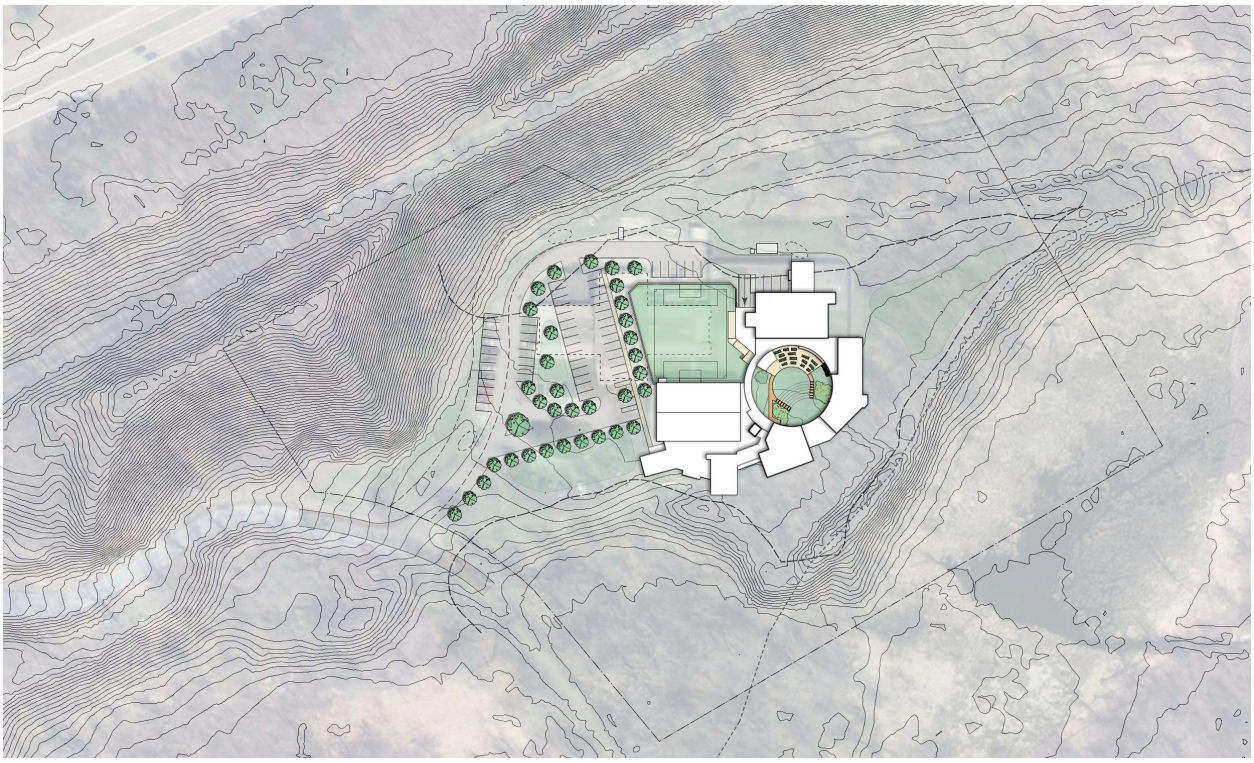
WOODSIDE

Juvenile Rehabilitation Center

12.22.16

Duncan Wisniewski ARCHITECTURE

TREANORHL



EXECUTIVE SUMMARY

Access the full report via this link:
http://bgs.vermont.gov/sites/bgs/files/files/_WS_12.22.16_FeasibilityReport.pdf

INTRODUCTION

Upon seeing the RFP for the Woodside Juvenile Rehabilitation Center (WS) my reaction was, "I am so not interested in doing prison work." This was a shockingly ignorant view. While we were quickly disabused of this notion, I suspect that much of the public still thinks Woodside is a jail for young people.

What is the Woodside Juvenile Rehabilitation Center? Institutions do not always live up to their names; but 'Rehabilitation' is a core value at WS. Juveniles, sometimes severely abused, can become a danger to themselves and others and become enmeshed in the legal system. Woodside's mission is to heal them, not in a jail, but in a secure, therapeutic environment that supports a return to society. This nationwide model is better for the youth, their family and society and is more cost effective than relying on the detention system.

As we understood how important a force for good Woodside is two things stood out:

First, we were impressed with the commitment and compassion exhibited by the staff. We felt this from the director all the way down to staff working in the dayroom or monitoring someone in crisis. Even the two chefs in the kitchen exuded commitment. We heard stories of past residents who entered in dire straits, are now are doing well and still regularly check in to say hello to the people who helped them find their way.

Second, it was sobering to see how much the existing facility works against their efforts. The needed program spaces are not available, what exists doesn't work and it feels like a jail. When people are in a jail they act accordingly which undermines the therapeutic elements of the program.

This feasibility study was compressed into a very short time frame. Our goal was to analyze the existing site and building conditions, develop a program, propose a preliminary design and an initial opinion of probable cost. We have successfully developed a design strategy that has flexibility to expand or shrink in response to program and budget needs. The next step would be to develop the site and building in more detail including building structure and systems as a basis for a more detailed cost estimate.

TEAM & PROCESS

Duncan • Wisniewski Architecture (DWA) has practiced since 1985. Our mission largely involves creating places for the less fortunate including affordable housing, homeless shelters, food shelves and other similar programs. Our biggest state job was the Williston Rest Areas on I89. For WS we teamed with TreanorHL (THL), a national firm focusing on justice work including youth rehabilitation centers. We assembled a team of local consultants to address critical portions of the work.

After assembling base information the team from THL joined us for a three day charrette - a concentrated process where client and architects develop ideas in an intense and compressed time frame - in early November to develop the program and sketch designs. At the end of the charrette we agreed on a design direction which was then developed over a course of one month.

EXISTING SITE REVIEW

GENERAL - Located off of Rt. 15 in Essex, across from the old Fort Ethan Allen this is a most challenging site. In theory the 10 acres - 5.4 developed - allow room and flexibility for expansion. Our site analysis and two meetings with ANR and Army Corps representatives quickly identified major factors limiting the developable footprint to barely more than what is there now.

Natural Resources/Wetlands - Much of the site has Class II wetlands which we delineated and verified. These require a 50' buffer which is shown on our site plan and more or less coincides with the existing developed area.

Stormwater - There is no stormwater permit for this site even though its impervious area exceeds 1 acre. Any additions or new construction will require a permitted stormwater treatment system and this will require a section of our developable area to implement.

FLOODPLAIN - WS is a critical facility - verified with ANR - and cannot be built in the 100 or 500 year flood plain. A survey crew has verified that both existing buildings are in the 500 year flood plain and are not in compliance.

UTILITIES - Sufficient site utilities exist on site.

EXISTING BUILDING REVIEW

GENERAL - The main structure was built in 1984 as a juvenile detention center. A gym was added in 1997. The main floor is approximately 12,000 sf with a 6,000 sf second floor. It is a slab on grade/frostwall with structural concrete masonry (CMU) walls, elevated concrete slab, wood exterior walls and wood roof structure.

STRUCTURAL - Our structural engineer has determined that it is structurally sound. However, the many small rooms with structural CMU walls and doors not meeting ADA make it very difficult to change the layout. A new steel beam structure would need to be inserted and this will be very expensive.

MECHANICAL/ELECTRICAL/PLUMBING - Our MEP report indicates that many of the systems are at the end of their life span and will need to be replaced. The ductwork is so enmeshed with the building structure that it will be difficult to remove without modifying the structure. The gym has its own propane powered heating system but is not adequately ventilated or dehumidified which leads to sweating causing slippery floors that have caused injuries. The fire protection system appears to be adequate and code compliant. The electrical systems are generally adequate.

JUSTICE STANDARDS - The Council of Juvenile Correctional Administrators (CJCA) has submitted a report noting that almost everything about the appearance and function of the building works against the treatment model of rehabilitation that WS seeks to implement. These deficiencies create unsafe and non-therapeutic behaviors which then spread through contagion.

BUILDING IMPACT ON PROGRAM FUNCTION - The detailed report includes a long list of how the building works against the therapeutic model. These deficiencies have to do with both inadequate program space and various unsafe conditions as well as the fact that it feels like a detention center which leads to people acting like they are in a jail.

ACCESSIBILITY - Many of the doors are not accessible due to size or clearances - none of the rooms are accessible. Although there is an elevator, the only way to access it is through the dishwashing and kitchen areas which are not secure.

PROGRAM

At present the facility is licensed for 30 beds. The core elements are housing, education, counseling and support areas plus recreation. We started with an idealized program and then honed in on detailed 30 bed and 25 bed programs related to the design concepts.

Existing	25,000 sf
25 Bed	39,000 sf
30 Bed	46,000 sf

The program is larger than expected because the existing facility is so inadequate. Many of the program elements do not even have space. The staff are sleeping in storage closets (one

infamously known as the Batcave). You go though other rooms to get to classrooms which causes disruption and can compromise confidential counseling or legal conversations. There is no secure medical intake area.

DESIGN STRATEGY

RENOVATION FEASIBILITY - Can the existing building be renovated and added to in a manner that creates a viable program? We concluded that the main building was not suitable to reuse, but that the gym could be integrated into a new structure. A summary of the reasons:

- 500 Year Flood Plain. The main structure is 1.5' below the flood elevation. Given the type of structure that it is there is no way to raise the floor level. We believe the gym could be utilized since it is not a critical function. This alone is a primary reason to abandon this building.

- Renovation/Relocation Implications. Any renovation would be major involving replacing most of the systems. This cannot be done with the WS program remaining on site. The costs of finding, permitting, and retrofitting a secure, temporary facility are extremely high. Staff retention could suffer during this process which would be a major blow given the time and money it has taken to assemble and train the existing, dedicated staff.

- Renovation. Renovating this building would be so extensive that the costs approach new construction. The building is not sympathetic to the rehabilitation program because it was made to be a detention center. Being mostly one story, it inefficiently utilizes the limited site footprint.

STRATEGY - Our design strategy is to build a new structure on site while the existing program remains functioning on site in order to save on the temporary, significant relocation costs. We will reuse the gym to reduce costs since this is a large program element. After the program occupies the new structure, the existing would be demolished and the recreation yard and parking would be completed.

CONCEPT - The organizing concept of program elements around a circular corridor and corridor works for both a 25 and 30 bed design. In fact it is flexible enough to allow us to keep the design concept and continue to adjust and refine the program based on more detailed feedback and budgeting.

This concept appears to satisfy all the permitting issues which limit the developable area: Wetlands, Flood Plain and Stormwater. It satisfies the program elements is a straightforward manner and with relatively simple means creates an environment that is secure but the opposite of a detention center. There is plenty of natural light and views into the forest. We have avoided the curse of endless, artificially lit corridors.

MEP SYSTEMS & ENERGY ANALYSIS

The existing facility is not an energy efficient building. The median Energy Use Intensity (EUI) for an existing facility in the northeast is 90 kBtu/sf - but utility records indicate WS has an EUI of 115 kBTU/sf. Our projections assume an EUI of 60 and indicate that the 25 bed design would actually save money and the 30 bed would be quite similar, even though both are much larger than the existing facility.

PROBABLE COST

The preliminary design has not yet been developed enough to select structural and building systems. Our preliminary opinion of probable cost was developed with our local estimator - Tom Barden - and by comparing THL's experience with national averages.

Site work costs were calculated based on average of 10 - 15% of actual building costs on similar recent projects. Because this is a difficult site we used a factor of 18%. Building demolition cost was based on a somewhat larger, masonry structure in Waterbury. Our local estimator contacted a contractor who has done detention work and the sf numbers he provided coincided with what THL has seen in their national practice.

Summary of Costs- Master Plan *2017 Dollars*

Program Name	Square Footage	Average $/SF	Average Sub-Total	High Sub-Total (x1.15)
25 BED - CONSTRUCTION (HARD) COSTS				
Housing	10,096	$ 300	$ 3,028,800	
Intake and Medical	2,426	$ 300	$ 727,800	
Staff Support	1,827	$ 300	$ 548,100	
Building Support	1,416	$ 300	$ 424,800	
Dining	2,016	$ 300	$ 604,800	
Public Entry and Meeting Rooms	2,028	$ 250	$ 507,000	
Visitation	569	$ 275	$ 156,475	
Administration	1,947	$ 250	$ 486,750	
Counseling	1,657	$ 300	$ 497,100	
Education and Programming	3,526	$ 300	$ 1,057,800	
Core and Primary Circulation	6,070	$ 250	$ 1,517,500	
Existing Gym	5,952	$ 90	$ 535,680	
SUB-TOTAL	**39,530**		$ 10,092,605	$ 11,606,496
Site Work (Civil & Building) - Phase 1 & 2	18% of Bldg Sub-total		$ 1,816,669	$ 2,089,169
Phase 2 - Demolition & Disposal	18,500	$ 11	$ 203,500	$ 234,025
25 BED - TOTAL CONSTRUCTION BUDGET			**$ 12,112,774**	**$ 13,929,690**
		Avg $/SF	*$ 306*	*$ 352*
30 BED - CONSTRUCTION (HARD) COSTS				
Housing	12,235	$ 300	$ 3,670,500	
Intake and Medical	2,426	$ 300	$ 727,800	
Staff Support	1,827	$ 300	$ 548,100	
Building Support	1,416	$ 300	$ 424,800	
Dining	2,016	$ 300	$ 604,800	
Public Entry and Meeting Rooms	2,028	$ 250	$ 507,000	
Visitation	569	$ 275	$ 156,475	
Administration	1,947	$ 250	$ 486,750	
Counseling	2,558	$ 300	$ 767,400	
Education and Programming	4,771	$ 300	$ 1,431,300	
Core and Primary Circulation	8,562	$ 250	$ 2,140,500	
Existing Gym	5,952	$ 90	$ 535,680	
SUB-TOTAL	**46,307**		$ 12,001,105	$ 13,801,271
Site Work (Civil & Building) - Phase 1 & 2	18% of Bldg Sub-total		$ 2,160,199	$ 2,484,229
Phase 2 - Demolition & Disposal	18,500	$ 11	$ 203,500	$ 234,025
30 BED - TOTAL CONSTRUCTION BUDGET			**$ 14,364,804**	**$ 16,519,524**
		Avg $/SF	*$ 310*	*$ 357*

CONCLUSION

We quickly zeroed in on site issues which indicated that we had a very limited area to work with. The existing structure floor elevations were below the 500 year flood plain which is not acceptable for a critical facility. The building itself had many shortcomings besides the flood plain issue and we concluded it could not be reused. We also concluded that finding a temporary or permanent off site facility for the program would be very expensive and perhaps have a negative effect on the program if staff retention was harmed.

Therefore, the design strategy evolved to build a new structure incorporating the gym while the Woodside program continues to operate in the main structure. The building would then be demolished and the recreation yard and parking completed.

The design creates a secure environment that accommodates the program needed to fulfill the core mission of rehabilitation. It is a flexible concept that can work with a 25 or 30 bed program and many of the support spaces could be expanded or contracted around the central space.

END OF EXECUTIVE SUMMARY