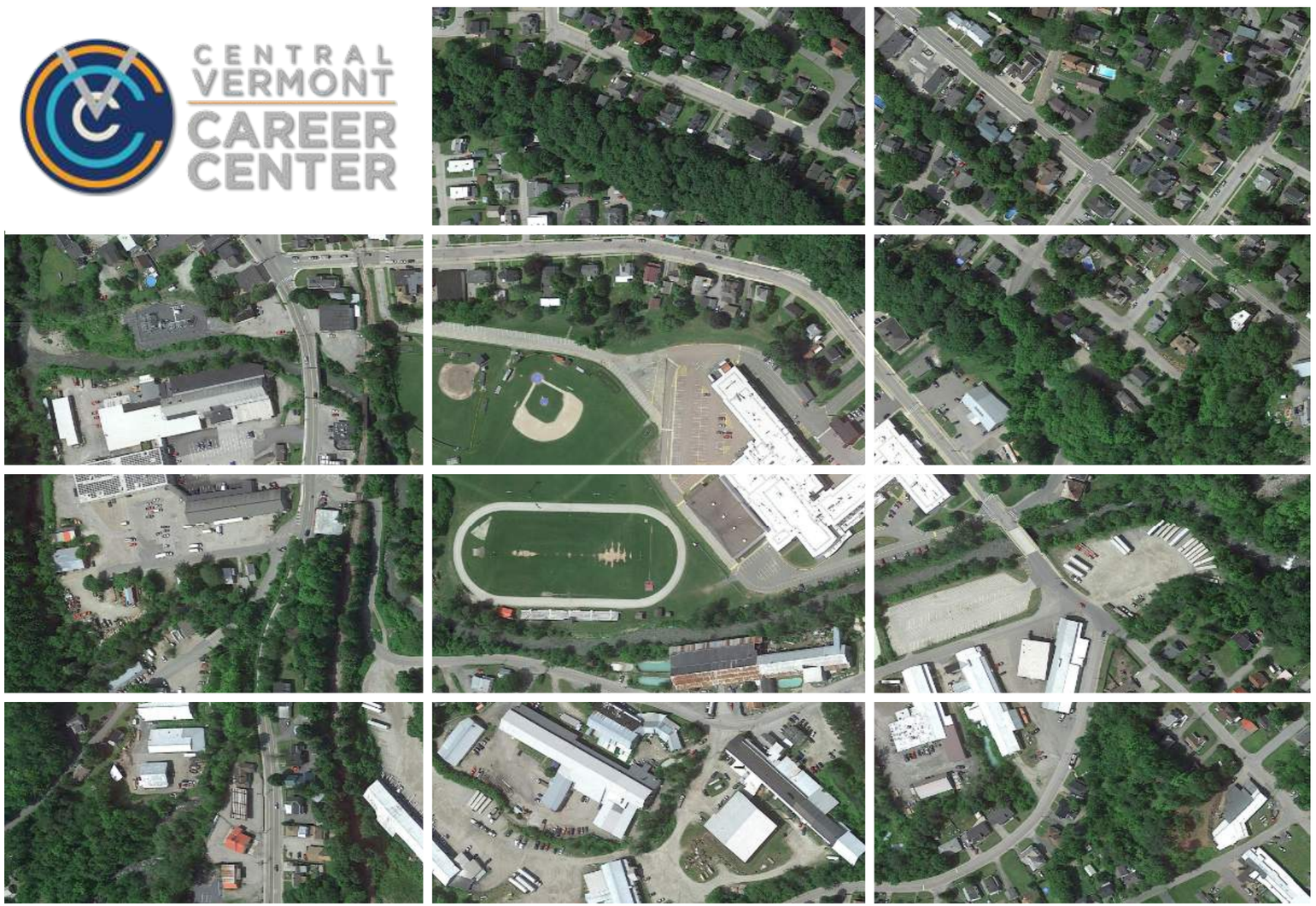
LAVALLEE | BRENSINGER ARCHITECTS

CENTRAL VERMONT CAREER CENTER



Central Vermont Career Center (CVCC)

FEASIBILITY STUDY

December 11, 2020

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The following report includes the assessments and recommendations for the Central Vermont Career Center facilities as prepared the second half of 2020. The information included in this report was created by Lavallee Brensinger Architects in cooperation with CVCC. This document reflects assessments of the existing schools created through tours of each facility, interviews with school director, assistant director and instructors, building programming, current building codes, and VT State Education Standards.

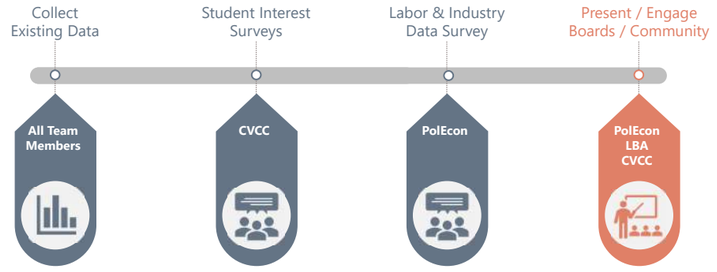
The Collaborative Process

Lavallee Brensinger has defined a detailed process to ensure that no feasibility option is overlooked. A hallmark of this process to the engagement of the community because more voices lead to better ideas. The right solution is the one that addresses the most issues and that the community can support.

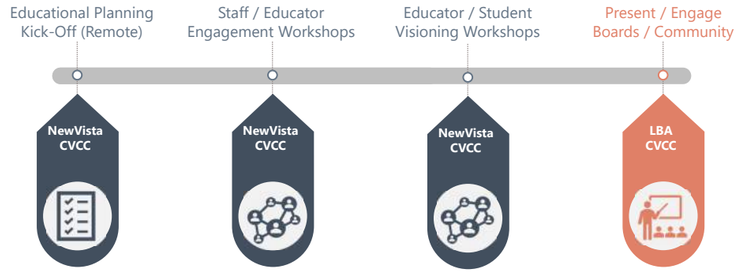
The following page shows the 6 phase outline from kick-off to a bond vote. The blue highlighted squares indicate the community engagement opportunities. This report includes the outcomes for Phases 1 and 2. We have reached the center point where the community will have to decide the direction in which to proceed.

Phases 3 through 6 will look very different depending on whether the project proceeds as a renovation project on the existing site or it becomes a new structure on a new site. We look forward to working together as this project continues to take shape.

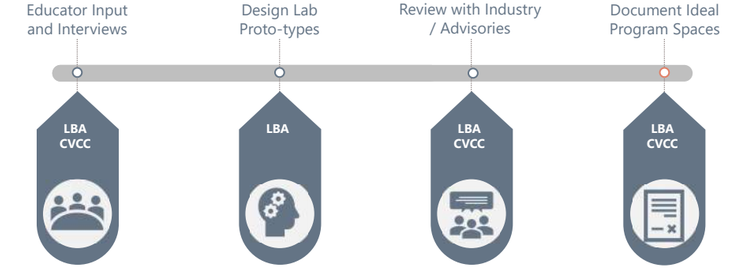
TASK 1 – SERVICE AREA DATA & ANALYSIS



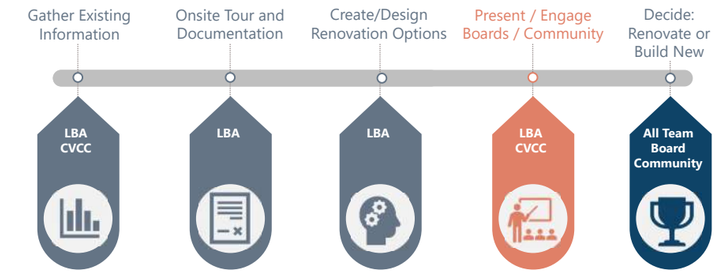
TASK 1 – EDUCATIONAL ANALYSIS & VISIONING



TASK 2 – EDUCATION PLANNING & LAB DESIGN



TASK 2 – NEW V. RENO ANALYSIS



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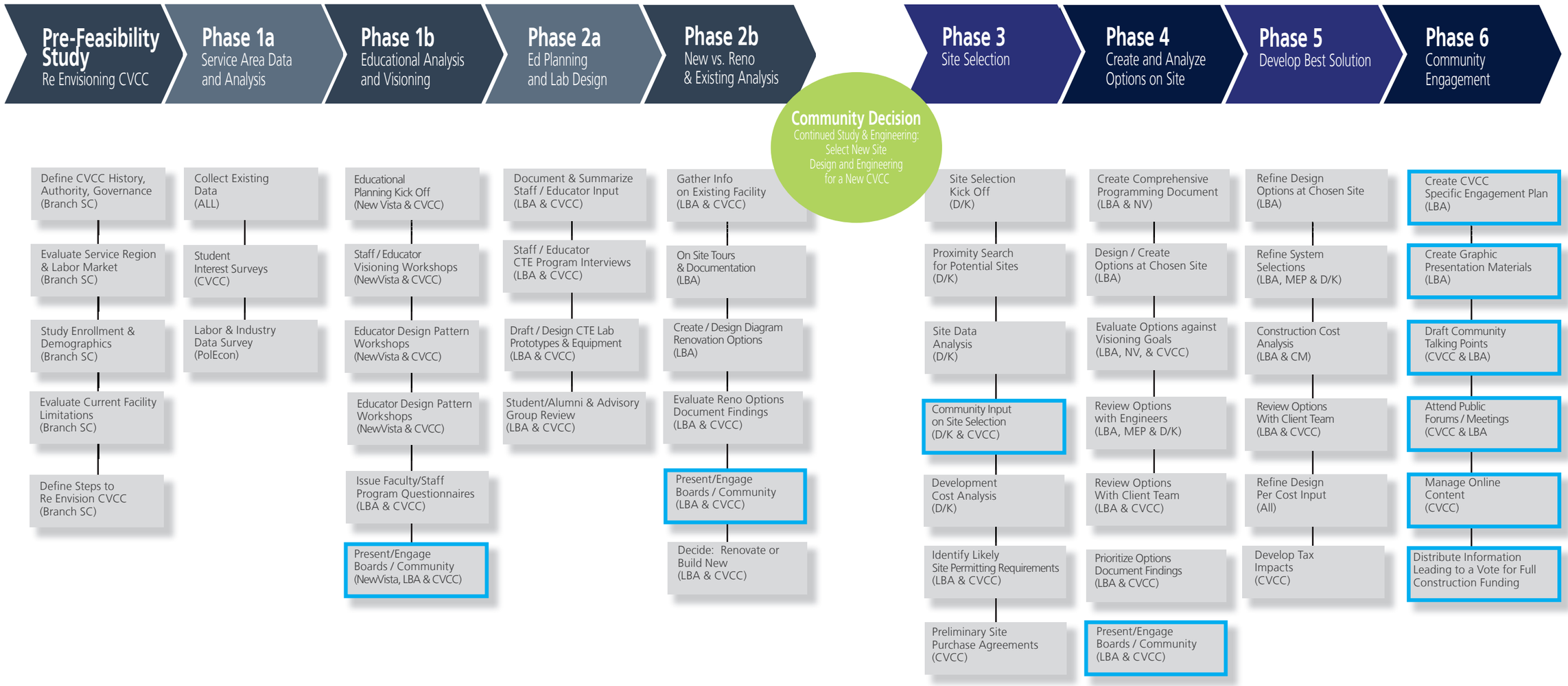
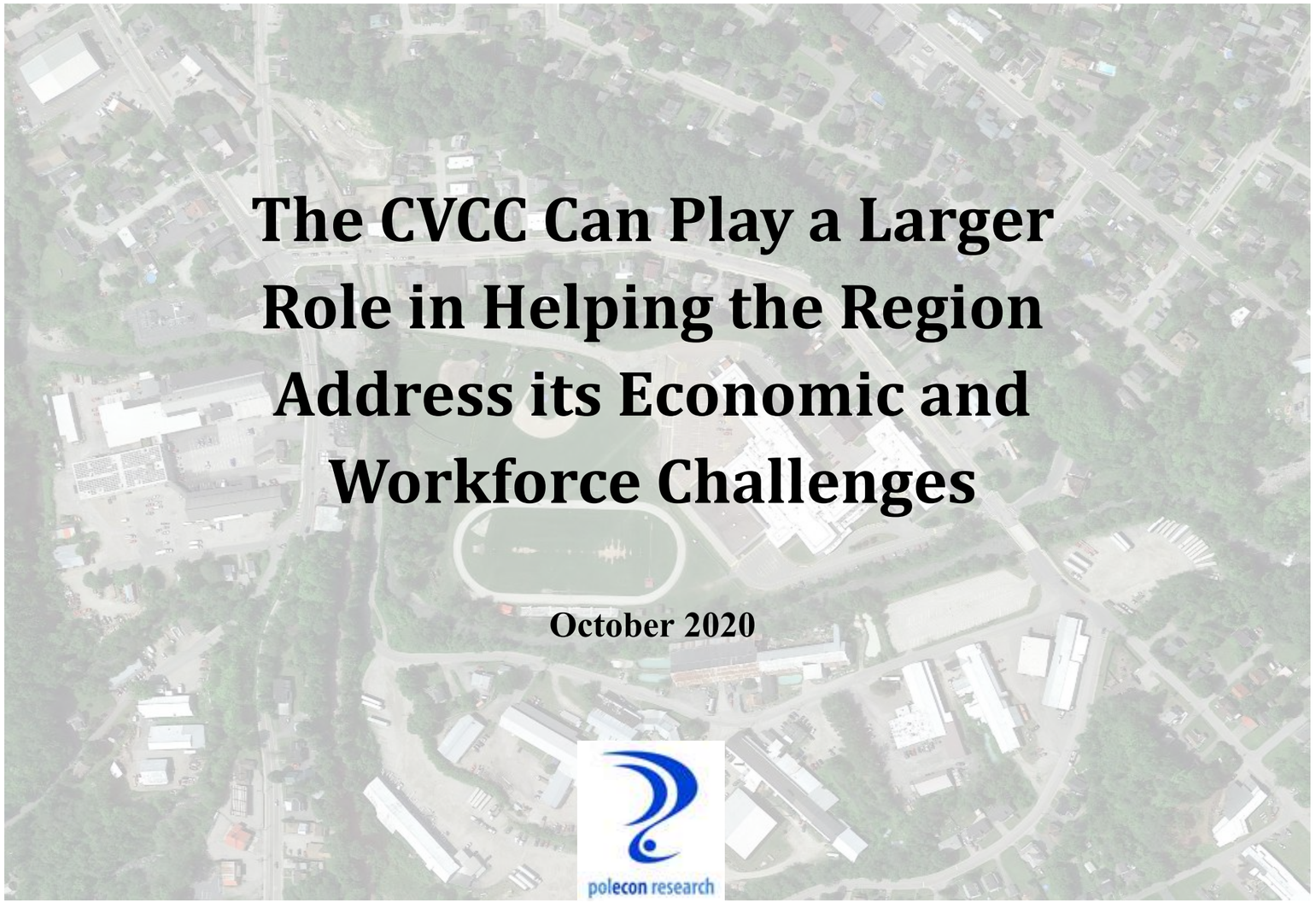


PolEcon Research

CVCC, like many technical schools, wants to ensure they are offering programs that address the industry needs of their region. The data provided by the State of Vermont did not seem to address all the opportunities in the CVCC region. Lavallee Brensinger engaged Brian Gottlob of PolEcon to provide an independent analysis. PolEcon provides economic and public policy analysis and forecasting, fiscal and economic impact analysis, regional economic analysis and development strategy, demographic and labor market analysis for various types of clients. Brian Gottlob presented his finding to the BUUSD Board.

Recommendations:

- Strengthen Medical Programs
- Emphasize employable skills in all programs (communication skills, etc.)
- Consider computer-related program
- Expand adult education opportunities



Executive Summary

This report documents important economic, demographic, labor market, and occupational trends in the Central Vermont Career Center (CVCC) service region influencing the demand for career and technical center education services over the next decade. The report examines the relative efficiency of the CVCC regional labor market in terms of its ability to meet the workforce needs of industries in the region, as well as the degree to which the occupational skills of regional residents align with job opportunities in the region. The report analyzes current and projected demand for labor by industry and occupation in the region, and identifies the education and training, skill, and experience requirements associated with occupations most in demand in the region and the state. Importantly, the report highlights the degree to which CVCC program offerings align with current and projected regional statewide occupational demand.

The principal finding of this report is that CVCC programs align well with projected industry employment growth in Vermont. The report's findings also suggest that the CVCC can play an expanded role in increasing the educational attainment and skill levels of the regional workforce and in matching skills with the unique workforce needs of regional industries. Given the CVCC's ability to adapt offerings to local labor market demand, its ongoing engagement with youth, and potential to serve more non-baccalaureate adults in need re-training, the CVCC can play a larger role in providing skills and training to workers in the region and help the region overcome its principal economic challenges of slow population and labor force growth.

Key Findings of the Report Include:

- To avoid a shrinking labor force and potentially shrinking economy, it is critical for the CVCC region to increase the labor force participation, skills, and productivity of the emerging (youth) workforce.

- Over the past decade for which data is available, each year between 160 and 300 youth in Washington County ages 16-19 are either not in school, not in the labor force, or are unemployed. This is a population that could greatly benefit from CVCC programs.

- The Washington County labor market is becoming less efficient. More residents are commuting out of the county for work and fewer non-resident workers are commuting in, even as demand for workers in the region has not declined, an indication that fewer of the individuals in the county and surrounding workforce have skills that are in demand by local industries.

- Because of demographic trends, key regional industries are likely to face increasing shortages of labor over the next decade, even if in the absence of net new job growth, as the need to replace workers exiting the labor force increases.

- CVCC programs align well with industries projected to grow the most in Vermont over the next decade.

- CVCC programs are helping address the workforce needs of several key industries in the region that have the ability to relocate outside of the region if their workforce and other needs are not met. The Center should look to build additional industry partnerships with industries such as insurance carriers that have a strong and growing presence in the region.

- More than half of the fastest growing occupations in Vermont pay a median hourly wage that would qualify as "middle income" and many of these occupations are aligned with the programs offered by the CVCC, including occupations where the education and training provided by the CVCC would immediately qualify an individual for a job in the occupation.

- Examining data on job postings in the CVCC region shows that CVCC's programs currently provide training for occupations in high demand but also highlights new program opportunities for the Center.

- Changes in economic and industry trends nationally and in Vermont have accelerated during Covid-19 pandemic and will result in more worker dislocations, increasing the need for displaced worker education and training. Institutions such as the CVCC, with a strong local presence, economic ties, and high accessibility, are uniquely qualified to increase service to experienced workers in the region.

I. Introduction

Like most of the Northeastern United States, Vermont is confronting significant economic, demographic, and labor force challenges. These include, slow population and labor force growth, as well as a population and workforce that are aging more rapidly than in most states. These challenges must be overcome if the State of Vermont is to prosper

economically and continue to offer residents opportunities to access good jobs in well-paying occupations and industries.

Confronting the challenges presented by slow population and labor force growth and to secure continued economic growth and prosperity, Vermont and its regional economies must assure the following:

- As many Vermont citizens as possible participate in the state's labor force.
- That all individuals in the Vermont workforce maximize their education, training, and skills to make the labor force as productive as possible.
- The education, training, and skills of the labor force be matched to the jobs and industries that will help state and its regional economies grow.

For youth entering the workforce there is a growing understanding among businesses, educators, and policymakers, that success in the labor market requires individuals to have an ongoing commitment to acquiring education and training. Along with that recognition has come an understanding that education itself, and especially the acquisition of a four-year college degree, is not a guarantee of employment, nor is it necessarily a requirement for obtaining a well-paying job. The emerging (youth) labor force is entering the labor market in an unprecedented period of economic uncertainty and disruption. The same is true for many individuals who have or will face job displacement because of fundamental changes in the structure of the regional economies, industries and occupations.

These factors argue for the importance of providing young people, and those displaced by industry and occupational change, with opportunities to acquire education and training in fields that present the greatest opportunities for work and earnings at "middle class or better" wages.

Vermont's career and technical centers are uniquely qualified to provide the education and training to help young people begin a career path leading to this objective, and to help older and displaced workers obtain new or additional skills to be successful in a changing economy and workplace:

- Career and Technical Centers are widely distributed and accessible.
- They are the most affordable option for youth to obtain the education and training necessary to follow a successful career path.
- They can work closely with employers and industry groups to design skill programs that are directly responsive to regional economies and market demands.
- Career and Technical Centers can engage with non-baccalaureate adults who are the majority of adults in Vermont and who are most at risk of job displacement and most in need of shorter-term education training.
- Career and technical centers should play a larger role in providing skills and training to Vermont workers in order to overcome the challenges of slow population and labor force growth.

To realize the full potential of the CVCC's impact on regional industries and the economic opportunities of residents in the region requires an understanding of key economic, demographic and labor market trends.

II. Regional Economic and Demographic Trends

Decisions regarding the future of the Central Vermont Career Center must be evaluated from the economic and demographic context in which the Center operates. There is a clear and demonstrable educational rationale for the Center's mission of providing career-oriented education and training to young people in the region, but there is also a strong case for expanding that mission based on prevailing economic and demographic trends in the region. For this analysis we examine trends using data for Washington County as a surrogate for CVCC region. Detailed economic data is not available for the smallest communities in Vermont (or in any state). Counties are the smallest geographic units for which the detailed economic data required for this analysis are available. Washington County includes all towns in the CVCC region with the exception of the Orange, Washington, and Williamstown.

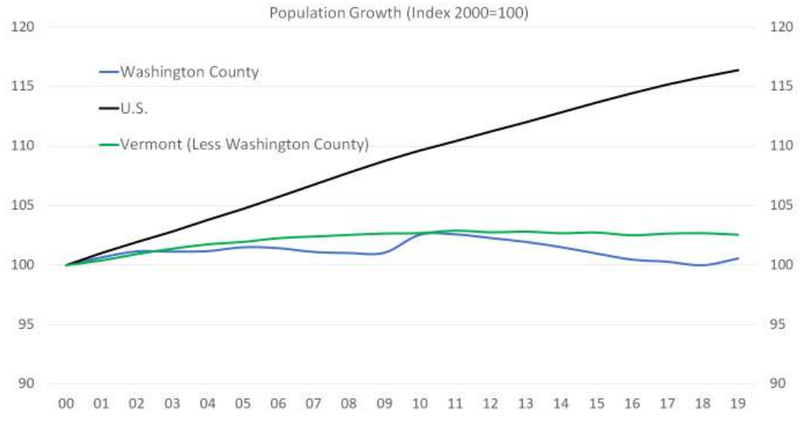
A. Demographic Trends

The most difficult regional trends to alter are demographic, especially a declining population. Vermont, as well as most of the Northeastern United States, are confronting slow population growth trends brought on by low birth rates, net out-migration from the region, as well as generally slower economic growth than much of the nation. Labor mobility is the principal mechanism of adjustment to changes in regional economic conditions. When regional economic conditions deteriorate, there is a slowing of population growth or a decline via net out-migration of individuals from a region. When economic

conditions are stronger, a region can experience net in-migration and more rapid population growth as individuals seeking greater economic opportunities re-locate into the region. Improved economic conditions also reduce out-migration from a region. It can take several years of sustained increases in employment opportunities to change perceptions of employment opportunities in a region that lead to more individuals moving into than are moving out of a region. In contrast, out-migration from a region typically occurs more quickly in response to declines in regional employment opportunities as the urgency to find replacement employment prompts movement of individuals to regions with greater opportunities.

Figure 1 shows population growth trends in Washington County, the State of Vermont, and the United States between 2000 and 2019. The chart shows how much slower Washington County's population growth has been compared to growth in both the State of Vermont and the U.S.. A key component of slower population growth in the county is the net loss of 1,419 individuals to net domestic migration of County residents to other states between 2010 and 2019.[1]

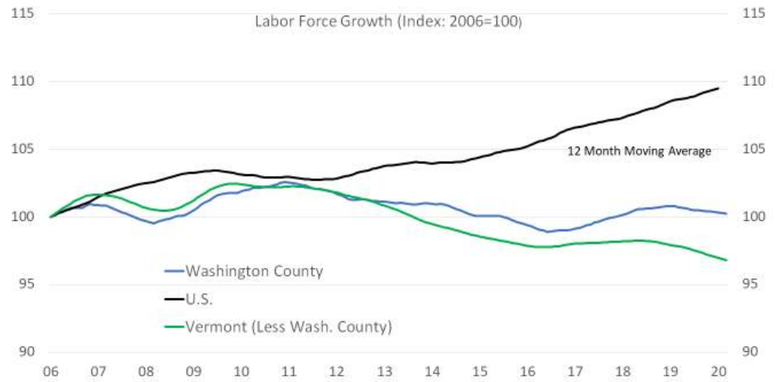
Figure 1
County and State Population Growth has Stagnated – Increasingly, Jobs Follow People and Available Workers



B. Labor Force Trends

Along with population growth, labor force growth has also been slower in Vermont than in the United States. Washington County's labor force has grown marginally more than the remainder of Vermont but still has seen virtually no growth since prior to the great recession (Figure 2). Slow or no labor force growth limits the growth potential of the regional economy.

Figure 2
Slow Population and Labor Force Growth is the Fundamental Challenge Facing the Region's Economy – Maximizing Skills and Matching Worker Skills to Labor Demand is Essential if the Region's Economy is to Grow

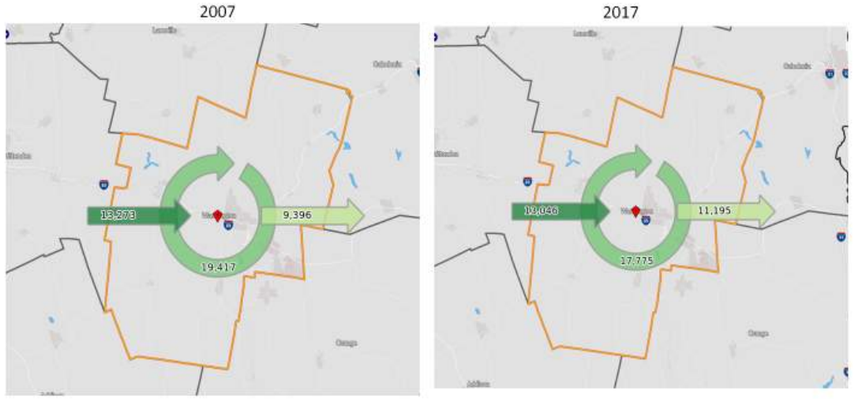


Economic and industry growth in Washington County is further limited by the fact that more of the county's workforce is commuting to work outside of the county. Between 2007 and 2017 (the most recent year for which data is available), administrative data from the U.S. Bureau of Labor Statistics and U.S. Census Bureau show that almost 2,000 more individuals in Washington County commuted out of the county for work than did in 2007. That translates into an additional six percent of the county's workforce commuting out of the county for work. In addition, over 200 fewer individuals outside of Washington County commuted into the county to work (Figure 3). Combined, these data indicate that the regional labor market is becoming less efficient and that the skills of workers are less well matched to the demands of industries in the region, resulting in more workers commuting out of the county for work. Along with fewer workers commuting into the county, this means that industries in Washington County are able to access fewer workers to meet their labor needs, limiting their growth potential.

[1] Net domestic migration is the difference between the number of individuals who move out of a county and to another state and the number who move into a county from another state.

Figure 3

More Workers Who Live in Washington County are Commuting Out of the County for Work (up 6% since 2007). The Labor Regional Labor Market is Less Efficient



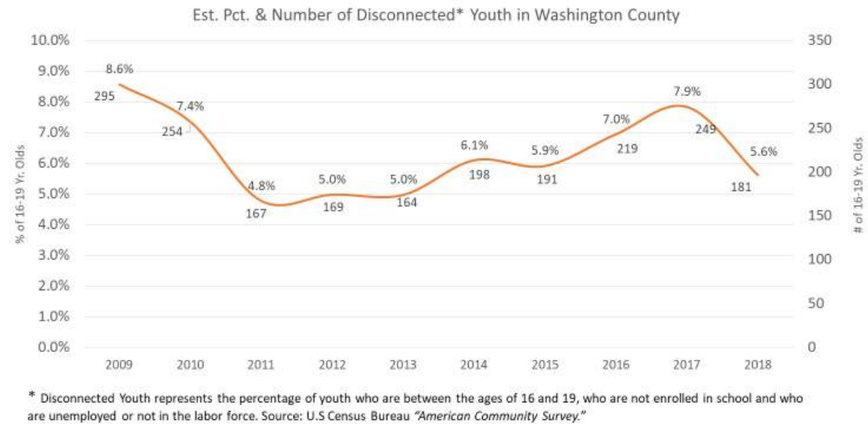
C. Disconnected Youth

Declining birth rates in Vermont (Vermont and New Hampshire vie for the lowest in the nation each year) imply a smaller cohort of young people in Vermont and Washington County unless the State of Vermont and Washington County can increase in migration of families with children from other states or countries. The net negative domestic migration into Washington County over the past decade indicates that this cannot be counted on.

Low birth rates in the State and region are not likely to change and unless net out-migration from the County can be reversed, together they will produce a smaller cohort of young people in the region for the CVCC to serve. This fact alone argues for the CVCC to look to expand its program offerings and outreach to older individuals who need to acquire skills in demand in the labor market or re-training of individuals displaced by industry and economic changes. To avoid a shrinking labor force and potentially shrinking economy, it is critical for the region to increase the labor force participation and productivity of the emerging workforce. Young people who continue their education beyond secondary school and those who obtain education and career-related training in secondary school have higher rates of labor force participation than young people who do not. However, over the past decade for which data is available, each year between 160 and 300 youth in Washington County ages 16-19 are either not in school, not in the labor force, or are unemployed (Figure 4).

Figure 4

Washington County Has a Smaller Pct. of "Disconnected Youth" Than Most Counties But With Slow Labor Force Growth and Fewer Young People Entering the Labor Force it is Critical for the Region to Get All "Connected"



* Disconnected Youth represents the percentage of youth who are between the ages of 16 and 19, who are not enrolled in school and who are unemployed or not in the labor force. Source: U.S Census Bureau *"American Community Survey."*

These "disconnected youth" as the U.S. Census Bureau defines them, represent lost economic potential, lost opportunities for individuals, a loss to the regional economy and labor force, as well as being a contributor to rising inequality between those with and without skills in demand in the labor market. The sizable annual population of disconnected youth can be prime candidates for the educational services offered by the CVCC.

D. Regional Employment Trends

Although growth in the Washington County labor force has exceeded growth in Vermont overall (both have experienced slow labor force growth), growth in "covered" employment in Washington County has lagged other regions since the end of the last "great" recession.[2] Figure 5 shows that the County ranks eighth among all counties in Vermont on covered employment growth between 2012 and 2019. These data, along with data showing an increased number of Washington County residents commuting out of the county for work, show that the County's economy is exporting a larger share of its labor force that could be

[2] "Covered" employment includes only jobs that are covered by unemployment insurance and does not include the self-employed and others who do not pay into the unemployment insurance compensation trust fund.

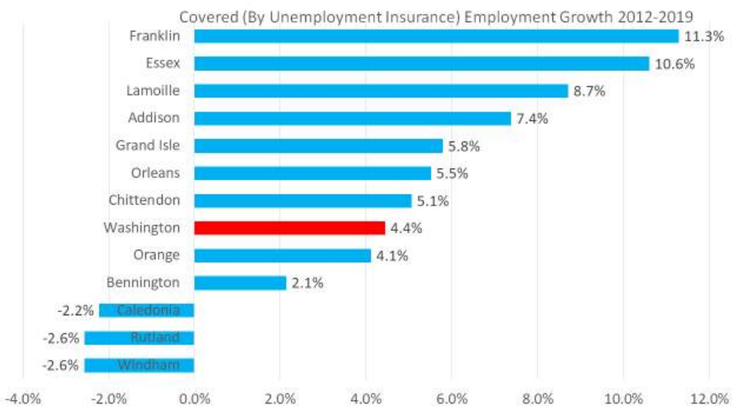
utilized to expand businesses and industries and the Washington County economy. The Washington County labor market is becoming less efficient in that fewer of the individuals in its workforce have skills that are in demand by local industries. Enhancing or expanding program offerings by institutions such as the CVCC can increase labor market efficiency by better matching the emerging (young) and existing workforce to opportunities in local industries. In the process it can also address a key demographic issue by helping to keep young people in the region and less likely to migrate out of Washington County.

III. Workforce Demographics

Job growth in the CVCC regional economy has been tepid in comparison to some other regions of the state but it is inaccurate to equate relatively slower job growth with a lack demand for labor in the region. Although the Covid-19 pandemic dramatically spiked

Figure 5

Despite Greater Labor Force Growth (Than VT Overall) Employment Growth has Lagged in Washington County Since the End of the "Great Recession" -

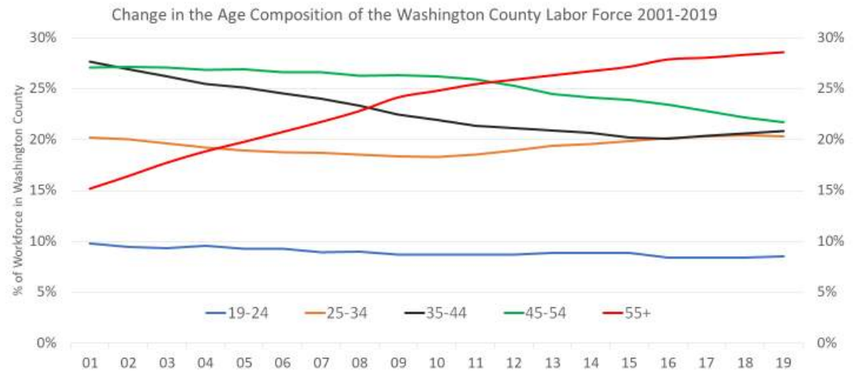


unemployment across the nation, *longer-term, jobs will be available and unemployment relatively low even with slower economic growth because of very slow labor force growth and the need to replace workers*. Vermont added relatively few net new jobs in months and years prior to the pandemic, but it still regularly had among the lowest unemployment rates in the nation because of slow labor force growth and the need to replace increasing number of older workers leaving the labor force.

Figure 6 shows how the age composition of the Washington County labor force has changed, with the number of workers nearing retirement age increasing dramatically while the number of young workers (the "emerging workforce") declining. There will be an increasing number of individuals in the workforce retiring or otherwise leaving the labor force in the next decade at the same time there will be fewer young workers entering the workforce to replace retiring ones. This means there will be job openings and low unemployment rates even in the absence of net job growth.

Figure 6

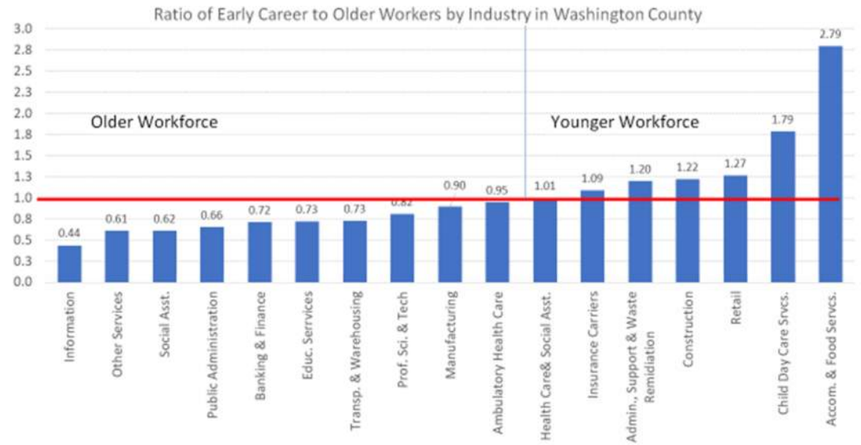
The Pct. of Employees in Washington County Age 55+ Has Nearly Doubled Since 2001 While the Number of Young Employees (the "Emerging Workforce") has Declined



The ratio of workers age 55 and above to those under age 35 is one way to measure the potential for labor shortage due to retirements over the next decade. Industries that will have both net job growth as well a higher level of retirements will be at greatest risk for labor shortages. Figure 7 shows the ratio of younger to older workers in broad industry groupings in Washington County. Industries such as banking and finance, educational services, transportation, public administration, and others are likely to face increasing shortages of labor over the next decade, even if there is an absence of new job growth in those industries in the region. Even in industries with a higher ratio of younger workers will face labor constraints as growth in the number of younger workers stagnates, again highlighting the importance of maximizing the participation and skill level of the emerging labor force. An analysis at a more detailed industry level shows even greater disparities between the many industries contained within each of these broad groups.

Figure 7

Industries That Will Add Jobs and That Have a Lower Ratio of Younger Workers to Older (Near Retirement) Workers Will Face The Greatest Labor Challenges

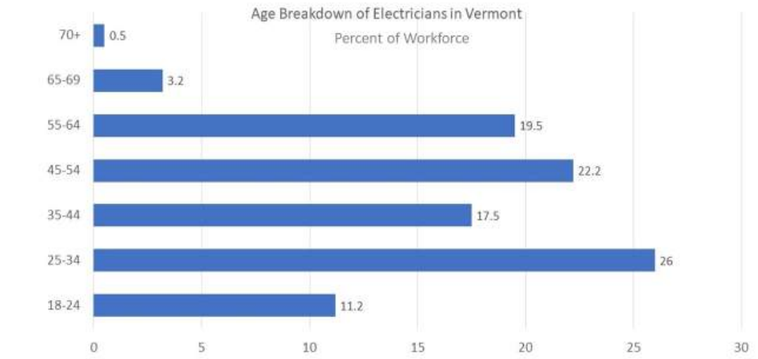


A similar analysis can be done at the occupational level for the statewide workforce. One example is for electricians in Vermont. With almost 1,400 electricians in Vermont with a median age of 43, almost 500 or approximately one-third are expected to exit the labor force over the next decade (Figure 8). Another example is carpenters, where occupational projections show the state adding just 68 carpenters over the next decade but having over 600 annual job openings for carpenters because of individuals leaving the occupation and or the workforce.

These data argue for considering more than just net job growth in evaluating training program offerings for the CVCC. While it is tempting to focus on high profile and emerging occupations (such things as wind turbine and solar voltaic installers) in evaluating program offerings, a greater number of occupational opportunities for young workers will likely exist in industries and occupations where there are a large number of replacement worker needs.

Figure 8

Almost 500 of the 1,400 Electricians in Vermont are Projected to Exit the Occupation over the Next Decade – Creating New Job Opportunities for Young Workers



Source: Vermont Dept. of Labor "*Occupational Projections*", U.S.Census Bureau "*American Community Survey,* PolEcon"

IV. Industry Projections and Key Regional Industries

Industry partnerships are a key to supporting and sustaining a vibrant CVCC that serves the interest and needs of students, businesses, and the regional economy. Similar to occupational projections, annual job openings (and thus job opportunities for you workers) are not entirely indicated by net job growth in an industry. Rather, the changing occupational makeup, age, and demographic composition of workers in an industry, along with the future demand for the goods or services of an industry interact to create a higher or lower number of annual openings in occupations and job opportunities in an industry.

The manufacturing sector is one example. The industry has suffered a national narrative that has, for decades, suggested manufacturing is declining in the United States. Although true from the perspective of the number and percentage of manufacturing workers in the labor force, the industry continues to increase the volume and dollar value of its products. Importantly, from a labor market perspective, has been the demand for newer and higher skill occupations in the manufacturing sector as advanced manufacturing processes techniques incorporate more technology in the production process.

The manufacturing sector in Vermont is in the middle of all industries on the median age of its workforce, but there has been an increase in hiring of younger workers as older workers step out of the labor force. The decades-long narrative that there are few

opportunities for young people in manufacturing that has likely kept many young people from pursuing a career in manufacturing despite, as is demonstrated later in this report, manufacturing industries have had among the highest number of job openings in the region in recent years. Even with limited or no net new manufacturing job growth there a few manufacturers today that do not indicate that they have difficulty hiring for available openings.

Another factor complicating the use of statewide (or broad regional) projections of industry growth for exploring career center partnerships with industry is that substate regions have unique advantages or disadvantages for specific industries that do not follow the projected statewide path for an industry. Figure 9 shows industries with the largest projected net job growth over a ten-year period, based on the projections from the Vermont Department of Labor. The figure also includes the CVCC programs that align with the industries projected to grow the most in the State. What it does not show is important industries (in terms of employment) in the CVCC region that have added jobs in Washington County despite statewide projections of little or no net job growth.

Figure 9
CVCC Programs Align Well With Industries Projected to Add the Most New Jobs in Vermont Over a Decade – But There are Key Growing Regional Industries Not on The List

A. Key Regional Industries and Comparative Advantage

In addition to its service to young people and adults by guiding and training individuals toward successful career paths, the CVCC contributes to the strength of the regional economy by learning and partnering with key regional industries to address their workforce needs.

Examining industries that have a large employment base in a region is one way to identify key regional industries and can be useful in identifying key industries for career centers to support. Using this identification method will typically highlight a number of industries that serve primarily local markets and consumers, and thus have opportunities for growth that are limited by the size of the local population and other demographic characteristics. Retail and food services industries are examples of industries that serve primarily local markets and consumers unless a region is a destination site for non-residents for other reasons, such as tourism or business. With the state capital located in the CVCC region, the region is a destination for visitors from outside of Washington County who want or need to access Vermont State government and that is reflected in some higher levels of employment in the county in industries that primarily serve local markets.

An additional method used by economists to identify key industries is to examine industries that have a higher than average (compared to the U.S. overall or to a state's) concentration of employment in an industry and thus are said to have a "comparative advantage" in locating in the region. An industry that sells goods or services outside of a local market, to regional, national, or international markets, are called export industries are critical because they expand the size of a regional economy by bringing new money and resources into a region.[3] These industries often have the ability to locate anywhere in the country, making it important for a regional economy to be able to satisfy the industry's need, including labor force if the region is to keep industries from leaving for a location that can better satisfy the industry's workforce or other needs.

Location quotient (LQ) is one way of identifying the industries or occupations that are specialized or that have a high concentration in a regional economy (compared to the national average). Industries with location quotients above 1.0 have a concentration in the regional economy that is higher than the industry's national average concentration. Industries with a high LQ are often those that are exporting (selling) goods and services

[3] "Export" industry here means selling goods and services outside of the local market. Export industries can include businesses that sell internationally but in the current context they include all industries selling beyond the region and local residents.

primarily outside of the region (or by attracting the spending of non-residents into the region). Location quotients above 1.25 and which primarily sell goods and services outside of the region are especially important to the region. Knowing which industries attract spending by non-residents or that sell goods and services outside of the local economy is important because as industries that bring new dollars into the region increase the income and wealth of a region by expanding the overall size of the regional economy. It is especially important for a region to be able to satisfy the needs of these industries to avoid endangering their presence and eroding the region's economic base. LQ is calculated by comparing an industry's or an occupation's share of regional employment with its share of national employment.

In the Washington County regional economy, the insurance carrier industry has a location quotient of 4.3, indicating that the concentration of insurance carrier employment is over four times the national average (providing over 1,800 jobs), is an "export industry," and is bringing new money and income into the region. The non-metallic minerals industry (granite production) is another industry with an exceptionally high LQ, but because granite is not found everywhere, the industry is not at risk of relocating out of the region to meet its labor force or other needs. Table 1 presents industries (along with the National Industry Classification System – NAICS code) with the highest location quotients in Washington County, along with number of employees in the industry in 2019. Industries in red are industries that primarily sell their goods and services outside of Washington County.

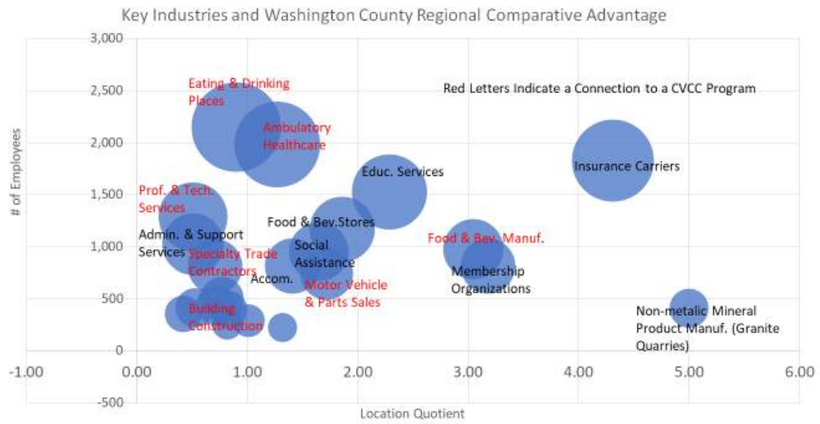
Table 1
Industries With the Highest Location Quotients (Concentrations) in Washington County

Industry	Annual Establishments	Annual Average Employment	Annual Average Weekly Wage	Annual Wages per Employee	Employment Location Quotient
Nonmetallic Mineral Prod. Manuf. (Granite)	29	411	$1,177	$61,181	4.33
Insurance Carriers	51	1,827	$1,936	$100,664	3.35
Food Manufacturing	35	979	$961	$49,976	2.63
Membership Assoc.	119	817	$990	$51,499	2.57
Educational Services	59	1,526	$891	$46,338	2.29
Utilities	9	226	$1,398	$72,709	1.81
Accommodation	28	816	$457	$23,774	1.74
Food and Bev. Stores	41	1,168	$487	$25,344	1.68
Motor vehicle & Parts	44	741	$943	$49,050	1.61
Gasoline Stations	40	335	$460	$23,932	1.56
Printing & Related Manuf.	8	137	$955	$49,640	1.42
Nonstore Retailers	25	180	$906	$47,091	1.37
Sports, Hobby, Music, Book stores	30	159	$462	$24,043	1.27
Beverage Manufacturing	5	80	$858	$44,596	1.22
Broadcasting, Except Internet	5	69	$728	$37,857	1.14
Ambulatory Health Care	119	1,985	$1,214	$63,113	1.14
Building & Garden Stores	34	333	$657	$34,148	1.13
Animal Production & Aquaculture	7	67	$593	$30,812	1.11
Waste Management & Remediation	11	109	$1,260	$65,536	1.07
Construction of Buildings	87	394	$944	$49,065	1.04
Social Assistance	72	953	$675	$35,094	1.04
Merchant Wholesalers - Nondurable	43	506	$933	$48,507	1.03

Figure 10 presents a bubble chart that visually highlights several key aspects of the Washington County regional economy. First, each bubble is sized to indicate the number of individuals who are employed in that industry in Washington County, so bigger bubbles indicate higher levels of employment. Second, the further to the right on the graphic each bubble is placed, the higher the LQ for that industry and the greater the concentration of industry employment the region has compared to the national average. LQs above 1.0 indicate a higher concentration of employment. Finally, the industry labels that are highlighted in red show those industries for which there is a connection with a CVCC program. The chart shows that CVCC programs help address the workforce needs of several of the key industries in the region at the same time it highlights important industries that the CVCC may seek to partner with in the future in its effort to strengthen the regional workforce and economy.

Figure 10

There are Industries That are Key to the Regional Economy that CVCC Could Look to Support and Partner With



Location Quotients compare the concentration of industry employment with the U.S. average. Location quotients above 1.0 indicate a greater concentration Than the U.S. average. The higher above 1.20 the region the more the region has a "comparative advantage" in the industry.

V. Current and Projected Labor Demand

Employment projections produced by states, in conjunction with the U.S. Department of Labor, for both industries and occupations are the principle method used by analysts to estimate future demand for labor in a state or region. This report presents official industry and occupational projections for the State of Vermont (projections are not done at the county level), prepared by the Vermont Department of Labor. These projections highlight industry and occupational trends on a statewide basis and can be especially useful for guiding longer-term educational programming and workforce development efforts. They also assist these efforts by highlighting opportunities for the emerging workforce (youth), as well as for displaced workers and those looking to change jobs and careers.

Long-term industry and occupational projections are rarely evaluated retrospectively for their accuracy however. In addition, statewide projections, or projections that cover wide geographies, often do not capture unique characteristics of a smaller region's economy, such as the area served by the CVCC. Addressing the workforce needs of the CVCC region requires additional data on the regional economy, industry and occupational composition, to direct educational and workforce development programs to higher demand occupations and industries and to address the labor demands of local businesses and industries. Examining recent and real time demand for occupations by industry in the CVCC region, in addition to longer-term projections, is critical in designing educational and workforce development programs. This report evaluates the program offerings of the CVCC actual regional labor demand using job posting data from Washington County as well as industry and occupational projections from the State of Vermont. Both occupational projections and job posting data capture job openings resulting from net new position (employment growth) as well as openings resulting from the need to replace workers. The extraordinary impact of the Covid-19 pandemic temporarily altered job posting patterns for much of 2020. For this analysis we examine job postings in Washington County from all of 2019 rather than data from the most recent months as indicative of current regional labor demand. It is unclear, however, the degree to which post-pandemic labor demand will be similar to the demand prior to the pandemic.

A. Labor Demand by Industry

Industries with the most job openings in 2019 (and 2016 for comparison and to show the relative consistency in industries with the most postings) are presented in Figure 11. The figure shows that although the absolute number of job postings differs between 2016 and 2019, there is a strong correlation between years on the industries with the most job postings. The finance and insurance industry had either the most or second most job postings in both years, consistent with the industries high location quotient in the region the indicates a competitive advantage for the industry in Washington County. As expected, healthcare and social assistance industry also had a high number of postings in the County, consistent with larger national and state trends of increasing demand for healthcare. As the location of the state's capital, Washington County also had a large number of public administration job postings each year. The number of manufacturing job postings and high rank among all industries in the region is, in part, an indication of the presence and stability of manufacturers in the region. But it also results from the demographics of the manufacturing workforce which results in a higher need to replace workers exiting from the industry or workforce. It is significant, and encouraging that the list of industries with the most job postings contains many well-paying industries, including professional, scientific, and technical industries.

Figure 11

Industries With the Most Job Postings in the Region are Not Necessarily Industries Projected to Grow the Most in Vermont

Industry Sector	2016 Job Postings	Industry Sector	2019 Job Postings
Health Care and Social Assistance	1,522	Finance and Insurance	1,942
Finance and Insurance	1,022	Public Administration	1,115
Public Administration	729	Educational Services	792
Professional, Scientific, and Technical Services	495	Health Care and Social Assistance	790
Educational Services	405	Manufacturing	510
Transportation and Warehousing	390	Professional, Scientific, and Technical Services	362
Manufacturing	382	Retail Trade	266
Retail Trade	346	Admin. & Support Waste Mgmt. Services	165
Accommodation and Food Services	269	Information	161
Information	192	Accommodation and Food Services	154
Admin. & Support Waste Mgmt. Services	167	Transportation and Warehousing	128
Wholesale Trade	104	Real Estate and Rental and Leasing	106
Agriculture, Forestry, Fishing and Hunting	102	Construction	74
Other Services (except Public Administration)	102	Other Services (except Public Administration)	50
Real Estate and Rental and Leasing	60	Utilities	39
Construction	35	Wholesale Trade	26

Figure 12 highlights long-term industry projections for the state of Vermont for industries with the most projected net new job *growth* (exclusive of openings due to worker replacement needs) between 2016 and 2026. While not all of the industries expected to see growth during the time period have a significant presence in the CVCC region, from the perspective of preparing the emerging (youth) labor force for career success it is appropriate to consider opportunities in the broader, state, economy. The figure shows projected job growth and also highlights the CVCC programs that provide education and training in those industries. Combined, *the chart shows that CVCC's programs align well with industries projected to grow in Vermont.*

Figure 12

CVCC Programs Align Well With Industries Projected to Add the Most New Jobs in Vermont Over a Decade – But There are Key Growing Regional Industries Not on The List

B. Occupational Projections

Creating opportunities for labor market and career success among CVCC students and providing workforce development and support for regional and statewide industries requires the CVCC not only align the Center's programs to industry labor demands, but also to occupational demand within and across industries, as most occupations are found in the workforce of several industries. The analysis of occupational demand in this report again presents statewide projections, including both occupational growth (adding to the total number of those occupations in the Vermont economy), and occupational openings which count the number of jobs in an occupation that will become available due to the need to replace workers who leave an occupation. The combination of occupational growth and openings due to replacement needs creates the overall demand for an occupation and represent the total opportunities that will be available (or the number of jobs that will need to be filled) during the projection period.

Similar to measures of labor demand at the industry level, demand at the occupational level (regardless of industry), are done at the statewide level, and for broad regions of the state. There are no projections done specifically for the CVCC region or Washington County. Documenting the fastest growing occupations (on a percentage change basis) provides insights into jobs that are experiencing the largest rates of growth in annual

openings, indicating that they are growing in importance to the state's industries and economy. For many of these occupations however, faster growth results from a small starting base of jobs. It is easier to achieve a larger percentage increase when an occupation begins with a smaller starting number of jobs. Table 2 presents projected occupational demand (growth resulting from new jobs and from replacement needs) in the State of Vermont. The table also shows the median wage paid in those occupations in 2019, as well as the educational requirements typically required to obtain an entry level position in the occupation. More than half of the fastest growing occupations pay a median hourly wage that would qualify as "middle income". As with industry projections, many of the occupations in Table 2 align well with the programs offered by the CVCC, including occupations where the education and training provided by the CVCC would qualify an individual to obtain a job in the occupation, including many well-paying occupations that require less than a four-year college degree, and several occupations that require a high school diploma and which the training provided by the CVCC would qualify them. For other occupations, the education and training provided by CVCC programs provides the beginning of a career path that can lead to a CVCC graduate acquiring the additional educational requirement of an occupation.

Table 2
Fastest Growing (Annual % Change) Occupations in Vermont
2018 - 2028

Rank	Occupation	2018 Emp.	Annual Job Openings	Annual % Change	2019 Median Hourly Wage	Typical Entry-level Education
1	Personal Care Aides	7,374	1,427	2.80%	$14.39	High school diploma or equivalent
2	Information Security Analysts	135	15	2.50%	$39.43	Bachelor's degree
3	Solar Photovoltaic Installers	425	71	2.40%	$20.17	High school diploma or equivalent
4	Home Health Aides	625	95	2.30%	$14.39	High school diploma or equivalent
5	Software Developers, Applications	958	100	2.30%	$48.38	Bachelor's degree
6	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	205	32	2.20%	$19.55	High school diploma or equivalent
7	Veterinary Technologists and Technicians	465	52	1.90%	$16.16	Associate's degree
8	Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic	77	10	1.90%	$27.73	Postsecondary non-degree award
9	Physician Assistants	302	25	1.90%	$53.81	Master's degree
10	Taxi Drivers and Chauffeurs	1,356	190	1.90%	$17.65	No formal educational credential
11	Veterinary Assistants and Laboratory Animal Caretakers	83	17	1.90%	$14.60	High school diploma or equivalent
12	Statisticians	98	10	1.90%	$32.74	Master's degree
13	Respiratory Therapists	196	16	1.90%	$29.81	Associate's degree
14	Market Research Analysts and Marketing Specialists	1,674	219	1.80%	$26.87	Bachelor's degree
15	Actuaries	86	8	1.70%	n/a	Bachelor's degree
16	Occupational Therapy Assistants	86	12	1.70%	$29.00	Associate's degree
17	Substance Abuse and Behavioral Disorder Counselors	894	116	1.60%	$18.85	Bachelor's degree
18	Veterinarians	302	17	1.60%	$44.00	Doctoral or professional degree
19	Physical Therapist Assistants	210	32	1.60%	$28.07	Associate's degree
20	Nurse Practitioners	556	41	1.60%	$49.00	Master's degree
21	Psychiatric Aides	195	26	1.50%	$16.99	High school diploma or equivalent
22	Agricultural Equipment Operators	163	32	1.50%	$15.99	No formal educational credential
23	Software Developers, Systems Software	932	85	1.40%	$48.38	Bachelor's degree
24	Environmental Science and Protection Technicians, Including Health	60	9	1.40%	$18.55	Associate's degree
25	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	1,154	219	1.40%	$16.19	No formal educational credential

Another way to consider occupational demand is to examine occupations with the largest absolute number of job openings. Table 3 presents the occupations projected to have the most annual openings in Vermont between 2018 and 2028. This table includes a number of occupations that have high levels of job turnover, such as cashiers, food service workers, waiters/waitresses, etc., that are often the first work experience for individuals or for whom the job is taken knowingly on a transitional basis but which for most, is not a career. As a result, many of the occupations in Table 3 have high turnover rates and annually have a high need to replace workers who move on to other occupations. The projections in Table 3 that show a high number of job openings in Vermont (and the nation) for low wage occupations, are too often interpreted as indicating an economy is only growing low wage occupations when, in fact, many of the occupations with the most annual openings are the result of high turnover among first-time and entry level workers. Low wage occupations are increasing, but it is not clear that they are comprising a larger share of total employment in the CVCC region or in The State of Vermont. As Table 2 above indicated, well-paying jobs are among the fastest growing in the state.

Table 3
Occupations With the Largest Number of Annual Openings in Vermont
2018 - 2028

Rank	Occupation	2018 Emp.	Annual Job Openings	Annual % Change	2019 Median Hourly Wage	Typical Entry-level Education
1	Cashiers	9,527	1,661	-0.80%	$11.98	No formal educational credential
2	Personal Care Aides	7,374	1,427	2.80%	$14.39	High school diploma or equivalent
3	Combined Food Preparation and Serving Workers, Including Fast Food	6,192	1,185	0.70%	$12.24	No formal educational credential
4	Retail Salespersons	8,744	1,184	-0.60%	$13.52	No formal educational credential
5	Waiters and Waitresses	5,907	1,132	0.00%	$14.88	No formal educational credential
Rank	**Occupation**	**2018 Emp.**	**Annual Job Openings**	**Annual % Change**	**2019 Median Hourly Wage**	**Typical Entry-level Education**
6	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	5,473	750	0.30%	$14.89	No formal educational credential
7	Bookkeeping, Accounting, and Auditing Clerks	5,632	601	-0.60%	$20.35	Some college, no degree
8	Farmers, Ranchers, and Other Agricultural Managers	5,346	557	0.30%	$36.93	High school diploma or equivalent
9	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	5,802	545	-1.20%	$17.98	High school diploma or equivalent
10	Customer Service Representatives	4,101	524	-0.30%	$17.38	High school diploma or equivalent
11	Carpenters	4,706	501	0.20%	$21.59	High school diploma or equivalent
12	Landscaping and Groundskeeping Workers	3,531	495	0.60%	$16.82	No formal educational credential
13	Cooks, Restaurant	2,924	481	1.30%	$15.09	No formal educational credential
14	Teacher Assistants	4,645	470	-0.30%	$32,730/yr	Some college, no degree
15	Maids and Housekeeping Cleaners	3,539	470	-0.10%	$12.61	No formal educational credential
16	First-Line Supervisors of Retail Sales Workers	4,734	468	-0.70%	$21.81	High school diploma or equivalent
17	Laborers and Freight, Stock, and Material Movers, Hand	3,079	441	0.20%	$14.72	No formal educational credential
18	Heavy and Tractor-Trailer Truck Drivers	3,942	439	-0.20%	$21.18	Postsecondary non-degree award
19	Registered Nurses	6,778	431	0.80%	$32.39	Bachelor's degree
20	Childcare Workers	2,832	421	0.00%	$13.72	High school diploma or equivalent
21	Nursing Assistants	3,256	404	0.80%	$14.79	Postsecondary non-degree award
22	Stock Clerks and Order Fillers	2,921	392	0.10%	$13.82	High school diploma or equivalent
23	Bartenders	2,187	389	0.10%	$16.51	No formal educational credential
24	Receptionists and Information Clerks	2,749	364	-0.10%	$15.12	High school diploma or equivalent
25	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	1,666	355	-0.20%	$12.24	No formal educational credential

C. Occupational Demand in the Region

Examining data on job postings in Washington County in 2019 provides a measure of actual, rather than projected, occupational demand for an area that closely matches the CVCC service area. For this analysis we again examined job posting data for the full year 2019 to avoid any temporary distortions in demand due to the influence of the Covid-19 pandemic.

The approximately 900 occupations identified by standard occupational classification (SOC) system can be grouped into 23 "major" occupational groups. Figure 13 shows the major occupational groupings with the most job postings in Washington County in 2019.

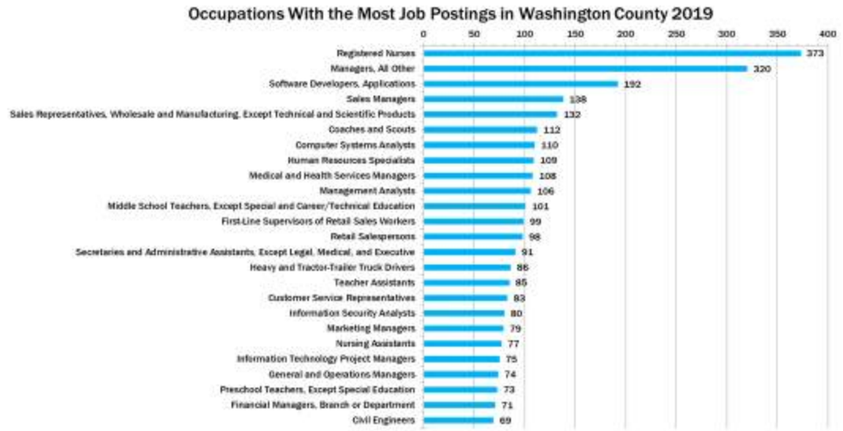
Figure 13
CVCC Programs are Also Represented in Broad Occupational Groupings that are in Demand in the Regional Economy

These data highlight broad trends in occupational demand in the region but are more helpful in understanding general trends and directions in labor demand in the region than in identifying the specific jobs for which organizations in the region are hiring, and thus are more limited in their utility in guiding specific CVCC training program decisions. Most CVCC's programs currently provide training for occupations within major occupational groupings with high demand. Still, examining demand (as measured by job postings) in the region by major occupational grouping can help the CVCC identify new opportunities to train for specific occupations or a group of occupations within major occupational groups with high demand.

Examining more detailed occupational job postings in Washington County in 2019 (Figure 14) shows that e CVCC programs currently train for or provide a career path for higher demand occupations in the region.

Figure 14

Many Specific Occupations and Career Paths in Demand in the Region are Supported by CVCC Programs But There are Additional Opportunities

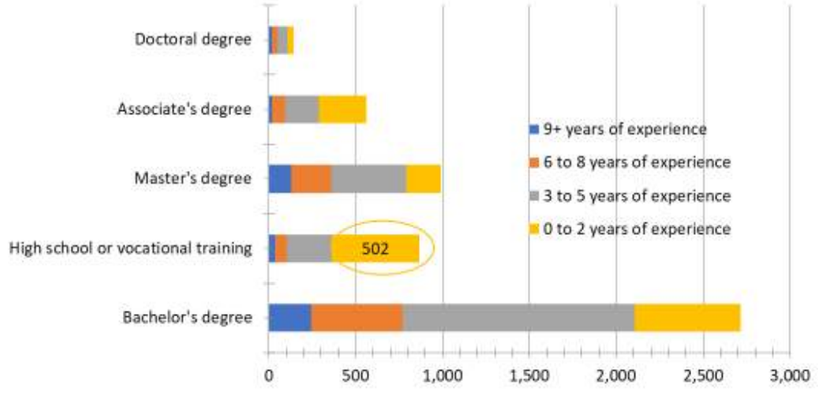


Educational Requirements

Approximately 80 percent of the job postings in Washington County cited a specific minimum educational requirement for the position. Among the approximately 7,600 job postings that listed an educational requirement, over 16 percent listed a high school diploma or vocational training as the minimum requirement. Combined with listed experience requirements, the data indicate that 500 of the job postings in the County in 2019 required a high school or vocational/technical degree along with two or fewer years of experience. Along with data showing the number of postings requiring an associate's or bachelor's degree and two or fewer years of experience, Figure 15 suggests that CVCC graduates who choose to look for work after graduation will find substantial opportunities in the regional labor market, while graduates who choose to pursue additional educational degrees will have even more employment opportunities within the region.

Figure 15

Education & Experience Requirements of Washington County Job Postings -2019

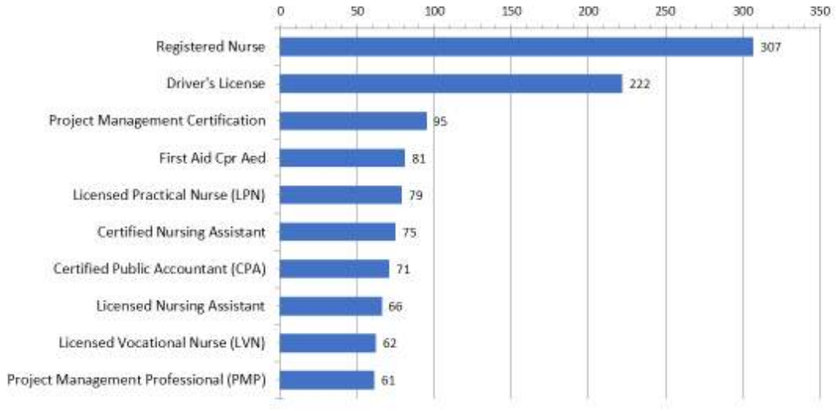


Certification Requirements

In addition to educational requirements for specific occupations, many job postings in Washington County (over 40 percent) have specific licensing or certification requirements. Figure 16 shows the top certification requirements from the 2019 Washington County job postings.

Figure 16

The Most Common Certifications Required for Occupations With the Most Job Postings in Washington County



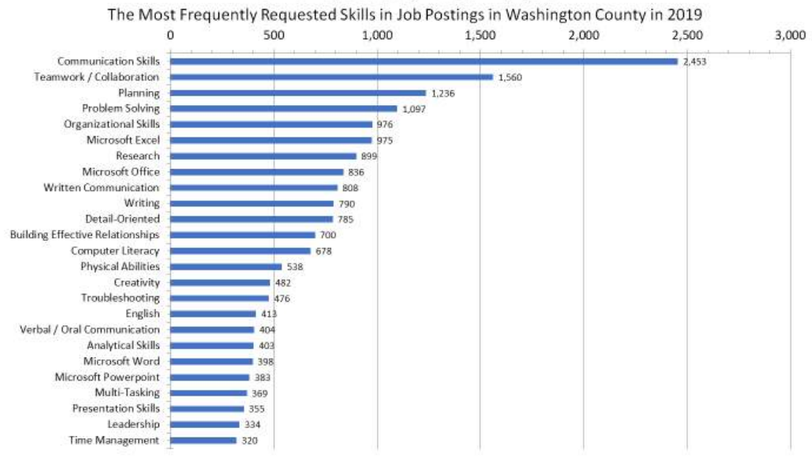
IV. Skills in demand

A key component of CVCC programs is developing academic, intellectual, interpersonal, and workplace skills that are increasingly identified by employers as skills, abilities, and traits that are important in hiring decisions. The knowledge, skills, abilities,

and qualities identified in a large number of job postings tend not to be specific to a single or small number of occupations but rather are viewed as important to success by a large number of employers in a wide variety of occupations. Although not identified with or linked to a specific occupation or group of occupations, they are an important part of the education and training programs of the CVCC by helping CVCC graduates acquire desirable skills that make them more attractive candidates for jobs. Knowledge, skills and abilities that can be applied across a wide range of occupational and industry settings provides students with a base of qualities that increases their potential to find opportunities and to be successful in a changing economy, labor market, or industry.

Among the skills most often cited in job postings in Washington County during 2019 were communication, teamwork, planning and problem-solving skills. Figure 17 presents a listing of the skills most frequently cited in job postings in Washington County in 2019.

Figure 17
The CVCC Can Also Support the Regional Economy by Providing Education and Training in Core Skills Requested by Many Employers



VIII. Conclusions

The analyses in this report show that there is significant current demand in Washington County for occupations that align with the education and training programs offered by the CVCC. The report also documents that CVCC programs are supported by projected statewide occupational demand over the decade, suggesting that CVCC graduates will be well positioned for success in the regional and statewide labor market.

The CVCC region and the entire State of Vermont are currently challenged by slow population and labor force growth that will require the region and the state to see that as many citizens as possible are employed in as productive occupations as is possible if the region and state are to continue to prosper. The results of our analysis indicate that the CVCC can play a larger role in helping the region and the State of Vermont, its citizens and its industries, address the need for quality employment opportunities and a high quality, high productivity workforce. Given its ability to adapt offerings to local labor market needs, its ongoing engagement with youth, and potentially with more non-baccalaureate adults, the CVCC can play a larger role in providing skills and training to workers in the region and help overcome the challenges of slow population and labor force growth.

New Vista Design

LBA engaged David Stephen of New Vista Design to coordinate a series of workshops to develop an in-depth understanding of your current Educational Initiatives. We will work closely with key faculty and administration, to understand not only what your current philosophy is, but where CVCC is heading. This thorough and inclusive, efficient, and expedient approach will ensure that the solution will have a profound and lasting impact to the student experience.

We believe the success of this study will depend on leveraging all available expertise from both the School District and the Design Team. The goal is that once the study is complete, everyone will take pride in the result, and have confidence in the solution.

Central Vermont Career Center
Educational Re-Envisioning Workshops Overview and Summary

The following pages offer a summary of notes taken, and information gathered during the Central Vermont Career Center (CVCC) Re-Envisioning Workshops that took place during the months of February - May 2020. If you have questions about the workshops, or would like to add comments or ideas to this evolving narrative, please contact Clifton Long at: clongcvcc@buusd.org

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Central Vermont Career Center
Educational Re-Envisioning Workshops Overview

During the months of February - May 2020, the Central Vermont Career Center (CVCC) Leadership Team and faculty participated in a series of Educational Re-Envisioning Workshops run by New Vista Design and Lavallee Brensinger Architects. Due to COVID-19 social distancing measures, each workshop was run as a virtual collaborative session designed to establish educational and architectural priorities for a renovated and/or new CVCC facility. Participants were led through a step-by-step visioning process aimed at capturing their best thinking about CVCC's current and future educational goals and priorities, and connecting them to best practices and possibilities in innovative CTE (Career Technical Education) facility design.

A Leadership Visioning Kick-Off Meeting took place on February 13, 2020. The two-hour meeting explored the following topics:

- **Priority Goals** for the renovated and/or new facility
- **Overview of Educational Re-Envisioning** process and activities
- **Mapping out of Educational Re-Envisioning** process and desired workshops

Faculty WS One took place on April 16, 2020. The two and-one-half hour workshop (as well as additional small group meetings) explored the following topics:

- **Priority Goals** for the renovated and/or new facility
- **Future Ready Learning practices** that are now in practice or envisioned for CVCC
- **Future Ready Portrait of a Graduate (POG)** that distills the group's best thinking with regard to CVCC's current and future educational programming and priorities
- **Strengths, Challenges, Opportunities, and Goals (SCOG Analysis)** associated with CVCC's current academic programming as well as the district's vision for its future

Faculty WS Two took place on April 27, 2020. The two and-one-half hour workshop (as well as additional small group meetings) explored the following topics:

- **21st Century Design Patterns** that innovative schools throughout the country have put into practice in order to support their forward-thinking learning goals on the level of facility design
- **Guiding Principles** and priorities for the design of the renovated and/or CVCC new facility

Faculty WS Three took place on May 12, 2020. The two and-one-half hour workshop explored the following topics:

- **Key Spaces and Adjacencies** for the renovated and/or new CVCC facility
- **Blue Sky Ideas** that participants would like to see in new school program and CVCC facility
- **Career Cluster Brainstorm** that outlines optimal connections between existing and envisioned CVCC technical areas
- **Bubble Diagramming** of conceptual design ideas for the renovated and/or CVCC new facility

If you have questions about the workshops, or would like to add comments or ideas to this evolving narrative, please contact Clifton Long at: clongcvcc@buusd.org

CVCC Educational Re-Envisioning

Faculty Virtual Workshop One Notes

4.16.20

The following list of priorities and goals for the design of the renovated and/or new Central Vermont Career Center (CVCC) facility was brainstormed during the Faculty Visioning Workshop One that took place on April 16,2020. Approximately 33 CVCC faculty members participated in the 2-hour long workshop. Highlights from the group's conversations, as well as participants' individual feedback forms have been recorded below.

Priorities and goals have been grouped by like themes.

CVCC Priorities and Goals

Place You Want to Be
- Inviting from the outside
- Welcoming entry
- Natural light
- Airy, pleasant and calm atmosphere
- Colorful
- The ability to have a more open campus where students are more welcome to utilize the campus beyond their classroom, to which they are currently confined

Innovation and Inspiration
- Creative spaces
- High-tech feeling
- A large lab studio to be able to enact more creative ideas, especially for film, photography, broadcast projects
- A building that encourages innovation
- Exhibition and display of student work

Equity
- Equity of access for students

Safety
- Safe and secure from the standpoint of an unwanted intruder
- Ability to keep safe eye in lab from anywhere in the shop. No blind spots
- Better dust collection for wood shop …. safety issue

Public/Community Access
- Separate public/business entrance vs. student entrance
- Public accessibility for customer service in baking and culinary arts
- Locker rooms and laundry service

Career Clusters
- Common programs clustered together

Thermal Comfort
- Good ventilation
- Heating and cooling

CVCC Educational Re-Envisioning

Faculty Virtual Workshop One Notes

4.16.20

CVCC Priorities and Goals Continued

Up to Date Labs
- Lab spaces that are up-to-date and interactive with enough room for students to safely collaborate
- Advanced resources and hardware for better real-world industry equipment
- Simulation spaces
- Big spaces with windows
- Adequately sized labs

Separate Classroom and Lab Spaces
- Separate classroom and lab space
- Classroom and labs/shops per program should be side by side
- Teacher's office spaces are next to their classrooms and labs - for consistent and intentional delivery

Improved Technology
- 1 to 1 tech
- Pure connectivity for teachers to use a variety of modes of delivery with technology, etc.
- Proper internet bandwidth and flexible accessibility to the internet!
- Current and streamlined technology
- Multiple large screen interactive boards
- Online learning space

Sustainability
- Net Zero building
- Exposed systems
- George Pompidou open mechanical design
- Environmental impact should be minimized… sustainable building now and into the future.

A Sense of Community
- Students feel a sense of community
- Ability to bring all students together in one space with ease for sharing
- Shared spaces are important to bring programs together to bond as one center

Student Centered and Flexible Spaces
- Adaptable spaces
- Adaptable shop spaces
- Works for near future and 20+ years down the road
- Modular and multi-use spaces
- Separate student space for study
- Building that also serves as live lab for programs
- Working area for student labs
- Space, equity, adaptability, space that encourages collaboration
- Allowing multiple major projects at one time (allowing for flexible independent learning)
- Architecture that contributes to student centered, and collaborative learning
- Options to disperse and reconvene
- Bright, airy, open and allowing for student choice in learning spaces

Gathering and Eating Space
- Designated space for students to have a break and lunch
- Large space for whole school activities
- Food service for students
- Outdoor seating area for café/restaurant, connected with baking and culinary
- Community gathering space
- Auditorium space

Collaboration, Meeting and Extended Learning Spaces
- Common spaces with related programs
- Shared space between programs
- Space to meet with kids outside the classroom
- Collaboration, autonomy and well-designed spaces with up to date technology
- Adequate meeting spaces
- Meeting breakout rooms
- Variety of sizes of meeting spaces all with technology

Quiet Spaces
- Place for students to do quiet work
- Distraction-free environments (allowing purposeful interaction, but not unwanted interruptions)

CVCC Educational Re-Envisioning

Faculty Virtual Workshop One Notes

4.16.20

CVCC Priorities and Goals Continued

Outdoor Spaces
- Availability of outdoor space
- Outdoor space for environmental science purposes
- Ideally, lots of space surrounding the building for walks and outdoor learning
- Greenery

Storage
- Space to store and easily access material

College Connections
- College connection- how to integrate a college environment or collaboration
- Partnerships with post-secondary
- Increased dual enrollment offerings

Community and Industry Connections
- Career center with space for workshops
- Connections to the community and industry

Bathrooms
- Bathrooms in heavy trades shops

Plant Life
- Add green to the interior of the school

CVCC DRAFT Portrait of a Graduate

The following DRAFT CVCC Portrait of a Graduate was developed by CVCC faculty prior to the Visioning Workshops, and the graphic was designed by a CVCC student. During Faculty Visioning Workshop One, participants reviewed the DRAFT CVCC POG to add headings and performance indicators which can be found on the following page.

- Work Ethic
- Experience
- Knowledge
- Motivation
- Professional
- Flexibility
- Responsible
- Exposure
- Problem Solving
- Self-Respect
- Citizenship
- Identity
- Lifelong Skills
- Safety
- Ready
- Lifelong Learning
- Confident
- Ready for Challenges

CVCC DRAFT POG Performance Indicators

(Based on Learning Goals Activity Feedback)

Academic and Technical Proficiency

- Academic and Technical Knowledge
- Effective Communication
- Ability to Access, Acquire, Assess and Apply information
- Career Skills and Career Cluster Experience
  - Technical Knowledge
  - Experience and Exposure
  - Perspective and Confidence

Innovative & Critical Thinking

- Critical Thinking and Problem Solving
- Ability to Reason and Think Logically
- Flexibility and Agility
- Imagination and Adaptability
  - Solution Focused Flexible Thinking
  - Originality
- Creativity and Curiosity
  - Self-Reliance
  - Self-Guided Learning
  - Looking for Answers Beyond the School Day
  - Thinking Outside the Box

Employability & Professionalism

- Work Ethic
  - Commitment to Quality Work
  - Motivation and Reliability
  - Determination and Persistence
- Timeliness and Ability to Multi-task
  - Efficiency
  - Responsibility
- Safety and Sanitation Awareness

Citizenship & Collaboration

- Personal, Community, and Global Responsibility
- Diversity and Inclusion
  - Exposure and Respect
  - Kindness and Empathy
  - School Community, Society and Culture
- Community Engagement and Civic Responsibility
- Economic & Cultural Awareness
- Ethics and Identity
  - Digital Citizenship
  - Team-Building

Social Emotional Awareness & Well Being

- Self-Awareness and Efficacy
- Confidence and Respect
- Open Mindedness and Flexibility
- Judgement and Decision Making
- Personal and Emotional Wellness
  - Self-Care
  - Resiliency

Lifelong Learning

- Proactive Learning, Motivation and Agency
- Growth Mindset
  - Learning How to Deal with Failure
  - Ability to Accept Constructive Feedback
- Leadership and Preparedness
- Readiness for Challenges
- Informed Thinking
- Financial Readiness

Vermont Portrait of a Graduate 2020

(Note that many of the headings and performance indicators are similar to that of the CVCC POG)

Faculty Virtual Workshop One Notes

4.16.20

SCOG Analysis

The following list of Strengths, Challenges, Opportunities & Goals with regard to CVCC's programming and facilities was brainstormed by CVCC faculty members in small group discussions that took place after the Virtual Educational Re-Envisioning Workshop One. Highlights from each groups' conversation were combined by like themes.

STRENGTHS

Curriculum and Programming

- Quality of instruction
- Student-engaged curriculum and project-based learning
- Diversity of our offerings – good range of programs
- Collaboration across programs - could be more intentional but it is working
- We have become a well-oiled machine and we know what we are doing
- Even during COVID - we stepped in!!!
- The level of rigor in our curriculums
- Well run Co-op program
- Level of professionalism students are held to
- We are in the right place at the right time, the value of educational avenues are changing, not everyone needs a two or four year degree and jobs are not filled - it happens here

A Place Students Want to Be

- Great student relationships
- Everyone is accepted and feels comfortable
- Everybody has fun - the kids and the teachers - very unique personalities that come together
- Our students are our STRENGTH! We still have decent enrollment numbers, consistent and not falling at the rate the High School numbers are dropping
- Kids talk about how CVCC is "their" school rather than their home school - they belong - it is a safe space
- If a sending bus is late, kids say "no we will just stay here with you guys"
- We have to force kids out of the spaces for lunch or gatherings or events - they want to stay
- At the end of the day - they are hanging around - not many high school kids do that!
- Student buy-in and participation… there is an impressive lack of bad behavior on the part of students

Dedicated and Experienced Faculty and Administration

- People - our staff!
- Experienced staff, we are professionals in our fields… and it is critical to translate this experience to the students. We lead by example
- Varied educational, backgrounds, and experience
- Good administrative support
- Good staff support
- Showcasing students work and talents
- We go above and beyond for the kids. We make connections
- Staff-to-student support beyond the school day
- Everyone pulls together when needed
- We are an example of flexibility with this crisis. Individuals have changed and moved outside their comfort zone - using each other as resources - collaboration!!
- Open Houses/Graduation/Events - we are all in - even when really tired after a full day with kids, we are ready to perform!
- Willing to always participate in our future!

CVCC Educational Re-Envisioning

Faculty Virtual Workshop One Notes

4.16.20

STRENGTHS Continued

Community

- Community Support
- Advisory Board Members
- Collaboration opportunities between programs and community partnerships
- Industry connection and support - partnerships with businesses
- Diverse skill sets through use of program advisory boards and industry partners
- Access to industry-level resources, equipment, ingredients, and hardware
- Tons of jobs available: increased industry interest in us

Technology

- Accessibility to tools and technology
- Tools and technology are on par with industry
- Some shops are good sized

School Enrollment

- Admissions program
- Increasing the quality and numbers of applicants
- Number of IRC's available to enrolled students
- We are well positioned to capitalize on the high demand for our students

Building

- CVCC entrance - still not great, but at least we have one!
- Somewhat central location
- We are innovative - we are fitting an ambulance into a classroom
- Electrical situation was a learning opportunity for all!

CHALLENGES

Curriculum and Programming
- Shifting society's values to see the value of Career Technical Education
- School community and inter-program collaboration
- Lack of support staff for all instructional programs is needed - provides more flexibility
- DMA - they are out doing creative things and tend to be out of classroom – more staff would help support this
- Academic specialists available to all teachers and students - even if we are not a comprehensive high school
- Difficulty to hire qualified candidates out of industry due to teaching license requirements
- Lack of autonomy and communication with our sending schools and supervisory union
- State-level support for CTE is weak

Limitations of Being Tied to SHS
- We are tenants of SHS and not being our own building gives us no control over custodial staff, auditorium, cafeteria space, library spaces, use of shared spaces, and even the parking lot
- Governance - we need to keep programs vs. closing them
- We are tied to a high school policy structure is detrimental to CTE
- Being tied to SU-level policies that adversely affect our education style
- Having to work around SHS schedules
- CTE is an afterthought - companion courses are not well-structured for what the students need
- It can be challenging to develop school pride
- We are stuck in a high school and this prevents us from establishing our own identity: important to staff and students
- Infrastructure about being a tenant, intercom, technology, schedule, phone systems, etc. We have to get permission. Elevators are locked t 5:00 p.m. and Adult Ed cannot provide education as we should for equity and access.
- Control over maintenance and repairs to our spaces - tenant issues.

Safety Issues
- Lack of security cameras
- Lack of space for kids to hang out before school starts - as buses arrive and drivers arrive - productive space with supervision - student lounge accessible during off hours
- Poor signage
- Egress lighting was not up to date - safety issue

Lack of Accessibility
- One elevator with very little accessibility

Older Building
- It's sort of an old, depressing building: it would be great to look out on something other than a parking lot
- Maintenance

Shops/LAB Space
- Lab space should have adjacent storage
- Better classroom/lab space proximity
- Better cluster classroom/lab space proximity and integration
- Not enough space in certain programs
- Shops are so small, collaboration is difficult
- Woodshop and Electrical shops are not real shop spaces
- The heating system blows the dust everywhere and it goes into the halls, slippery floors
  - Ventilation/dust/fumes
- Culinary should be located near the cafeteria – but this causes them to be separated from the rest of the building

CVCC Educational Re-Envisioning
Faculty Virtual Workshop One Notes
4.16.20

CHALLENGES Continued

Community Use and Access
- Providing outside access for community to utilize our programs with businesses
- We have no Community Space
- Lack of Adult Education space

Professional and Collaboration Areas
- Not enough office space
- No privacy for special education meetings
- Personal space, sometimes staff needs to deal with family or personal items and need to have a space to do this
- No Teacher space for lunch

Location of Classrooms
- Location of classrooms on second floor on top of shops results in poor air quality as well as noise issues
- Having classrooms next to the shops is critical so as to promote visibility and supervision
  - We need be able to flow from one space to the other to maximize instruction time

Common Spaces
- Lack of space to foster new programs or create common spaces for students
- Lack of common space for everyone to use as needed
- Center programs are located throughout the building (some spaces are far away from the "heart" of the center - culinary/baking arts)

Meeting and Breakout Spaces
- Dedicated testing spaces
- Designated pull out spaces for academic work and support

Special Education Resources / Services
- Student-to-student support and opportunities beyond the programs

Counseling Spaces
- Counseling offices are used for studying and crisis intervention
- Space next to counseling offices with supervision would be good for more quiet spaces for student work

Technology
- We seem to have ongoing tech problems
- Old Building being retrofitted over and over again - causes challenges to be a true "Technical Center" and to prepare students for the future

Outdoor Connections
- We need expansive outside space for enhancing student learning which serves CTE - we are limited with "shop" space.
- No outdoor learning spaces
- Outdoor space is lacking - current space is spoken for by SHS and we need permission to use the fields, etc.
- Building Trades would like to do a foundation and have a work area if needed
- Water main needs to work with Plumbing

Cafeteria
- Cafeteria - issues with running out of food and no flexibility with CVCC events, etc. - with 8 sending schools

Storage
- Storage for all areas - shops and classrooms

Parking + Transportation
- Parking
- Transportation (might not belong here)

OPPORTUNITIES & GOALS

Improved Curriculum and Programming

- Support students to become well-rounded
- Provide more programs
- Our own maintenance/nurse/librarian
- A way to serve 9th and 10th grade students holistically
- Space to integrate with middle/elementary schools
- 9th and 10th grade programs (200 students) that cross all cluster areas
- More specialized programs built off from what we offer - academy style, year two goes into more focus with credentials - opportunities and space and staffing to bring this to life
- Serve grades 9-12 with multiple options for student outcomes in year one and year two of a program
- Provide flexible scheduling that allows students to have more opportunities
  - One-and two-year options – truly
- Foster stronger college connections
  - Student access to post-secondary and industry credentialing beyond their high school graduation
- Gap year? Kids who are graduating but not ready to move into industry or college? Co-op over the summer - coverage and support - staffing to support it. Pay the students for their work.

Improved Facilities

- Change space to meet state regulations
- Change our physical space to accommodate new programs and new school community efforts
- Be ready for the next 4 decades!
- Larger more modern lab spaces
- Storefronts for all programs
- Our own shipping and receiving area
- Have our own Name/Building - not SHS's Tech Center – with our own package and mail delivery
- Storage area for school vehicles (bus, vans, tractor)
- Commercial vs. residential

Improved CTE Offerings

- More programs and certification programs
- Industry ready - get students more prepared
- Business Education/Personal skills program should be required for all students in addition to the industry skill side - embedded or separate - business ownership
- Manufacturing
- Welding
- Forestry/Woodland Management/Sawmill use/sustainable practices
- Technical skills - vacuum, mechanical, manufacturing/engineering, machinists
- Heavy equipment
- Diesel Mechanics
- Statistical process control
- More Medical Programs - Homeopathic
- Natural Resources - expand pathways into forestry, land management, wetlands management, farming, homeopathic medicine
- Building Trades - timber framing
- Small Engines/Recreational vehicles
- Auto Body/Painting booth
  - Paint Area - for smaller projects
- Grow our own materials, trees/wood, food/greenhouse
- Engineering - produce project managers and engineers vs. just producing level 1 workers
- Robotics

CVCC Educational Re-Envisioning
Faculty Virtual Workshop One Notes
4.16.20

OPPORTUNITIES & GOALS
Continued

Self-Governance

- Creating our own Comprehensive/Technical High School grades 9-12 and beyond will allow us to expand options for students, and give us full control over how to best meet the needs of all students
- Having a stand-alone Technical High School will allow us to do more by tying all of the programs together and utilize available resources as needed (vs. sharing these resources)
- Having the ability to govern ourselves is key
- Support field trips/medical forms etc. would help us do this in a more industry focused event. Having all services on site - nursing, etc.
- Could we increase pay to our staff given a new governance structure - the quality of the collective bargaining agreements does not support CTE/Industry.

Better Community Use and Access

- More Community engagement
- Community partners
- Community Center to host or rent out
- Adaptive Space for Adult Ed, but keep daytime and evening projects separate - storage, workspaces
- Training Spaces for community
- Growing adult education program to support the community
- Auditorium
- Improved bussing

Sustainability

- Improved HVAC - air conditioning, ventilation

Industry Simulation Spaces

- Working closer with industry partners to share spaces and develop integrated programs
- Mock Industry

Flexible Classroom and Learning Spaces

- Clean rooms will be something needed for every program - quarantine room in every business
- Leave the old traditional shops behind
- Expanding space to enhance each program

Collaborative Spaces

- Natural Resources has to spend time on the road to get to their outdoor labs - expensive, loss of educational time - more collaborative projects can happen across programs with all labs and all programs on one campus with enough space to do this.

Outside Connections

- Middle school recruitment field trips would be amazing with outside space

Faculty Virtual Workshop Two Notes 4.27.20

The following set of priority "21st Century Design Patterns" for the design of the renovated and/or new CVCC facility was developed by the CVCC faculty during and after Educational Re-Envisioning Workshop Two, which took place on April 27, 2020. Approximately 33 CVCC faculty members participated in the 2-hour long workshop, after which 4 groups of approximately 6 participants each worked to create their own set of priority Design Patterns. These are grouped by theme and listed below in order of priority, based on the number of times they appeared on each small group's list.

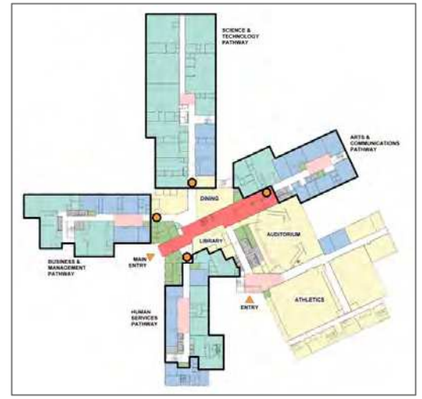
Priority 21st Century Design Patterns

- **Extended Learning and Gathering Hubs**
  - Heart of School Shared Commons Spaces that Build Community
  - Informal Presentation Areas / Learning Stairs
  - Open Areas for School Collaboration
  - Shared Spaces Adjacent to and Separate from Labs
- **Indoor/Outdoor Connections**
  - Outdoor Learning and Gathering Spaces
  - Interior Courtyard that Required Less Security and Allows for More Freedom
  - Open Campus
  - Green Spaces
- **Storytelling and Display**
  - Showcasing of Programs
  - Exhibition of Student Work
  - Hall of Fame
- **Sustainability**
  - Net Zero Building
  - Natural Light Throughout
  - Building as Teacher
  - Students See Workings of School (As Visible as Possible)

Faculty Virtual Workshop Two Notes 4.27.20

Priority 21st Century Design Patterns *Continued*

- **Branding and Identity**
  - Branding of Technical Areas/Career Clusters
  - Outside Branding and Mural
  - Names of Programs and Spaces Clearly Visible
  - Identify with Vermont Community Being Served
- **Welcoming Arrival**
  - Welcoming Entry
- **Community Use**
  - Safe and Easy Access to Certain Spaces/Resources Within Building
  - Adult Education (Safe Use and Storage)
- **Neighborhood Clusters**
  - Modular Clusters of Labs and Classrooms and Career Pathways
  - Ease of Connections Between Labs and Classrooms
  - Modular and Adjustable Furniture
- **Public Access and Service**
  - Storefronts that Provide Community Access to Programs/Businesses
  - Clustering of Public Access Programs
  - Repair Work and Restaurant
- **Safety and Security**
  - Secure Entry
  - Ease of Supervision (no blind spots)
  - Wayfinding and Streetscapes
- **Dining as Social Commons**
  - Small Dining Venues
  - Workplace Café
- **Enrichment Spaces**
  - Gym
  - Auditorium
- **Effective Storage**
  - Good student lockers
  - Lockable storage for Classrooms and Labs
- **Professional Work Areas**
  - Teacher Collaboration Spaces
  - Common Teacher's Room
  - Private Spaces for Teachers



Faculty Virtual Workshop Two Notes 4.27.20

Priority 21st Century Design Patterns *Continued*

- **Industry Simulation**
  - Workplace Simulation Areas
- **Visible Learning and Transparency**
  - Visual Connections to Each Program
- **Dispersed Resources**
  - Support Students Being Well Know Across CVCC
- **Breakout and Meeting Spaces**
  - Nooks and Breakout Spaces Good Sightlines and Supervision
- **Distributed Support Services**
  - Administrative and Adult Spaces Spread Throughout the Building
- **Multi-Use Spaces**
  - No Wasted Space
- **Industrial Aesthetic**
  - Exposed Structure of Building
- **Universal Design and Access**
- **Seamless Technology**
- **Nursing Lab**

Faculty Virtual Workshop Three Notes 5.12.20

Faculty Priority 21st Century Design Patterns

When asked to list their three highest priority Design Patterns during Workshop Three, individual participants responded as follows.

In the World Cloud above, larger the word the more times it was submitted by an individual participant. Below is a record of individual participant responses.

1. Visible Learning, Safety and Security, and Neighborhood Clusters
2. Indoor/Outdoor Connections, Community Use/Access, and Sustainability
3. Indoor/Outdoor Connections, Community Use/Access, and Modular Classrooms
4. Indoor/Outdoor Connections, Community Use/Access, and Extended Learning/Gathering
5. Indoor/Outdoor Connections, Community Use/Access, and Building as Teacher
6. Indoor/Outdoor Connections, Branding, and Professional Workspaces
7. Indoor/Outdoor Connections, Extended Learning, Gathering and Neighborhood Clusters
8. Indoor/Outdoor Connections, Community Use/Access, and Enrichment Spaces
9. Community Access, Neighborhood Clusters, and Enrichment
10. Indoor/Outdoor Connections, Community Use/Access, and Extended Learning Spaces
11. Indoor/Outdoor Connections, Community Use/Access, and Professional Work Areas
12. Community Access, Seamless Technology, and Visible Learning
13. Indoor/Outdoor Connections, Green Space, and Sustainability
14. Indoor/Outdoor Connections, Community Use/Access, and Enrichment Space
15. Indoor/Outdoor Connections, Neighborhood Clusters, and Breakout Space
16. Community Use/Access, Sustainability, and Neighborhood Clusters
17. Indoor/Outdoor Connections, Community Use/Access, and Neighborhood Clusters
18. Indoor/Outdoor Connections, Community Use/Access, and Welcoming Arrival
19. Natural Light, Neighborhood Clusters, and Professional Spaces
20. Community Use/Access, and Neighborhood Clusters

CVCC Educational Re-Envisioning

Faculty Virtual Workshop Two Notes 4.27.20

Guiding Principles 1.0

The following set of "Guiding Principles 1.0" for design of the renovated and/or new CVCC facility was developed by the CVCC faculty during and after Educational Re-Envisioning Workshop Two, and then reviewed, tweaked and approved during Workshop Three. Approximately 33 CVCC faculty members participated in the 2-hour long workshop. Four teams of approximately 6 participants each then worked to create their own set of priority Guiding Principles which have been grouped by theme and listed below.

Guiding Principles offer a framework of educational priorities that prove invaluable in helping stakeholders and design team members to set design goals and focus their work. This first iteration of Guiding Principles may continue to develop as the design process unfolds.

1. Real World Education

- Project and Problem Based Learning
- Extension of Learning Outside the Classroom
- Real World, Business and Industry Connections
- Partnerships with Secondary and Post-Secondary
- Technology Integration

2. Small Learning Community

- Career Pathway Communities and Connections
- Relationship Building and Empathic Engagement
- Heart of the School for Center-Wide Gatherings
- Student Responsibility and Citizenship
- Social Skill Building

3. Health and Wellness

- Student and Staff Wellness
- Natural Light and Healthy Air Quality
- Outdoor Connections and Access
- Outdoor Labs, Classrooms and Gathering Spaces
- Welcoming and Secure

4. Personalization

- Universal Design and Access
- Individual Exploration and Learning
- Transparency and Visible Learning
- Explore, Create, Learn

5. Adaptability and Flexibility

- Ability to Expand and Grow
- Varied Spaces for Individual, Small Group and Large Group Learning
- Open Campus

6. Community Access and Engagement

- School as Community Resource
- Separate Entrance for Students and Community
- Workforce Development Training Center (Adult Ed)
- A Storefront for Businesses
- Revenue Generating Opportunities

7. Sustainability

- Net Zero Building
- Energy Efficiency (Solar Panels, Wind, Geothermal)
- Building and Property as a Learning Tool
- Local/Renewable Materials and Businesses
- Industrial Look to Showcase Building System

CVCC Educational Re-Envisioning

Faculty Virtual Workshops Two and Three Notes

4.27.20 and 5.12.20

Guiding Principles Feedback

Workshop participants offered the following feedback after reviewing the set of Guiding Principles 1.0 during Workshop Three.

- Looks good
- Great connection 👍
- This matches what CTE should be
- Connects to my vision from years ago
- Quality of space = quality of students and instructors
- The business aspect will bring authenticity to our school
- Student Based
- Good points, seems like all there
- Principles are attainable
- Best for now and the future
- As I think of staff and student health and wellness I think of needing a health service center
- It looks pretty accurate and obtainable and aligns with our goals
- A breath of fresh air!
- A good summary. Flexible for different concepts to be explored.
- Maybe add something about building social skills with the school community?
- Building as learning tool
- Outdoors, community, natural light, health

CVCC Desired Qualities Word Cloud

The following Word Cloud was created during the Virtual Educational Re-Envisioning Workshop Two that took place on April 27, 2020. Participants responded to a prompt that asked them what qualities of programs and space they would like to see in a renovated and/or new CVCC facility. Each participant was asked to submit up to three words. The larger the word on the image below, the more times it was submitted by an individual participant.

Faculty Ideas

The following faculty ideas for the design of the renovated and/or new CVCC Facility were recorded during Faculty Workshop Three. Individual participants wrote about their own aspirational ideas and then shared them with the larger group. Ideas have been grouped together by like-themes.

Welcome and Inviting
- Welcoming entry with student gallery of work
- A place that middle schoolers love to come to
- Lots of windows!
- Indoor water sculpture for calming effects
- Bright and light - no dark colors
- Trip Advisor top 3 places to visit for the area

Innovation and Inspiration
- A space that encourages exploration, innovation, and collaboration

Open Spaces and Natural Light
- A space that feels open and spacious, lots of natural light
- More space than we actually need
- Wall to wall windows

Safety and Security
- Spaces that have all safety components but allows natural light
- I imagine bulletproof but one-way glass

Clear Pathways to College and Career
- Clear and vibrant pathway from high school to adult learning (college and non-college further learning)
- Extremely professional look
- Gives the feel of adulthood and intellectual pride while providing the support and structure needed for teens

Community Access and Use
- Ability to have community access to those programs that would thrive on community support while accounting for the safety and security of the students, staff, and school
- Gathering hub for community, business and families
- Lots of space for connections to services that are funded externally, like DCF, VSAC, food programs, youth service bureau

Sustainability and Comfort
- Net Zero Shop
- The top half of building glass to allow natural light
- AC and Heat
- Regular and Emergency ventilation
- Radiant heat
- Restrooms located conveniently in each program space
- Proper ventilation to keep programs the correct temperature all year long

Vermont Materials and Aesthetic
- Natural stone and timber from Vermont water on the property in Lake or a stream
- Sawmill quarry farm

CVCC Educational Re-Envisioning
Faculty Virtual Workshop Three Notes 5.12.20

Faculty Ideas Continued

Self-Governance
- Our own governance-structure
- Work with but not restricted by Vermont's PreK-12 system

Flexible Classrooms and Learning Spaces
- Large spacious classrooms with connected relevant, up-to-date lab space
- Adaptable to program changes 30-50 years out

Meeting, Breakout and Collaboration Spaces
- Staff and faculty collaborative spaces
- Space for independent study with industry professionals as guests

Opportunities for Growth and Evolution of Programs
- Flexibility to explore programs we don't currently have
- Space and flexibility for many career clusters, multi-year options
- Modular space that lends itself to easy expansion

Neighborhood Clusters
- Neighboring clusters of collaborative disciplines, with a collective space for larger projects

Common Spaces
- A common work area/ library / cafe with lots of outdoor lighting
- Places for student groups to meet for non-program purposes
- Supervised common areas where students can work at their own pace

Maker Space
- A makerspace that is a microcosm of our school and that would also be available to the public
- A space that would be taught and maintained by a co-teacher that would spearhead academics in math & science

Professional Work Areas
- Teacher office with plenty of space to work with small groups of students
- Lots of personal office space out of classroom/shop areas.

Career Center
- A Career Center/ Work-Based Learning space
- Career exploration stations
- Space for resume and interview workshops
- Industry speakers
- Jobs board

Display and Exhibition
- Space to celebrate student work

Outdoor Learning Spaces and Connections
- Indoor/outdoor access to enhance adaptability
- Lots of green space outside, lots of natural light inside
- Beautiful site like Vermont Technical College
- Outdoor access from all classrooms
- Garden area accessible for foods classes
- Outdoor space for projects, shared lab space for construction trades
- Forested area for outdoor learning
- I would love to see a greenhouse that students could access year-round
- A greenhouse extension with seating and gathering spaces for everyone

Calming and Therapeutic Spaces
- Restorative/calming spaces for anxious/stressed students

Faculty Ideas Continued

Art / Music / Performance Spaces

- A massive studio stage with 2-3 stories of height for large scale film and photography projects to allow more students to collaborate and explore lighting/space setups
- A music studio with a control room and soundproof room for recording live audio productions. This could allow any program to record audio cleanly for productions, podcasts, etc.
- Pottery studio with gas and wood fired kilns
- A broadcast room that can be used by Vermont Public Radio Vermont Public Television and Film studio big enough to attract large commercial clients
- All of this is rentable space the students run and get to work on projects as production assistants.

Cosmetology Salon

- Modern space and equipment
- Sky lights and natural lighting
- Separate clinical and classroom spaces
- Student storage space and supply storage
- Convenient accessibility for clients
- More parking for clients, students and staff
- Restroom for salon and class
- Lockers for students in break area or classroom
- Good ventilation

Health Science Academy

- A building wing for a Health Science Academy
- Expanding offerings involving industry partners in thoughts about the design
- Space to grow and expand
- Fully simulated workspace

Automotive Shop

- Wide-open shop
- Each corner has fully visible separate sections for welding, engine building, classroom, and open shop area
- The shop will have door on each side of the building. The entry of vehicles and exits of vehicles
- Lots of vehicle lifts spaced apart for ease of movement.

Culinary Programming

- A classroom connecting the Bakeshop and Culinary kitchen with lots of natural light bright painted walls in turquoise and blue (CVCC colors)
- Partition allowing for separate classroom spaces but movable to allow for full class participation
- Kitchens with natural light with windows out to hallways to allow for seeing the students in action
- Attached to public access Bakeshop/Cafe as well as a space to serve students
- Cafeteria within access to culinary and Bakeshop to allow for collaboration for large events

Student Maintenance

- Physical plant and grounds maintained by students

Storage / Lockers

- Storage space and locker areas to allowing for students to change for program and have a locked place for personal belongings

Childcare Space

- On-site childcare facility

Skating Rink

- A skating rink for the winter

CVCC Educational Re-Envisioning
Faculty Virtual Workshop Three Notes 5.12.20

Career Clusters

The following ideas for potential Career Clusters and Pathways for Central Vermont Career Center were brainstormed during Workshop Three by CVCC Professional Learning Groups. Those Career Pathways and technical areas that presently exist at CVCC are shown in black, *while ideas for new pathways and technical areas are highlighted in italicized blue text.* This activity aimed to get feedback from CVCC faculty about which technical areas would make sense to group together spatially within defined Career Clusters, as well as which new technical areas they thought most important to include within an expanded CVCC program. It does not reflect any decisions made by the district with regard to which new programs might ultimately be added.

Instruction PLG

The Instruction PLG envisioned the following three Career Clusters:

Constructive and Manufacturing Trades

- Building Trades
- Electrical Technology
- Plumbing and Heating *and Refrigeration*
- Automotive Technology
- *Manufacturing Technology*
- *Engineering*
- *Appliance and Repair*
- *Welding*

Humanities and Health Trades

- Media Arts/Design
- Medical Professions
- Culinary/Baking/Hospitality
- Emergency Services
- Cosmetology 1
- Cosmetology 2
- *Licensed Nursing Assistance*
- *Criminology*
- *Crime Scene Investigation/Forensics*

Natural and Leadership

- Natural Resources and Sustainability
- Sustainability and Energy
- *Agriculture*
- *Forestry*
- *Business and Entrepreneurial Studies*

Student Support PLG

The Student Support PLG envisioned the following three Career Clusters:

Mechanical & Construction Trades

- Automotive Technology
- Plumbing & Heating
- Electrical Technology
- Building Trades
- *Farming*
- *Welding*

Arts & Community

- Cosmetology
- Digital Media Arts
- Culinary & Baking Arts
- Natural Resources & Sustainability

Health and Humanity

- Exploratory Technology
- Co-op Education
- Medical Professions
- Emergency Services
- *Veterinary Science*

Career Clusters Continued

Events Team

The Events Team PLG envisioned the following five Career Clusters:

Environmental & Agricultural

- Culinary/Baking arts
- Natural Resources and Sustainability
- *Restaurant Management/Hospitality*
- *Forestry*
- *Fish hatchery*
- *Sawmill*
- *Alternative energy*
- *Farming*

Manufacturing, Engineering &Transportation

- Automotive Technology
- *Architecture* & Construction (HVAC, Electrical and Building Trades)
- *Science & Technology*
- *Manufacturing*
- *Stone work*
- *Welding*
- *Diesel/Heavy Equipment*
- *Small Engines*
- *Body Work*
- *Recreational Vehicles*
- *CDL*
- *Marine mechanical*
- *Heavy Equipment Operator*

Health Care & Medical

- Emergency Services
- *Fire*
- *Dental*
- *EMS*
- *Police/Law Enforcement*
- *X-Ray Tech*
- *LNA*
- *OT/PT*
- *Auxiliary Therapies*
- *Veterinary Tech*

Human Services

- Cosmetology 1 and 2
- Nail Tech
- *Esthetician*
- *Child Care*
- *Social Services*
- *Eldercare*
- *Mental Health*
- *Teacher Education*
- *Massage Therapy*
- *Resort Management*

Art & Communication

- Digital Media Arts
- *Computer Programming (could fit under other clusters)*
- *Fine Arts*
- *Music*
- *Theatre*
- *CAD*
- *Coding (across multiple clusters)*
- *Liberal Arts offerings*
- *Interior Design*
- *Fashion Design*

NOTE: Exploratory Tech would live under every cluster as well as Business and Management

CVCC Educational Re-Envisioning
Faculty Virtual Workshop Three Notes 5.12.20

Career Clusters Continued

Career Pathways PLG

The Career Pathways PLG envisioned the following five Career Clusters:

Automotive

- Automotive
- *Auto Body*
- *Small Engine Repair*
- *Diesel*
- *Engineering*
- *CDL (Commercial Driving License) - Big Rigs*

Hospitality & Tourism

- *Culinary and Baking Arts*
- *Travel and Tourism*
- *Lodging/Hospitality*
- *Food Product and Processing Services*
- *Food Service Management*
- *Food/Restaurant Safety Inspection*
- *Food System Management*
- *Integrated Pest Management (also Natural Resources)*

Human Services

- Cosmetology and Personal Services
  - Cosmetology 1
  - Cosmetology 2
- Esthetician
- Medical Professions
  - *Elder Care*
  - *Personal Care Attendant (Personal Care Services)*
  - *Home, Health, Hospice*
- *Counseling and Mental Health Services*
  - *Family and Community Services*
  - *Human Resources*
- *Consumer Services Pathway*
- *Education and Training Preparation*
- *Spa Management*
- *Resort management*
- *Personal Care Services*
- *Family Care Services*
- *Child Care (Childhood and Development Services)*

Architecture & Construction

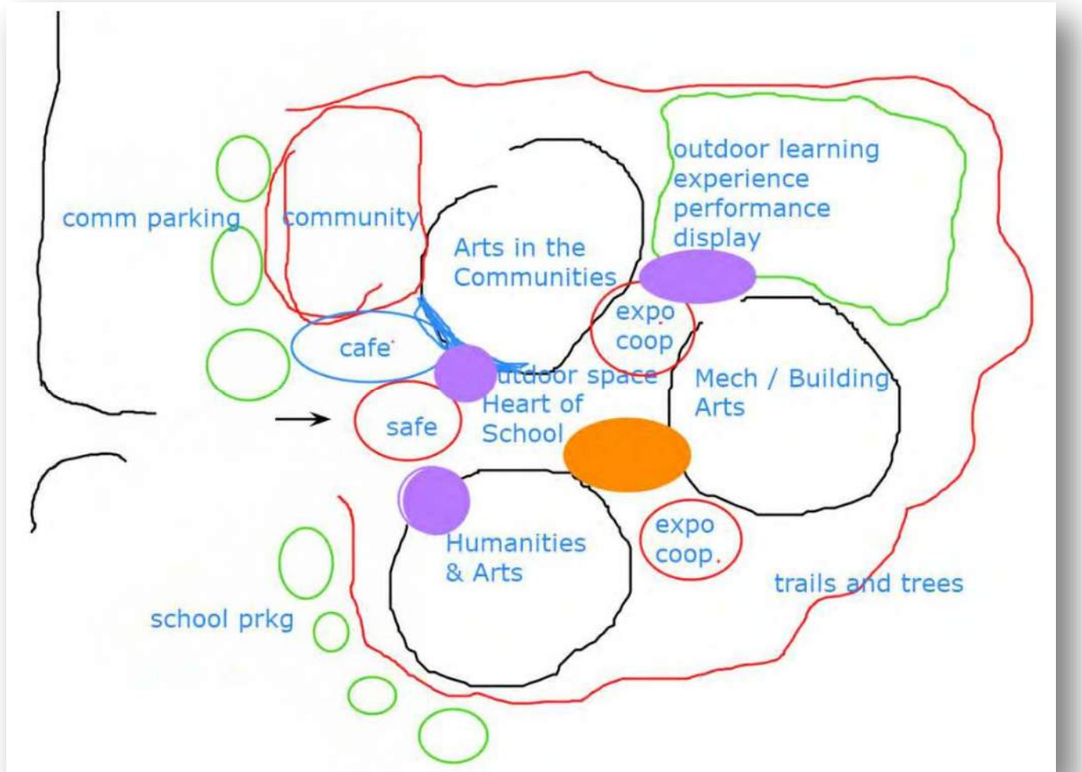
- Building Trades
- *Carpentry (new build and renovations)*
  - *Timber Framing*
  - *Alternative home building: Haybale, inground*
  - *Finish work*
- Plumbing and Heating
  - Pipelaying, Water Main Work
  - Oil Burners/Heating
  - Gas Burners/Heating
- HVAC
  - Heating
  - Ventilation
  - Air Conditioning
- Electrical Technology
- *Concrete and Masonry*
- *Wind power and solar electric*
- *Robotics*
- *Manufacturing Assembly Equipment*
- *Data Wiring*
- *Granite Industry/Stone Trades*
  - *Sandblasting*
  - *Etching*
  - *Cutting and polishing*

Natural Resources

- Materials Management- reduce, reuse, recycling, compost
- Food systems to forestry
- Farming and gardening
- *Horticulture*
- *Hydroponics Technicians*
- *Invasive Species Management*
- *Food Systems Management*
- *Integrated Pest Management*
- *Trail Conservation*
- *Greenhouse Technicians*
- *Orchard Management*
- *Community Service*
- *Welding and small engine repair*
- *Dairy Operation - from goat to cheese*
- *Mycology*
- *Environmental Scientists*
- *Renewable Energy Technicians*
- *Environmental Education*
- *Forestry / Game Warden*

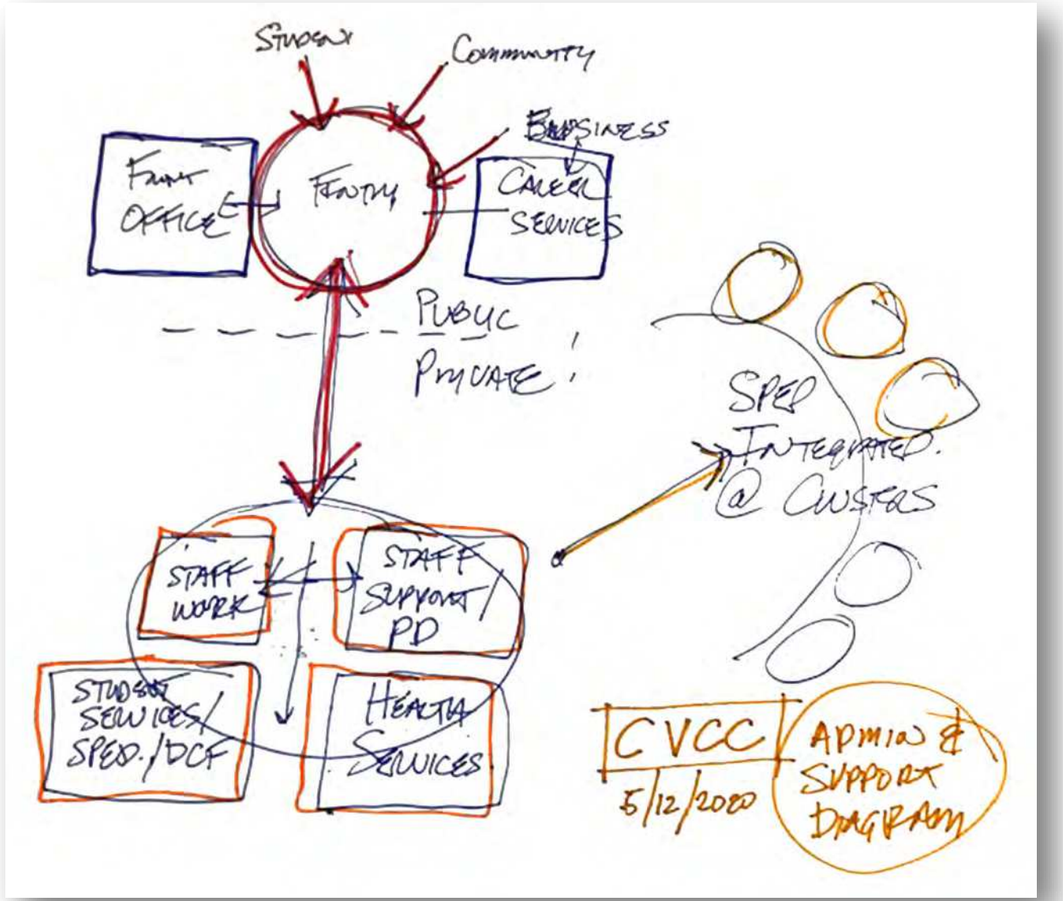
Whole School Adjacency Diagram

This Whole School adjacency diagram was created by a group of workshop participants in order to communicate their ideas about optimal spatial adjacencies for the renovated and/or new Central Vermont Career Center facility.



Administration and Support Adjacency Diagram 1

This Administration and Support adjacency diagram was created by a group of workshop participants in order to communicate their ideas about optimal spatial adjacencies for the renovated and/or new Central Vermont Career Center facility.



Administration and Support Adjacency Diagram 2

This Administration and Support adjacency diagram was created by a group of workshop participants in order to communicate their ideas about optimal spatial adjacencies for the renovated and/or new Central Vermont Career Center facility.

CVCC Educational Re-Envisioning
Faculty Virtual Workshop Three Notes 5.12.20

Career Cluster Adjacency Diagram

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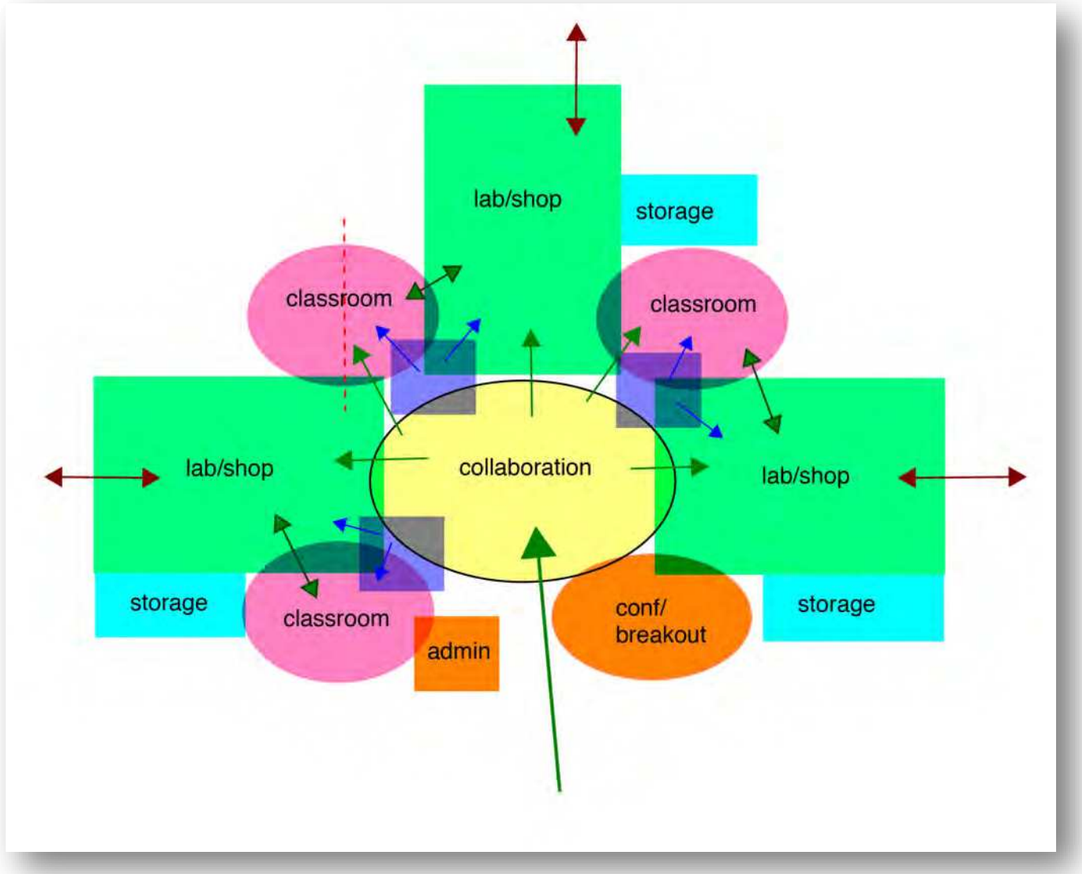
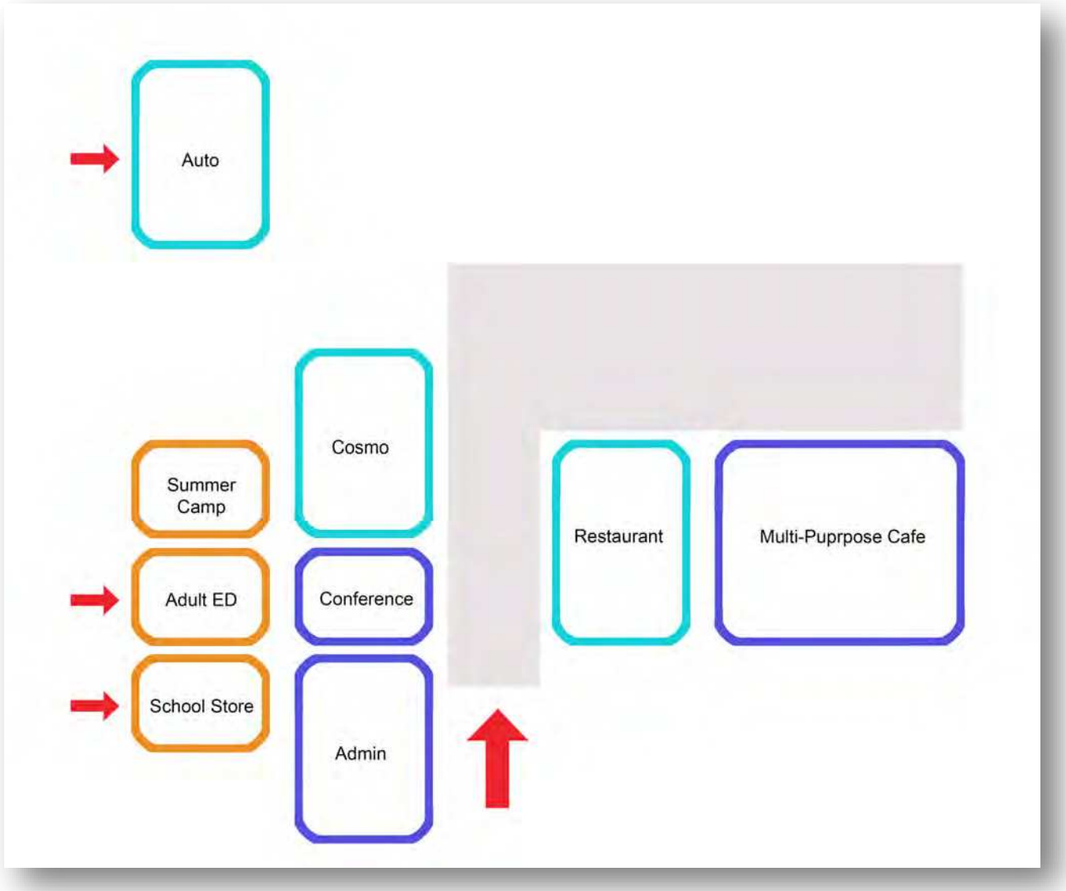


Community Access Adjacency Diagram

This Community Access adjacency diagram was created by a group of workshop participants in order to communicate their ideas about optimal spatial adjacencies for the renovated and/or new Central Vermont Career Center facility.



Workshop One Agenda

- **Overview** (10 min)
- **Priority Setting** (55 min)
  - **Individual reflections** (10 min)
    - 3 min each: Educational Priorities, Architectural Priorities, Community Priorities
    - Log in responses using Chat function
  - **Breakout Groups** (25 min)
    - Discussion and recording of TOP 10 Group Priorities
  - **Whole Group Reporting** (20 min)
    - Breakout groups report out (2 min each)
- **Break and Stretch** (10 min)
- **CTE Focus Areas** (35 min)
  - Presentation on Future Ready CTE Teaching and Learning (25 min)
  - Video: 21st Century Learning and Life Skills (10 min)
- **Small Group Assignments Overview** (10 min)
  - CVCC Learning Goals
  - SCOG Analysis

Friday Subsequent Small Group Activities (April 17, 2020)

The following post-workshop small group activities will be scheduled by your small group leader.

- **SCOG Analysis – One Hour**
  - Group reflection on CVCC Strengths (15 min)
  - Group reflection on CVCC Challenges (15 min)
  - Group reflection on CVCC Opportunities and Goals (30 min)
  - Link to Google Doc: https://drive.google.com/open?id=1BhxIrKNHCrq34S-bUneFzSxAv1zrsKKw
- **CVCC Learning Goals – One Hour and 15 Minutes**
  - Individual review and reflection (15 min)
  - Group reflection and discussion (15 min)
  - Recording on CVCC Learning Goals Poster (45 min)
  - Link to Google Doc: https://drive.google.com/open?id=1IQFBFTwgA5mrZdReF4JRF45H0ljezhvx

CVCC Educational Re-Envisioning Virtual Workshop One
Thursday, April 16, 2020 from 10:30 AM - 12:30 PM

Workshop Two Agenda

- **CVCC Word Cloud Icebreaker** (10 min)
  - CVCC individual reflection using Mentimeter
- **Workshop One Notes Review** (10 min)
  - Highlights from Learning Goals
- **Design Patterns Presentation** (30 min)
  - Overview of Design Patterns
    - Individual Feedback Using Mentimeter
    - Individual Recording of Design Patterns You Like
- **Break and Stretch** (10 min)
- **Design Pattern Prioritization** (30 min)
  - Breakout Group Prioritization
- **Guiding Principles Presentation** (30 min)
  - Virtual Tours of CTE Schools
  - Guiding Principles Overview

Subsequent Small Group Activities after WS Two:

The following post-workshop small group activities will be scheduled by your group leader.

- **Priorities, Learning Goals and SCOG Review – 45 Minutes**
  - Group feedback on Workshop One notes
  - Add/Delete/Modify
- **Guiding Principles Development – 45 Minutes**
  - Individual brainstorm of Guiding Principles for a new and/or renovated CVCC facility
  - Group development of Guiding Principal listing

CVCC Educational Re-Envisioning Virtual Workshop Three
Tuesday, May 12, 2020 from 12:30 - 2:30 PM

Workshop Three Agenda

- **Workshop Two Notes Review** (20 min)
  - Guiding Principles
  - Design Patterns
    - Word Cloud – Most Important Design Pattern
- **Blue Sky Ideas Brainstorm** (20 min)
  - Individual reflection then sharing using Mentimeter
- **Career Cluster Discussions** (30 min)
  - Breakout group brainstorm of possible Career Clusters
    - Review sample career cluster groupings
    - Compose a group list of potential CVCC clusters (20 min)
  - Whole Group Sharing – (20 min)
    - 2 minutes per group
- **Break and Stretch** (10 min)
- **Bubble Diagramming Activity** (50 min)
  - Breakout Group Diagramming (30 Min):
    - Whole School (with Ron Lamarre)
    - Career Cluster/Small Learning Community (with Julie Spence)
    - Community and Public Access/Entry (with David Stephen)
    - Administrative and Support Services (with Leigh Sherwood)
  - Whole Group Sharing (20 Min)
    - 3 minutes per group

The Existing Site

The existing CVCC administration, entrance, wing of the school has no street presence to allow it's location and existence to be known to the community.

The existing high school and technical center shared site is significantly constrained. The current parcel is fully built out with building, fields and parking.

The entrance to CVCC is sloped in a way to be non ADA compliant. The entire high school and tech center student body enters through the CVCC administration space.

Parking is extremely limited and adequate visitor parking to programs is not provided, especially for programs dependent on community access such as cosmetology.

The Existing Facility

CVCC, as a separate entity within the building shared with the Barre high school, does not have it's own identity or individual character.

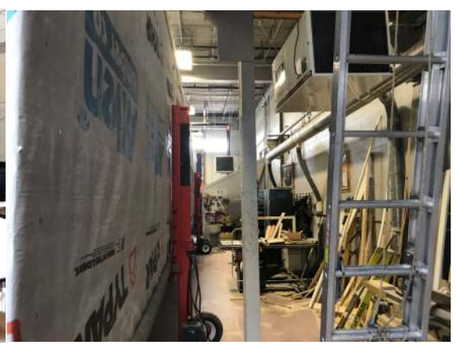
Several of the programs have classrooms separated from their labs which complicate scheduling, educational flow and adequate supervision.

Access to certain programs involved walking through other educational spaces.

CVCC's space for its current programming is inadequate and less than ideal.

The facility is aged and the MEP systems have reached the end of their life. Electrical and telecommunications systems cannot meet modern demand. All labs have poor indoor air quality.

The facility does not provide a location for commuting regional students to be - to study, eat lunch, wait for bus, etc.



LEVEL 1

LEVEL 2

- CVCC LAB
- CVCC CLASSROOM
- SPECIALTY ROOM
- STAFF / FACULTY
- HIGH SCHOOL
- CIRCULATION

CENTRAL VERMONT CAREER CENTER

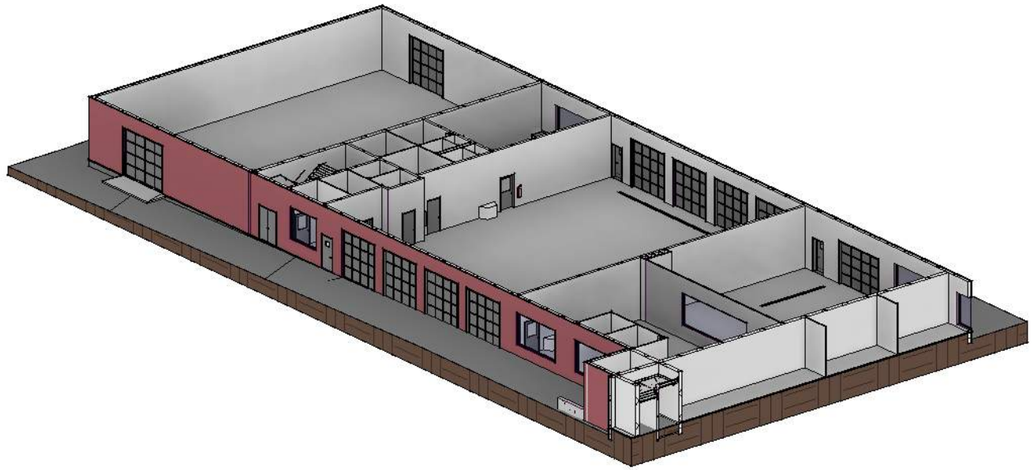
SCALE: 1/64" = 1'-0"

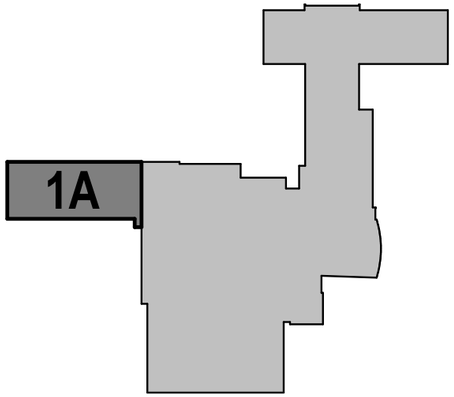
10/13/20

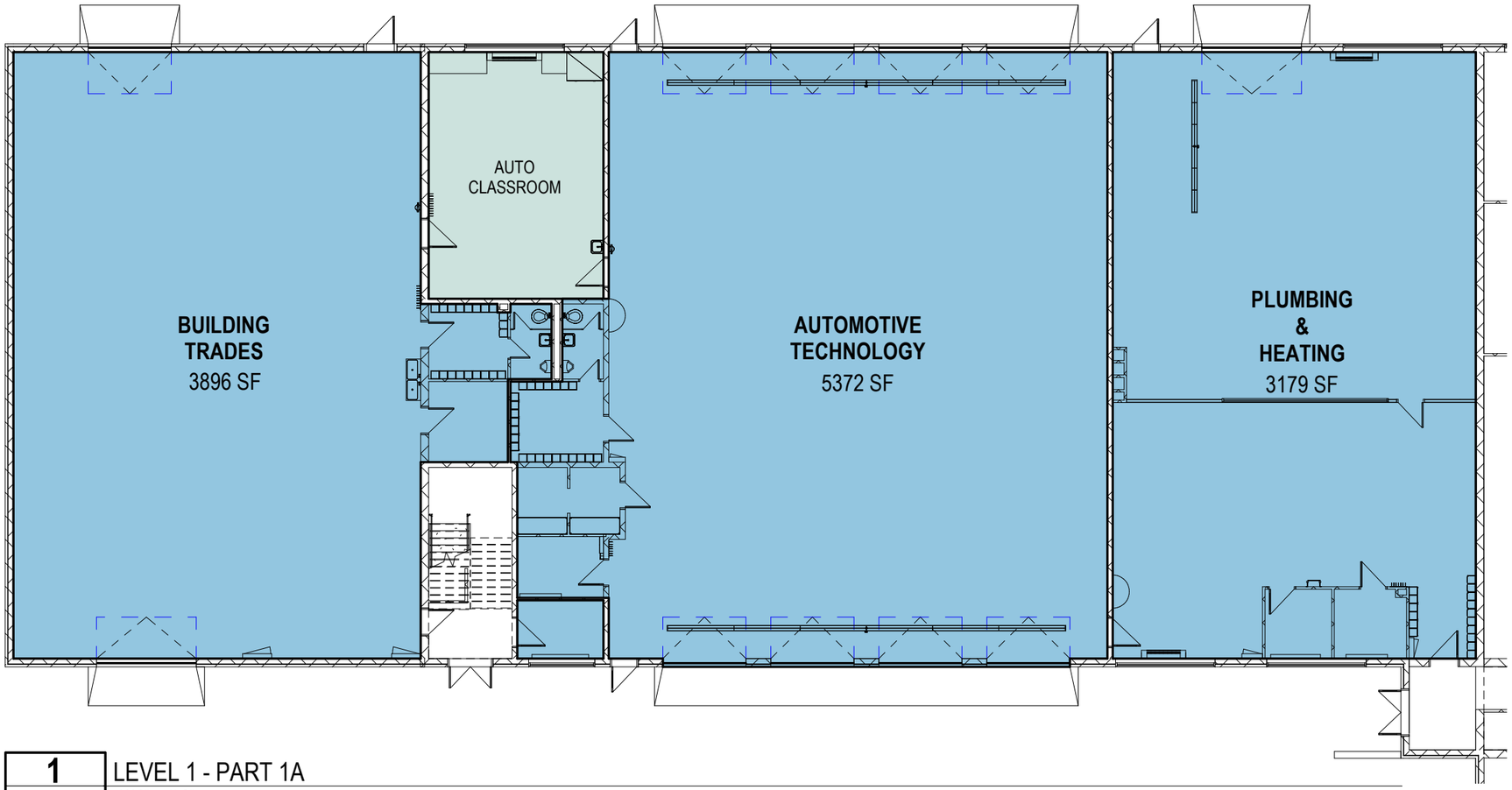
EXISTING CONDITIONS

OVERALL EXISTING PLANS

LAVALLEE | BRENSINGER ARCHITECTS







1 PART 1A — LEVEL 1 - PART 1A

1/16" = 1'-0"

CENTRAL VERMONT CAREER CENTER

EXISTING CONDITIONS

EXISTING CONDITIONS - PART 1A

SCALE: As indicated

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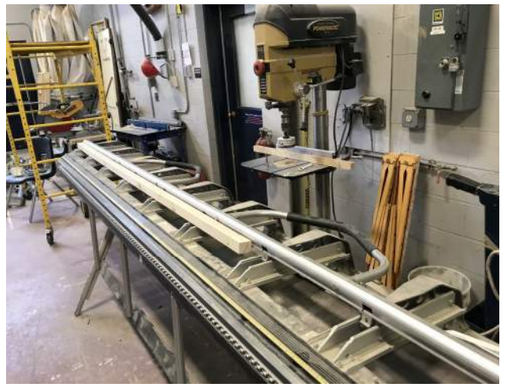
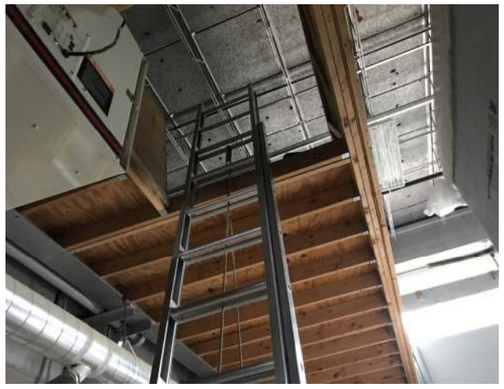
10/13/20

LAVALLEE | BRENSINGER ARCHITECTS

BUILDING TRADES

CENTRAL VERMONT CAREER CENTER

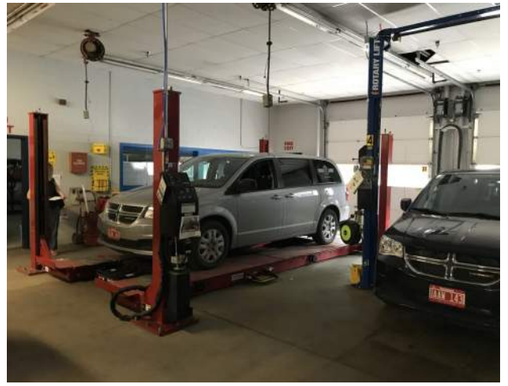
EXISTING CONDITIONS

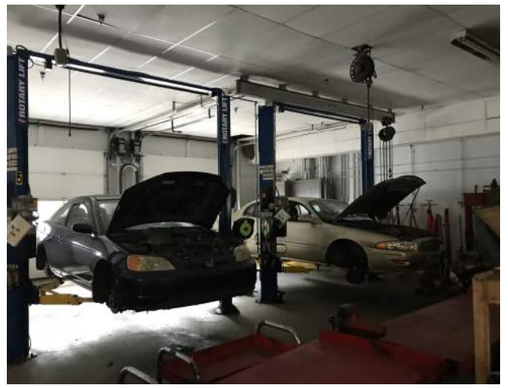
EXISTING CONDITIONS - PART 1A

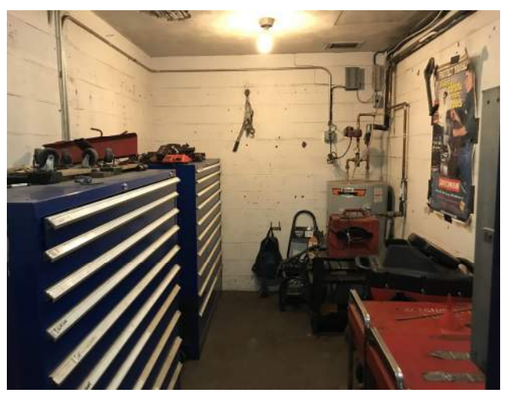
SCALE:

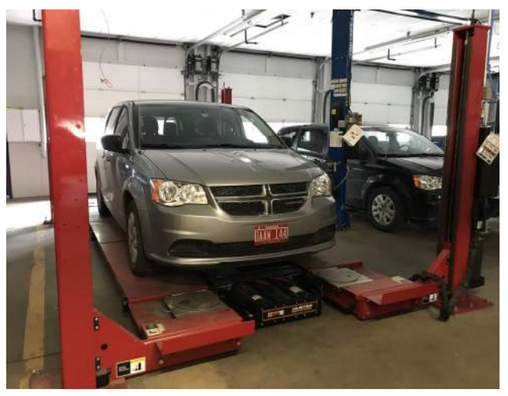
10/13/20

LAVALLEE | BRENSINGER ARCHITECTS









AUTOMOTIVE TECHNOLOGY

CENTRAL VERMONT CAREER CENTER

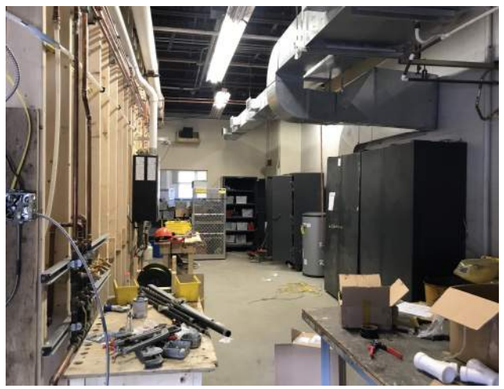
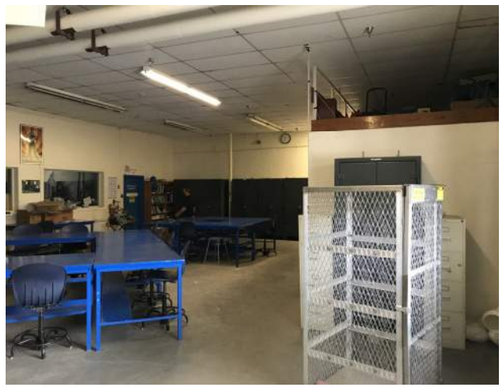
SCALE:

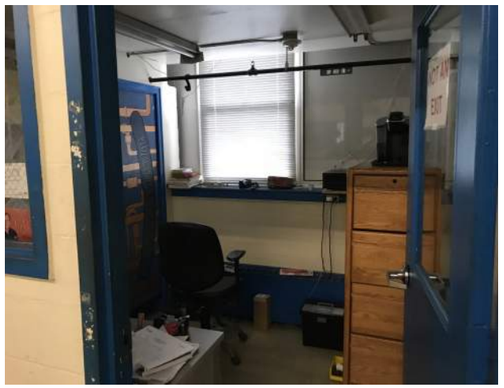
10/13/20

EXISTING CONDITIONS

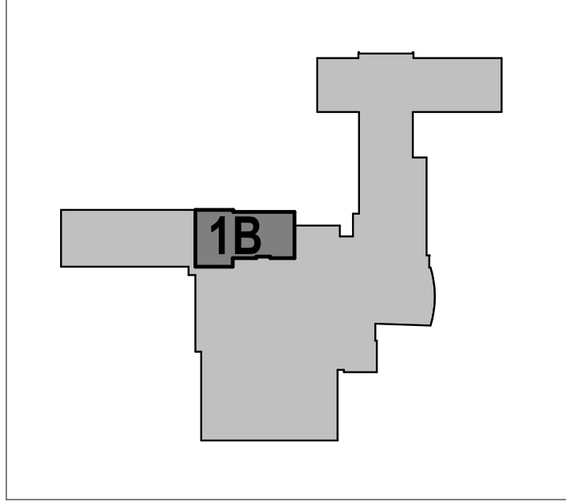
EXISTING CONDITIONS - PART 1A

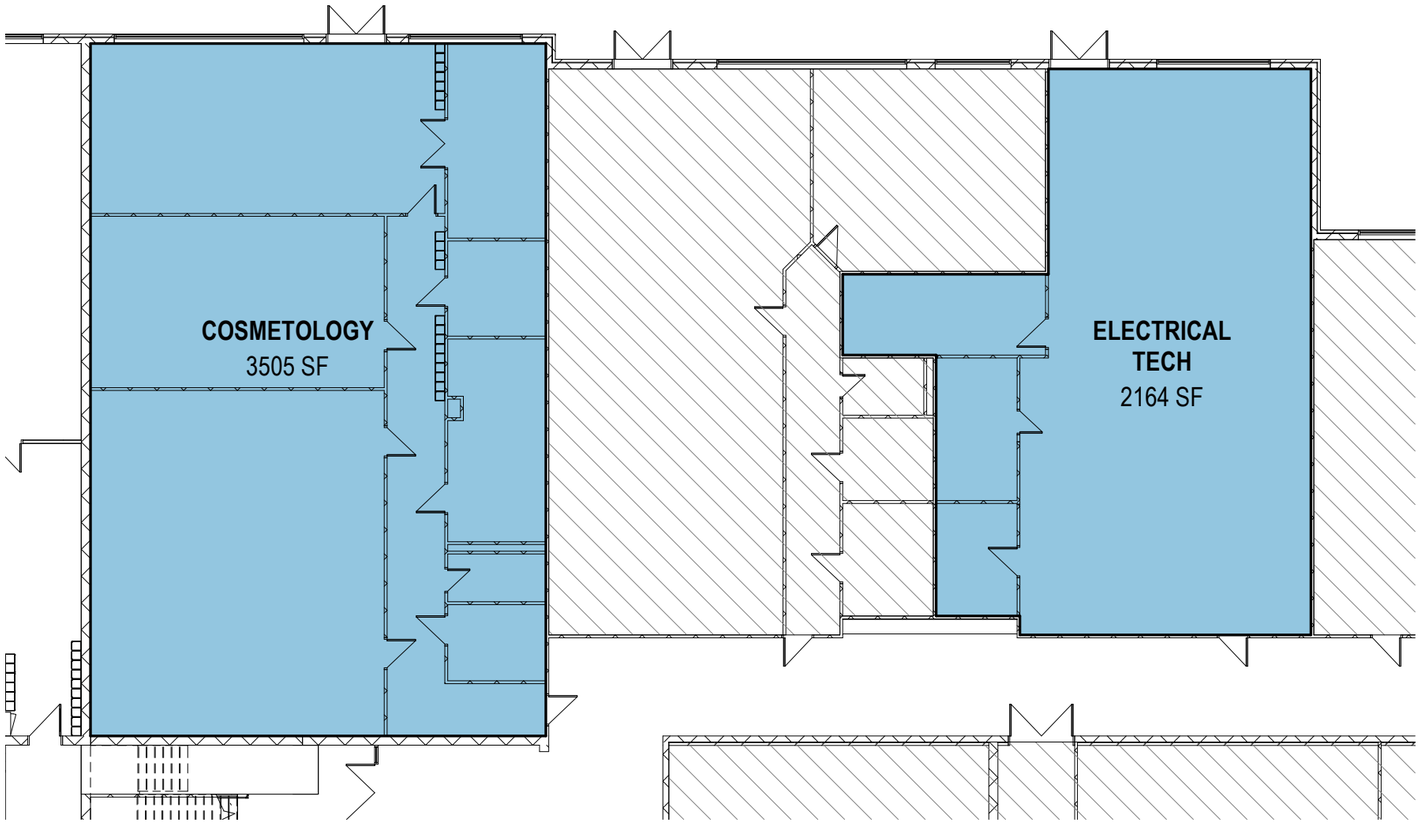
LAVALLEE | BRENSINGER ARCHITECTS

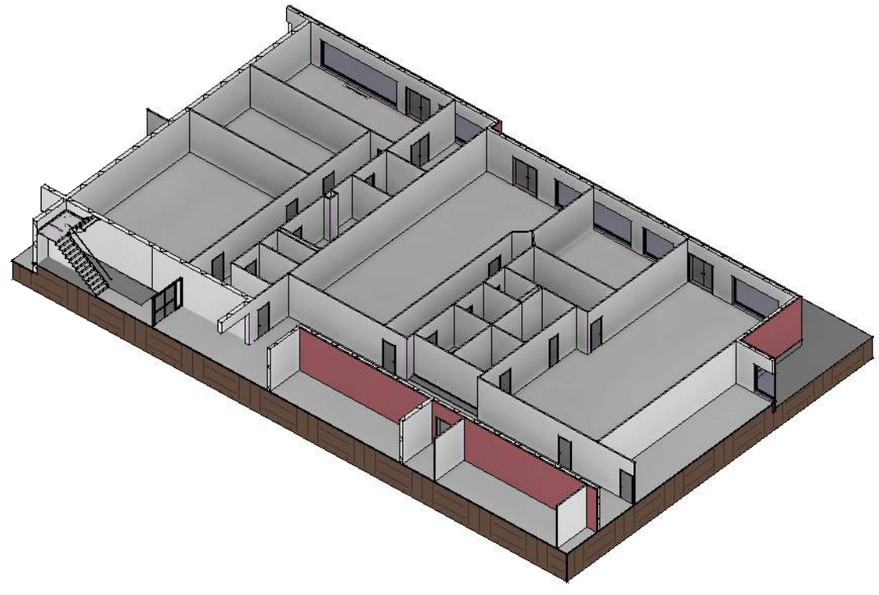





PLUMBING & HEATING







1 PART 1B — LEVEL 1 - PART 1B

1/16" = 1'-0"

CENTRAL VERMONT CAREER CENTER

SCALE: As indicated

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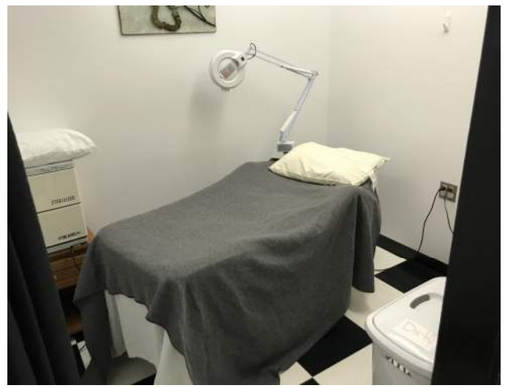
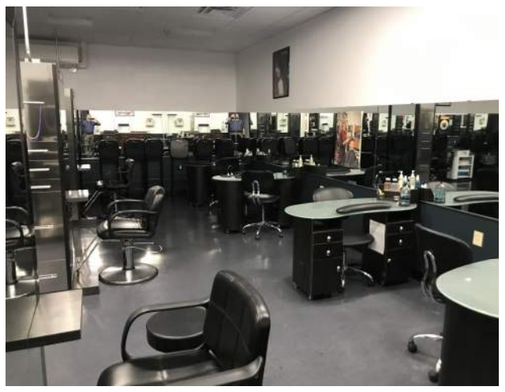
10/13/20

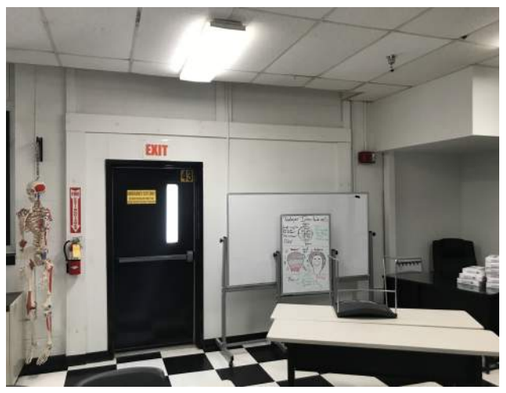
EXISTING CONDITIONS

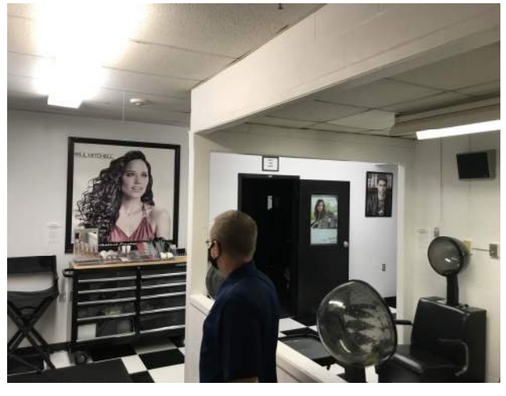
EXISTING CONDITIONS - PART 1B

LAVALLEE | BRENSINGER ARCHITECTS









COSMETOLOGY

CENTRAL VERMONT CAREER CENTER

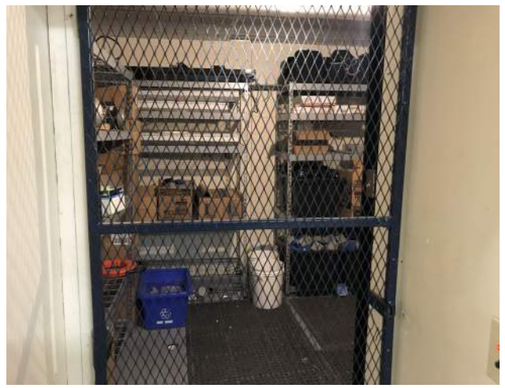
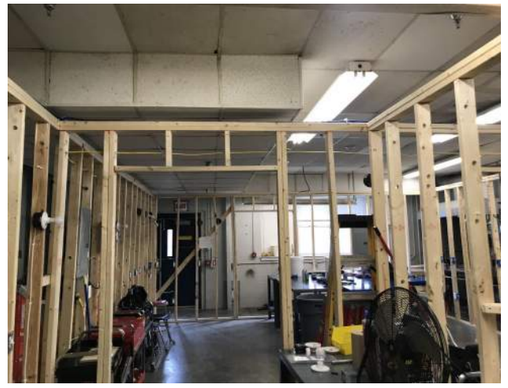
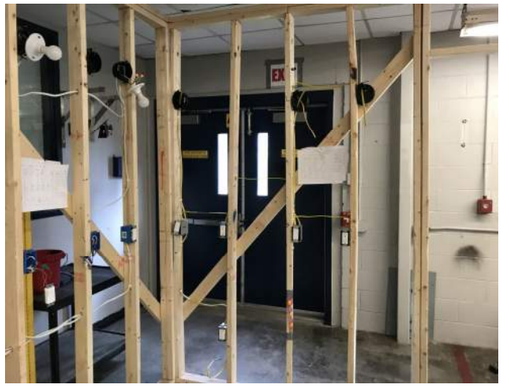
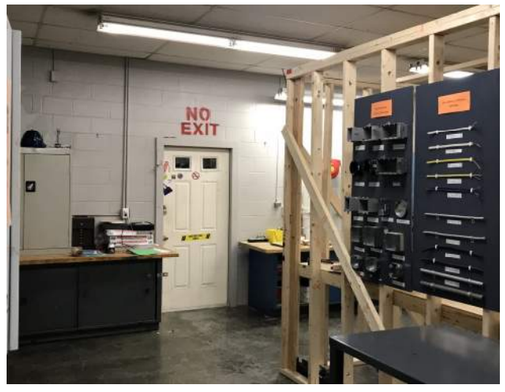
SCALE:

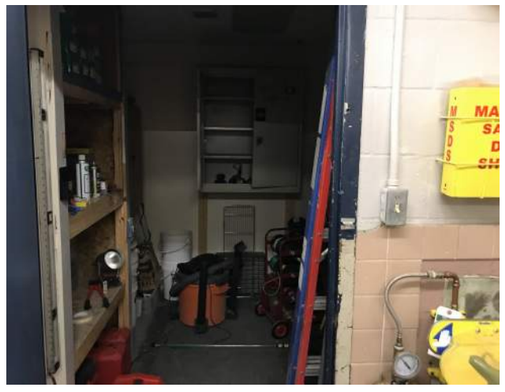
10/13/20

EXISTING CONDITIONS

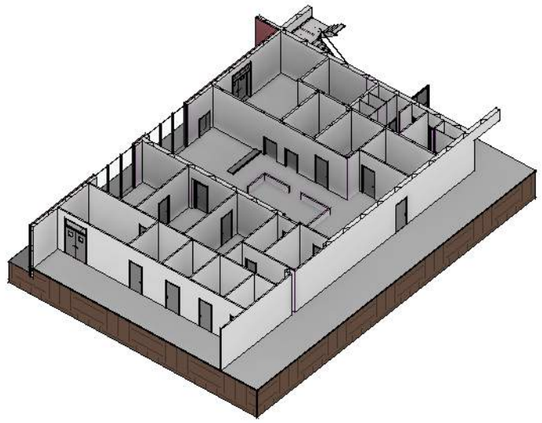
EXISTING CONDITIONS - PART 1B

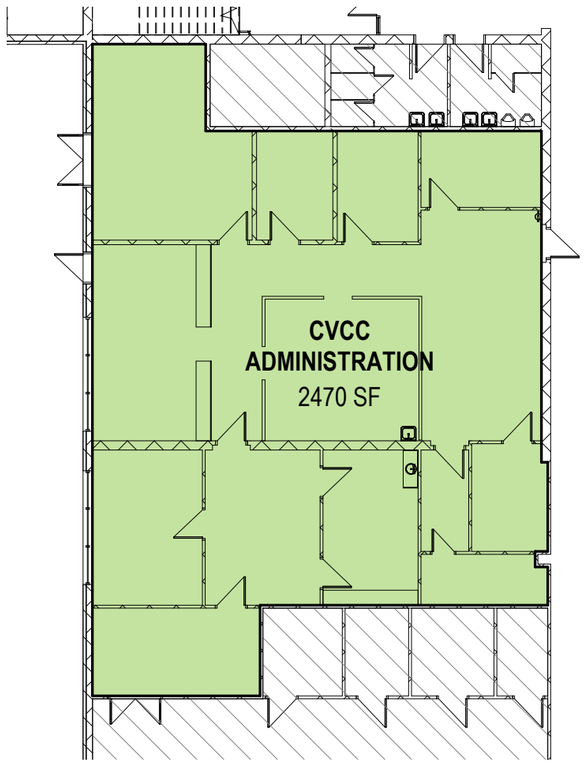
LAVALLEE | BRENSINGER ARCHITECTS

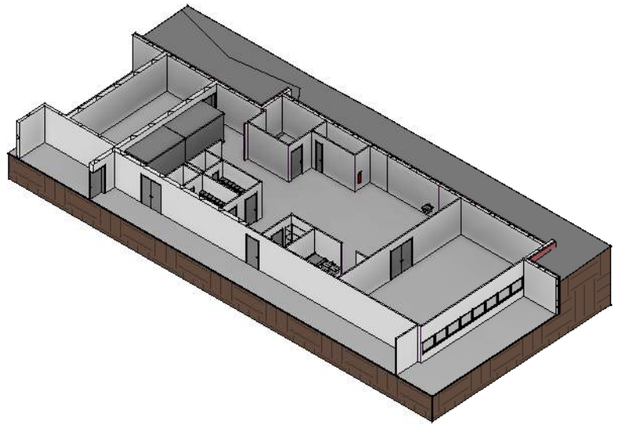


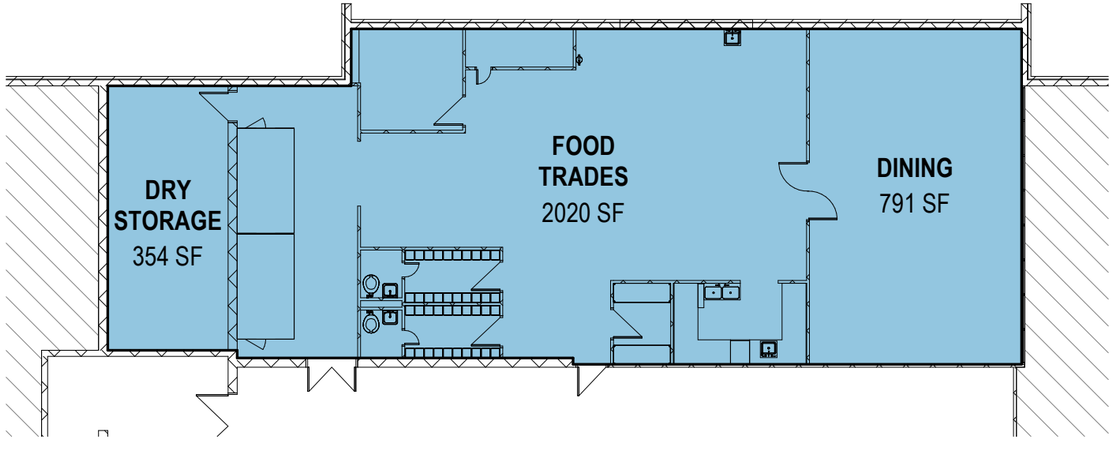
ELECTRICAL TECH LAB



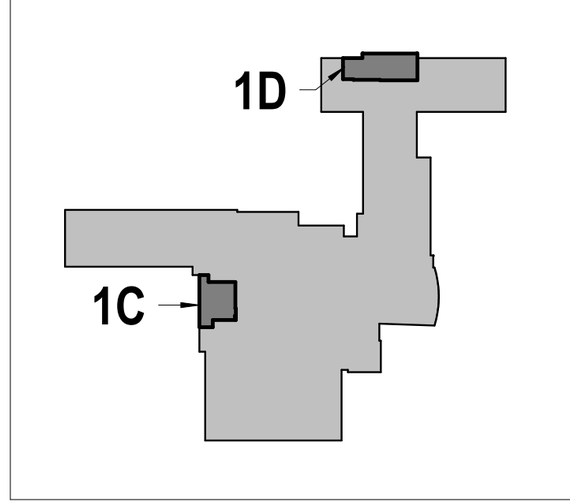


1 PART 1C & 1D — LEVEL 1 - PART 1C
1/16" = 1'-0"





2 PART 1C & 1D — LEVEL 1 - PART 1D
1/16" = 1'-0"



CENTRAL VERMONT CAREER CENTER

EXISTING CONDITIONS

EXISTING CONDITIONS - PARTS 1C & 1D

SCALE: As indicated

N

10/13/20

LAVALLEE | BRENSINGER ARCHITECTS

CVCC ADMINISTRATION

CENTRAL VERMONT CAREER CENTER

EXISTING CONDITIONS

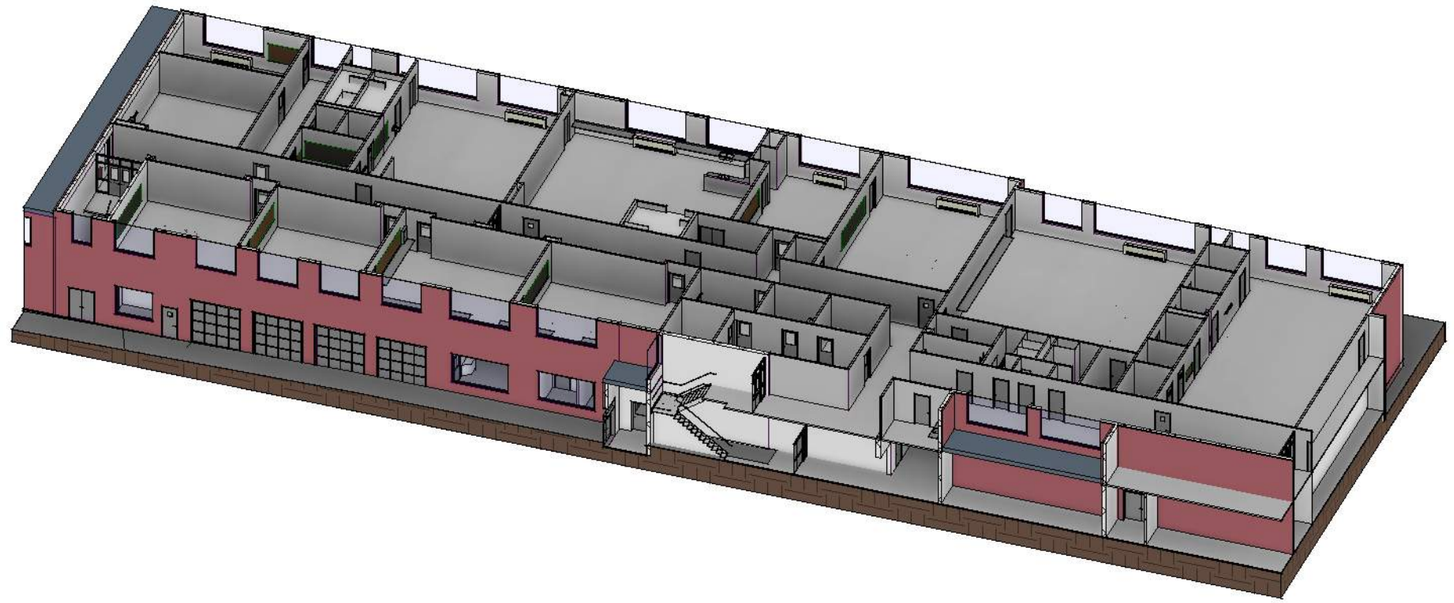
EXISTING CONDITIONS - PARTS 1C & 1D

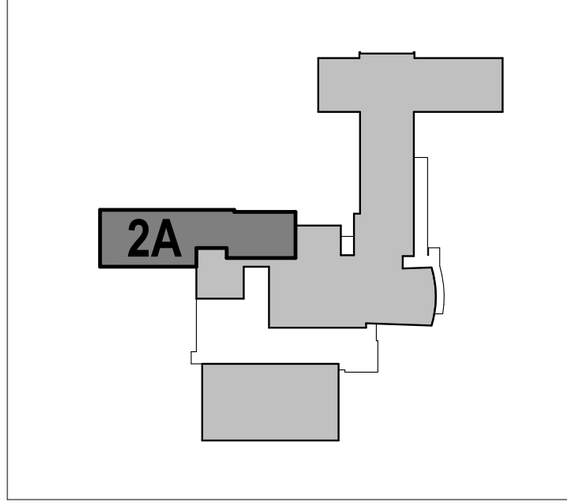
SCALE:

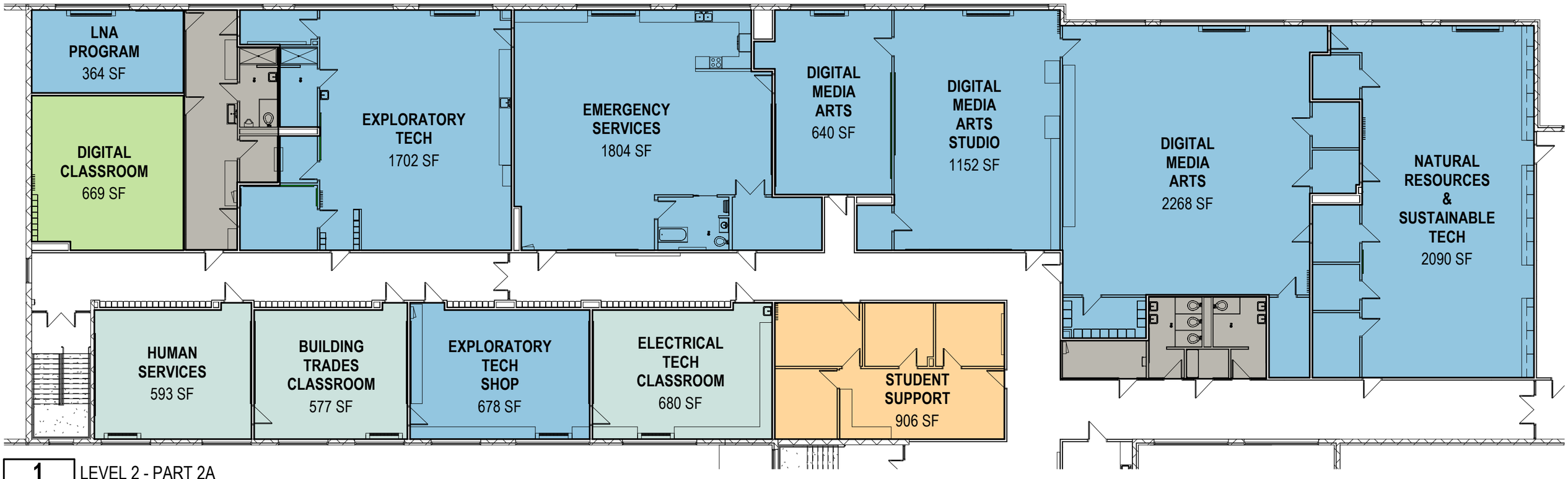
10/13/20

LAVALLEE | BRENSINGER ARCHITECTS

CULINARY AND BAKING







1 PART 2A — LEVEL 2 - PART 2A

1/16" = 1'-0"

CENTRAL VERMONT CAREER CENTER

SCALE: As indicated

N

10/13/20

EXISTING CONDITIONS

EXISTING CONDITIONS - PART 2A

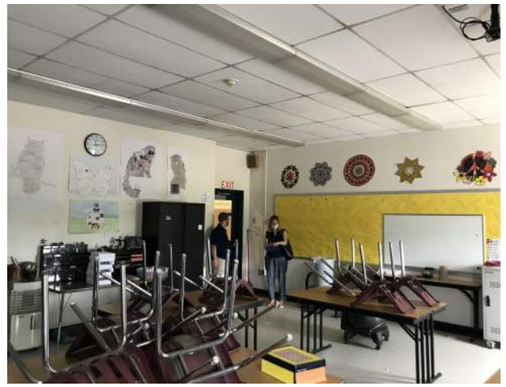
LAVALLEE | BRENSINGER ARCHITECTS

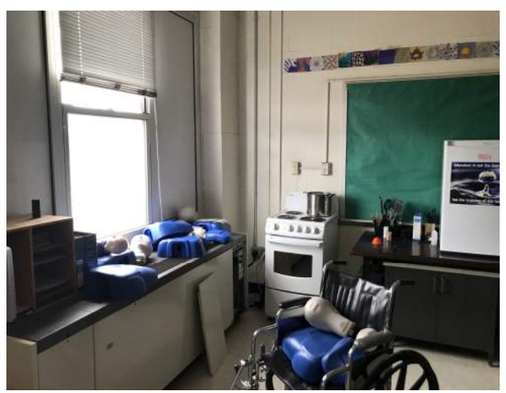
DIGITAL CLASSROOM / CONFERENCE

HUMAN SERVICES

BUILDING TRADES CLASSROOM

ELECTRICAL TECH CLASSROOM





CENTRAL VERMONT CAREER CENTER

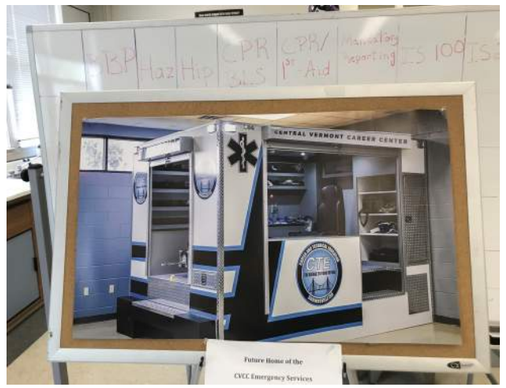
EXISTING CONDITIONS

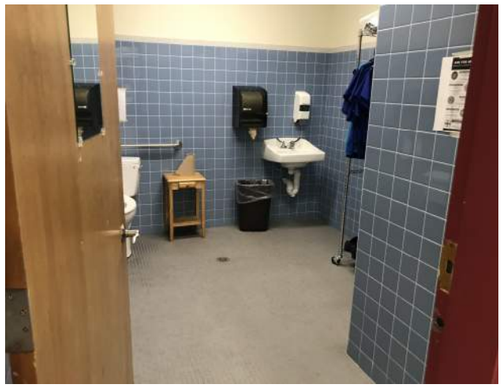
EXISTING CONDITIONS - PART 2A

SCALE:

10/13/20

LAVALLEE | BRENSINGER ARCHITECTS





EMERGENCY SERVICES

EXPLORATORY TECH LAB AND SHOP

CENTRAL VERMONT CAREER CENTER

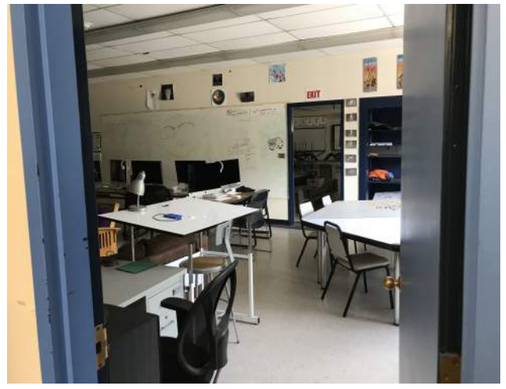
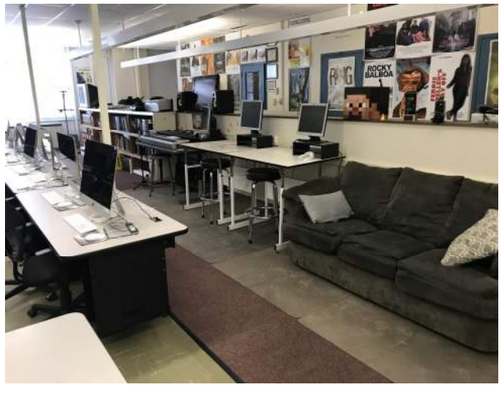
SCALE:

10/13/20

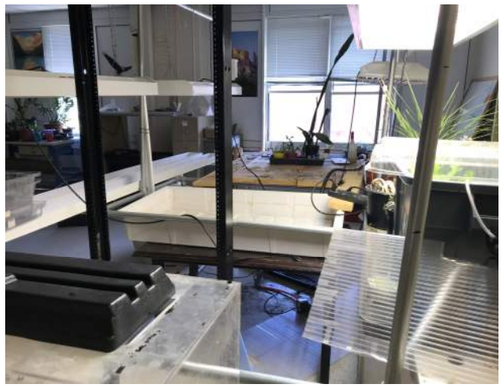
EXISTING CONDITIONS

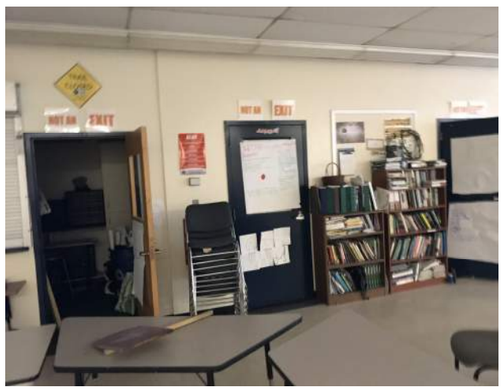
EXISTING CONDITIONS - PART 2A

LAVALLEE | BRENSINGER ARCHITECTS

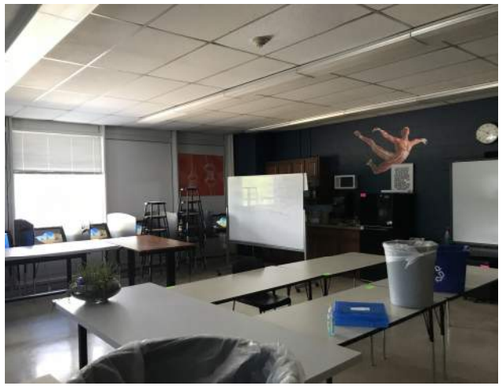
DIGITAL MEDIA ARTS





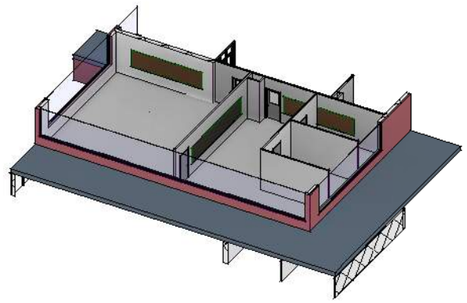
NATURAL RESOURCES & SUSTAINABILITY

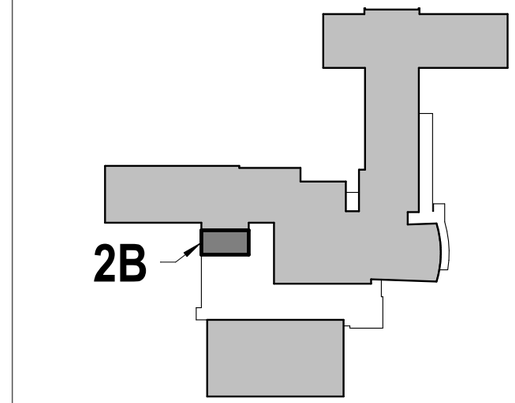
STUDENT SERVICES

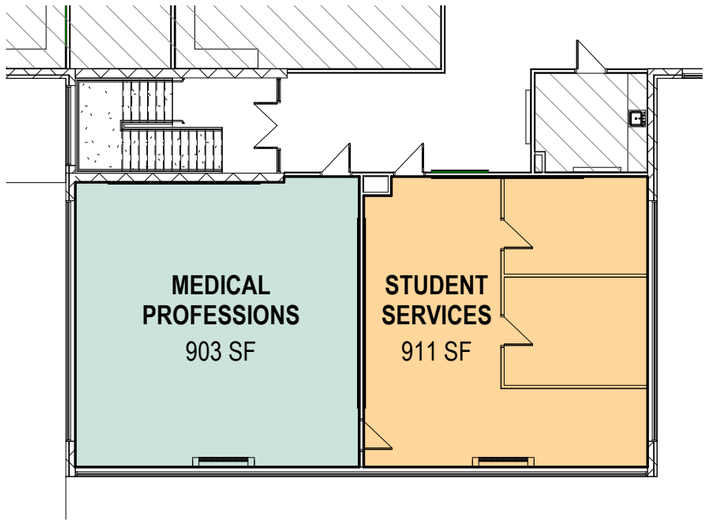


MEDICAL PROFESSIONS

STUDENT SERVICES







1 PART 2B — LEVEL 2 - PART 2B

1/16" = 1'-0"

STUDENT SERVICES

CENTRAL VERMONT CAREER CENTER

SCALE: As indicated

N

10/13/20

Lab Prototyping

Designing for technical education starts with thinking about each programs unique curriculum, looking at their existing space and anticipating modernization of the industry and its impact of education. LBA meets with each program's educator to discuss issues such as safety, flexibility, adaptability, acoustics, finishes, storage needs, student interest as well as concerns specific to each program or industry.

Based on these discussions, LBA develops concept designs for each program that are separate from each other and completely separate from their existing space. These initial sketches are reviewed by CVCC. The educators are encouraged to solicit feedback from industry and their advisory groups. Initial feedback from the educators, administration and industry were incorporated in the following documents.

Three Components of Documents (examples adjacent):

a. Plan Diagram - Outlines major components such as rooms and areas significant to the program, design thinking and features.

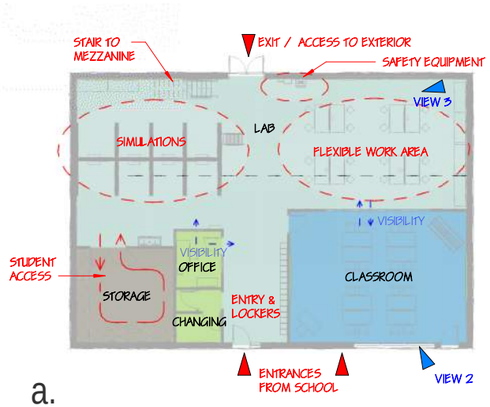
b. 3D Views - Sketchy black and white views of the space to get a general idea of the volume and help visual volumes. Finishes and details are intentionally left out.

c. Room Criteria Floor Plan - More detailed plan with notes related to furniture equipment, finishes, systems and special items needed for the program

CVCC Programs:

1. Automotive Technology
2. Electrical Technology
3. Plumbing & Heating
4. Building Trades
5. Culinary & Baking
6. Cosmetology
7. Natural Resources & Sustainability
8. Emergency Services
9. Medical Professions
10. Digital Media Arts
11. Exploratory Tech
12. Administration

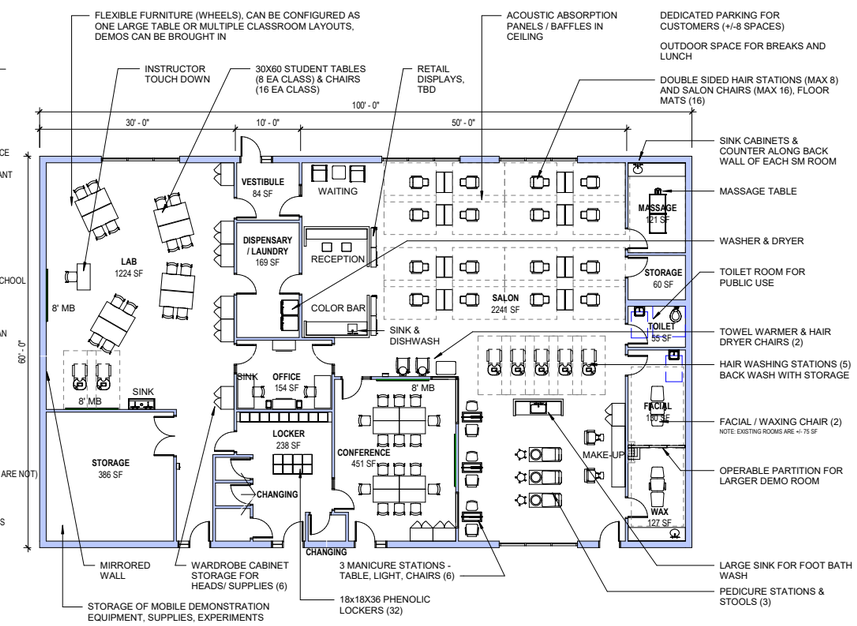
a.

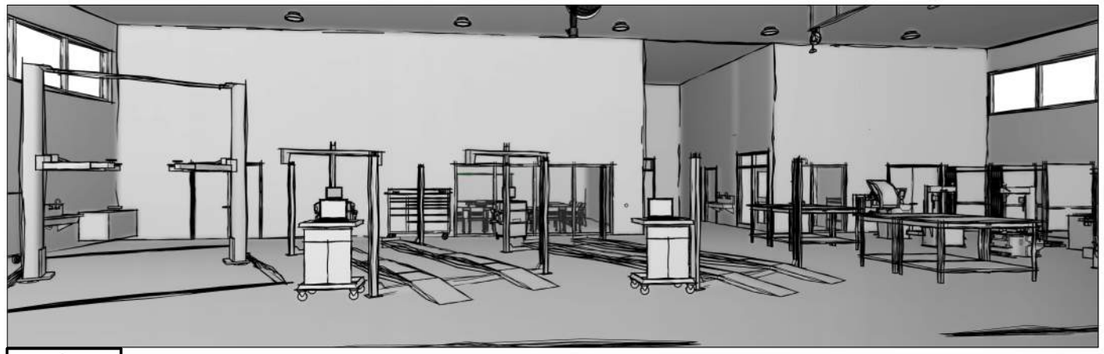


b.

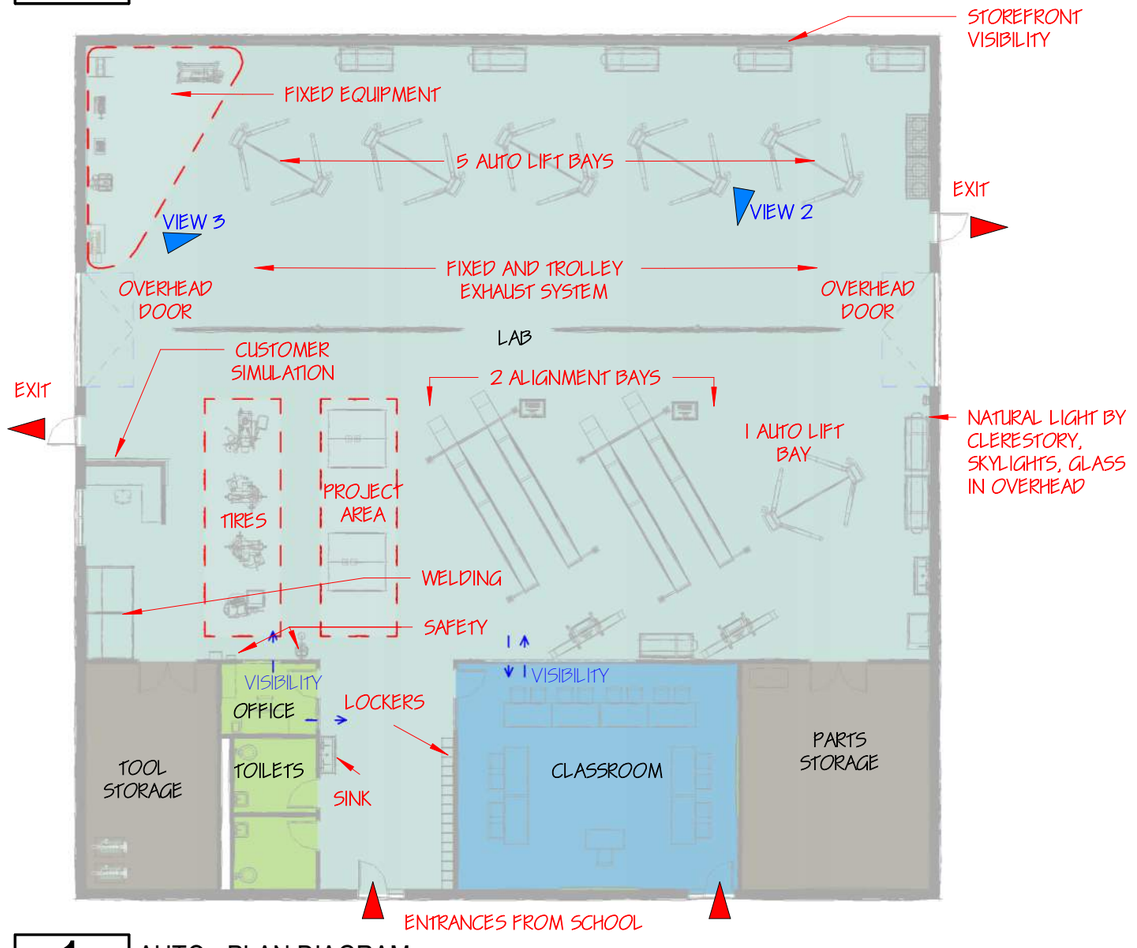
c.

DEPARTMENT:	**COSMETOLOGY**
EXISTING PROGRAM AREA:	**3500 SF**
PROPOSED PROGRAM AREA:	**6000 SF**
PRIMARY ROOM:	**SALON**
ROOM NUMBER:	**46**
PRIMARY ROOM AREA:	**2241 SF**
ARCHITECTURAL FINISHES:	
FLOORING:	RESILIENT THROUGHOUT
WALL BASE:	
WALL FINISH:	STUD WITH GYPSUM
WALL PROTECTION:	
MILLWORK / CASEWORK:	RECEPTION DESK & COLOR BAR
COUNTERTOP:	QUARTZ
CEILING:	PAINT, ACT IN CONF, SM ROOMS & OFFICE
TEXTILES:	CLEANABLE, ANTIMICROBIAL
COMMENTS:	FLOORING TO BE SLIP & STAIN RESISITANT
DOORS & HARDWARE	
DOOR TYPE & FINISH:	
FRAME TYPE & FINISH:	
DOOR HARDWARE:	
WINDOWS & GLAZING:	STOREFRONT AT CLASS, 3/8" LAMIN
COMMENTS:	
SPECIALTIES	
SIGNAGE:	EXTERIOR SIGNAGE, SALON LOGO AT SCHOOL
CASEWORK:	ENTRY
OTHER:	SHADES AT ALL WINDOWS
FURNITURE & EQUIPMENT	
FURNITURE, EQUIPMENT AND APPLIANCES AS NOTED IN ADJACENT PLAN	
ADDTL NOTES:	
STRUCTURE	
STRUCT. SPECIALTIES:	
OTHER:	
FIRE SUPPRESSION	
SYSTEM & HEAD TYPE:	
OTHER:	
PLUMBING	
FIXTURES:	MULTIPLE SINKS AS NOTED
GASES & VACUUM:	
OTHER:	HAIR WASH TO BE PLUMBED (PEDICURE ARE NOT)
HVAC	
SYSTEM:	
TEMP / HUMIDITY:	
CONTROLS / OTHER:	RAISED CFM AT NAIL AND HAIR STATIONS
ELECTRICAL	
POWER:	
LIGHTING:	INCREASED FC AT HAIR STYLING
CONTROLS/ OTHER:	
COMMUNICATIONS	
VOICE / DATA:	WIFI IN LAB & CLASS
AUDIO-VIDEO:	PROMETHEAN BOARD IN CLASSES
SECURITY:	BUZZER AT VESTIBULE DOOR





2 01.1 VIEW OF LAB TOWARD CLASSROOM



1 01.1 AUTO - PLAN DIAGRAM

1/16" = 1'-0"

3 01.1 VIEW OF LIFT BAYS

DEPARTMENT: **AUTOMOTIVE TECHNOLOGY**
EXISTING PROGRAM AREA: **5300 SF**
PROPOSED PROGRAM AREA: **8100 SF**

PRIMARY ROOM: **LAB**
ROOM NUMBER: **28**
PRIMARY ROOM AREA: **6107 SF**

ARCHITECTURAL FINISHES:
- FLOORING: CONCRETE, RESILIENT IN CLASS
- WALL BASE:
- WALL FINISH:
- WALL PROTECTION:
- MILLWORK / CASEWORK: CUSTOMER RECEPTION DESK
- COUNTERTOP: LAMINATE
- CEILING: PAINT, ACT IN CLASS & OFFICE
- TEXTILES:
- COMMENTS:

DOORS & HARDWARE
- DOOR TYPE & FINISH:
- FRAME TYPE & FINISH:
- DOOR HARDWARE:
- WINDOWS & GLAZING: STOREFRONT AT CLASS, 3/8" LAMIN
- COMMENTS:

SPECIALTIES
- SIGNAGE:
- CASEWORK:
- OTHER:

FURNITURE & EQUIPMENT
FURNITURE, EQUIPMENT AND APPLIANCES AS NOTED IN ADJACENT PLAN
- ADDTL NOTES:

STRUCTURE
- STRUCT. SPECIALTIES:
- OTHER:

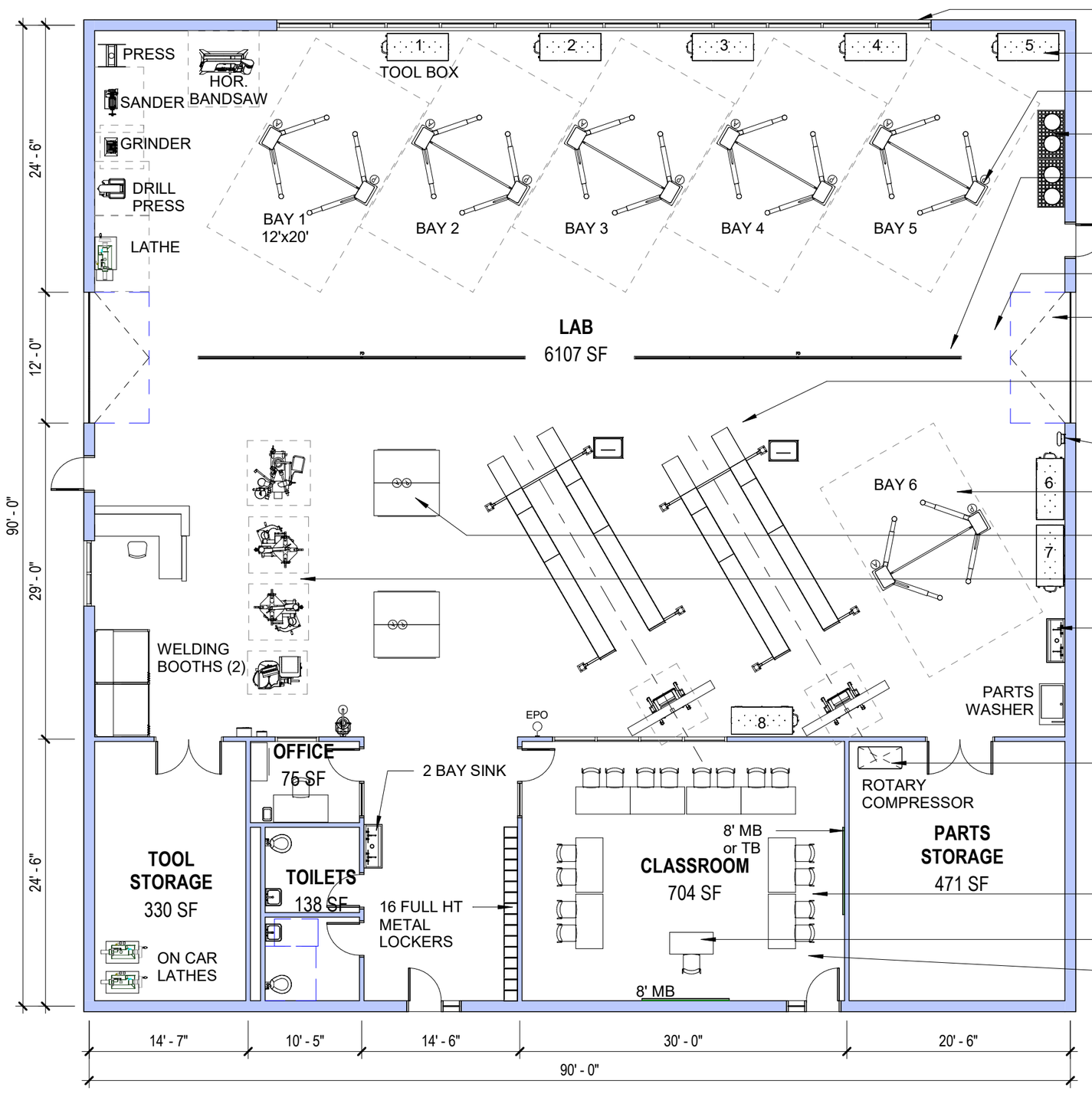
FIRE SUPPRESSION
- SYSTEM & HEAD TYPE:
- OTHER:

PLUMBING
- FIXTURES: 2 FAUCET TROUGH X2, TRENCH DRAIN
- GASES & VACUUM: COMPRESSED AIR AT EACH LIFT PLUS 1
- OTHER: EMERGENCY EYE WASH, NEED SHOWER?

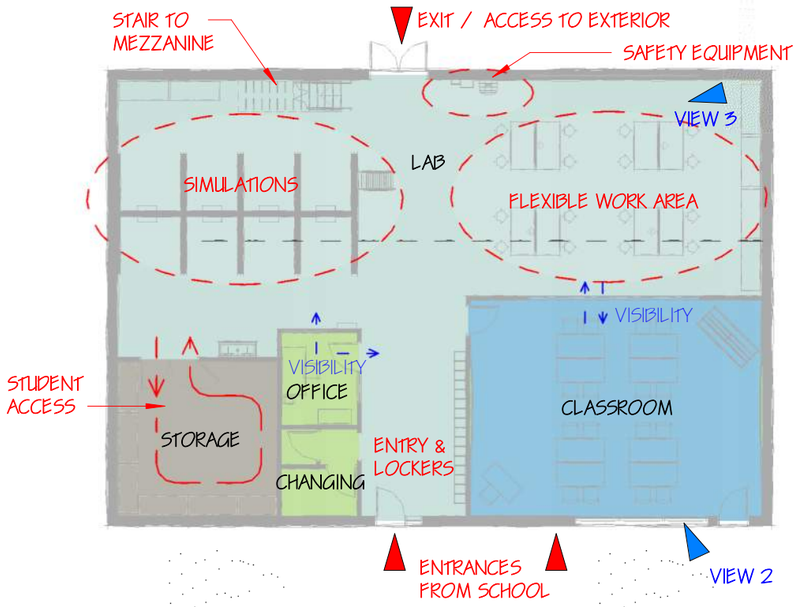
HVAC
- SYSTEM:
- TEMP / HUMIDITY:
- CONTROLS / OTHER: VEHICLE EXHAUST SYSTEM

ELECTRICAL
- POWER:
- LIGHTING: HIGH BAY, 2X2 IN CLASS & OFFICE
- CONTROLS/ OTHER: COORDINATE POWER REQUIREMENTS WITH EQUIPMENT

COMMUNICATIONS
- VOICE / DATA: WIFI IN LAB & CLASS
- AUDIO-VIDEO: SHORT THROW PROJECTOR IN CLASS?
- SECURITY:
- SPECIALTIES:
- OTHER:



3 02.1 ET- VISIBILITY FROM CORRIDOR



1 02.1 ELEC - PLAN DIAGRAM

1/16" = 1'-0"

2 02.1 ET- VIEW OF LAB

DEPARTMENT:	**ELECTRICAL TECHNOLOGY**
EXISTING PROGRAM AREA:	**2250 SF**
PROPOSED PROGRAM AREA:	**3360 SF, 4035 SF (w/mezz)**
PRIMARY ROOM:	**LAB**
ROOM NUMBER:	**10**
PRIMARY ROOM AREA:	**1947 SF**

ARCHITECTURAL FINISHES:

FLOORING:	CONCRETE, RESILIENT IN CLASS
WALL BASE:	
WALL FINISH:	MASONRY
WALL PROTECTION:	N/A
MILLWORK / CASEWORK:	N/A
COUNTERTOP:	
CEILING:	PAINT, ACT IN CLASS & OFFICE
TEXTILES:	
COMMENTS:	

DOORS & HARDWARE

DOOR TYPE & FINISH:	HM DOORS, WD AT CLASS
FRAME TYPE & FINISH:	HM, HM WITH SIDELITE
DOOR HARDWARE:	
WINDOWS & GLAZING:	STOREFRONT AT CLASS, 3/8" LAMIN
COMMENTS:	

SPECIALTIES

SIGNAGE:	
CASEWORK:	
OTHER:	16 FULL HEIGHT METAL LOCKERS

FURNITURE & EQUIPMENT

FURNITURE, EQUIPMENT AND APPLIANCES AS NOTED IN ADJACENT PLAN

ADDTL NOTES:

STRUCTURE

STRUCT. SPECIALTIES:	
OTHER:	MISC METALS RAILING

FIRE SUPPRESSION

SYSTEM & HEAD TYPE:	
OTHER:	CLASS C EXTINGUISHERS

PLUMBING

FIXTURES:	2 FAUCET TROUGH
GASES & VACUUM:	N/A
OTHER:	EMERGENCY EYE WASH, NEED SHOWER?

HVAC

SYSTEM:	
TEMP / HUMIDITY:	
CONTROLS / OTHER:	

ELECTRICAL

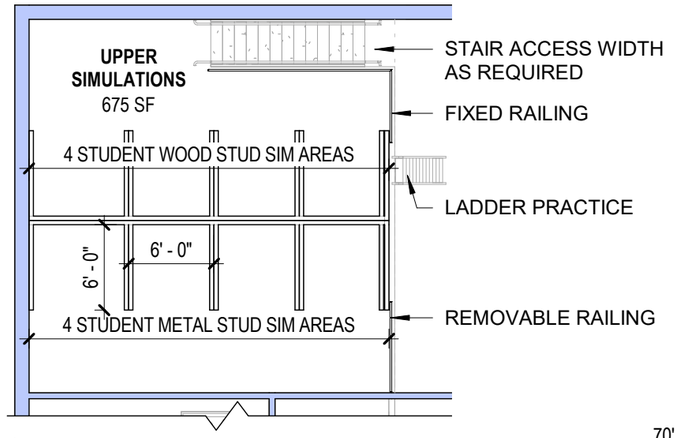
POWER:	120 & 240 MIX, EPO AS NOTED
LIGHTING:	HIGH BAY, 2X2 IN CLASS & OFFICE
CONTROLS/ OTHER:	OVERSIZE PANEL FOR EXPANSION

COMMUNICATIONS

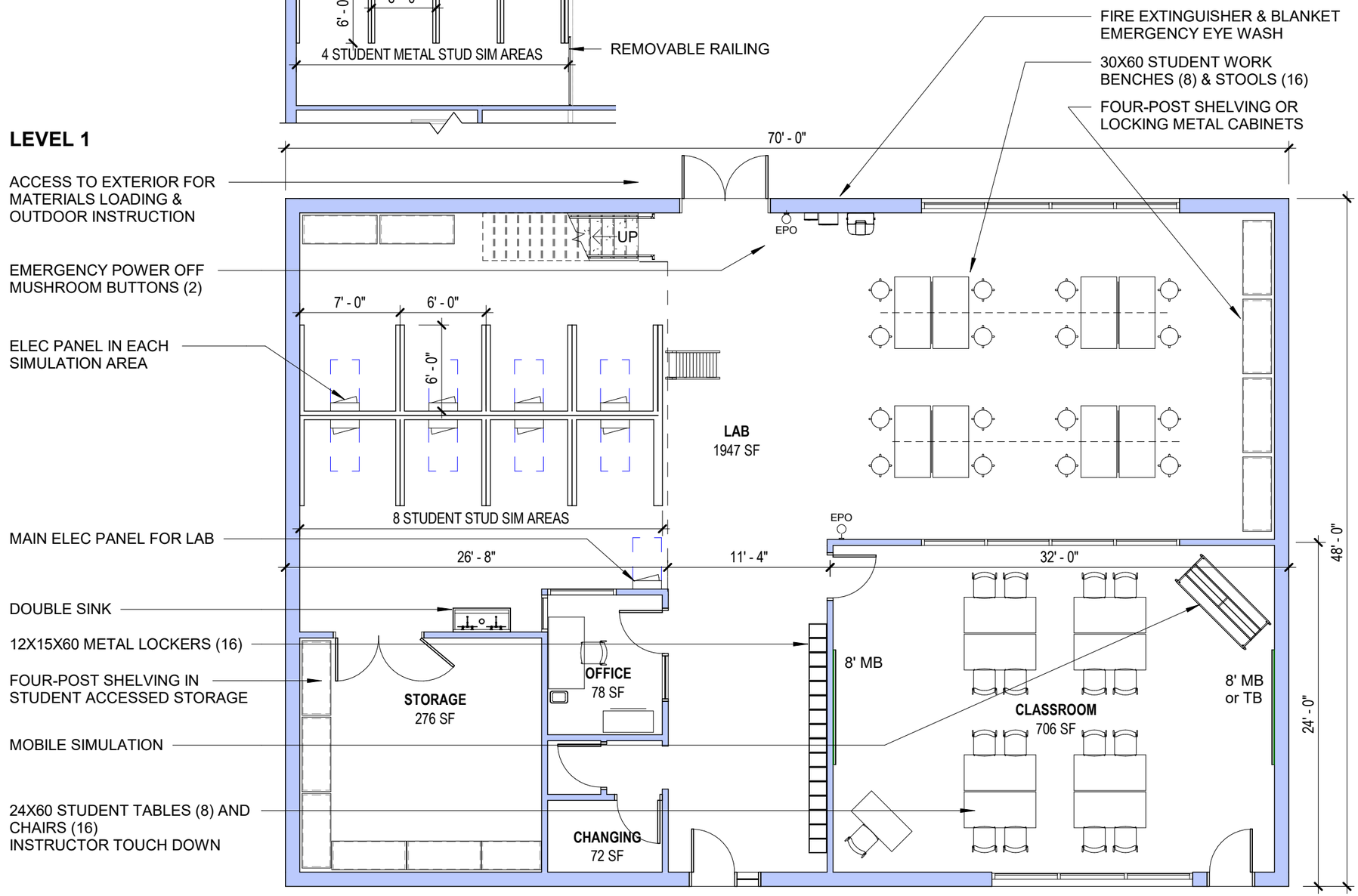
VOICE / DATA:	WIFI IN LAB & CLASS
AUDIO-VIDEO:	SHORT THROW PROJECTOR IN CLASS?
SECURITY:	
SPECIALTIES:	
OTHER:	

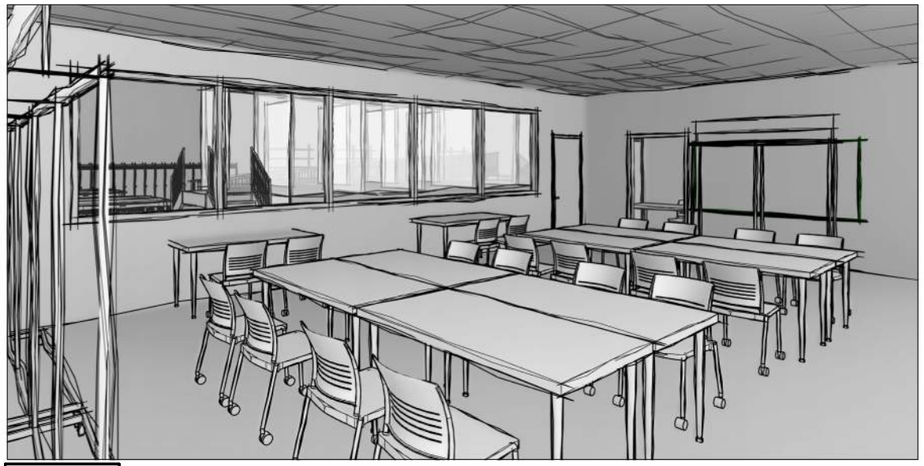
MEZZANINE LEVEL

(NOT SAME SCALE)

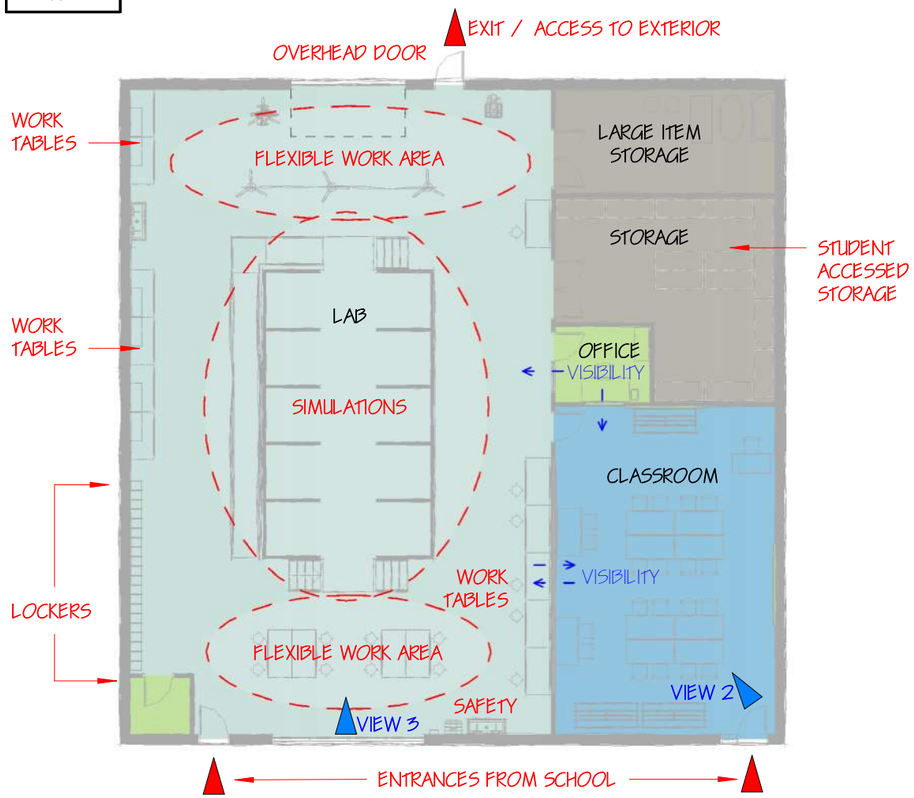


LEVEL 1





2 PH - VIEW OF CLASSROOM
03.1



1 P&H - PLAN DIAGRAM
03.1
1/16" = 1'-0"

3 PH - VIEW OF LAB
03.1

DEPARTMENT:	**PLUMBING & HEATING**
EXISTING PROGRAM AREA:	**3000 SF**
PROPOSED PROGRAM AREA:	**4900 SF**
PRIMARY ROOM:	**LAB**
ROOM NUMBER:	**13**
PRIMARY ROOM AREA:	**2977 SF**

ARCHITECTURAL FINISHES:

FLOORING:	CONCRETE, RESILIENT IN CLASS
WALL BASE:	
WALL FINISH:	MASONRY
WALL PROTECTION:	N/A
MILLWORK / CASEWORK:	N/A
COUNTERTOP:	
CEILING:	PAINT, ACT IN CLASS & OFFICE
TEXTILES:	
COMMENTS:	

DOORS & HARDWARE

DOOR TYPE & FINISH:	
FRAME TYPE & FINISH:	
DOOR HARDWARE:	
WINDOWS & GLAZING:	
COMMENTS:	

SPECIALTIES

SIGNAGE:	
CASEWORK:	
OTHER:	

FURNITURE & EQUIPMENT

FURNITURE, EQUIPMENT AND APPLIANCES AS NOTED IN ADJACENT PLAN

ADDTL NOTES:

STRUCTURE

STRUCT. SPECIALTIES:	
OTHER:	MISC METALS RAILINGS

FIRE SUPPRESSION

SYSTEM & HEAD TYPE:	
OTHER:	

PLUMBING

FIXTURES:	2 FAUCET TROUGH X2
GASES & VACUUM:	
OTHER:	EMERGENCY EYE WASH, NEED SHOWER?

HVAC

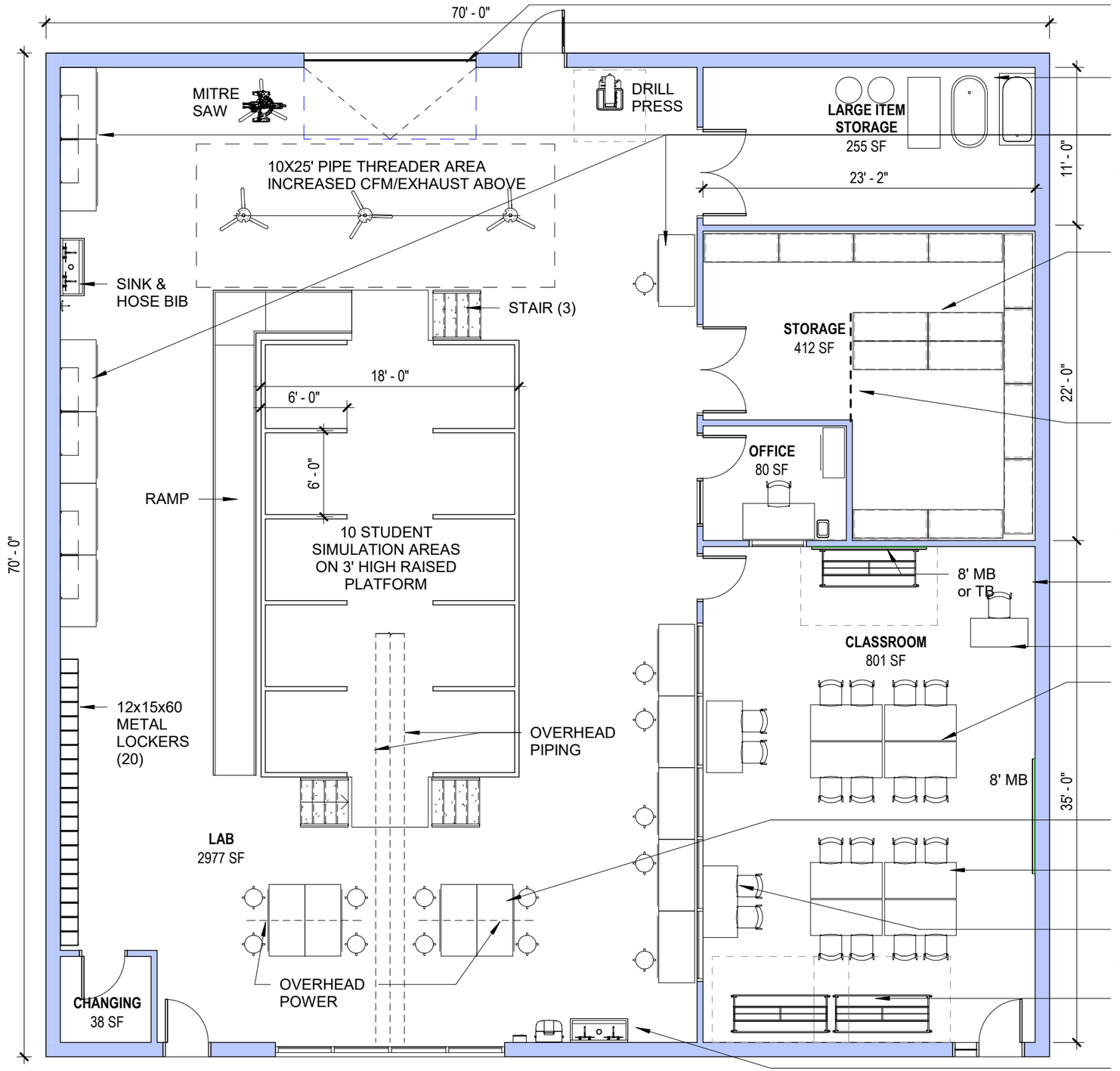
SYSTEM:	HEAT RECOVERY VENTILATOR
TEMP / HUMIDITY:	
CONTROLS / OTHER:	NOTE - SOLDERING, PVC GLUE, PRIMER FUMES

ELECTRICAL

POWER:	120 & 240 MIX
LIGHTING:	HIGH BAY, 2X2 IN CLASS & OFFICE
CONTROLS/ OTHER:	

COMMUNICATIONS

VOICE / DATA:	WIFI IN LAB & CLASS
AUDIO-VIDEO:	SHORT THROW PROJECTOR IN CLASS?
SECURITY:	
SPECIALTIES:	
OTHER:	



12'x12' OVERHEAD DOOR WITH HIGH LIFT TRACK

STORAGE OF TUBS, BOILERS, TOILETS, ETC

WORK BENCHES AT PERIMETER, SMALL TOOLS AND/OR CHROMEBOOK USE

FOUR POST SHELVING STORAGE WITH BINS FOR STUDENT ACCESS

OPTION: LOCKING CAGE

50'x50' OUTDOOR AREA FOR EXCAVATING TRENCHES - POSSIBILITY PART OF SHARED AREA

BLOCKING FULL LENGTH OF WALL FOR DISPLAY/ DEMO MOUNTING

INSTRUCTOR TOUCH DOWN

FLEXIBLE FURNITURE (WHEELS), CAN BE CONFIGURED AS ONE LARGE TABLE OR MULTIPLE CLASSROOM LAYOUT

30X60 STUDENT WORK TABLES & STOOLS

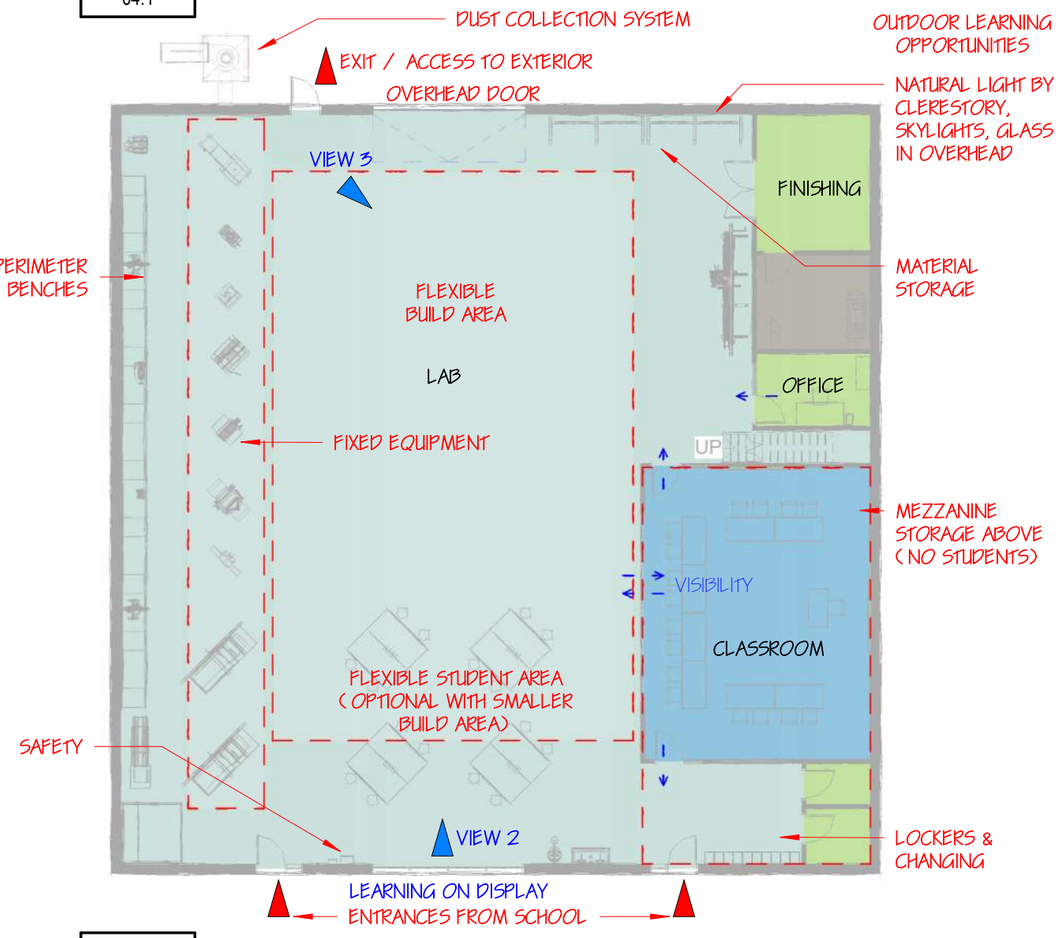
30X60 STUDENT TABLES (10) & CHAIRS (20) - CONFIRM CLASS SIZE = 16

PERIMETER TABLES FOR COMPUTERS AND/OR INDIVIDUAL WORK

HVAC OR REFRIGERATION TRAINING UNIT (3)

DOUBLE SINK, EYE WASH, FIRE EXTINGUISHER

2 04.1 BT - VIEW TOWARD STORAGE



1 04.1 BT - PLAN DIAGRAM
1/16" = 1'-0"

3 04.1 BT - VIEW OF LAB

DEPARTMENT:	**BUILDING TRADES**
EXISTING PROGRAM AREA:	**4150 SF**
PROPOSED PROGRAM AREA:	**7,400 SF (w/1000 SF MEZZ)**
PRIMARY ROOM:	**LAB**
ROOM NUMBER:	**23**
PRIMARY ROOM AREA:	**4986 SF**

ARCHITECTURAL FINISHES:

FLOORING:	CONCRETE, RESILIENT IN CLASS
WALL BASE:	
WALL FINISH:	MASONRY
WALL PROTECTION:	
MILLWORK / CASEWORK:	
COUNTERTOP:	
CEILING:	PAINT, ACT IN CLASS & OFFICE
TEXTILES:	
COMMENTS:	

DOORS & HARDWARE

DOOR TYPE & FINISH:	
FRAME TYPE & FINISH:	
DOOR HARDWARE:	
WINDOWS & GLAZING:	STOREFRONT AT CLASS, 3/8" LAMIN
COMMENTS:	

SPECIALTIES

SIGNAGE:	
CASEWORK:	
OTHER:	

FURNITURE & EQUIPMENT

FURNITURE, EQUIPMENT AND APPLIANCES AS NOTED IN ADJACENT PLAN

ADDTL NOTES:	ASSESS TO STEM LAB

STRUCTURE

STRUCT. SPECIALTIES:	
OTHER:	MISC METALS RAILINGS

FIRE SUPPRESSION

SYSTEM & HEAD TYPE:	
OTHER:	

PLUMBING

FIXTURES:	2 FAUCET TROUGH
GASES & VACUUM:	COMPRESSED AIR THROUGHOUT LAB
OTHER:	EMERGENCY EYE WASH & SHOWER?

HVAC

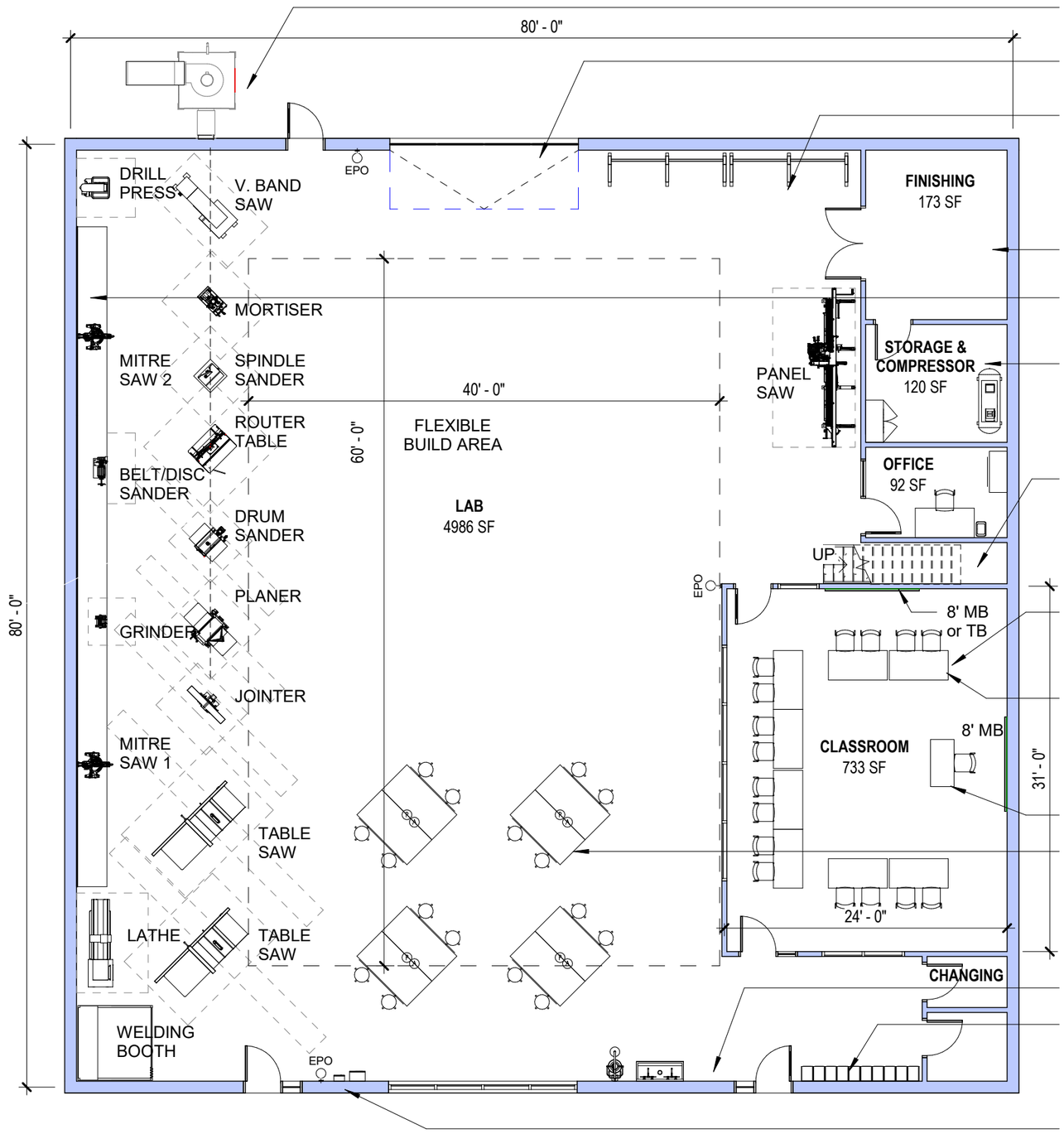
SYSTEM:	
TEMP / HUMIDITY:	
CONTROLS / OTHER:	DUST COLLECTION SYSTEM

ELECTRICAL

POWER:	OVERHEAD POWER AT FIXED EQUIPMENT
LIGHTING:	HIGH BAY, 2X2 IN CLASS & OFFICE
CONTROLS/ OTHER:	MULTIPLE OUTLETS AT BENCHES

COMMUNICATIONS

VOICE / DATA:	WIFI IN LAB & CLASS
AUDIO-VIDEO:	SHORT THROW PROJECTOR IN CLASS?
SECURITY:	
SPECIALTIES:	
OTHER:	



Central Vermont Career Center

Building Trades

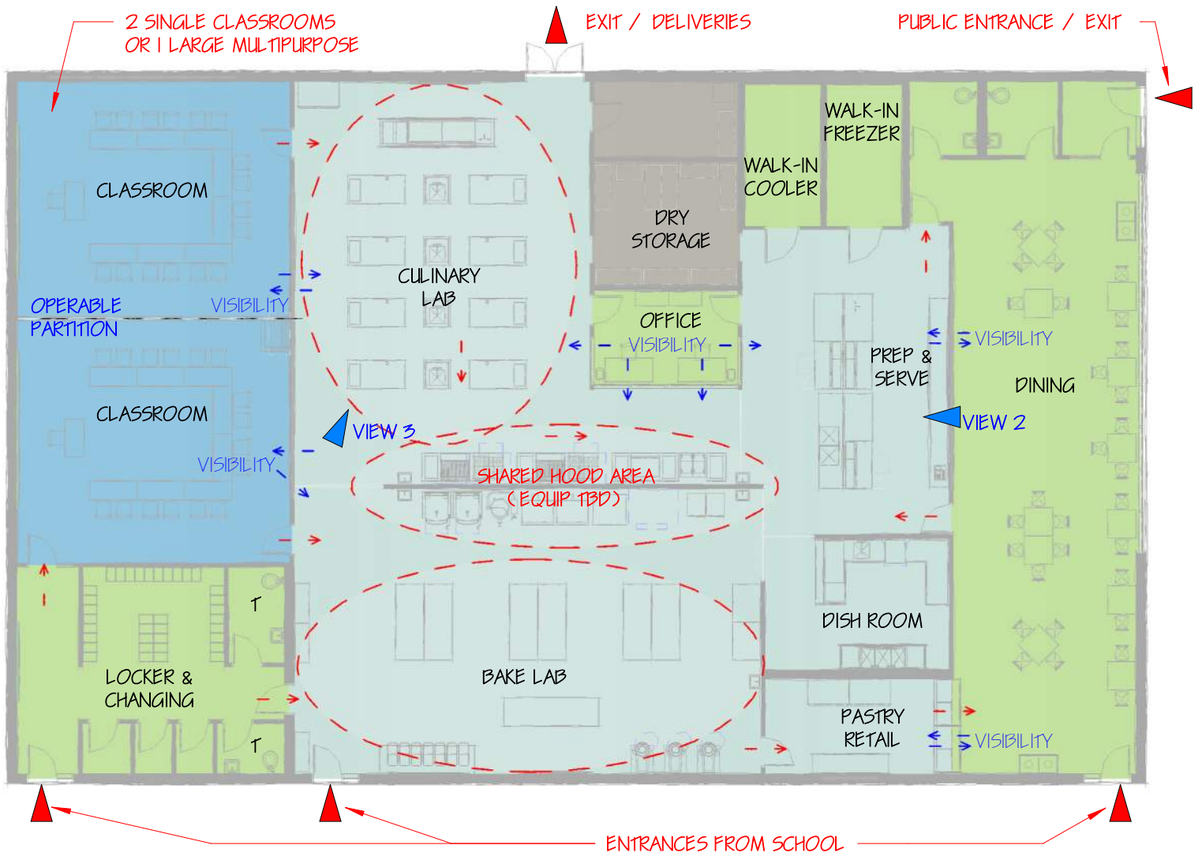
OPTIMAL LAYOUT CONCEPT DESIGN

12/08/20

SCALE: 3/32" = 1'-0"

LAVALLEE | BRENSINGER ARCHITECTS

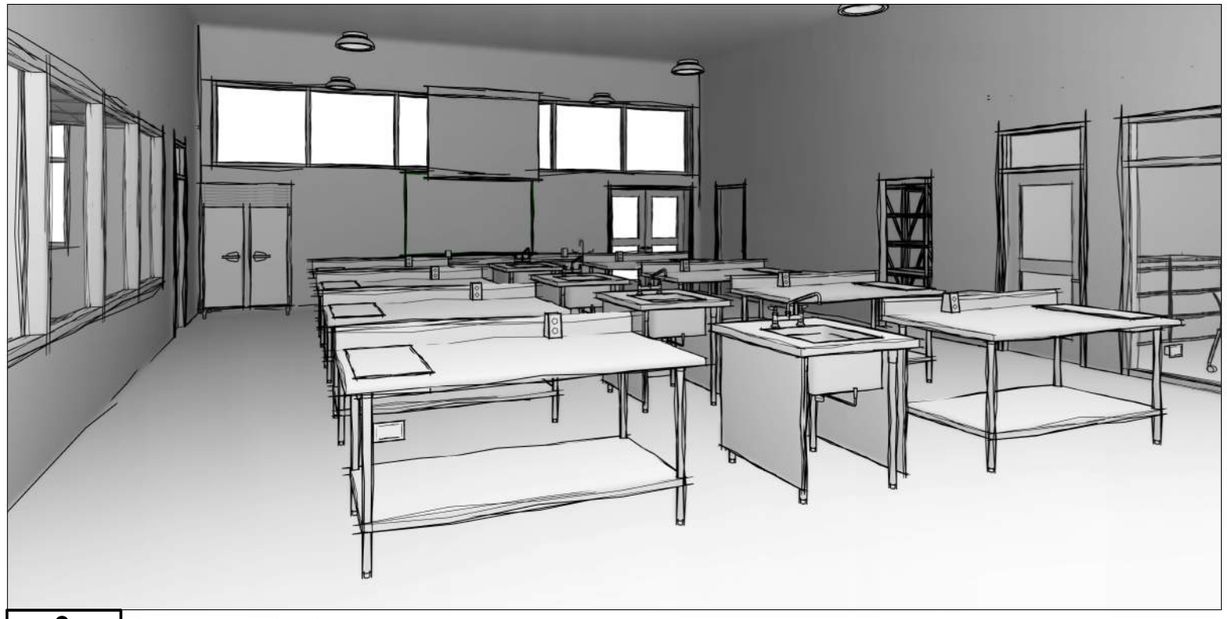
04.2



1 05.1 C+B PLAN DIAGRAM

1/16" = 1'-0"

2 05.1 C+B - VIEW INTO LAB FROM DINING



3 05.1 C+B - VIEW OF CULINARY LAB

DEPARTMENT: **CULINARY & BAKING**
EXISTING PROGRAM AREA: **2460 SF**
PROPOSED PROGRAM AREA: **9000**

PRIMARY ROOM: **CULINARY LAB**
ROOM NUMBER: **20**
PRIMARY ROOM AREA: **1497 SF**

ARCHITECTURAL FINISHES:
- FLOORING: CONCRETE, RESILIENT IN CLASS, LOCKER
- WALL BASE:
- WALL FINISH: MASONRY, GYPSUM
- WALL PROTECTION: STAINLESS
- MILLWORK / CASEWORK:
- COUNTERTOP:
- CEILING: PAINT, ACT IN CLASS & OFFICE
- TEXTILES:
- COMMENTS:

DOORS & HARDWARE
- DOOR TYPE & FINISH: HM DOORS, WD AT CLASS
- FRAME TYPE & FINISH: HM, HM WITH SIDELITE
- DOOR HARDWARE:
- WINDOWS & GLAZING: STOREFRONT AT CLASS, 3/8" LAMIN
- COMMENTS: OPERABLE PARTITION

SPECIALTIES
- SIGNAGE:
- CASEWORK:
- OTHER: 32 FULL HEIGHT METAL LOCKERS

FURNITURE & EQUIPMENT
FURNITURE, EQUIPMENT AND APPLIANCES AS NOTED IN ADJACENT PLAN
- ADDTL NOTES:

STRUCTURE
- STRUCT. SPECIALTIES:
- OTHER:

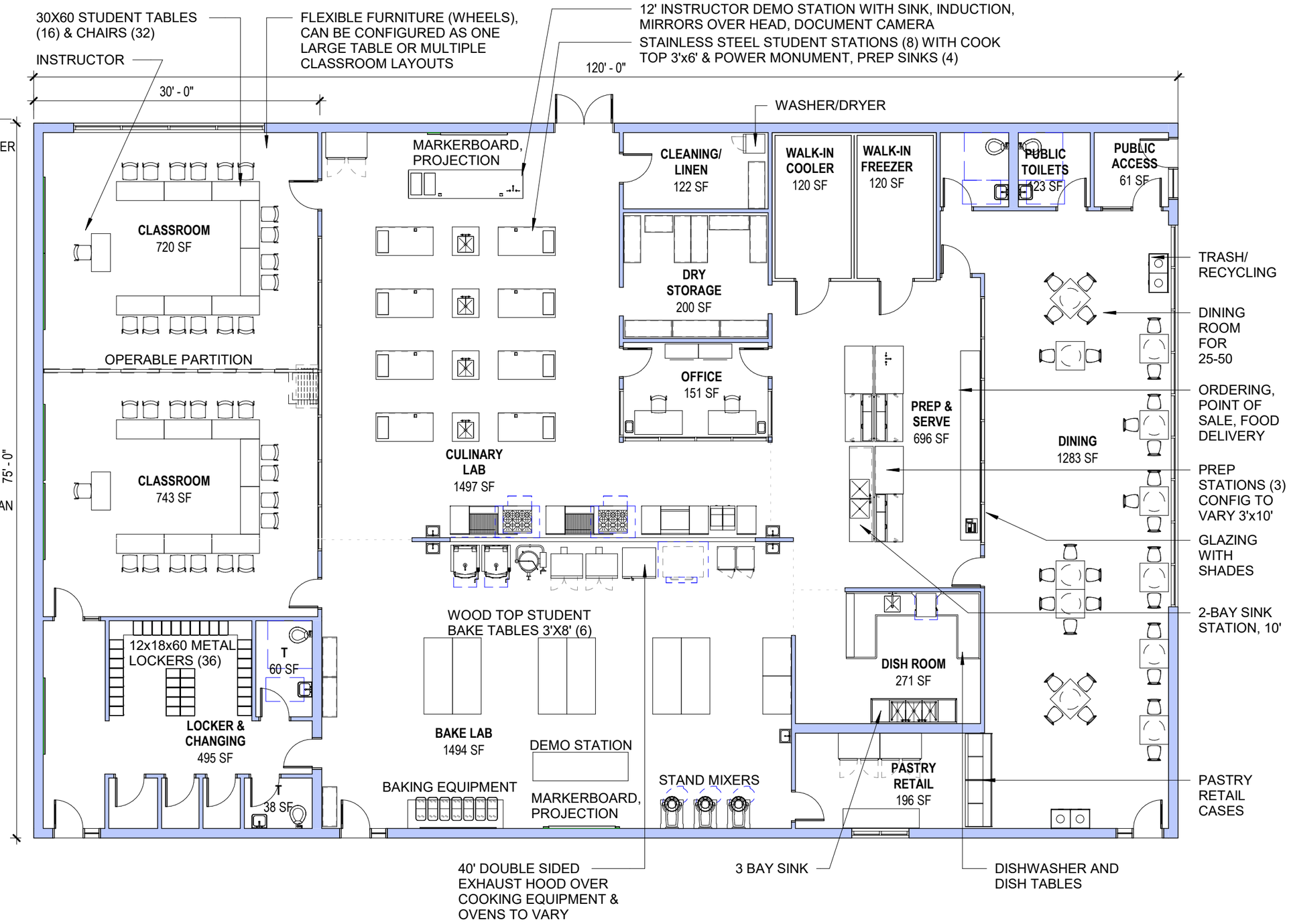
FIRE SUPPRESSION
- SYSTEM & HEAD TYPE:
- OTHER:

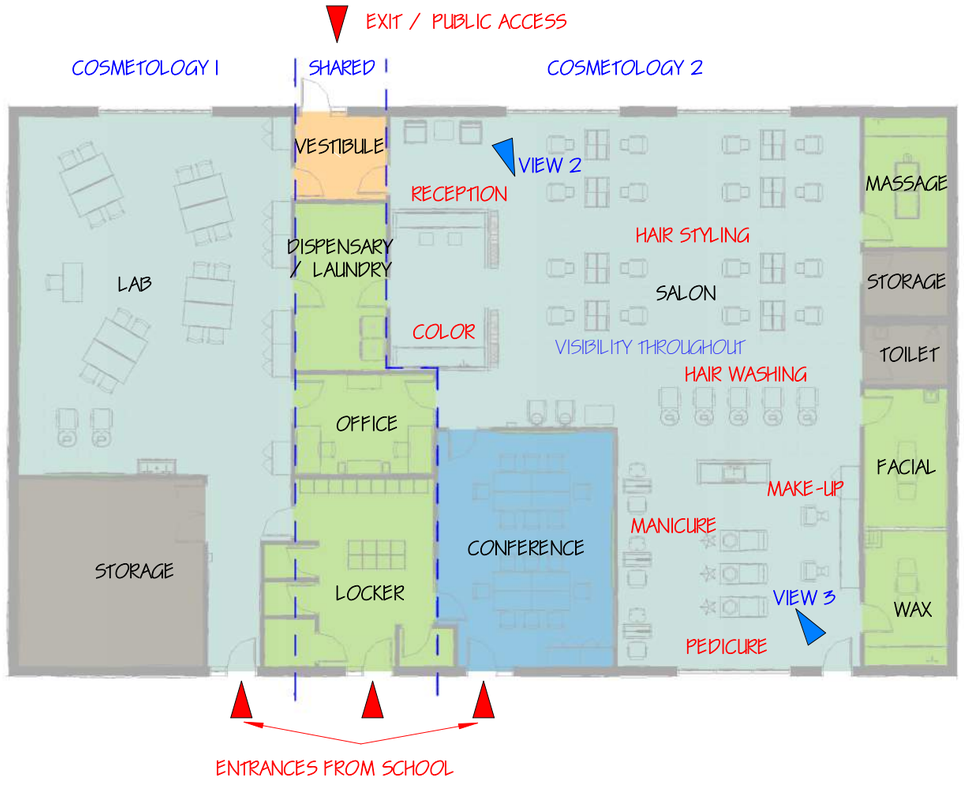
PLUMBING
- FIXTURES: TO BE COORD W KITCHEN EQUIP
- GASES & VACUUM:
- OTHER: EXHAUST HOOD

HVAC
- SYSTEM:
- TEMP / HUMIDITY:
- CONTROLS / OTHER:

ELECTRICAL
- POWER: OVERHEAD IN BAKE LAB
- LIGHTING:
- CONTROLS/ OTHER:

COMMUNICATIONS
- VOICE / DATA: WIFI THROUGHOUT
- AUDIO-VIDEO: SHORT THROW PROJECTOR IN CLASS?
- SECURITY:
- SPECIALTIES:
- OTHER:





1 06.1 CS - PLAN DIAGRAM

1/16" = 1'-0"

2 06.1 CS - VIEW AT RECEPTION

3 06.1 CS - VIEW OF LAB

DEPARTMENT:	**COSMETOLOGY**
EXISTING PROGRAM AREA:	**3500 SF**
PROPOSED PROGRAM AREA:	**6000 SF**
PRIMARY ROOM:	**SALON**
ROOM NUMBER:	**46**
PRIMARY ROOM AREA:	**2241 SF**

ARCHITECTURAL FINISHES:

FLOORING:	RESILIENT THROUGHOUT
WALL BASE:	
WALL FINISH:	STUD WITH GYPSUM
WALL PROTECTION:	
MILLWORK / CASEWORK:	RECEPTION DESK & COLOR BAR
COUNTERTOP:	QUARTZ
CEILING:	PAINT, ACT IN CONF, SM ROOMS & OFFICE
TEXTILES:	CLEANABLE, ANTIMICROBIAL
COMMENTS:	FLOORING TO BE SLIP & STAIN RESISITANT

DOORS & HARDWARE

DOOR TYPE & FINISH:	
FRAME TYPE & FINISH:	
DOOR HARDWARE:	
WINDOWS & GLAZING:	STOREFRONT AT CLASS, 3/8" LAMIN
COMMENTS:	

SPECIALTIES

SIGNAGE:	EXTERIOR SIGNAGE, SALON LOGO AT SCHOOL ENTRY
CASEWORK:	
OTHER:	SHADES AT ALL WINDOWS

FURNITURE & EQUIPMENT

FURNITURE, EQUIPMENT AND APPLIANCES AS NOTED IN ADJACENT PLAN

ADDTL NOTES:

STRUCTURE

STRUCT. SPECIALTIES:	
OTHER:	

FIRE SUPPRESSION

SYSTEM & HEAD TYPE:	
OTHER:	

PLUMBING

FIXTURES:	MULTIPLE SINKS AS NOTED
GASES & VACUUM:	
OTHER:	HAIR WASH TO BE PLUMBED (PEDICURE ARE NOT)

HVAC

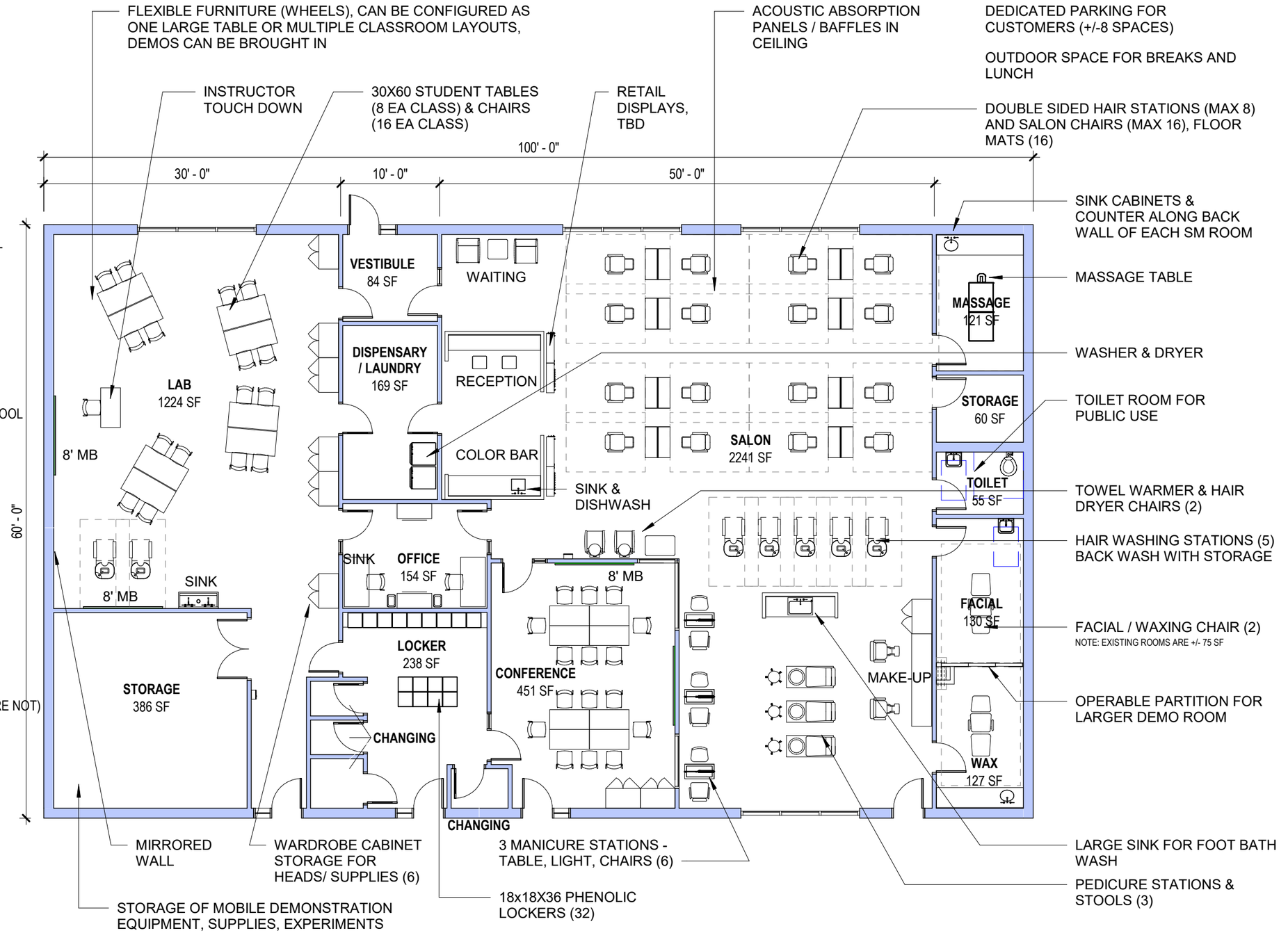
SYSTEM:	
TEMP / HUMIDITY:	
CONTROLS / OTHER:	RAISED CFM AT NAIL AND HAIR STATIONS

ELECTRICAL

POWER:	
LIGHTING:	INCREASED FC AT HAIR STYLING
CONTROLS/ OTHER:	

COMMUNICATIONS

VOICE / DATA:	WIFI IN LAB & CLASS
AUDIO-VIDEO:	PROMETHEAN BOARD IN CLASSES
SECURITY:	BUZZER AT VESTIBULE DOOR
SPECIALTIES:	
OTHER:	



Central Vermont Career Center

Cosmetology

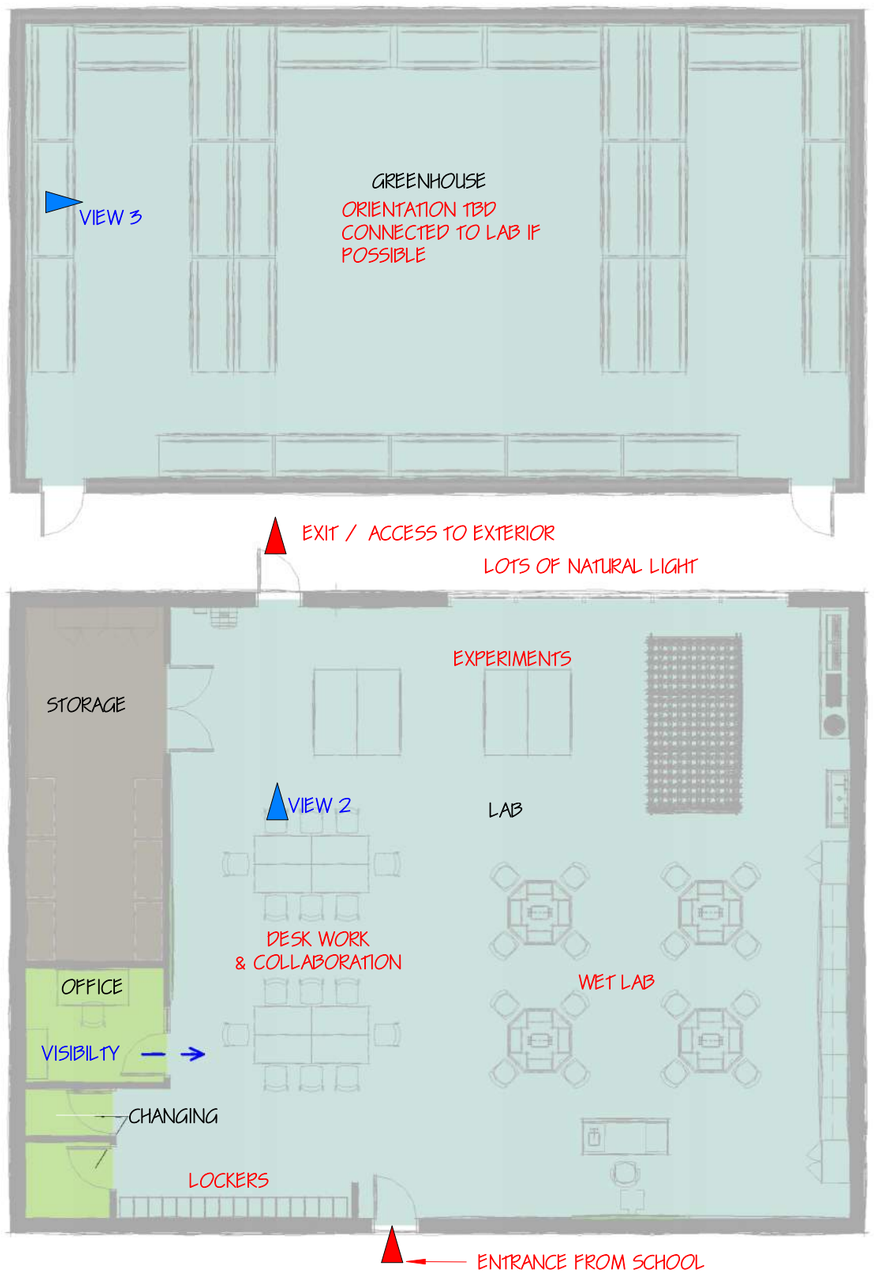
OPTIMAL LAYOUT CONCEPT DESIGN

12/08/20

SCALE: 3/32" = 1'-0"

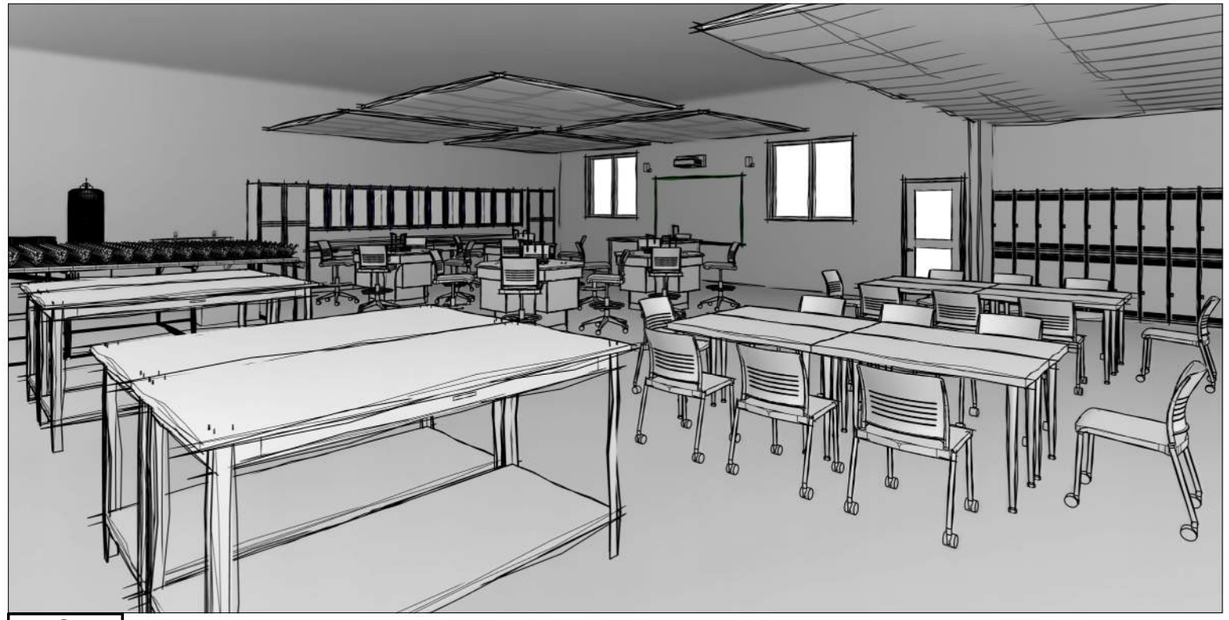
LAVALLEE | BRENSINGER ARCHITECTS

06.2



1 07.1 NR - PLAN DIAGRAM

3/32" = 1'-0"



2 07.1 NR - VIEW OF LAB

3 07.1 NR - VIEW OF LAB TOWARD INTERIOR

DEPARTMENT: **NATURAL RESOURCES & SUSTAINABILITY**
EXISTING PROGRAM AREA: **2280 SF**
PROPOSED PROGRAM AREA: **4700 SF**

PRIMARY ROOM: **LAB**
ROOM NUMBER: **30**
PRIMARY ROOM AREA: **2089 SF**

ARCHITECTURAL FINISHES:
- FLOORING: CONCRETE, RESILIENT IN LAB & OFFICE
- WALL BASE:
- WALL FINISH: MASONRY AND/OR STUD W PROTECTION
- WALL PROTECTION:
- MILLWORK / CASEWORK: LAB CASEWORK & WORK STATIONS
- COUNTERTOP:
- CEILING: PAINT, ACT IN OFFICE
- TEXTILES:
- COMMENTS:

DOORS & HARDWARE
- DOOR TYPE & FINISH:
- FRAME TYPE & FINISH:
- DOOR HARDWARE:
- WINDOWS & GLAZING:
- COMMENTS:

SPECIALTIES
- SIGNAGE:
- CASEWORK:
- OTHER:

FURNITURE & EQUIPMENT
FURNITURE, EQUIPMENT AND APPLIANCES AS NOTED IN ADJACENT PLAN
- ADDTL NOTES:

STRUCTURE
- STRUCT. SPECIALTIES:
- OTHER:

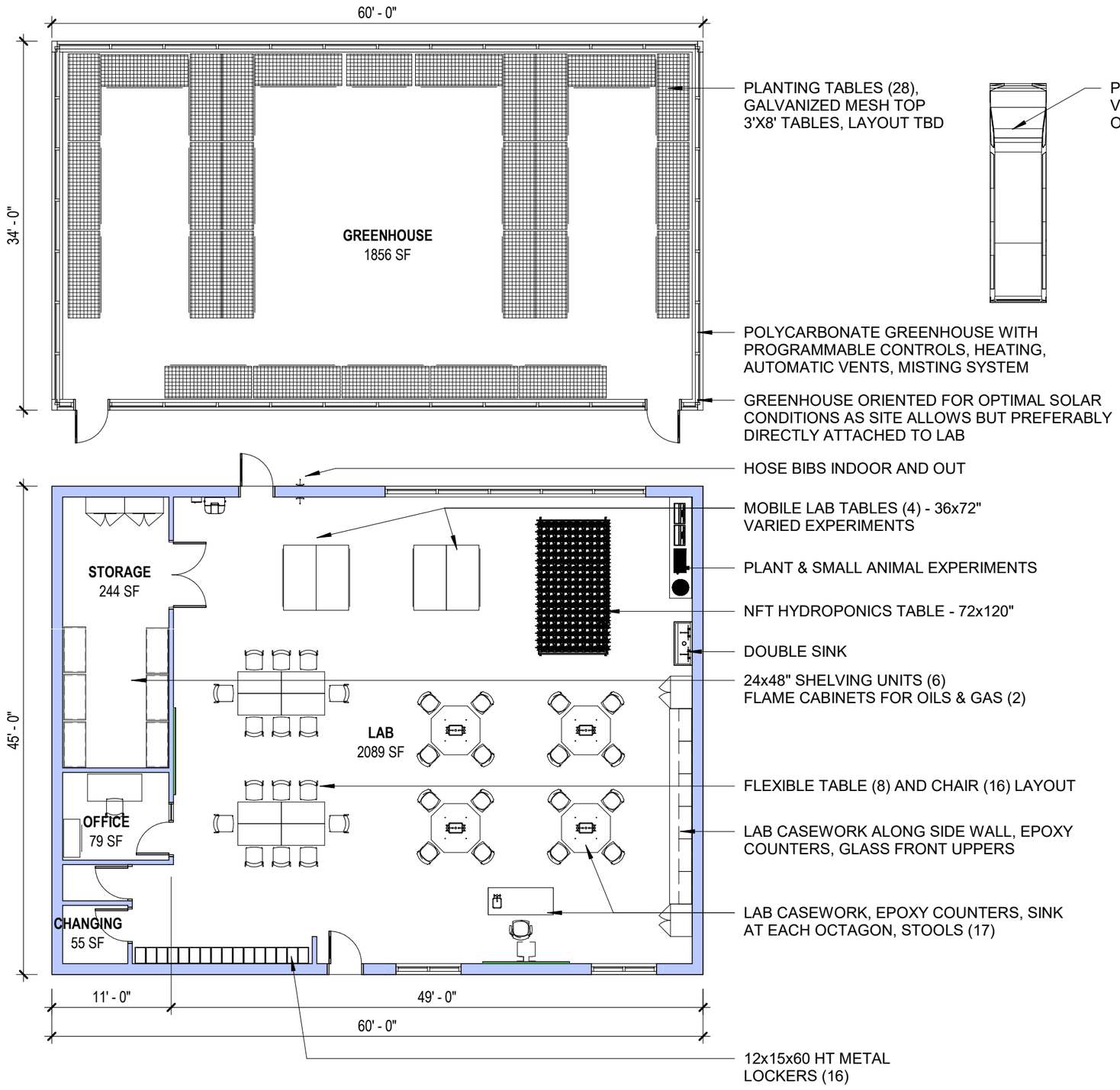
FIRE SUPPRESSION
- SYSTEM & HEAD TYPE:
- OTHER:

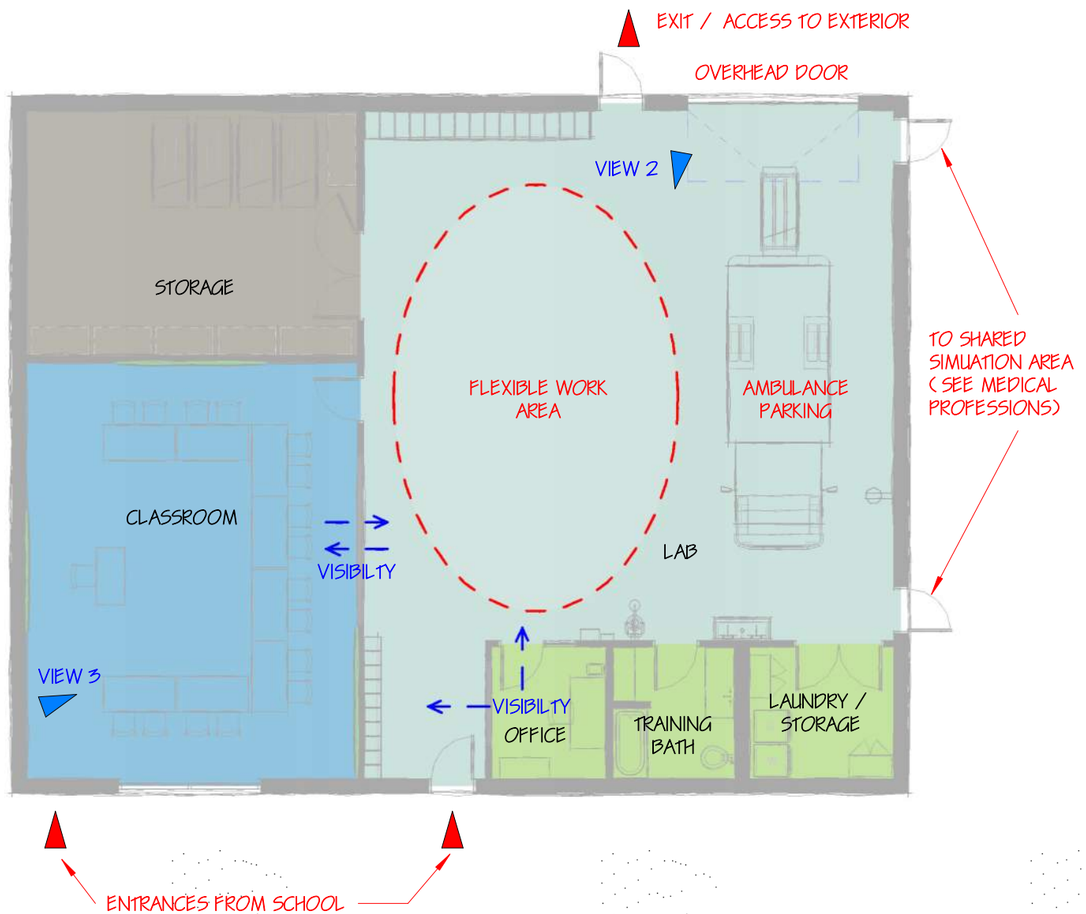
PLUMBING
- FIXTURES: 2 FAUCET TROUGH
- GASES & VACUUM: N/A
- OTHER: HOSE BIBS & SINKS AS NOTED

HVAC
- SYSTEM:
- TEMP / HUMIDITY:
- CONTROLS / OTHER:

ELECTRICAL
- POWER:
- LIGHTING:
- CONTROLS/ OTHER:

COMMUNICATIONS
- VOICE / DATA:
- AUDIO-VIDEO:
- SECURITY:
- SPECIALTIES:
- OTHER:

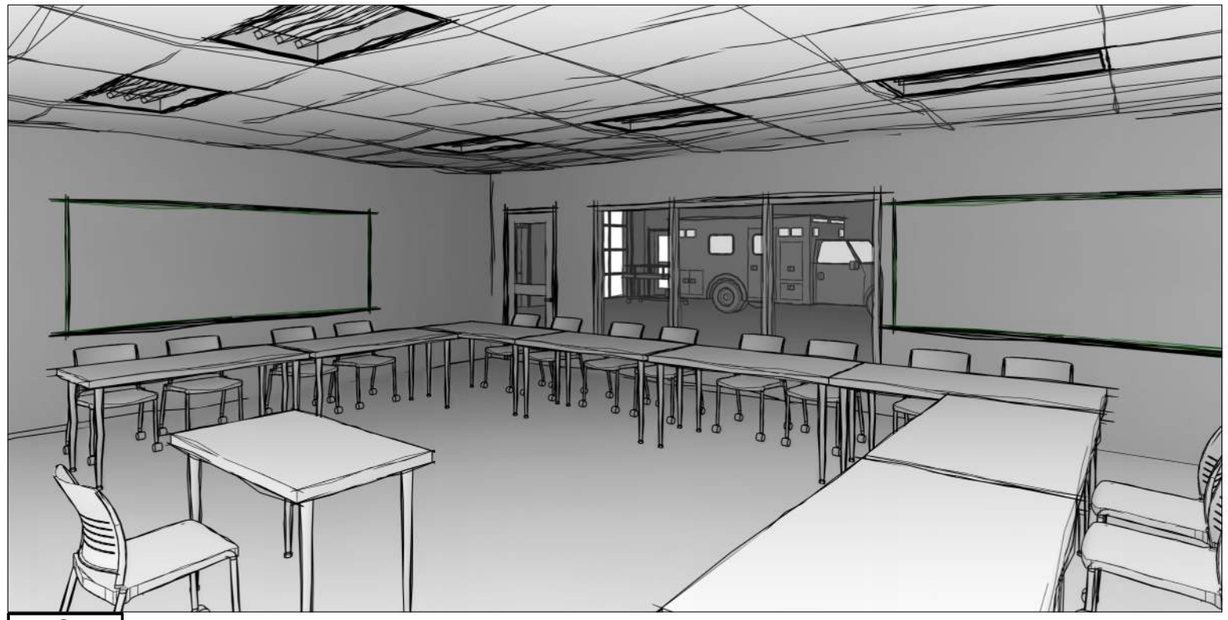




1 08.1 ES - PLAN DIAGRAM

3/32" = 1'-0"

2 08.1 ES - VIEW OF LAB



3 08.1 ES - VIEW OF CLASSROOM

DEPARTMENT: **EMERGENCY SERVICES**
EXISTING PROGRAM AREA: **1800 SF**
PROPOSED PROGRAM AREA: **3000 SF**

PRIMARY ROOM: **LAB**
ROOM NUMBER: **31**
PRIMARY ROOM AREA: **1474 SF**

ARCHITECTURAL FINISHES:
- FLOORING: CONCRETE, RESILIENT IN CLASS, TILE IN TOILET
- WALL BASE:
- WALL FINISH: STUD WITH GYPSUM
- WALL PROTECTION:
- MILLWORK / CASEWORK: LAMINATE
- COUNTERTOP: SOLID SURFACE
- CEILING: PAINT, ACT IN CLASS & OFFICE, GWB IN TOILET &
- TEXTILES: LAUNDRY
- COMMENTS:

DOORS & HARDWARE
- DOOR TYPE & FINISH: HM DOORS, WD AT CLASS
- FRAME TYPE & FINISH:
- DOOR HARDWARE:
- WINDOWS & GLAZING: STOREFRONT AT CLASS & OFFICE
- COMMENTS:

SPECIALTIES
- SIGNAGE:
- CASEWORK:
- OTHER:

FURNITURE & EQUIPMENT
FURNITURE, EQUIPMENT AND APPLIANCES AS NOTED IN ADJACENT PLAN
- ADDTL NOTES:

STRUCTURE
- STRUCT. SPECIALTIES:
- OTHER:

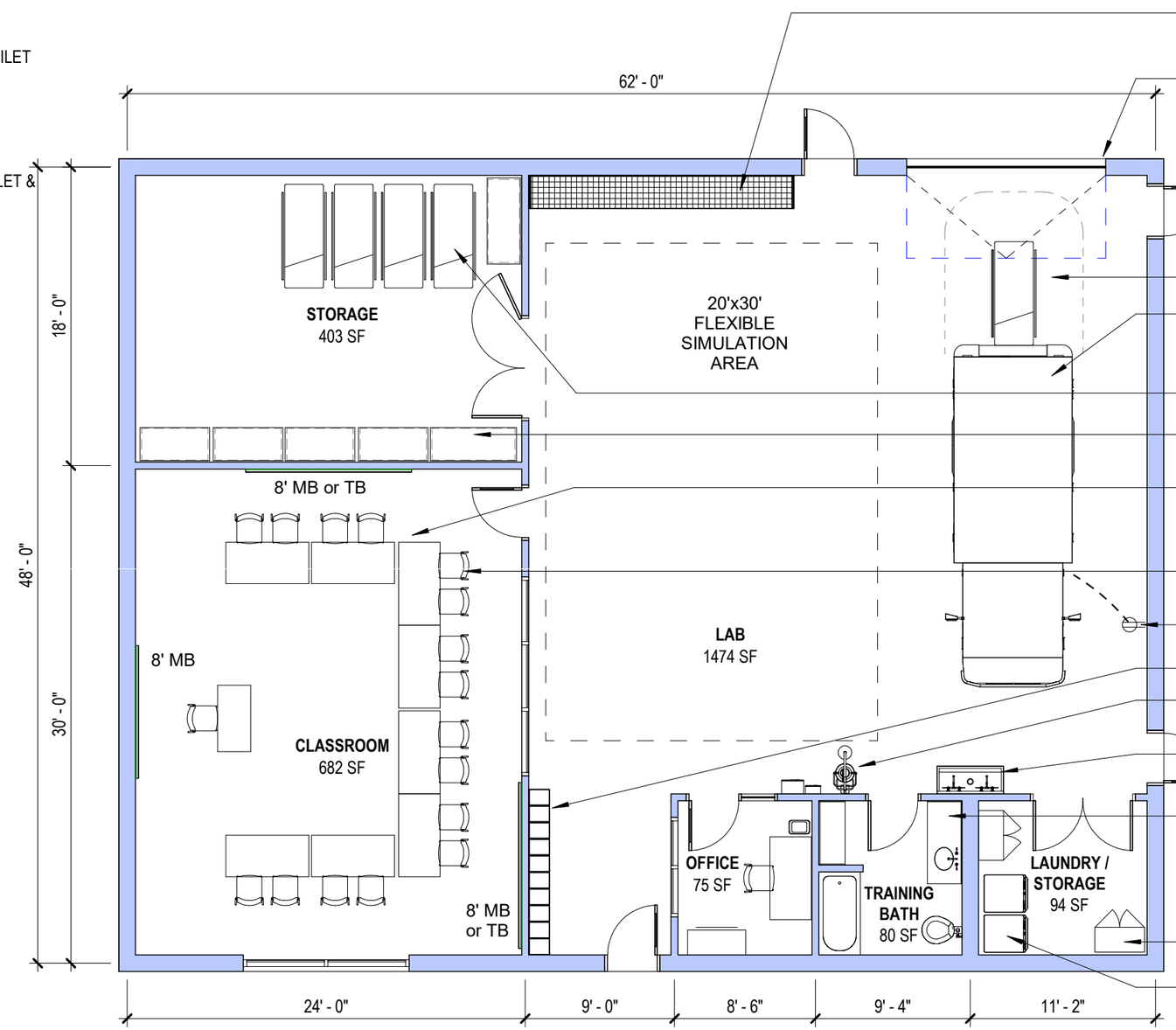
FIRE SUPPRESSION
- SYSTEM & HEAD TYPE:
- OTHER:

PLUMBING
- FIXTURES: 2 FAUCET TROUGH
- GASES & VACUUM:
- OTHER:

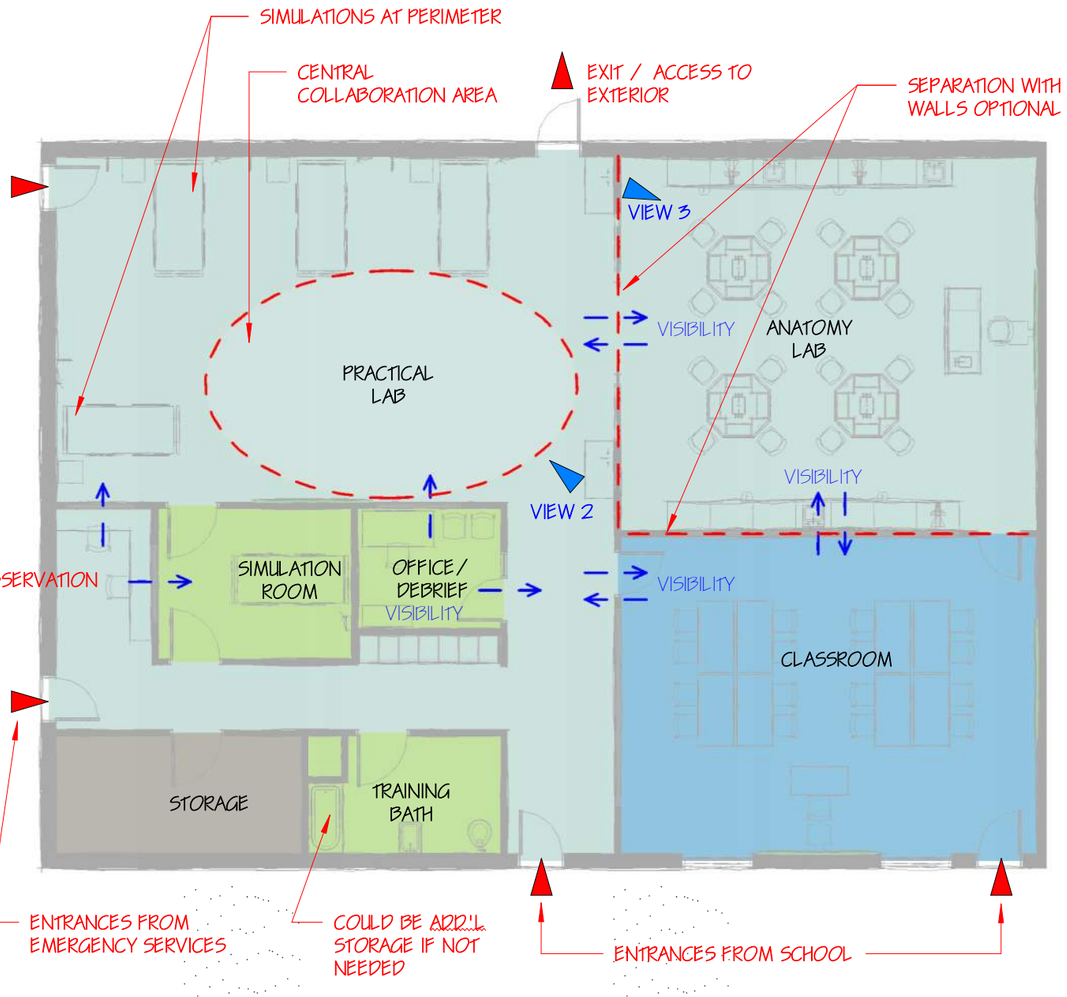
HVAC
- SYSTEM:
- TEMP / HUMIDITY:
- CONTROLS / OTHER:

ELECTRICAL
- POWER:
- LIGHTING: HIGH BAY, 2X2 IN CLASS & OFFICE
- CONTROLS/ OTHER:

COMMUNICATIONS
- VOICE / DATA: WIFI IN LAB & CLASS
- AUDIO-VIDEO: SHORT THROW PROJECTOR IN CLASS?
- SECURITY:
- SPECIALTIES:
- OTHER:

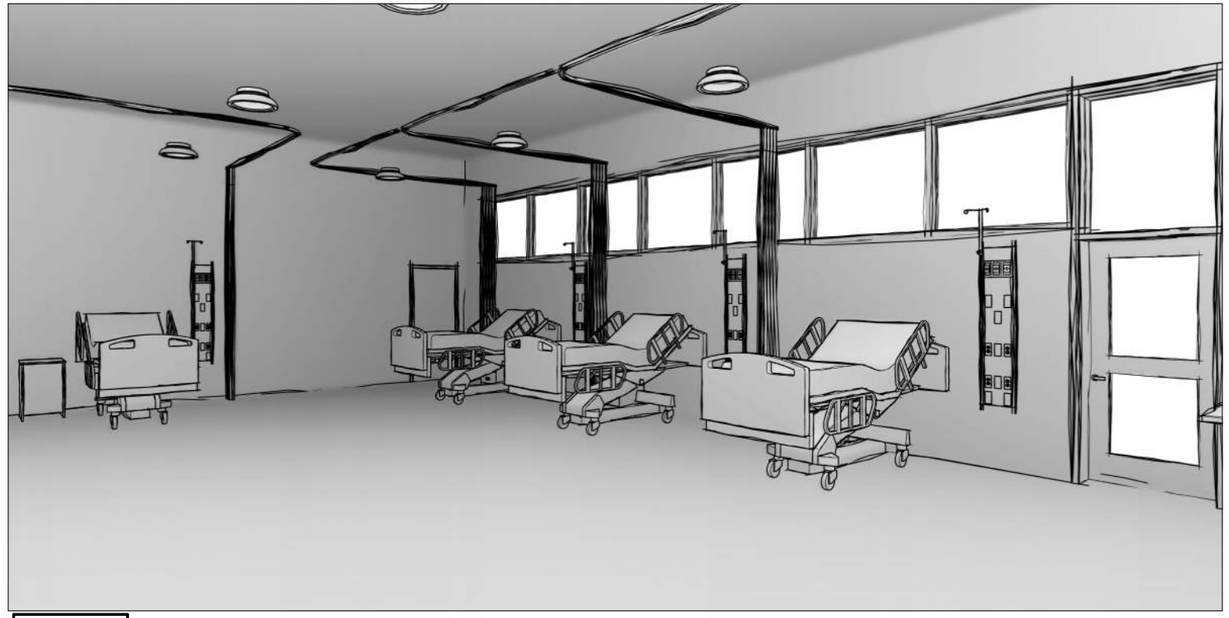


- PPE GEAR LOCKERS (16) 12"x60" OPEN FRONT
- OVERHEAD DOOR 10' WIDE
- TO SHARED SIMULATION AREA (SEE MEDICAL PROFESSIONS PLAN)
- SPACE BEHIND FOR STRETCHER LOADING
- PARKING FOR AMBULANCE
- STORAGE FOR EXTRA STRETCHERS
- 24x60 SHELVING UNITS (6)
- FLEXIBLE FURNITURE (WHEELS), CAN BE CONFIGURED AS ONE LARGE TABLE OR MULTIPLE CLASSROOM LAYOUT WITH INSTRUCTOR TOUCHDOWN
- 30X60 STUDENT TABLES (8) & CHAIRS (16)
- POWER FOR AMBULANCE
- STUDENT LOCKERS- 12"x15", 2-HIGH (20)
- EMERGENCY SHOWER, FIRE BLANKET & EXTINGUISHER
- 2 FAUCET SINK
- RESIDENTIAL SCALE BATHROOM FOR RETRIEVAL TRAINING - VANITY, TOILET, TUB/SHOWER, SHELVING
- MEDICAL STORAGE
- WASHER & DRYER



1 09.1 MS - PLAN DIAGRAM

3/32" = 1'-0"



2 09.1 MP - VIEW OF PRACTICAL LAB

3 09.1 MP - VIEW OF ANATOMY LAB

DEPARTMENT:	**MEDICAL PROFESSIONS**
EXISTING PROGRAM AREA:	**900 SF**
PROPOSED PROGRAM AREA:	**3500 SF**
PRIMARY ROOM:	**PRACTICAL LAB**
ROOM NUMBER:	**32**
PRIMARY ROOM AREA:	**1383 SF**

ARCHITECTURAL FINISHES:

FLOORING:	RESILIENT THROUGHOUT
WALL BASE:	
WALL FINISH:	
WALL PROTECTION:	VINYL AT HEAD WALLS
MILLWORK / CASEWORK:	LAMINATE
COUNTERTOP:	SOLID SURFACE
CEILING:	ACT IN LAB ALL EXCEPT BATH (GWB)
TEXTILES:	
COMMENTS:	

DOORS & HARDWARE

DOOR TYPE & FINISH:	WOOD DOORS
FRAME TYPE & FINISH:	
DOOR HARDWARE:	
WINDOWS & GLAZING:	STOREFRONT AT CLASS & OFFICE
COMMENTS:	

SPECIALTIES

SIGNAGE:	
CASEWORK:	
OTHER:	SLIDING GLASS DOORS IN LAB

FURNITURE & EQUIPMENT

FURNITURE, EQUIPMENT AND APPLIANCES AS NOTED IN ADJACENT PLAN

ADDTL NOTES:

STRUCTURE

STRUCT. SPECIALTIES:	
OTHER:	

FIRE SUPPRESSION

SYSTEM & HEAD TYPE:	
OTHER:	

PLUMBING

FIXTURES:	HANDFREE AT HANDWASHING
GASES & VACUUM:	CONFIRM NO GASSES AT HEADWALLS
OTHER:	

HVAC

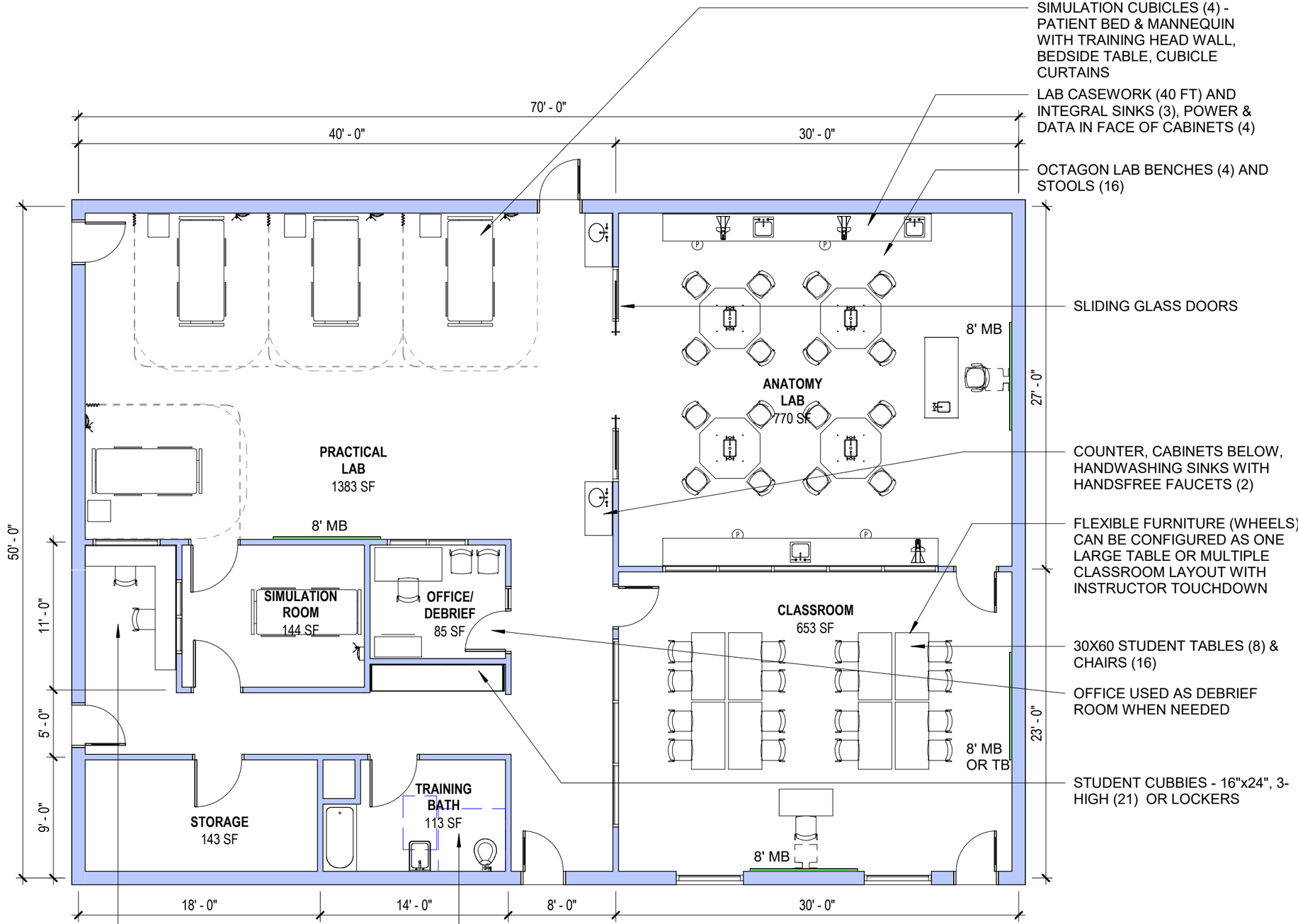
SYSTEM:	
TEMP / HUMIDITY:	
CONTROLS / OTHER:	INCREASED CFM IN ANATOMY

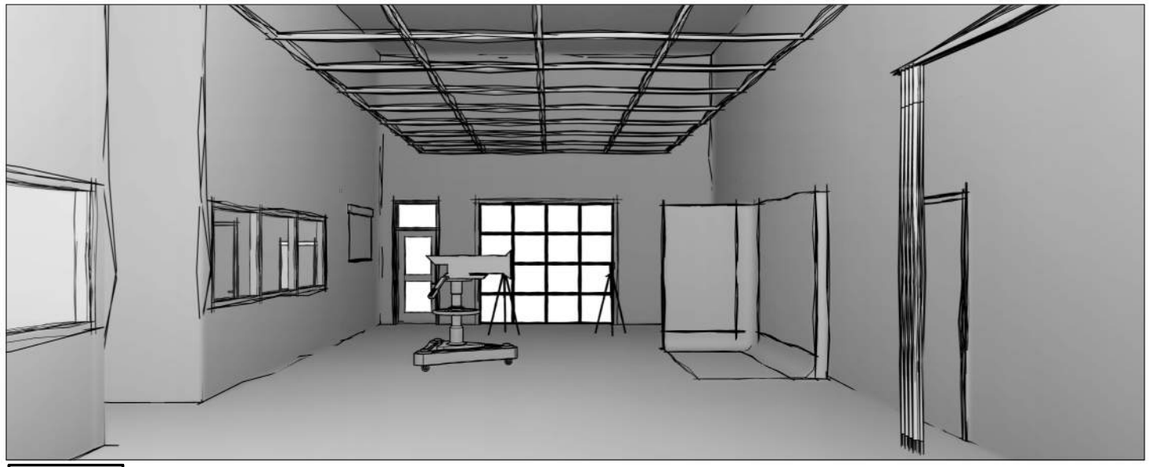
ELECTRICAL

POWER:	POWER IN CAB FRONT IN ANATONY
LIGHTING:	HIGH BAY, 2X2 IN CLASS & OFFICE
CONTROLS/ OTHER:	OVERBED LIGHTING

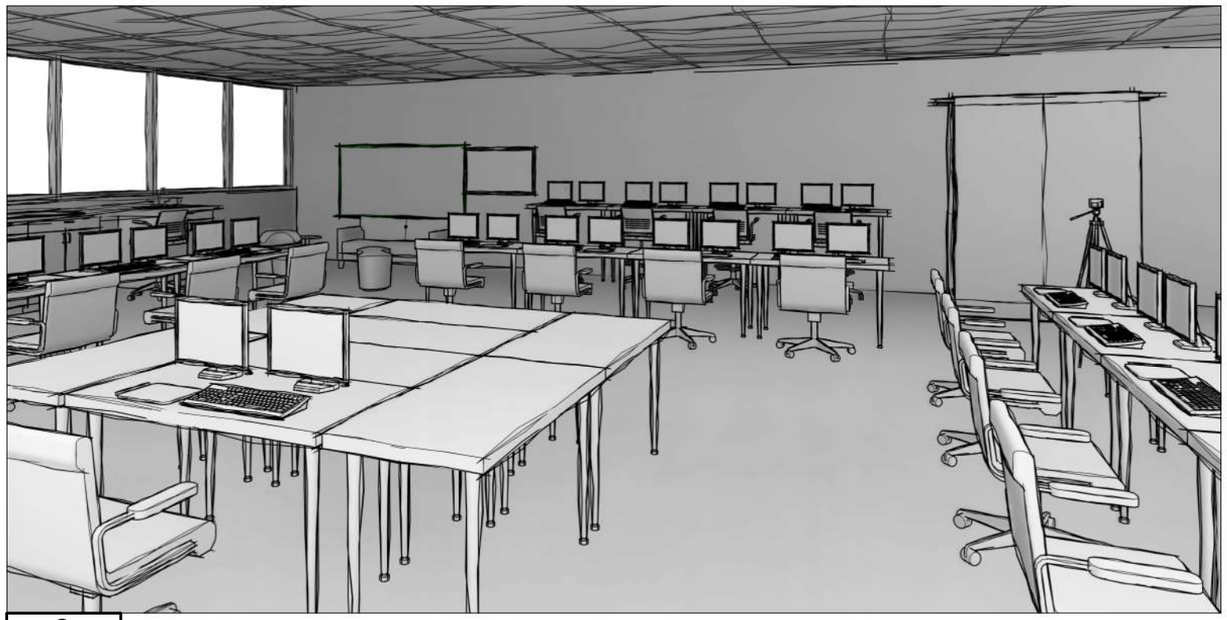
COMMUNICATIONS

VOICE / DATA:	DATA IN CAB FRONT IN ANATONY
AUDIO-VIDEO:	DROP DOWN PROJECTION SCREEN IN PRACTICAL
SECURITY:	
SPECIALTIES:	
OTHER:	

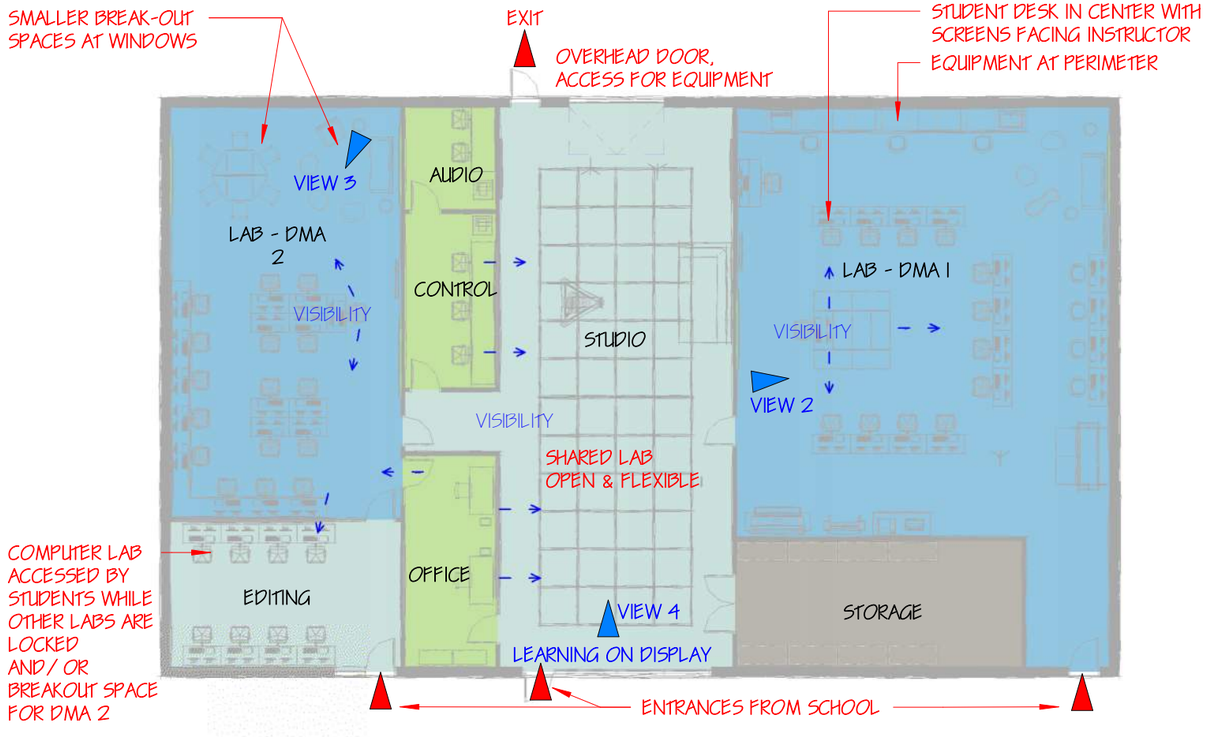




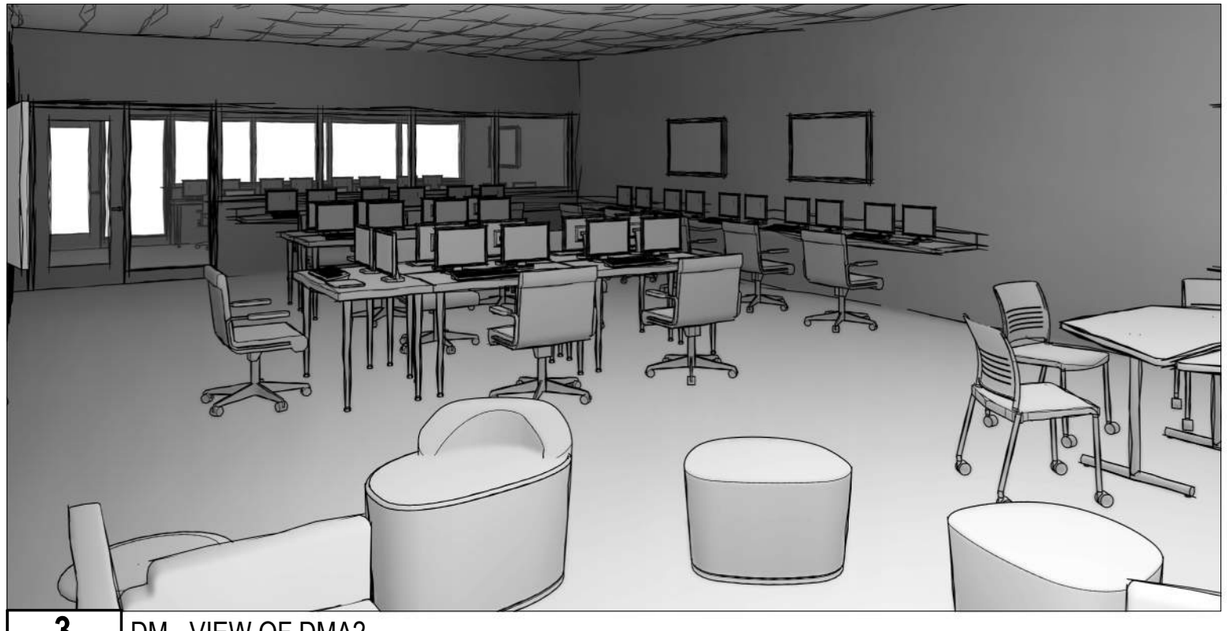
4 10.1 VIEW OF DMA STUDIO



2 10.1 DM - VIEW OF DMA 1



1 10.1 DM - PLAN DIAGRAM
1/16" = 1'-0"



3 10.1 DM - VIEW OF DMA2

DEPARTMENT:	**DIGITAL MEDIA ARTS**
EXISTING PROGRAM AREA:	**3920 SF**
PROPOSED PROGRAM AREA:	**6000 SF**
PRIMARY ROOM:	**STUDIO**
ROOM NUMBER:	**33**
PRIMARY ROOM AREA:	**1513 SF**

ARCHITECTURAL FINISHES:

FLOORING:	RESILIENT THROUGHOUT
WALL BASE:	
WALL FINISH:	STUD WITH GYPSUM
WALL PROTECTION:	
MILLWORK / CASEWORK:	COUNTERS & CABINETS AS NOTED
COUNTERTOP:	
CEILING:	PAINT IN STUDIO, ACT IN CLASSES & OFFICE
TEXTILES:	
COMMENTS:	

DOORS & HARDWARE

DOOR TYPE & FINISH:	
FRAME TYPE & FINISH:	
DOOR HARDWARE:	
WINDOWS & GLAZING:	
COMMENTS:	

SPECIALTIES

SIGNAGE:	
CASEWORK:	
OTHER:	

FURNITURE & EQUIPMENT

FURNITURE, EQUIPMENT AND APPLIANCES AS NOTED IN ADJACENT PLAN

ADDTL NOTES:

STRUCTURE

STRUCT. SPECIALTIES:	
OTHER:	

FIRE SUPPRESSION

SYSTEM & HEAD TYPE:	
OTHER:	

PLUMBING

FIXTURES:	DEEP SINK (1)
GASES & VACUUM:	
OTHER:	

HVAC

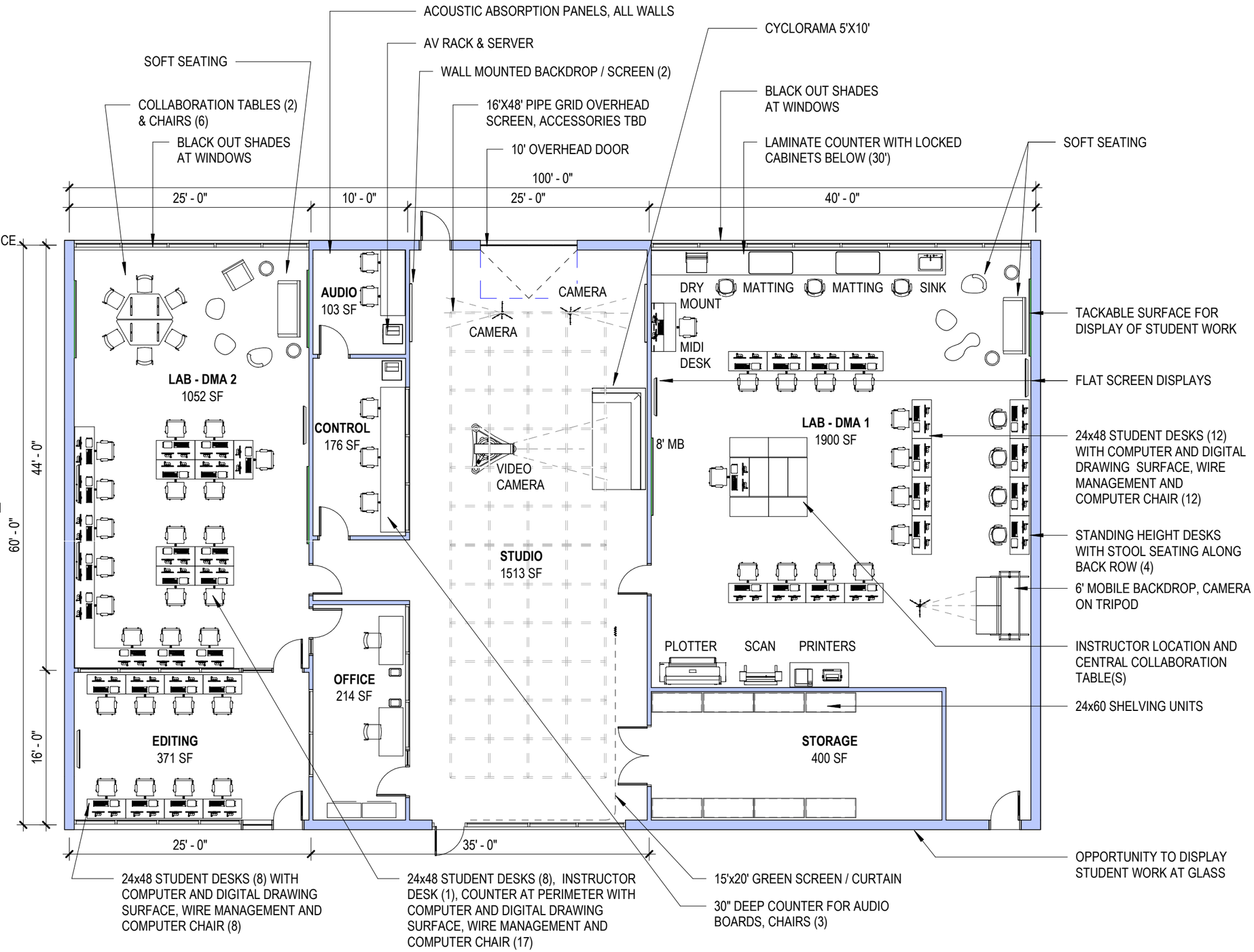
SYSTEM:	
TEMP / HUMIDITY:	
CONTROLS / OTHER:	

ELECTRICAL

POWER:	
LIGHTING:	ALL TO BE DIMMABLE
CONTROLS/ OTHER:	ADDITIONAL AT PIPE GRID IN STUDIO

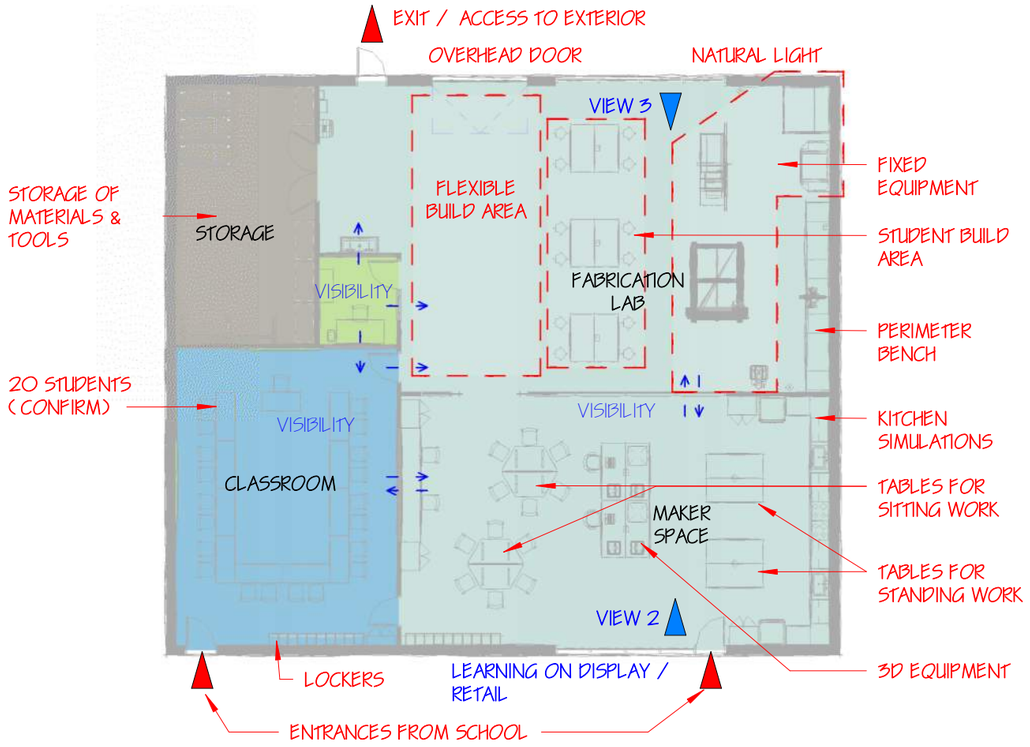
COMMUNICATIONS

VOICE / DATA:	ALL MAC COMPUTERS
AUDIO-VIDEO:	AV RACK IN CONTROL ROOM
SECURITY:	
SPECIALTIES:	
OTHER:	COORDINATE AV PATHWAYS WITH OWNER



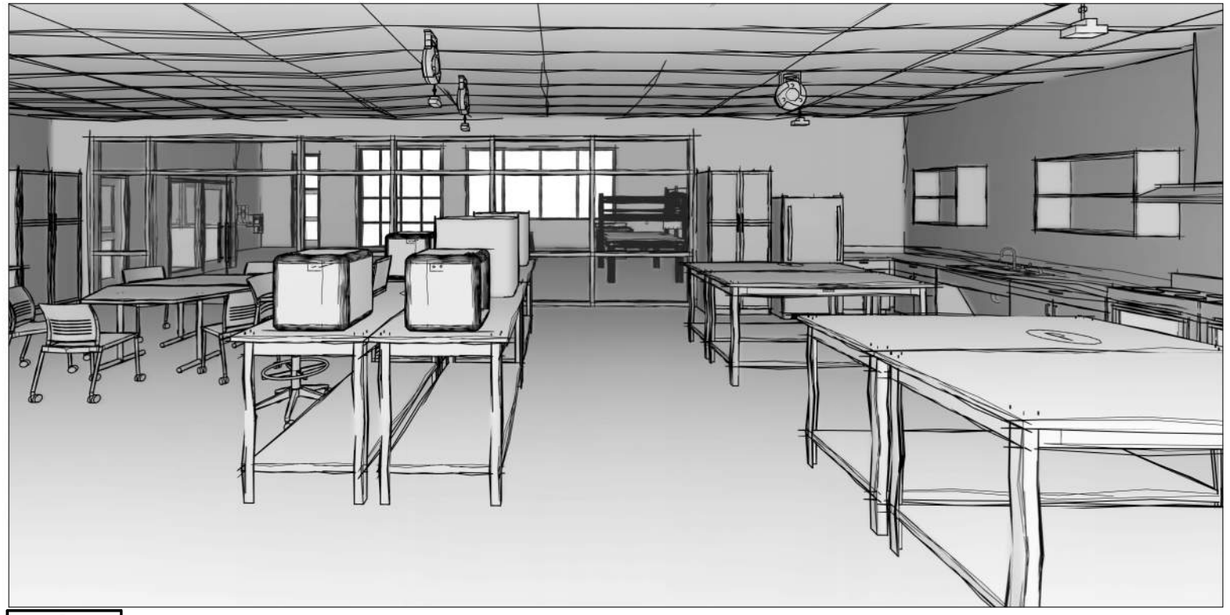
FABRICATION LAB
FOR LOUD & DIRTY
WORK

MAKER SPACE
FOR QUIETER &
CLEAN WORK



1 11.1 EX - PLAN DIAGRAM
1/16" = 1'-0"

2 11.1 EX - VIEW OF FAB LAB



3 11.1 EX - VIEW OF MAKERSPACE

DEPARTMENT: **CTE EXPLORATION**
EXISTING PROGRAM AREA: **2130 SF**
PROPOSED PROGRAM AREA: **4200 SF**

PRIMARY ROOM: **FABRICATION LAB**
ROOM NUMBER: **40**
PRIMARY ROOM AREA: **1614 SF**

ARCHITECTURAL FINISHES:
- FLOORING: CONCRETE, RESILIENT IN MAKER, CLASS & OFFICE
- WALL BASE:
- WALL FINISH:
- WALL PROTECTION:
- MILLWORK / CASEWORK: LAMINATE
- COUNTERTOP: SOLID SURFACE
- CEILING: ACT IN OFFICE, CLASS & MAKER
- TEXTILES:
- COMMENTS:

DOORS & HARDWARE
- DOOR TYPE & FINISH: HM DOORS, WD AT CLASS
- FRAME TYPE & FINISH:
- DOOR HARDWARE:
- WINDOWS & GLAZING: STOREFRONT AT CLASS, 3/8" LAMIN
- COMMENTS:

SPECIALTIES
- SIGNAGE:
- CASEWORK:
- OTHER: 40 HALF HEIGHT PHENOLIC LOCKERS

FURNITURE & EQUIPMENT
FURNITURE, EQUIPMENT AND APPLIANCES AS NOTED IN ADJACENT PLAN
- ADDTL NOTES: RESIDENTIAL APPLIANCES IN KITCHEN

STRUCTURE
- STRUCT. SPECIALTIES:
- OTHER:

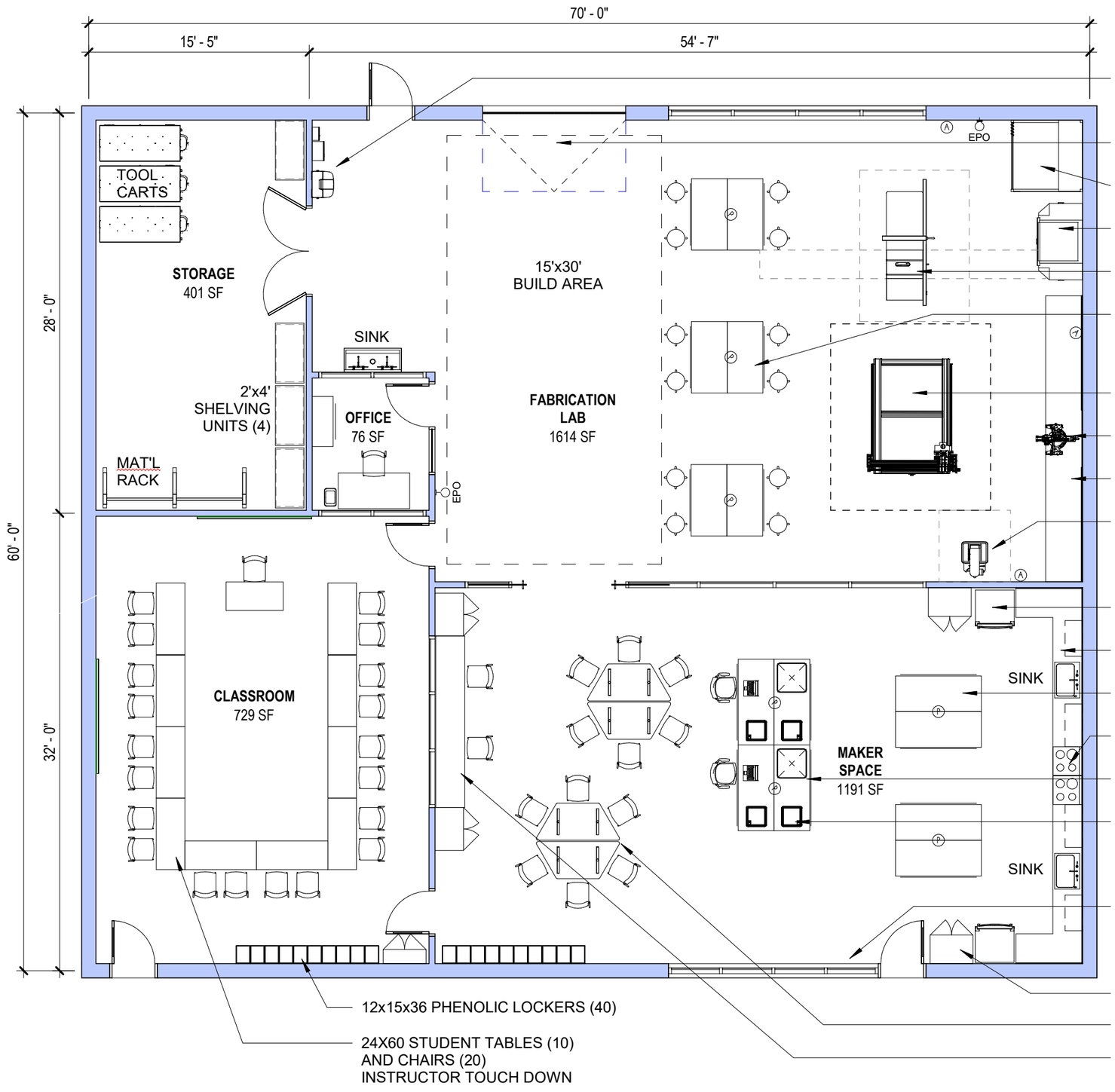
FIRE SUPPRESSION
- SYSTEM & HEAD TYPE:
- OTHER: RESIDENTIAL SUPPRESS AT RANGE HOOD

PLUMBING
- FIXTURES: 2 FAUCET TROUGH, KITCHEN SINKS
- GASES & VACUUM: COMPRESSED AIR (3) IN FAB LAB
- OTHER:

HVAC
- SYSTEM:
- TEMP / HUMIDITY:
- CONTROLS / OTHER: DUST COLLECTION SYSTEM

ELECTRICAL
- POWER: 120 & 240 MIX, 120 ONLY IN MAKER
- LIGHTING: HIGH BAY, 2X2 IN CLASS & MAKER
- CONTROLS/ OTHER: MULTIPLE OUTLETS AT BENCH & KITCHEN

COMMUNICATIONS
- VOICE / DATA:
- AUDIO-VIDEO: SHORT THROW PROJECTOR IN CLASS?
- SECURITY:
- SPECIALTIES:
- OTHER:



Central Vermont Career Center

Exploratory Tech

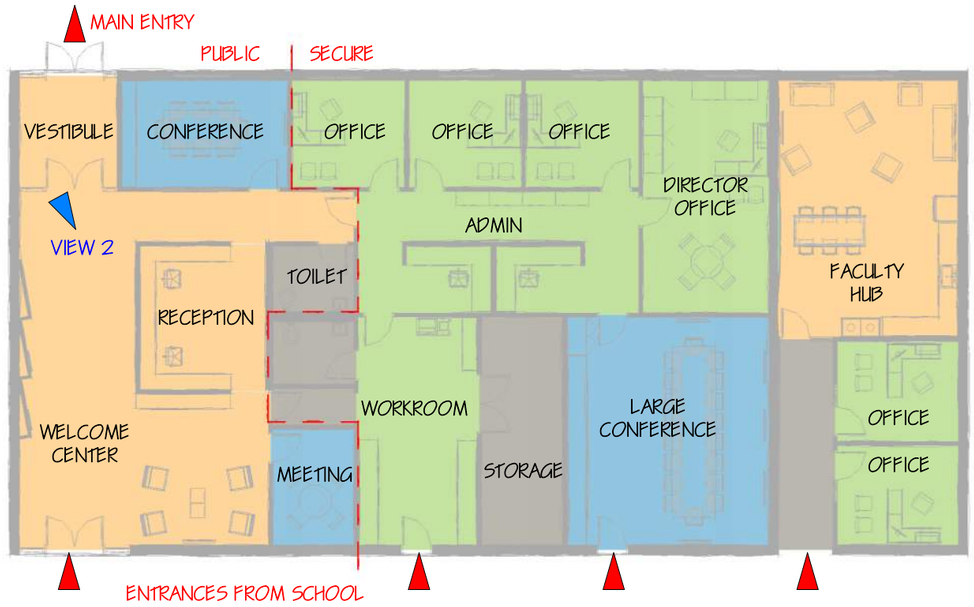
OPTIMAL LAYOUT CONCEPT DESIGN

12/08/20

SCALE: 1/8" = 1'-0"

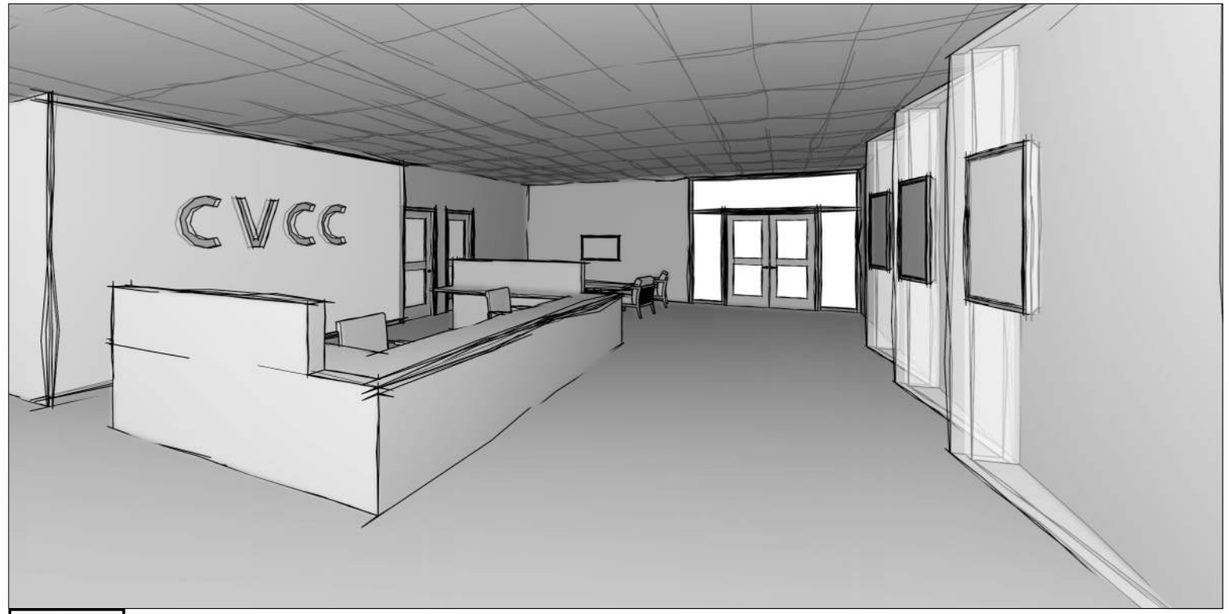
LAVALLEE | BRENSINGER ARCHITECTS

11.2

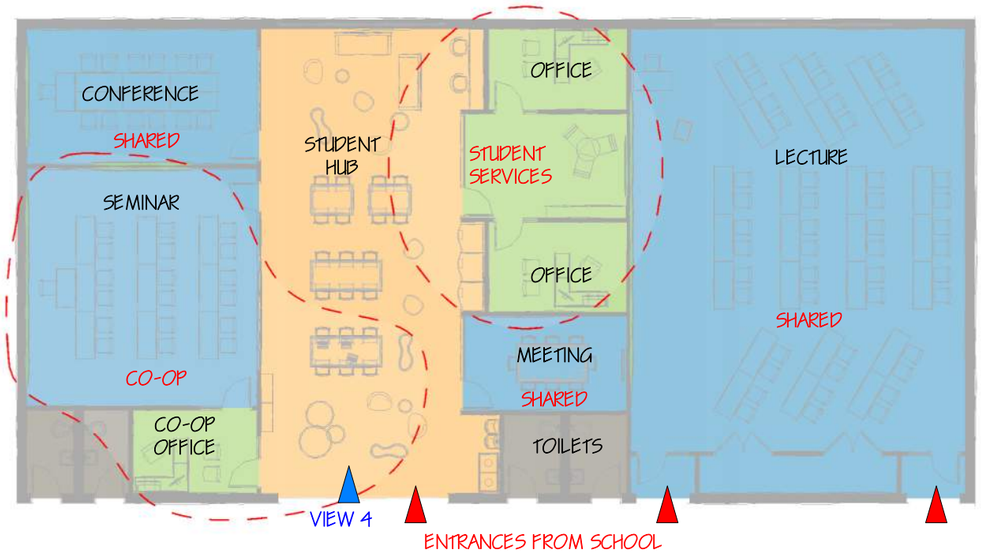


1 12.1 ADMIN & STAFF SPACES DIAGRAM

1/16" = 1'-0"

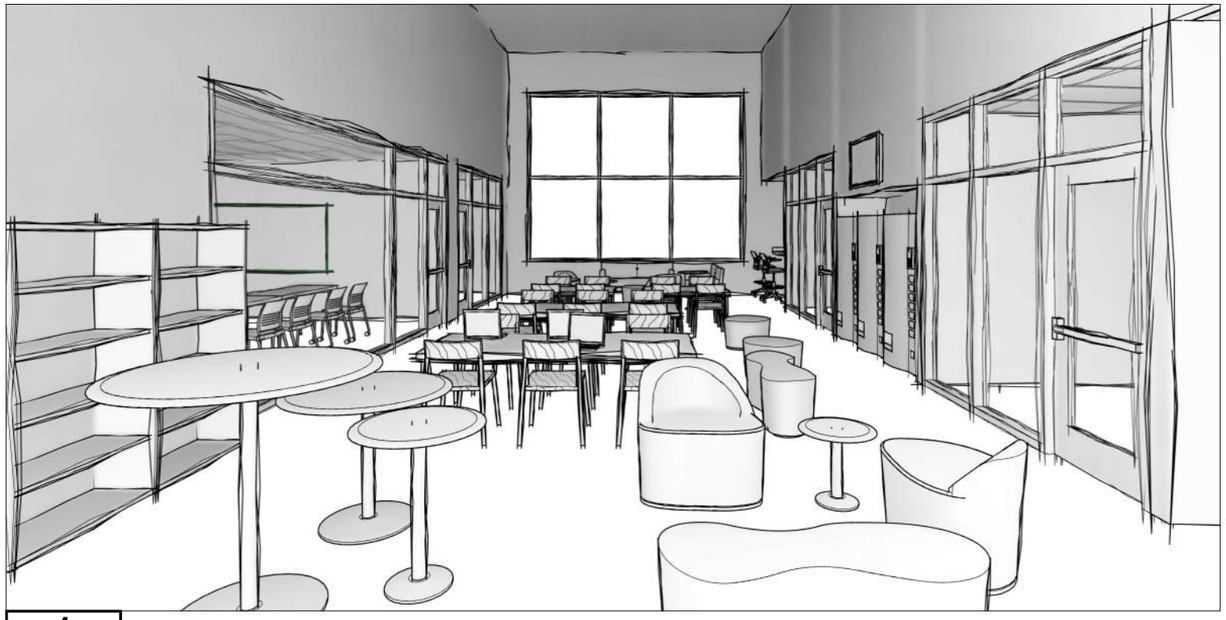


2 12.1 AD - WELCOME CENTER



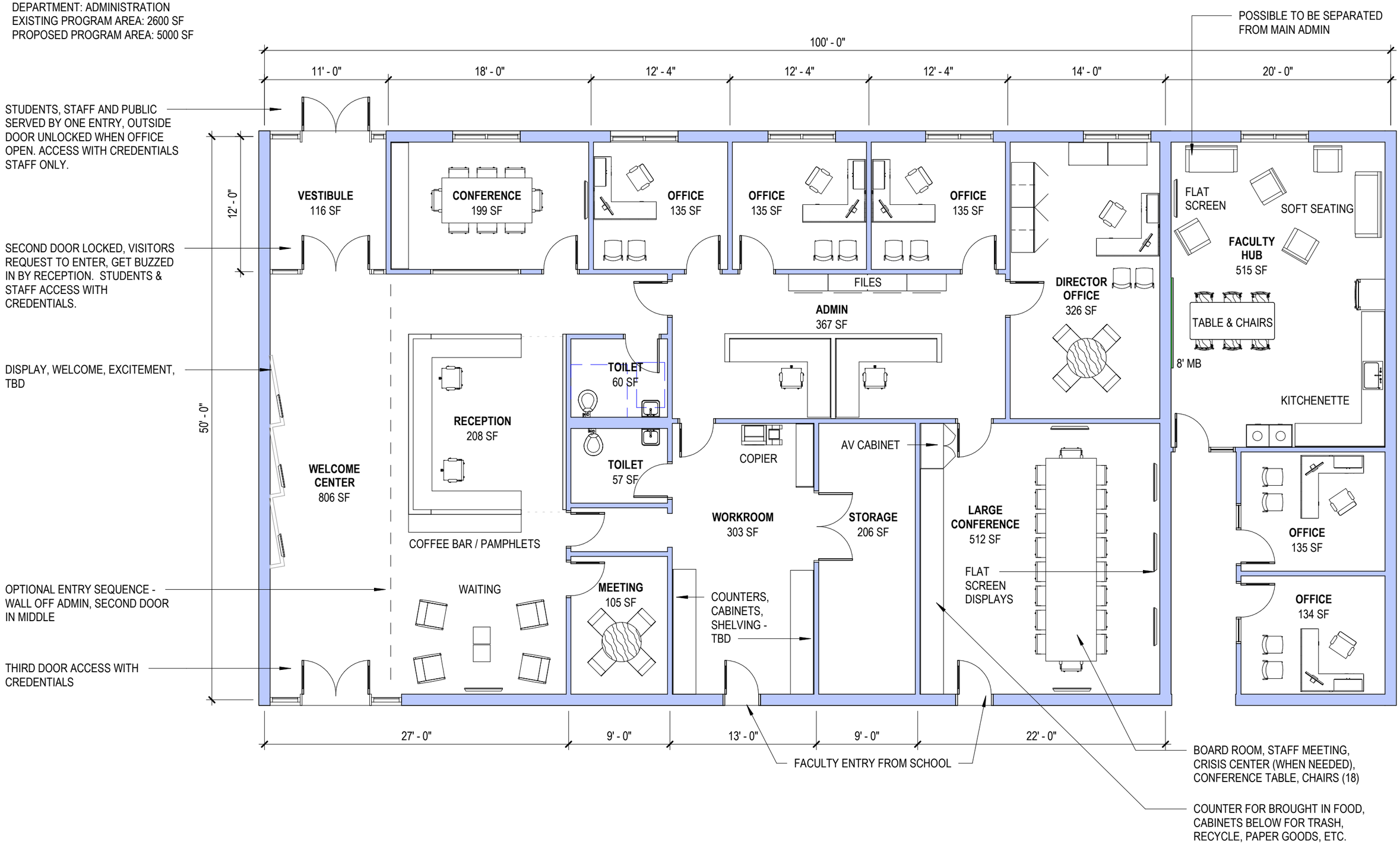
3 12.1 STUDENT SPACES DIAGRAM

1/16" = 1'-0"



4 12.1 AD - STUDENT HUB

DEPARTMENT: ADMINISTRATION
EXISTING PROGRAM AREA: 2600 SF
PROPOSED PROGRAM AREA: 5000 SF



Central Vermont Career Center

Administration

OPTIMAL LAYOUT CONCEPT DESIGN

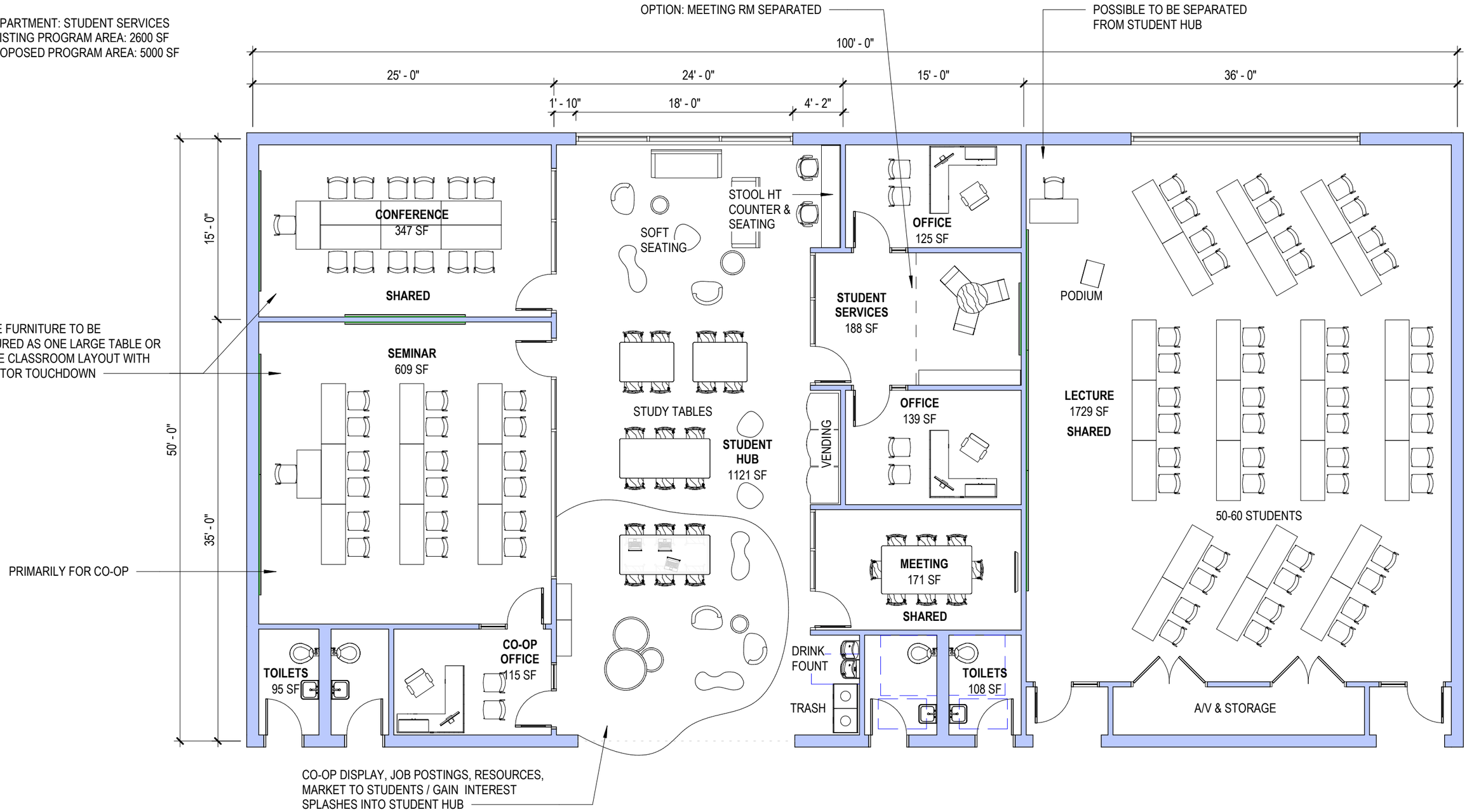
12/08/20

SCALE: 1/8" = 1'-0"

LAVALLEE | BRENSINGER ARCHITECTS

12.2

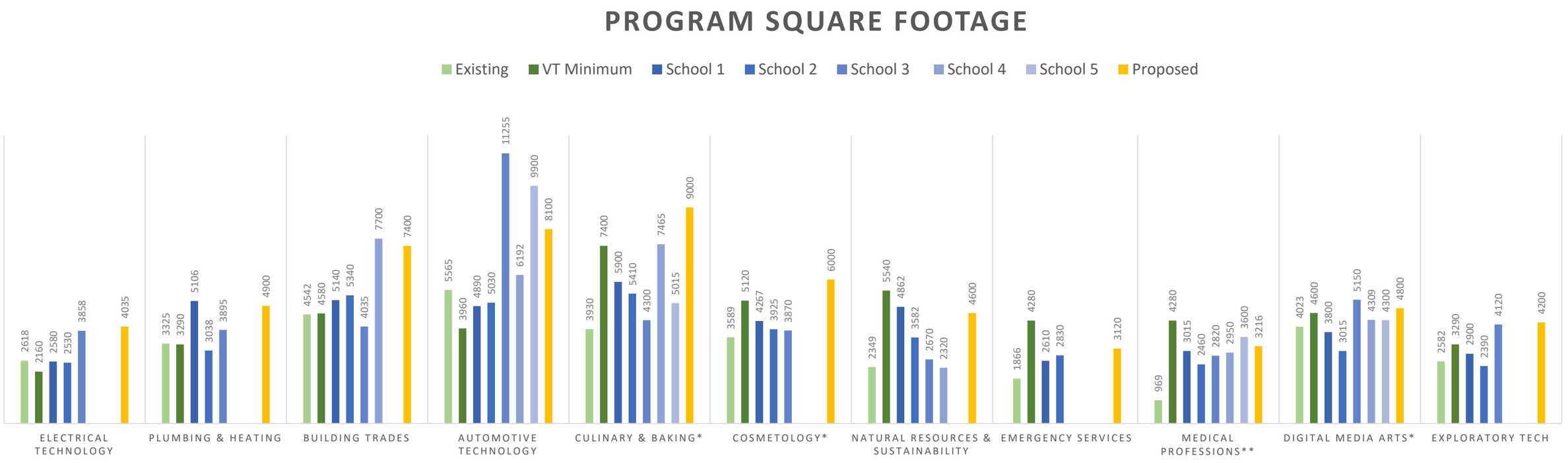
DEPARTMENT: STUDENT SERVICES
EXISTING PROGRAM AREA: 2600 SF
PROPOSED PROGRAM AREA: 5000 SF

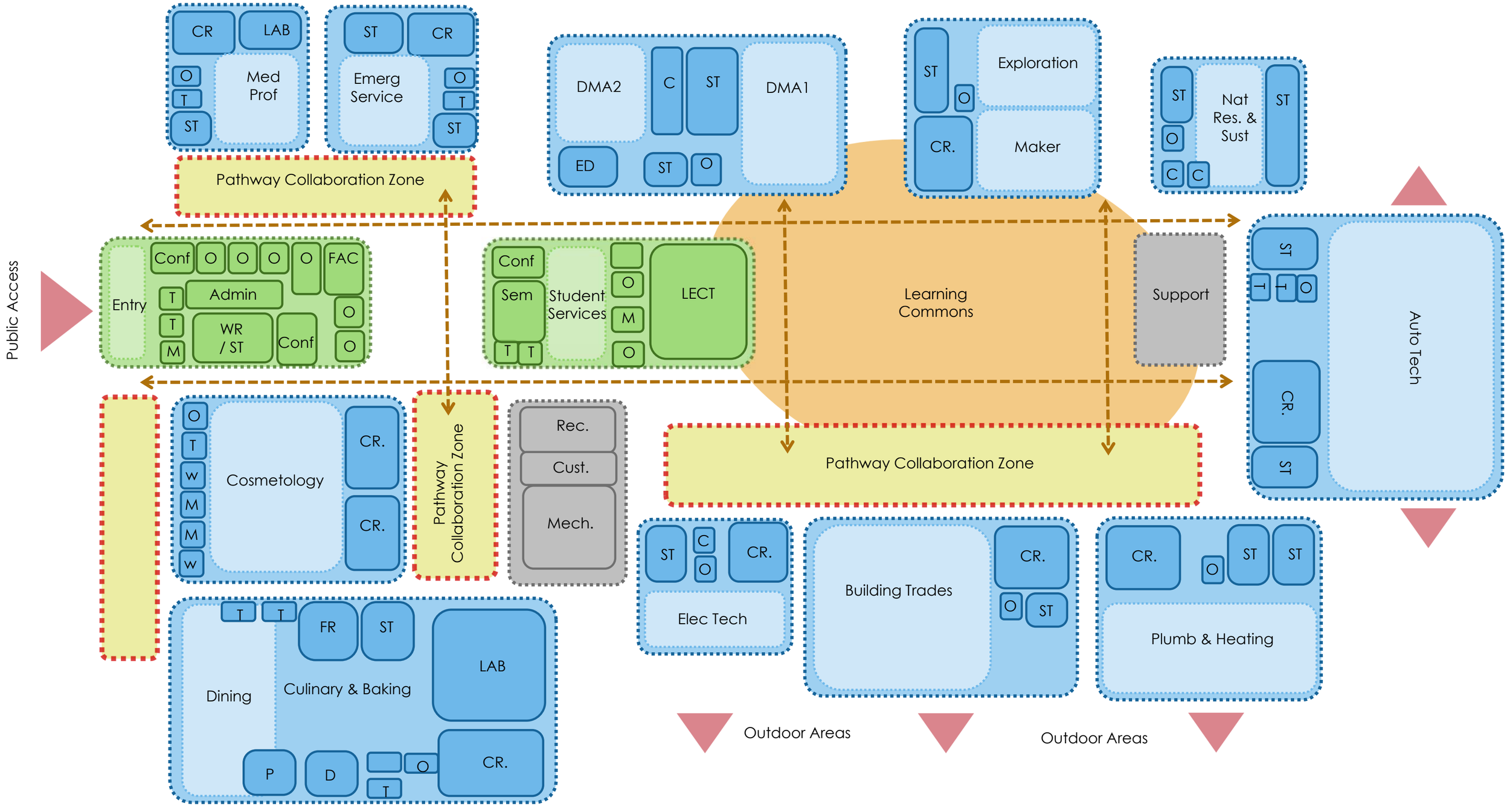


Space Comparison

LBA compared the existing CVCC labs at Spaulding High School to the Vermont Minimum Square Footage Standard (green), to LBA NH and ME projects to the proposed layouts.

* single teacher programs were adjusted for two teacher programs
** two teacher programs were adjust for single teacher




Public Access
CR
LAB
O
T
ST
Med Prof
ST
CR
Emerg Service
O
T
ST
Pathway Collaboration Zone
DMA2
C
ST
DMA1
ED
ST
O
ST
Exploration
O
CR.
Maker
ST
O
C
C
Nat Res. & Sust
ST
Entry
Conf
O
O
O
O
FAC
T
Admin
T
WR / ST
Conf
M
O
O
Conf
Sem
Student Services
T
T
O
M
O
LECT
Learning Commons
Support
ST
T
T
O
Auto Tech
CR.
ST
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M
M
W
Cosmetology
CR.
CR.
Pathway Collaboration Zone
Rec.
Cust.
Mech.
Pathway Collaboration Zone
ST
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O
CR.
Elec Tech
Building Trades
CR.
O
ST
CR.
O
ST
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Plumb & Heating
T
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FR
ST
LAB
Dining
Culinary & Baking
P
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CR.
Outdoor Areas
Outdoor Areas

Option 1: Current Site

The approximate projected growth of the center based on the optimal program plans is shown on the adjacent plan. To provide CVCC with a two story optimal center at the existing site, the remaining parking on site would be eliminated. Parking for the school would need to be accommodated by other means.

Opinion of Probable Costs - Likely Construction Costs for Renovation/Addition:

$26M-$34M

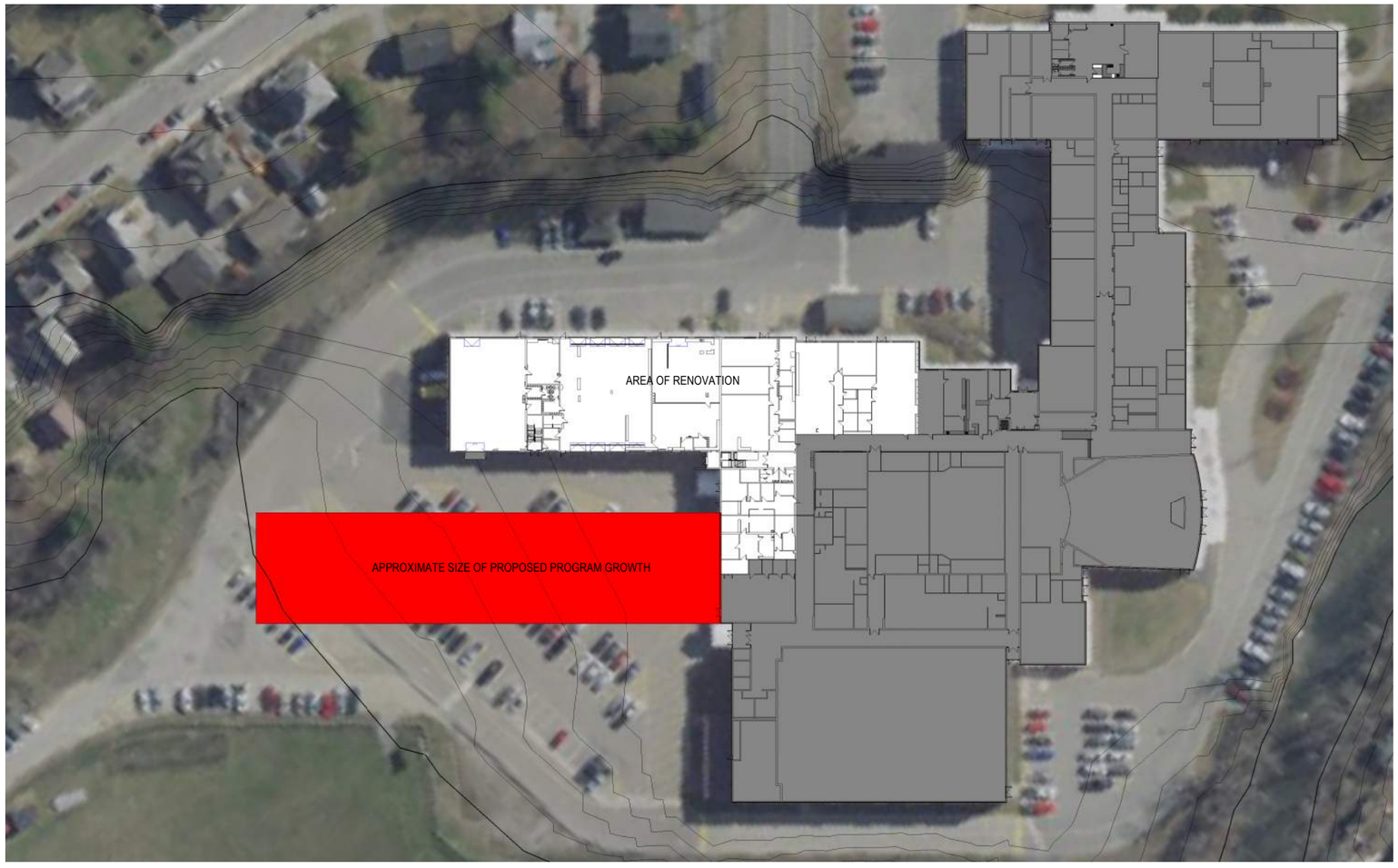
Based on 48,000sf addition, 52,000sf renovation at average cost/sf for schools, at current market conditions. Inflation may increase costs dependent upon timing of project.
Note: Soft Costs (Contingencies, Engineering, Permits, Equipment, Furnishings, Etc) average an additional 30%.
Compromises must be made to accommodate existing structure

Option 2: New Site

Opinion of Probable Costs - Likely Construction Costs for New Construction:

$30M-$38M

Based 100,000sf at average cost/sf for schools, at current market conditions.
Inflation may increase costs dependent upon timing of project.
Note: Soft Costs (Contingencies, Engineering, Permits, Equipment, Furnishings, Etc) average an additional 30%.
Costs exclude land purchase and development costs.
Allows for development of the “optimal” Center

Conclusions

The development of the CVCC on the current site and the elimination of the parking would detrimentally impact CVCC and Spaulding High School. Based on the feedback from CVCC and their Regional Advisory Board, our recommendation is to investigate potential new development sites within the region.