

THE URBAN CATALYST: THERAUPIC COMMUNITY HUB



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Module Title: Design Thesis
Module Code: 7044AA9 JANMAY

PRIMARY STUDY

THE URBAN CATALYST: THE RAUPTIC COMMUNITY HUB

SHOPPING QUARTER:

Coventry city center can be divided into two. The shopping side and the university side. Why people come to shopping quarter? Does city center south development changes the existing scenario of this space?

Major identity of this area: Shopping center



CIVIC AND UNIVERSITY QUARTER:

Major flow of the city is from university to city shopping quarter. Major identity of this area: coventry university



1. City center south development is happening inside the existing city center
2. Existing buildings where converting to new structures. WHY?
3. The main developments of city center south is in sheldon square, built yard and herford st., and these are one of the main heritage sites in city center.
4. Why new developments in existing city center? Why can't find a new development area?

Existing main attractions in the city center inner circle



Proposed city center south development

CASE STUDY: PHOENIX INITIATIVE, COVENTRY

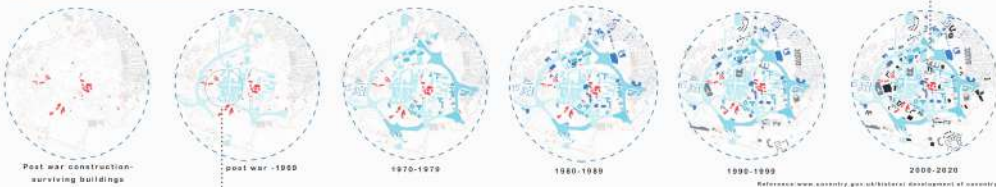
"By reconnecting two key visitor attractions, the project has generated the urban area required to kickstart further regeneration."

Important regeneration project for Coventry since the city was rebuilt following its destruction during the blitz of the Second World War. The site links two major visitor attractions: St. Paul's Cathedral and the Coventry Transport Museum. The project regenerated a previously neglected part of the city by creating a series of connected new public spaces. By preserving some of Coventry's ancient past, while infusing it with new public spaces, two beautiful new gardens, play spaces, cafes and bars, the Phoenix Initiative aims to create a new focus for the city.

KEY IDEAS:

1. New path way to connect past (cathedral) and future (the glass bridge).
2. A place where tourist can stay to experience the essence of the city.
3. Create new focus for the city.
4. creating series of connected new public spaces.

CITY CENTER DEVELOPMENT



CITY CENTER SOUTH DEVELOPMENT

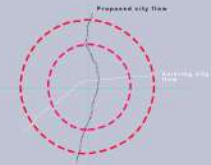
City Center South was supposed to bring the city the second biggest retail centre in the Midlands with shops, restaurants, a new cinema, housing area, hotel and more. The area, bounded by Upper Priory, Sheldon Road and Watney Road, connects to Bull Field, where it joins up to the new business corridor to the railway station. The new retail park and hotel up with new residential addition to City Center South, creating a vibrant and successful neighbourhood through the new shops and restaurants planned for the site.



City center south development area

The new developments which is happening on Coventry are city center south and city of culture 2021. City center south development is focusing on a new focal point inside the city center with a shopping area connecting Coventry market.

Gap of opportunity is an idea to create a new flow of city inside the city center.



Heritage and Development

City center south is proposing new construction which replace existing heritage site to new shopping area. Rather than creating something new, a development which focus on existing city center and its heritage.

For that a detailed study on city center is done. Mapping the development of city center from post war will be a useful tool for analysing this spaces.



Phoenix initiative development area





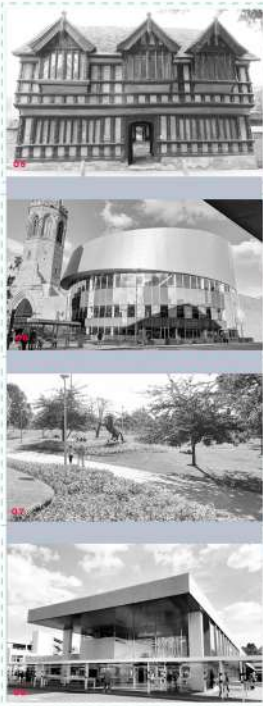
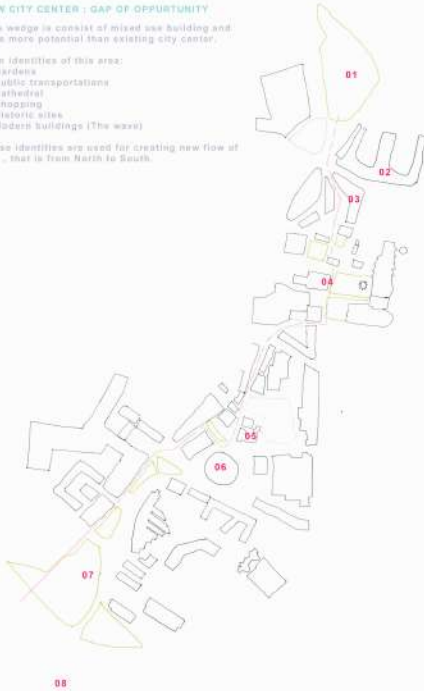
NEW CITY CENTER : GAP OF OPPORTUNITY

This wedge is consist of mixed use building and have more potential than existing city center.

Main identities of this area:

1. Gardens
2. Public transportation
3. Cathedral
4. Shopping
5. Historic sites
6. Modern buildings (The wave)

These identities are used for creating new flow of city , that is from North to South.

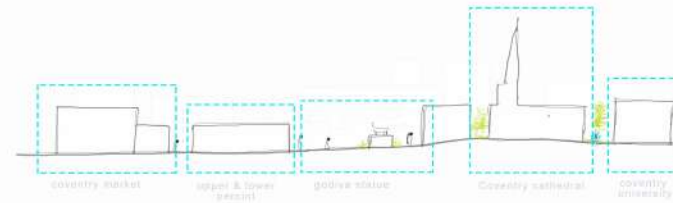


PRIMARY STUDY

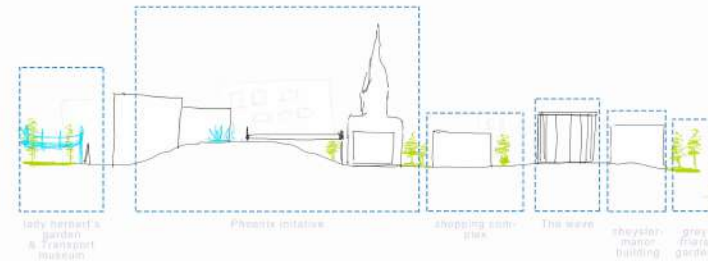
THE URBAN CATALYST: THE RAUPTIC COMMUNITY HUB

STREET SECTION:

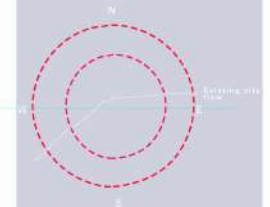
EXISTING CITY FLOW



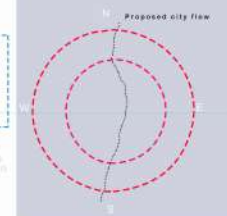
PROPOSED CITY FLOW



EXISTING CITY FLOW



NEW CITY FLOW DIRECTION: 600PE FOR NEW DEVELOPMENT



A 'negative' space between the thick clustered shopping quarter and university quarter is identified with great potential for new development. This Wedge or Gap is mixed buildings with modern and historic structures.



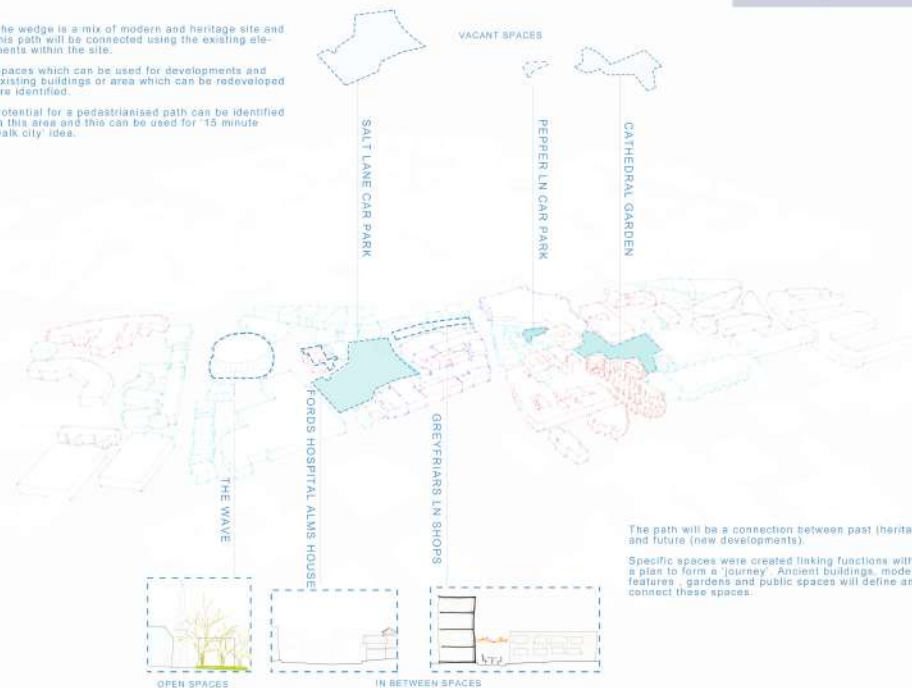
This fragment of city center can be used for new city flow or new developments inside the city center. This path connects Lady Herbert's garden to Greyfriars garden. It can be developed as a pedestrian route which connects Bus station and Coventry Train station.



The wedge is a mix of modern and heritage site and this path will be connected using the existing elements within the site.

Spaces which can be used for developments and existing buildings or area which can be redeveloped are identified.

Potential for a pedestrianised path can be identified in this area and this can be used for '15 minute walk city idea'.



The path will be a connection between past (heritage) and future (new developments).

Specific spaces were created linking functions within a plan to form a 'journey'. Ancient buildings, modern features, gardens and public spaces will define and connect these spaces.

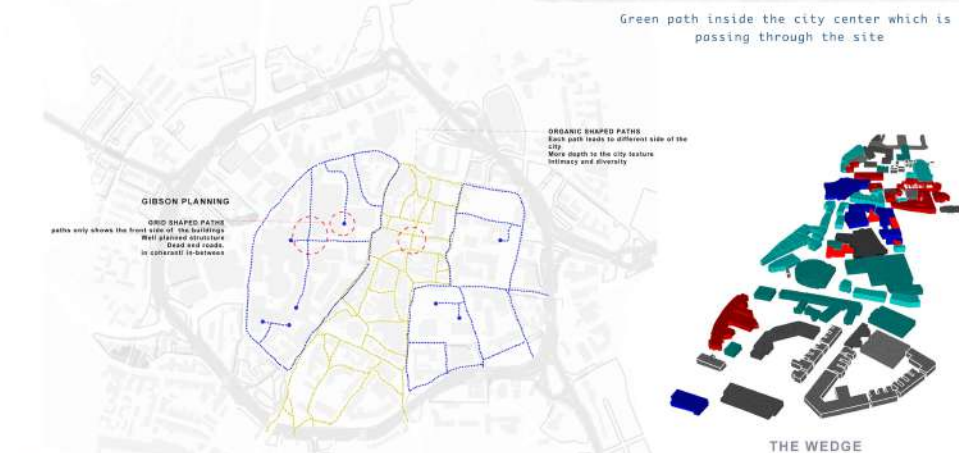
SITE ANALYSIS



The post war development of coventry city center is mainly focusing on shopping quarter and civic /university quarter. By analysing the city planning of coventry city center, there is a wedge inside the city center which divides the two quarters have much more opportunity than the existing city center. The opportunity of this area is the intimacy with city since it is having organic planning when compared to existing city center.



Green path inside the city center which is passing through the site



The site which i have selected is in between a green route which is starting from Greyfriars green memorial park .so the existing green path is potential area for development.The ford hospital in the green path is selected as a main development space , due to its historical and functional values. The wave , which is a modern building used as a water amusement park is a nera by building. The wave is one of the main foacl point inside the wedge area.

The green space and the developments within this area will act as a catalyst to activate this wedge and can be developed into a new city attraction.The site have a great opportunity than any other spaces inside the city center including the proposed city center south development.

The site include the wave,ford hospital and near by car park area like salt lane and barrack. Wave is a water amusement center with modern construction ,where as ford is a heritage building which buit on 1509 by william ford for eldery people and now it works as a care for elderly women.

DESIGN DEVELOPMENT

THE URBAN CATALYST:THE RAUPTIC COMMUNITY HUB



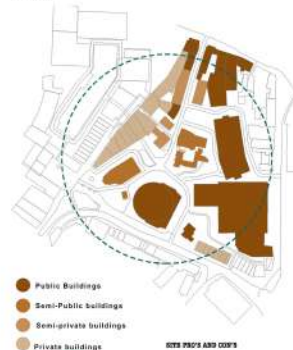
FORD HOSPITAL

The almshouse hospital was the actual name of Ford hospital.It if found on 1509 by william ford who was a wealthy wool merchant.It was initially started as a hospital for 5men and 1 women . 1517-Expanded to 6 couples by Willian piford 1529- 11 COUPLES 1529- 11 couples After 1800 the hospital is fully converted for elderly women 1a oct 1948 -bomb attack after 13 year of restoration the hospital converted as care home for elderly women .

THE WAVE

The Wave is an indoor water park situated in Coventry in the West Midlands, England opened on 2019. The water park currently holds the record for the largest wave pool in the UK, at a capacity of 20 million litres. The park also contains a lazy river, a splash zone and six slides of varying intensity.

STRUGGLE



STREET STUDY



TRAFFIC



SOLUTIONS

PROPOSAL FOR UNDER GROUND PASSAGE

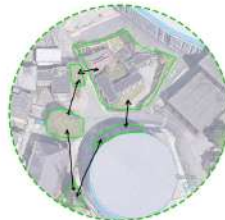


Mixed used buildings (conserved building and contemporary buildings)

More green spaces which can be connected to make a green node inside the city

More space for rain water catchment (flat roofs and open space)

Grey water from THE WAVE can be recycled and used.



DESIGN DEVELOPMENT

THE URBAN CATALYST: THERAUPIC COMMUNITY HUB

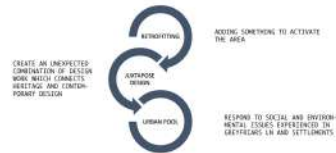
Most of the buildings inside the site are public and the main road which is passing through the site is connecting barrack car parking to union street. this is one of the main obstacle inside the site. this barrier need to be removed to get full site for the proposed development.

The green nodes and the shrub walk inside the site will act as a part of the green network which is proposed inside the area. In an urban space everything is co-related and dependent to each other, likewise, in this area every existing elements will act as a networking factors for the development. The existing elements like ford hospital and the wave is connected for creating a urban design, so connecting heritage and contemporary buildings with a common gathering space, which will act as a catalyst for activating the whole area. so this juxtapose design should be public, connect with existing urban context and will be a sustainable design.

I started analysing the pools in coventry. Creating a pool near to wave is to bring the closed public space to open public domain, which will be beneficial to all the site users. The next tool for this design is communal garden, which is a design response to existing historic context of site

Connecting heritage and contemporary building with a common gathering space, which will act as a catalyst for activating that whole area. So the intervention should be:

PUBLIC
CONNECT WITH EXISTING URBAN CONTEXT
SUSTAINABLE



COVENTRY AND SWIMMING POOL

17 - Swimming pools
History of pool culture

The proposal establish a center of urban resilience, connecting local communities and the issues they face to existing expertise that can facilitate positive change.



POOL TYPES

Above-Ground Pool, Architectural Pool, Family Pool, Recreational Swimming Pool, Indoor Pool, Infinity Pool, Kidz Pool, Lap Pool, Natural Pool, Olympic-Size Pool, Plunge Pool, Saltwater Pool, Spool

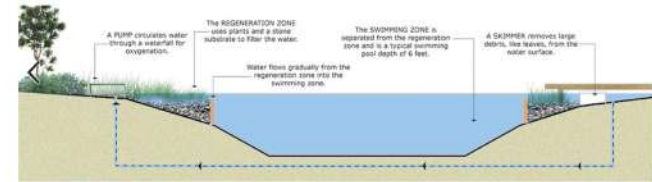
NATURAL POOL

reduce the nutrients in the water, thus preventing algae from growing and so keeping the water clear. Some pump the water through shingle, which acts as a filter OR use plants to absorb nutrients, micro-organisms and pathogens.



Of Soil and Water: King's Cross Pond Club was the UK's first ever, man-made natural swimming pond

NATURAL POOL FILTRATION



COMMUNITY GARDEN

Community gardens allow for the creation of social ties and build a greater feeling of community. Here the local community and the care home residents will be part of this communal garden. Grey water from WAVE will be used for agriculture.

Spitalfields city farm, London



vegetable garden



sale and training



grass road



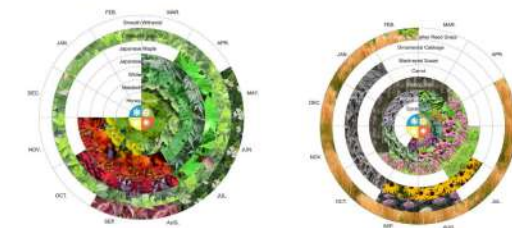
nursery

URBAN POOL AND COMMUNAL GARDEN



The relationship to nature is an important part of schooling. The urban environment presents significant health challenges for children, such as discouraging physical exercise and increasing exposure to air pollution, excessive noise and higher temperatures. Reducing exposures to these negative environmental factors can have great benefits on a child's well-being and lower their risk of developing chronic diseases later in life. There is increasing evidence that suggests that the presence of urban green space can offer benefits to human health and well-being.

COMMUNITY GARDEN PLANT CYCLE:



BUILDING MATERIAL

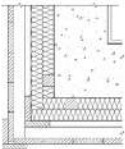
THERMOWOOD CONSTRUCTION DETAILS:

The main technologies used for these design are using thermo wood and blue glass panels as building materials. The design technologies will be rain water harvesting from roof top and chlorine water filtration for irrigation.

Natural pools are used as main urban pool inside the site,the water for this pool is collected using rain water harvesting method. Thermo woods helps to insulate the building and its easily merge with the existing site condition.

Channel vertical cladding is used for external and internal wall.

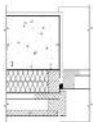
EXTERNAL WALL THERMO WOOD CLADDING DETAILS:



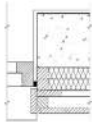
EXTERNAL CORNER (OPENING)
DETAIL -A



WALL LINE
DETAIL -B



WINDOW REVEAL
DETAIL -C



DOOR REVEAL
DETAIL -D

INTERNAL THERMO WOOD WALL CLADDING DETAILS:



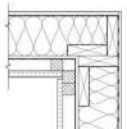
WALL LINE
DETAIL -F



WINDOW REVEAL
DETAIL -G

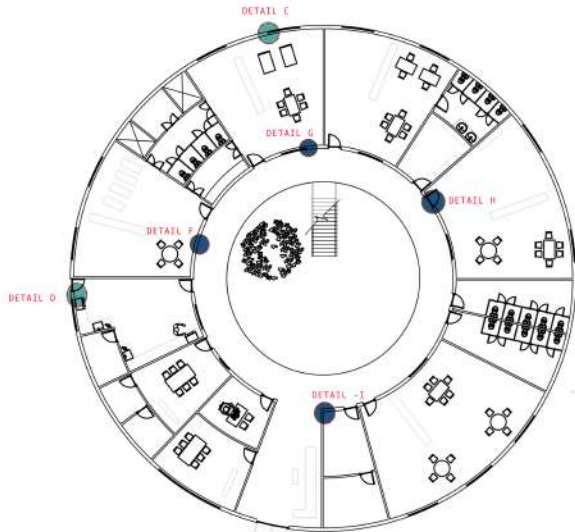
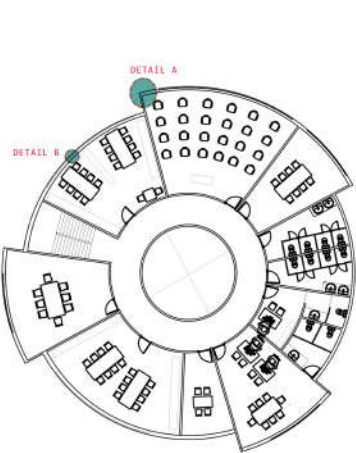
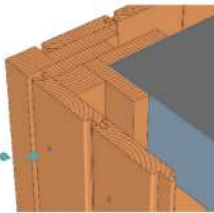


DOOR REVEAL
DETAIL -H



INTERNAL CORNER
DETAIL -I

vertical cladding and nailing

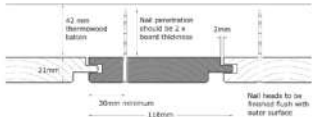


DESIGN TECHNOLOGY

THE URBAN CATALYST: THERAUPIC COMMUNITY HUB

FIXING DETAILS:

Stainless steel nails are used to fix ThermoWood, because plated nails can be damaged during fixing and can deteriorate when exposed to moisture, staining the area around the nail head. A less visible lower gauge nail can also be used but lower pull-through strength should be noted, additional fixings may be required. "Small head" or "siding nails" are suitable for ThermoWood but "round-head" nails offer greater holding power.



Kinderkrippe Nursery School HAMBURG, GERMANY Architects: KRAUS SCHÖNBERG ARCHITECTEN Area: 428 m² Year: 2015



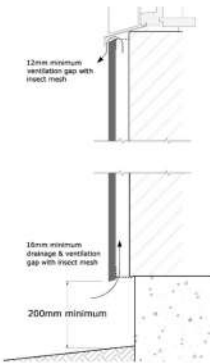
GREY WATER FILTRATION FOR IRRIGATION

Chlorinated water, such as that from a pool is not suitable for watering plants. High levels of chlorine are toxic to plants. However, water compositions with low chlorine contents may be used, and even prove helpful for the plants.

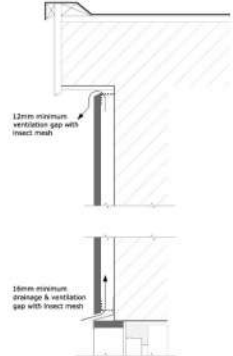
How to dechlorinate water and use it safely to irrigate a garden:

Stop adding any chemicals to the pool water.
Wait a week for chlorine and other harmful chemicals to dissipate from the uncovered swimming pool.
After the week has passed, check the pH of the water - it should lie between 7 and 8.
Check the chlorine content, if possible. It should be 1 ppm, or lower. Use a swimming pool testing kit to do so.
The color of water should be clear and free of algae.
The water can now be discharged into the garden. Use a bucket to extract water from the pool, or a siphon line and water the plants with it.

WALL SECTION AND VENTILLATION DETAIL:

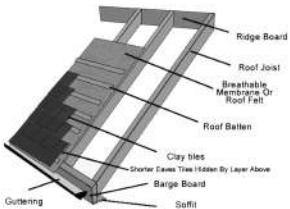


SILL AND GROUND LEVEL SECTION



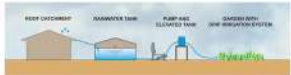
EAVES LEVEL AND HEAD SECTION

SLOPPING ROOF SECTION:



ENVIRONMENTAL

RAIN WATER HARVESTING

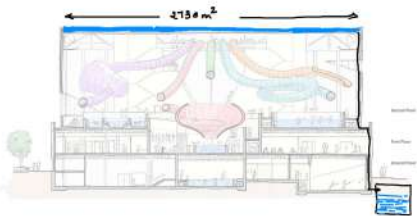


GREY WATER COLLECTION



CONSTRUCTION

CONCRETE UNDER GROUND PASSAGE FOR CAR PARKING

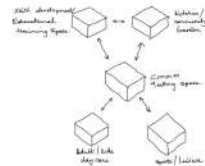
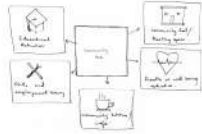


DESIGN DEVELOPMENT

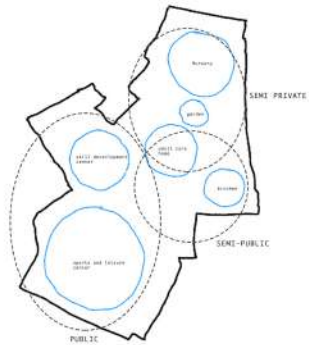
THE URBAN CATALYST: THERAUPIC COMMUNITY HUB

DESIGN CONCEPT

Community hubs are an incredibly diverse group of entities, ranging from communal garden sheds to multipurpose community centres. Community hubs are buildings (or parts of buildings). They provide and host community activities that local people need. They are led and run by the community and are open and accessible to everyone. This also means their purpose can change over time to be available to people.



BUBBLE DIAGRAM



SITE ZONING



Community hubs are an incredibly diverse group of entities, ranging from communal garden sheds to multipurpose community centres. Community hubs are buildings (or parts of buildings). They provide and host community activities that local people need. They are led and run by the community and are open and accessible to everyone. This also means their purpose can change over time to be available to people.

Community hubs are often set up and run to provide one or more of the following:

- Facilities for the use of the local community to ensure a healthy, active and economically thriving population.
- Services for the local community, directly or indirectly.
- Opportunities for community engagement, volunteering, the empowerment of local people.
- The 'added value' of a thriving community hub which enhances community life, e.g. providing a focal point for local people, providing a sense of community, providing spaces for people to meet, etc.

EXISTING COMPONENTS:

1. LEISURE /SPORTS (THE WAVE)
2. CARE HOME (FORD HOSPITAL)

PROPOSING COMPONENTS:

1. SKILL DEVELOPMENT CENTER
2. COMMUNITY KITCHEN
3. MEETING SPACE
4. KIDS CARE CENTER (NURSERY)
5. COMMUNITY GARDEN

SITE BOUNDARY



BUILDING RELATION:



VISUAL RELATION:



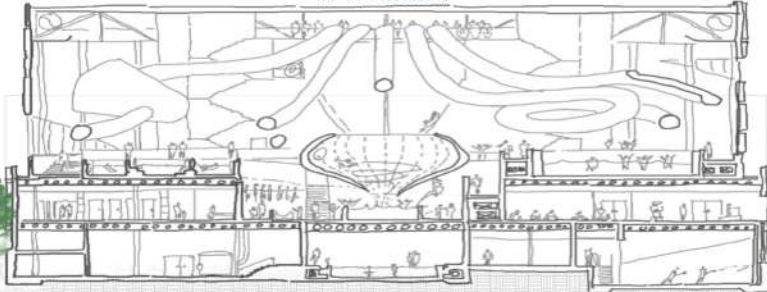
PROPOSED SITE PLAN :



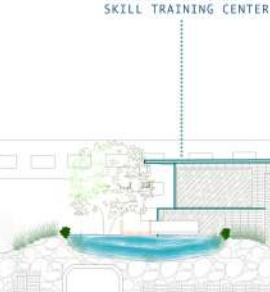
SITE PLAN AT UNDER GROUND PASSAGE LEVEL:



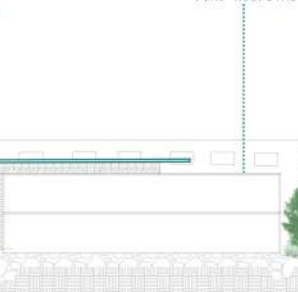
THE WAVE BUILDING



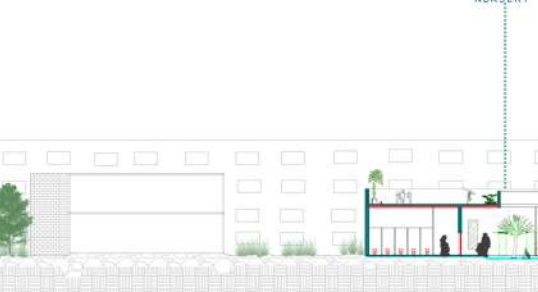
COMMUNITY KITCHEN & SKILL TRAINING CENTER



FORD HOSPITAL



NURSERY



DESIGN

THE URBAN CATALYST: THERAUPIC COMMUNITY HUB



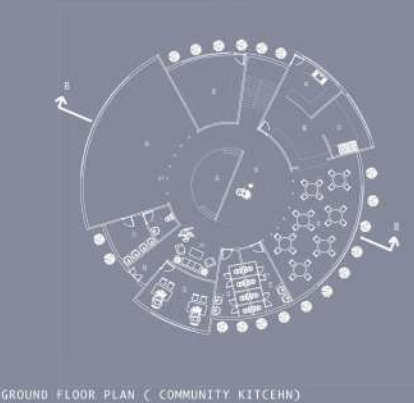
PRIMARY STUDY

THE URBAN CATALYST: THERAUPIC COMMUNITY HUB

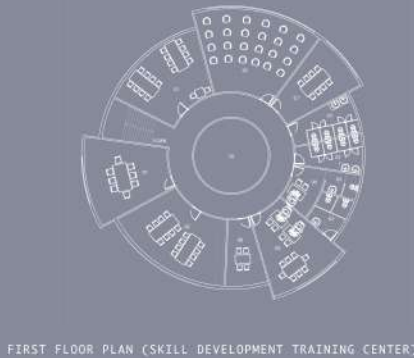
Coventry is a post-war redeveloped city. Many buildings stand as the remains of the WW2 bombings. Hence, other than the statues and the surviving buildings, the state has a definite possibility of being represented through a memorial space. As per the Coventry city plan, the city is structurally divided into three main sectors. I propose to utilise the space between these sectors as a possible area of development. The space will share the characteristic features of all the three sectors, encapsulating the essence and intimacy of the city and thereby creating an identity of its own by enacting as a new catalyst for the city. This new catalyst stands as a space which can be made productive for the city. This ultimately brings to my idea of a community hub. The community hub can be a single building or part of an extension of an existing building. Hence, I propose to convert a space into a community hub.



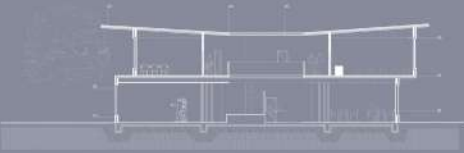
COMMUNITY KITCHEN AND SKILL DEVELOPMENT CENTER



- 01. LIBRARY
- 02. CLASS ROOM
- 03. TOILET
- 04. PRINCIPLA ROOM
- 05. OFFICE ROOM
- 06. STAFF ROOM
- 07. WORKSHOP ROOM
- 08. PREPARATION AREA
- 09. STORE ROOM
- 10. MULTIPURPOSE HALL
- 11. WASH ROOM
- 12. LOBBY
- 13. OFFICE
- 14. DINING AREA
- 15. RECEPTION
- 16. STAGE
- 17. COOKING AREA
- 18. WASHING AREA
- 19. SEEN BELOW



- 01. THERMOWOOD CLADDING
- 02. GLASS WINDOW WITH WOODEN FRAME
- 03. SHRINGLE ROOFING
- 04. WATER COLLECTION FROM ROOF TOP
- 05. TEMPERED GLASS ROOF
- 06. FALSE CEILING
- 07. CARPET FLOORING
- 08. WOODEN FLOORING (DINING AREA)



BUILDING SECTION -BB

SCALE 1:200 (ALL DIM IN MM)

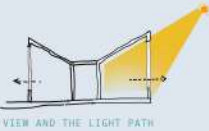
DESIGN

THE URBAN CATALYST:THE RAUPTIC COMMUNITY HUB

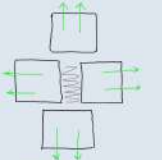
Skill development center and community kitcehn space is one of the main design in community hub space. The building is fully in public space and thus the relation with it to surrounding landscape is more. so the building is designed in an extrovert manner. Light and view is fully absorbed from the designed surrounding landscape. Large windows are provided to obtain maximum view

BUILDING CONCEPT:

The building which is looking outwards is called extrovert buildings. Here the community kitchen is designed with maximum view to surrounding landscape. so the building will be automatically a part of the existing surrounding space.



VIEW AND THE LIGHT PATH



PLAN



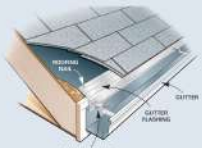
SECTION

BUILDING TECHNOLOGY:

rain water from the slopping roof is collected using water gutter and the water collected is used for communal garden irrigation.



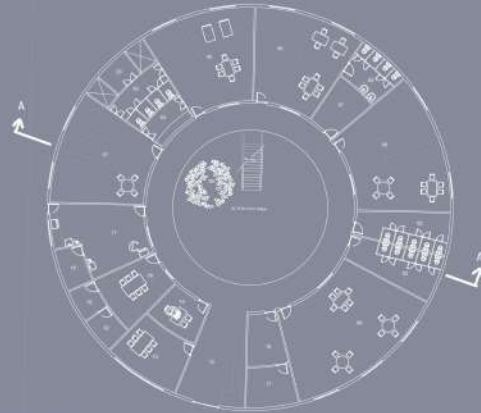
gutter section



WATER GUTTER DETAILS

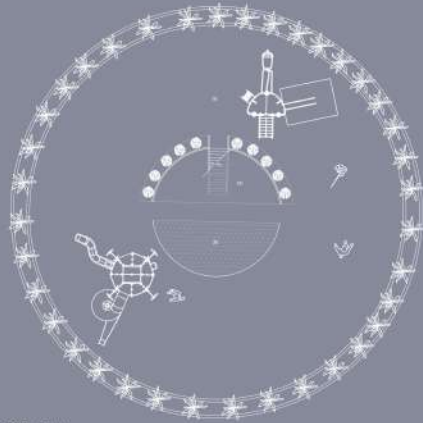


NURSERY:

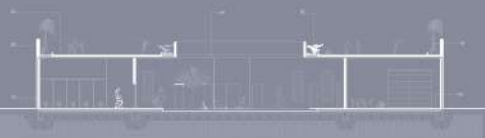


GROUND FLOOR PLAN

- 01. CLASS ROOM FOR 0 YRS
- 02. TOILET
- 03. BATHROOM
- 04. MILK PREPARATION ROOM
- 05. CLASS ROOM FOR 1 YR
- 06. CLASS ROOM FOR 2 YR
- 07. TOY ROOM
- 08. MULTIPURPOSE HALL
- 09. CLASS FOR 3-SYRS
- 10. STORAGE
- 11. LAUNDRY
- 12. LOBBY/ENTRANCE
- 13. OFFICE
- 14. PRINCIPAL ROOM
- 15. STORE ROOM
- 16. STAFF ROOM
- 17. KITCHEN
- 18. ACTIVE PLAY AREA
- 19. SEEN BELOW
- 20. ROPE MESH FRAME FOR PLAYING



FIRST FLOOR PLAN



BUILDING SECTION AA

- 01. THERMOWOOD CLADDING
- 02. SOIL SPACE FOR PLANTING
- 03. WOODEN PLAY AREA FLOOR CLADDING
- 04. ROPE FRAME PLAYING AREA FOR KIDS
- 05. ROOF GARDEN WITH PLANTS
- 06. WOOD FLOORING
- 07. VERTICAL ROOF GARDEN SPACE

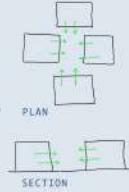
DESIGN

THE URBAN CATALYST: THERAUPTIC COMMUNITY HUB

Kids nursery is a building inside the community hub which will be a major attraction inside the community area. Nursery will act as a major link from broad gate street. The building designed for nursery is an introvert looking building designed specially for local kids. The building materials used for nursery are: thermowood cladding, wooden flooring and carpet flooring are used for interior spaces.

BUILDING CONCEPT:

The building is designed to be an introvert building where focus of all the rooms inside the building is towards the central court yard.
Since the nursery should have its own privacy in a public place, the introvert construction helps to keep it on its own public complex.



DESIGN ELEMENTS:



One portion of terrace active play area is converted to rope mesh play area where kids can play and making the terrace area more active.



ROPE MESH FIXING DETAIL



SITE MASTER PLAN
1:500

DESIGN
THE URBAN CATALYST: THERAUPIC COMMUNITY HUB

PLANT DESIGN:



FALL TREES EVERGREEN TREES SHRUBS LAWN

MATERIAL DESIGN
Urban farm:



soil sack/pot vertical

Furnitures:



wooden bench circular wood bench pool chair with umbrella

Hard & soft ground:



wooden pavement stone pavement wild grass lawn stone grass pavement

SITE CIRCULATION:

- PEDESTRIAN ROUTE
- SITE SERVICE ROUTE
- ROAD TRAFFIC ROUTE



COMMUNITY CAFE AND URBAN POOL



SECTION

Community cafe is main link which connects the path from broadstreet to community kitcehn area. Cafe act as a catalyst to attract people to north side of the site ,where only nursery is placed. Thus community cafe helps to activate the north side along with nursery and fard hospital garden.



PLAN

- 01. PANTRY
- 02. INDOOR SEATING SPACE
- 03. OUTDOOR SEATING SPACE



DESIGN

THE URBAN CATALYST: THERAUPIC COMMUNITY HUB

Urban pool is an idea of creating a public gathering space for all age group. This natural swimming pool is a new concept of urban pool which is having a therapeutic effect on users. It will be aesthetically and practically helpful for the users. Water-based exercises offers resistance training through the hydrostatic pressure of water across the whole body surface, which offers additional benefits for balance, coordination, and mobility. This light aerobic capacity of aquarobics can reduce the risk of heart disease, an important consideration for seniors.

The pool is divided into two different area where west end is for public and east end is for elderly person from Ford Hospital. A separate space for seniors with a private pool area where they can enjoy and get their own privacy at same time. The pool area is divide with a wooden over hanging bridge.

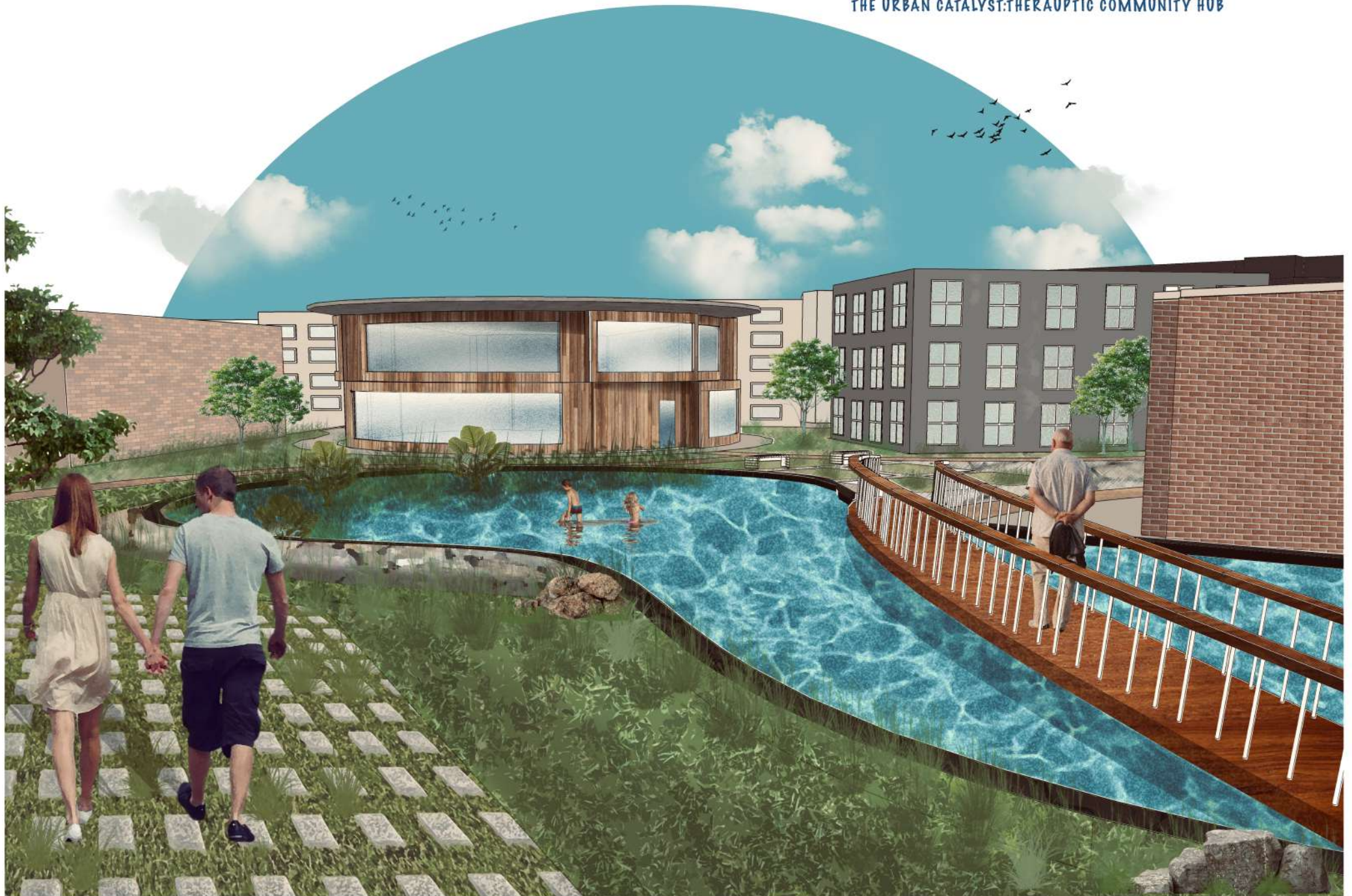


WEST END FOR PUBLIC



EAST END FOR ELDERLY PEOPLE IN FORD HOSPITAL





THE URBAN CATALYST: THERAUPIC COMMUNITY HUB

<https://youtu.be/r9wHoXr6JBo>

Council, C., 2021. Coventry's history | Coventry's history | Coventry City Council, [online] Coventry.gov.uk. Available at: <https://www.coventry.gov.uk/info/99/local_history_and_heritage/2643/coventrys_history> [Accessed 30 April 2021].

SKETCH UP
AUTOCAD
ADOBE ILLUSTRATOR
PHOTOSHOP
LUMION