infra-red line voltage flush valve; closed front seat and cover; 1.28 gpf or less.
- Staff Urinals: Wall-mounted; automatic infra-red line voltage flush valve; 0.125 gpf.
- Staff Lavatories: Rectangular or oval; counter-mounted; vitreous china, cast iron, or crosslink acrylic molded counter top with integral bowl; automatic infra-red line voltage faucet.
- Pantry Sink: 302 stainless steel; 20-gauge minimum. Faucet flow rate to be 1.5 gpm or less.
- Mop Sinks: Neo-angle; enameled cast iron; acid resistant; floor-mounted.

- Locking freeze proof wall hydrants. (4) on building exterior

- Resident Water Closets: Floor mounted, back outlet; solid surface, ligature and vandal resistant; integral seat; 1.6 gpf or less.

- Resident Lavatories: Rectangular or oval; wall-mounted; solid surface, ligature and vandal resistant; manual metering pneumatic push button faucet with ligature resistant cover. 0.5 gpm or less.

- Resident Showers: wall controls, tile-up style shower enclosure; wall-mounted; ligature and vandal resistant; break away hand shower. 2.0 gpm or less.

### Fire Protection

General: The facility will be fully sprinkled with a wet pipe sprinkler system, conforming to the latest adopted NFPA standards and local building codes. Heads in areas with finished ceilings will be semi-recessed heads. Heads in mechanical and electrical spaces will be exposed upright or pendant heads. Heads in resident rooms and other resident areas will be anti-ligature type.

PRELIMINARY
HVAC ZONE MAP

*G. Identify planned IT systems that affect the building plans. Coordinate IT requirements with the **Office of the Chief Information Officer (OCIO), including completion of a conceptual review. Some** projects may also be subject to oversight by the OCIO and the Technology Services Board. See RCW 43.88.092, and for higher education, see RCW 43.105.205.*

12.1 INFORMATION TECHNOLOGY PLANNING AND BUDGET REQUESTS

Information technology is a common part of any initiative or investment, and the state recognizes that there is a fundamental difference between standard IT expenditures and IT projects. The Legislature has clearly indicated a desire for transparency in all IT expenditures, yet the degree to which these expenditures will be separately scrutinized will depend on the type and purpose of the investment. Per Chapter 43.105.020 RCW:

"Information technology" includes, but is not limited to, all electronic technology systems and services, automated information handling, system design and analysis, conversion of data, computer programming, information storage and retrieval, telecommunications, requisite system controls, simulation, electronic commerce, radio technologies, and all related interactions between people and machines.

"Telecommunications" includes, but is not limited to, wireless or wired systems for transport of voice, video, and data communications, network systems, requisite facilities, equipment, system controls, simulation, electronic commerce, and all related interactions between people and machines.

For the purposes of IT budgeting, IT expenditures include the following:

- IT hardware (computers, laptops, telephones, servers, networking equipment, etc.)
- Software (licenses, development of custom software)
- IT services (software-as-a-service, infrastructure-as-a-service, platform-as-a-service)
- IT contracts, including quality assurance and independent verification and validation
- IT staff or staff who will be performing IT functions

All decision packages with IT costs must include a completed IT Addendum. The IT Addendum has two parts. Part one is a table in which you will itemize these costs. Part two is three yes/no questions to help the agency, OFM and the OCIO determine whether each decision package constitutes an IT project:

1. Does this decision package fund the development or acquisition of a new or enhanced software or hardware system or service? NO
2. Does this decision package fund the acquisition or enhancements of any agency data centers? (See OCIO Policy 184 for definition.) NO
3. Does this decision package fund the continuation of a project that is, or will be, under OCIO oversight? (See OCIO Policy 121.) NO

If the answer to any of these three questions is "yes," the decision package tentatively qualifies as an IT project/system/investment to be reviewed and prioritized by the OCIO, as required by Chapter 43.88.092 RCW. The OCIO will receive copies of all decision packages with IT costs, and can include or exclude decision packages from its review at its discretion.

*H. Describe planned building commissioning to ensure systems function as designed.*

Building Commissioning is a team effort to ensure that all equipment and systems have been completely and properly installed and put into service. The team is made up of the Commissioning Agent, Owner, A/E, and Contractor. Typical commission scopes of work include:

1. Meeting with the user group to explain the objectives of commissioning and understand the current campus infrastructure, manpower, maintenance capabilities, vendor contracts and existing systems as well as the user group's familiarity with design options to be

considered for the new building.

2. Prepare the commissioning plan and specifications. The plan will define the commissioning requirements to meet LEED goals and WA State Energy Code.
3. Review the construction documents.
4. Integrate commissioning schedule into master construction schedule.
5. Chair a commissioning coordination meeting on-site during construction prior to equipment start-up.
6. Provide construction observation if appropriate.
7. Witness, perform and document equipment start-ups and functional performance tests on equipment and systems per the approved commissioning plan including HVAC testing, adjusting and balancing.
8. Instruct the Owner's facility staff in the proper operation and maintenance of the new systems to sustain optimal performance.

The commissioning process is a complete understanding of mechanical, electrical, safety, and control systems to ensure the owner receives the end product they need and can successfully operate and maintain.

*I. Describe any future phases, plans or other facilities that will affect this project.*

No future phases or plans are firmed up at this time for any additional construction on the CSTC campus that could affect this building. The campus master plan does indicate the construction of another CLIP cottage in the same general area of this proposed new cottage.

*J. Project management and delivery method alternatives considered.*

i. *Identify the proposed project delivery method, such as design-build, phased construction, general contractor / construction manager (GC/CM), or conventional design/bid/build.* ***Justify the proposed method of project delivery, and link the justification for using*** *GC/CM to the requirements in RCW 39.10.340.*

The design-bid-build method is the preferred method for project delivery of this project. This project size, location and construction type should be attractive to the many potential bidders in the region. The anticipated competition among bidders should yield the lowest cost of any contracting method. Awarding public works contracts in lump sum to the lowest responsible bidder is a fair and objective method of selecting a contractor and avoids any issues of favoritism.

*ii. Describe how the project will be managed within the agency:*

*(a) Identify roles and responsibilities for the project.*

Penny Koal, AIA, LEED ap of the Office of Capital Programs, Department of Social & Health Services, Operations Support Services Division, will be the Project Manager responsible for managing the design and construction contract. Penny will also serve as the liason between DSHS stakeholders, the design team and contractor. Penny will also be responsible for the project's budget control and schedule compliance.

***(b) Identify in-house staffing requirements for the proposed project.***

During construction there will need to be an increased presence of security personnel (estimated 0.5 FTE) roving through the area. Carl Gray is anticipated to be the point of contact at CSTC for coordination between the contractor and the staff at CSTC.

Once constructed and operational, the new cottage will be staffed with the same cadre of personnel as the other cottages at CSTC. See section 4Aii for a detailed list of new staff required to operate the cottage.

*(c) Identify consultant services, DES resources, or additional staff needed to manage the project.*

This project may require the following consultant services (typically managed through the Architect as the prime consultant):
Architect
Civil Engineer
Structural Engineer
Mechanical (HVAC and Plumbing) Engineer
Electrical Engineer
Telecommunications / IT Designer
Landscape Architect
Geotechnical Engineer
Security Consultant
Acoustical Consultant
Certified Arborist
Archaeologist
Traffic Engineer
Fire Protection Engineer
Energy Code Consultant
Commissioning Agent
Cost Estimator
LEED Consultant
Building Envelope Air Tightness Testing Consultant
Surveyor
Utility Locating Service
Materials Testing and Special Inspection Service
Testing and Balancing Service
Value Engineering Team
Constructability Review Team
Clerk of the Works

*4K. Project Schedule*

*(i) Provide a high-level milestone schedule for the project, including key dates for budget approval, design, bid, acquisition, construction, equipment installation, testing, occupancy, and full operation.*

| | |
|---|---|
| 10/21/2016 | Predesign Complete |
| 11/1/2016 - 12/1/2016 | Site Investigations and Testing<br>Utility Locating / Inspection<br>Geotechnical Investigation<br>Site Survey<br>Archaeology Survey / Report |
| 11/1/2016 – 1/11/2017 | Schematic Design Phase<br>Design/Drawings<br>ELCCA / LCCA<br>Value Engineering Review<br>Cost Estimate<br>Owner Review / Approval |
| 12/1/2016 – 4/15/2017 | Land Use Planning Process |
| 1/11/2017 – 4/12/2017 | Design Development Phase<br>Design/Drawings<br>LEED Update<br>State Facilities Accessibility Committee Review<br>Bid Alternates<br>Cost Estimate<br>Owner Review / Approval |
| 4/12/2017 – 7/26/2017 | Construction Documents<br>Drawings<br>Project Manual /Specs<br>Constructability Review<br>Cost Estimate |
| 6/7/2017 – 7/12/2017 | Owner / Agency Reviews |
| 7/1/2017 – 7/25/2017 | Funding Approval For Construction |
| 7/27/2017 – 8/24/2017 | Bidding |
| 9/1/2017 – 9/18/2017 | Bid Award |
| 10/2/2017 – 10/2/2018 | Construction |
| 10/2/2018 – 11/15/2018 | Construction Float Time Built Into Schedule |
| 11/15/2018 – 1/3/2019 | Install Furnishings & Supplies, DOH Licensing, Staff Hiring & Training, Building Shakedown |
| 1/3/2019 | Patient Occupancy Begins |

*(ii) Incorporate value-engineering analysis and constructability review into the project schedule, as required by RCW 43.88.110(5)(c).*

The Value Engineering analysis is proposed to occur at the end of the Schematic Design Phase or at the start of the Design Development Phase. The Constructability Review is proposed to occur near the end of the Construction Documents Phase unless requested otherwise by the Office of Capital Programs Project Manager. An in-house Quality Assurance Review should be conducted by senior staff of the A/E team prior to the review by the independent Constructability Review Team.

*(iii) Describe factors that may delay the project schedule, such as an environmentally sensitive location, possible presence of archaeological or historical assets, or possible contamination of the site or buildings undergoing renovation.*

Other than the historic oak trees, environmentally sensitive issues are not known to exist at the site.

Contamination is not known to exist at the site.

It is known that there is a possible presence of archaeological and historical assets at the site. Time for an archaeological survey and construction float time has been identified in the proposed project schedule to account for possible delays due to discovery of archaeological/historical assets.

*(iv) Describe the permitting or local government ordinances or neighborhood issues (such as location or parking compatibility) that could affect the schedule.*

The time required for the land use actions required by the City of Lakewood are included in the schedule. Since the construction funding will not be approved before July 2018, there is adequate time to complete the design and the required land use actions prior to being able to proceed with bidding the project assuming the design and land use approval process commencing in the fall of 2016. At this time no controversial land use planning issues have been identified that could affect the CSTC CLIP Expansion project. The City of Lakewood has made it known that an update to the WSH/CSTC Campus Master Plan needs to be submitted to the City in the near future. Until design documents can be shown to the city, no firm understanding of what conditions, if any, the city may impose on the project, will be accomplished.

*(v) Identify when the local jurisdiction will be contacted and whether community stakeholder meetings are part of the process.*

The process of submitting the required land use planning action to the City of Lakewood will start during the Schematic Design Phase and is expected to take 4-6 months to complete. Community notices/meetings are expected to occur as part of the land use approval process.

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# TAB - Section 5

# TAB - Section 5

# Section 5 - Project Budget Analysis for the Preferred Alternative

*5A. Cost Estimate*

*Provide the following:*

*i. Major assumptions used in preparing the cost estimate.*

1. All normally occupied spaces will be on a single level with ADA accessibility throughout with slab on grade construction.
2. Anti-Ligature products and design strategies will be used at all area accessed by patients.
3. Existing campus utilities (water, sewer, electricity, gas, telecom) are believed to have adequate capacity to serve the new building.
4. The presence of contamination in the soil is not anticipated.
5. The presence of large amounts of fill materials unsuitable for supporting a new structure are not anticipated.
6. The presence of a significant amount of archeological artifacts in the proposed area of ground disturbance is not anticipated.
7. The exterior character of the design will be compatible with the existing CSTC campus architecture.
8. The project will achieve a LEED silver certification (note that there are higher initial costs and design fees required to achieve the long term benefits of LEED).
9. Compliance with the most current codes and licensing requirements.
10. The use of durable materials will be required due to the heavy 24/7 use of the building and the abuse of the building by the building occupants with significant psychiatric conditions.
11. Daylighting is an essential component of a therapeutic environment.
12. A homelike environment (to the extent possible) is an essential component of a therapeutic environment.
13. Safety and Security design is essential for both the staff and the patients.
14. Screening patients from any interaction with the public and patient privacy is required.
15. Noise is not therapeutic. Noise reduction and acoustical privacy measures will be essential for patient privacy and for a therapeutic environment (reduce agitation).

**The attached diagrams describe the typical type of construction materials, finishes, equipment,** specialties anticipated.

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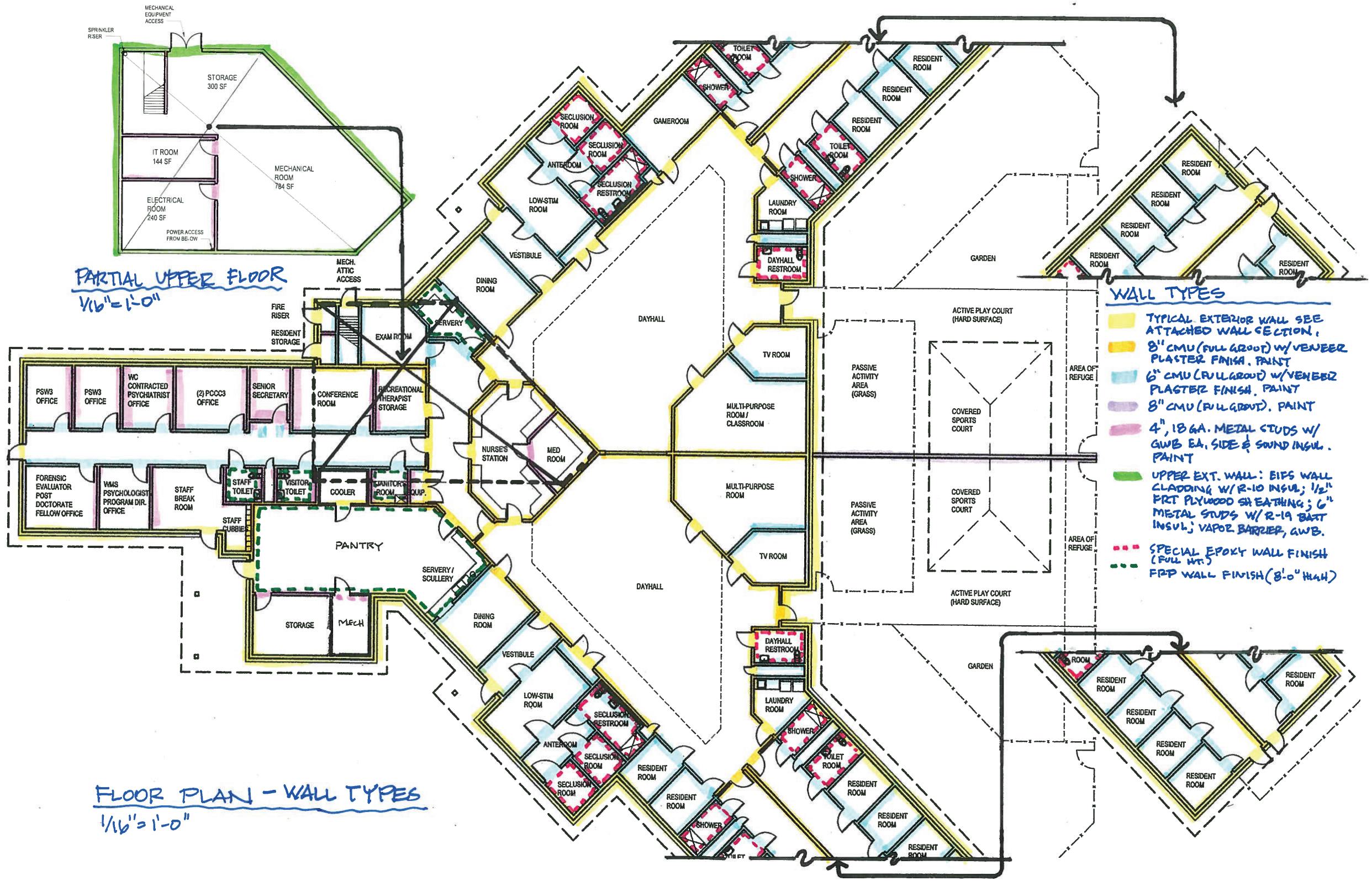
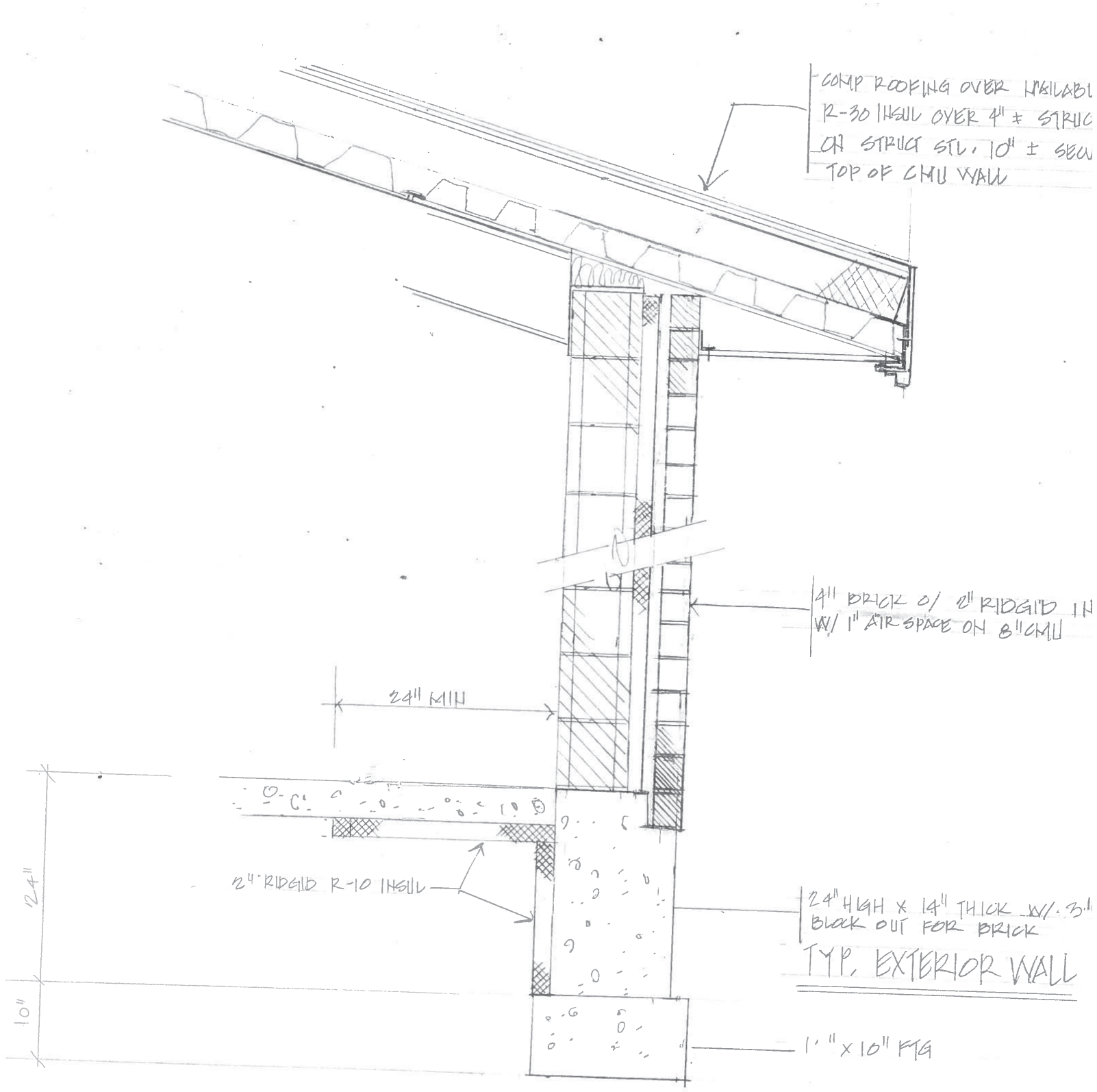
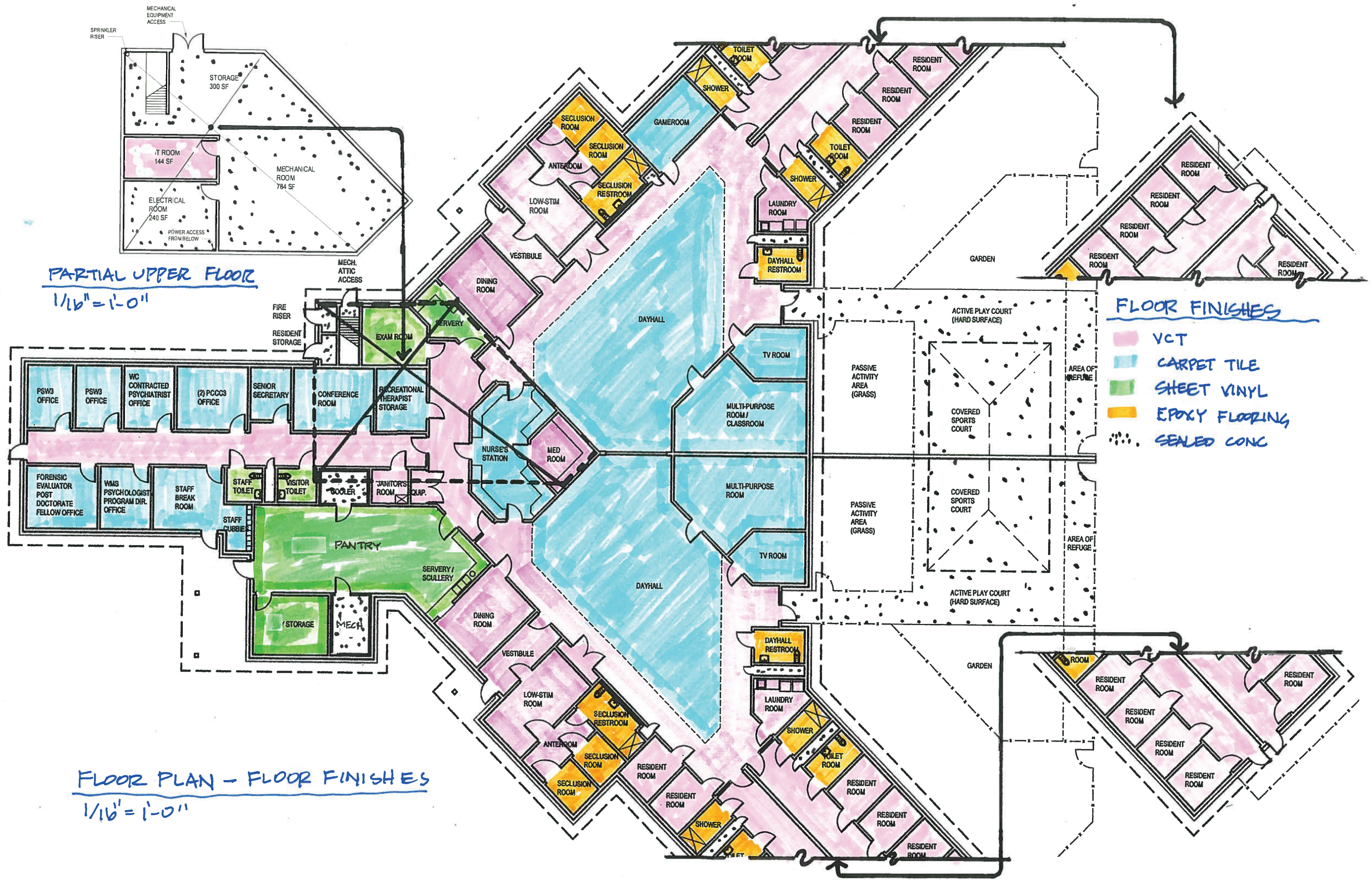
# Pre-Design Project Diagrams


MECHANICAL EQUIPMENT ACCESS
SPRINKLER RISER
STORAGE 300 SF
IT ROOM 144 SF
MECHANICAL ROOM 784 SF
ELECTRICAL ROOM 240 SF
POWER ACCESS FROM BELOW
PARTIAL UPPER FLOOR
1/16"=1'-0"
MECH. ATTIC ACCESS
FIRE RISER
RESIDENT STORAGE
EXAM ROOM
SERVERY
DINING ROOM
VESTIBULE
LOW-STIM ROOM
ANTEROOM
SECLUSION ROOM
SECLUSION RESTROOM
GAMEROOM
SHOWER
TOILET ROOM
RESIDENT ROOM
LAUNDRY ROOM
DAYHALL RESTROOM
DAYHALL
GARDEN
ACTIVE PLAY COURT (HARD SURFACE)
TV ROOM
PASSIVE ACTIVITY AREA (GRASS)
MULTI-PURPOSE ROOM / CLASSROOM
COVERED SPORTS COURT
AREA OF REFUGE
NURSE'S STATION
MED ROOM
PSW3 OFFICE
PSW3 OFFICE
WC CONTRACTED PSYCHIATRIST OFFICE
(2) PCCC3 OFFICE
SENIOR SECRETARY
CONFERENCE ROOM
RECREATIONAL THERAPIST STORAGE
FORENSIC EVALUATOR POST DOCTORATE FELLOW OFFICE
WMS PSYCHOLOGIST PROGRAM DIR. OFFICE
STAFF BREAK ROOM
STAFF TOILET
VISITOR TOILET
COOLER
JANITOR'S ROOM
EQUIP.
STAFF CUBBIES
PANTRY
SERVERY / SCULLERY
STORAGE
MECH
WALL TYPES
TYPICAL EXTERIOR WALL SEE ATTACHED WALL SECTION.
8" CMU (FULL GROUT) W/ VENEER PLASTER FINISH. PAINT
6" CMU (FULL GROUT) W/ VENEER PLASTER FINISH. PAINT
8" CMU (FULL GROUT). PAINT
4", 18 GA. METAL STUDS W/ GWB EA. SIDE & SOUND INSUL. PAINT
UPPER EXT. WALL: EIFS WALL CLADDING W/ R-10 INSUL; 1/2" PRT PLYWOOD SHEATHING; 6" METAL STUDS W/ R-19 BATT INSUL; VAPOR BARRIER, GWB.
SPECIAL EPOXY WALL FINISH (FULL HT.)
FRP WALL FINISH (8'-0" HIGH)
FLOOR PLAN - WALL TYPES
1/16"=1'-0"


COMP ROOFING OVER MAILABL
R-30 INSUL OVER 4" ± STRUC
ON STRUCT STL. 10" ± SECU
TOP OF CMU WALL
4" BRICK O/ 2" RIDGID IN
W/ 1" AIR SPACE ON 8" CMU
24" MIN
24"
2" RIDGID R-10 INSUL
24" HIGH X 14" THICK W/ 3
BLACK OUT FOR BRICK
TYP. EXTERIOR WALL
10"
1'-" X 10" FTG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PARTIAL UPPER FLOOR
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WMS PSYCHOLOGIST PROGRAM DIR. OFFICE
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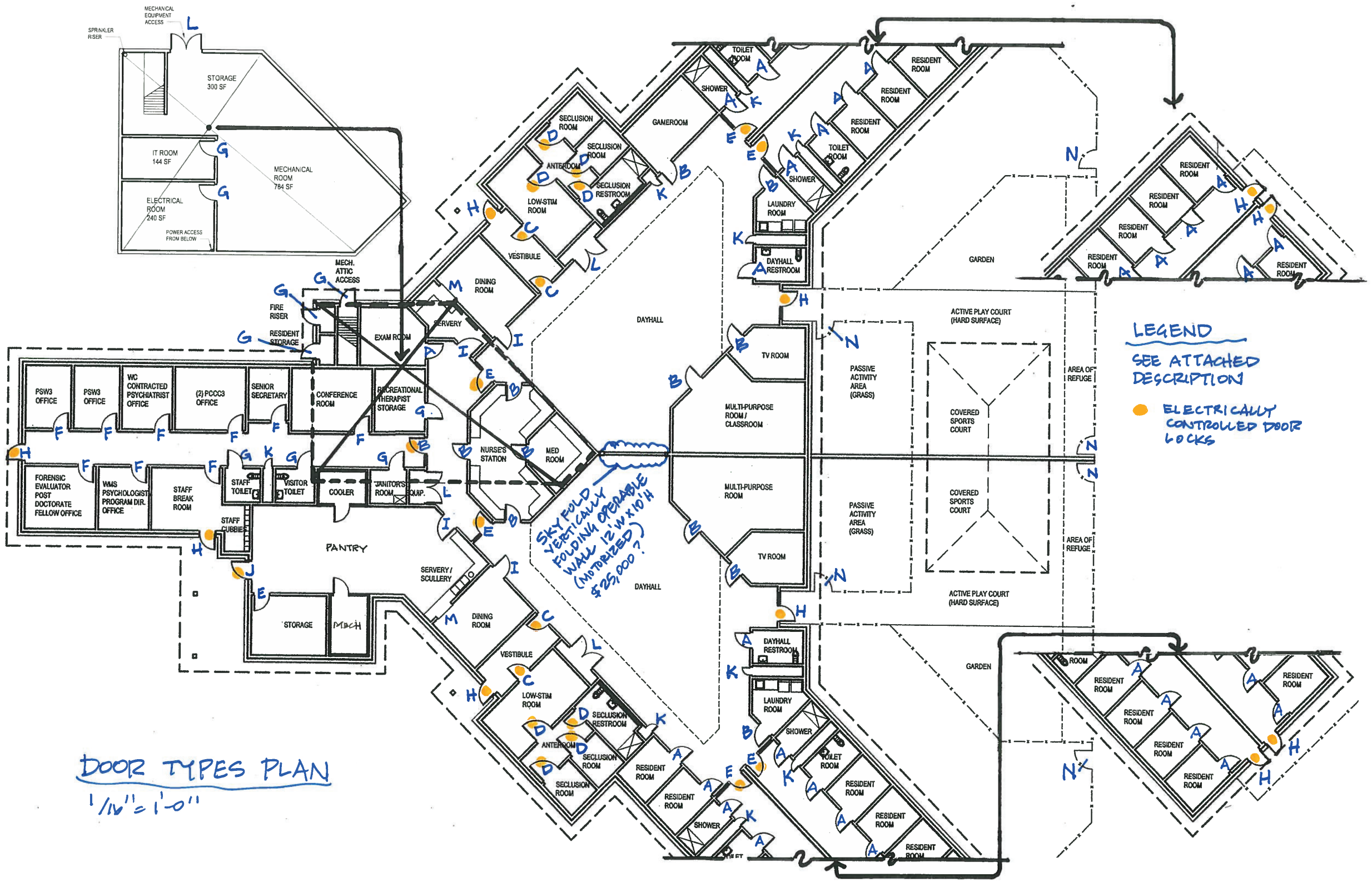
STAFF TOILET
VISITOR TOILET
BOILER
JANITOR'S ROOM
EQUIP.
STAFF CUBBIES
PANTRY
SERVERY / SCULLERY
STORAGE
MECH.
FLOOR PLAN - FLOOR FINISHES
1/16" = 1'-0"
FLOOR FINISHES
VCT
CARPET TILE
SHEET VINYL
EPOXY FLOORING
SEALED CONC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EQUIP.
STAFF CUBBIE
PANTRY
SERVERY / SCULLERY
STORAGE
MECH
NURSE'S STATION
MED ROOM
SKY FOLD VERTICALLY FOLDING OPERABLE WALL 12'W x 10'H (MOTORIZED) $25,000 ?
LEGEND
SEE ATTACHED DESCRIPTION
ELECTRICALLY CONTROLLED DOOR LOCKS
DOOR TYPES PLAN
1/16" = 1'-0"

# DOORS

A. (28) 3'-0" x 7'-0" 14 GAUGE H.M. DOOR W/ TYPICAL STANLEY MECHANICAL ANTI-LIGATURE LOCKSET, W/ KINGSWAY GROUP SPECIAL VISION PANEL ($1,000 + INSTALLATION).

B. (12) 3'-0" x 7'-0", 14 GAUGE, H.M. DOOR W/ TYPICAL STANLEY MECHANICAL ANTI-LIGATURE LOCKSET, W/ TOP HALF VISION PANEL W/ 1/2" TEMPERED LAMINATED GLASS.

C. (4) 4'-0" x 7'-0", 14 GAUGE, H.M. DOOR W/ STANLEY ELECTRIC LOCK (ANTI-LIGATURE), W/ KINGSWAY GROUP SPECIAL VISION PANEL.

D. (8) 4'-0" x 7'-0", 12 GAUGE SECURITY HOLLOW METAL W/ BRINK SECURITY ELECTRO-MECH. DETENTION JAMB LOCK, W/ KINGSWAY GROUP SPECIAL VISION PANEL.

E. (7) 3'-6" x 7'-0", 14 GAUGE, H.M. DOOR W/ TYPICAL STANLEY ~~MECHANICAL ANTI-~~ ELECTRIC ANTI-LIGATURE LOCKSET, W/ TOP HALF VISION PANEL W/ 1/2" TEMPERED LAMINATED GLASS.

F. (9) 3'-0" x 7'-0", 16 GAUGE, H.M. DOOR W/ STANLEY STANDARD MORTISE LOCKSET, W/ TOP HALF VISION PANEL W/ 1/4" TEMPERED GLASS.

G. (9) 3'-0" x 7'-0", 16 GAUGE, H.M. DOOR W/O VISION PANEL, W/ STANLEY STANDARD MORTISE LOCKSET.

H. (10) 3'-0" x 7'-0", 14 GAUGE, INSULATED H.M. DOOR W/ TYPICAL STANLEY ELECTRIC ANTI-LIGATURE LOCKSET W/ TOP HALF VISION PANEL W/ SPECIAL INSULATED SECURITY GLASS.

I. (4) 3'-6" x 7'-0", 14 GAUGE, H.M. DOOR W/ TYPICAL STANLEY MECHANICAL ANTI-LIGATURE LOCKSET, W/ TOP HALF VISION PANEL W/ 1/2" TEMPERED LAMINATED GLASS.

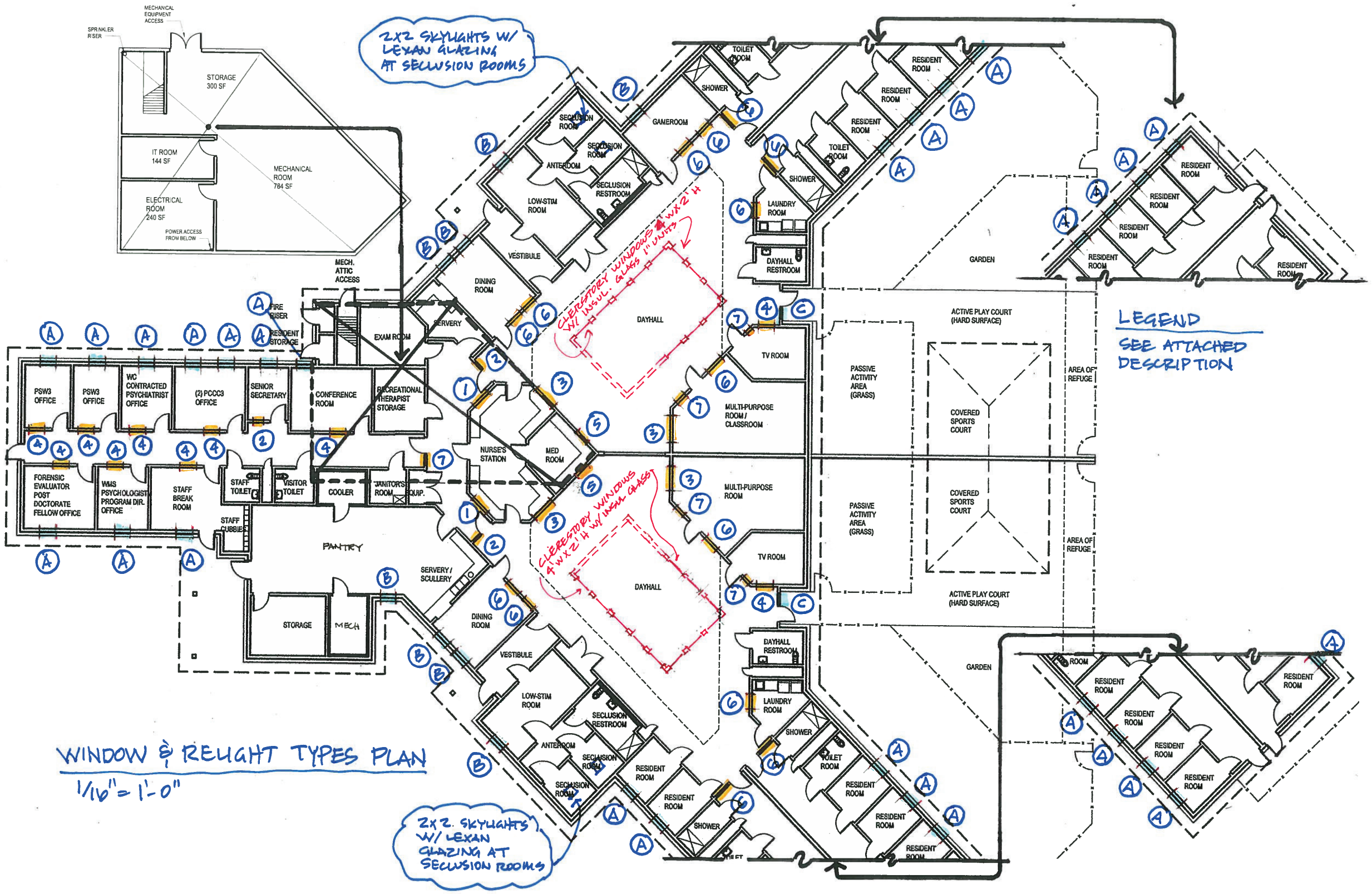
J. (1) 3'-6" x 7'-0", 14 GAUGE, INSULATED H.M. DOOR W/ TYPICAL STANLEY ELECTRIC LOCKET (NOT ANTI-LIGATURE), W/ TOP HALF VISION PANEL W/ SPECIAL INSULATED SECURITY GLASS.

K. (9) 1'-6" x 5'-0", 16 GAUGE, H.M. PLUMBING CHASE DOOR W/ DEADBOLT TUBULAR LOCK. RECESSED PULL

L. (3) PR. 3'-0" x 7'-0", 16 GAUGE, H.M. DOORS W/ DEAD BOLT TUBULAR LOCK, RECESSED PULL, HEAD & FOOT BOLTS @ INACTIVE LEAF.

M. (2) 3'-0" x 4'-0" OVERHEAD COILING COUNTER SHUTTER, MANUAL, STAINLESS STEEL FINISH.

N. (6) 4'-0" x 7'-0" CHAIN LINK GATE W/ TYPICAL STANLEY MORTISE LOCKSET (NOT ANTI-LIGATURE) WITH MOUNTING BOX


2x2 SKYLIGHTS W/ LEXAN GLAZING AT SECLUSION ROOMS
MECHANICAL EQUIPMENT ACCESS
SPRINKLER RISER
STORAGE 300 SF
IT ROOM 144 SF
MECHANICAL ROOM 784 SF
ELECTRICAL ROOM 240 SF
POWER ACCESS FROM BELOW
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SECLUSION RESTROOM
GAMEROOM
NURSE'S STATION
MED ROOM
DAYHALL
CLERESTORY WINDOWS 4'W X 2'H W/ INSUL. GLASS 1" UNITS
CLERESTORY WINDOWS 4'W X 2'H W/ INSUL. GLASS
TOILET ROOM
SHOWER
RESIDENT ROOM
LAUNDRY ROOM
DAYHALL RESTROOM
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MULTI-PURPOSE ROOM / CLASSROOM
MULTI-PURPOSE ROOM
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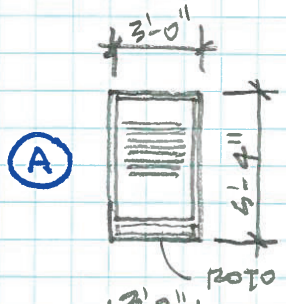
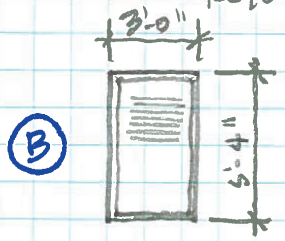
AREA OF REFUGE
LEGEND
SEE ATTACHED DESCRIPTION
WINDOW & RELIGHT TYPES PLAN
1/16" = 1'-0"
2x2 SKYLIGHTS W/ LEXAN GLAZING AT SECLUSION ROOMS

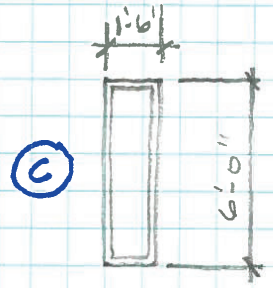
# WINDOWS




SPECIAL DUAL GLAZED ~~ALUMINUM~~ HEAVY COMMERCIAL ALUMINUM WINDOW WITH INTERNAL BLINDS & ROTO VENT. SECURITY GLAZING AT INTERIOR PANE (1/2" TEMPERED LAMINATED GLASS)

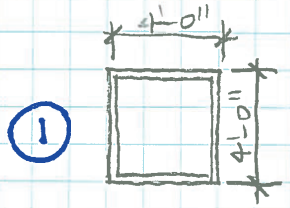



SPECIAL DUAL GLAZED ~~ALUMINUM~~ HEAVY COMMERCIAL ALUMINUM WINDOW WITH INTERNAL BLINDS. SECURITY GLAZING AT INTERIOR PANE (1/2" TEMPERED LAMINATED GLASS)

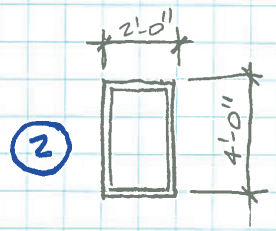



THERMALLY BROKEN HOLLOW METAL FRAME WITH SPECIAL INSULATED SECURITY GLAZING.

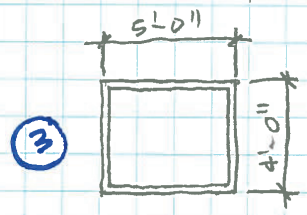
# RELIGHTS



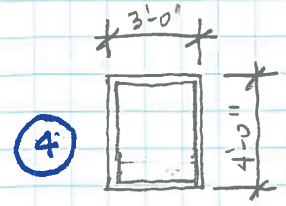

HOLLOW METAL W/ 1/2" TEMPERED LAMINATED GLASS.




HOLLOW METAL W/ 1/2" TEMPERED LAMINATED GLASS.

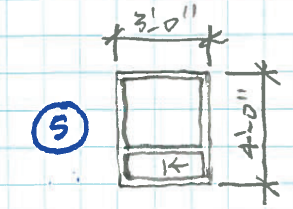



HOLLOW METAL W/ 1/2" TEMPERED LAMINATED GLASS.

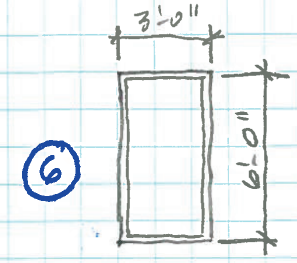



# RELIGHTS CONT.

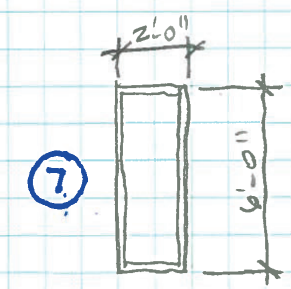
HOLLOW METAL W/ 1/2" TEMPERED LAMINATED GLASS.



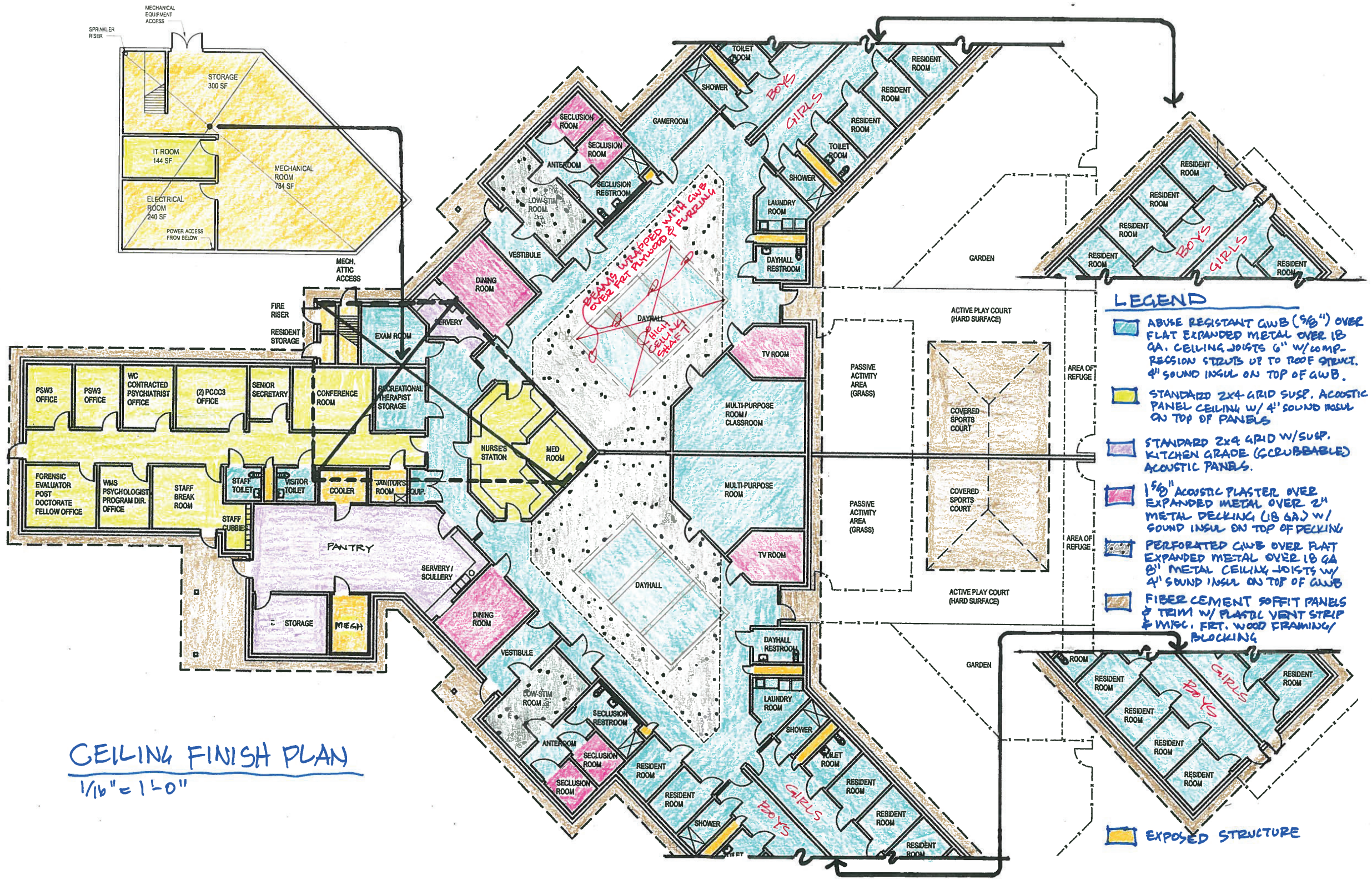

HOLLOW METAL W/ 1/2" TEMPERED LAMINATED GLASS + HORIZONTAL SLIDING PASS AT BOTTOM (1/4" LEXAN SLIDING PANELS, TRACK, LOCK).




HOLLOW METAL W/ 1/2" TEMPERED LAMINATED GLASS.

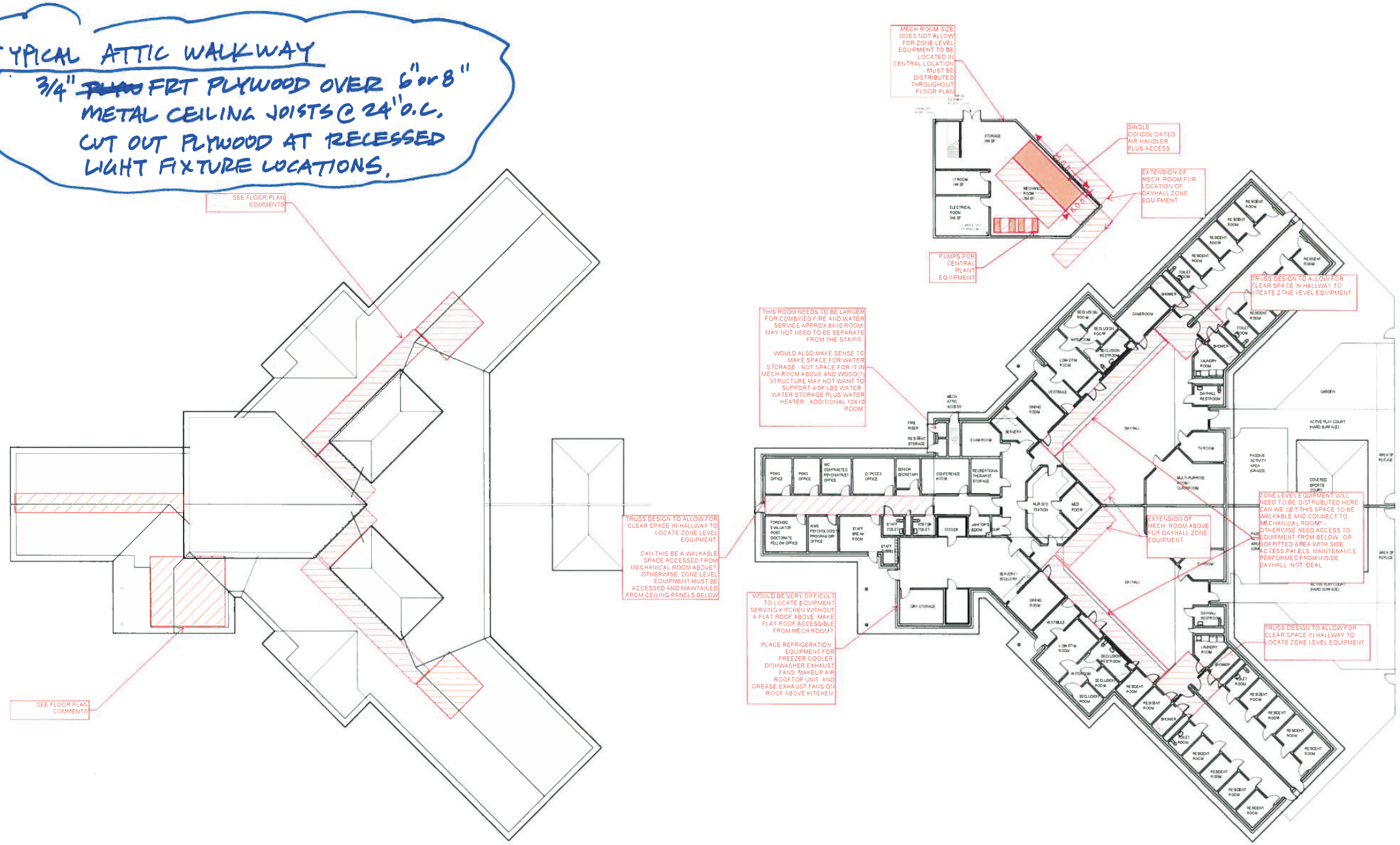



HOLLOW METAL W/ 1/2" TEMPERED LAMINATED GLASS.

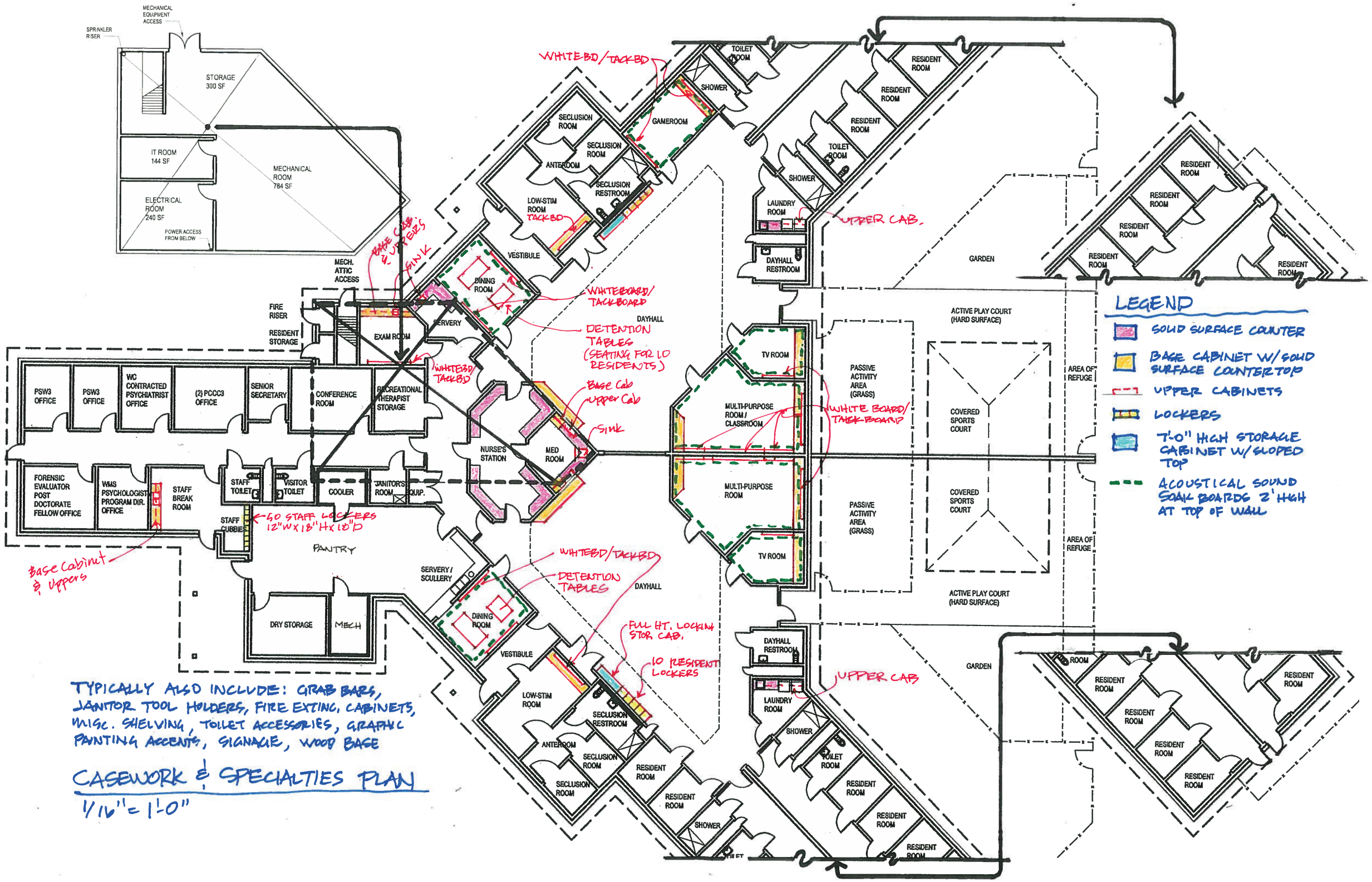


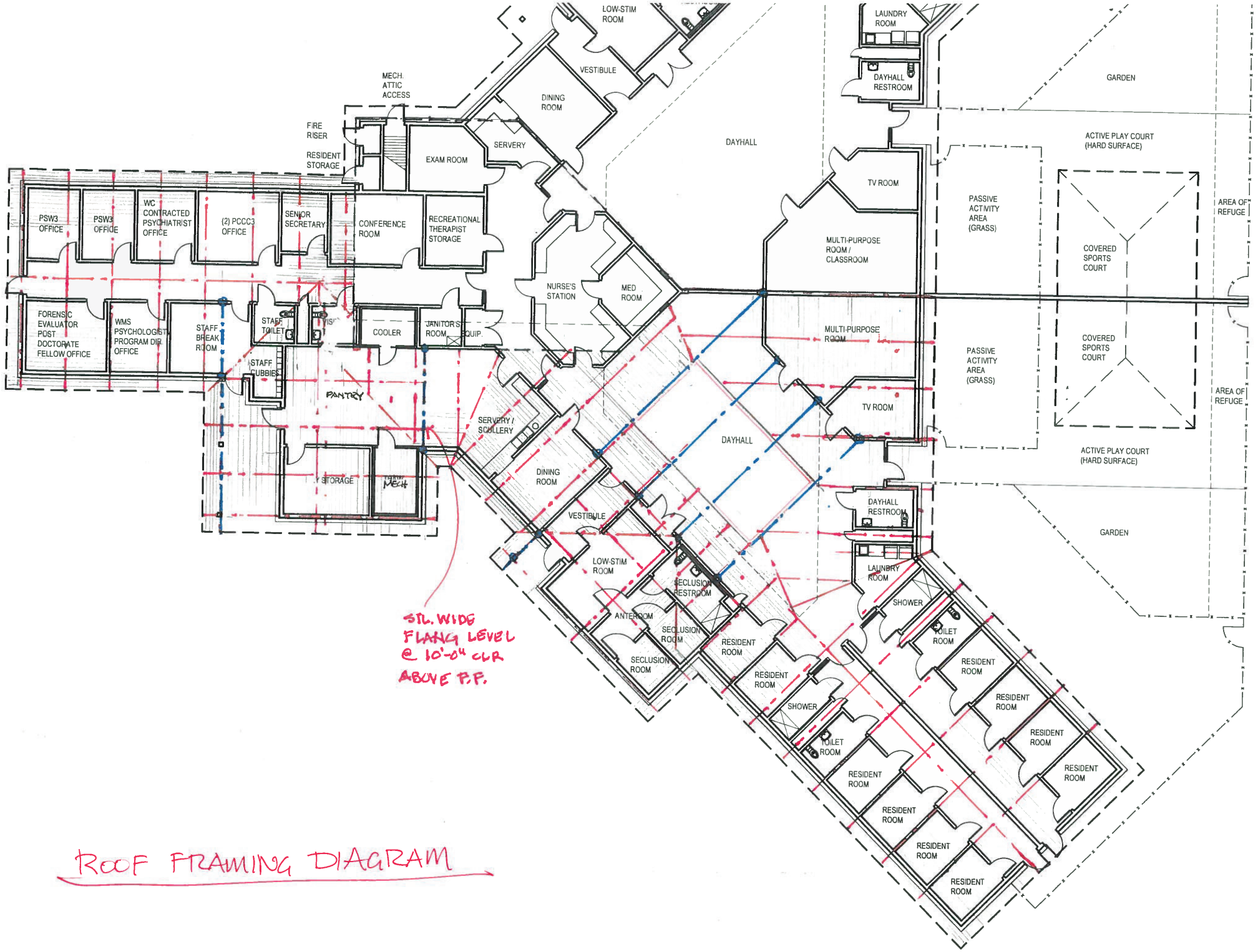

CEILING FINISH PLAN
1/16" = 1'-0"

TYPICAL ATTIC WALKWAY
3/4" ~~PLWD~~ FRT PLYWOOD OVER 6" or 8" METAL CEILING JOISTS @ 24" O.C.
CUT OUT PLYWOOD AT RECESSED LIGHT FIXTURE LOCATIONS.




ATTIC ACCESS WALKING PLATFORM PLAN
NO SCALE


MECHANICAL EQUIPMENT ACCESS
SPRINKLER RISER
STORAGE 300 SF
IT ROOM 144 SF
MECHANICAL ROOM 784 SF
ELECTRICAL ROOM 240 SF
POWER ACCESS FROM BELOW
MECH. ATTIC ACCESS
FIRE RISER
RESIDENT STORAGE
EXAM ROOM
SERVERY
DINING ROOM
VESTIBULE
DAYHALL
SECLUSION ROOM
SECLUSION ROOM
ANTEROOM
SECLUSION RESTROOM
GAMEROOM
TOILET ROOM
SHOWER
LOW-STIM ROOM
TACKBD
LAUNDRY ROOM
DAYHALL RESTROOM
RESIDENT ROOM
GARDEN
WHITEBD/TACKBD
BASE CAB & UPPERS
SINK
WHITEBOARD/ TACKBOARD
DETENTION TABLES (SEATING FOR 10 RESIDENTS)
Base Cab
Upper Cab
Sink
UPPER CAB.
ACTIVE PLAY COURT (HARD SURFACE)
AREA OF REFUGE
PSW3 OFFICE
PSW3 OFFICE
WC CONTRACTED PSYCHIATRIST OFFICE
(2) PCCC3 OFFICE
SENIOR SECRETARY
CONFERENCE ROOM
RECREATIONAL THERAPIST STORAGE
FORENSIC EVALUATOR POST DOCTORATE FELLOW OFFICE
WMS PSYCHOLOGIST PROGRAM DIR. OFFICE
STAFF BREAK ROOM
STAFF TOILET
VISITOR TOILET
COOLER
JANITOR'S ROOM
EQUIP.
STAFF CUBBIES
50 STAFF LOCKERS 12"W x 18"H x 18"D
PANTRY
Base cabinet & uppers
NURSE'S STATION
MED ROOM
TV ROOM
MULTI-PURPOSE ROOM / CLASSROOM
PASSIVE ACTIVITY AREA (GRASS)
COVERED SPORTS COURT
SERVERY / SCULLERY
DRY STORAGE
MECH
WHITEBD/TACKBD
DETENTION TABLES
FULL HT. LOCKING STOR. CAB.
10 RESIDENT LOCKERS
UPPER CAB
TYPICALLY ALSO INCLUDE: GRAB BARS, JANITOR TOOL HOLDERS, FIRE EXTING. CABINETS, MISC. SHELVING, TOILET ACCESSORIES, GRAPHIC PAINTING ACCENTS, SIGNAGE, WOOD BASE
CASEWORK & SPECIALTIES PLAN
1/16"= 1'-0"
LEGEND
SOLID SURFACE COUNTER
BASE CABINET W/ SOLID SURFACE COUNTERTOP
UPPER CABINETS
LOCKERS
7'-0" HIGH STORAGE CABINET W/ SLOPED TOP
ACOUSTICAL SOUND SOAK BOARDS 2' HIGH AT TOP OF WALL


LOW-STIM ROOM
VESTIBULE
MECH. ATTIC ACCESS
FIRE RISER
RESIDENT STORAGE
DINING ROOM
SERVERY
EXAM ROOM
DAYHALL
LAUNDRY ROOM
DAYHALL RESTROOM
GARDEN
ACTIVE PLAY COURT (HARD SURFACE)
TV ROOM
PASSIVE ACTIVITY AREA (GRASS)
AREA OF REFUGE
COVERED SPORTS COURT
MULTI-PURPOSE ROOM / CLASSROOM
PSW3 OFFICE
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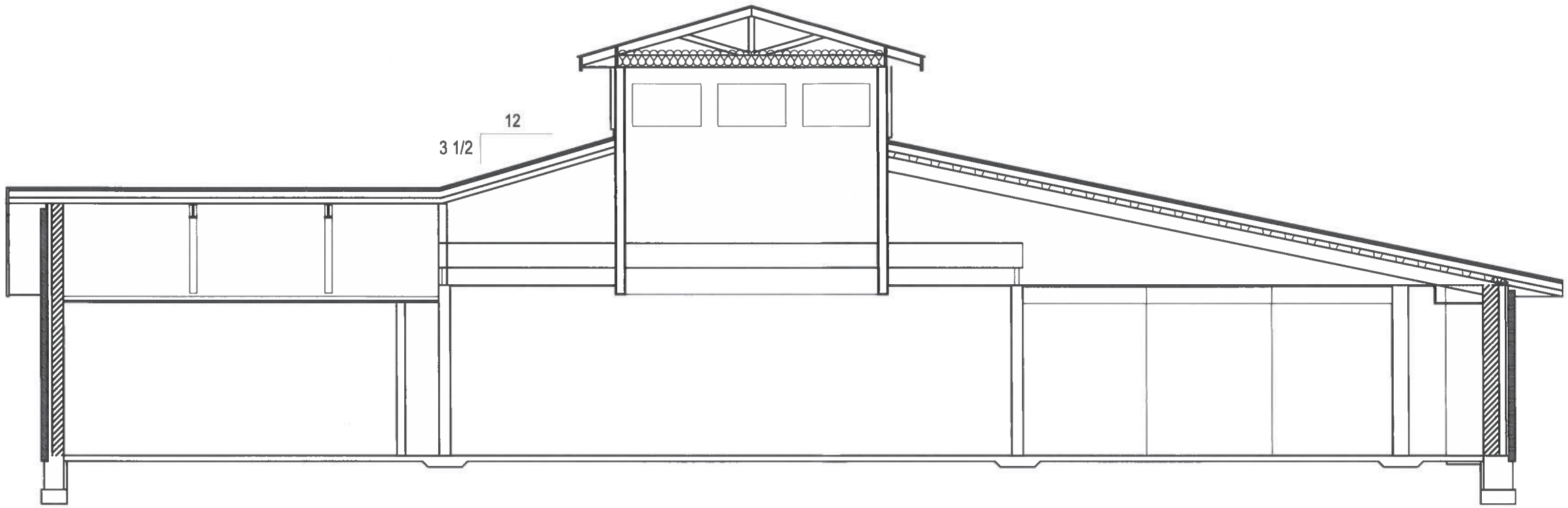
EQUIP.
PANTRY
SERVERY / SCULLERY
STORAGE
MECH.
DINING ROOM
VESTIBULE
LOW-STIM ROOM
SECLUSION RESTROOM
ANTEROOM
SECLUSION ROOM
SECLUSION ROOM
RESIDENT ROOM
RESIDENT ROOM
SHOWER
TOILET ROOM
RESIDENT ROOM
RESIDENT ROOM
SHOWER
TOILET ROOM
RESIDENT ROOM
RESIDENT ROOM
RESIDENT ROOM
RESIDENT ROOM
RESIDENT ROOM
RESIDENT ROOM
STL. WIDE FLANG LEVEL @ 10'-0" CLR ABOVE F.F.
ROOF FRAMING DIAGRAM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3 1/2


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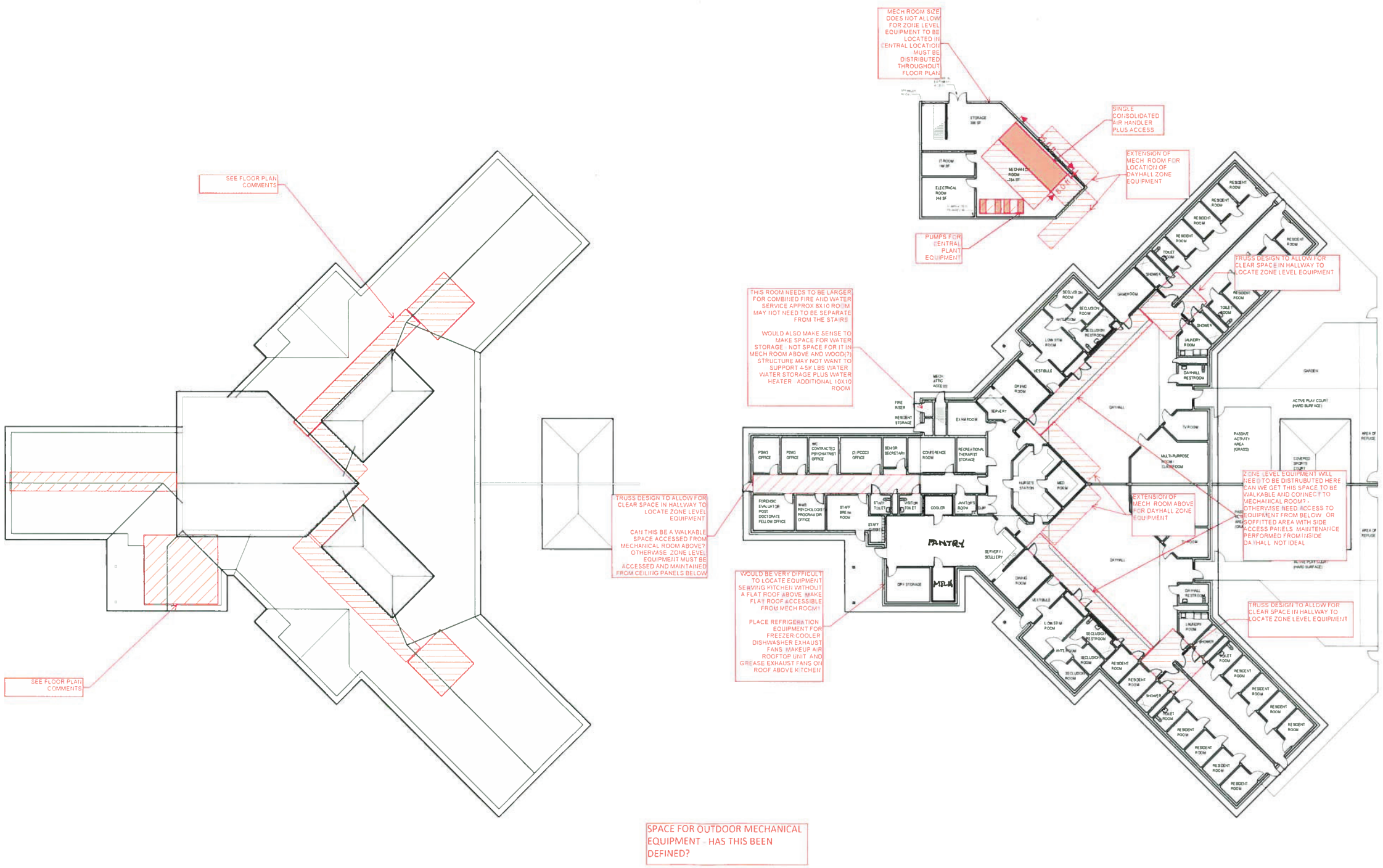
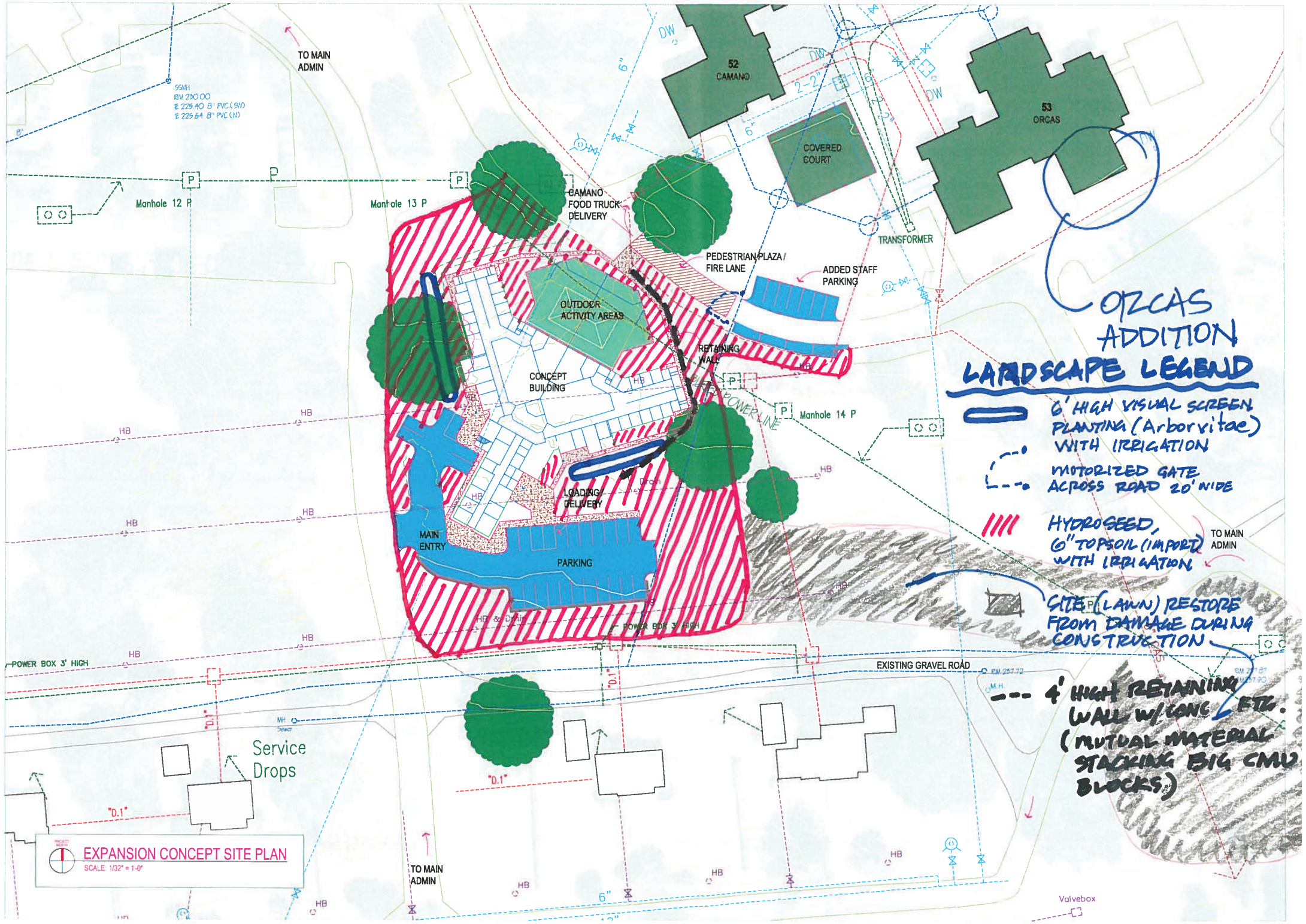

SEE FLOOR PLAN COMMENTS
SEE FLOOR PLAN COMMENTS
TRUSS DESIGN TO ALLOW FOR CLEAR SPACE IN HALLWAY TO LOCATE ZONE LEVEL EQUIPMENT
CAN THIS BE A WALKABLE SPACE ACCESSED FROM MECHANICAL ROOM ABOVE? OTHERWISE ZONE LEVEL EQUIPMENT MUST BE ACCESSED AND MAINTAINED FROM CEILING PANELS BELOW
MECH ROOM SIZE DOES NOT ALLOW FOR ZONE LEVEL EQUIPMENT TO BE LOCATED IN CENTRAL LOCATION - MUST BE DISTRIBUTED THROUGHOUT FLOOR PLAN
SINGLE CONSOLIDATED AIR HANDLER PLUS ACCESS
EXTENSION OF MECH ROOM FOR LOCATION OF DAYHALL ZONE EQUIPMENT
PUMPS FOR CENTRAL PLANT EQUIPMENT
THIS ROOM NEEDS TO BE LARGER FOR COMBINED FIRE AND WATER SERVICE APPROX 8X10 ROOM MAY NOT NEED TO BE SEPARATE FROM THE STAIRS
WOULD ALSO MAKE SENSE TO MAKE SPACE FOR WATER STORAGE - NOT SPACE FOR IT IN MECH ROOM ABOVE AND WOOD(?) STRUCTURE MAY NOT WANT TO SUPPORT 4-5K LBS WATER WATER STORAGE PLUS WATER HEATER - ADDITIONAL 10X10 ROOM
WOULD BE VERY DIFFICULT TO LOCATE EQUIPMENT SERVING KITCHEN WITHOUT A FLAT ROOF ABOVE. MAKE FLAT ROOF ACCESSIBLE FROM MECH ROOM!!
PLACE REFRIGERATION EQUIPMENT FOR FREEZER/COOLER, DISHWASHER EXHAUST FANS, MAKEUP AIR ROOFTOP UNIT AND GREASE EXHAUST FANS ON ROOF ABOVE KITCHEN
EXTENSION OF MECH ROOM ABOVE FOR DAYHALL ZONE EQUIPMENT
TRUSS DESIGN TO ALLOW FOR CLEAR SPACE IN HALLWAY TO LOCATE ZONE LEVEL EQUIPMENT
ZONE LEVEL EQUIPMENT WILL NEED TO BE DISTRIBUTED HERE CAN WE GET THIS SPACE TO BE WALKABLE AND CONNECT TO MECHANICAL ROOM? - OTHERWISE NEED ACCESS TO EQUIPMENT FROM BELOW OR SOFFITTED AREA WITH SIDE ACCESS PANELS MAINTENANCE PERFORMED FROM INSIDE DAYHALL NOT IDEAL
TRUSS DESIGN TO ALLOW FOR CLEAR SPACE IN HALLWAY TO LOCATE ZONE LEVEL EQUIPMENT
SPACE FOR OUTDOOR MECHANICAL EQUIPMENT - HAS THIS BEEN DEFINED?


TO MAIN ADMIN
52 CAMANO
53 ORCAS
COVERED COURT
CAMANO FOOD TRUCK DELIVERY
TRANSFORMER
PEDESTRIAN PLAZA / FIRE LANE
ADDED STAFF PARKING
OUTDOOR ACTIVITY AREAS
RETAINING WALL
CONCEPT BUILDING
Manhole 12 P
Manhole 13 P
Manhole 14 P
LOADING / DELIVERY
MAIN ENTRY
PARKING
POWER BOX 3' HIGH
EXISTING GRAVEL ROAD
Service Drops
TO MAIN ADMIN
Valvebox
EXPANSION CONCEPT SITE PLAN
SCALE: 1/32" = 1'-0"
ORCAS ADDITION
LANDSCAPE LEGEND
6' HIGH VISUAL SCREEN PLANTING (Arborvitae) WITH IRRIGATION
MOTORIZED GATE ACROSS ROAD 20' WIDE
HYDROSEED, 6" TOPSOIL (IMPORT) WITH IRRIGATION
SITE (LAWN) RESTORE FROM DAMAGE DURING CONSTRUCTION
4' HIGH RETAINING WALL W/ CONC. FTG. (MUTUAL MATERIAL STACKING BIG CMU BLOCKS)

*ii. Summary table of Uniformat II Level 2 cost estimates.*

SUMMARY
*Uniformat II - Level 2*

| | |
|---|---|
| Project | **CSTC CLIP EXPANSION** |
| Location | Lakewood, WA |
| Architect | KMB Architects |
| Estimator | J B Iringan Consulting |
| Design Phase | Pre-Design Estimate |
| Date: | 9/6/2016 |

| Item/Description | | | | TOTAL |
|---|---|---|---|---|
| A. Substructure | | | | |
| A10. Foundations (Footings & Slab on Grade) | | | | 294,579 |
| B. Shell | | | | |
| B10. Superstructure (Floor & Roof Framing) | | | | 405,626 |
| B20. Exterior Enclosure | | | | 658,187 |
| B30. Roofing | | | | 278,561 |
| C. Interiors | | | | |
| C10. Interior Construction (Partitions, Doors & Fittings) | | | | 927,114 |
| C20. Stairs | | | | 7,500 |
| C30. Interior Finishes (Wall, Floor & Ceiling) | | | | 333,853 |
| D. Services | | | | |
| D10. Conveying Systems | | | | 0 |
| D20. Plumbing | | | | 358,651 |
| D30. HVAC | | | | 1,034,261 |
| D40. Fire Protection | | | | 109,440 |
| D50. Electrical | | | | 839,375 |
| E. Equipment & Furnishings | | | | |
| E10. Equipment | | | | 168,871 |
| E20. Furnishings | | | | 9,984 |
| F. Special Construction & Demolition | | | | |
| F10. Special Construction | | | | 0 |
| F20. Selective Building Demolition | | | | 0 |
| G. Building Sitework | | | | |
| G10. Site Preparation | | | | 131,071 |
| G20. Site Improvements | | | | 369,118 |
| G30 Site Mechanical Utilities | | | | 152,020 |
| G40 Site Electrical Utilities | | | | 161,250 |
| **TOTAL DIRECT COST** | | | | **6,239,461** |
| General Conditions Including site overhead | | | 10% | 623,946 |
| General Contractor's Overhead and Profit | | | 5% | 343,170 |
| Design Contingency | | | 9.10% | 656,119 |
| Security Premium | | | 3% | 235,881 |
| **TOTAL BUILDING & SITEWORK COST AT BID TODAY** | 19,727 | SF | $410.53 | **$8,098,578** |

Notes: This estimate assumes union wage rate, public bid
Does not include WSST, Escalation, Change orders nor Construction Contingency

Page 1 of 1

ESTIMATE DETAIL

| | | |
|---|---|---|
| Project | : | **CSTC CLIP EXPANSION** |
| Location | : | Lakewood, WA |
| Architect | : | KMB Architects |
| Estimator | : | J B Iringan Consulting |
| Design Phase | : | Pre-Design Estimate |
| Date: | : | 9/6/2016 |

| Item/Description | | Quantity | Unit | Unit Cost | Sub-Total | TOTAL |
|---|---|---|---|---|---|---|
| | **ESTIMATE DETAIL** | | | | | |
| **A. Substructure** | | | | | | |
| **A10. Foundations** | | 17,562 | GSF | 16.77 | | **294,579** |
| A1010 | **Standard Foundations** | | | | | |
| | Cont conc footing, 12" W x 10" D w/ 14" thck stem wall at perimete | 833 | LF | 90.36 | 75,272 | |
| | Cont conc footing, 12" W x 10" D w/ 14" thck stem wall at interior | 781 | LF | 85.97 | 67,142 | |
| | Col footings 5' x 5' x 2' deep | 20 | EA | 500.00 | 10,000 | |
| | Footing excavation, native backfill & haul-off extra dirt | | incl | | 0 | |
| | Forms, conc & reinf | | incl | | 0 | |
| | R-12 Rigid insul to perimeter footing | 1,666 | SF | 2.25 | 3,749 | |
| | Footing drain w/ gravel surround | 833 | LF | 12.00 | 9,996 | |
| A1020 | **Slab On Grade** | | | | | |
| | Fine grade for slab | 1,951 | SY | 6.50 | 12,684 | |
| | 6" thk compacted crushed aggregate fill under slab | 341 | CY | 36.00 | 12,293 | |
| | Vapor barrier | 17,562 | SF | 0.35 | 6,147 | |
| | Reinf - 6x6 W1.4xW1.4 WWF | 17,562 | SF | 0.68 | 11,942 | |
| | Pour 4" thk conc slab | 227 | CY | 225.00 | 51,171 | |
| | Control joints | 17,562 | SF | 0.85 | 14,928 | |
| | Trowel, cure & finish slab | 17,562 | SF | 0.80 | 14,050 | |
| | Rigid insul - 2" thick | 2,083 | SF | 2.50 | 5,206 | |
| **B. Shell** | | | | | | |
| **B10. Superstructure** | | | | | | **405,626** |
| B1010 | **Upper (Mechanical) Floor Construction** | *2,511* | *UFA* | *25.37* | | |
| | Base plate on grout bed | 10 | EA | 325.00 | 3,250 | |
| | Steel cols & beams - allow | 5 | TNS | 4200.00 | 22,674 | |
| | Steel bar floor joist @ 16" OC | 2,511 | SF | 5.65 | 14,187 | |
| | Metal decking | 2,511 | SF | 3.45 | 8,663 | |
| | Metal closure/decking at slab perimeter | 190 | LF | 8.00 | 1,520 | |
| | 4" Thick Conc topping | 45 | CY | 225.00 | 10,070 | |
| | Reinf - 6x6 W1.4xW1.4 WWF | 2,511 | SF | 0.68 | 1,707 | |
| | Trowel, cure & finish topping | 2,511 | SF | 0.65 | 1,632 | |
| B1020 | **Roof Construction** | *19,640* | *RA* | *17.41* | | |
| | Base plate on grout bed | 20 | EA | 325.00 | 6,500 | |
| | TS columns & WF steel framing - allow | 37 | TNS | 4200.00 | 155,181 | |
| | Steel bar roof joist @ 16" OC | 19,640 | SF | 5.25 | 103,110 | |
| | Misc metals | 1 | LS | 13,301.19 | 13,301 | |
| | Metal decking | 19,640 | SF | 3.25 | 63,830 | |
| **B20. Exterior Enclosure** | | | | | | **658,187** |
| B2010 | **Exterior Walls** | | | | | |

ESTIMATE DETAIL

Project : **CSTC CLIP EXPANSION**
Location : Lakewood, WA
Architect : KMB Architects
Estimator : J B Iringan Consulting
Design Phase : Pre-Design Estimate
Date: : 9/6/2016

| Item/Description | | Quantity | Unit | Unit Cost | Sub-Total | TOTAL |
|---|---|---|---|---|---|---|
| | 6" Metal studs @ 16" OC wall framing | 1,850 | SF | 4.25 | 7,863 | |
| | 1/2" FRT plywood sheathing | 1,850 | SF | 1.35 | 2,498 | |
| | R-19 batt insulation | 1,850 | SF | 0.95 | 1,758 | |
| | Vapor barrier/building felt | 1,850 | SF | 0.38 | 703 | |
| | EIFS system w/ R-10 insulation | 1,850 | SF | 12.50 | 23,125 | |
| | 5/8" GWB | 1,850 | SF | 2.75 | 5,088 | |
| | 8" std gray CMU fully grouted/reinforced | 8,330 | SF | 18.00 | 149,940 | |
| | Brick veneer incl galv anchors - to match existing | 8,330 | SF | 28.00 | 233,240 | |
| | R-10 2" rigid insul | 8,330 | SF | 2.50 | 20,825 | |
| | Sealer/Anti grafitti to brick veneer | 8,330 | SF | 2.15 | 17,910 | |
| | Steel lintel for brick veneer | 200 | LF | 18.00 | 3,600 | |
| | Cement Plaster | 8,330 | SF | 3.85 | 32,071 | |
| | Eaves soffit incl framing - 5/4 x 12 cedar | 2,445 | SF | 14.00 | 34,230 | |
| | 2x8 & 5/4x8 Fascia board | 798 | LF | 24.00 | 19,152 | |
| B2020 | **Exterior Windows** | | | | | |
| | Type A Alum window (heavy comm) 3' x 5'-4" w/ roto vent | 18 | EA | 1690.00 | 30,420 | |
| | Type B Alum window (heavy comm) 3' x 5'-4" | 8 | EA | 1439.65 | 11,517 | |
| | Type B thermally broken HM window 1'-6" x 6'-0" | 2 | EA | 675.00 | 1,350 | |
| | Quartz surface interior sill | 130 | LF | 25.00 | 3,250 | |
| B2030 | **Exterior Doors** | | | | | |
| | 3'-0" x7'-0" HM entry door, frm & hw | 13 | EA | 1,600.00 | 20,800 | |
| | 3'-6" x7'-0" HM entry door, frm & hw | 1 | EA | 1,675.00 | 1,675 | |
| | (2)3'-0" x7'-0" HM entry door, frm & hw | 1 | PR | 3,125.00 | 3,125 | |
| | Add top half secured insul glass vision panel | 10 | EA | 595.00 | 5,950 | |
| | Add top half secured kingsway grp special glass vision panel | 1 | EA | 1,200.00 | 1,200 | |
| | Add for electrified locksets & misc wireless controll door HW | 11 | EA | 2,000.00 | 22,000 | |
| | Add for door closers | 14 | EA | 350.00 | 4,900 | |
| **B30. Roofing** | | 19,640 | SF | 14.18 | | **278,561** |
| B3010 | **Roof Coverings** | | | | | |
| | Asphalt shingle roofing | 19,640 | SF | 3.75 | 73,650 | |
| | R-38 vented nailbase insulation | 19,640 | SF | 6.75 | 132,570 | |
| | Vapor Barrier, Ice & water shield | 19,640 | SF | 0.47 | 9,231 | |
| | Misc flashing | 19,640 | SF | 1.15 | 22,586 | |
| | 24GA sheet metal fascia (to protect wood fascia board) | 798 | LF | 8.00 | 6,384 | |
| | Gutter w/ hangers | 675 | LF | 10.00 | 6,750 | |
| | Downspouts | 330 | LF | 8.00 | 2,640 | |
| | Fall restaint D-ring | 20 | EA | 400.00 | 8,000 | |
| | Ridge vent | 350 | LF | 25.00 | 8,750 | |

ESTIMATE DETAIL

Project : **CSTC CLIP EXPANSION**
Location : Lakewood, WA
Architect : KMB Architects
Estimator : J B Iringan Consulting
Design Phase : Pre-Design Estimate
Date: : 9/6/2016

| Item/Description | | Quantity | Unit | Unit Cost | Sub-Total | TOTAL |
|---|---|---|---|---|---|---|
| | Misc caulking, sealant & fire penetration | 1 | LS | 8,000.00 | 8,000 | |
| B3020 | **Roof Openings** | | | | | |
| **C. Interiors** | | | | | | |
| **C10. Interior Construction** | | 17,562 | GSF | 52.79 | | **927,114** |
| C1010 | **Partitions** | 21,125 | SF | 23.13 | | |
| | 6" Std CMU fully grouted/reinforced | 10,260 | SF | 17.00 | 174,420 | |
| | 8" Std CMU fully grouted/reinforced | 8,165 | SF | 18.00 | 146,970 | |
| | 4" x 18 GA mtl stud @16" OC | 2,700 | SF | 3.25 | 8,775 | |
| | Veneer Plaster | 36,850 | SF | 3.85 | 141,873 | |
| | 5/8" GWB | 5,400 | SF | 2.75 | 14,850 | |
| | Sound insul | 2,700 | SF | 0.68 | 1,836 | |
| C1020 | **Interior Windows & Doors** | | | | | |
| | HM framed interior temp lam glass windows | 592 | SF | 55.00 | 32,560 | |
| | Add for Sliding pass-trhru window | 2 | EA | 698.00 | 1,396 | |
| | 1'-6" x 5' plumbing chase door. Frm & HW | 9 | EA | 1,100.00 | 9,900 | |
| | 3'-0" x 7' interior HM door, frm & hw | 55 | EA | 1,600.00 | 88,000 | |
| | 3'-6" x 7' interior HM door, frm & hw | 4 | EA | 1,850.00 | 7,400 | |
| | (2)3'-0" x7'-0" HM int door, frm & hw | 2 | PR | 2,925.00 | 5,850 | |
| | 3'-6" x 7' interior HM door, frm & hw - security | 7 | EA | 3,800.00 | 26,600 | |
| | 4'-0" x 7' interior HM door, frm & hw - security | 12 | EA | 4,200.00 | 50,400 | |
| | 3'-0" x 4' OH Coiling door - manual | 2 | EA | 1,200.00 | 2,400 | |
| | 4'-0" x 7' Chain link gate & hw | 6 | EA | 950.00 | 5,700 | |
| | Add for door closers - allow | 43 | EA | 350.00 | 14,945 | |
| | Add top half secured insul glass vision panel | 32 | EA | 840.00 | 26,880 | |
| | Add top half secured kingsway grp special glass vision panel | 40 | EA | 1,200.00 | 48,000 | |
| | Add for electrified locksets & misc wireless controll door HW | 11 | EA | 2,000.00 | 22,000 | |
| C1030 | **Fittings/Specialties** | 17,562 | GSF | 0.00 | | |
| | Toilet accesstories - allow | 8 | SET | 800.00 | 6,400 | |
| | Fire extinguisher with cabinets - allow | 7 | EA | 285.00 | 1,995 | |
| | Residents Lockers | 20 | EA | 325.00 | 6,500 | |
| | Staff Lockers 12" x 18" x 10" | 50 | EA | 125.00 | 6,250 | |
| | Acoustical sound soak boards 2' high | 252 | LF | 19.50 | 4,914 | |
| | White board/tack board 4' x 8 | 17 | EA | 480.00 | 8,160 | |
| | Signage - allow | 1 | LS | 2000.00 | 2,000 | |
| | Solid surface countertop - | 64.00 | LF | 200.00 | 12,800 | |
| | Upper cabinet w/ p-lam surface | 58 | LF | 110.00 | 6,380 | |
| | Base cabinet w/ solid surface counter | 116 | LF | 335.00 | 38,860 | |
| | 7' high storage cabinet | 12 | LF | 175.00 | 2,100 | |
| **C20. Stairs** | | | | | | **7,500** |

ESTIMATE DETAIL

Project : **CSTC CLIP EXPANSION**
Location : Lakewood, WA
Architect : KMB Architects
Estimator : J B Iringan Consulting
Design Phase : Pre-Design Estimate
Date: : 9/6/2016

| Item/Description | | Quantity | Unit | Unit Cost | Sub-Total | TOTAL |
|---|---|---|---|---|---|---|
| C2010 | **Stair Construction** | 1 | EA | 7500.00 | | |
| | Metal stair to mechanical floor - pre-frabricated | 1 | FLT | 7500.00 | 7,500 | |
| | Railings | | included | | 0 | |
| C2020 | **Stair Finishes** | | | | | |
| **C30. Interior Finishes** | | 17,562 | GSF | 19.01 | | **333,853** |
| C3010 | **Wall Finishes** | | | | | |
| | FRP wall finishes - 8' high | 1,960 | SF | 6.50 | 12,740 | |
| | Epoxy wall paint - full height | 5,400 | SF | 2.25 | 12,150 | |
| | Paint cement plaster walls | 31,450 | SF | 0.87 | 27,362 | |
| | Paint GWB walls | 7,250 | SF | 0.87 | 6,308 | |
| | Paint doors & frames | 107 | LVS | 100.00 | 10,700 | |
| C3020 | **Floor Finishes** | | | | | |
| | Epoxy floor incl coved base | 870 | SF | 8.00 | 6,960 | |
| | VCT | 7,677 | SF | 3.25 | 24,950 | |
| | Carpet tile | 5,094 | SF | 4.10 | 20,885 | |
| | Sheet vinyl | 1,269 | SF | 4.75 | 6,028 | |
| | Sealer - conc floor | 2,675 | SF | 2.10 | 5,618 | |
| | Rubber base | 4,610 | LF | 2.65 | 12,217 | |
| C3030 | **Ceiling Finishes** | | | | | |
| | Abuse resistant 5/8" GWB O/ flat exp mtl sec mesh O/ 18GA clg joi | 9,501 | SF | 11.20 | 106,411 | |
| | Susp 2x4 ACT clg w/ 4' sound insul | 2,411 | SF | 4.60 | 11,091 | |
| | Susp 2x4 washable ACT clg w/ 4' sound insul | 998 | SF | 4.95 | 4,940 | |
| | 1-5/8 acoustic plaster O/ flat exp mtl sec mesh O/ 2" mtl decking | 866 | SF | 14.00 | 12,124 | |
| | Perforated GWB O/ flat exp mtl sec mesh O/ 18GA 8" clg joist | 2,073 | SF | 11.85 | 24,565 | |
| | Open structure above - *no finish* | 2,606 | SF | 0.00 | 0 | |
| | Wall to dropped ceiling | 410 | SF | 10.00 | 4,100 | |
| | Wrapped/furred exposed ceiling beams | 144 | LF | 80.00 | 11,520 | |
| | Paint GWB ceiling & GWB soffit | 13,880 | SF | 0.95 | 13,186 | |
| **D. Services** | | | | | | |
| **D10. Conveying Systems** | | | | | | **0** |
| D1010 | Elevators, Lifts | | | | | |
| **D20. Plumbing** | | 1 | LS | | 358,651 | **358,651** |
| **D30. HVAC** | | 1 | LS | | 1,034,261 | **1,034,261** |
| **D40. Fire Protection** | | 1 | LS | | 109,440 | **109,440** |
| | *Please refer Inventrix Mechanical cost report for detail* | | | | | |
| **D50. Electrical Systems** | | 17,562 | GSF | 47.79 | | **839,375** |
| | Power distribution | 1 | LS | | 79,000 | |
| | Feeders | 1 | LS | | 59,250 | |
| | Branch wiring | 1 | LS | | 88,875 | |

ESTIMATE DETAIL

Project : **CSTC CLIP EXPANSION**
Location : Lakewood, WA
Architect : KMB Architects
Estimator : J B Iringan Consulting
Design Phase : Pre-Design Estimate
Date: : 9/6/2016

| Item/Description | | Quantity | Unit | Unit Cost | Sub-Total | TOTAL |
|---|---|---|---|---|---|---|
| | Equipment connections | 1 | LS | | 49,375 | |
| | Lighting & lighting controls | 1 | LS | | 197,500 | |
| | Data communication systems | 1 | LS | | 98,750 | |
| | Fire alarm system | 1 | LS | | 39,500 | |
| | Access control | 1 | LS | | 59,250 | |
| | Security video system | 1 | LS | | 118,500 | |
| | Closeout/Mob/power study/testing | 1 | LS | | 49,375 | |
| | *Please refer DEI electrical cost report for detail* | | | | | |
| **E. Equipment & Furnishings** | | | | | | |
| **E10. Equipment** | | | | | | **168,871** |
| E1093 | **Misc. equipment -** | | | | | |
| | Pantry, medical, safety equipment, room accessories | 1 | LS | | 144790 | |
| | Delivery & installation | 1 | LS | | 24081 | |
| | Platform beds | | by owner | | 0 | |
| | Detention table/seating | | by owner | | 0 | |
| **E20. Furnishings** | | | | | | **9,984** |
| E2010 | **Fixed Floor Grilles and Mats** | 17,562 | GSF | 0.00 | | |
| | Walk-off mat - allow | 624 | SF | 16.00 | 9,984 | |
| **F. Special Construction & Demolition** | | | | | | |
| **F10. Special Construction** | | | | | | **0** |
| **F20. Selective Building Demolition** | | | | | | **0** |
| **G. Building Sitework** | | | | | | |
| **G10. Site Preparation** | | | | | | **131,071** |
| | Clear & grub | 1.23 | ACRE | 5000.00 | 6,145 | |
| | Strip & dipose existing 6" deep topsoil | 616 | CY | 12.00 | 7,397 | |
| | Grading - allow | 3,869 | SY | 5.50 | 21,279 | |
| | Erosion & sedimentation control | 1 | LS | 5,500.00 | 5,500 | |
| | Unsuitable foundation excavation (2,500 CY) | 1 | LS | 41,250.00 | 41,250 | |
| | Structural fill (2,500 CY) | 1 | LS | 49,500.00 | 49,500 | |
| **G20. Site Improvements** | | | | | | **369,118** |
| | CSTC capillary break (870 TONS) | 1 | LS | 23,925.00 | 23,925 | |
| | Asphalt (245 TONS) | 1 | LS | 32,340.00 | 32,340 | |
| | Conc sidewalk/ rec area (800 SY) | 1 | LS | 39,600.00 | 39,600 | |
| | Extruded curb (750 LF) | 1 | LS | 12,375.00 | 12,375 | |
| | Channelization & striping | 1 | LS | 2,750.00 | 2,750 | |
| | 6-ft fencing (135 LF) | 1 | LS | 5,197.50 | 5,198 | |
| | 12-ft Fencing (215 LF) | 1 | LS | 75,000.00 | 75,000 | |
| | Landscaping - allow | | | | | |
| | Trees & shrubs for ground cover & screening | 1 | LS | 30,000.00 | 30,000 | |

ESTIMATE DETAIL

Project : **CSTC CLIP EXPANSION**
Location : Lakewood, WA
Architect : KMB Architects
Estimator : J B Iringan Consulting
Design Phase : Pre-Design Estimate
Date: : 9/6/2016

| Item/Description | Quantity | Unit | Unit Cost | Sub-Total | TOTAL |
|---|---|---|---|---|---|
| 6' high visual screen panting | 500 | SF | 10.00 | 5,000 | |
| Hydroseed | 32,787 | SF | 0.35 | 11,475 | |
| 6" topsoil | 616.4 | CY | 35.00 | 21,575 | |
| Irrigation to planting & hydroseeded areas | 33,287 | SF | 1.25 | 41,609 | |
| Restore lawn - allow | 1 | LS | 5,000.00 | 5,000 | |
| Conc walks & pads | 1 | LS | 10,000.00 | 10,000 | |
| *Covered Sports Court:* | | | | | |
| Sports court footing | 6 | EA | 600.00 | 3,600 | |
| Cont footing for CMU wall | 24 | LF | 90.00 | 2,160 | |
| Base plate on grout bed for steel columns | 6 | EA | 350.00 | 2,100 | |
| 4" conc slab - sports court floor - broom finished | 1,056 | SF | 6.50 | 6,864 | |
| Columns & beams | 3 | TNS | 4,200.00 | 14,304 | |
| Cold Rolled purlins @ 48" OC | 1,113 | SF | 4.50 | 5,009 | |
| 3/4" plywood roof sheathing | 1,113 | SF | 1.85 | 2,059 | |
| Asphalt comp shingle roofing w/ building felt | 1,113 | SF | 3.00 | 3,339 | |
| Gutter/downspout | 216 | LF | 8.50 | 1,836 | |
| Meta soffit at the bottom of the purlins | 1,056 | SF | 8.00 | 8,448 | |
| 8" CMU wall divider | 192 | SF | 18.50 | 3,552 | |
| **G30 Site Mechanical Units** | | | | | **152,020** |
| *Water:* | | | | | |
| 6" Watermain relocation (330 LF) | 1 | LS | 32,670.00 | 32,670 | |
| Domestic water connection | 1 | LS | 8,250.00 | 8,250 | |
| Fire hydrant | 1 | LS | 3,850.00 | 3,850 | |
| Fire dept connection | 1 | LS | 6,600.00 | 6,600 | |
| *Storm Drainage:* | | | | | |
| Roof drain (700 LF) | 1 | LS | 11,550.00 | 11,550 | |
| Footing drain (700 LF) | 1 | LS | 19,250.00 | 19,250 | |
| Storm water pre-treatment | 1 | LS | 13,750.00 | 13,750 | |
| Storm drainage catch basin (4 EA) | 1 | LS | 6,600.00 | 6,600 | |
| Storm drainage pipe (250 LF) | 1 | LS | 16,500.00 | 16,500 | |
| Storm infiltration facility | 1 | LS | 19,250.00 | 19,250 | |
| *Sanitary Sewer:* | | | | | |
| Sanitary sewer pipe (100 LF) | 1 | LS | 8,250.00 | 8,250 | |
| Sanitary sewer manhole (1 EA) | 1 | LS | 5,500.00 | 5,500 | |
| **G40 Site Electrical Utilities** | | | | | **212,313** |
| Site electrical primary work | 1 | LS | 148,125.00 | 148,125 | |
| Site lighting | 1 | LS | 64,187.50 | 64,188 | |
| **TOTAL DIRECT COST** | | | | 6,230,152 | **$6,230,152** |

# ENGINEER'S ESTIMATE OF PROBABLE COSTS

## CSTC Expansion

Prepared by: Steve Schmitz, PE
Date: 8/12/2016
Based on: KMB Concept Site Plan Dated 7-21-2016

| Item | Description | Quantity | Unit | Unit Cost | Total Cost |
|---|---|---|---|---|---|
| 01 | Erosion / Sediment Control | 1 | LS | $ 5,000 | $ 5,000 |
| 02 | Unsuitable Foundation Excavation | 2500 | CY | $ 15 | $ 37,500 |
| 03 | Structural Fill | 2500 | CY | $ 18 | $ 45,000 |
| 04 | CSTC / Capillary Break | 870 | Tons | $ 25 | $ 21,750 |
| 05 | Asphalt | 245 | Tons | $ 120 | $ 29,400 |
| 06 | Concrete Sidewalk / Rec Area | 800 | SY | $ 45 | $ 36,000 |
| 07 | Extruded Curb | 750 | LF | $ 15 | $ 11,250 |
| 08 | Channelization & Striping | 1 | LS | $ 2,500 | $ 2,500 |
| 09 | 6-ft Fencing | 135 | LF | $ 35 | $ 4,725 |
| 10 | 12-ft Fencing | 215 | LF | $ 125 | $ 26,875 |
| 11 | 6" Watermain Relocation | 330 | LF | $ 90 | $ 29,700 |
| 12 | Domestic Water Connection | 1 | LS | $ 7,500 | $ 7,500 |
| 13 | Fire Hydrant | 1 | EA | $ 3,500 | $ 3,500 |
| 14 | Fire Department Connection | 1 | EA | $ 6,000 | $ 6,000 |
| 15 | Roof Drain | 700 | LF | $ 15 | $ 10,500 |
| 16 | Footing Drain | 700 | LF | $ 25 | $ 17,500 |
| 17 | Sanitary Sewer Pipe | 100 | LS | $ 75 | $ 7,500 |
| 18 | Sanitary Sewer Manhole | 1 | EA | $ 5,000 | $ 5,000 |
| 19 | Stormwater Pre-Treatment | 1 | LS | $ 12,500 | $ 12,500 |
| 20 | Storm Drainage Catch Basin | 4 | EA | $ 1,500 | $ 6,000 |
| 21 | Storm Drainage Pipe | 250 | LF | $ 60 | $ 15,000 |
| 22 | Stormwater Infiltration Facility | 1 | LS | $ 17,500 | $ 17,500 |
| | | | | SUBTOTAL | $ 358,200 |
| | | Mobilization | | 10% | $ 36,000 |
| | | | | **TOTAL** | **$ 394,200** |

# Construction Cost Estimate

Inventrix Engineering, Inc.

Project: CSTC CLIP Expansion
Job #: 1624

Date: 11-Aug-16
By: PTS

| Qty. | Unit | Description | Unit Material Cost | Unit Labor Cost | Total Unit Cost | Total Material Cost | Total Labor Cost | Total Cost |
|---|---|---|---|---|---|---|---|---|
| General | | | | | | | | |
| 1 | ls | General Conditions (Mobilization, O&M's, Training, Etc.) | | $13,000.00 | $13,000.00 | $0 | $13,000 | $13,000 |
| | | | | | $0.00 | $0 | $0 | $0 |
| Fire Protection | | | | | | | | |
| 17,000 | sf | Fire Protection | $2.25 | $3.15 | $5.40 | $38,250 | $53,550 | $91,800 |
| | | | | | $0.00 | $0 | $0 | $0 |
| Plumbing | | | | | | | | |
| 1 | ls | Domestic Water Service | $5,000.00 | $3,500.00 | $8,500.00 | $5,000 | $3,500 | $8,500 |
| 1 | ls | Gas Service | $2,500.00 | $2,500.00 | $5,000.00 | $2,500 | $2,500 | $5,000 |
| 1 | ls | Domestic Water Heater System with Solar | $26,000.00 | $12,500.00 | $38,500.00 | $26,000 | $12,500 | $38,500 |
| 1 | ls | Tempering Valve Station | $5,000.00 | $750.00 | $5,750.00 | $5,000 | $750 | $5,750 |
| 17 | ea | Floor Drains | $700.00 | $700.00 | $1,400.00 | $11,900 | $11,900 | $23,800 |
| 3 | ea | Sinks | $2,800.00 | $1,200.00 | $4,000.00 | $8,400 | $3,600 | $12,000 |
| 2 | ea | Water Closets - Elec FV | $2,400.00 | $1,500.00 | $3,900.00 | $4,800 | $3,000 | $7,800 |
| 2 | ea | Lavs - Elec. Faucet | $2,600.00 | $1,500.00 | $4,100.00 | $5,200 | $3,000 | $8,200 |
| 3 | ea | Service Sinks | $2,600.00 | $1,400.00 | $4,000.00 | $7,800 | $4,200 | $12,000 |
| 8 | ea | Anti-Ligature Water Closet | $3,500.00 | $2,250.00 | $5,750.00 | $28,000 | $18,000 | $46,000 |
| 8 | ea | Anti-Ligature Lav - Wall Mounted | $3,500.00 | $2,250.00 | $5,750.00 | $28,000 | $18,000 | $46,000 |
| 6 | ea | Anti-Ligature Showers | $2,800.00 | $2,250.00 | $5,050.00 | $16,800 | $13,500 | $30,300 |
| 4 | ea | Hose Bibbs | $700.00 | $700.00 | $1,400.00 | $2,800 | $2,800 | $5,600 |
| 1 | ea | Boiler Gas Connections | $750.00 | $750.00 | $1,500.00 | $750 | $750 | $1,500 |
| 1 | ea | Water Heater Gas Connections | $600.00 | $600.00 | $1,200.00 | $600 | $600 | $1,200 |
| 3 | ea | Misc. Gas Connections | $700.00 | $700.00 | $1,400.00 | $2,100 | $2,100 | $4,200 |
| 2 | ea | Washer Plumbing | $700.00 | $700.00 | $1,400.00 | $1,400 | $1,400 | $2,800 |
| 3 | ea | Commercial Kitchen Sinks Connection | $1,500.00 | $980.00 | $2,480.00 | $4,500 | $2,940 | $7,440 |
| 1 | ea | Kitchen Hand Sink Connection | $400.00 | $400.00 | $800.00 | $400 | $400 | $800 |
| 1 | ea | Eyewash Connection | $850.00 | $750.00 | $1,600.00 | $850 | $750 | $1,600 |
| 1 | ea | Dishwasher Connection | $500.00 | $500.00 | $1,000.00 | $500 | $500 | $1,000 |
| 1 | ea | Ice Maker Connection | $1,500.00 | $500.00 | $2,000.00 | $1,500 | $500 | $2,000 |
| 2 | ea | Cooler/freezer Condensate Drains | $700.00 | $700.00 | $1,400.00 | $1,400 | $1,400 | $2,800 |
| 4 | ea | Kitchen Floor Drains | $700.00 | $700.00 | $1,400.00 | $2,800 | $2,800 | $5,600 |
| 4 | ea | Kitchen Floor Sinks | $950.00 | $700.00 | $1,650.00 | $3,800 | $2,800 | $6,600 |
| 1 | ea | Beverage Counter Connection | $500.00 | $500.00 | $1,000.00 | $500 | $500 | $1,000 |
| 1 | ls | grease waste and vent system | $9,850.00 | $7,500.00 | $17,350.00 | $9,850 | $7,500 | $17,350 |
| HVAC | | | | | | | | |

# Construction Cost Estimate

Inventrix Engineering, Inc.

Project: CSTC CLIP Expansion
Job #: 1624

Date: 11-Aug-16
By: PTS

| Qty. | Unit | Description | Unit Material Cost | Unit Labor Cost | Total Unit Cost | Total Material Cost | Total Labor Cost | Total Cost |
|---|---|---|---|---|---|---|---|---|
| 1 | ls | DOAS w/ Heat Recovery | $75,000.00 | $7,500.00 | $82,500.00 | $75,000 | $7,500 | $82,500 |
| 1 | ea | Mech. Rm. Exhaust Fan | $2,000.00 | $400.00 | $2,400.00 | $2,000 | $400 | $2,400 |
| 2 | ea | General Exhaust Fan | $2,500.00 | $400.00 | $2,900.00 | $5,000 | $800 | $5,800 |
| 1 | ea | Mechanical Room Unit Heater | $1,250.00 | $500.00 | $1,750.00 | $1,250 | $500 | $1,750 |
| 1 | ea | Electrical Room Dedicated HVAC System | $5,100.00 | $2,500.00 | $7,600.00 | $5,100 | $2,500 | $7,600 |
| 1 | ea | IT/Security Electronics Equipment Room Cooling | $5,100.00 | $2,500.00 | $7,600.00 | $5,100 | $2,500 | $7,600 |
| 2 | ea | Med Room Equipment Cooling | $5,100.00 | $2,500.00 | $7,600.00 | $10,200 | $5,000 | $15,200 |
| 20 | ea | Fan Coil Units | $2,100.00 | $450.00 | $2,550.00 | $42,000 | $9,000 | $51,000 |
| 17,000 | sf | Ductwork | $3.00 | $3.25 | $6.25 | $51,000 | $55,250 | $106,250 |
| 14,000 | sf | Security GRD's | $2.40 | $1.90 | $4.30 | $33,600 | $26,600 | $60,200 |
| 3,000 | sf | Commercial GRD's | $1.10 | $1.00 | $2.10 | $3,300 | $3,000 | $6,300 |
| 1 | ea | Boiler Flues | $1,750.00 | $1,750.00 | $3,500.00 | $1,750 | $1,750 | $3,500 |
| 1 | ea | Water Heater Flues | $1,000.00 | $1,000.00 | $2,000.00 | $1,000 | $1,000 | $2,000 |
| 1 | ls | Mech. Rm. Combustion Air | $2,000.00 | $2,000.00 | $4,000.00 | $2,000 | $2,000 | $4,000 |
| 2 | ea | Dryer Venting | $220.00 | $300.00 | $520.00 | $440 | $600 | $1,040 |
| 2 | ea | Smoke Control Fans | $4,200.00 | $750.00 | $4,950.00 | $8,400 | $1,500 | $9,900 |
| 6 | ea | Smoke Control Dampering | $1,500.00 | $450.00 | $1,950.00 | $9,000 | $2,700 | $11,700 |
| 1 | ea | Grease Exhaust Fans | $3,600.00 | $750.00 | $4,350.00 | $3,600 | $750 | $4,350 |
| 1 | ls | Grease Exhaust Duct | $3,850.00 | $10,075.00 | $13,925.00 | $3,850 | $10,075 | $13,925 |
| 1 | ea | Dishwasher Exhaust Fan | $4,500.00 | $550.00 | $5,050.00 | $4,500 | $550 | $5,050 |
| 1 | ls | Dishwasher Exhaust Duct | $2,300.00 | $6,450.00 | $8,750.00 | $2,300 | $6,450 | $8,750 |
| 1 | ea | Makeup Air Unit | $15,000.00 | $4,500.00 | $19,500.00 | $15,000 | $4,500 | $19,500 |
| 1 | ls | Makeup Air Diffusers | $900.00 | $600.00 | $1,500.00 | $900 | $600 | $1,500 |
| | | | | | $0.00 | $0 | $0 | $0 |
| Hydronics | | | | | | | | |
| 3 | ea | Air-to-Water Heat Pump Modules | $25,000.00 | $12,000.00 | $37,000.00 | $75,000 | $36,000 | $111,000 |
| 2 | ea | Chilled Water Pump | $5,750.00 | $1,950.00 | $7,700.00 | $11,500 | $3,900 | $15,400 |
| 1 | ls | Chilled Water Expansion Tank | $3,100.00 | $800.00 | $3,900.00 | $3,100 | $800 | $3,900 |
| 2 | ea | Chilled Water Coil Piping - Large AHU | $350.00 | $350.00 | $700.00 | $700 | $700 | $1,400 |
| 1 | ls | Chilled Water General Piping | $8,500.00 | $8,500.00 | $17,000.00 | $8,500 | $8,500 | $17,000 |
| 1 | ea | Boilers | $26,000.00 | $5,500.00 | $31,500.00 | $26,000 | $5,500 | $31,500 |
| 2 | ea | Heating Water Pumps | $5,750.00 | $1,950.00 | $7,700.00 | $11,500 | $3,900 | $15,400 |
| 1 | ea | Boiler Pumps | $3,000.00 | $1,850.00 | $4,850.00 | $3,000 | $1,850 | $4,850 |
| 1 | ea | Heating Water Expansion Tank | $3,600.00 | $950.00 | $4,550.00 | $3,600 | $950 | $4,550 |
| 1 | ea | Heating Water Glycol Feeder | $2,600.00 | $800.00 | $3,400.00 | $2,600 | $800 | $3,400 |

# Construction Cost Estimate

Inventrix Engineering, Inc.

Project: CSTC CLIP Expansion
Job #: 1624

Date: 11-Aug-16
By: PTS

| Qty. | Unit | Description | Unit Material Cost | Unit Labor Cost | Total Unit Cost | Total Material Cost | Total Labor Cost | Total Cost |
|---|---|---|---|---|---|---|---|---|
| 1 | ea | AHU Heating Water Coil Piping - Large AHU | $800.00 | $800.00 | $1,600.00 | $800 | $800 | $1,600 |
| 20 | ea | Zone Fan Coil Unit Coil Piping - Chilled Water | $350.00 | $350.00 | $700.00 | $7,000 | $7,000 | $14,000 |
| 20 | ea | Zone Fan Coill Unit Coil Piping - Heating Water | $350.00 | $350.00 | $700.00 | $7,000 | $7,000 | $14,000 |
| 1 | ea | Unit Heater Coil Piping | $300.00 | $300.00 | $600.00 | $300 | $300 | $600 |
| 1 | ls | Heating Water General Piping | $8,500.00 | $8,500.00 | $17,000.00 | $8,500 | $8,500 | $17,000 |
| 1 | ls | Heating Water System Treatment | $6,000.00 | $6,000.00 | $12,000.00 | $6,000 | $6,000 | $12,000 |
| 1 | ls | Chilled Water System Treatment | $2,200.00 | $2,200.00 | $4,400.00 | $2,200 | $2,200 | $4,400 |
| | | | | | $0.00 | $0 | $0 | $0 |
| Energy Management and Control System | | | | | | | | |
| 1 | ea | AHU Controls | $11,000.00 | $11,000.00 | $22,000.00 | $11,000 | $11,000 | $22,000 |
| 1 | ea | Heating Water System Controls | $10,000.00 | $10,000.00 | $20,000.00 | $10,000 | $10,000 | $20,000 |
| 1 | ea | Heat Pump System Controls | $15,000.00 | $15,000.00 | $30,000.00 | $15,000 | $15,000 | $30,000 |
| 1 | ea | Chilled Water System Controls | $6,250.00 | $6,250.00 | $12,500.00 | $6,250 | $6,250 | $12,500 |
| 3 | ea | Exhaust Fan Controls | $875.00 | $900.00 | $1,775.00 | $2,625 | $2,700 | $5,325 |
| 20 | ea | Fan Coil Unit Control | $775.00 | $750.00 | $1,525.00 | $15,500 | $15,000 | $30,500 |
| 1 | ea | Unit Heater Controls | $475.00 | $475.00 | $950.00 | $475 | $475 | $950 |
| 3 | ea | Elec/IT/Security Electronics Equipment Room Controls | $950.00 | $950.00 | $1,900.00 | $2,850 | $2,850 | $5,700 |
| 1 | ls | Building Service | $5,000.00 | $5,000.00 | $10,000.00 | $5,000 | $5,000 | $10,000 |
| 1 | ls | M&V Device/Programming Allotment | $7,500.00 | $7,500.00 | $15,000.00 | $7,500 | $7,500 | $15,000 |
| 1 | ea | Domestic Water Heating Control | $1,500.00 | $1,500.00 | $3,000.00 | $1,500 | $1,500 | $3,000 |
| 1 | ea | Kitchen Exhaust/Makeup Air Control | $2,500.00 | $1,750.00 | $4,250.00 | $2,500 | $1,750 | $4,250 |
| | | | | | | | | |
| | | | | | $0.00 | $0 | $0 | $0 |
| | | **Subtotal** | | | | | | **$1,273,180** |
| | **18%** | **Overhead and Profit** | | | | | | **$229,172** |
| | | **Total** | | | | | | **$1,502,352** |

**Division 26-28 Estimate**

**DEI Electrical Consultants, Inc.**
**2205 N. Woodruff Rd., Suite 5**
**Spokane Valley, WA 99206**
**509/747-5139**

DEI Electrical Consultants

## PRE- DESIGN ESTIMATING SHEET

**PROJECT:** DSHS CSTC CLIP Expansion Pre-Design

**CLIENT:** KMB Architects **BLDG SQ FT:** 19750

| Description | $/sq ft | Subtotal |
|---|---|---|
| Site Electrical Work/Primary Work | $ ~~7.50~~ | $ ~~148,125.00~~ |
| Site Lighting | $ ~~3.25~~ | $ ~~64,187.50~~ |
| **Site Electrical Work Subtotal** | $ ~~10.75~~ ALLOWANCE | $ ~~212,312.50~~ 161,250.00 |
| KMB REVISION 8/31/2016 | | |
| Power Distribution | $ 4.00 | $ 79,000.00 |
| Feeders | $ 3.00 | $ 59,250.00 |
| Branch Wiring | $ 4.50 | $ 88,875.00 |
| Equipment Connections | $ 2.50 | $ 49,375.00 |
| Lighting/Lighting Controls | $ 10.00 | $ 197,500.00 |
| Data Comm Systems | $ 5.00 | $ 98,750.00 |
| Fire Alarm System | $ 2.00 | $ 39,500.00 |
| Access Control | $ 3.00 | $ 59,250.00 |
| Security Video System | $ 6.00 | $ 118,500.00 |
| Closeout/Mob/Power Study/Testing | $ 2.50 | $ 49,375.00 |
| **Building Work Subtotal** | **$ 42.50** | **$ 839,375.00** |
| **Project Totals:** | $ ~~53.25~~ | $ ~~1,051,687.50~~ 1,009,625.00 |

*iii. The C-100 in Excel (entering information in the CBS Cost Estimator, CBS 003, is no longer required).*

See the C-100 form on the following page.

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## STATE OF WASHINGTON

# AGENCY / INSTITUTION PROJECT COST SUMMARY

| | |
|---|---|
| Agency | Department of Social and Health Services |
| Project Name | CSTC-CLIP Capacity |
| OFM Project Number | |

| Contact Information | |
|---|---|
| Name | Penny Koal |
| Phone Number | 360-902-8156 |
| Email | koalpl@dshs.wa.gov |

| Statistics | | | |
|---|---|---|---|
| Gross Square Feet | 19,727 | MACC per Square Foot | $394 |
| Usable Square Feet | 17,269 | Escalated MACC per Square Foot | $410 |
| Space Efficiency | 87.5% | A/E Fee Class | A |
| Construction Type | Mental Institutions | A/E Fee Percentage | 9.60% |
| Remodel | No | Projected Life of Asset (Years) | 30 |
| **Additional Project Details** | | | |
| Alternative Public Works Project | No | Art Requirement Applies | Yes |
| Inflation Rate | 2.80% | Higher Ed Institution | No |
| Sales Tax Rate % | 9.40% | Location Used for Tax Rate | Lakewood |
| Contingency Rate | 5% | | |
| Base Month | August-16 | | |
| Project Administered By | Agency | | |

| Schedule | | | |
|---|---|---|---|
| Predesign Start | August-16 | Predesign End | September-16 |
| Design Start | October-16 | Design End | August-17 |
| Construction Start | September-17 | Construction End | September-18 |
| Construction Duration | 12 Months | | |

Green cells must be filled in by user

## Project Cost Estimate

| | | | |
|---|---|---|---|
| Total Project | **$12,092,894** | Total Project Escalated | **$12,579,657** |
| | | Rounded Escalated Total | **$12,580,000** |

| STATE OF WASHINGTON<br>AGENCY / INSTITUTION PROJECT COST SUMMARY | | |
|---|---|---|
| Agency | Department of Social and Health Services | |
| Project Name | CSTC-CLIP Capacity | |
| OFM Project Number | | |

## Cost Estimate Summary

| Acquisition | | | |
|---|---|---|---|
| **Acquisition Subtotal** | **$0** | **Acquisition Subtotal Escalated** | **$0** |

| Consultant Services | | | |
|---|---|---|---|
| Predesign Services | $115,110 | | |
| A/E Basic Design Services | $550,112 | | |
| Extra Services | $305,350 | | |
| Other Services | $313,159 | | |
| Design Services Contingency | $64,187 | | |
| **Consultant Services Subtotal** | **$1,347,918** | **Consultant Services Subtotal Escalated** | **$1,379,176** |

| Construction | | | |
|---|---|---|---|
| Construction Contingencies | $388,280 | Construction Contingencies Escalated | $405,636 |
| Maximum Allowable Construction Cost (MACC) | $7,765,592 | Maximum Allowable Construction Cost (MACC) Escalated | $8,097,295 |
| Sales Tax | $766,464 | Sales Tax Escalated | $799,276 |
| **Construction Subtotal** | **$8,920,336** | **Construction Subtotal Escalated** | **$9,302,207** |

| Equipment | | | |
|---|---|---|---|
| Equipment | $451,550 | | |
| Sales Tax | $42,446 | | |
| Non-Taxable Items | $0 | | |
| **Equipment Subtotal** | **$493,996** | **Equipment Subtotal Escalated** | **$516,079** |

| Artwork | | | |
|---|---|---|---|
| **Artwork Subtotal** | **$40,486** | **Artwork Subtotal Escalated** | **$40,486** |

| Agency Project Administration | | | |
|---|---|---|---|
| Agency Project Administration Subtotal | $556,068 | | |
| DES Additional Services Subtotal | $0 | | |
| Other Project Admin Costs | $0 | | |
| **Project Administration Subtotal** | **$862,158** | **Project Administation Subtotal Escalated** | **$900,697** |

| Other Costs | | | |
|---|---|---|---|
| **Other Costs Subtotal** | **$428,000** | **Other Costs Subtotal Escalated** | **$441,012** |

| Project Cost Estimate | | | |
|---|---|---|---|
| Total Project | **$12,092,894** | Total Project Escalated | **$12,579,657** |
| | | Rounded Escalated Total | **$12,580,000** |

*5B. Proposed Funding*

*i. Identify the fund sources and expected receipt of the funds.*

DSHS is seeking funding from the State Building Construction Account – Fund 057. The State finances capital improvements for state assets with these funds. The Office of Capital Programs also requires funding to manage the design, construction, and financial aspects of this project.

***ii. If alternatively financed, provide the projected debt service and fund source. Include the assumptions used for calculating finance terms and interest rates.***

Not applicable.

*5C. Facility Operations and Maintenance Requirements*

***i. Define the anticipated impact of the proposed project on the operating budget for the agency or institution. Include maintenance and operating assumption (including FTEs).***

Once constructed and operational (anticipated date is approximately January 2019), the new cottage will be staffed with the same cadre of personnel as the other cottages at CSTC: See Section 4Aii. The total FTE impact is projected to be approx. 70 FTE.

***ii. Show five biennia of capital and operating costs from the time of occupancy, including an estimate of building repairs, replacement, and maintenance.***

| Item | | 1st Year Cost | 5 Biennia Cost |
|---|---|---|---|
| 1. | General Work (Architectural/Structural) Mostly Abuse Repair | $25,000 | $275,000 |
| 2. | HVAC / Plumbing Service / Repair | $20,000 | $220,000 |
| 3. | Energy | $21,000 | $240,000 |
| 4. | Electrical | $2,000 | $25,000 |
| 5. | Security Electronics | $5,000 | $55,000 |

*5D. Furniture, Fixtures, and Equipment*

***Clarify whether furniture, fixtures, and equipment are included in the project budget. If not included, explain.***

An allowance for FF&E has been included in the C-100 form.

New special “intensive use” beds, desks, chairs and tables will be required for the patients as well as an exam table for the exam room. A restraint chair, sled or other specialty furniture may be required. Televisions, educational, and recreational equipment is anticipated, but an inventory has not been generated at this time.

Conventional office furniture and equipment will be required in the staff only areas.

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# TAB - Section 6

# TAB - Section 6

# Section 6 - Appendix

Section 6 - Appendix

*6A. About the Child Study and Treatment Center*

The Child Study & Treatment Center (CSTC) was established on the campus of Western State Hospital in 1961. CSTC is designed and staffed to provide inpatient psychiatric treatment to children from 6-17 years of age who cannot be served safely in less restrictive settings within the community. CSTC provides state of the art care for the most psychiatrically complex youth in Washington State. CSTC's professional staff are involved in clinical and translational research, and are active nationally in developing standard of care guidelines and practices for diagnosing and treating youth with serious emotional disturbances.

CSTC provides care for 31 adolescents and 16 children on three inpatient residential cottages. The current total bed space is approximately 48 beds - sixteen (16) beds per cottage.

CSTC also has highly regarded training programs for mental health professionals, including child and general psychiatry residents, post-doctorate psychologists, psychology interns and medical students. Several of our trainees have gone on to careers in the public sector. Our fellowship in juvenile forensic psychology is one of only two such programs in existence nationally.

An evidence-based model of care requires evidence-based practitioners. The CSTC professional staff strives to maintain the following set of clinical skills and principles:

1) the ability to synthesize complex presentations, and identify targeted areas where effective intervention is most likely to succeed;

2) the ability to critically examine the literature, and extract relevant strategies and techniques;

3) the ongoing desire to learn and adopt new skills and treatment modalities;

4) the willingness to use effective strategies based on patient needs rather than adherence to past training or theoretical beliefs.

CSTC has implemented several different specialty interventions based on principals of evidenced based treatment, including dialectical behavioral therapy (DBT), trauma-informed care, trauma-focused cognitive behavior therapy, adventure-based recreational therapy, substance abuse treatment and prevention programs, and sexual safety programs. CSTC has also developed more creative programs, such as publishing a series of poetry anthologies authored by CSTC patients.

CSTC's juvenile forensic program conducts over 150 evaluations annually for youth across Washington State. In compliance with Washington State RCW 10:77, we provide court mandated competency, capacity and restoration assessments for youth charged with criminal acts .The CSTC Juvenile Forensic service is unique nationally, and was awarded the "Governing for Results" award by Governor Gary Locke, State of Washington, in 1999.

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## Project and Existing Facility Information Sheet

* ***Requires a user input*** | *Green Cell* = *Value can be entered by user.* | *Yellow Cell* = *Calculated value.*

| | | |
|---|---|---|
| * | **Agency** | Department of Social and Health Services |
| * | **Project Title** | CSTC - Additional CLIP Capacity - Predesign Study; 2016-440 A (1) |
| * | **Date of Analysis:** | **9/7/2016** |
| | **Analysis Period** | |
| * | Years of Analysis (If not 30 or 50) | |

| | |
|---|---|
| **Existing Facility Description** | No Existing Facility; Project is New Construction |

| | **Existing Lease Information** | **Lease 1** | **Lease 2** | **Lease 3** | **Lease 4** | **Lease 5** | **Lease 6** | **Total** |
|---|---|---|---|---|---|---|---|---|
| | Existing Square Feet | | | | | | | - |
| | Lease Start Date / Last Lease Increase | | | | | | | |
| | Lease End Date | | | | | | | |
| | Lease Rate per Month | | | | | | | $ - |
| | Lease Rate per SF per Year at End Date | | | | | | | |
| | Additional Operating Costs per Month | | | | | | | $ - |
| | Total Lease Costs per Month | | | | | | | $ - |
| * | Persons Relocating | | | | | | | - |
| | SF per Person Calculated | | | | | | | |
| | Estimated Lease Renewal Rate - 5 Year | | | | | | | $ - |

## Lease Option 1 Information Sheet

* ***Requires a user input*** | *Green Cell* = *Value can be entered by user.* | *Yellow Cell* = *Calculated value.*

| | |
|---|---|
| * **New Lease Option 1 Description** | |

| | | | |
|---|---|---|---|
| | **New Lease Information** | | |
| * | Lease Location | | Market Area: |
| * | Lease Square Feet Type | | |
| * | New Facility Square Feet | | |
| * | New Lease Start Date | | |
| | SF per Person Calculated | | |

| | New Lease Costs | Years of Term | Rate / SF / Year | Rate / Month | Adjusted to FS Rate | Total FS Rate / Month | Estimated FSG Market Rate | Estimated FSG Rate / Month | Real Estate Transaction Fees for Term |
|---|---|---|---|---|---|---|---|---|---|
| * | Year | | | | $ - | $ - | $ - | | |
| | Years | | | | $ - | $ - | | | |
| | Years | | | | $ - | $ - | | | |
| | Years | | | | $ - | $ - | | | |
| | Years | | | | $ - | $ - | | | |
| | Total Length of Lease | 0 | | | | | | | $ - |
| | Transaction Fee for first 5 Years | 2.50% | *of total rent for first 5 years of term* | | | | | | |
| | Transaction Fee for Additional Years | 1.25% | *of total rent for term beyond 5 years* | | | | | | |

*Note: Real estate transaction fees calculated on base lease - not full service rate including added services and utilities.*

| Added Services | New Lease Operating Costs (Starting in current year) | Known Cost / SF / Year | Estimated Cost / SF / Year | Total Cost / Year | Cost / Month |
|---|---|---|---|---|---|
| ☑ | Energy (Electricity, Natural Gas) | $ - | $ - | $ - | $ - |
| ☑ | Janitorial Services | $ - | $ - | $ - | $ - |
| ☑ | Utilities (Water, Sewer, & Garbage) | $ - | $ - | $ - | $ - |
| ☐ | Grounds | $ - | $ - | $ - | $ - |
| ☐ | Pest Control | $ - | $ - | $ - | $ - |
| ☐ | Security | $ - | $ - | $ - | $ - |
| ☐ | Maintenance and Repair | $ - | $ - | $ - | $ - |
| ☐ | Management | $ - | $ - | $ - | $ - |
| ☐ | Road Clearance | $ - | $ - | $ - | $ - |
| ☐ | Telecom | $ - | $ - | $ - | $ - |
| | Additional Parking | $ - | $ - | $ - | $ - |
| | Other | $ - | $ - | $ - | $ - |
| | **Total Operating Costs** | **$ -** | **$ -** | **$ -** | **$ -** |

***Escalated to lease start date***

| | New Lease One Time Costs | Current Estimate | Calculated (for reference) | |
|---|---|---|---|---|
| * | Real Estate Transaction Fees | | $ - | *Per Std %* |
| * | Tenant Improvements | | $ - | *$15 per SF* |
| * | IT Infrastructure | | $ - | *$350 per Person* |
| * | Furniture Costs | | $ - | *$500 per Person* |
| * | Building Security and Access Systems | | | |
| * | Moving Vendor and Supplies | | $ - | *$205 per Person* |
| | Other / Incentive | | | |
| | **Total** | $ - | $ - | |

| Biennium Budget Impacts for New Lease | Biennium Time Period Start | Finish | Existing Lease Option | New Lease Option 1 | Biennium Impact: |
|---|---|---|---|---|---|
| 15-17 Biennium Lease Expenditure | 7/1/2015 | 6/30/2017 | $ - | $ - | $ - |
| 17-19 Biennium Lease Expenditure | 7/1/2017 | 6/30/2019 | $ - | $ - | $ - |
| 19-21 Biennium Lease Expenditure | 7/1/2019 | 6/30/2021 | $ - | $ - | $ - |
| 21-23 Biennium Lease Expenditure | 7/1/2021 | 6/30/2023 | $ - | $ - | $ - |
| 23-25 Biennium Lease Expenditure | 7/1/2023 | 6/30/2025 | $ - | $ - | $ - |

## Lease Option 2 Information Sheet

| * | *Requires a user input* | *Green Cell* | *= Value can be entered by user.* | *Yellow Cell* | *= Calculated value.* |
|---|---|---|---|---|---|

| * | **New Lease Option 2 Description** | |
|---|---|---|

| **New Lease Information** | | |
|---|---|---|
| Lease Location | | Market Area: |
| Lease Square Feet Type | | |
| New Facility Square Feet | | |
| New Lease Start Date | | |
| SF per Person Calculated | | |

| **New Lease Costs** | **Years of Term** | **Rate / SF / Year** | **Rate / Month** | **Adjusted to FS Rate** | **Total FS Rate / Month** | **Estimated FSG Market Rate** | **Estimated FSG Rate / Month** | **Real Estate Transaction Fees for Term** |
|---|---|---|---|---|---|---|---|---|
| Year | | | | $ - | $ - | $ - | | |
| Years | | | | $ - | $ - | | | |
| Years | | | | $ - | $ - | | | |
| Years | | | | $ - | $ - | | | |
| Years | | | | $ - | $ - | | | |
| Total Length of Lease | 0 | | | | | | | $ - |
| Transaction Fee for first 5 Years | 2.50% | *of total rent for first 5 years of term* | | | | | | |
| Transaction Fee for Additional Years | 1.25% | *of total rent for term beyond 5 years* | | | | | | |

*Note: Real estate transaction fees calculated on base lease - not including added services and utilities.*

| Added Services | New Lease Operating Costs (Starting in current year) | Known Cost / SF / Year | Estimated Cost / SF / Year | Total Cost / Year | Cost / Month |
|---|---|---|---|---|---|
| ☑ | Energy (Electricity, Natural Gas) | $ - | $ - | $ - | $ - |
| ☑ | Janitorial Services | $ - | $ - | $ - | $ - |
| ☑ | Utilities (Water, Sewer, & Garbage) | $ - | $ - | $ - | $ - |
| ☐ | Grounds | $ - | $ - | $ - | $ - |
| ☐ | Pest Control | $ - | $ - | $ - | $ - |
| ☐ | Security | $ - | $ - | $ - | $ - |
| ☐ | Maintenance and Repair | $ - | $ - | $ - | $ - |
| ☐ | Management | $ - | $ - | $ - | $ - |
| ☐ | Road Clearance | $ - | $ - | $ - | $ - |
| ☐ | Telecom | $ - | $ - | $ - | $ - |
| | Additional Parking | $ - | $ - | $ - | $ - |
| | Other | $ - | $ - | $ - | $ - |
| | **Total Operating Costs** | **$ -** | **$ -** | **$ -** | **$ -** |

***Escalated to lease start date***

| New Lease One Time Costs | Current Estimate | Calculated (for reference) | |
|---|---|---|---|
| Real Estate Transaction Fees | | $ - | *Per Std %* |
| Tenant Improvements | | $ - | *$15 / RSF* |
| IT Infrastructure | | $ - | *$350 / Person* |
| Furniture Costs | | $ - | *$500 / Person* |
| Building Security and Access Systems | | | |
| Moving Vendor and Supplies | | $ - | *$205 / Person* |
| Other / Incentive | | | |
| **Total** | $ - | $ - | |

| Biennium Budget Impacts for New Lease | Biennium Time Period Start | Finish | Existing Lease Option | New Lease Option 2 | Biennium Impact: |
|---|---|---|---|---|---|
| 15-17 Biennium Lease Expenditure | 7/1/2015 | 6/30/2017 | $ - | $ - | $ - |
| 17-19 Biennium Lease Expenditure | 7/1/2017 | 6/30/2019 | $ - | $ - | $ - |
| 19-21 Biennium Lease Expenditure | 7/1/2019 | 6/30/2021 | $ - | $ - | $ - |
| 21-23 Biennium Lease Expenditure | 7/1/2021 | 6/30/2023 | $ - | $ - | $ - |
| 23-25 Biennium Lease Expenditure | 7/1/2023 | 6/30/2025 | $ - | $ - | $ - |

## Ownership Option 1 Information Sheet

* ***Requires a user input*** | *Green Cell* = *Value can be entered by user.* | *Yellow Cell* = *Calculated value.*

| | | |
|---|---|---|
| * | **Project Description** | New construction of an 18 bed cottage on the CSTC campus. Single level except for partial upper floor for mechanical, electrical, telecom, Utilities. Brick veneer exterior with pitched shingle roof. |
| * | **Construction or Purchase/Remodel** | Construction |
| * | **Project Location** | Lakewood — Market Area = Pierce County |

| | **Statistics** | |
|---|---|---|
| * | Gross Sq Ft | 19,727 |
| * | Usable Sq Ft | 17,269 |
| | Space Efficiency | 88% |
| | Estimated Acres Needed | 2.00 |
| | MACC Cost per Sq Ft | $399.42 |
| | Estimated Total Project Costs per Sq Ft | $559.19 |
| | Escalated MACC Cost per Sq Ft | $423.80 |
| | Escalated Total Project Costs per Sq Ft | $593.31 |

| | | |
|---|---|---|
| * | **Move In Date** | 9/1/2018 |

| **Interim Lease Information** | **Start Date** |
|---|---|
| Lease Start Date | |
| Length of Lease (in months) | |
| Square Feet (holdover/temp lease) | |
| Lease Rate- Full Serviced ($/SF/Year) | |
| One Time Costs (if double move) | |

| | Construction Cost Estimates (See Capital Budget System For Detail) | | | |
|---|---|---|---|---|
| | | Known Costs | Estimated Costs | Cost to Use |
| | **Acquisition Costs Total** | $ - | $ 500,000 | $ 500,000 |
| A & E | **Consultant Services** | | | |
| | A & E Fee Percentage (if services not specified) | 9.58% | 8.11% Std | 9.58% |
| | Pre-Schematic Design services | $ 115,110 | | |
| | Construction Documents | $ 556,886 | | |
| | Extra Services | $ 305,350 | | |
| | Other Services | $ 277,702 | | |
| | Design Services Contingency | $ 62,752 | | |
| | **Consultant Services Total** | $ 1,317,800 | $ 984,924 | $ 1,317,800 |
| MACC | **Construction Contracts** | | | |
| | Site Work | $ 1,078,330 | | |
| | Related Project Costs | $ - | | |
| | Facility Construction | $ 6,801,062 | | |
| | **MACC SubTotal** | $ 7,879,392 | $ 5,918,100 | $ 7,879,392 |
| | Construction Contingency (5% default) | $ 393,970 | $ 393,970 | $ 393,970 |
| | Non Taxable Items | $ - | | $ - |
| | Sales Tax | $ 777,696 | | $ 777,696 |
| | **Construction Additional Items Total** | $ 1,171,666 | $ 393,970 | $ 1,171,666 |
| | **Equipment** | | | |
| | Equipment | $ 454,550 | | |
| | Non Taxable Items | $ - | | |
| | Sales Tax | $ 42,728 | | |
| | **Equipment Total** | $ 497,278 | | $ 497,278 |
| | **Art Work Total** | $ 41,081 | $ 39,397 | $ 41,081 |
| | **Other Costs** | | | |
| | See C-100 | $ 447,500 | | |
| | | | | |
| | | | | |
| | **Other Costs Total** | $ 447,500 | | $ 447,500 |
| | **Project Management Total** | $ 868,106 | | $ 868,106 |
| | **Grand Total Project Cost** | **$ 12,222,823** | **$ 7,836,391** | **$ 12,722,823** |

| Construction One Time Project Costs | | | |
|---|---|---|---|
| One Time Costs | Estimate | Calculated | |
| Moving Vendor and Supplies | | $ - | *$205 / Person in FY09* |
| Other (not covered in construction) | | | |
| **Total** | $ - | $ - | |

| | Ongoing Building Costs | | | | |
|---|---|---|---|---|---|
| Added Services | New Building Operating Costs | Known Cost /GSF/ 2018 | Estimated Cost /GSF/ 2018 | Total Cost / Year | Cost / Month |
| ☑ | Energy (Electricity. Natural Gas) | $ - | $ 1.08 | $ 21,344 | $ 1,779 |
| ☑ | Janitorial Services | $ - | $ 1.27 | $ 25,010 | $ 2,084 |
| ☑ | Utilities (Water, Sewer, & Garbage) | $ - | $ 0.59 | $ 11,642 | $ 970 |
| ☑ | Grounds | $ - | $ 0.14 | $ 2,803 | $ 234 |
| ☐ | Pest Control | $ - | $0.00 | $ - | $ - |
| ☑ | Security | $ - | $ 0.11 | $ 2,156 | $ 180 |
| ☑ | Maintenance and Repair | $ - | $ 5.42 | $ 106,937 | $ 8,911 |
| ☑ | Management | $ - | $ 0.64 | $ 12,720 | $ 1,060 |
| ☐ | Road Clearance | $ - | $0.00 | $ - | $ - |
| ☐ | Telecom | $ - | $0.00 | $ - | $ - |
| | Additional Parking | $ - | $ - | $ - | $ - |
| | Other | $ - | $ - | $ - | $ - |
| | **Total Operating Costs** | **$ -** | **$ 9.26** | **$ 182,613** | **$ 15,218** |

## Ownership Option 2 Information Sheet

* ***Requires a user input*** | *Green Cell* = *Value can be entered by user.* | *Yellow Cell* = *Calculated value.*

| | | |
|---|---|---|
| * | **Project Description** | |
| * | **Construction or Purchase/Remodel** | |
| * | **Project Location** | Market Area = |

| | **Statistics** | |
|---|---|---|
| * | Gross Sq Ft | |
| * | Usable Sq Ft | |
| | Space Efficiency | |
| | Estimated Acres Needed | - |
| | MACC Cost per Sq Ft | $0.00 |
| | Estimated Total Project Costs per Sq Ft | $0.00 |
| | Escalated MACC Cost per Sq Ft | $0.00 |
| | Escalated Total Project Costs per Sq Ft | $0.00 |

| | | |
|---|---|---|
| * | **Move In Date** | |

| **Interim Lease Information** | **Start Date** |
|---|---|
| Lease Start Date | |
| Length of Lease (in months) | |
| Square Feet (holdover/temp lease) | |
| Lease Rate- Full Serviced ($/SF/Year) | |
| One Time Costs (if double move) | |

| Construction Cost Estimates (See Capital Budget System For Detail) | | Known Costs | Estimated Costs | | Cost to Use |
|---|---|---|---|---|---|
| **Acquisition Costs Total** | | | $ - | $ | - |
| **Consultant Services** | | | | | |
| A & E Fee Percentage (if services not specified) | | | | 12.5% Std | 12.50% |
| Pre-Schematic Design services | | | | | |
| Construction Documents | | | | | |
| Extra Services | | | | | |
| Other Services | | | | | |
| Design Services Contingency | | | | | |
| **Consultant Services Total** | A & E | $ - | $ - | $ | - |
| **Construction Contracts** | | | | | |
| Site Work | | | | | |
| Related Project Costs | | | | | |
| Facility Construction | MACC | | | | |
| **MACC SubTotal** | | $ - | $ - | $ | - |
| Construction Contingency (5% default) | | | $ - | $ | - |
| Non Taxable Items | | | | $ | - |
| Sales Tax | | | | | |
| **Construction Additional Items Total** | | $ - | $ - | $ | - |
| **Equipment** | | | | | |
| Equipment | | | | | |
| Non Taxable Items | | | | | |
| Sales Tax | | | | | |
| **Equipment Total** | | $ - | | $ | - |
| **Art Work Total** | | | $ - | $ | - |
| **Other Costs** | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| **Other Costs Total** | | $ - | | $ | - |
| **Project Management Total** | | | | $ | - |
| **Grand Total Project Cost** | | | $ - | $ | - |

| Construction One Time Project Costs | | | |
|---|---|---|---|
| One Time Costs | Estimate | Calculated | |
| Moving Vendor and Supplies | | | *$205 / Person in FY09* |
| Other (not covered in construction) | | | |
| **Total** | $ - | $ - | |

| | Ongoing Building Costs | | | | |
|---|---|---|---|---|---|
| Added Services | New Building Operating Costs | Known Cost /GSF/ Year | Estimated Cost /GSF/ Year | Total Cost / Year | Cost / Month |
| ☑ | **Energy (Electricity. Natural Gas)** | $ - | $ - | $ - | $ - |
| ☑ | **Janitorial Services** | $ - | $ - | $ - | $ - |
| ☑ | **Utilities (Water, Sewer, & Garbage)** | $ - | $ - | $ - | $ - |
| ☑ | **Grounds** | $ - | $ - | $ - | $ - |
| ☑ | **Pest Control** | $ - | $ - | $ - | $ - |
| ☑ | **Security** | $ - | $ - | $ - | $ - |
| ☑ | **Maintenance and Repair** | $ - | $ - | $ - | $ - |
| ☑ | **Management** | $ - | $ - | $ - | $ - |
| ☑ | **Road Clearance** | $ - | $ - | $ - | $ - |
| ☑ | **Telecom** | $ - | $ - | $ - | $ - |
| | **Additional Parking** | $ - | $ - | $ - | $ - |
| | **Other** | $ - | $ - | $ - | $ - |
| | **Total Operating Costs** | **$ -** | **$ -** | **$ -** | **$ -** |

## Ownership Option 3 Information Sheet

* ***Requires a user input*** | *Green Cell* = *Value can be entered by user.* | *Yellow Cell* = *Calculated value.*

| | | |
|---|---|---|
| * | **Project Description** | |
| * | **Construction or Purchase/Remodel** | |
| * | **Project Location** | Market Area = |

| | **Statistics** | |
|---|---|---|
| * | Gross Sq Ft | |
| * | Usable Sq Ft | |
| | Space Efficiency | |
| | Estimated Acres Needed | - |
| | MACC Cost per Sq Ft | $0.00 |
| | Estimated Total Project Costs per Sq Ft | $0.00 |
| | Escalated MACC Cost per Sq Ft | $0.00 |
| | Escalated Total Project Costs per Sq Ft | $0.00 |

| | | |
|---|---|---|
| * | **Move In Date** | |

| **Interim Lease Information** | **Start Date** |
|---|---|
| Lease Start Date | |
| Length of Lease (in months) | |
| Square Feet (holdover/temp lease) | |
| Lease Rate- Full Serviced ($/SF/Year) | |
| One Time Costs (if double move) | |

| | Construction Cost Estimates (See Capital Budget System For Detail) | | | |
|---|---|---|---|---|
| | | Known Costs | Estimated Costs | Cost to Use |
| | **Acquisition Costs Total** | | $ - | $ - |
| A & E | **Consultant Services** | | | |
| | A & E Fee Percentage (if services not specified) | | 12.5% Std | 12.50% |
| | Pre-Schematic Design services | | | |
| | Construction Documents | | | |
| | Extra Services | | | |
| | Other Services | | | |
| | Design Services Contingency | | | |
| | **Consultant Services Total** | $ - | $ - | $ - |
| MACC | **Construction Contracts** | | | |
| | Site Work | | | |
| | Related Project Costs | | | |
| | Facility Construction | | | |
| | **MACC SubTotal** | $ - | $ - | $ - |
| | Construction Contingency (5% default) | | $ - | $ - |
| | Non Taxable Items | | | $ - |
| | Sales Tax | | | |
| | **Construction Additional Items Total** | $ - | $ - | $ - |
| | **Equipment** | | | |
| | Equipment | | | |
| | Non Taxable Items | | | |
| | Sales Tax | | | |
| | **Equipment Total** | $ - | | $ - |
| | **Art Work Total** | | $ - | $ - |
| | **Other Costs** | | | |
| | | | | |
| | | | | |
| | | | | |
| | **Other Costs Total** | $ - | | $ - |
| | **Project Management Total** | | | $ - |
| | **Grand Total Project Cost** | | $ - | $ - |

| Construction One Time Project Costs | | | |
|---|---|---|---|
| One Time Costs | Estimate | Calculated | |
| Moving Vendor and Supplies | | | *$205 / Person in FY09* |
| Other (not covered in construction) | | | |
| **Total** | $ - | $ - | |

| | Ongoing Building Costs | | | | |
|---|---|---|---|---|---|
| Added Services | New Building Operating Costs | Known Cost /GSF/ Year | Estimated Cost /GSF/ Year | Total Cost / Year | Cost / Month |
| ☑ | **Energy (Electricity. Natural Gas)** | $ - | $ - | $ - | $ - |
| ☑ | **Janitorial Services** | $ - | $ - | $ - | $ - |
| ☑ | **Utilities (Water, Sewer, & Garbage)** | $ - | $ - | $ - | $ - |
| ☑ | **Grounds** | $ - | $ - | $ - | $ - |
| ☑ | **Pest Control** | $ - | $ - | $ - | $ - |
| ☑ | **Security** | $ - | $ - | $ - | $ - |
| ☑ | **Maintenance and Repair** | $ - | $ - | $ - | $ - |
| ☑ | **Management** | $ - | $ - | $ - | $ - |
| ☑ | **Road Clearance** | $ - | $ - | $ - | $ - |
| ☑ | **Telecom** | $ - | $ - | $ - | $ - |
| | **Additional Parking** | $ - | $ - | $ - | $ - |
| | **Other** | $ - | $ - | $ - | $ - |
| | **Total Operating Costs** | **$ -** | **$ -** | **$ -** | **$ -** |

## Life Cycle Cost Analysis - Project Summary

| | |
|---|---|
| **Agency** | Department of Social and Health Services |
| **Project Title** | CSTC - Additional CLIP Capacity - Predesign Study; 2016-440 A (1) |

| | |
|---|---|
| **Existing Description** | Existing Child Study and Treatment Center Campus |

| | |
|---|---|
| **Lease Option 1 Description** | |

| | |
|---|---|
| **Lease Option 2 Description** | |

| | |
|---|---|
| **Ownership Option 1 Description** | New construction of an 18 bed cottage on the CSTC campus. Single level except for partial upper floor for mechanical, electrical, telecom, Utilities. Brick veneer exterior with pitched shingle roof. |

| | |
|---|---|
| **Ownership Option 2 Description** | |

| | |
|---|---|
| **Ownership Option 3 Description** | |

| Lease Options Information | Existing Lease | Lease Option 1 | Lease Option 2 |
|---|---|---|---|
| Total Rentable Square Feet | - | - | - |
| Annual Lease Cost (Initial Term of Lease) | $ - | $ - | $ - |
| Full Service Cost/SF (Initial Term of Lease) | $ - | $ - | $ - |
| Occupancy Date | n/a | | |
| Project Initial Costs | n/a | $ - | $ - |
| Persons Relocating | - | - | - |
| RSF/Person Calculated | | | |

| Ownership Information | Ownership 1 | Ownership 2 | Ownership 3 |
|---|---|---|---|
| Total Gross Square Feet | 19,727 | - | - |
| Total Rentable Square Feet | 17,269 | - | - |
| Occupancy Date | 9/1/2018 | | |
| Initial Project Costs | $ - | $ - | $ - |
| Est Construction TPC ($/GSF) | $ 593 | $ - | $ - |

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*6C. Department of Archaeology and Historic Preservation Letter*

dahp
protect the past. shape the future

Allyson Brooks Ph.D., Director
State Historic Preservation Officer

August 18, 2016

Mr. Robert J. Hubenthal
Capital Facilities Management
Department of Social & Health Services
PO Box 45848
Olympia, Washington 98504-5848

Re: Child Study & Treatment Center – Additional CLIP Capacity Project
Log No.: 2016-08-05940-WSHS

Dear Mr. Hubenthal;

Thank you for contacting our Department pursuant to Executive Order 05-05. We have reviewed the materials you provided for the proposed Child Study & Treatment Center – Additional CLIP Capacity Project at Western State Hospital, Lakewood, Pierce County, Washington.

Given the recorded archaeological resource and the area's landforms and environment that are sensitive for cultural resources, we request for a professional archaeologist to survey the area proposed for ground disturbance. We look forward to receiving the professional report.

We would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive.

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer in compliance with Executive Order 05-05. Should additional information become available, our assessment may be revised, including information regarding historic properties that have not yet been identified.

Thank you for the opportunity to comment and a copy of these comments should be included in subsequent environmental documents.

Sincerely,

Robert G. Whitlam, Ph.D.
State Archaeologist
(360) 890-2615
email: *rob.whitlam@dahp.wa.gov*

State of Washington • **Department of Archaeology & Historic Preservation**
P.O. Box 48343 • Olympia, Washington 98504-8343 • (360) 586-3065
www.dahp.wa.gov

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## *6D. Predesign Checklist*

### Executive Summary

### Problem Statement, Opportunity or Program Requirement

- ☑ Identify the problem, opportunity or program requirement that the project addresses and how it will be accomplished.
- ☑ Identify and explain the statutory or other requirements that drive the project's operational programs and how these affect the need for space, location or physical accommodations.
- ☑ Include anticipated population projections (growth or decline) and assumptions.
- ☑ Explain the connection between the agency's mission, goals and objectives; statutory requirements; and the problem, opportunity, or program requirements.
- ☑ Describe in general terms what is needed to solve the problem.
- ☑ Include any relevant history of the project, including previous predesigns that did not go forward to design or construction.

### Analysis of Alternatives (including the preferred alternative)

- ☑ Describe all alternatives that were considered, including the preferred alternative. Include:
  - ☑ A no action alternative.
  - ☑ Advantages and disadvantages of each alternative. Please include a high-level summary table with your analysis.
- ☑ Cost estimates for each alternative.
  - ☑ Provide enough information so decision makers have a general understanding of the costs.
  - ☑ Complete OFM's Life Cycle Cost Model (RCW 39.35B.050).
- ☑ Schedule estimates for each alternative. Estimate the start, midpoint, and completion dates.

### Detailed Analysis of Preferred Alternative

- ☑ Nature of space – how much of the proposed space will be used for what purpose (i.e., office, lab, conference, classroom, etc.)
- ☑ Occupancy numbers.
- ☑ Basic configuration of the building, including square footage and the number of floors.
- ☑ Space needs assessment. Identify the guidelines used.

### Site Analysis

- ☑ Identify site studies that are completed or under way.
- ☑ Location.
- ☑ Building footprint and its relationship to adjacent facilities and site features. Provide an aerial view, sketches of the building site, and basic floorplans.
- ☑ Stormwater requirements.
- ☑ Ownership of the site and any acquisition issues.
- ☑ Easements and setback requirements.
- ☑ Potential issues with the surrounding neighborhood, during construction and ongoing.
- ☑ Utility extension or relocation issues.
- ☑ Potential environmental impacts.
- ☑ Parking and access issues, including improvements required by local ordinances, local road impacts, and parking demand.

- ☑ Impact on surroundings and existing development with construction lay-down areas and construction phasing.
- ☑ Consistency with applicable long-term plans (such as the Thurston County and Capitol
- ☑ Campus master plans and agency or area master plans) as required by RCW 43.88.110.
- ☑ Consistency with other laws and regulations
- ☑ High-performance public buildings (Chapter 39.35D RCW).
- ☑ Greenhouse gas emissions reduction policy (RCW 70.235.070).
- ☑ Archeological and cultural resources (Executive Order 05-05 and Section 106 of the
- ☑ National Historic Preservation Act of 1966).
- ☑ Americans with Disabilities Act implementation (Executive Order 96-04).
- ☑ Compliance with planning under Chapter 36.70A RCW, as required by RCW 43.88.0301.
- ☑ Information required by RCW 43.88.0301(1).
- ☑ Other codes or regulations.

☑ Identify problems that require further study. Evaluate identified problems to establish probable costs and risk.
☑ Identify significant or distinguishable components, including major equipment and ADA requirements in excess of existing code.
☑ Identify planned IT systems that affect the building plans.
☑ Describe planned commissioning to ensure systems function as designed.Describe any future phases or other facilities that will affect this project.
☑ Identify and justify the proposed project delivery method. For GC/CM, link to the requirements in RCW 39.10.340.
☑ Describe how the project will be managed within the agency.
☑ Schedule

- ☑ Provide a high-level milestone schedule for the project, including key dates for budget approval, design, bid, acquisition, construction, equipment installation, testing, occupancy, and full operation.
- ☑ Incorporate value-engineering analysis and constructability review into the project schedule, as required by RCW 43.88.110(5)(c).
- ☑ Describe factors that may delay the project schedule.
- ☑ Describe the permitting or local government ordinances or neighborhood issues (such as location or parking compatibility) that could affect the schedule.
- ☑ Identify when the local jurisdiction will be contacted and whether community stakeholder meetings are a part of the process.

Project Budget Analysis for the Preferred Alternative

- ☑ Cost estimate
  - ☑ Major assumptions used in preparing the cost estimate.
  - ☑ Summary table of Uniformat Level II cost estimates.
  - ☑ The C-100. If project costs are outside the C-100 cost control range, explain.
- ☑ Proposed funding
  - ☑ Identify the fund sources and expected receipt of the funds.
  - ☑ If alternatively financed, provide the projected debt service and fund source. Include the assumptions used for calculating finance terms and interest rates.
- ☑ Facility operations and maintenance requirements
  - ☑ Define the anticipated impact of the proposed project on the operating budget for the agency or institution. Include maintenance and operating assumptions (including FTEs).

- ☑ Show five biennia of capital and operating costs from the time of occupancy, including an estimate of building repair, replacement, and maintenance.
- ☑ Clarify whether furniture, fixtures, and equipment are included in the project budget. If not included, explain.

Predesign Appendix

- ☑ Completed Life Cycle Cost Model.
- ☑ A letter from the Department of Archaeology and Historic Preservation.

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## *6E. Glossary*

Acquisition − This type of project includes the acquisition of land, structures and buildings. These are fixed assets that have no relationship to the addition or improvement to, or the repair or replacement of, existing fixed assets. Examples of an acquisition are the purchase of a tract of land or a building.

Alternate Financing − Proposals that cover a wide range of financial contracts that call for the development or use of space by state agencies through a contractual arrangement with a developer or financing entity. Financing may involve the sale of debt obligations (certificates of participation, or COPs, through the State Treasurer) or funding from a private developer. Title to the property involved may transfer to the state either upon exercise of an option or at the termination of the contract.

Constructability Review − An independent consultant or contractor determines if a project can be physically built as designed. This is to reduce construction change orders and claims. This review should be conducted at 75–95 percent completion of the construction documents.

Construction Management (CM) − Involves a contractual arrangement in which an owner employs an agent/consultant called a construction manager to coordinate and manage all the construction trades. The additional management expertise is usually used on larger, more complex construction projects. However, an owner on a smaller project may acquire a construction manager for his or her construction expertise to act as the “eyes and ears” for the owner on the project.

Consultant − A person or entity which provides advice or services to an agency/institution.

Contractor − A person, firm or corporation who or which, in the pursuit of an independent business undertakes or submits a bid to construct, alter, repair, add to, subtract from, improve, move or demolish any building, excavation or other structure, project, development or improvement attached to real estate or to do any part thereof.

Design/Bid/Build − A method of project delivery subject to provisions in Chapter 39.04 RCW in which the agency/institution contracts directly with a single entity responsible for the design of a project and competitively bids the construction services for the construction project.

Design/Build − A method of project delivery subject to provisions in Chapter 39.10 RCW in which the agency or institution contracts directly with a single entity that is responsible for both design and construction services for a construction project.

Facility − A structure with walls and a roof.

Furniture, Fixture and Equipment (FF&E) − The moveable furniture, fixtures or equipment that require no permanent connection to utilities or to the structure.

General Contractor − A contractor whose business operations require the use of more than two unrelated building trades or crafts whose work the contractor will superintend or do in whole or in part. A general contractor does not include an individual who does all work personally without employees or other specialty contractors as defined in this glossary. The terms “general contractor” and “builder” are synonymous.

General Contractor/Construction Manager (GC/CM) − A firm with which an agency or institution has selected

and negotiated a guaranteed maximum allowable construction cost for a project. A competitive selection process is used through formal advertisement and competitive bid to provide services during the design phase that may include life cycle cost design considerations, value engineering, scheduling, cost estimating, constructability and alternative construction options for cost savings and sequencing of work. The GC/CM acts as the construction 12 manager and general contractor during the construction phase. The GC/CM process is subject to provisions in Chapter 39.10 RCW.

LEED Silver Standard − The U.S. Green Building Council leadership in energy and environmental design green building rating standard, referred to as silver standard.

Life Cycle Cost − The capital and operational cost of a construction item, system or building during its estimated useful life.

Master Plan − A document setting forth the concepts and guiding principles for development of campus facilities, landscaping and infrastructure.

Midpoint of Construction − Date midway between the commencement date and substantial completion date.

Operations and Maintenance (O&M) Costs − The costs of the regular custodial care and repair, annual maintenance contracts, utilities, maintenance contracts and salaries of facility staff performing O&M tasks. The ordinary costs required for the upkeep of property and the restoration required when assets are damaged but not replaced. Items under O&M include the costs of inspecting and locating trouble areas; cleaning and preventive work; replacement of minor parts; power; labor; and materials. O&M work is required to preserve or restore buildings, grounds, utilities and equipment to their intended running condition so they can be effectively used for their intended purpose.

Phased Construction − Construction that is split into multiple phases due to fund availability and/or occupancy issues, such as completing a renovation in an occupied building.

Project Budget − The sum established by the agency/institution that is available for the entire project, including the construction budget; acquisition costs; costs of furniture, furnishings and equipment; and compensation for professional services and all contingencies.

Project Delivery System − Method of how an owner plans to contract a project, such as design/bid/build, design/build, GC/CM, etc.

Uniformat − A system for classifying building products and systems by functional subsystem, such as substructure, superstructure or exterior closure.

Value Engineering (VE) − VE is a systematic, orderly approach to defining a facility's required function, verifying the need for the function and creating alternatives for providing the function at minimum life cycle cost. Value is the lowest life cycle cost to achieve the required function. VE is a problem-solving system that emphasizes the reduction of cost while maintaining the required quality and performance of the facility.

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