

DESIGN DEVELOPMENT REPORT

LEVEL 4 - B418

Client: Curtin University

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EXECUTIVE SUMMARY

INTRODUCTION

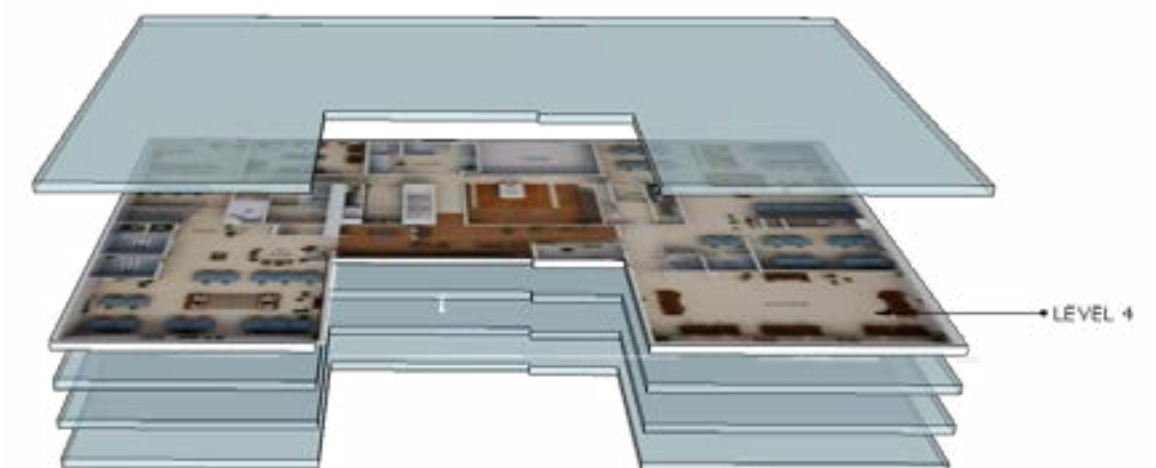
This design development report details space planning for Level 4 of Building 418 at the Curtin Bentley Campus in Perth, WA. After conducting an in-depth site study and researching current workplace settings that encourage harmony and wellbeing, a design concept was developed to create a workplace atmosphere that provides employee satisfaction and increased productivity. One of the most important factors in selecting materials, equipment, and furnishings was sustainability, followed by employee comfort and wellbeing.

PROJECT BACKGROUND

Building 418 was built in accordance with Greater Curtin Stage 1 master plan criteria to serve as the new home for the School of Design and Built Environment (SoDBE). The low-rise five-story facility designed by Wardle architectural studio stands out on the Curtin Perth Campus, serving as a living laboratory that promotes learning, teaching, research, and collaboration while also housing professional and academic personnel, as well as First Nations engagement and appreciation of the importance of art, in addition to architectural elegance.

PROJECT DESCRIPTION

The scope of this project is to redesign Level 4 of the B 418 into a highly functional, well-designed workspace, research, and collaboration facility. The Level is primarily meant to serve as a workplace, a setting for official meetings and research opportunities, and a place for student consultations.



PROJECT DEVELOPMENT

CONCEPT STATEMENT

"Create a sustainable workspace that promotes and enhances user interaction and connectivity, as well as a sense of place and community."

DESIGN OBJECTIVES



The design intends to create an open-plan coworking atmosphere in which employees can communicate, share knowledge, and stay connected. The design has a flexible layout that allows for configuration modifications based on convenience and requirements, as well as a clutter-free atmosphere. Sustainability was the top priority throughout the design, planning, and development processes. Individual privacy is also respected where essential, and staff engagement zones are strategically placed across the floor to increase connection and communication.

PRECEDENT INSPIRATIONS



Figure 1. Workstation arrangements



Figure 2. Benefits of Natural Light



Figure 3. Lounge area in office



Figure 4. Biophilic design



Figure 5. Breakout space/kitchen



Figure 6. Office Meeting Rooms

COMFORT MEASURES



Placement of workstations close to glazed windows for experiencing daylight throughout the day.



Non-toxic furniture, finishes and sustainable materials.



Integration of Biophilia



Acoustic floor carpet tiles, acoustic wall coverings, and acoustic ceiling panels for ultimate acoustic comfort.



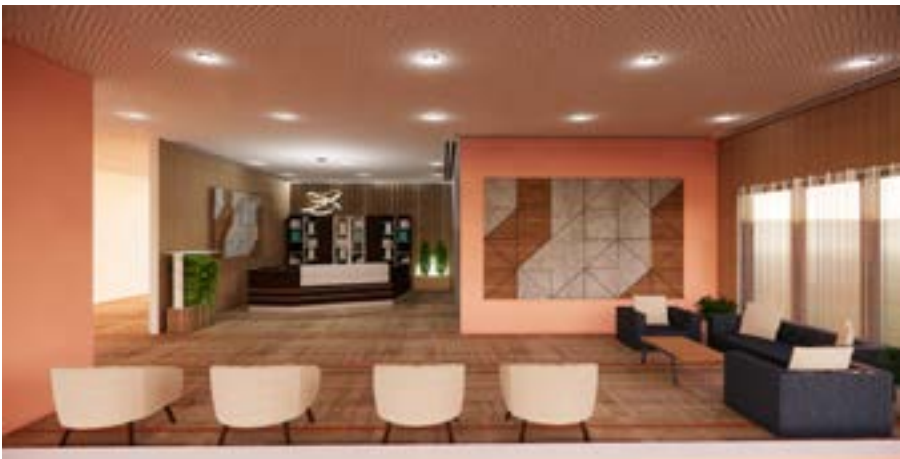
Ergonomic furniture



Motion-sensored and user-controlled lighting and microclimate control



Staff rest areas for socialisation and stress relief.



Mood-based colour combinations and art works to provide a cosy feeling.



Clutter-free design

SUSTAINABILITY MEASURES

Sustainability is a key aspect in its design, and various steps have been taken during the design process. Enabling daylight into the interior, making use of renewable resources and materials, using locally manufactured products and materials that are readily available in the market, using finishes that are nontoxic and devoid of volatile organic compounds (VOCs) to safeguard indoor air quality and occupant wellbeing, and using materials that are sustainably sourced and recycled, biophilia and follow the reduce, reuse, and cycle concept are in place for the long-term viability of the design.



DESIGN DEVELOPMENT

FLOOR LAYOUT

RESEARCH/HDR WORKSPACE

The project-based research and group work area accommodates 20 research staff members. Due to the nature of the task, workstations are arranged to ensure individual privacy. Area is access controlled.

DBE WORKSPACE

Open-plan collaborative space with flexible configurations to meet the different needs of the School's disciplines and tasks. This area accommodates 49 academic staff, with an average of 16 square metres per person. The area has restricted access.



DBE WORKSPACE

Open-plan collaborative space with flexible configurations to meet the different needs of the School's disciplines and tasks. This area accommodates 46 academic staff, with an average of 16 square metres per person. The area has restricted access.

STAFF KITCHEN / BREAKOUT AREA

All employees and visitors can readily access the Staff Kitchen / Breakout area, which is conveniently located in the middle of the floor. The kitchen features adaptable seating arrangements for flexible use, and workstation access is controlled from this area.

RECEPTION / FOYER

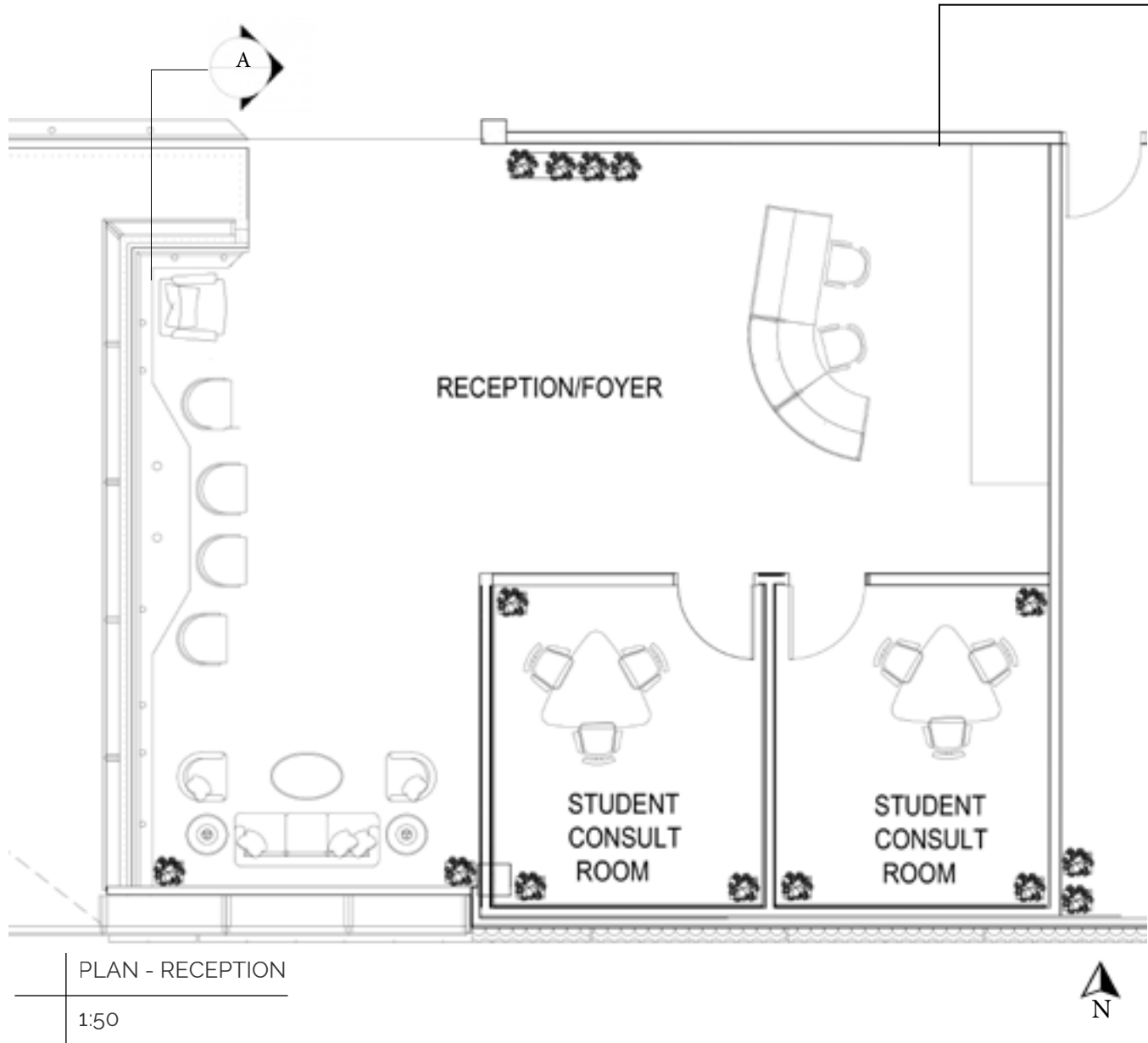
Reception is ideally located near stairs and lifts for easy access. The lobby space measures around 96 square metres and includes two student consulting rooms.

OPEN WORKSPACE/ INFORMAL LEARNING

Approximately 100 square metres of space for coworking and informal learning activities. A shared print room has been set up in the area, with modular furniture incorporated for flexibility.

RECEPTION

Reception is a key and visually appealing area of Level 4. It is conveniently located close to the level's entry points. The reception area is roughly 96 square metres in size and includes the reception, foyer, and two student consult rooms. The reception area's walls and ceiling are covered in acoustic panels to provide the best acoustic comfort for visitors and other occupants. Acoustic carpet tiles are also used on the floor. Large windows let in plenty of natural light during the day, while artificial lighting fills in the gaps when natural light is insufficient.



RECEPTION TOP VIEW

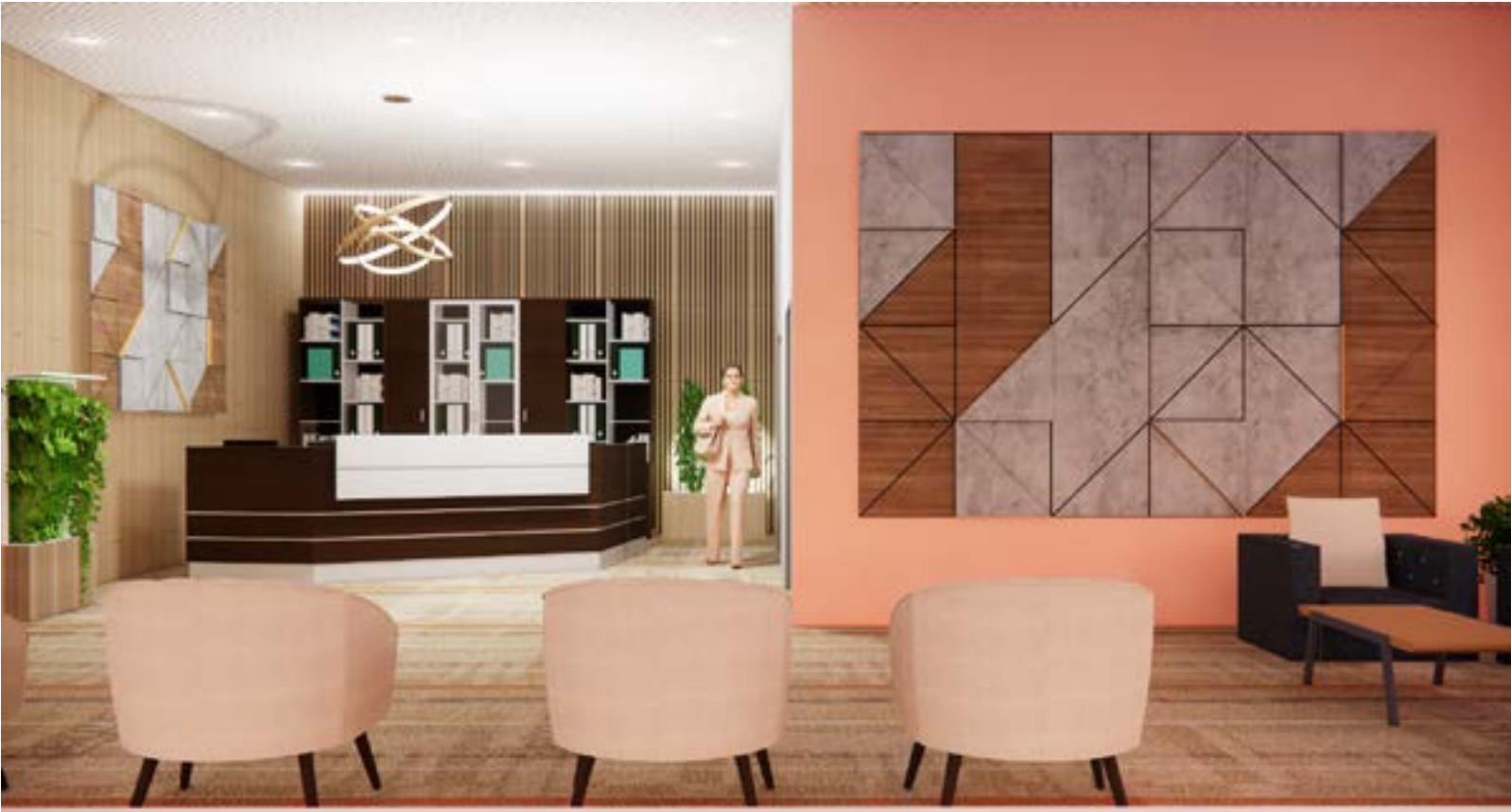
RECEPTION



SECTION A - RECEPTION
1:50

Material Palette

Enamel Paint	Enamel Paint	Acoustic Carpet Tile
Acoustic Wall Panel	Acoustic Ceiling panel	Cedar Wall Panel
Particle Board	Particle Board	Fabric



RECEPTION



RESEARCH / HDR WORKSPACE



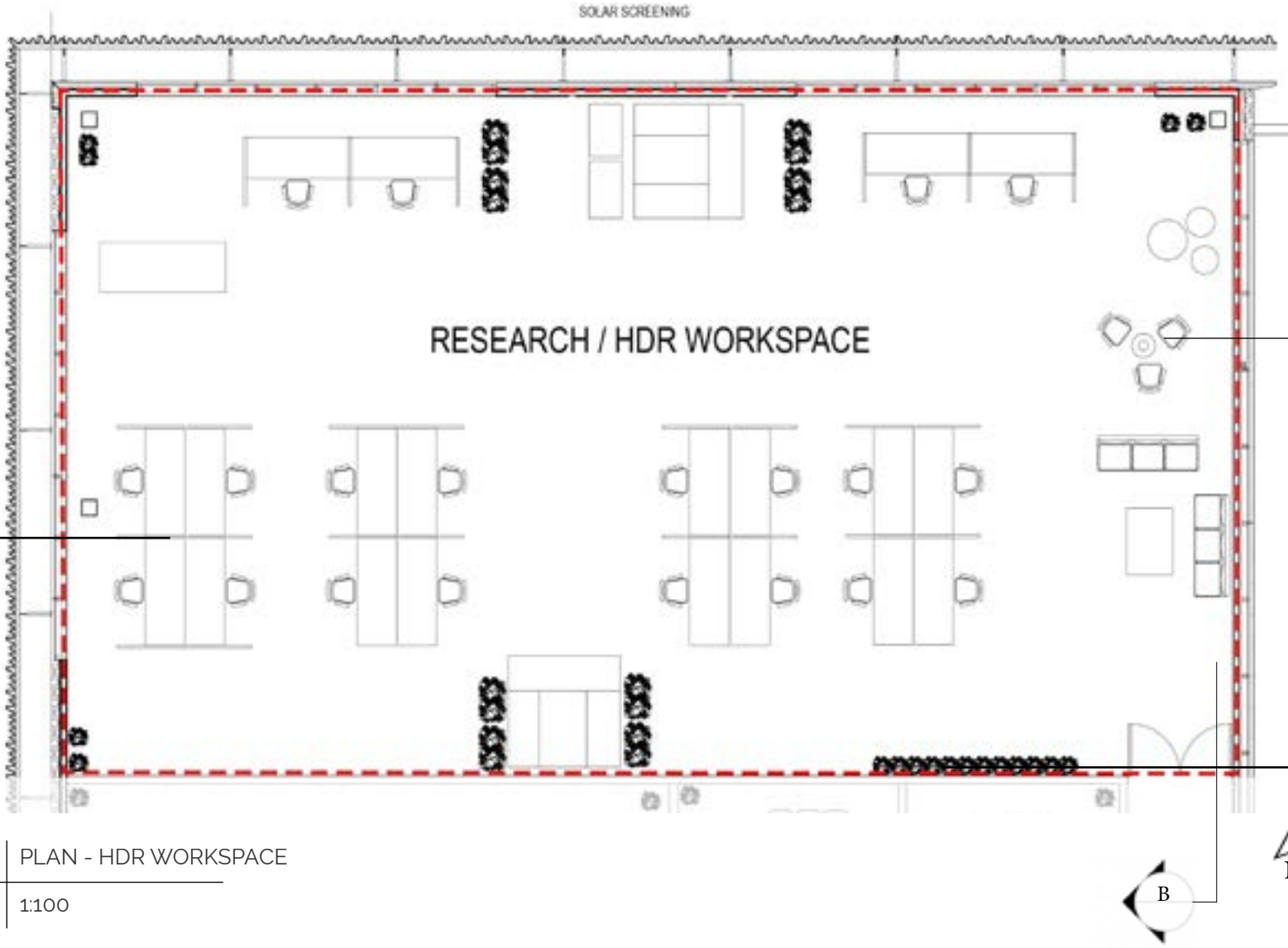
DESIGN CONSIDERATIONS



Research/HDR Workspace can accommodate 20 researchers and covers an area of roughly 320 square metres. The area is designed with a modern open-plan layout, and it stands out visually with its bright set-up. The area is designed to provide a soothing environment, with plenty of rest areas and indoor plants. The space is lit by daylight most of the time, while sensor-controlled artificial lights provide lighting when natural light is scarce. Ergonomic workstations, user-controlled overhead lights, task lighting, and fully acoustic-comfortable floors, walls, and ceilings are added characteristics.



Ergonomic Workstations



PLAN - HDR WORKSPACE
1:100



REST AREAS



Biophilia

RESEARCH / HDR WORKSPACE



SECTION B - HDR WORKSPACE

1:100



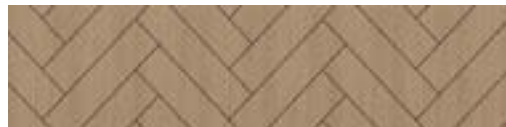
Material Palette



Floor carpet tile



Acoustic wall panel



Acoustic ceiling panel



Acoustic wall panel



Cedar wood



White Melamine



Fabric



Fabric



Velvet

RESEARCH / HDR WORKSPACE



DBE WORKSPACE

DBE Workspace spans the east and west sides of the level and measures approximately 1520 square metres with controlled access. The DBE workspace can accommodate 95 employees, each with their own workstation. To enhance staff involvement and socialisation, DBE workstations are arranged in an open-plan layout. The space has 15 quiet rooms, 5 meeting rooms, and three print rooms. Some of the highlights of the DBE workspace include ergonomic workstations, motion-sensor-controlled ceiling lights, sound-absorbing floors, walls, and ceilings, and many staff rest spaces.

DESIGN CONSIDERATIONS

01 **Place of Collaboration**
Open-plan design to facilitate collaboration and socialisation among staff members.

02 **Task oriented**
Floor arrangement depending on various demands and tasks within the school.

03 **Privacy**
Access is regulated, and individual privacy is considered based on tasks and activities.

04 **Cultural Representation**
Reflect a culture that encourages teamwork and collaboration within and across disciplines.

05 **Connectivity**
A place of collaboration and connecting across and between levels.

15 QUIET ROOMS

5 MEETING ROOMS

INDOOR PLANTS

96 WORKSTATIONS

SPACE FOR RESTING



2 Meeting Rooms

4 Quiet Rooms

Rest area

Print Room

Rest area

Meeting Room

49 Workstations

3 Quiet Rooms

46 Workstations

2 Quiet Rooms

Rest area

4 Quiet Rooms

2 Meeting Rooms

Rest area

Print Room

2 Quiet Rooms

FLOOR PLAN: LEVEL 4
1:200

LOT 106 SOUTH BOUNDARY

N

DBE WORKSPACE



SECTION C - DBE WORKSPACE

1:100

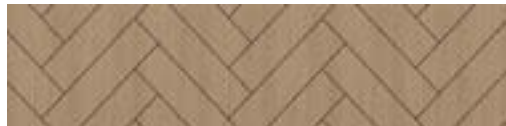
Material Palette



Floor carpet tile



Floor carpet tile



Acoustic ceiling panel



Acoustic wall panel



Cedar wood



Melamine



Fabric



Fabric



Emamel paint

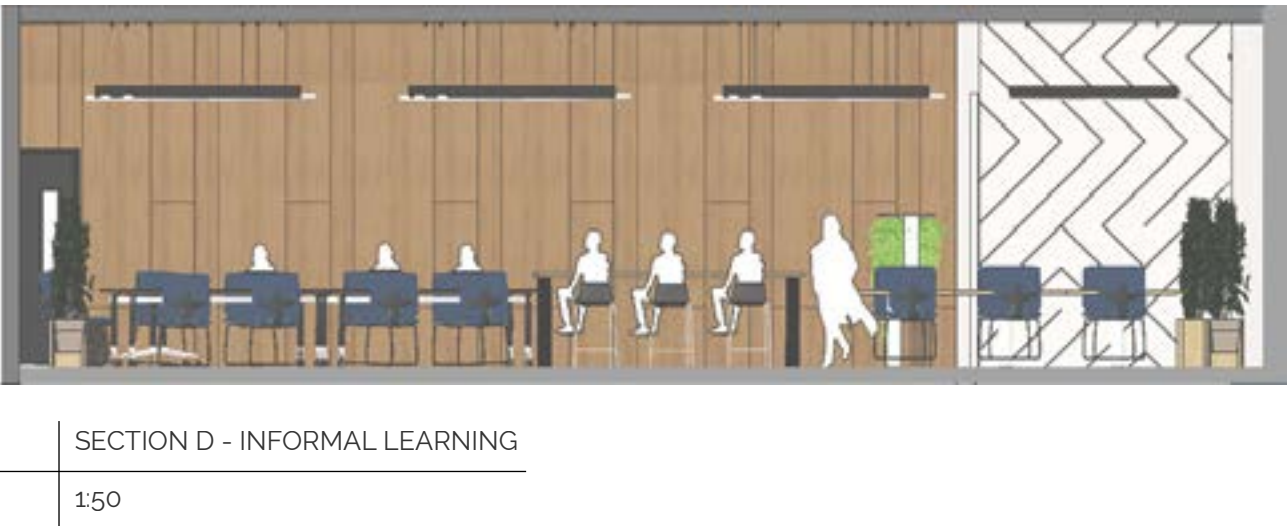
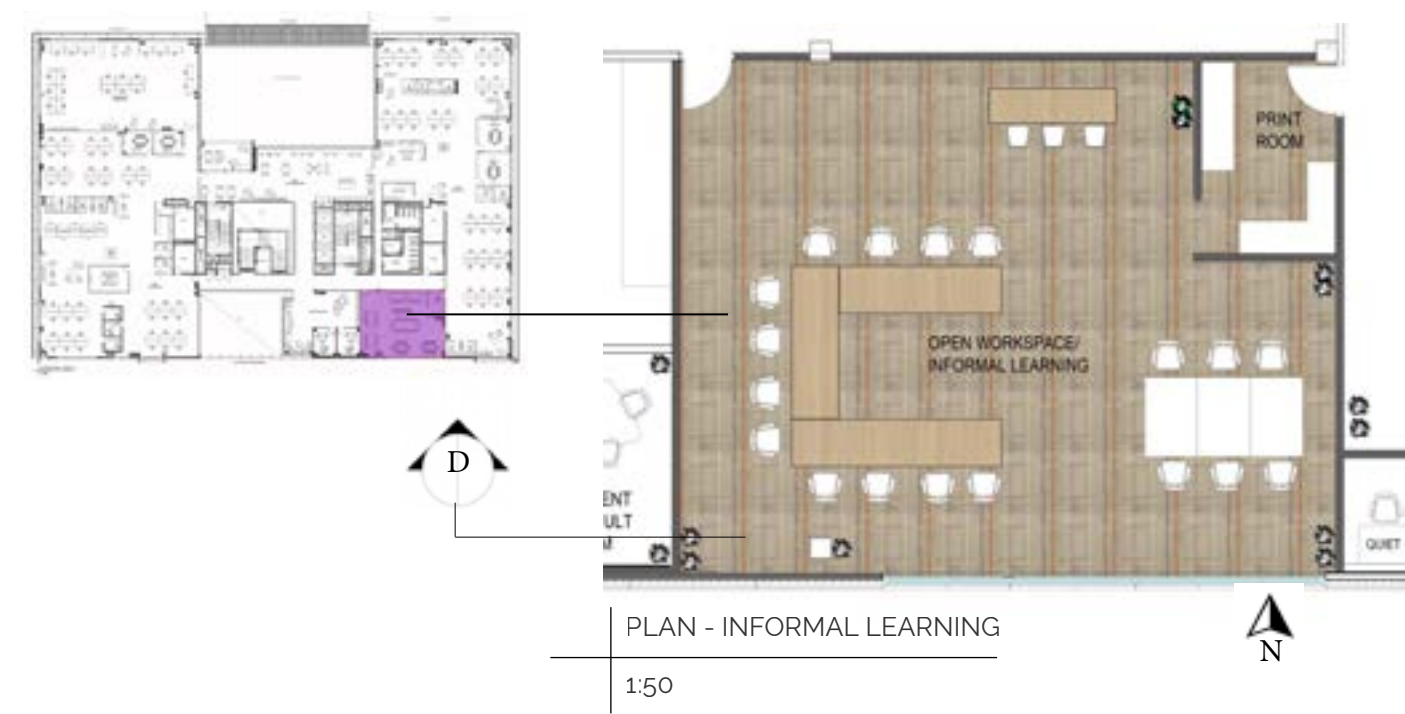


DBE WORKSPACE



OPEN WORKSPACE / INFORMAL LEARNING

The open workspace/informal learning room, located near the reception/foyer and stairs, has approximately 100 sq. m. of floor space. It serves as both a coworking space and an informal learning centre. The space can be configured in various ways to fulfil specific demands, and a print station is included within the space. The print station is shared by the DBE workspace and informal learning; however, access is limited to the DBE workspace.



OPEN WORKSPACE / INFORMAL LEARNING




STAFF KITCHEN / BREAKOUT





The kitchen/staff breakout space is located in the centre of the floor, near to the lifts and stairs, and the balcony has direct access from the kitchen. The breakout area is modern in style, allowing staff members to relax and alleviate stress. Northern sunshine illuminates the area brightly through large windows, while downlights and industrial style pendants give adequate artificial lighting. The space's attractions include bamboo flooring, bright coloured walls, and ergonomic furniture.


Material Palette



Enamel Paint


Bamboo Flooring


Cedar Wood


Enamel Paint


Ceiling Tile


Particle board



DESIGN CONSIDERATIONS



STAFF KITCHEN / BREAKOUT



QUIET ROOMS

DESIGN CONSIDERATIONS

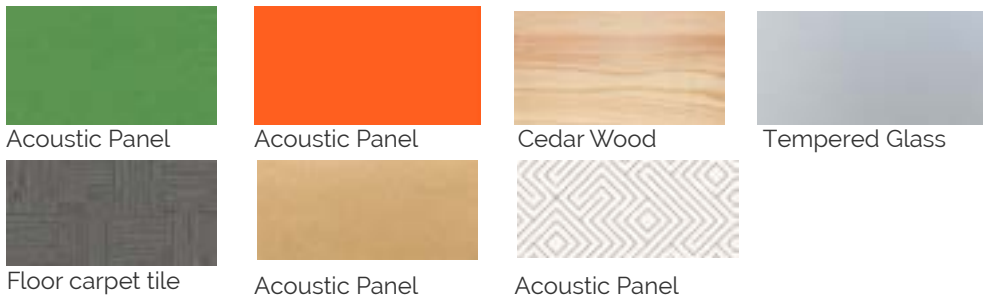


There are 15 quiet rooms set up in the DBE workspace that have access control. Staff are permitted to use quiet rooms for tasks that require privacy and confidentiality.

There are two types of quiet rooms: Quiet Room 1 for group projects with many occupants and Quiet Room 2 for solitary users. Both rooms offer conversational privacy and adequate sound absorption, effectively blocking both incoming and outgoing sounds. Internal walls and floor carpet tiles have great sound absorption capabilities, reducing reverberation in the room and allowing users to experience a cosy and pleasant environment. The quiet rooms also offer LED lighting and microclimate controls.

Each quiet room measures 2300 L x 2200 D x 2300 H.

Material Palette



QUIET ROOM 1 (more than one staff at a time)



QUIET ROOM 2 (Single user)



Quiet Room Interior

MEETING ROOMS



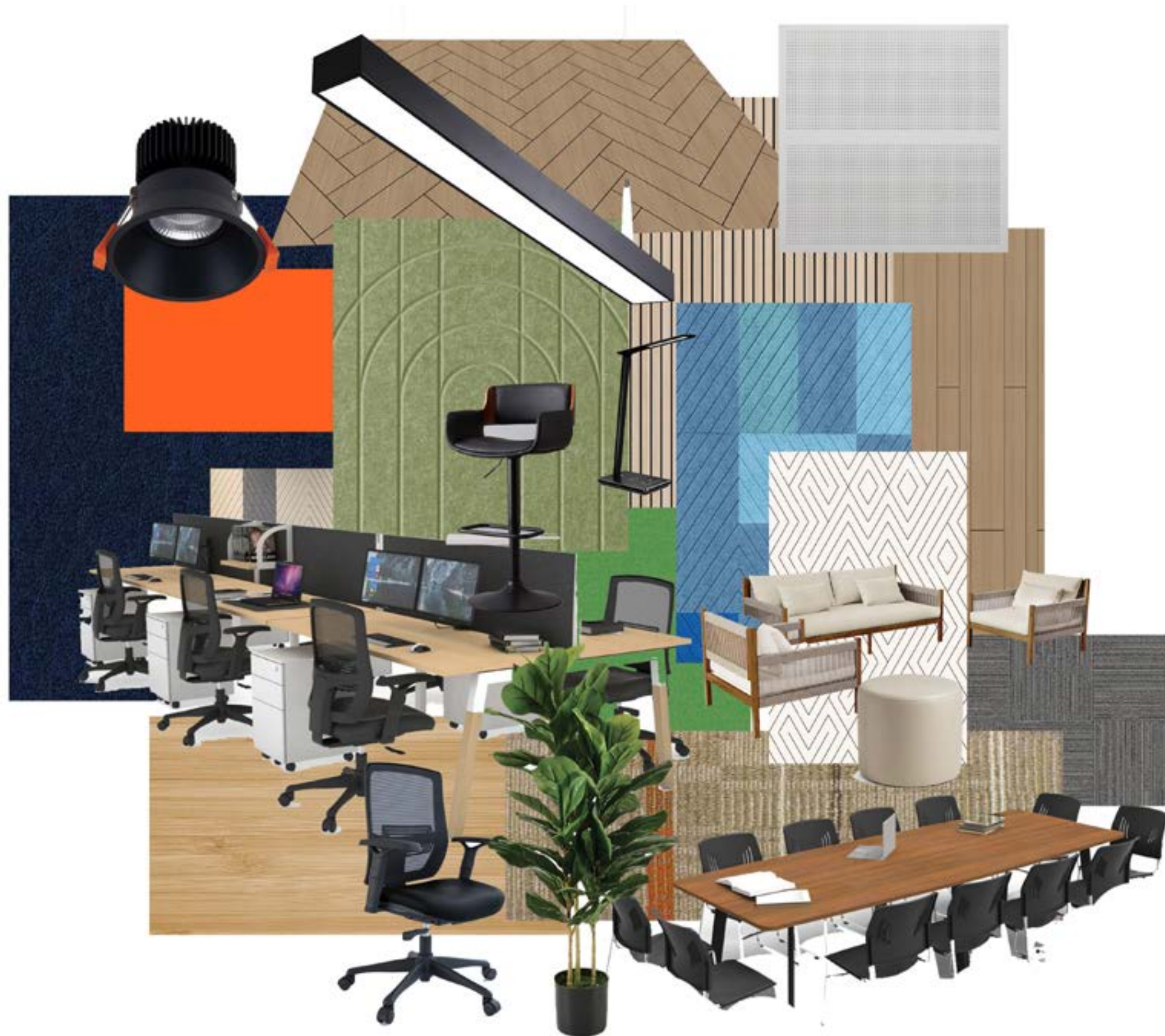
Five meeting rooms are conveniently located near the DBE workstations, each with a capacity of 6–12 people. There are three meeting rooms on the east side and two on the west side. Meeting rooms on the east side are close to the HDR workspace entrance, allowing research staff to share them. Two meeting rooms on either side are connected by retractable partitions that may be changed to suit larger gatherings. Meeting rooms are audio-visual equipped and provide voice privacy. Acoustic panels are placed on the meeting rooms' walls and ceilings to soundproof the interior. Some wall pieces are writable and pinnable.

DESIGN CONSIDERATIONS

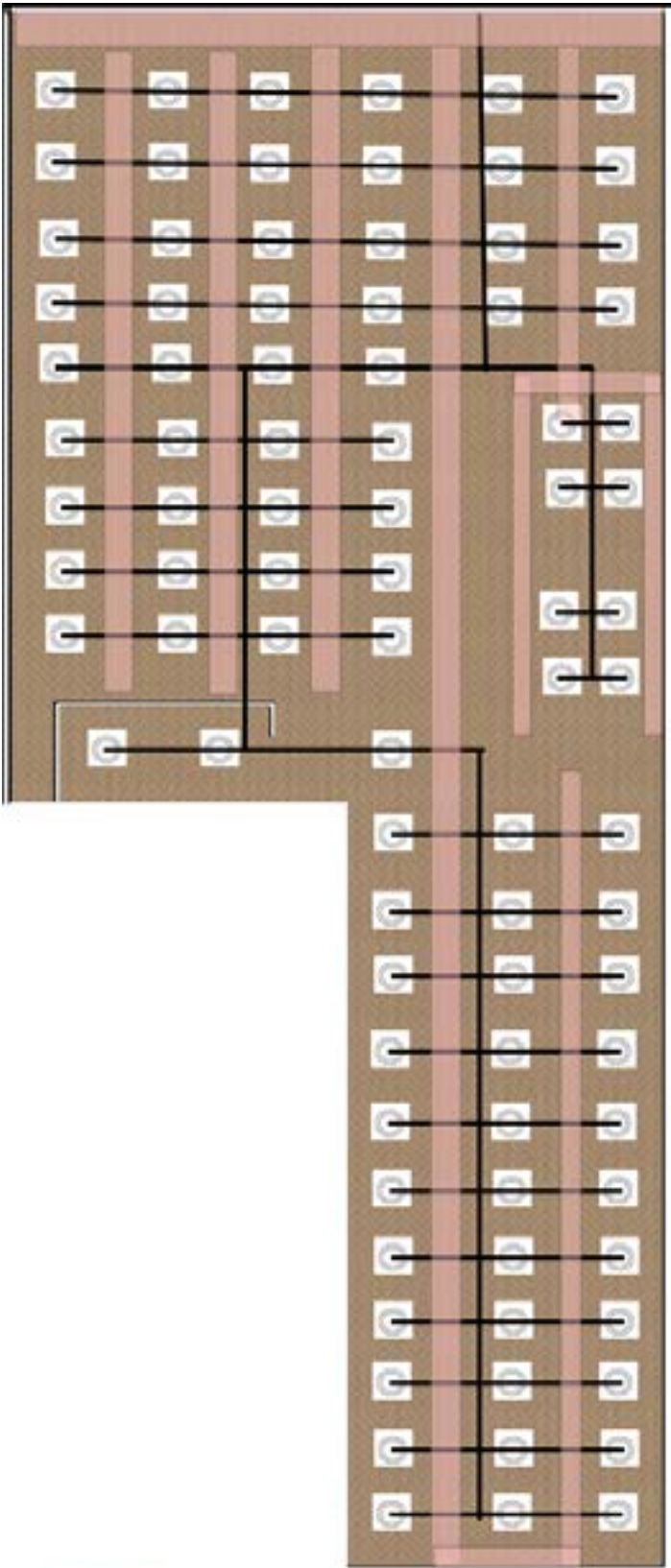


West side two meeting rooms are reconfigured into a large one.

MOOD BOARD

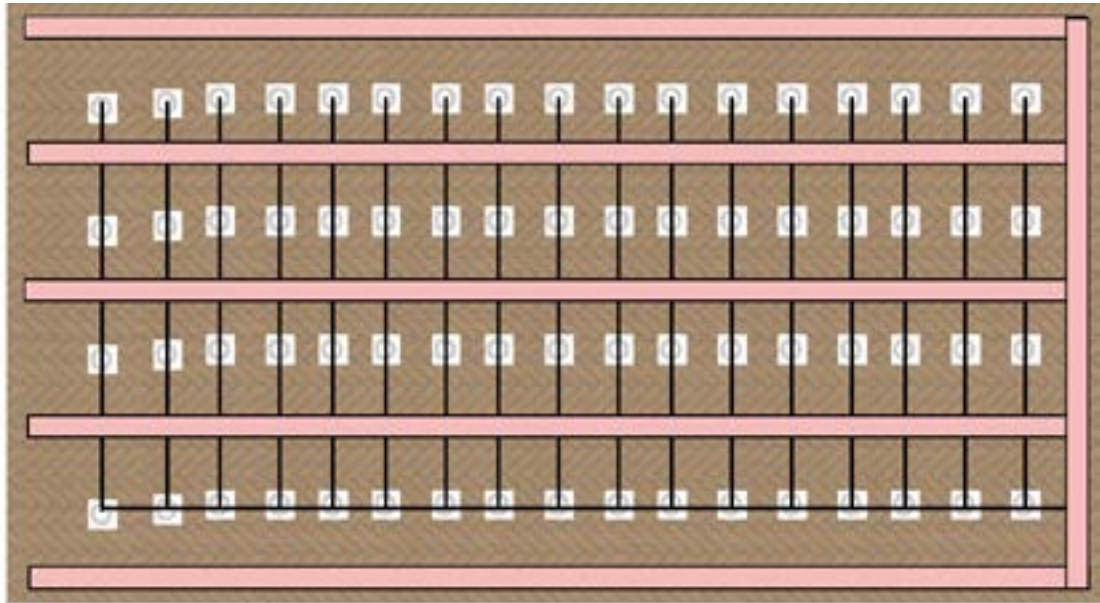


REFLECTED CEILING PLAN



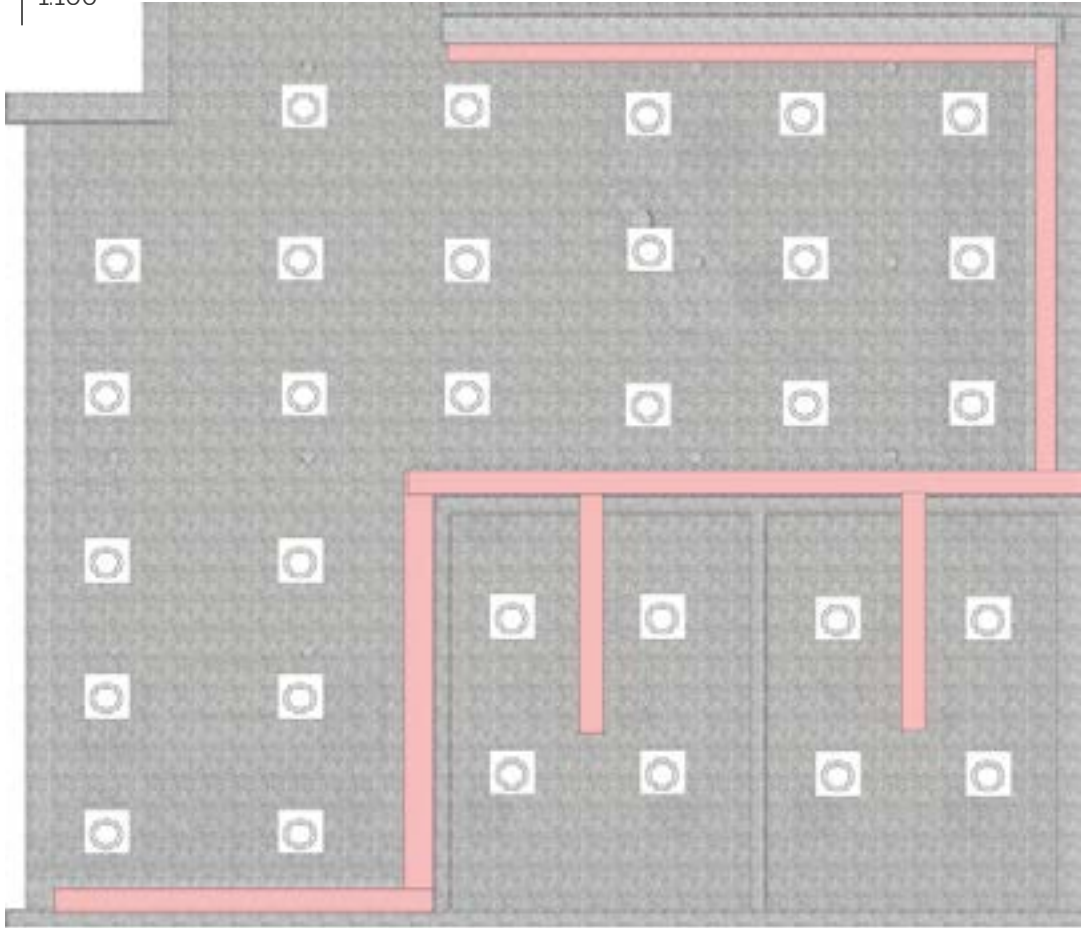
RCP - DBE WORKSPACE WEST SIDE

1:200



RCP - HDR WORKSPACE

1:100



RCP - RECEPTION/FOYER

1:100



LED Suspension Light
Light fixture for DBE and HDR workspaces.



Recessed light, 10W
Light fixture for Reception/Foyer



Acoustic Ceiling Panel
Ceiling panel for DBE, HDR and Open work-space



Acoustic Ceiling Panel
Ceiling panel for Reception

IMAGE REFERENCES

Figure 1. Watson Furniture. n.d. “Workstation arrangements.” <https://www.watsonfurniture.com/spaces/open-plan>

Figure 2. Baughman, Brett. 2023. “h The Top Benefits of Natural Light in Office Spaces” <https://www.linkedin.com/pulse/top-benefits-natural-light-office-spaces-brett>.


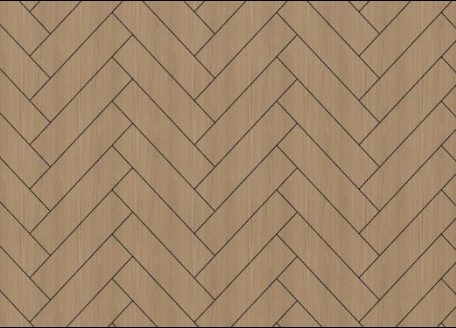

Figure 3. Gebesa. n.d. “Lounge area in office” [tps://blog.gebesa.com/en-us/lounge-area-in-office](https://blog.gebesa.com/en-us/lounge-area-in-office)

Figure 4. Soudunsaari, Aki. 2023. “biophilic design.” <https://news.cision.com/san-francisco-oy/r/experiment-shows-employees-make-43--fewer-mistakes-in-the-presence-of-plants-and-biophilic-design,c3703281>




Figure 5. Michal. 2019. “Breakout space/kitchen” Officelovin <https://www.officelovin.com/2019/04/inside-broadspectrums-new-sydney-office/>

Figure 6. Zelmar Offices. 2023. “Essentials of meeting rooms.” <https://zemlar.ca/blogs/blog/essentials-of-meeting-rooms-what-to-look-for-when-booking/>

Fixtures and Finishes Schedule

IMAGE	ITEM NAME	LOCATION	DESCRIPTION	Dimension	SUPPLIER/MANUFACTURER	Sustainability
	Floor Tiles	All floor area of LLevel 4 except Kitchen/staff breakout area	Satellite BarrierBack™ carpet tiles are made from 100% solution dyed nylon, and available in 500mm x 500mm tiles. Comprising five colorways, Satellite carpet tiles are designed for aesthetic and acoustic versatility.	500 X 500 mm	Acoufelt acoustic Tiles https://acoufelt.com.au/solution/acoustic-satellite-carpet-tiles/	Green Label Plus certification under Indoor Air Quality Testing.
	Ceiling Panels	All ceiling area except reception, kitchen and meeting rooms	A lightweight but semi-ridged panel router cut with a series of precise, angular designs that bend and distort light.	Custom Sizes	Autex Acoustics https://www.autexacoustics.com.au/products/grove	Certificied with major certification authorities.
	Fracture Acoustic wall Panels		Fracture Panels are made from FilaSorb acoustic material, which is then precision carved with a bevelled groove to create a series of directional linework designs.		https://acoufelt.com.au/solution/fracture-acoustic-panels/	Green Label Plus certification under Indoor Air Quality Testing.

	Wall Paint	Various places	Dulux enviro2 is a premium quality and environmentally responsible paint for all interiors.	Various sizes and colours	Dulux Australia https://www.dulux.com.au/paint/enviro2/?gclid=Cj0KCQjw6auyBhDzARIsALlo6v-fxp6LG_Lp6klzojpESBMhxG3SkXGrZ6yrissXIFOSyfeJUSQ5-94aAuKVEALw_wcB&gclsrc=aw.ds&gad_source=1&ef_id=ZixWrwAAAKEGTQN7:20240520231043:s	Global Green tag certified
	Quadro Loop Workstations	DBA workspace and HDR workspace	Commercial-quality workstations with adjustable feet and underneath drawers.	multiple sizes	Jasonl https://www.jasonl.com.au/products/quadro-loop-leg-6-person-office-workstations-1800lx800w-with-cable-scallop	Jasonl https://www.jasonl.com.au/products/quadro-loop-leg-6-person-office-workstations-1800lx800w-with-cable-scallop
	Ergonomic chair	DBA workspace, HDR workspace and Open work area	Ergonomic and environment friendly office chair Made with ocean-bound plastic	Height: 870mm–978mm Width: 698mm Depth: 686mm–698mm Seat depth: 406mm Seat height: 366mm–490mm	Herman Miller https://www.hermanmiller.com/en_au/products/seating/office-chairs/aeron-chair/	Made up of recycled materials. Certified with major certification authorities.

	LED Suspension Light		LED Suspension Light Fixture Aluminium Office Ceiling Pendant Light - 220V-240V	Multiple sizes	Brightgreen. https://brightgreen.com/products/pendant-lights/all/P60.H-LN?image_view=product-shot	
	Recessed LED, 10 W	Reception, open work area, meeting rooms	D700 Plus Offset is IP44 rated comes complete with an integrated LED, at 750 lumens.	45 H X 100 W	Brightgreen. https://brightgreen.com/products/pendant-lights/all/P60.H-LN?image_view=product-shot	IP44 rated
	Sofa Set	Reception, Workspaces and kitchen	PU leather finish with comfortable seat composition makes me the ideal option reception area, waiting room or office space.	Various sizes and combinations	Jasonl https://www.jasonl.com.au/products/sonic-concord-triple-lounge-seat	Sustainable materials.