

## MEETING MINUTES: Broomfield High School, Design Advisory Team Meeting #2

**PROJECT:** Broomfield High School  
ED0281.2301.00

**MEETING:** Design Advisory Team Meeting #2

**DATE AND TIME:** May 22, 2023

**LOCATION:** Collabator Space, Broomfield High School

**MATERIALS USED:** Powerpoint, Boards

**ATTENDEES:** See attached sign-in sheet

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**DISTRIBUTION:** All present

ITEM	DISCUSSION	ACTION
1.1	PowerPoint presentation was utilized and included the overall agenda. See the attached PowerPoint for additional details. 30"x42" boards were used to supplement the PowerPoint presentation.	
1.2	<p>Sustainability goals for the District were summarized, including:</p> <ul style="list-style-type: none"> <li>A. Reductions in energy use. Target of 20% minimum reduction when replacing equipment. If additions are made, roofs should be solar ready. School currently has the a large solar array.</li> <li>B. Water efficiency for selected plumbing fixtures and irrigation.</li> <li>C. Use low VOC materials.</li> <li>D. Encouraging sustainable modes of transportation.</li> <li>E. Diverting construction waste. Target of 75% minimum, but have seen project get to 100%.</li> <li>F. The District is looking to implement live data tracking from the schools' infrastructure. This has been identified as an opportunity to provide teachable moments within the CTE pathways.</li> <li>G. Including outdoor learning opportunities where possible</li> </ul>	
1.3	A concern was raised that if we design and build out future forward CTE spaces, that these spaces are not staffed with the experts to teach those courses. How will the space be utilized? Arlie expressed that flexibility is key in the design of these types of spaces so they can flex to be adaptable and respond to current and future programmatic demands. Bond dollars will not be used to pay for new full time employees with CTE expertise.	

ITEM	DISCUSSION	ACTION
1.4	The district CTE Director, Arlie, noted that this is a huge opportunity for the district. We can't do everything and we are looking for what will have the biggest impact. A goal is to change the view of the community in regard to CTE. What can each school do to raise the profile and bring students along?	
1.5	Existing CTE pathways as identified by the masterplan were presented. Teacher Cadet program noted as no longer existing. Other pathways identified are confirmed correct.	
1.6	The floor plan diagram displays four zones of CTE focus which will be reviewed during the meeting. A goal of DAT 2 is to throw some initial ideas out there for discussion and see what sticks.	
1.7	<p>Zone 1: Relocated Choir</p> <p>A. Big ideas from DAT #1 reviewed: Choir needed to move out of the business area to enable potential business/ computer science adjacencies. Alyson (choir teacher) previously expressed wanting to be with the other fine arts. The existing tiered classroom is under-utilized, but not functional for choir in its current set up. Presented solution looks to address these issues.</p> <p>B. Comments on Plan:</p> <ol style="list-style-type: none"> <li>1) Office doors are currently off the hall and not classroom as shown.</li> <li>2) Band is using all practices rooms. Removing access to practice rooms from band room seems problematic. TreanorHL to study options to share practice rooms between choir and band.</li> <li>3) The proposed footprint of the choir room is a similar size to the existing space, however, the existing space isn't very efficient, so choir room can probably reduce in size if layout is efficient. The extra space could be used to regain practice rooms and storage lost with the presented scheme.</li> <li>4) Acoustic separation is a concern between rooms. From last meeting, acoustics to adjacent language arts is already a concern, so a close look at this topic is needed.</li> <li>5) Current instrument storage is not as efficient as it could be. Optimizing storage could free up some other spaces to make the plan work. Upstairs storage could be better utilized for the same function. Band uniforms were mentioned as a potential item stored upstairs.</li> <li>6) Visibility/supervision of practice rooms is critical. If sightlines can't be maintained, the space isn't functional for student use and should be storage.</li> <li>7) Plan as currently shown eliminates the hall that is the band's access to the field for marching band. Consideration for maintaining access is needed. There are currently steps at the exterior if access switches to the south corridor, which would need to be addressed with a site ramp for the transportation of instruments.</li> <li>8) Special Event (JAM) currently uses a storage room that has been removed in the presented scheme. A new location for storing these materials will need to be identified as part of further design.</li> <li>9) The current tiered classroom is used approximately five times a semester by PE classes and by sports teams for game video watching. These</li> </ol>	



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	functions will need a new home or will need to be accommodated in the choir room. PE needs a typical classroom setup, and the game footage needs a projector. The "Energy" classroom/lab has potential to flex for PE class use.	
1.8	<p>Zone 2: Business</p> <p>A. Big ideas from DAT #1 reviewed: With the removal of the choir room, the south part of the wing can become a computer science classroom. By "right-sizing" these currently oversized classrooms, space can be opened between the two classrooms to function as a "business lounge" or as auxiliary space to the classrooms (such as robotics as shown in the PowerPoint).</p> <p>B. Comments on Plan:</p> <ol style="list-style-type: none"> <li>1) Business classroom: <ol style="list-style-type: none"> <li>a. For furniture planning, staff would like to include two more collaboration tables at perimeter (for a total of 24 collaboration spots). 35 students total in classroom lecture zone.</li> <li>b. The ability of students to see the teaching wall across the large classroom should be considered with supplemental teaching walls/monitors.</li> <li>c. Issues with technology and licensing were discussed. The preferred direction is to have laptops dedicated to this classroom with licensed software installed. Laptops would stay in classroom and give students the mobility that enables better collaboration. Docking stations would allow quick ethernet connections. Laptops would not be part of the bond budget.</li> <li>d. Wi-fi in this area of the building is poor and should be improved.</li> <li>e. All casework storage in the existing room is being used, even after purging much of previously stored materials.</li> </ol> </li> <li>2) New computer science classroom: <ol style="list-style-type: none"> <li>a. What is Computer Science going to be at BHS in the future?</li> <li>b. Identified as a good location for computer science (no classes existing, but these programs have been expanding rapidly at other schools), digit arts, multimedia, coding, robotics, newspaper, and yearbook.</li> <li>c. Needs to seat 35 students at computers with hardwired data for programs such as the Adobe Suite.</li> <li>d. Digital arts confirmed that function does not want to happen in the art rooms where messy supplies and computers are problematic. Digital Arts currently occurs in the Drafting Room.</li> <li>e. Potential for more lounge-like furniture in computer science discussed. This would be dependent on having laptops similarly discussed with the business classroom. Direction seemed to be leading more towards fixed station as of this discussion.</li> </ol> </li> <li>3) Robotics (changed to multi-media/flex): <ol style="list-style-type: none"> <li>a. The group wants the space identified for robotics to be more of a multi-media/ flex room. While robotics does exist at Broomfield Heights Middle School, no program currently exists at the high school. The teacher who would likely be spearheading program</li> </ol> </li> </ol>	



ITEM	DISCUSSION	ACTION
	<p>growth is leaving, so there is no short-term plan for growth. Some schools have robotics stored in a furniture tote solution. If a flexible space is available, tote storage could be a method to introduce robotics in a space at a later date. A big goal is to create flexible and easily adaptable spaces for future growth of CTE programs.</p> <p>b. Multi-media uses: filming of Eagle News, social media clips, commercials, etc. The group liked the idea of the room being glassy, but would need to have the ability to control lighting for filming.</p> <p>4) Student Store (changed to shared office):</p> <p>a. The location is too isolated for the student store. With the desire to have multiple teachers utilize the classrooms, a staff office is needed. Change student storage to be a shared office for two people.</p> <p>5) "Business Lounge" (changed to "pitch room" and/or print shop):</p> <p>a. The group expressed concern over students using the space during open periods and not being supervised. If the lounge is kept, it needs to "branded" and/or access-controlled for class students only.</p> <p>b. One option would be to enclose most of the lounge space to be a "pitch room" for students use as a break-out space to present. The general idea was for this function to be glass and/or open to the corridor.</p> <p>6) Print shop:</p> <p>a. Digital arts and Business expressed interest in having a print shop for high quality, large format prints.</p> <p>b. Location to be determined with further plan refinement.</p> <p>7) Existing custodial closet needs to be investigated further. It was noted that there are large conduit runs in that room and it may be costly to have to relocate those items.</p>	
1.9	<p>Zone 3: Construction/Technology</p> <p>A. Big ideas from DAT #1 reviewed: The manufacturing room is under-utilized due to the fact it is accessed through the drafting room. The presented plan provided access to a refigured space that provides potential lab space for CTE pathways, as well as a renovated digital design classroom and shop. Solutions to address the need for exterior access were proposed.</p> <p>B. A goal of the concept plan is to optimize the space and make it more functional, provide improved exterior access and look at branding opportunities of CTE pathways in this zone</p> <p>C. The concept plan shows a dirty zone, computer zone and lab zone.</p> <p>D. Comment on Plan:</p> <p>1) Concession/Storage:</p> <p>a. Large generator at the exterior prevents feasibility of overhead door access to the east as shown in presented plan.</p> <p>b. Group / existing teacher likes the idea of having the direct access to the exterior. TreanorHL to study if this access can happen to the north via overhead doors or taller double doors. A walk of the site after the meeting showed an existing roof drain leader to be relocated and potential limitations to opening heights based on the height of the existing roof structure. TreanorHL to study further.</p>	



ITEM	DISCUSSION	ACTION
	<ul style="list-style-type: none"> <li>c. Walking through concessions is the only way to the gym lobby from the rest of the school. Access to the gym lobby needs to be maintained but can be improved.</li> <li>d. With renovation of the shop, dust collection will need to be moved to the exterior. Previous planning had proposed taking the dust collection above the corridor out north of the building.</li> </ul>	
2)	Office with visibility into all rooms wanted.	
3)	Construction space/class <ul style="list-style-type: none"> <li>a. The wood shop in the school is utilized for small wood projects and not construction trade education which is done out at the field house.</li> <li>b. BHS has an arrangement with the City of Broomfield to construct houses (currently by the field house) to be transported to the final site. These are ~700SF. Tiny homes on trailers have been problematic for other schools since the trailers are difficult to procure.</li> <li>c. If there was a way to accommodate the construction of houses in the shop that'd be optimal, but difficult with existing conditions. The goal with this move would be to bring the construction and wood working classes into one space.</li> <li>d. A vented paint spray booth/finish room is needed</li> <li>e. Currently construction class occurs in the field house and construction tools are stored in Conex containers by the field house.</li> <li>f. There are 3 periods of wood shop classes.</li> </ul>	
4)	Energy and HVAC rooms <ul style="list-style-type: none"> <li>a. Concern was expressed about having spaces that are catered to programs that the school does not have staff to teach or may not have staff to teach in the future. Flexibility will be key to ensure that the spaces can meet current class needs while also looking forward to how CTE pathways may adapt over time.</li> <li>b. While there was interest in the HVAC skid example shown, budget and specialized teacher knowledge probably does not make this feasible as a full-time use. However, the group felt that it may be more applicable if something like this was purchased at the District level and rotated between schools. More likely solution at this time is to provide hook up for a potential future setup to be brought in.</li> <li>c. The Design room would include computer stations for digital design.</li> <li>d. The group worked to define what the "Energy" room would be to meet current and future needs. Current needs would be a classroom for construction classes and a flex classroom for PE classrooms. Future uses mentioned would be another computer-oriented room, potential robotics, or lab for HVAC/energy.</li> <li>e. Staff mentioned the idea of occasionally bringing in technicians to teach a class (this could occur in the Energy room).</li> </ul>	
5)	Extending the construction corridor to connect to the existing gym corridor to the north would help with circulation. Existing columns and roof drain leaders needed to be addressed for this to occur.	



ITEM	DISCUSSION	ACTION
1.10	<p>Zone 4: Culinary</p> <p>A. Big ideas from DAT #1 reviewed: In general, the existing space works well although it could use some minor tweaks and general maintenance of finishes. However, the Pro-Start students are disadvantaged when it comes to competitions with not having commercial stations available. The presented plan addresses the goal of strengthening the Pro-Start program by having a mix of residential and commercial stations within the culinary room.</p> <p>B. Since DAT 1, the kitchen design consultant visited the site to review the classroom and met with staff to discuss potential options which are reflected on the concept plan.</p> <p>C. Comments on Plan:</p> <ol style="list-style-type: none"> <li>1) The overall plan diagram was liked by the staff.</li> <li>2) Elimination of the demo station in the classroom is a huge improvement.</li> <li>3) Assume 35 students per class. The mix of three commercial and four residential stations is good.</li> <li>4) A permanent camera set-up above the demo station is wanted.</li> <li>5) The approximately 14 SF reduction in storage area is probably ok if staff can eliminate miscellaneous equipment being stored (with the moving from catering to culinary, there is space catering supplies). Ghita to help facilitate getting good-condition supplies to a new home. Items in poor condition to be thrown-out.</li> <li>6) Future refinement of the design would address some of the details such as where the washer/dryer and fridges relocate to with the addition of the three-compartment sink and the pantry relocation.</li> <li>7) TreanorHL noted that this improved setup couldn't achieve licensing from the health department since there is a blend of residential and commercial equipment. (i.e. food can not be prepared in this space and sold)</li> </ol>	
1.11	<p>Next steps:</p> <p>A. TreanorHL will put together the schematic design package. Pricing on this package will help determine what scopes/zones the team will fully-achieve, partially-achieve, or need to be an add-alternate. Future discussion of school priorities to happen as needed.</p> <p>B. TreanorHL will provide updated drawings based on DAT 2 comments and send them to the DAT for commenting via email.</p> <p>C. TreanorHL will regroup with specific groups once school is back in session to further refine the design of individual spaces.</p>	

## END OF MEETING MINUTES

*The contents of these minutes are assumed to be correct unless TreanorHL is notified, in writing, of any additions, corrections, or deletions within three (3) calendar days of receipt.*



# TREANORHL

## MEETING SIGN-IN

PROJECT: BVSD-Broomfield High School

PROJECT NO.: ED0281.2301

OWNER PROJECT NO.:

LOCATION: Broomfield HS

DATE: May 22, 2023

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## MEETING SIGN-IN

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22. STEPHEN HENRY	BUSD BOND PM	
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Broomfield High School

**DESIGN ADVISORY  
TEAM MEETING #2**



- 
- **WELCOME BACK**
  - **QUICK REVIEW OF DAT #1**
  - **SUSTAINABILITY GUIDELINES**
  - **WHAT WE HEARD & DESIGN DISCUSSION**
  - **NEXT STEPS**



## **AGENDA**

- 
- **BOND CRITICAL NEEDS LIST AND COMMUNICATIONS**
  - **CORE VALUES**
  - **THE DESIGN PROCESS**

**DAT #1 QUESTIONS OR COMMENTS**



**DAT #1 REVIEW**



# Sustainability Guidelines

<https://bond.bvsd.org/green-building>

## Green Building



### Overview

BVSD has made an organizational commitment to sustainability through policy and our [Sustainability Action Plan](#). Goals set in the Action Plan establish measurable benchmarks for our efforts to protect student and staff health; conserve energy, water, and other natural resources; and reduce waste, pollution, and environmental degradation. The [work described in the 2022 Critical Needs Plan](#) will continue to support these goals through the design and operation of our school buildings.

To support our design partners to help us build more innovative and sustainable schools, we've developed [Green Building Guiding Principles](#) and updated our technical specifications to reflect our sustainability values. New construction will use the LEED rating system to guide design and strive to achieve a gold standard.

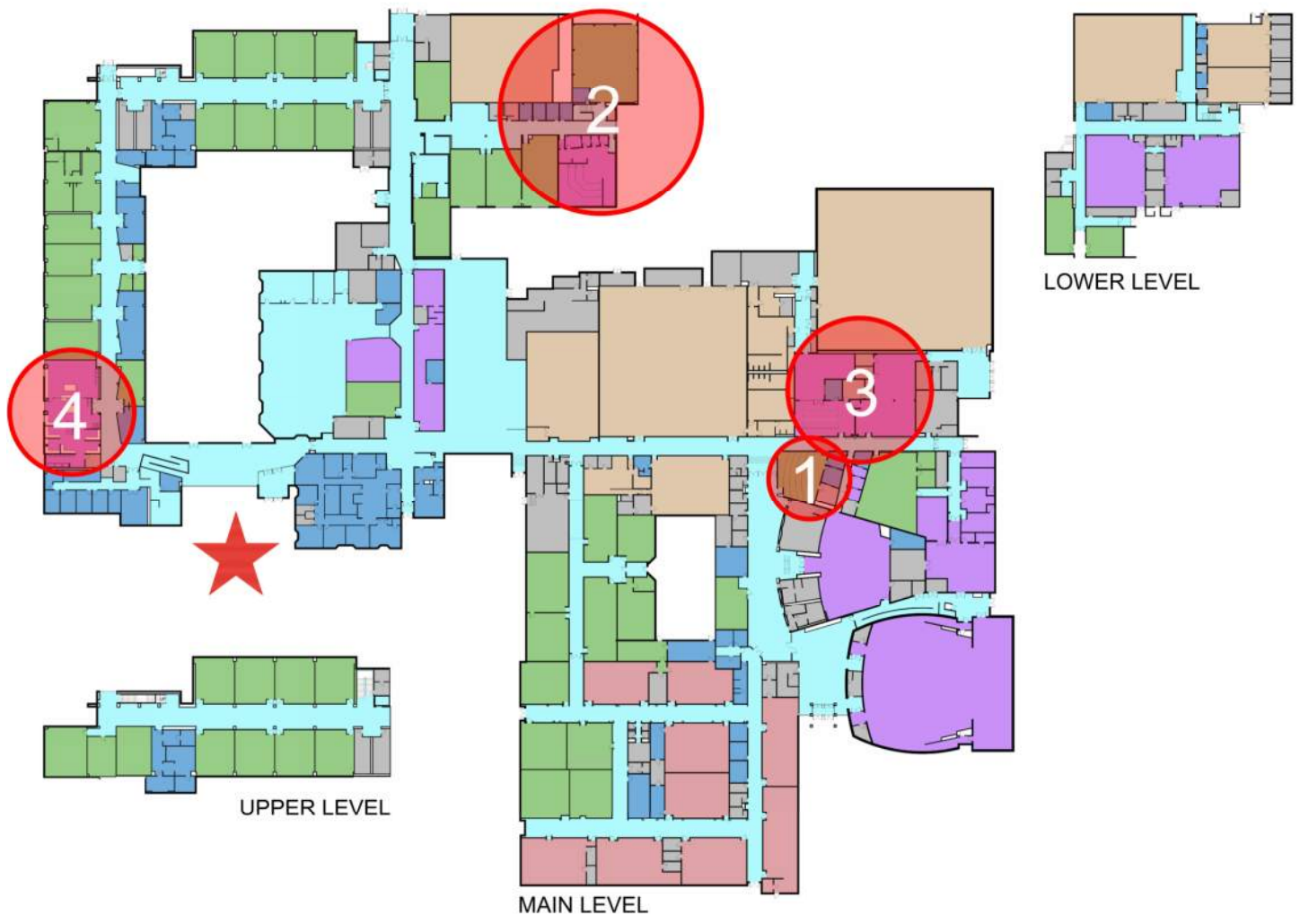
#### RELATED RESOURCES

- [Green Building Guiding Principles](#)
- [Sustainability Action Plan](#)
- [Sustainable Energy Plan](#)
- [greenBVSD Webpage](#)
- [BVSD Energy Website](#)



## SUSTAINABILITY GUIDELINES

TREANOR<sup>HL</sup>



# OVERALL FLOOR PLAN

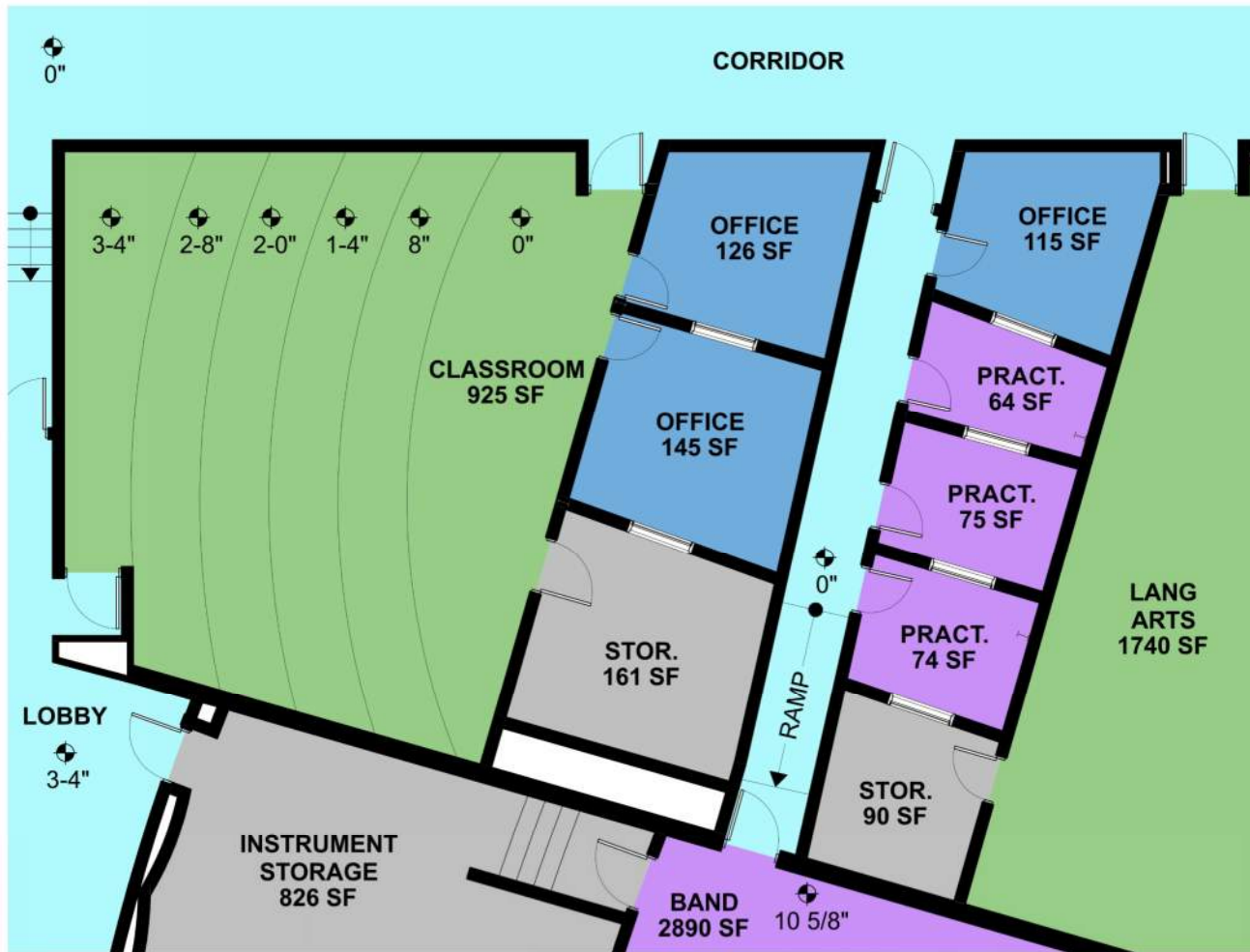
# EXISTING CTE PROGRAMMING AT BROOMFIELD HIGH SCHOOL

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- Business
- Arts, Audio Visual Technology,  
and Communications
- Family Consumer Science
- TeacherCadet
- Construction
- Energy



**EXISTING CTE PROGRAMMING**

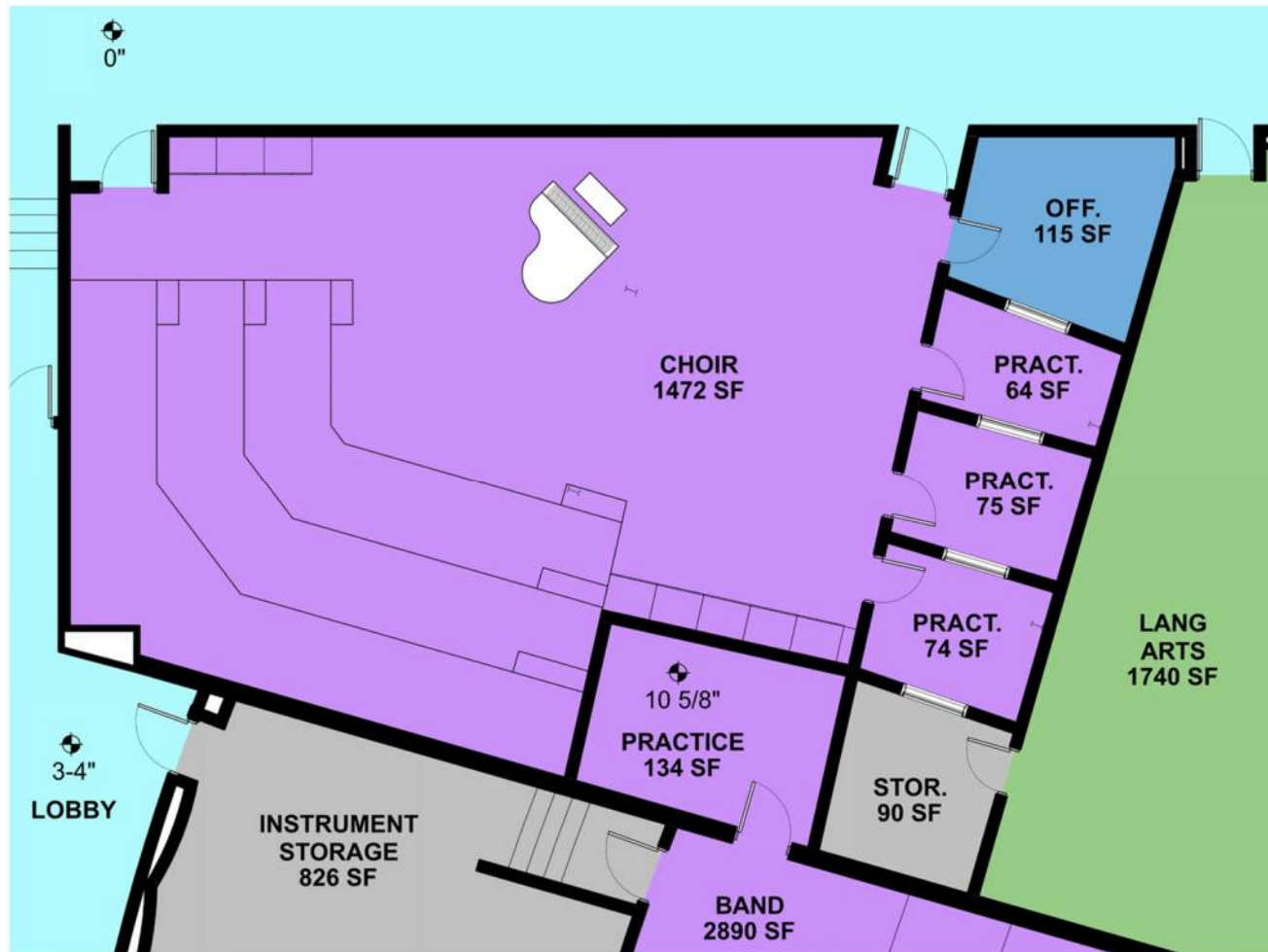






## ZONE 1 - EXISTING



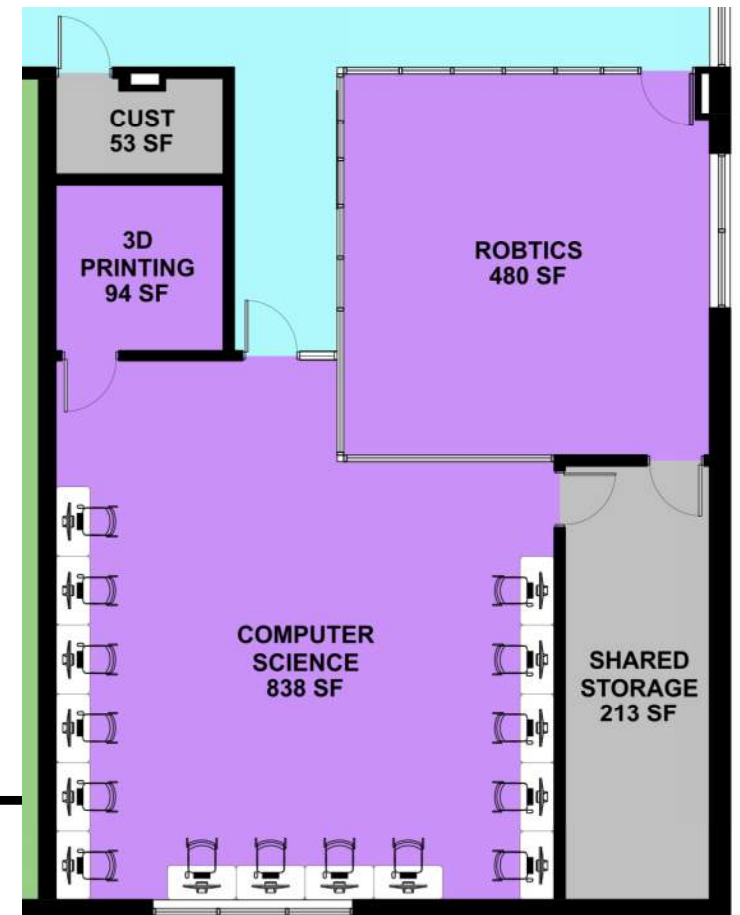
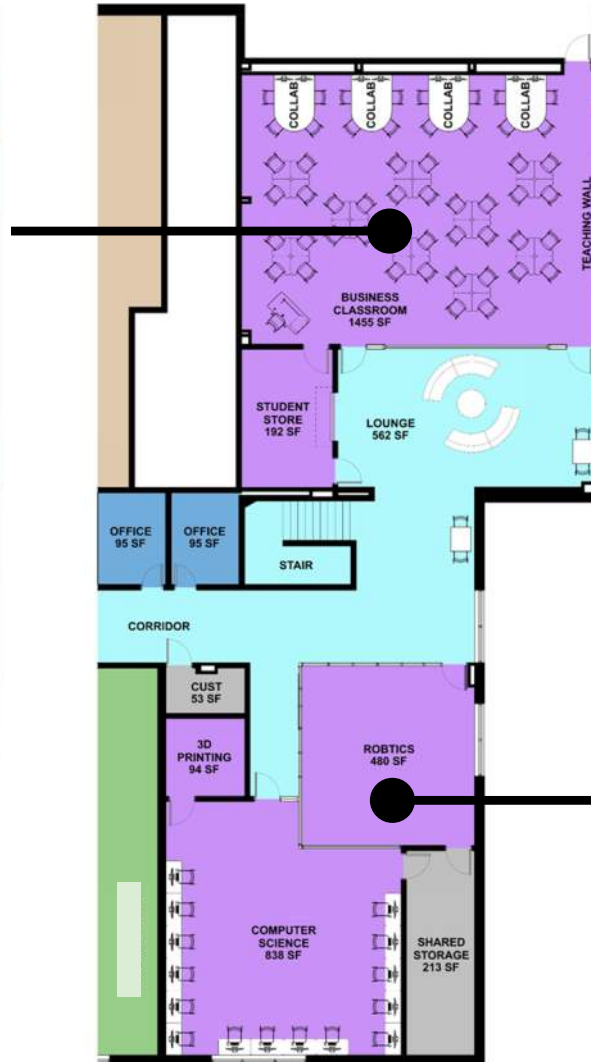
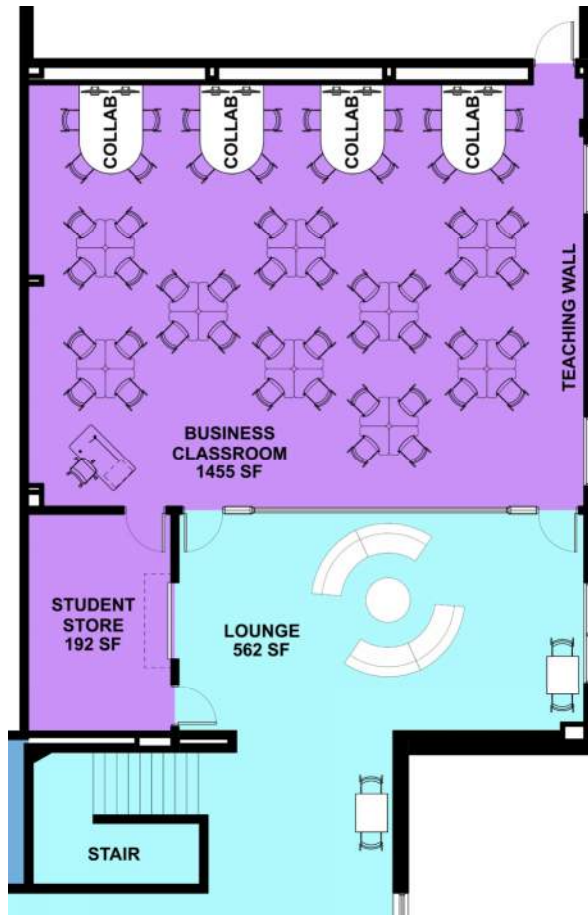




## ZONE 2 - EXISTING



## ZONE 2 - CONCEPT

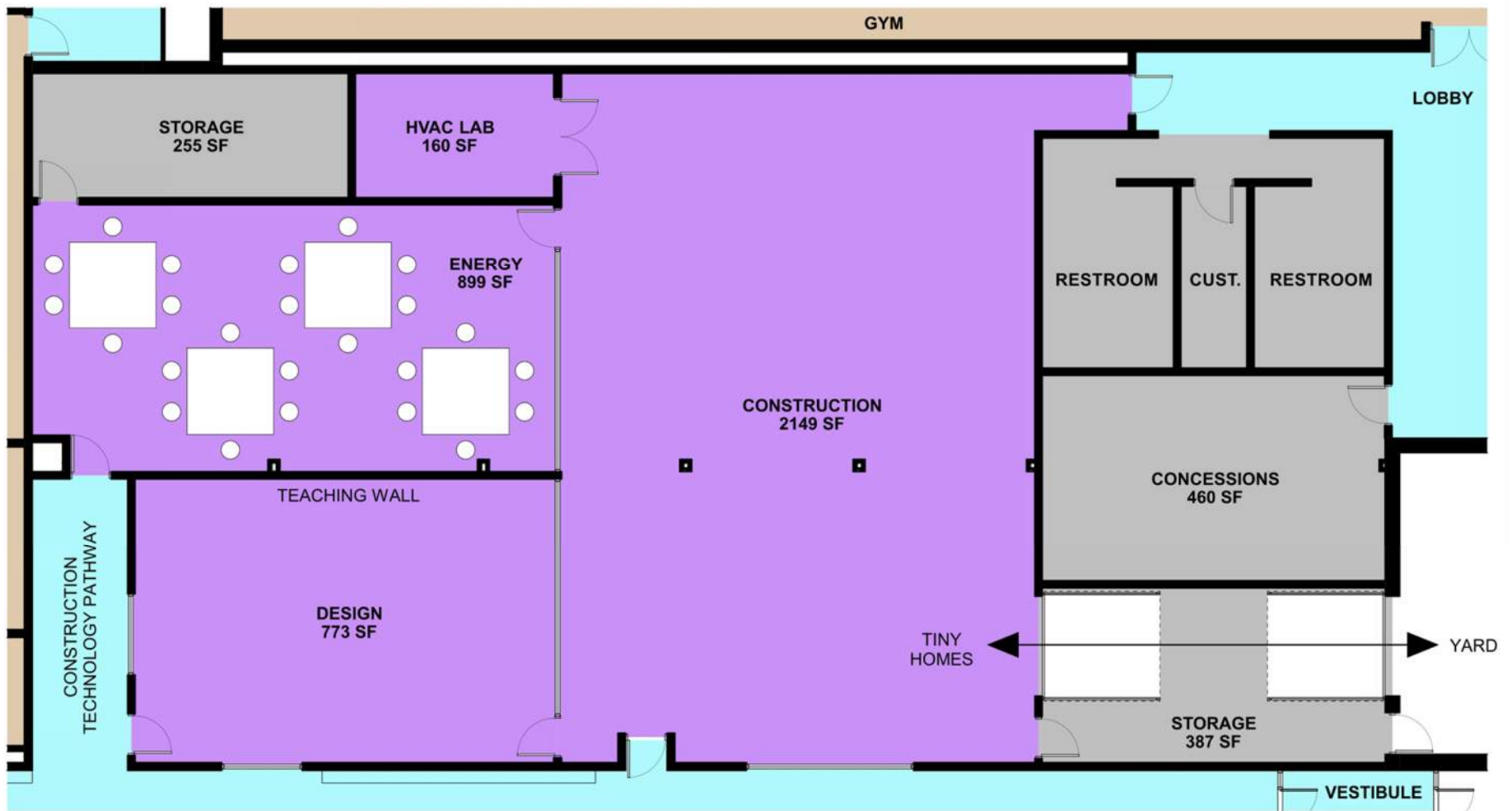


## ZONE 2 - CONCEPT





## ZONE 3 - EXISTING



## ZONE 3 - CONCEPT





## ZONE 3 – HVAC SKID

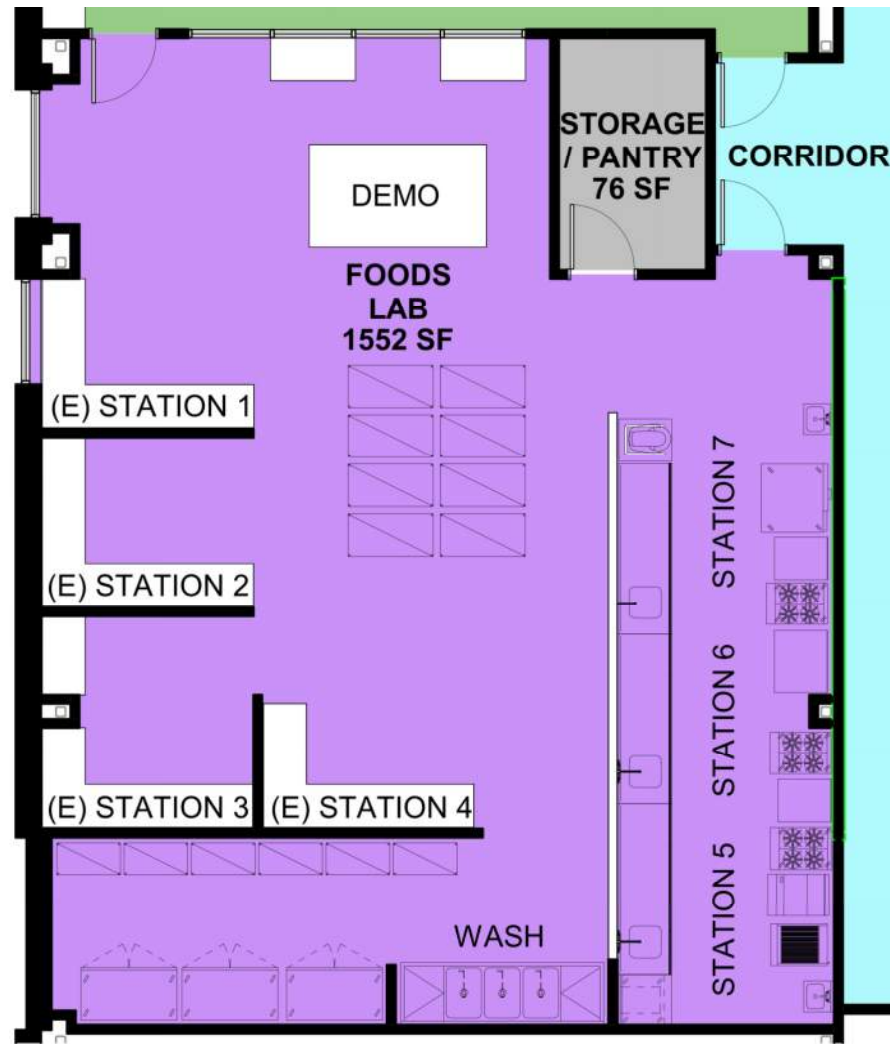


**ZONE 4 - EXISTING**





**ZONE 4 - CONCEPT**



**ZONE 4 - CONCEPT**



- **BUILDING SITE VISITS (MAY)**
- **DISTRICT WIDE CTE MASTER PLAN FINALIZED (MAY)**
- **GENERAL CONTRACTOR SELECTION (MAY/JUNE)**
- **SCHEMATIC DESIGN COMPLETION (JUNE)**
- **SCHEMATIC COST ESTIMATE**
- **REGROUP WITH THE DAT IN AUGUST**



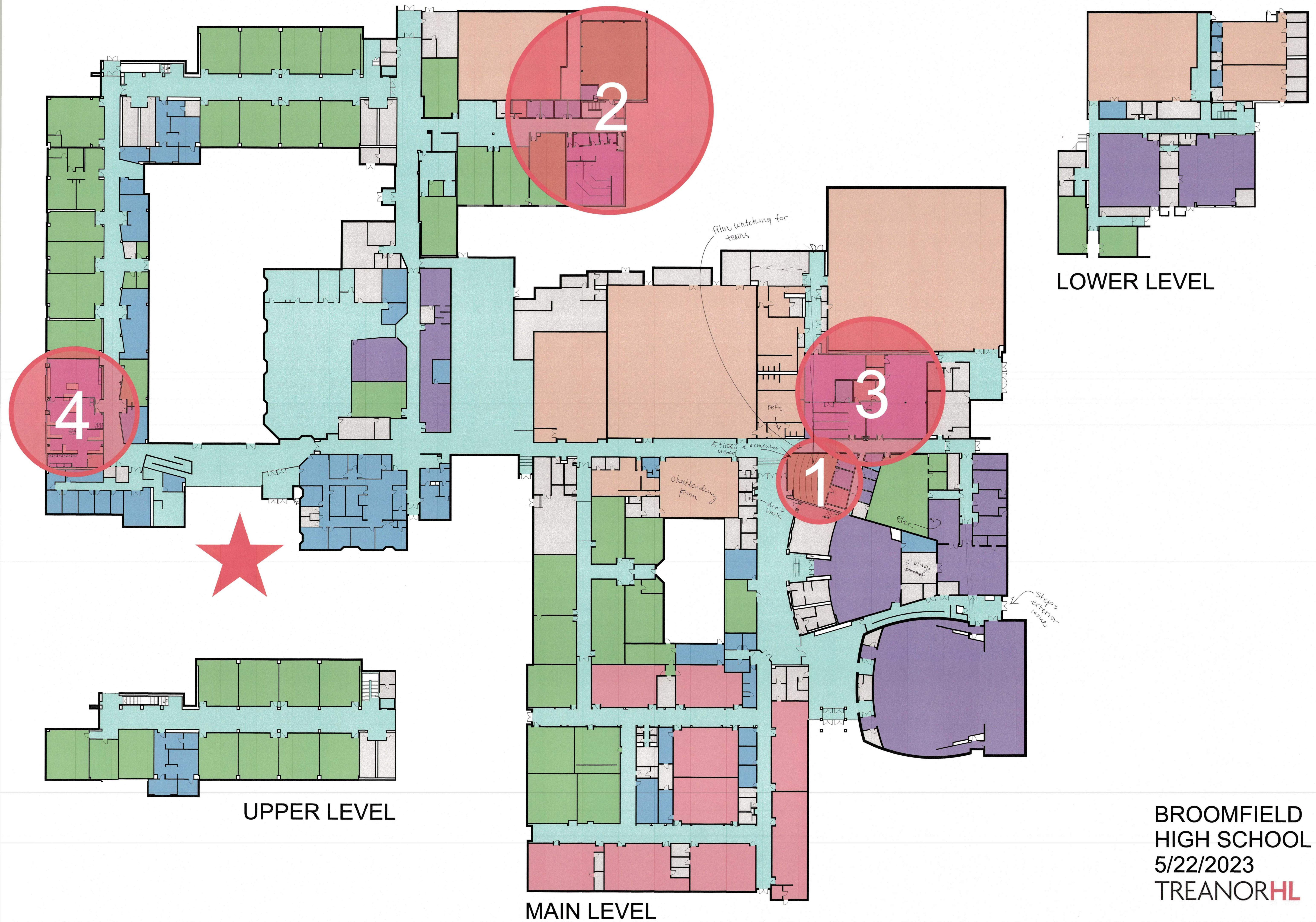
**NEXT STEPS**





**SITE**







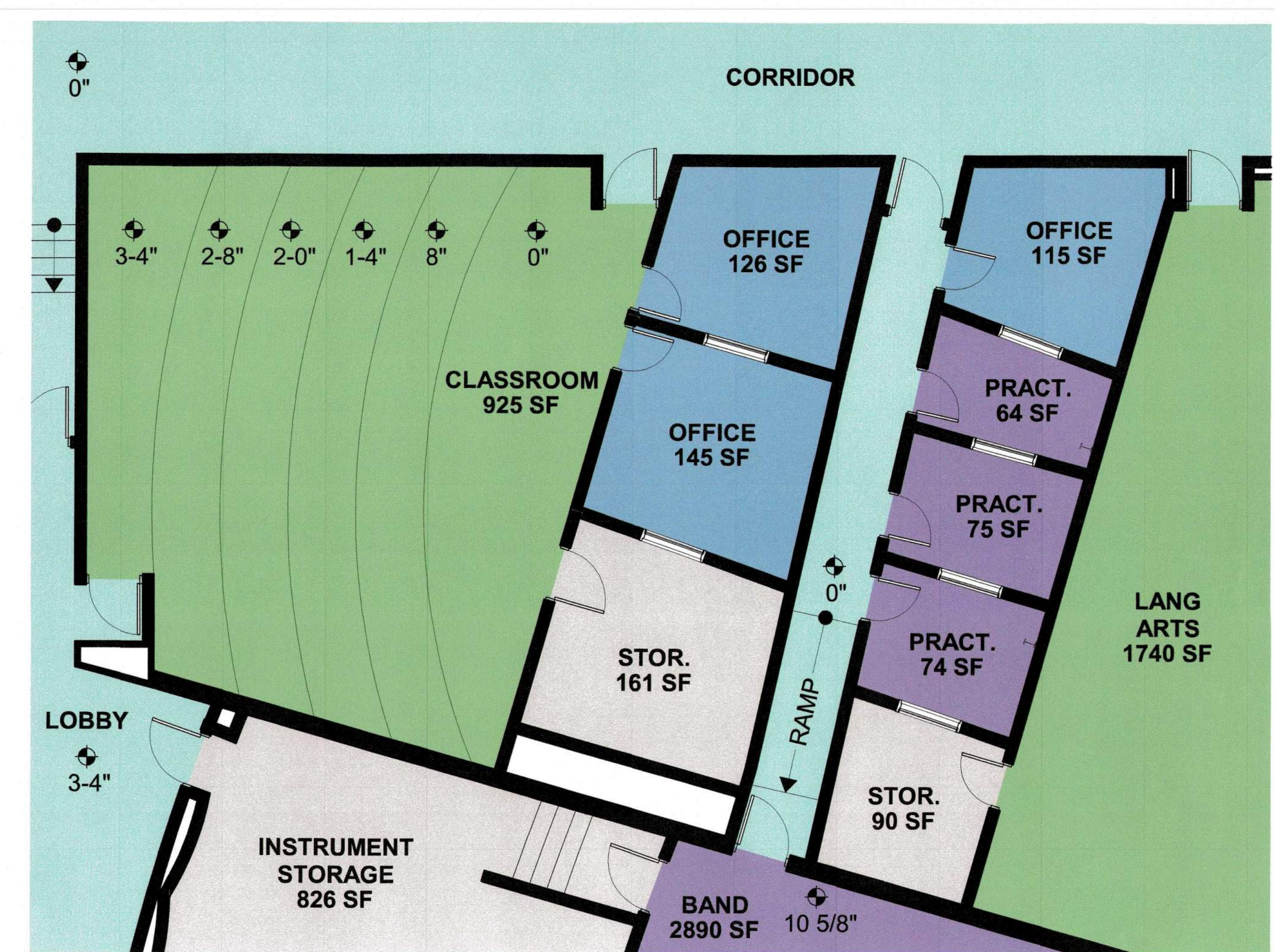


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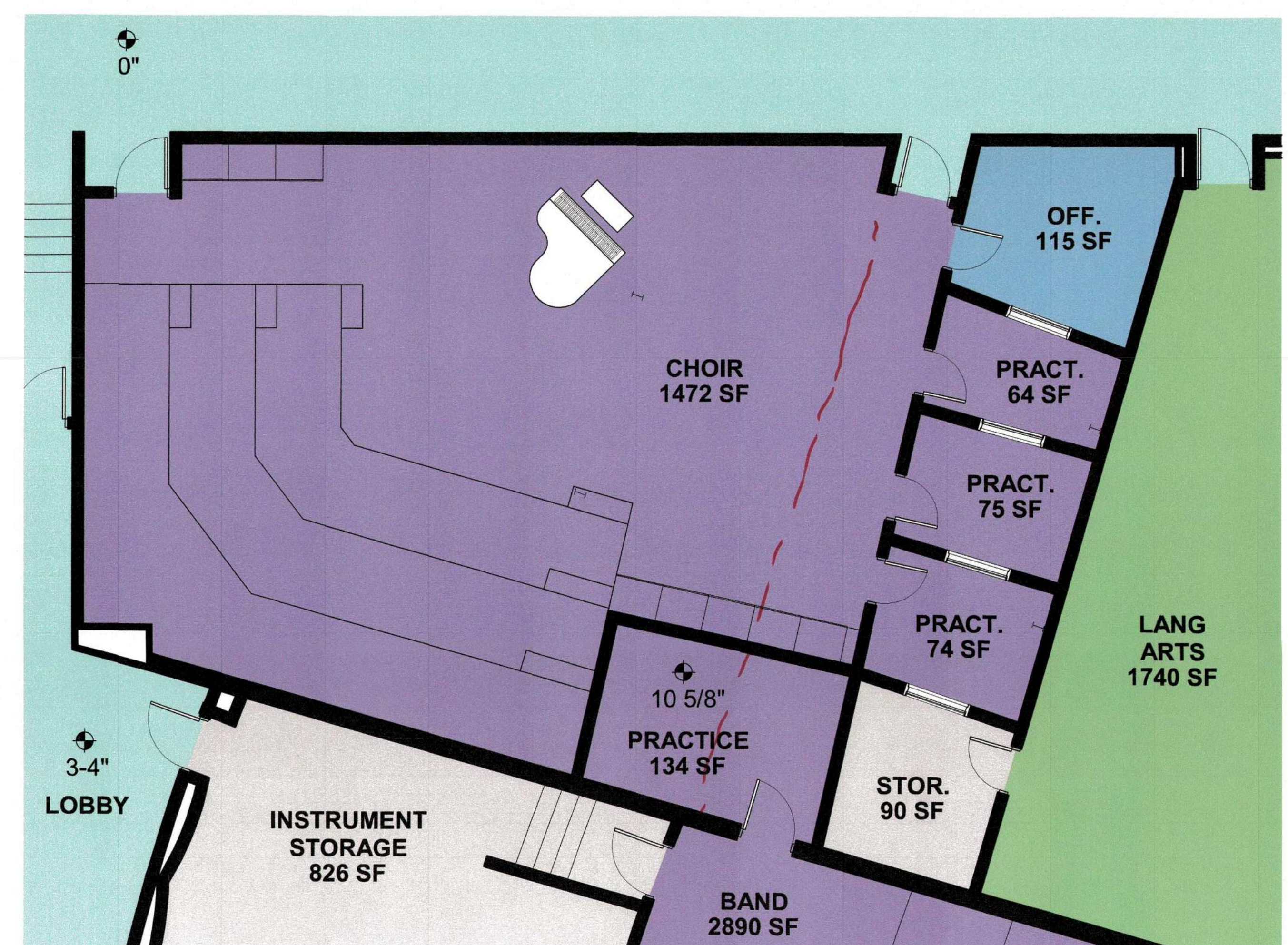


CONCEPT

## ZONE 2



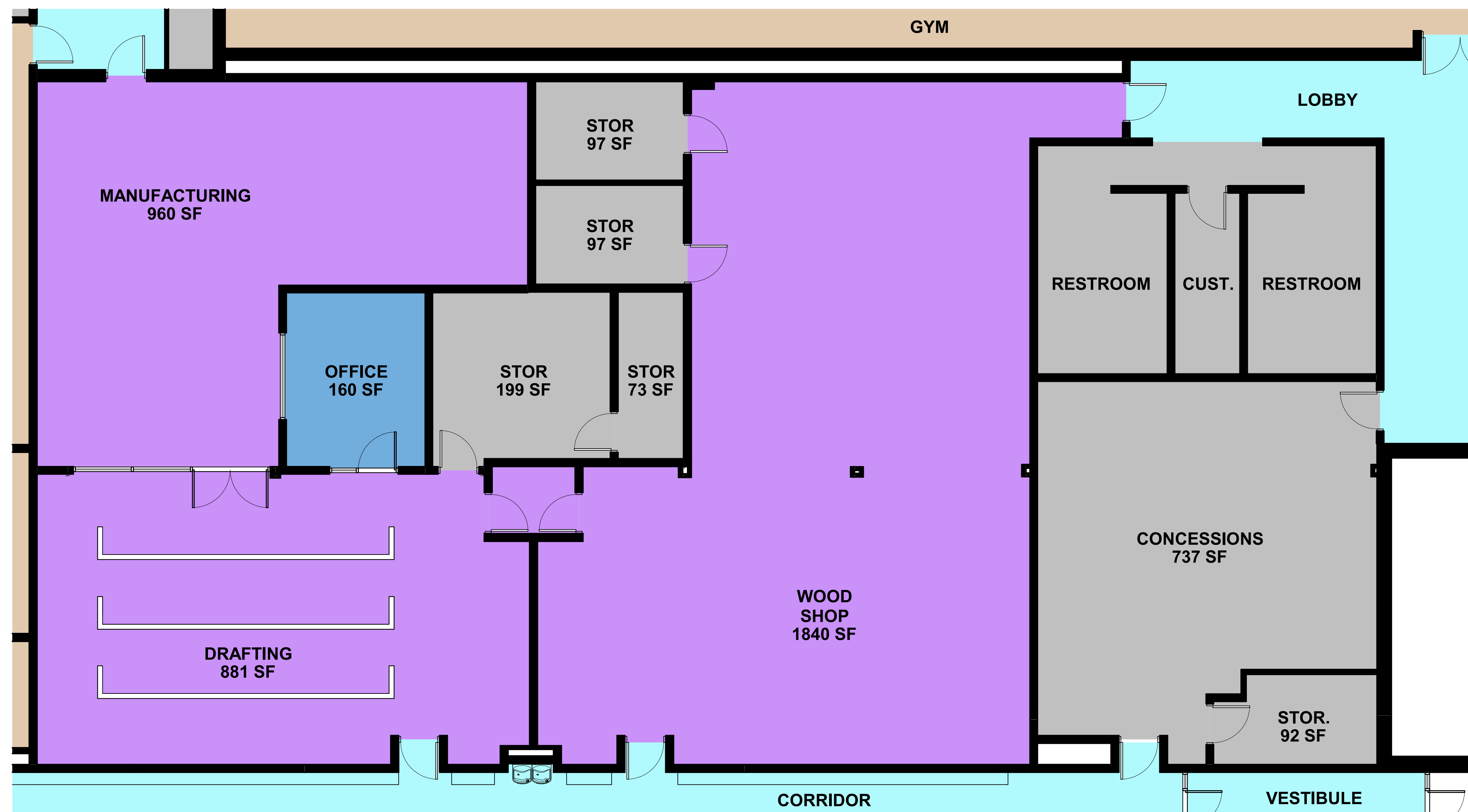
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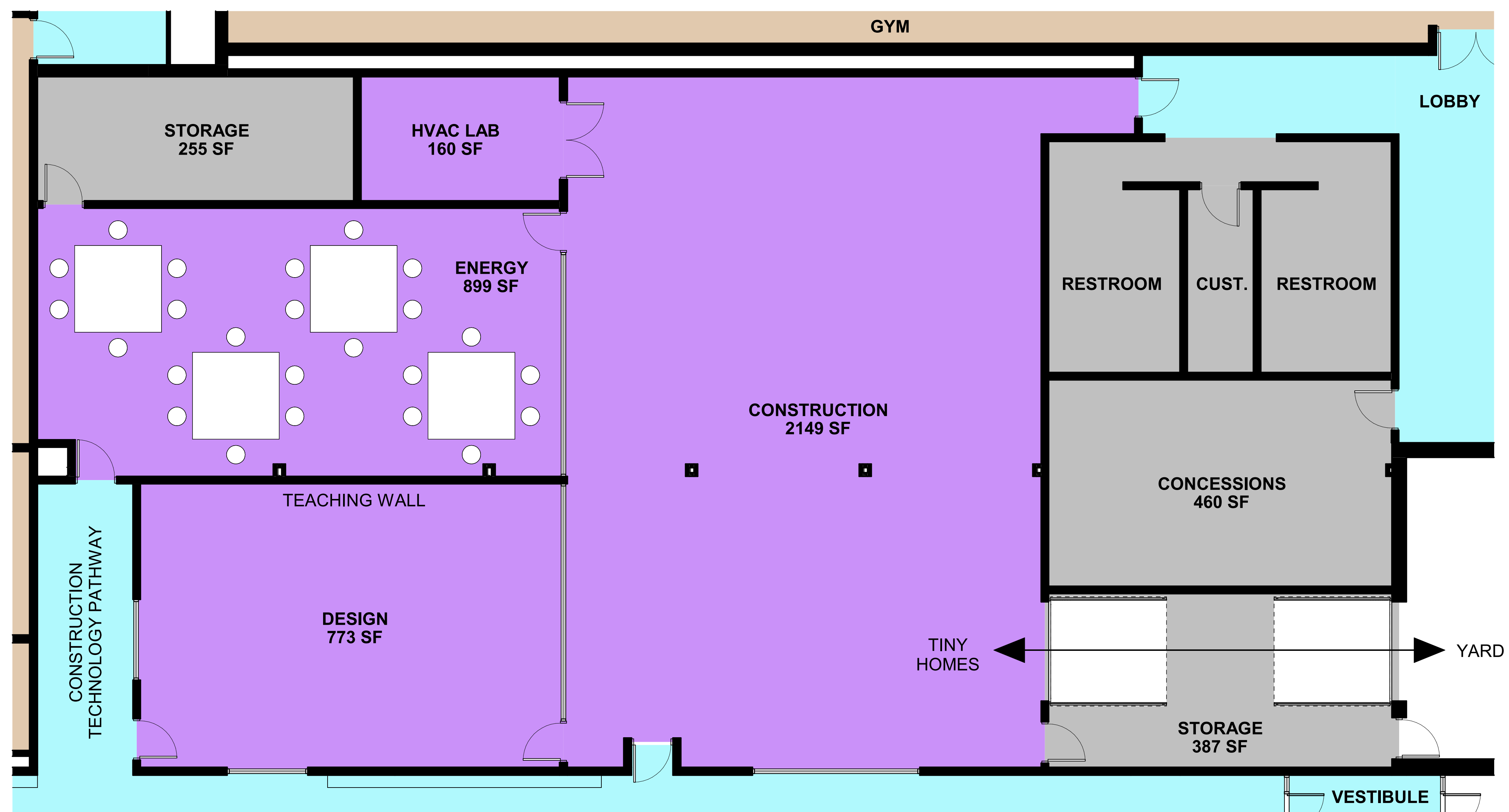
CONCEPT

## ZONE 1



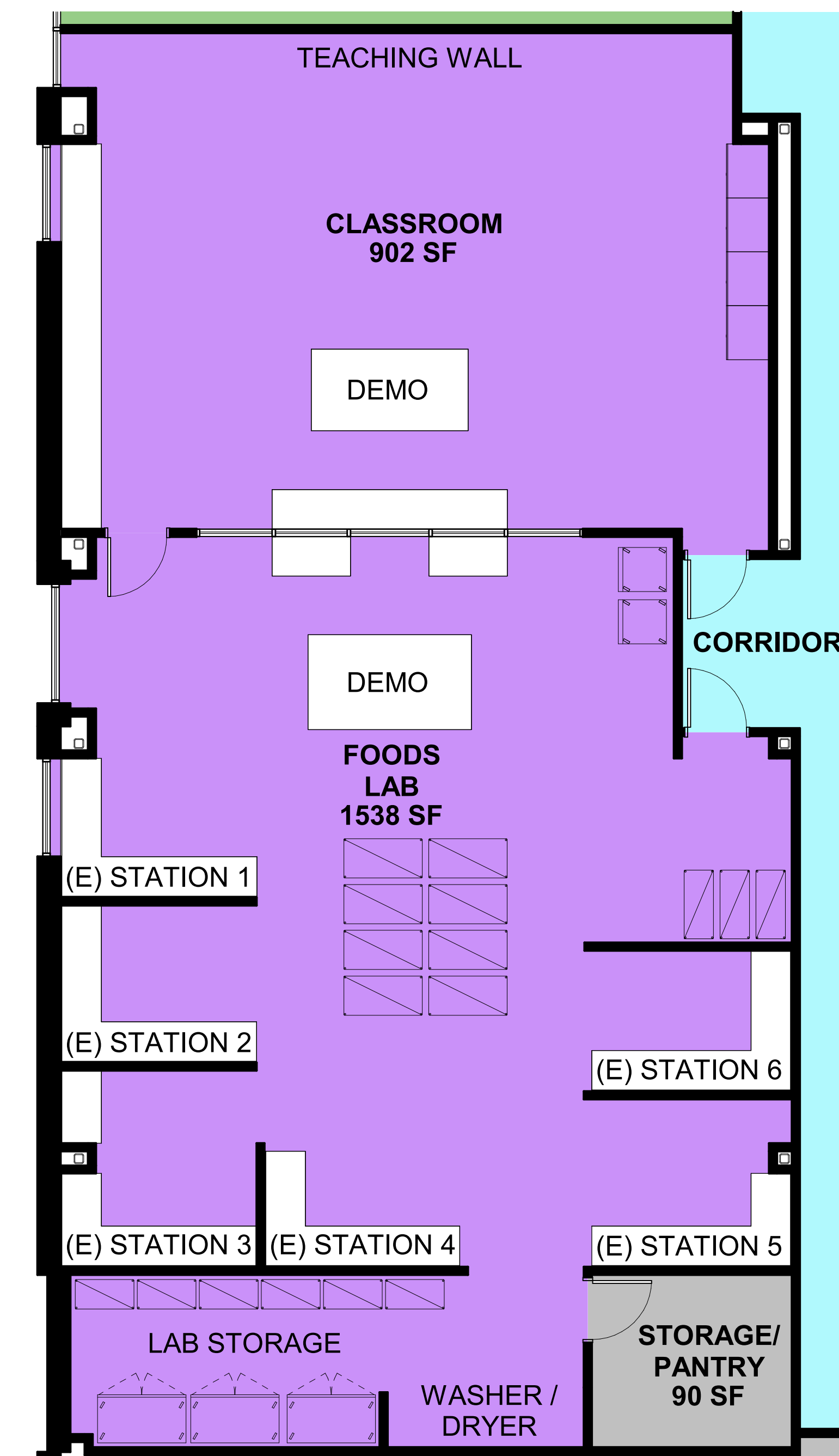


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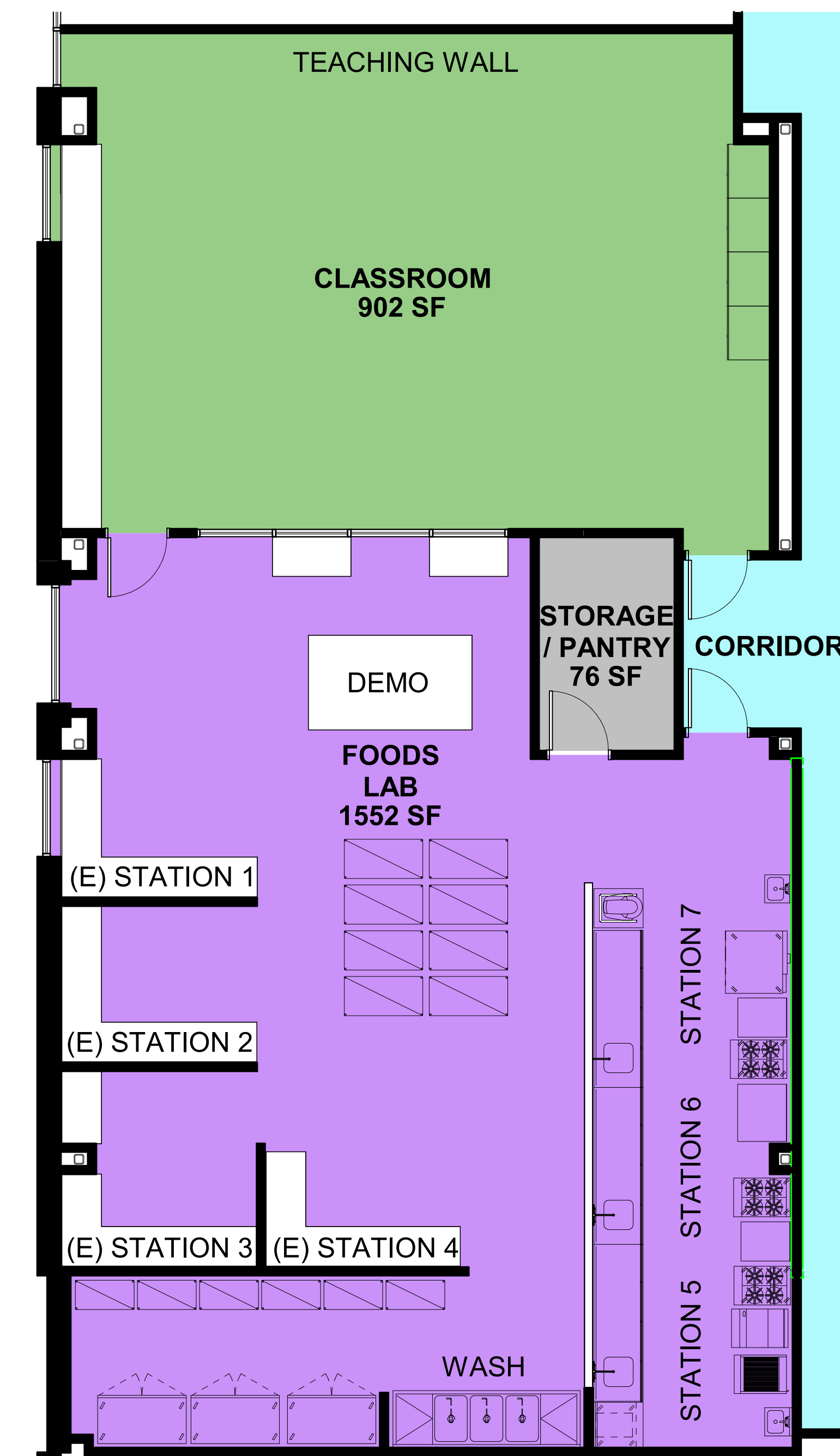


CONCEPT

ZONE 3



EXISTING



CONCEPT

BROOMFIELD  
HIGH SCHOOL  
5/22/2023  
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