Palava



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Comparative study of Cities

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Case Studies:

Monuments
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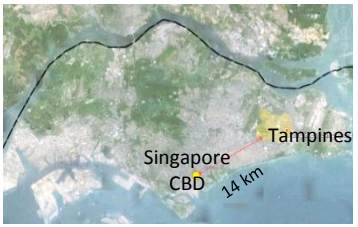
CITIES

1. Tampines, Singapore
2. New Songdo City, South Korea

Tampines, Singapore

Area: 10.7sqkm (1078 ha)
Year: 1978

It is the largest residential area in the city-state of Singapore. It is the second largest commercial hub outside the Central Region of Singapore.





Key Features

- **High rise high density** housing
- Based on **"Green connector concept"** – The town is well linked through green connectors, residents can easily traverse from one sector to other through these greens links.
- The facilities and amenities are strategically placed in and around the green networks
- Designed on **walkability concep**t - The amenities and facilities (school, shops, parks, playground and bus stop) are within 10 min walking distance
- Adopted the concept of **Multi level car Parking** to optimize the use of land.

Songdo (International Business District) , Incheon, South Korea

Area: 6.06 sq km (606.9 ha)
Year: 2015 (Completion date)



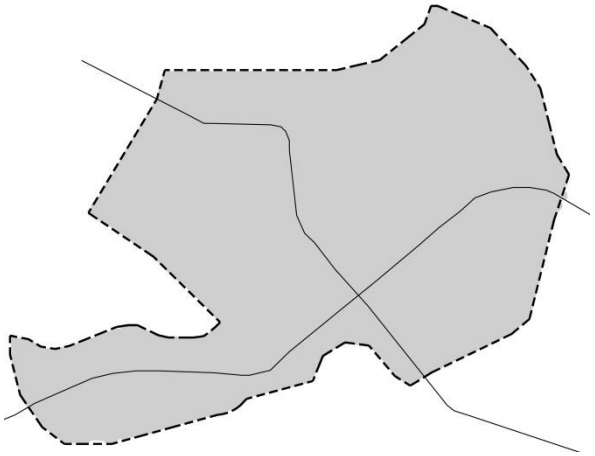
Developed on 1,500 acres of reclaimed land in South Korea along Incheon's waterfront. It is 64 km from Seoul and 11 km from Incheon International Airport. Songdo IBD (Zone 1 & 3 of Songdo City) is a part of phase one ,development of New Songdo City, South Korea.



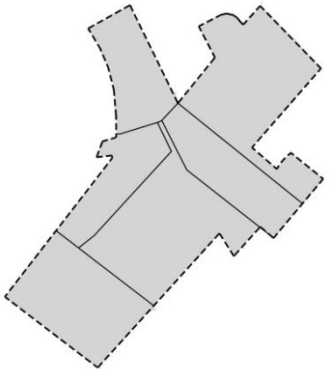
Key Features

- **High rise high density** development
- Designed on **walkability concept.**
  - Pedestrian Zone – 5 min walk
  - Extended Pedestrian Scale – Long walks and short cycle ride
  - Local transport area
- Institutions as the nucleus of residential development.
- A **large stretch of green** (central park)in the heart of city . City level facilities and amenities are placed strategically in and around the green park. The fringes of park are flagged by high rise residential and office district.

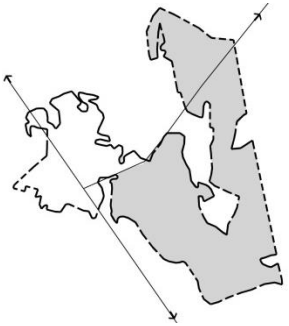
Tampines, Singapore



Songdo, S. Korea

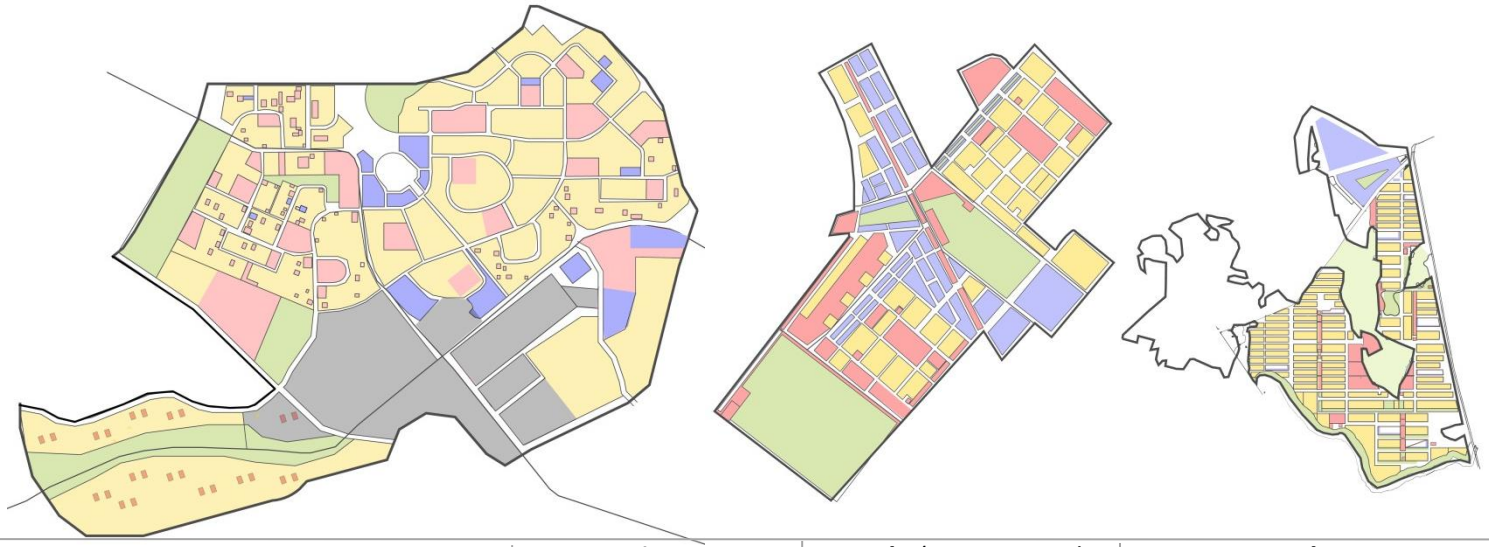


Palava, Mumbai



Area (sq km)	**10.70 sqkm**	**6.06 sqkm**	**2.4 sqkm**
Population	2,16,100	3,65,000	3,00,000 (Including EWS)
Max Building Height	36 m	204 m	69 m
Character (Built fabric)			 

Land Use Comparative Analysis



	Tampines (893 ha excluding Industries)	**Songdo** (International Business District) (606.9 ha)	**Palava** (238.7 ha(590 Acres))
Residential	38%	22%	37.5%
Commercial (Office, Retail, Wholesale, Malls)	15%	14%	8.4%
Public Amenities (Education Institutions, Hospitals, Convention center, Cultural facilities etc)	16%	16%	7%
Open spaces	10%	23.6%	18.4%
Others (Rods, Parking, Transport hubs)	21%	24.4%	28.7%

PALAVA

Amenities & Facilities

Amenities / Functions	City Level	Neighborhood level
Civic Bodies	City Administration office Banks Post office Telephone exchange Electricity board	Bank outlets/ ATM Police chowki Bill Payment centers - Electricity /Telephone
Other Civic Bodies		Community centers
Security and Disaster Management	Fire fighting station Police Station	
Institutional	Library University Museum Science center /planetarium/ aquarium Exhibition center Town hall	Schools
Medical facilities	Hospital/Nursing home Veterinary Center/ hospitals	Clinics and Pharmacy

NOTE: City level Amenities not incorporated in 590 acre master Plan

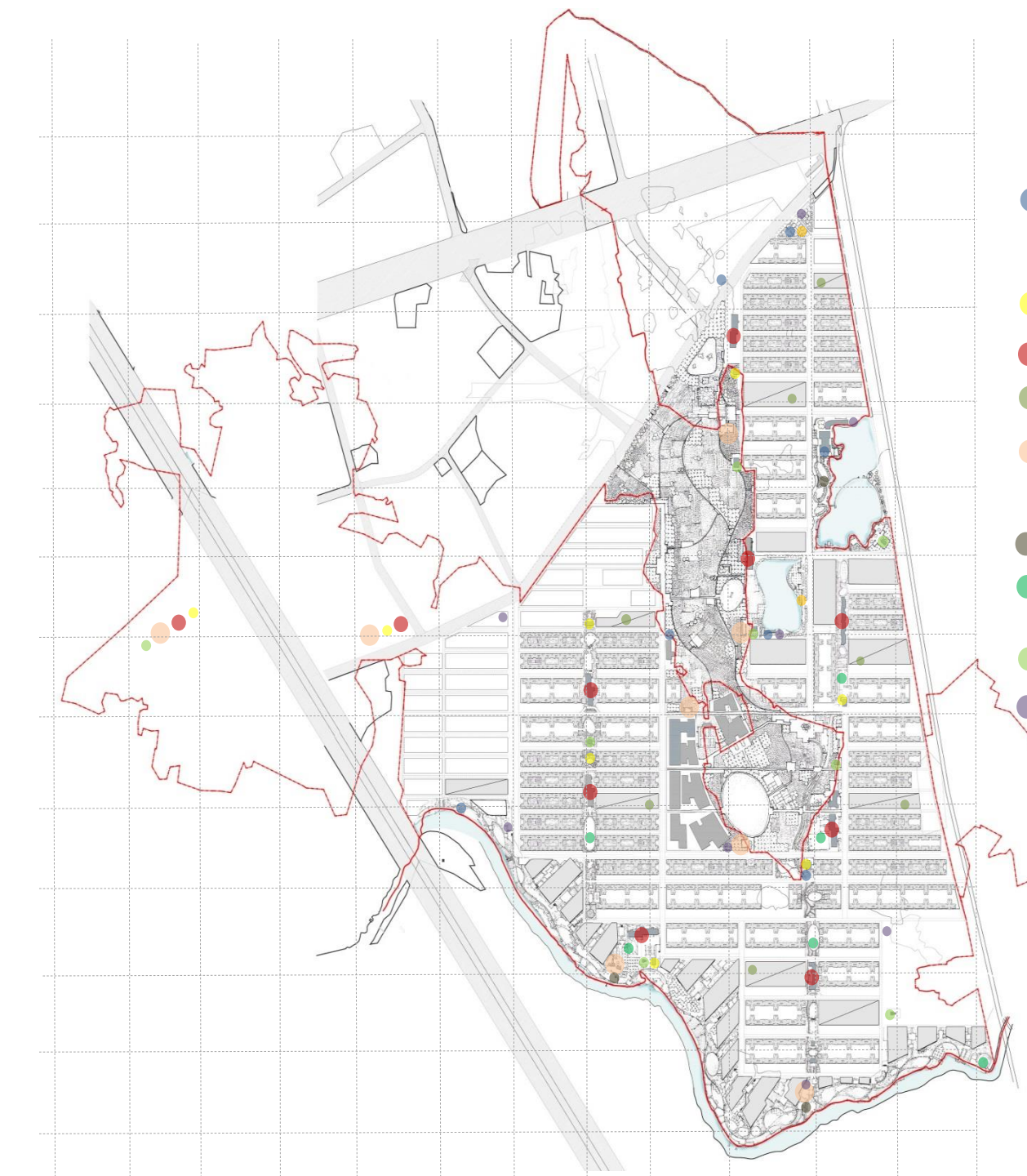
Amenities / Functions	City Level	Neighborhood level
Recreational Facilities		
Sports	Sports Hub/ sports stadium Theater/ cinema halls/ Drive in cinema	Sports center (indoor /outdoor) Parks
Shopping		
Informal		Vegetable/ flower market Fish/Poultry Market Grocery stores / stationary store
Formal	Shopping hub/ city center/Shopping malls	
	Agro goods wholesale market	
Eatery		
Informal	Hotels, Restaurants and Pubs	
Formal		Café's, Food streets/chowks
Religious Facilities	Places/Maidan for festival celebration Crematorium	Place to worship : Temples/church/Mosque/ Agiary/Gurudwara
Transport Facilities	Transport Hub	Auto /Taxi Stand
Miscellaneous	Petrol Pump Old age home Orphanage (optional)	Public Toilets (pay and use) Day care center (*shishu vikas Kendra*) Information kiosk Telephone / communication booths

NOTE: City level Amenities not incorporated in 590 acre master Plan



City Level Amenities

- City Administration office
  Banks
  Post office
  Telephone exchange
  Electricity board
- Fire fighting station
  Police Station
- Library
  University
  Museum
  Science center /planetarium/ aquarium
  Exhibition center
  Town hall
- Hospital/Nursing home
  Veterinary Center/ hospitals
- Transport Hub
- Sports Hub/ sports stadium
  Theater/ cinema halls/ Drive in cinema
- Shopping hub
  Agro market
  Hotels, Restaurants/ Pubs
- Places/Maidan (festivals)
  Crematorium
- Petrol Pump
  Old age home
  Orphanage (optional)



Neighborhood level amenities

- Bank outlets/ ATM
  Police chowki
  Bill Payment centers
- Community centers
- Schools
- Clinics and Pharmacy
- Vegetable/ flower market
  Fish/Poultry Market
  Grocery stores/ stationary store
- Food streets/chowks
- sports center (indoor /outdoor)
  Parks
- Place to worship
- Public Toilets(pay and use)
  Day care center
  (*shishu vikas Kendra*)
  Information kiosk
  Telephone/ communication booths

MONUMENTS

MONUMENT

Latin *"monere"* which means 'to remind' or 'to warn.'
"monumental" something of extraordinary size and power, usually made in the past to commemorate the dead

A structure or an element in a space/area that is

Explicitly created to ***commemorate a person*** *or* ***important event***

Important to a social group as a part of their remembrance
(historic times / cultural heritage/historic architecture).

"Memory is to monument what process is to product.".

'Lieux de memoire'- where memory is crystallised in which it find refuge.
'Milieux de memoire'- memory is real part of evryday experience.

"Between Memory and History"
-by Pierre Nora

Significance

A monument plays multiple social roles.

-**Link** generations

-Give **Identity**

-Are a physical manifestation of **memories and aspirations** of society

-Act as **markers & landmarks**

-Are projection of personal **values & desires**

-**Civic compositions**

-Encourage **Participation**

-Represent **version of the past**

- Archeological & Architectural value

Monuments

through Time…

UPTO c. 450 B.C

Simple / modest Monoliths	Burial structures symbols of ancient civilizations



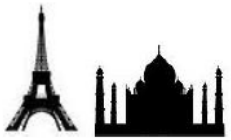
15th Century

Large Expressing Grandeur Complex	Commissioned by rulers /regime Early demonstration of feats of Engineering. To create an impact



19th Century
20th Century

Intricate Complex Civic	Iconic emblems of modern nation/states Demonstration of feats of modern Engineering And technologies Symbolizing revolutions, movements , political ideologies.



Contemporary Civic	To Improve appearances of cities To symbolize or commemorate important events (war , independence) Expression of Modernism



Sustainable Ephemeral (sometimes) Civic	Expressing ideologies of modern times and addressing issues of resent times. Bringing about a new critical awareness



Monuments during early ages

TUMULI
Mound of earth and stones raised over a grave/graves.
DOLMEN
Single-chamber megalithic tomb, with upright stones supporting a large flat horizontal capstone
MENHIR
Standingstone, orthostat, or lith .



The Hohmichele mound, Germany**,** Kings graves, c. 600 - 450 BC



Marayoor Dolmen, Kerala, Neolithic period



Large menhir County Cork, Ireland.

Monuments so large that they are difficult to destroy

PYRAMIDS
Tombs for the country's Pharaohs and their consorts (Old and Middle Kingdom periods).
PARTHENON
Temple dedicated to the maiden goddess Athena
Classical Greece style
MOAI
Monolithic human faces of deified ancestors (years 1250 and 1500)







Monumental structures have become iconic emblems of modern nation-states

THE EIFFEL TOWER, France
Monument commemorating the French Revolution for its centenary.
THE STATUE OF LIBERTY, USA
Symbol of the United States of America independence.
CLEOPATRA'S NEEDLE
Arranged in two pairs; the London and New York







Monuments frequently used to improve the appearance of a city or location.

Planned cities such as Washington D.C., New Delhi and Brasília are often built around monuments. Older cities have monuments placed at locations that are already important or are sometimes redesigned to focus on one.



Healy Hall , Georgetown University



U.S. Capitol



Washington Monument

Monuments designed to convey historical or political information

To educate the populace about important events or figures from the past, sometimes reinforce the primacy of contemporary political power



Leninplatz,
East Berlin, Germany



Statue of Lenin,
Seattle





Trajan's Column, Rome, Italy,
commemorates Roman emperor Trajan's victory in Dacian Wars.

Monuments designed to symbolize modern ideologies

Expressing ideologies of modern times and addressing issues of resent times. Bringing about a new critical awareness



Pentagon Memorial,
Arlington, Virginia



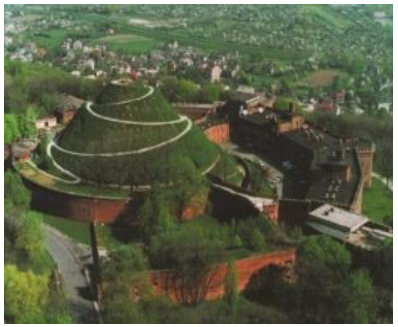
Jewish Museum,
Berlin, Germany



Metropol parasol,
Seville, Spain

Monuments – Expressed through Art and Architecture

MOUNDS
Erected to commemorate great leaders or events



Kościuszko Mound, Poland

GRAVE STONES
Constitute small monuments to the deceased



John F Kennedy eternal flame, USA.

COLUMNS
Often topped with a statue



Trajan Column, Italy

STATUES
Famous individuals or symbols.



Christ the Redeemer , Brazil

OBELISKS
Usually erected to commemorate great leaders or important events.



Washington Monument, USA

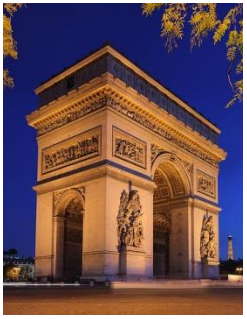


Qutub Minar, India

TRIUMPHAL ARCHES
Almost always to commemorate military successes



Arch of Constantine, Italy



The Arc de Triomphe, Paris

MONOLITHS
Erected for religious or commemorative purposes



Ellora Caves, India

BUILDINGS
Designed as iconic landmarks



State Empire Building,USA

MAUSOLEUMS & **TOMBS**
To inter the dead

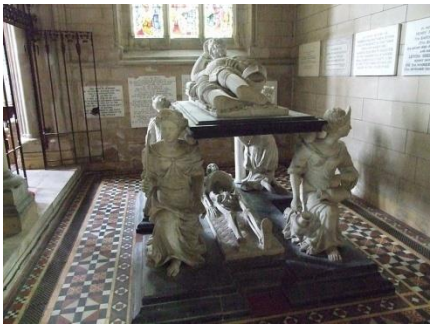


Great Pyramid of Giza, Egypt



Taj Mahal, India

CHURCH MONUMENTS
To commemorate the dead, above or near their grave



Monument to Sir John Hotham , England

TEMPLES
Religious structures built for pilgrimage, ritual or commemorative purposes



Borobudur, Indonesia



Kabba, Nigeria

CENOTAPHS AND MEMORIALS
To commemorate the dead, usually war casualties



Vimy Ridge Memorial, France



India Gate, Delhi

WAR MEMORIALS
Symbolic to the war and in honour of the lives lost.



Vietnam War Memorial, USA

Monuments – Expressed In Modern Times

Into the **realm of postmodernism**, the **meaning is fluid** and memory work is activated.
The late twentieth century marked by a disruption of conventional monument function saw the rise of ephemeral installations.



6 FORGOTTEN MONUMENTS
Yugoslavia
These six eye-catching structures seem as if they'd be hard to forget – but they were built for a nation that no longer exists, and now they stand in ruins. These **represent** just a small fraction of the **abandoned monuments** in the **former Yugoslavia**. The bold, modern designs were designed by an array of sculptors and architects to convey the **strength of the Socialist Republic**, which fell in 1992.



JEWISH MUSEUM
Berlin, Germany
Architect Daniel Libeskind's addition to the Jewish Museum in Berlin acts as a massive memorial to the **millions of Jews who lost their lives in the Holocaust.** An interactive experience, the museum, based on an **abstracted Star of David**, pulls the visitor through various spaces that manifest **concepts of isolation, fear and hope.** Libeskind employed towering voids, empty spaces, dead ends to give the structure an **emotional identity.**





BICENTENNIAL TORCH

Leon, Mexico

Inspired by a torch featured in a Jose Clemente Orozco mural depicting the **social struggle of Mexican independence**, the bicentennial torch stands **45 meters tall** at the entrance into Leon, Mexico. Architects Jose Pareja Gomez and Jesus Hernandez Martinez placed a steel structure made of 100 rings interspersed with 100 voids atop a concrete base; a shadow projected onto them will produce optical negatives. The sculpture will act like a **guiding light** at night, shining into the air.



SUPERTREE GROVE

Singapore

They are uniquely designed **vertical gardens of 25 to 50-metres tall** have large canopies that provide shade in the day and come alive with an exhilarating display of light and sound at night. 11 Supertrees are embedded with **environmentally sustainable** functions like photovoltaic cells to harvest solar energy. Over **162,900 plants** comprising more than **200 species** and varieties of bromeliads, orchids, ferns and tropical flowering climbers are planted on the Supertrees.











METROPOL PARASOL

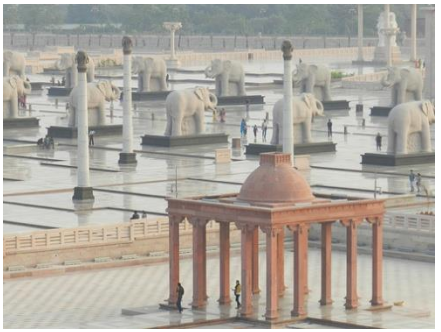
Seville, Spain

A **wooden structure** located at *La Encarnación* square. It is an approximate height of **26 metres** (85 ft) and claims to be the **largest wooden structure in the world**. The structure consists of six parasols in the form of **giant mushrooms**, whose design is inspired by the **vaults of the Cathedral of Seville** and the **ficus** trees in nearby Plaza de Cristo de Burgos.

Monuments – INDIA









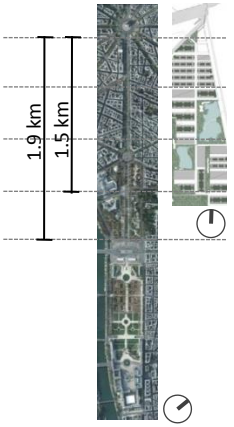
1. GATEWAY OF INDIA

2. MAYAWATI ELEPHANT STATUES

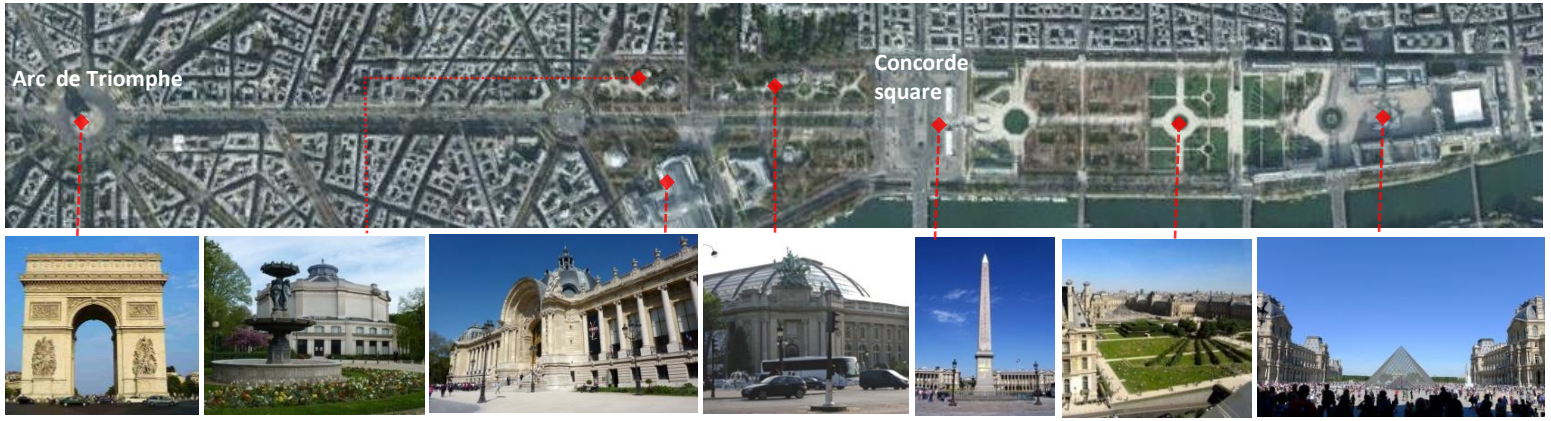
CENTRAL AVENUE

1. Champs-Élysées, Paris, France
2. Pennsylvania Avenue, Washington D.C.

Champs-Élysées Paris, France



CONTEXT



Character :
Historic landscape and wide shopping pedestrian pathways provides a strong corridor identity

Public Amenities :
Movie Theaters
Performance halls / Theaters
Cafés / Restaurants
Shops
Metro station

Events :
Military parade
Celebration of popular events (New Year's Eve)
Political protest gatherings

DEVELOPMENT ALONG THE AVENUE



LEGEND

- Node
- Plaza
- Green
- Landmark
- Connectivity
- Shopping

1. Obelisque
2. Acr de Triomphe
3. Louvre Museum
4. Parisian Theater (300 spectators)
5. Underground Paris Metro station
6. Performance hall
7. Movie Theater
8. Shops / Café / Restaurants

TRANSFORMATION OF SPACE



Seasonal transformation



Events - Functions, Festivals



Transformed through day and night

LANDSCAPE DESIGN ELEMENTS

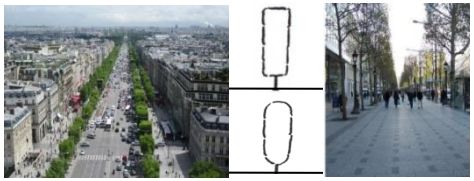
Entrance gesture



Focal point



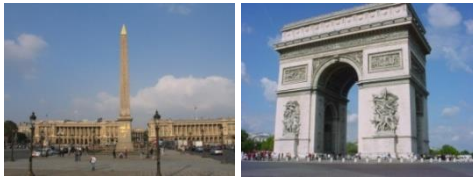
Avenue plantation



Sculpture / Art work



Plaza



Lighting



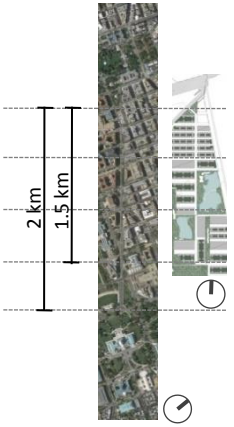
Walkway



Water feature



Pennsylvania Avenue, Washington D.C.



CONTEXT

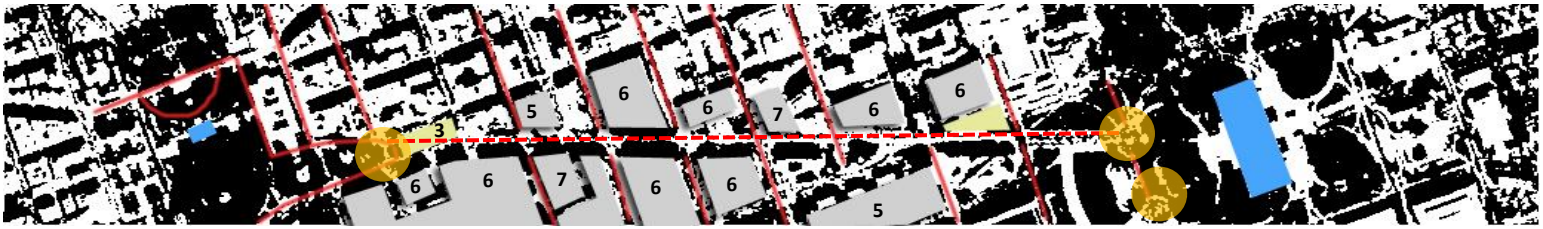


Character :
Historic landscape provides a strong corridor identity

Public Amenities :
National art gallery
Parks
Administrative buildings
Metro station

Events :
Official parades
Processions
Protest marches

DEVELOPMENT ALONG THE AVENUE



LEGEND

- Node
- Plaza
- Green
- Landmark
- Connectivity

1. White house
2. U.S. Capitol
3. Plazas (Freedom square)
4. Parks
5. National art galleries
6. Administrative buildings
7. Metro station

TRANSFORMATION OF SPACE



Seasonal transformation



Events - Functions, Festivals

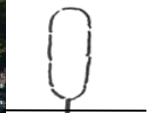


Transformed through day and night

LANDSCAPE DESIGN ELEMENTS

Avenue plantation





Plaza







Walkway







Water feature



LAKEFRONTS

1. Lake Charles, Louisiana, USA
2. Lake Okareka, Newzealand
3. Lake Jurong- Singapore

LAKEFRONT DEVELOPMENTS

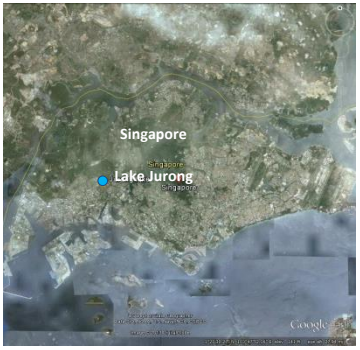
Location



Lake Charles- Louisiana , USA



Lake Okareka- Bay of Plenty , Newzealand

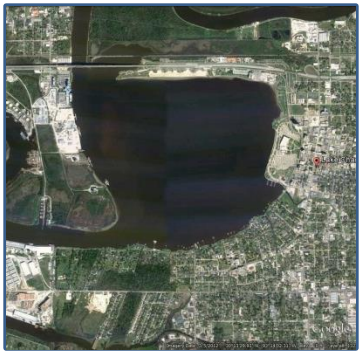


Lake Jurong- Singapore



Lake Khoni- Palava, Mumbai

Areas



Lake -1062 acres
Accessible periphery – 521.7 acres



Lake -840 acres
Accessible periphery – 81.82 acres



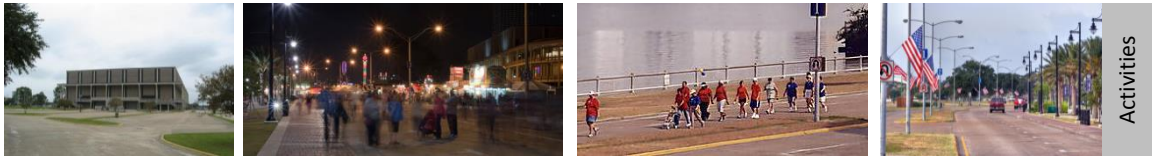
Lake -148 acres
Accessible periphery – 225 acres



Lake -17.7 acres (12.4 acres (Khoni) + 5.3 acres (Quarry))
Accessible periphery – 11.40 acres (6.7acres (Khoni) + 4.7 acres (Quarry))

Lake Charles, Louisiana, USA





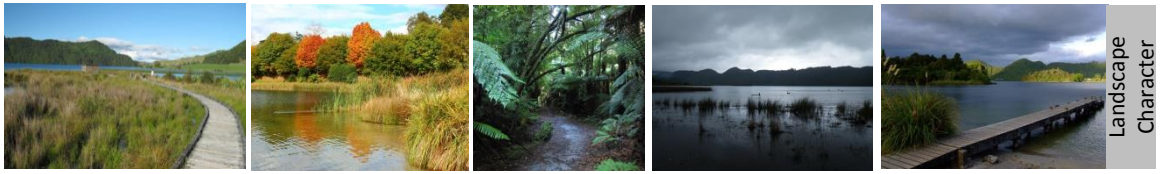


100 acres of stretch of the lake

Lake Okareka, Bay of Plenty, Newzealand







7.5 acres of stretch of the lake

LEGEND:

Primary Access road
Secondary Access roads
Continuous promenade encircling the lake

Informal Activity zone
Formal Activity zone

City Civic centre

Parking Zone

Residential zone

Lake Jurong , Singapore








Activities






Landscape Character

78 acres of stretch of the lake

LEGEND:

Primary Access road
Secondary Access roads
Continuous promenade encircling the lake

Informal Activity zone

School

Residential Apartments

INFERENCES

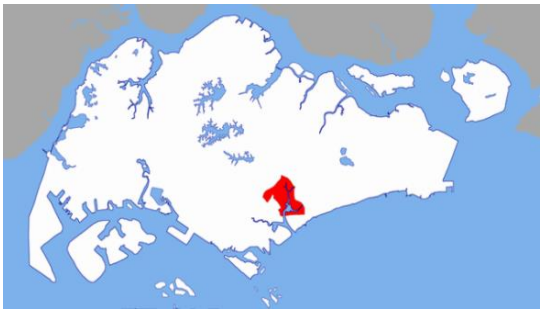
- Leisure activities - nature trails, bird watching areas , Fishing areas , play areas , etc. should be provided on the lake periphery .
- Lake edges should be retained in their natural form thus conserving the lake ecosystem
- Existing natural vegetation on the lake edges should be retained as it is important to support the fauna like birds.

SPORTS HUB

1. Singapore Sports Hub
2. Shri Shiv Chhatrapati sports complex, Pune

SINGAPORE SPORTS HUB, Kallang

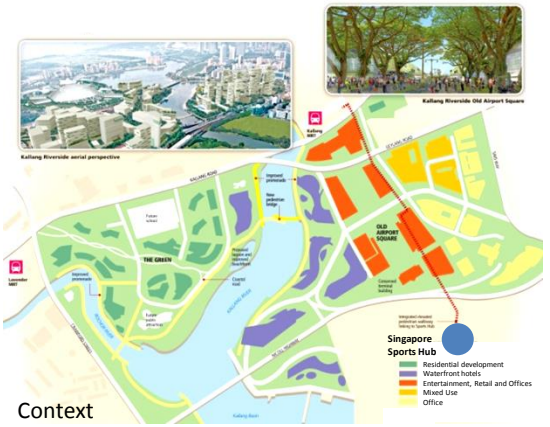
Location : Kallang, Singapore
Site Area : 35ha site



Location of the Sports hub in Singapore

Context : Built over the old National Stadium
Sandy beaches, waterfront views, and close proximity to the city Kallang Waterfront setting proximity to the Central Business District (CBD)

Four tiers of facilities, to cater to sporting needs at national, regional, town and neighborhood levels.



Context

Sports Hub will comprise:

55,000 capacity National Stadium

3,000-capacity indoor Aquatic, expandable to **6,000-capacity** for s events of world tournament standards;

41,000 sq m of commercial space for leisure, shopping and dining activities;

13,000-capacity Singapore Indoor Stadium

Sports **Promenade** and Community Facilities;

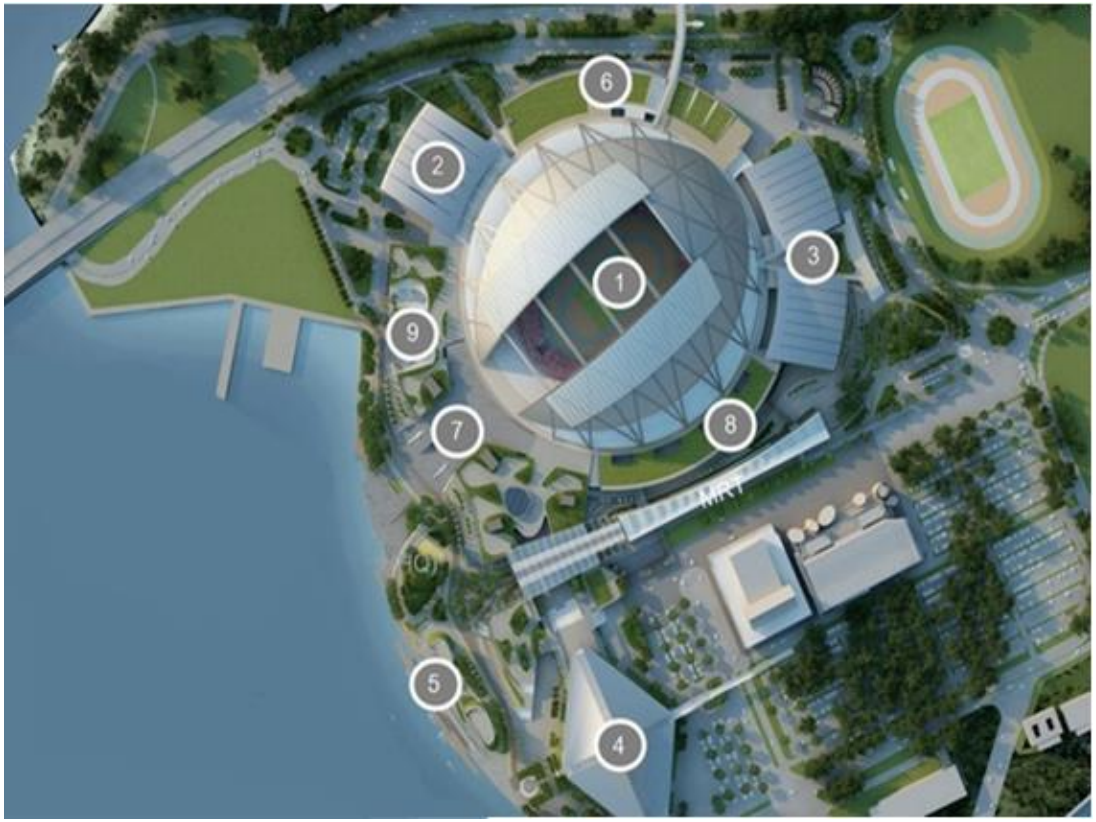
A Sports Information and Resource Centre (SIRC), comprising a library, a museum and an exhibition centre

Equipped to host **world championship** sporting events **& everyday leisure use. Scalable** and flexible multipurpose modular halls



SINGAPORE SPORTS HUB, Kallang





1. National Stadium
2. Aquatic centre
3. Multi-purpose Indoor Arena
4. Singapore indoor Stadium,
5. Water Sports Centre Headquarter
6. Hardcourts/ X-treme Sports
7. Retail/Commercial
8. Offices
9. Leisure Water

Master Plan

SINGAPORE SPORTS HUB, Kallang

The National Stadium



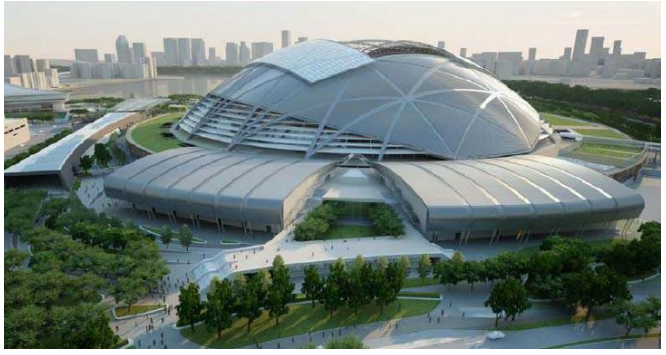
55,000-capacity National Stadium
Location in the Master Plan : Orientated towards the waterfront
Feature: Sports facility for international athletics, football, cricket, rugby etc, retractable roof & retractable seating.

The Aquatic Centre & Leisure Water



Athlete training and competition & public recreation and enjoyment
Location in the Master Plan: In the Kallang Basin
Features: 50m competition pool, a 50m training pool and a diving pool 5m in depth

Multi-Purpose Indoor Arena (MPIA)



Location in the Master Plan: Located on the east end of the site
Features: Indoor sports facilities such as badminton, fencing, silat, wushu, gymnastics training, table tennis, shooting and cue sports, central public atrium

The Water Sports Centre



Location in the Master Plan: engage dynamically with the waterfront
Features: water sports such as kayaking, dragon boats, canoeing and Rowing, training and racing facilities.

SHRI SHIV CHHATRAPATI SPORTS COMPLEX, Pune

Area : 120 acres
Location: Balewadi, Pune, about 14–15 km from Pune downtown
Capacity: 22,000
The venue for the 2008 Commonwealth Youth Games



Sports Facilities :
Shooting Range
Basketball
Athletics Stadium (22000 Capacity)
Badminton Hall
Aquatics Centre
Tennis Court
Table Tennis Hall
Weightlifting Hall
Boxing Arena
American Football
Rollball
Volleyball
Velodrome



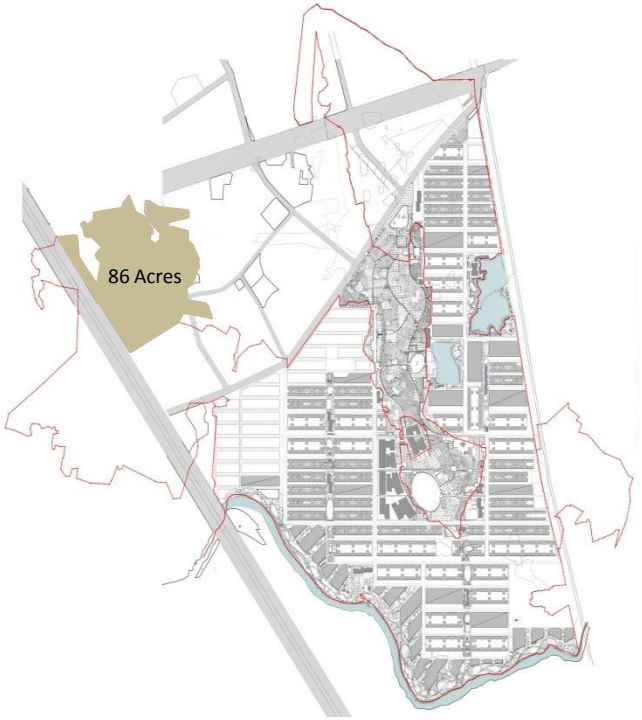


The other buildings are as follows:
Cultural Centre Fitness Centre
Yoga and Meditation.
Sports Science.
Central dope collection
Department of bio-mechanics.
Department of nutrition and ergogenic aids.
Department of physiotherapy.
Department of Psychology.
Department of sports rehabilitation.
Human performance and evolution laboratory.

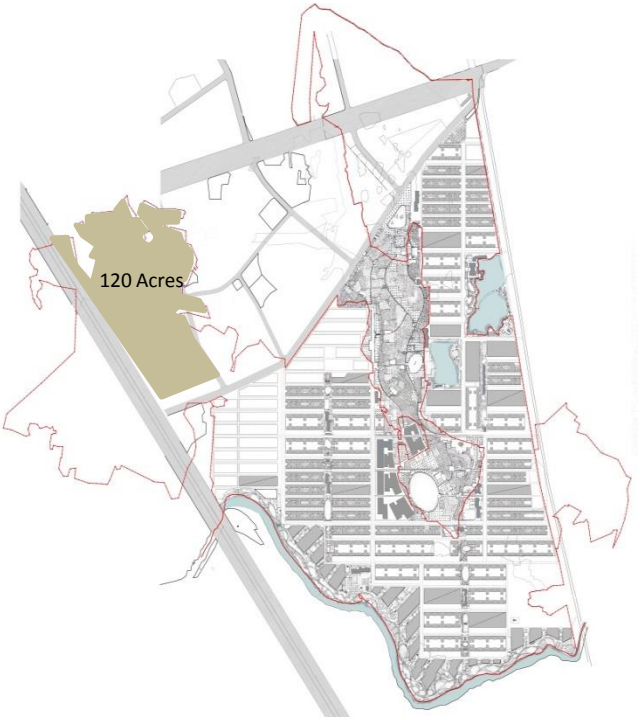




AREA OF SPORTS HUB ON MASTER PLAN



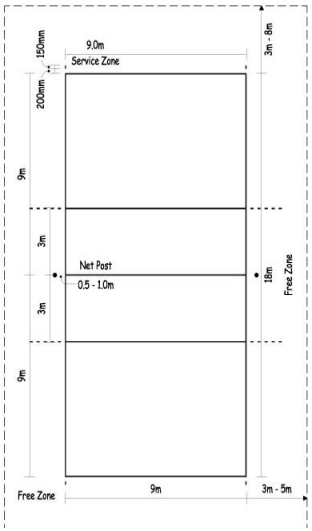
Superimposing Site area: Singapore sports hub



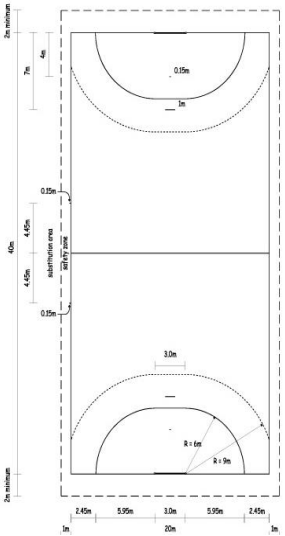
Balewadi sports complex

SPORTS FACILITIES

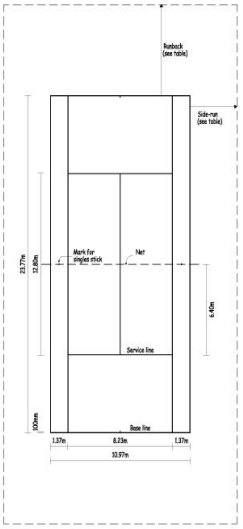
Standards



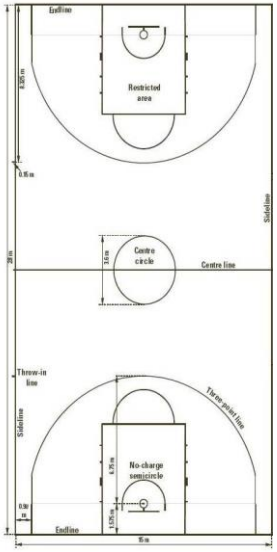
VOLLEYBALL
(18m x 9m)



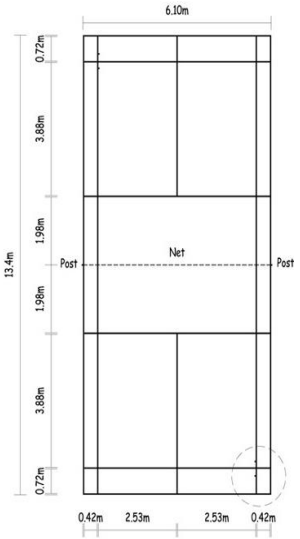
HANDBALL COURT
(20m x 40m)



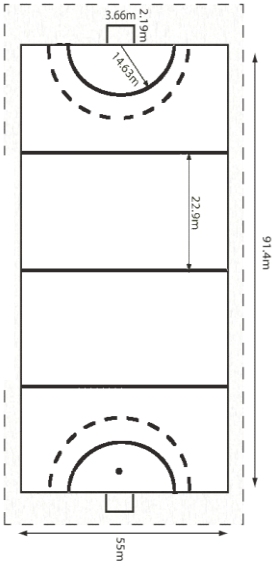
TENNIS COURT
(23m x 10m)



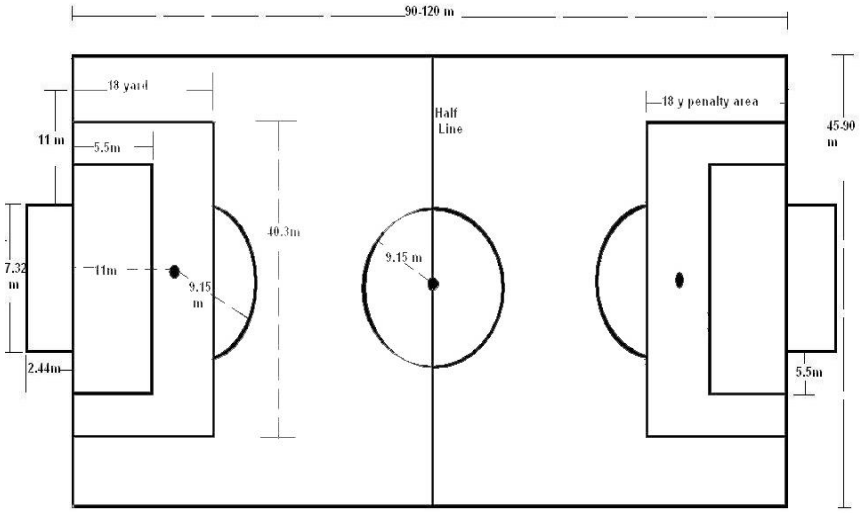
BASKETBALL COURT
(28m x 15m)



BADMINTON COURT
(6.1 m x 13.4 m)

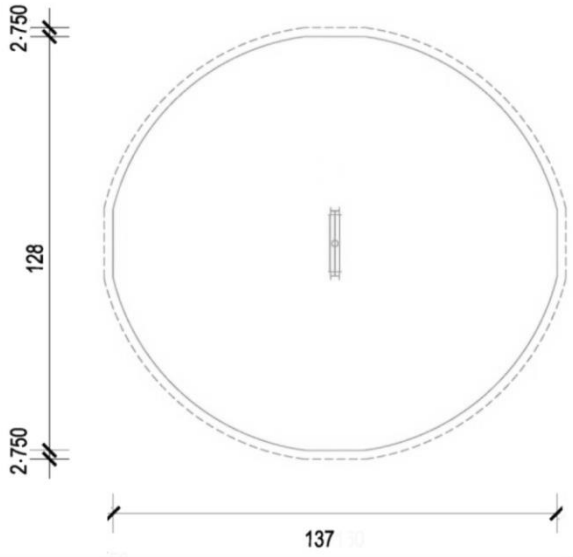


HOCKEY FIELD
(91.4m x 55m)

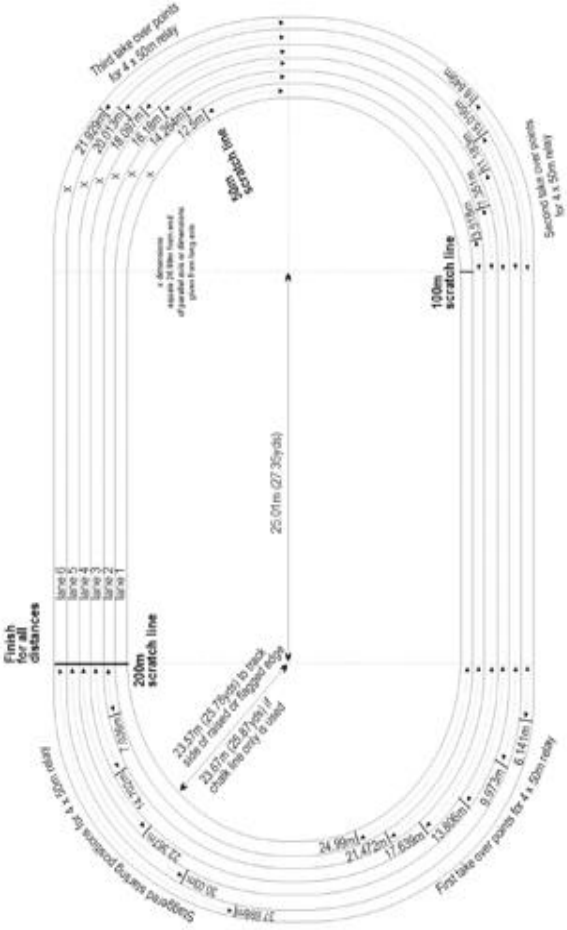


FOOTBALL FIELD

(120m x 45m)



CRICKET GROUND



200 M TRACK

June 2013

