PROGRAMMATIC DESIGN



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BIG RED ENGINEERING

DEA 6500 | Fall 2022

YOUR TEAM

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PROBLEM STATEMENT

Big Red Engineering's office space is no longer suitable for modern ways of working, especially given the hybrid online/in-person reality most white collar workplaces are confronting post-Covid.

The space needs to be updated to improve collaboration, enhance productivity, and accommodate a variety of work-related and non-work related needs.



MISSION STATEMENT

To develop an employee- and user-centric workspace that encourages collaboration, supports a modern hybrid work model and caters to the diverse work needs arising out of a variety of services offered by the organization.

By adopting the occupier perspective potential tensions can be identified between individual, private and team-based collaborative work areas. These tensions can have an impact on the office occupier's productivity (Haynes 2007)



FINDINGS SUMMARY

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DESIRE FOR COLLABORATION

People are looking for more collaboration spaces that are welcoming.

-- Stakeholder interview

Need flexibility of the desk arrangement based on who they need to work with for current projects. -- Project Director interview

THE NEED FOR FLEX SPACE

Flex space is likely to be a continuing requirement from corporate occupiers for short-term solutions to demand shocks, the need for rapid market entry, accommodation for short-term projects and access to desk space in multiple locations.

-- Cooke et al., 2022







OBVIOUS INVESTMENT IN THE FUTURE

In the new way of working this office is obsolete. Sometimes you need to make an investment in your workspace for your staff.

-- Human Resources interview

LACK OF SATISFACTION

After the new space had been used for 1.5 months, occupants reported being more satisfied, in general, than they recalled being in the original setting. The size of personal workspaces and a sense of privacy were especially important to employees. -- Kim et al., 2020





NEED FOR UPDATES

Well- designed restrooms should accommodate the needs of those working in the office space. -- Consulting interview It would be great to reimagine the kitchen near the terrace with a bar and snacks -- Mid-level Engineer interview

ORGANIZATIONAL EFFICIENCY

The [pandemic] highlighted and accelerated trends that had been bubbling under the surface for years, including an increased focus on employee mental and physical health, the needs of a multi-generational workforce, greater emphasis on corporate purpose, and the shift to remote work.

-- Vanecko et al., 2022



CONNECTIVITY

Technology including internet connection is not steady enough to support workers.

-- Project Director Interview

PERFORMANCE

Many companies are just beginning to explore the possible benefits of more advanced asynchronous collaboration tools, and they are only scratching the surface on the myriad ways to leverage the data generated by digital collaboration to improve workplace performance. -- Kane et al., 2021





IMPACT OF CLUTTER

We prefer a clean and neat environment to do work and to engage with clients. -- Stakeholder interview

ADDITIONAL STRESS

Office clutter predicts exhaustion and stress. -- Dao & Ferrari, 2020



HYBRID WORKING

The workplace facility should be able to *facilitate hybrid working* for all employees.

The space *ratio of collaboration areas to individual working areas* should be 70:30. Workstations should be reserved via a *userfriendly booking system.* The number of workstations should *accommodate approximately 30%* of employees to work at the same time. Each meeting room should be equipped with video conference *technology* to facilitate online meetings.











FOSTER COLLABORATION

The workplace facility should *foster collaboration among employees and/or across departments* while allowing people to have a sense of privacy.

There should be a *clear separation between work areas and public or collaboration areas* to provide a conducive environment for different types of working. The kitchen, terrace, and lounge areas should *invite informal interactions*, yet be separated from quieter working areas.







PROFESSIONAL IMPRESSION

The spatial organization of the work areas should be arranged to *portray professional impression* of a world-renowned engineering and consulting company.

The workspace should have a *variety of desks, tables, and chairs,* organized well to support both individual and collaborative tasks The workplace should *exhibit the company's culture* by encouraging meaningful interactions and vibrant energy. Utilize wall spaces and other decorative opportunities to *showcase successful project designs, work-inprogress materials, and artifacts of cultural significance*, e.g., awards, trophies, etc.









FLEXIBLE WORKING

The workplace facility should support *flexible working practices* to facilitate productivity and highquality work products.

> There should be a *variety of conference room sizes* to support different needs of the workers.

The workplace be able to *facilitate both internal* (e.g., magnet days, training) *and external* (e.g., entertaining clients) *events* and present welcoming ambiance in a professional manner to the clients.







COMFORTABLE & ERGONOMIC ENVIRONMENT

The workplace should *provide a comfortable and ergonomic physical environment* for all its occupants.

The work area needs to maintain an *optimal temperature*.

The space should have *modern, ergonomic office furniture* and *adequate lighting*.

The space should offer acoustic privacy wherever possible in the working areas.











PROJECT GOALS

ADEQUATE AMENITIES

The workplace facility should have *adequate amenities* (e.g., bathrooms, storage, utilities, etc.) to support the number and diversity of employees.

The *storage rooms should have enough space and be organized* well to store coats, electronic

equipment, and office supplies.

The *bathrooms should be upgraded* to modern standards.







Existing Zoning

Level 23



Suggested Zoning

Level 23



ZONING

The objective of the lower level is for accommodating *social interactions* and *welcoming guests.* Noisy and high-traffic areas located around main stairs and on the enclosed terrace. Resource areas are integrated in one area.



1 FLOOR PLAN - LEVEL 23

Existing Zoning

Level 24





Suggested Zoning

Level 24

ZONING

The objective of the upper level is for accommodating *individual work.* Noisy and high-traffic areas are centered around the kitchen and stairway. Resource areas are integrated in one area.

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1 FLOOR PLAN - LEVEL 24

1 FLOOR PLAN - LEVEL 24





Enclosed Terrace







What's new:

- Enclosed terrace for year-round multi-purpose collaboration and event space
- Enlarged kitchen and dining area near the stairs for increased informal connections
- Project showcase walls for inspiration as well as to share work in progress with colleagues and visitors
- Enhanced reception and waiting area for guests
- Multiple conference rooms of various sizes for client visits and workspaces
- Ample storage





What's new:

- Enlarged kitchen and dining area near the stairs for increased informal connections
- Multiple conference rooms of various sizes for client visits and workspaces
- Project showcase walls for inspiration as well as to share work in progress with colleagues and visitors
- Dedicated quiet space for concentrated working
- Ample storage



TOGETHER WHEN IT COUNTS!

THANK YOU



REFERENCES

LEXAN

BLAM

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- Cooke, H., Fiorentino, S., Harris, R., Livingstone, N., & McAllister, P. (2022). Corporate occupiers' attitude to *flex space* in the post-Covid environment. *Journal of Property Investment & Finance*. <u>https://doi.org/10.1108/jpif-02-2022-0011</u>
- Dao, T. N., & Ferrari, J. R. (2020). The Negative Side of Office Clutter: Impact on Work-Related Well-Being and Job Satisfaction. North American Journal of Psychology, 22(3), 441. <u>https://link.gale.com/apps/doc/A637227333/HRCA?u=cornell&sid=bookmark-HRCA&xid=7c3248b5</u>
- Davis, D. (2021, June 3). 5 Models for the Post-Pandemic Workplace. Harvard Business Review. <u>https://hbr.org/2021/06/5-models-for-the-post-pandemic-workplace</u>
- Haynes, B.P. (2008), "The impact of office layout on productivity", Journal of Facilities Management, Vol. 6 No. 3, pp. 189-201. https://doi.org/10.1108/14725960810885961
- Kane, J., Nanda, R., Phillips, A., & Copulsky, J. (2021). Redesigning the Post-Pandemic Workplace. *MIT Sloan Management Review*. <u>https://sloanreview.mit.edu/article/redesigning-the-post-pandemic-workplace/</u>
- Kim, A., Wang, S., McCunn, L., & Sadatsafavi, H. (2020). Impact of Office Modernization on Environmental Satisfaction: A Naturalistic Field Study. Frontiers in Built Environment. Vol. 6. <u>https://doi-org.proxy.library.cornell.edu/10.3389/fbuil.2020.00058</u>
- Kim, J., Candido, C., Thomas, L., & de Dear, R., (2016). Desk ownership in the workplace: The effect of non-territorial working on employee workplace satisfaction, perceived productivity and health. Building and Environment, Vol. 103, pp. 203-214. https://doi.org/10.1016/j.buildenv.2016.04.015.
- Mak, C., & Lui, Y. (2012). The effect of sound on office productivity. Building Services Engineering Research & Technology, 33(3), 339–345. https://doi.org/10.1177/0143624411412253
- Oygür, I., Göçer, Ö., & Karahan, E. E. (2022). Hybrid Workplace: Activity-based Office Design in a Post-pandemic Era[†]. *Journal of Interior Design*. https://doi.org/10.1111/joid.12218



Regodón, A., García-Navalón, E., Santiso-Hernandez, J., Delgado-Rodriguez, E., & Garcia-Santos, A. (2021). Learnings from User Digital Trail Post-Occupancy Evaluation before COVID-19 for Future Workplace Analysis and Design. *Buildings*, *11*(11), 513. <u>https://doi.org/10.3390/buildings11110513</u>

Vanecko, A., Ward, J., & Mankin, R. (2022, January 24). *Design an Office that People Want to Come Back to*. Harvard Business Review. https://hbr.org/2022/01/design-an-office-that-people-want-to-come-back-to

Walsh, P. & Hargrave, J. (2022). Future of offices in a post pandemic world.. <u>Www.arup.com</u>. <u>https://www.arup.com/perspectives/publications/research/section/future-of-offices-in-a-post-pandemic-world</u>

