

TRIVERGE DESIGN

Portfolio 1

IDSN 4202

Spring 2018

Team:

Kaitlin Moss

Monica Jones

Hannah Wiser



Deviate

Integrate

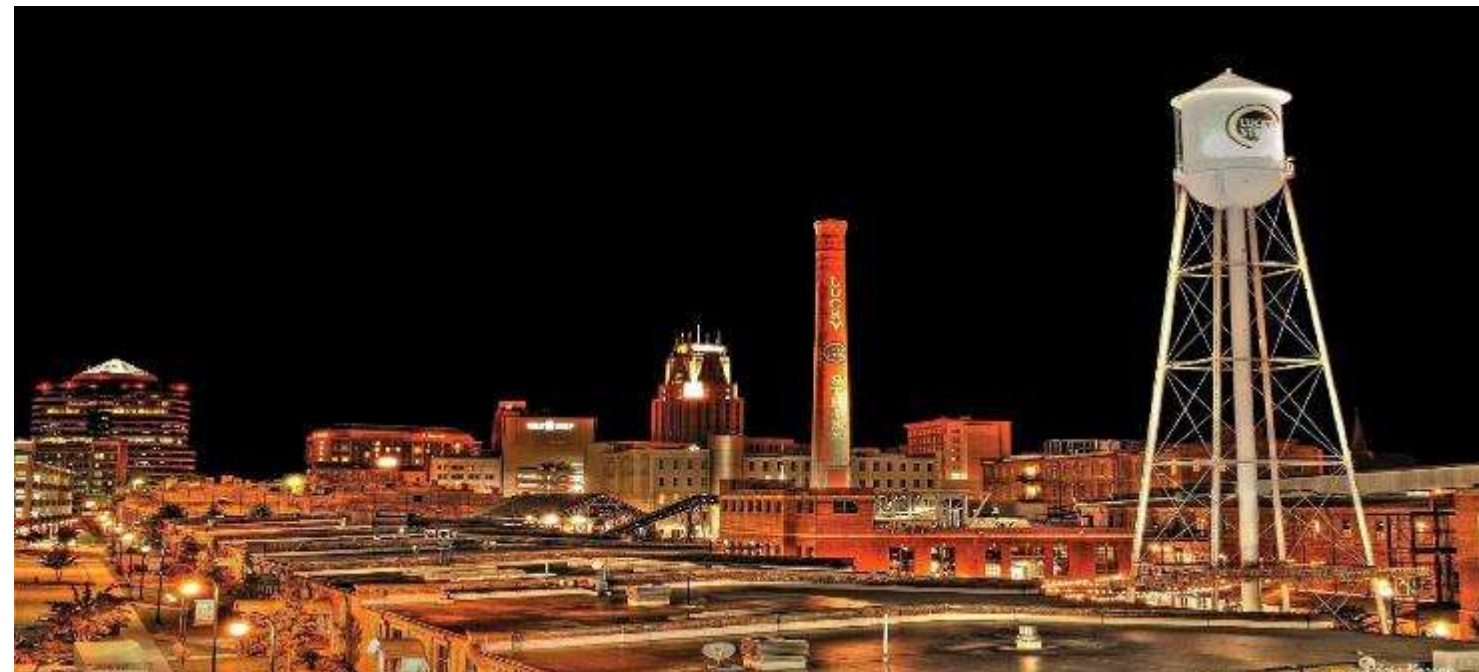
Cultivate

CLIENT DESCRIPTION

A developer in Durham, North Carolina:

Our client is a building owner looking to provide a new co-working space in downtown Durham. With a recent spike in the need for more rentable office space, our client has asked us to create a space that not only fills this need, but also adds to the downtown culture of Durham.

This client wants to provide a creative co working center that offers hoteling office space as well as monthly leases. Basing their aesthetic in the footsteps of other popular co-working spaces, they prefer modern and transitional furniture, with a bold approach to office areas.



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MEET THE TEAM

Monica Jones



Contrast
Innovation
Functionality

Kaitlin Moss



Simplicity
Texture
Elegant

Hannah Wiser



Ideation
Resourcefulness
Integrity



TRIVERGE

Deviate. Integrate. Cultivate.

Our designers follow one goal:
putting your space on the cutting edge.

SUSTAINABLE BUILDINGS

ELECTRICAL DESIGN

Architectural light Shelves



<https://inhabitat.com/exclusive-photos-inhabitat-tours-the-new-lead-platinum-rmi2-building-in-colorado/2/>

Specifications

- Energy Star LED bulbs
- Contract with a Green Power Provider

Installations

- Solar photovoltaic systems
- Provide lighting options for various levels of need
- Utilize natural daylight
- Architectural Light shelves
- Occupancy light switch
- Design light systems that emit less light pollution
- Wind turbines
- Biomass Energy
- Low-impact hydro



Room Occupancy Sensor

<http://www.safetied.org/browseproducts/Leviton-Commercial-Grade-Wall-Mounted-Occupancy-Sensor-->



Electricity monitor

<http://mapawatt.com/tags/energy-energy-monitor>

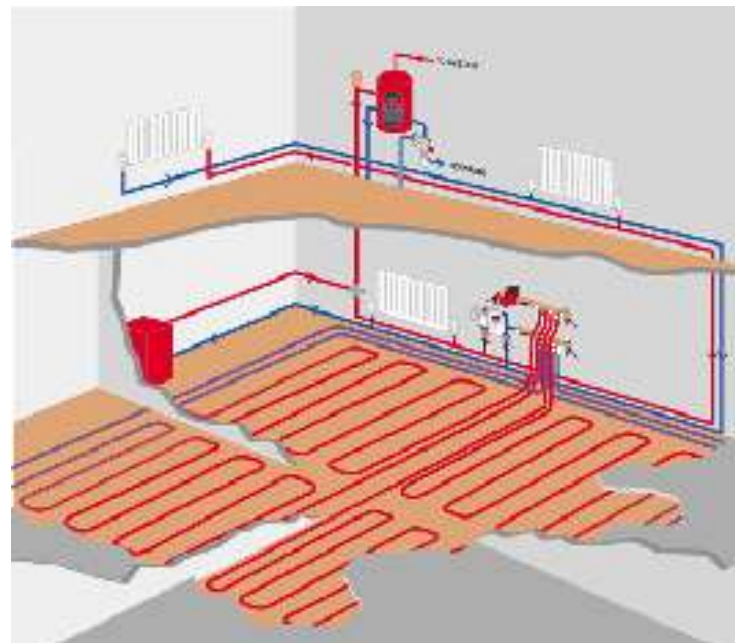
Monitoring

- Comply with energy Policy and Conservation Act of 1975 (EPCA)
- Energy use can be monitored using meters
 - Separate lighting and receptacle panels for monitoring
- Properties Face Power Density Requirements
- Commissioning during the planning process

SUSTAINABLE BUILDINGS MECHANICAL DESIGN

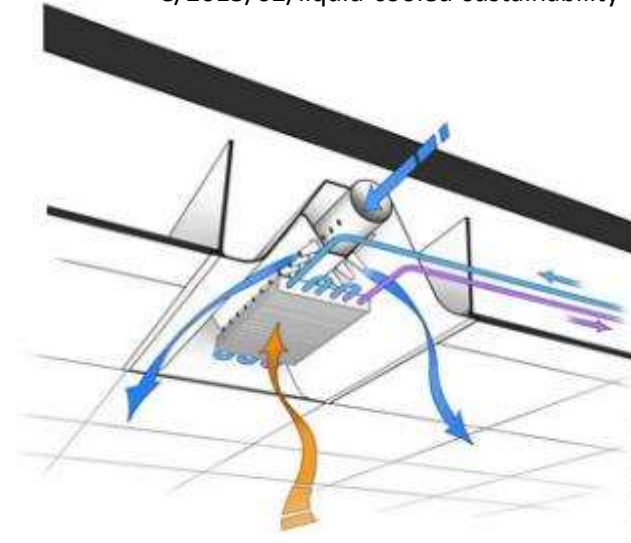
Monitoring

Simulate HVAC loads
using software
Revit
Install devices to
monitor system use



https://www.gagnongeothermal.com/radiant_heat.htm

<https://www.labdesignnews.com/article/2015/02/liquid-cooled-sustainability>



Chilled Beam with air flow

Installations

High performance
HVAC systems
Chilled beams
Radiant panels

Energy Star label



http://articles.baltimoresun.com/2014-02-14/business/bs-bz-energy-tax-free-20140214_1_energy-star-products-air-conditioners-clothes-day-weekend

• Specifications

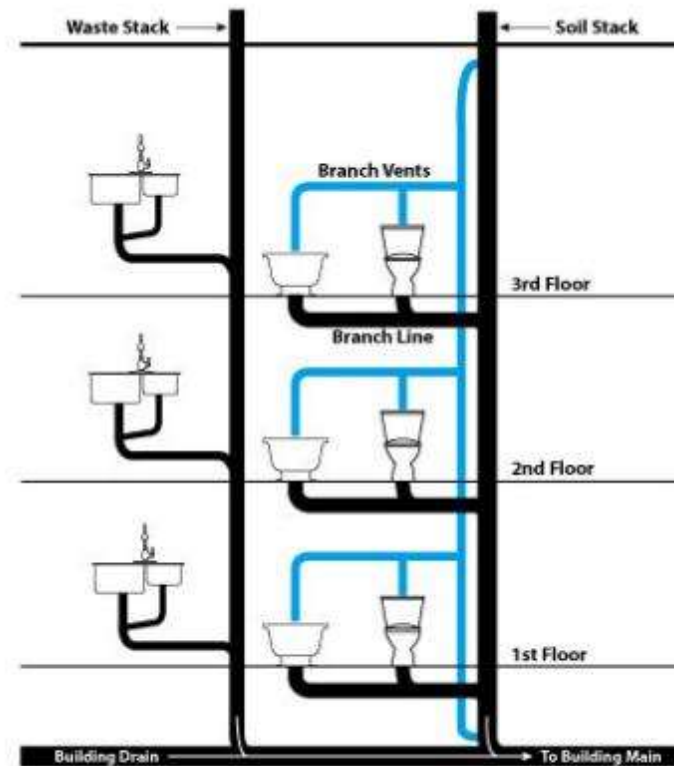
- Energy Star
- Dishwasher
- Clothes dryer
- Clothes washer
- Dehumidifiers
- Air filters
- Freezers
- Refrigerators
- Windows
- Ceiling fans
- Ventilating fans
- HVAC systems
- Furnaces
- Boilers
- Computer monitors
- Induction stoves use less energy than gas or electric stoves

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SUSTAINABLE BUILDINGS PLUMBING DESIGN

Installations

- Cluster areas of water use
- Minimize run lengths
- Optimize pipe diameter
- Use fewer bends



Multi-story Drainage and Venting

<https://pipelt.com/condominium/building-drainage-system-how-it-works-and-repair-options/>

<https://www.selloscope.com/bez/Renator-M11-0660R-Water-Pressure-Regulator-Brass-Lead-/B01N7JZTYX>

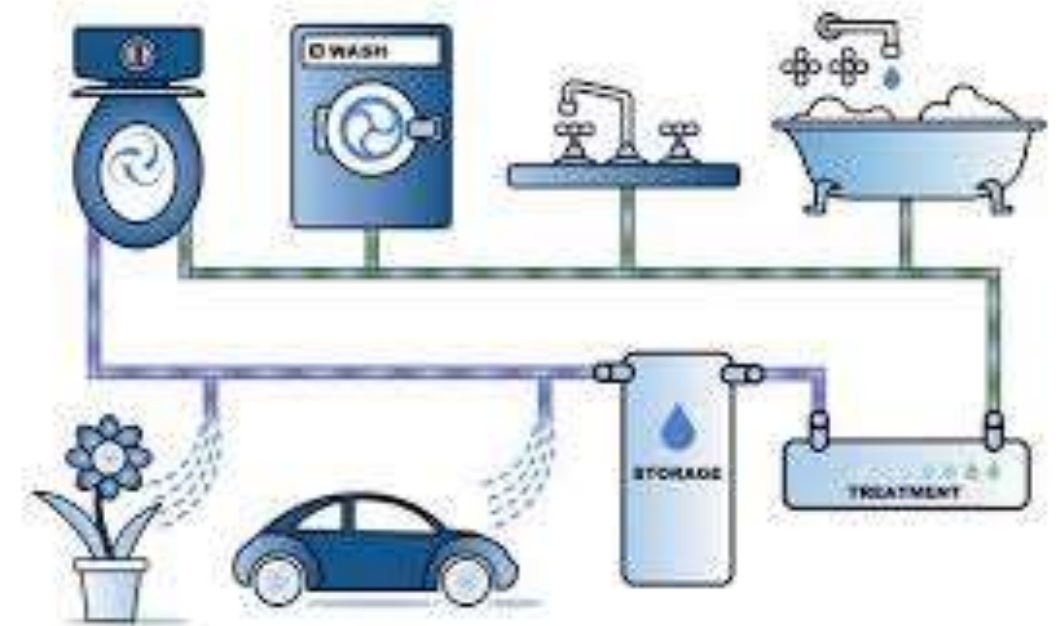


Specifications

- Fixtures with low water use
- Pressure Reduction Valves (PRV)
- Insulated Pipe Systems

Systems and Monitoring

- Prevent and minimize leaks
- Rain sensors deactivate irrigation systems during rainfall
- Reuse grey water for site irrigation
- Recover and reuse water from cooling towers and boilers



<http://www.rainharvest.co.za/2014/12/why-reuse-greywater/>

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PROGRAMMING

PERSONNEL										
Position	Support/Equipment		Unit Square Ft.	Extended Sq. Feet	Location			Notes	Department Summary	
	Current	Future							Information:	
Work Stations	1	40	120	4800	2	1			Personnel	6284 Square Ft.
Storage	0	0		200	Next to Work Area			Shelving	Equipment	5143 Square Ft.
Phone Rooms	3	8	48	384	1				Sub Total:	11427 Square Ft.
Gym	0	1		500					Circulation	1.54
Bleacher Seating	0	1		500	Adjacent to Teams			Work counters	Total Carpetable:	17597.58 Square Ft.
Receptionist	1	1		100	1	1	1			
				0					SUITE 1000	9,999.76
				0					SUITE2000	7379.02
				0					SUITE 3000	2990.74
				0					TOTAL SQFT	20,369.52
				0					Interviewee:	
				0					Interview Date:	
				0					Revision Submitted:	
				0					Sign Off:	
Personnel Totals:	5	51		6284						
SUPPORT/EQUIPMENT SPACES										
Space	Support/Equipment		Unit Square Feet	Extended Sq. Feet	Location			Notes	Department Notes:	
	Current	Future								
				0						
Reception	1	1	300	300	Direct access to Broadcast, Executive, Mktg			Waiting for 6, TV's		
				0						
Conference Room - Med	1	5	300	1500	Shared by all areas			Full AV		
BOARD ROOM		1	1200	1200						
Conference Room Small	0	5	200	1000	Shared by all areas			Work counter, outlets		
Computer Server Room	1		80	0	Near Account Admin			Raised floor, secure, 3 racks		
Coffee Station	1	3	9	27	Spread throughout			Work counter		
Break Area	1	1	600	600	Spread throughout			Coffee, sink, refrigerator, cabinets		
Open Lounge Areas	0	2	200	400				Full kitchen, seating		
				0						
Storage	40	1	100	100	One Closet					
Janitors Closet	0	1	16	16	Near Break Area			Supplemental Air		
				0						
Support Totals:				5143						



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SITE ANALYSIS:

320 Roney Street Durham, NC 27701



Sunlight/Heat will be most intense on the Southern end of building

SUMMARY **FULL DESCRIPTION**
320 Roney Street , Durham NC
Built in 1925-1945
construction type: Masonry
neighborhood: Central Park
type: Industrial
use: Tobacco Warehouse , Tire Warehouse



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INDUSTRY RECLAIMED



Aisha Sanders



From roots to seeds:
A historic setting to
launch forward thinking



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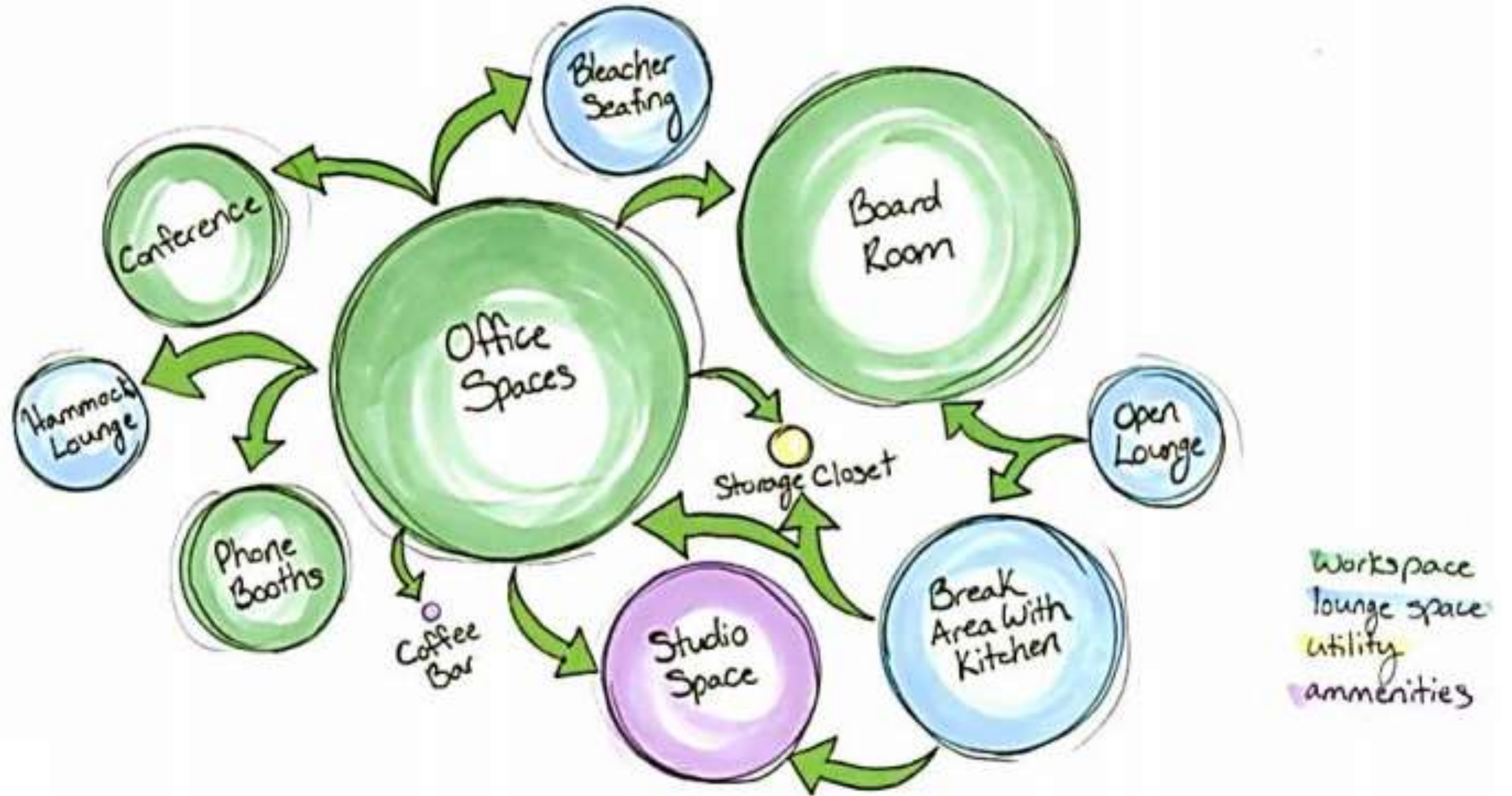
PROJECT INSPIRATION



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BUBBLE DIAGRAM

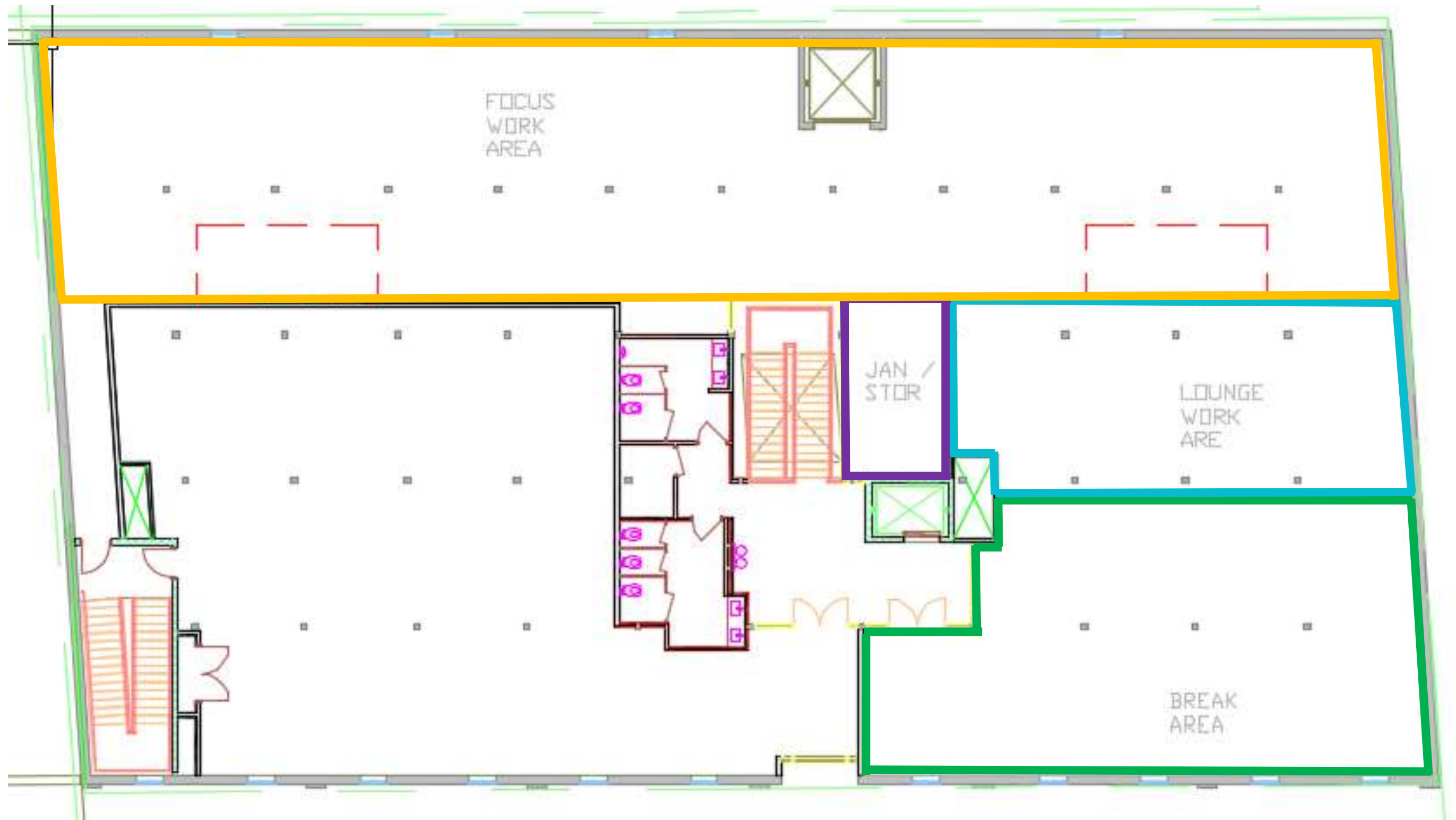


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BLOCKING DIAGRAM - LEVEL 1



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BLOCKING DIAGRAM - LEVEL 2