

W UNIVERSITY of WASHINGTON





CITY OF TACOMA

INNOVATION LABORATORY

UNIVERSITY OF WASHINGTON TACOMA

TWRT 350 PRINCIPLES OF USER CENTERED DESIGN

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LIVABLE CITY YEAR 2017–2018 IN PARTNERSHIP WITH CITY OF TACOMA





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ACKNOWLEDGMENTS

We would like to thank the Tacoma Municipal Building staff and the City of Tacoma for allowing us to design an office space specifically centered around their desires and work needs, through the process of user-centered design. It was a pleasure putting into action a combination of functional design, technical writing, and critical thinking skills. A big thank you to Chris Bell for helping to coordinate the meet-ups and allowing our teams into the space for observance and research studies. As a part of our research, it was crucial that we tested the design to make sure the layout was practical and functional. A special thanks to Jodi Davila and Angie Ballard for participating in our usability testing study, who helped finetune details towards the end of the design. Another shoutout to our classmate participants who helped us along the way through critique and praise of the iterative design process. Lastly, we are so grateful to the employees of the Tacoma Municipal Building for participating in multiple surveys that help us compile research on the function and dysfunction of the breakroom. Without you all, this project could not have been possible.

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ABOUT LIVABLE CITY YEAR ABOUT TACOMA TACOMA 2025 STRATEGIC PLAN **EXECUTIVE SUMMARY** INTRODUCTION **METHODS RESEARCH: INTERVIEWS AND SURVEYS** FINDINGS **DESIGN OPTIONS** CONCLUSION REFERENCES **APPENDICES**

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TABLE OF CONTENTS

ABOUT LIVABLE CITY YEAR

The University of Washington's Livable City Year (LCY) initiative enables local governments to engage UW faculty and students for one academic year to work on city-defined projects that promote local sustainability and livability goals. The program engages hundreds of students each year in high-priority projects, creating momentum on real-world challenges while enabling the students to serve and learn from communities. Partner cities benefit directly from bold and applied ideas that propel fresh thinking, improve livability for residents and invigorate city staff. Focus areas include environmental sustainability; economic viability; population health; and social equity, inclusion, and access. The program's 2017–2018 partner is the City of Tacoma; this follows a partnership with the City of Auburn in 2016–2017.

The LCY program is led by faculty directors Branden Born (Department of Urban Design and Planning), Jennifer Otten (School of Public Health) and Anne Taufen (Urban Studies Program, UW Tacoma), with support from Program Manager Teri Thomson Randall. The program was launched in 2016 in collaboration with UW Sustainability and Urban@UW, with foundational support from the Association of Washington Cities, the College of Built Environments, the Department of Urban Design and Planning, and Undergraduate Academic Affairs.

LCY is modeled after the University of Oregon's Sustainable City Year Program, and is a member of the Educational Partnerships for Innovation in Communities Network (EPIC-N), the collection of institutions that have successfully adopted this new model for community innovation and change.

For more information, contact the program at uwlcy@uw.edu.



ABOUT TACOMA

The third largest city in the state of Washington, Tacoma is a diverse, progressive, international gateway to the Pacific Rim. The port city of nearly 210,000 people has evolved considerably over the last two decades, propelled by significant development including the University of Washington Tacoma, the Tacoma Link light rail system, the restored urban waterfront of the Thea Foss Waterway, the expansions of both the MultiCare and CHI Franciscan health systems, and a significant influx of foreign direct investment in its downtown core.

Washington State's highest density of art and history museums are found in Tacoma, which is home to a flourishing creative community of writers, artists, musicians, photographers, filmmakers, chefs, entrepreneurs, and business owners who each add their unique flair to the city's vibrant commercial landscape. The iconic Tacoma Dome has endured as a high-demand venue for some of the largest names in the entertainment industry.

A magnet for families looking for affordable single-family homes in the Puget Sound area, Tacoma also draws those seeking a more urban downtown setting with competitively priced condos and apartments that feature panoramic mountain and water views. The city's natural beauty and proximity to the Puget Sound and Mount Rainier draws hikers, runners, bicyclists, and maritime enthusiasts to the area, while its lively social scene is infused with energy by thousands of students attending the University of Washington Tacoma and other academic institutions.

The City of Tacoma's strategic plan, Tacoma 2025, was adopted in January 2015 following unprecedented public participation and contribution. The plan articulates the City's core values of opportunity, equity, partnerships, and accountability, and expresses the City's deep commitment to apply these values in all of its decisions and programming. Each Livable City Year project ties into the principles and focus areas of this strategic plan. The City of Tacoma is proud of its 2017–2018 Livable City Year partnership with the University of Washington and of the opportunity this brings to its residents.



TACOMA 2025 STRATEGIC PLAN

The Innovation Laboratory project supports the Economy and Workforce goal of the Tacoma 2025 Strategic Plan and was sponsored by the City's Planning and Development Services Department.



Goal #1 Livability

The City of Tacoma will be a city of choice in the region known for connected neighborhoods, accessible and efficient transportation transit options, and vibrant arts and culture. Residents will be healthy and have access to services and community amenities while maintaining affordability.



Goal #2 Economy and Workforce

By 2025, Tacoma will be a growing economy where Tacoma residents can find livable wage jobs in key industry areas. Tacoma will be a place of choice for employers, professionals, and new graduates.

Goal #3 Education

Tacoma will lead the region in educational attainment amongst youth and adults. In addition to producing more graduates from high school and college, more college graduates will find employment in the region. Lifelong learning and access to education will be prioritized and valued.

Goal #4 Civic Engagement

Tacoma residents will be engaged participants in making Tacoma a well-run city. The leadership of the city, both elected and volunteer, will reflect the diversity of the city and residents and will fully participate in community decision-making.

Goal #5 Equity and Accessibility

Tacoma will ensure that all residents are treated equitably and have access to services, facilities, and financial stability. Disaggregated data will be used to make decisions, direct funding, and develop strategies to address disparate outcomes.





RESOURCES

Tacoma 2025 Strategic Plan: https://www.cityoftacoma.org/tacoma_2025

https://www.cityoftacoma.org/government/city_departments/community_ and_economic_development

Livable City Year: https://www.washington.edu/livable-city-year/

University of Washington School of Interdisciplinary Arts and Sciences: Culture, Arts and Communication Division: https://www.tacoma.uw.edu/sias/cac

Department of Planning and Development Services Department:

As a part of the course "Principle of User-Centered Design," two student groups re-designed a break room on the seventh floor of the Tacoma Municipal Building (TMB). The groups applied user-centered design to create a breakroom tailored to the needs of the employees at the TMB, with a focus on elements that promote collaboration and increase employee productivity.

To assess the current state of the room, groups conducted a set of surveys and interviews, implemented usability testing, and drafted multiple layouts a part of the iterative design process. The concept of a biophilic design emerged as a guiding principle, and was heavily implemented in Design Option One. Both teams discovered how critical a room's aesthetic is, and how it can impact employee productivity and happiness. Over the course of ten weeks, each group finalized the room design and completed a final presentation. This report is a condensed version of this iterative process.

The groups applied user-centered design to create a breakroom tailored to the needs of the employees at the TMB, with a focus on elements that promote collaboration and increase employee productivity.

What is biophillic design?

Biophillic design incorporates elements of nature into the built environment. It draws from the theory of biologist E.O. Wilson, who posited that humans naturally gravitate toward connection with nature and other forms of life.





Left: The initial version of the layout was cluttered with tables that made the space hard to move around in. LCY STUDENT TEAM *Right: The space originally featured an outdated diveder that blocked off the majority of the room.* LCY STUDENT TEAM

SCOPE OF WORK

City of Tacoma requested two renovation designs for the seventh-floor break room in the Tacoma Municipal Building (TMB). The space was underutilized, but it also offered an opportunity: the City hoped the redesign would result in a lounge space that fosters collaboration and embodies the City's values. They also hoped to maximize the room's capacity to accommodate participants at the City's annual wellness events. Guided by the City's perspective, we applied a user-centered design process to create an inviting space that would increase productivity and bolster employee wellbeing. The final room redesign layout and accompanying budget will be proposed to City of Tacoma.

Our team sought to create a functional multi-purpose design that would improve the productivity and wellbeing of the TMB employees.



BACKGROUND INFORMATION

The goal of the room redesign was to engage employees and encourage them to use the under-utilized space. Both groups embraced a usercentered design (UCD) approach. User-centered design is grounded in the needs of stakeholders. Research and analysis guides the iterative design process . Using this approach, we positioned employees as the target audience and gave them design influence through surveys and interview sessions. We balanced their preferences with the functional needs of the room: to be a space for lunch, collaborative group work, and a semi-annual wellness event. In short, the City sought a space that would encompass a variety of needs, which our design method was able to meet.

PROJECT IMPACT

Our team sought to create a functional multi-purpose design that would improve the productivity and wellbeing of the TMB employees. Our research indicated that employee productivity would benefit from sunlight and natural elements, as these components reduce stress and even boost job satisfaction. (See Appendix C).

We also sought to harness the redesign to reduce stress in the TMB, as "workplace interpersonal stress [is] positively associated with unproductivity, psychological distress, and physical illness symptoms" (Toussaint 2018). The current space failed to facilitate an environment that would combat these issues.

Our research also indicated that a biophilic design would increase employee productivity – and, as a result, increase employee happiness and wellbeing. Guided by this research, we created a design that caters to the interconnected needs of employees.

Natural elements and sunlight exposure relate positively to job satisfaction and organizational commitment.

USER-CENTERED DESIGN

Our approach mirrored the class objective: to apply user-centered design to redesign the break room at TMB. We:

- Organized a stakeholder meeting to understand the current limitations and future goals of the space
- Developed character personas to learn more about the needs of users
- **Conducted research** through surveys and interviews .
- Launched usability testing to ensure the room would meet its needs

Stakeholder Meeting and Field Study

Our design was primarily influenced by our background research and a usability test; this process gave us a strong foundation to create multiple design iterations. It was important to use this method to create a space with the user in mind. This allowed us to ensure a successful design outcome and achieve the City's goals.

Our team first met with the project lead and TMB employee Chris Bell. During this meeting, we discussed why the project was timely and what it was trying to solve. We also replicated a mock stakeholder interview with Chris, which is the first step in user-centered design. This was our opportunity to ask questions and get an idea of what the outcome of our design should look like. It also prepared us for the next step of usercentered design: to create fictional personas that embody our target audience.

Personas

To consider the unique wants and needs of all employees, we created three unique personas. This approach is grounded in user-centered design (see Appendix A). We labeled the fictional persona as either a:

- Non-user (wallflower)
- Frequent user (social butterfly)
- Occasional user



Wallflower



Social butterfly



Occasional user





Bio

Finn is always crunching numbers and he often eats lunch right at his desk. As one of Tacoma's financial advisers, he is sending emails and using his computer daily. Finn would like to escape his cubical from time to time, but the current 7th floor break room is not much of an improvement. The atmosphere is sterile and the furniture is worse than his office chair. It also can be a challenging to find a work space that is technology friendly and allows for multiple people to use a table. Finn feels that he is more productive at his desk, but is constrained when he needs a larger space to allow his coworkers to consult on his work. As a result, he works solo most days, but would love the chance to talk with his coworkers face to face.



Work: Financial Advisor, at the Tacoma Municipal Building Family: Married with 3 kids Location: Puvallup, WA Character: Type B Personality

Age: 27

Values Functionality





This persona is a representation of someone who uses the space all the time. LCY STUDENT TEAM

9 | LIVABLE CITY YEAR

METHODS

Frustrations

- I need a space to wind down and get away from my desk
- My current office space feels claustrophobic.
- The current break room is not functional enough for me.

Feelings About the Room



Ability to Enjoy Lunch

Social Environment

Stress

Goals

- Find a space to collaborate on group tasks.
- Get to know other coworkers on his floor.
- Have an escape from the computer screens and emails for 15 mins each day.

After creating user personas, our team conducted research and collected data to provide evidence for our design choices. During the initial drafting stage, we completed many interviews and conducted a large survey, which prepared us to launch usability testing. This approach to our research gave us an idea of the room's current usage – and how we could improve it.

INTERVIEWS

We interviewed 10 employees to get their perspective on the current state of the break room. We observed that half of the employees interviewed utilized the room as frequently as once or twice a month.

SURVEYS

Our survey consisted of 143 responses that reinforced claims and patterns in our survey results (see Appendix B for survey questions). The initial purpose of the survey was to collect data on the breakroom's current usage and to gather perspective on desired improvements.

To summarize on the key findings: The research reinforced our belief that the space would increase productivity if it followed the biophilic design and brought the outdoors inside.

USABILITY TESTING

While our team took a user-centered approach to our room designs, it was also important to apply usability testing to each design. To do this, we engaged two employees at the TMB. In the usability test, each participant was given three separate scenarios and shown the design to test its functionality and flexibility (see Appendix D for questions). We used a slightly unconventional usability testing process due to time and scheduling constraints, where we sent each employee a file containing question prompts and design imagery. The employee then sent back the feedback on the designs. Our changes were informed by these comments. This diverged from a traditional test, where a facilitator hands each participant a design and asks them to react to it.



Tacoma Municipality Building was added to the National Register of Historic Places in December 1978. CITY OF TACOMA

Both teams collectively embraced the same research methods – and this influenced each member's individual design for the TMB break room. Our findings from the interviews, survey, and usability tests are outlined below. Individuals also conducted additional research, including: a field study to observe how employees utilize the space, a literature review to compare the functionality of other office spaces, and an ethnographic study explores how color options impact the emotional wellbeing of employees. (See Appendix C for literature review.)

STAKEHOLDER MEETING AND FIELD VISIT

Our field analysis made it clear that only a few people were utilizing the TMB break room. While we lacked data to correlate low usage with the room's functionality, our interviews suggested that the space did not meet the needs of employees. Guided by this formative realization, we created our goal: to meet the needs of employees and create a space that would be well-used and valued by the TMB community.

INTERVIEWS

The TMB break room was most frequently used by four females, who met in the space during their lunch break. This established a user pattern that the room's most frequent users fit under the category of "social butterflies;" they used the space for meals and socialization. Our research also indicated that the design would be well-served to meet the needs of either wallflowers or people who didn't currently use the room. This is largely because the room's current design is outdated and does not provide functionality for TMB employees.

Interviews indicated that most employees wanted new furniture (9 out of 10 interviewees requested this updated) and desired more effective soundproofing (8 out of 10 interviewees commented on the noise from adjacent conference rooms).

SURVEYS

The survey data reinforced the our field observations about the underutilization of the TMB break room; 75% of employees chose to eat lunch at their desk daily.

Most surveyed employees reported that the room felt uninviting and inaccessible, with one employee noting: "It feels like a DMV. The chairs and tables are dingy and mismatched, there's no life to the room, and there are no comfortable chairs. There is nothing inviting about the space."



What Elements of Room Design Creates a Sense of Relaxation for You?



The graph is a sample of one of the guestions asked in the survey, which inspired the color scheme in both designs. LCY STUDENT TEAM



design options with plants and natural color schemes 84% of employees desired more comfortable seating to facilitate a more welcoming environment. We also observed consistent requests for biophilic design; 84% of respondents reported that natural elements would increase productivity, and 60% preferred design options that incorporated plants and a natural color scheme.

USABILITY TESTING

Usability testing uncovered critical design flaws, and this crucial step allowed us to remedy outstanding issues before producing our final draft. One employee, for example, admired the sliding doors in one design but noted it would be hard to host events if the conference doors were not movable. The same employee also indicated that a fridge would be too much maintenance and should be taken out altogether. Employees also noted that the seating areas could be used to host lunch meetings, which was unexpected due to the proximity of conference rooms.

Our final designs were informed by this crucial feedback from usability testing. This included removing and rearranging design elements to make the space more movable. For example:

- In Design #1 we removed the fish tank and fridge due to the burden of maintenance. We also moved lunch tables from the structural pillars so they wouldn't block the view of the whole room.
- In Design #2, we initially suggested bar style seating, as it would open up the space and allow employees to navigate the room more efficiently. However, a user noted that the round tables would be underutilized if someone wanted more private space.

BIOPHILIC DESIGN

Our idea for a biophilic design was inspired by the aspects of the room that are most appreciated by employees: the view from the TMB and its large windows. Inspired by these findings, we opted to highlight the natural light provided by the windows, and to strive to incorporate outside elements into the design. Survey results emphasized that most employees appreciate a natural environment. Our literature review revealed that many corporate environments, such as Amazon and Facebook, report increased employee happiness and productivity due to well-designed offices. Research also indicates that employees benefit from exposure to natural elements during their workday. After learning that most employees eat lunch at their desk, we sought to create a space that connects employees to elements of nature. Achieved this by incorporating plants into the design. Our research suggests that visuals of nature "lead to an increased ability to concentrate on tasks requiring high mental effort" (Kellert 2011). By embracing biophilic design, our team would meet two goals: to promote productivity and create a welcoming space for employees to take a break.

FINAL DESIGN – OPTION 1

Our design included a few key features, such as hardwood floors, furniture, color schemes, and additional elements that would bring in natural aspects to the final design.

Flooring

We selected a white pine composite floor with a laminate overlay finish and a foam underlay. After surveys uncovered issues of sound proofing, it was important to us to find a flooring that reflected both our design scheme and the needs of the employees. The flooring choice balances three needs: to improve soundproofing, reduce maintenance of traditional wood floors, and honor elements of a biophilic design.

Furniture

Our surveys indicated that comfortable seating was a necessity in the break room. Informed by this, we suggest a variety of seating – couches, bar-style seating, and traditional tables – to meet the unique needs of the room. For the conference room, suggest a round table to promote a collaborative atmosphere, as well as comfortable and moveable office chairs.

We also incorporated varying technology into the final design, including smart boards, a television and a printer. The printer and smart board will be in the conference rooms as well as traditional white boards. The television will be included in the lunch area. A note: Although we included a fish tank in the initial design, we do not suggest implementing this, as the maintenance and upkeep would be a burden.

Color Schemes

To brighten the space and highlight the natural light it was important to us to find a color scheme that would be inviting. We suggest a white wall with a wood accent wall, which will reflect more light and brighten the room when there is no sun. We also incorporated various elements of green to the design to add pops of color and reference natural elements.

Additional Elements

Aside from furniture, other elements will complement the appeal of the room – and a biophilic design would be incomplete without potted plants, succulents, and greenery. While real plants improve air quality, we recognize that upkeep can be challenging. Artificial options still provide the same benefits such as increasing employee productivity.



Option 1 is a multi-functional space with glass doors that open up for larger conferences and wellness events. LCY STUDENT TEAM



The lunch space has a variety of table sizes for small and big groups of lunchmates. LCY STUDENT TEAM

We also suggest creating conference rooms using sliding glass doors, which are foldable and soundproof. These glass doors act as a barrier between two unique spaces that can be used for conferences or break outs. While glass panels would allow natural light into the space, tempered glass could provide privacy. The moveable glass will also allow the space to be opened for larger events.

Due to the main use of this space as a lunch area, it was important to us to try to rework and improve the kitchenette area. We encourage cabinet space improvements, the addition of a larger sink, and a new microwave. These minor changes may entice more employees to use this space as a lounge and lunch area. Although we contemplated the idea of a fridge, it would result in too much maintenance and upkeep.

Budget

Direct Costs

The direct cost of the renovation and materials came in well under the initial budget allowance discussed in our team's first meeting with Chris. Amenities requiring installation, including cabinets, shelves, and sliding glass doors, are projected to cost \$16,191. The renovation cost such as flooring, paint, and lighting are projected to cost \$36,134. Furniture is budgeted at \$25,758 and technology for items such as smartboards, printers, and televisions would cost an estimated \$9,567. We assumed that real plants would be purchased to complement décor at an estimated budget of \$875. All the materials made up the grand total of \$88,525, not including labor.

Indirect Costs

The indirect cost consists of labor and possible variation in price if the furniture were to be bought in bulk. We estimate that labor may cost approximately \$50,000-\$75,000.

Budget Overview Option 1				
Amenities	\$16,191			
Floor and Paint	\$35,282			
Lighting	\$852			
Furniture	\$25,758			
Technology	\$9,567			
Flora	\$875			
Total	\$88,525			



The furnitire in the space contains bar style seating and traditional tables. LCY STUDENT TEAM



The breakout rooms in option 1 feature round tables to create a collabrative atmorsphere. LCY STUDENT TEAM

Final Design- Option 2 Flooring

We suggest composite flooring to minimize maintenance and embrace biophilic design. Lexington oak laminate flooring offers a solid option; it is 100% waterproof and is designed for commercial spaces, which will ensure that it is durable and low maintenance.

Furniture

Our goal was to create seating space that facilitates engagement from individuals and groups. We achieved this through armchairs and a bar style seating. These distinct furniture styles are informed by our research; we learned that users wanted clearly group space and private space. The traditional square tables offer a space to eat lunch, while the lounge chairs facilitate relaxation. Additionally, the two enclosed spaces consist of square tables and movable office chairs. This space will be the place for meetings and collaboration. Although employees have a variety of options to choose where to sit with others or by themselves.

Color Scheme

We suggest painting the walls light grey or blue to promote a relaxing sensation. The color of grey is said to promote stability, as we discovered in our ethnography study, and the color blue promotes serenity and intelligence.

Additional Elements

Additional elements include expanding the kitchenette counter space and sink area, adding additional microwaves, and enclosing the breakout rooms with walls. Enclosing the breakout room ensures privacy and is enforced by partially tinted glass partitions. The main feature of the breakout rooms consists of smart boards, which will allow for multi-uses and opportunities for employees to collaborate and share work.



An example of seating options for employee relaxation. LCY STUDENT TEAM



Breakout room option 2 contains two ideantical professional meeting areas or conference spaces. LCY STUDENT TEAM

Budget

Direct Costs

Most of this design's direct costs are devoted to technology – namely, the two smart boards in the two break-out rooms. The furniture budget also excludes the round tables pictured in the design; due to the nature of iterative design, we opted to amend this to bar seating. The floor and paint are priced at \$8,073. The amenities included a sink and a microwave added as well.

Indirect Costs

As with the first option, the labor cost, technological installation, and plumbing installation have been excluded from the budget. It is worth noting that this design does not include movable walls.

Budget Overview Option 2				
Amenities	\$867			
Floor and Paint	\$8,073			
Lighting	N/A			
Furniture	\$11,286			
Technology	\$17,920			
Flora	N/A			
Total	\$38,146			



This aerial shot of Option 2 shows a variety of seating options from comfortable to lunch tables. LCY STUDENT TEAM

To finalize our user-centered design approach, it was important to our team to heavily implement data and research findings. For design to be functional, it must be catered for the people who will be utilizing the design. Our design achieves this through the iterative design process and usability testing. Each design approach targets the three personas to meet the needs and goals of the City: to achieve a collaborative, diverse, and functional space.

> "Natural elements and sunlight exposure relate positively to job satisfaction and organizational commitment, and negatively to depressed mood and anxiety."

An, Colarelli, O'Brien, Boyajian 2016





From left: Culture, Arts, and Communication Professor Emma Rose, LCY editor Anneka Olson, and student researcher and report writer Miranda Laberge at the LCY year-end celebration at the Greater Tacoma Convention Center. TERI THOMSON RANDALL

Each design approach targets the three personas to meet the needs and goals of the City: to achieve a collaborative, diverse, and functional space.

An M, Colarelli SM, O'Brien K, Boyajian ME (2016) "Why We Need More Nature at Work: Effects of Natural Elements and Sunlight on Employee Mental Health and Work Attitudes." PLoS ONE.

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A view of Downtown Tacoma across Thea Foss Waterway. CITY OF TACOMA

Appendix A: Personas

Finn From Finances (Non/New User) 👘 🍎					
Vitin my c	Dece to collaborate oworkers."	Bio Finn is always crunching numbers and he often eats lunch right at his desk. As one of Tacoma's financial advisers, he is sending emails and using his computer daily. Finn would like to escape his cubical from time to time, but the current 7th floor break room is not much of an improvement. The atmosphere is sterile and the furniture is worse than his office chair. It also can be a challenging to find a work space that is technology friendly and allows for multiple people to use a table. Finn feels that he is more productive at his desk, but is constrained when he needs a larger space to allow his coworkers to consult on his work. As a result, he works solo most days, but would love the chance to talk with his coworkers face to face.	Frustrations I need a space to wind down and get away from my desk. My current office space feels claustrophobic. The current break room is not functional enough for me. Feelings About the Room Stress		
Age: 27 Work: Financial A Tacoma Municipa Family: Married v Location: Puyallu Character: Type	dvisor, at the I Building vith 3 kids up, WA B Personality	Values Functionality Convenience	Ability to Enjoy Lunch Social Environment View		
Personali	ty	Relaxing Environment	Goals		
Introvert	Extrovert	Social Atmospheres	Find a space to collaborate on group tasks.		
Thinking	Feeling		 Get to know other coworkers on his floor. Have an escape from the computer screens 		
Sensing	Intuition		and emails for 15 mins each day.		
Judging	Perceiving				

This persona is a representation of someone who uses the space all the time.

Suzanne the Social Senior (Frequent User)



Bio

Suzanne has a firm grasp of balancing work and family life and is excited and looking forward to retirement in a few short years.

Values

Social	
Balance	
Power	
Community	
Peace of Mind	

Frustrations

lounge on during break

a better social atmosphere

Goals

she goes

Age: 63

 Come to the space to relax during a busy work day

Work: Human Resources

Character: Type B

Family: Married, 12 grand-kids Location: Gig Harbor, WA

- Socialize with her fellow co-
- workers outside of the cubicle Help create a positive social atmosphere at work wherever

This persona is someone who doesn't use the space at all.

APPENDICES

29 | LIVABLE CITY YEAR

Suzanne is 63 years old and has worked for the City of Tacoma for nearly 30 years. Throughout her career, she has worked in various departments but absolutely loves her current position in Human Resources. Known as the "social butterfly," Suzanne frequently visits the break room to meet with other co-workers for lunch. She also enjoys utilizing the room to simply wind down for a bit, relax, and read a book. Suzanne is an advocate for creating a positive and energetic social environment and would like to have a room that promotes community and engagement.



Personality

• Would like to have more furniture in the room to be able to

• More comfortable seating and larger tables to accommodate more of her co-workers for lunch

• More artwork, color, and plants to liven up the room and create

Appendix A: Personas Cont.

Appendix B: Survey Questions

- monitors, wall mounted whiteboards)
- productivity? Yes or No
- promotes quiet time)
- no window view of the outside)
- desk, other)
- flat screen TV, utensil and appliance counter)
- Short answer.
- answer.
- would it be? Short answer.

Carter the Committee Guy (Productive User)

Carter has only used the room as a last resort because it cannot

accommodate his style of conducting a meeting due to its lack of

technology. He is a proponent of time management, and using

powerpoint or graphics help expediate his meetings. Although he doesn't personally care about aesthetics, he understands

some of his team members do, and would like to see the room

Carter eats at his desk everyday because that is also the time he

checks his emails and wraps up any loose ends he might have.

Bio

on the 7th floor reflect this.



weekly agenda."

Age: 52 Work: Department of **Community Economic** Development Supervisor Family: Married, one kid Location: Tacoma Character: Type A

Frustrations

Mo Conv Tech Size Socia

- All the current spaces require advanced booking, which forces my team to change their schedules based on availability.
- The room on the 7th floor is ualy and doesn't have the necessary technoloav
- · You can hear through the walls, which is distracting.

This persona reflects our users who use the space one for events.

otivation	
venience	
nology	
accommodation	
al feel/style	

City of Tacoma Municipal Building

Personality

Introvert

Thinking

Sensing

Judging

Extrovert

Feeling

Intuition

Perceiving



Preferred Meeting Space

Meeting room on the 4th floor

Departments' office space

Conference room on the 2nd floor

Conference room on 7th floor (objective)

1. Would any of the following technology maximize productivity in your work environment? (Smart Whiteboards, use of tablets, computers with multi-

2. What elements of room design creates a sense of relaxation for you? (Modern style with contemporary furniture, natural style containing indoor plants and natural color schemes, industrial design with a focus on technology)

3. Do you believe that greenery and natural elements in a space increase

4. Do any of the following factors create stress in the work environment? (Stray noises from indoors and outdoors, environmental factors such as hot or cold air from ventilation system, close vicinity to work colleagues, technological factors such as printer or computer use, lack of a relaxation area that

5. Does the outside environment disturb you when working? (yes, no, or I have

6. Where do you eat lunch daily? (Downtown, in the office break room, at your

7. What would you like to see in a lunch space? (Comfortable seating, Cafeteria style tables, Recycle/waste/compost bins, electronic station to charge devices,

8. What current room elements do you like regarding the 7th-floor break room?

9. What room elements do you dislike regarding the 7th-floor break room? Short

10. If you could change one thing about the break room on the 7th floor, what

Appendix C: Research Methods

Literature Review **Overview of Findings**

FACEBOOK

Facebook Inc. Headquarters is known for having innovative workspace designs and collaborative areas to promote creativity and growth. The company also has art displayed throughout the facility designed by employees which helps to cultivate a creative and "living" art environment. This personal touch cultivates a community of self-expression.

Every aspect of Facebook's office design is intentional. For example, there are large windows that flood the entire office with natural light. Studies have shown that natural light is one of the many things that improve worker happiness.

AMAZON

In January of 2018, Amazon opened their long awaited "Amazon Spheres" in downtown Seattle. The building boasts thousands of plants and natural trees/plant life. Their goal was to create a biophilic office space design that fosters a connection to the natural world.

UNIVERSITY STUDIES - BIOPHILLIC DESIGN

- **Natural Light** shown to improve worker happiness and productivity
- Natural elements (plants) can inspire creativity and even improve brain function •
- Biophilia Studies have shown that people have an innate desire to be at one with ٠ nature in some way, shape or form. It can be as simple as being able to view a park from their office window, access to natural light or access to living things within their office.

HUMAN SPACES STUDIES

One study carried out by Human Spaces, showed that there are five key things that employees want in order to enjoy their work environment. This includes:

- 1. Bright colors
- 2. View of the sea it was also mentioned that a view of nature or green spaces was acceptable
- 3. Quiet work space open plan offices are almost becoming the norm, but it is still important to incorporate quiet space.
- 4. Indoor plants
- 5. Natural light

The employees that took part in this survey all indicated that having these key items improved their overall sense of wellbeing and health, both physical and mental.

Overall, the evidence shows that employees really want to have that connection to nature within their workspace and 33% of people interviewed said that the design of the office space would

Appendix D: Usability Scenario Questions

strongly influence them in their decision to work somewhere.

The key benefits to embracing nature within general office spaces includes:

- Increased productivity
- Increased creativity
- Better overall health
- make you feel?
- in this space?

 Hosting a Christmas party for approximately 100 people. The participant must set up a Christmas tree, place out the catered food, and hang decorations on the wall.

• Out of 3 layouts (presented), which one do you like and why? How do these spaces

• If you were to have a lunch meeting with 5 people, where would you hold the event