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Marine Stadium: At a glance

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Abstract: This paper deals with the study of a marine side stadium .This stadium not only hosts a single sports events but we can go for different sports activities/events at a specified place. It will accommodate a large number of viewer nearly 70,000 people at a single time. In this paper we studied down topography, geography, structure analysis , construction stagey, project management , safety precaution , environmental impact ,designing and with respect to regulation of sports authority India and buoy of Indian standard ,we proposed a marine stadium.
Keywords: Marine stadium, civil engineering, sports activities, construction engineering, football stadium

I. INTRODUCTION

The venue of the project GULF OF KHAMBAT also known as GULF OF CAMBAY on the Arabian sea coast of Indian boarding the state of Gujarat. The GULF is an inverted funnel shape situated between 71 degree 30 min and 73 degree 10 min east and latitude 20 degree 30 min and 22 degree 20 min north . Indentation on western shelf of Indian between the Saurashtra peninsula and the main land of Gujarat (NIO,1992). On western Sid , the Gulf start from gannet point and lie between the coasts of Surratt and vanload district on eastern sites . Due to its peculiar ocean graphic features such as high tidal amplitude, the region is comparatively less explored then the other GULF regions .Whoever considerable explorations have been conducting on the near shore estuarine environment and coastal geomorphology. Marine Stadium Marina offers such on-site amenities as 89 to 90 octane/ non ethanol fuel, available pre-splash fueling, a service & repair facility featuring monthly wash and maintenance plans, a Ship's Store and seafood restaurant. Whether accommodating year-round boaters or those visiting our area for a shorter time, Marine Stadium Marina offers a high quality, professionally operated, and service-driven dry storage marina at highly competitive rates.

A. Geographic location

Latitude 25.39.1 N / Longitude 80.09.1 W Located at Statute Mile 1092 on the Atlantic ICW, .5 Mile East of the Powell/Rickenbacker Causeway Bridge (north side)

B. Project objectives

1) With a floating stage, the stadium would become host in later years to different events ranging from boxing matches to classical, rock and pop music concerts, even Sunday services.
2) It was the site of many nationally televised events
3) It would save thousands of trees which are been cut down on shake of stadium
4) It would save life of those thousand of creatures which are living in those forests
5) It would make the non harmful environment free structure
6) Our ecosystem which is been disturbed due to the cutting down of trees is been disturbed would not be disturbed
7) We will get a wonderful monument of many more years of generation yet to come
8) It would save acres of land which is going to be used in making and paeking many more thing to be used a forest on large scale is going to be cleared
9) It would attack foreign trade and sport lovers visit to country
10) Sports facilities would be improved
11) Would be remembered for year due to special construction site

II. VERY LARGE FLOATING STRUCTURE

Very large floating structures (VLFSs) or very large floating platforms (VLFPs) are manmade islands, which may be constructed to create floating airports, bridges, breakwaters, piers and docks, storage facilities (for oil & natural gas), wind and solar power plants. Currently, several different concepts have been proposed for building floating cities or huge living complexes. For military

purposes, to create industrial space, emergency bases, entertainment facilities (such as casinos), recreation parks, mobile offshore structures and even for habitation. Some types of structure related to floating were under process.

A. Floating structures offer several advantages over more permanent structures which might extend from the shore into open water

1) Marine eco system were completely safe it not damage it.
2) They do not cause silt deposition in deep harbors;
3) ocean current is not dispute.
4) Construction is easy ,some structure are already constructed in offshore.
5) Rapid installation is adapted.
6) Seismic shocker are installed .

B. Types

Because of their small draft in relation to the length dimensions, pontoon types VLFS are also know in the literature as mat like VLFS. Mega floats floating structure are often called as very large pontoon types floating structure. At least one length dimension greater than 60meters , as per rule of the mega float in a floating structure with typical thickness of 2 to 10 meters, 500 to 5000 meters in length and 100 to 1000 meters in width.

C. Applications

Many large floating structures have been conceptualized, including a course, a farm and habitable long-term living complexes (sea steadying). Some large floating structures that have been built include floating landing platforms and floating airports for returning rockets.

D. Floating Landing Platforms

As of October 2014, Space Exploration Technologies (Space X) has contracted with a Louisiana shipyard to build a floating landing platform for reusable orbital launch vehicles. The initial platform has an approximately 90 by 50 meters (300 ft × 160 ft) landing pad surface and is capable of precision positioning with diesel-powered Azimuth thrusters so the platform can hold its position for launch vehicle landing. This platform was first deployed in January 2015 when SpaceX attempted a controlled descent flight test to land the first stage of Falcon 9 Flight 14 on a solid surface after it was used to loft a contracted payload toward Earth orbit. The platform utilizes GPS position information to navigate and hold its precise position. The rocket landing leg span is 18 m (60 ft) and must not only land within the 52 m (170 ft)-wide barge deck, but must also deal with ocean swells and GPS errors. SpaceX CEO Elon Musk displayed a photograph of the "autonomous spaceport drone ship" in November 2014. The ship is designed to hold position to within 3 meters (9.8 ft), even under storm conditions. On 8 April 2016, the first stage of the rocket that launched the Dragon CRS-8 spacecraft, successfully landed for the first time on the drone ship named *Of Course I Still Love You.* It must be added that all of the VLFS are only at the design stage, with the exception of the Mega-Float in Tokyo Bay, the only manufactured VLFS in existence.. These projects have not been carried out. Nevertheless, they have inspired research on behaviour-related problems in VLFS design. One area in particular is hydroelasticity. Hence the present study was conducted with a view to address the following objectives:

III. METHODOLOGY

An idea of a floating structure were come in action at the time of the flood so that there were no causality were take place. An assumption were taken to float the structure that a drum were used and placed it in such a manner that it remains in complete balance. Some local material were used to floating house.

For floating the shocker pitch the required trick were used . let take an middle class family from farmer background, family consider five member . let consider their weight 10kg,40kg,15kg,55kg,and 60kg i.e. the over all is 180 kg. for sanitation facilities a floating toilet were consider in such a manner that balance were maintain and it does not hindered this were used at the time of flood , the precaution were taken before entering the water in the house . Considerable incoming loads in the house

For design purpose the weights are considered as given below:

The total weight of the family members = 180 kg
Weight of food (one month) = 250kg
Weight of seed of different crops = 200kg

Self weight of the structure = 900 kg
Weight of stored drinking water = 80kg
Weight of the utensils, cloth and others = 200 kg
Total weights = 1810Kg
Design consideration
In designing the floating body 30% of drum diameter was maintained as free board above water surface (Gag, 2003).So, the total buoyant force was calculated as following

A. Stability Analysis

Since, for the balancing the proper structure or rising the water level there is possibility of filling the house, details stability analysis made with light of fluid mechanics. It was found that the combined center of gravity of whole floating body with loads in at 7 ft above the base of floating drum and the center of buoyancy was 0.78 ft above the base of the drum. The combined moment of inertia was found as 1159.2 ft4. The met centric height (GM), the principle criterion of the stability of the floating body was found as 10.22ft. The positive value of GM indicates that the floating house able to gain its stable condition, if small angular displacement (<5°) is given in that structure. The net force is responsible for tilting of the house which was 8 kg at a wind speed of 85 mph. The tilting angel was calculated from the balance equation of righting moment of buoyancy and overturning moment for the net force which was found as 0.15
0. This value ensured the condition of small angular Displacement, which was considered in calculating the met centric height. It was found that from the computer program the floating structure would be stable up to the wind speed about 160km/h.

B. Stadium Materials

1) Stadium Canopy and Cladding Materials. The grandstand roof, fascia and rear in temperate climates should be a Plastisol Coated Steel material.
2) Concrete and Steel Stadium Terraces
3) Stadium Flooring Construction.
4) Concrete Dormitories
5) Steel Dormitories Key Specifications/Special Features:
6) Quick details:
7) Standard: GB
8) Grade: Q235/Q345
9) Place of origin: Jiangsu, China (Mainland)
10) Type: light
11) Application: structural roofing
12) Component connection method: welding and bolt connection
13) Surface treatment: painted or hot dip galvanized
14) Wall panel: EPS or rock wool sandwich panel
15) Packing details: thin plastic bags packing and bundle up, other fittings are packed in iron basket, bulk packing (transportation a nd loading conveniently) if you have special requirements
16) Delivery details: according to client's requirements
17) Specifications:
18) Low foundation cost
19) Easy to maintenance
20) Stable structure construction
21) Durable long lifetime

C. Features

1) Stable and aesthetic
2) Structure is durable for 50 years
3) Fast and easy to install
4) Extensive applications: storage, warehouse, exhibition hall, terminal building, stadium, theater and special-shaped buildings

5) High anti-rust performance
6) Flexible composition: doors and day-lighting roof can be installed at any position

Stadium advertising has grown exponentially in the past 10 years. Stadium advertising to reach a captive audience with guaranteed circulation and demographics, excellent visibility and size impressions, plus the possibility of TV exposure.

One of the central factors of home field advantage is that a group of players perform better in familiar surroundings. These players benefit from a marginal advantage in individual contests and thus, the team as a whole performs better. Of course, when a soccer team moves to a new stadium, it will take players a while to familiarize themselves with new surroundings.

IV. CONCLUSIONS

Football grounds, with their massive water use and high energy floodlights, are the site of many of the main environmental impacts of most football clubs. The thousands of fans who travel to matches generate huge amounts of waste and carbon emissions travelling to and sustaining their big day out.

Climate impacts, sports are unlikely to show up. ... The impacts — which are common in large public organizations, and hardly limited to sports — include damage to fragile ecosystems, noise and light pollution, energy use and emissions, soil and water pollution and waste generation.

It's All About Spending. Proponents say that subsidizing sports stadiums is justified because of the economic impact it will have on the community. First, sports stadiums are huge construction projects. ... And, like the cathedrals of old, they are expensive, massive building projects that require years of intensive labor.

There are economic benefits for building a new stadium, although not nearly as much as some espouse since it largely recalculates limited entertainment spending. Costs to build and maintain the stadium should at least be revenue neutral or self-sustaining, besides merely provide a venue for pro football.

While sports subsidies might own from externalities, their primary cause is the monopolistic structure of sports. Leagues maximize their members' profits by keeping the number of franchises below the number of cities that could support a team. To attract teams, cities must compete through a bidding war, whereby each bids its willingness to pay to have a team, not the amount necessary to make a team viable.

Monopoly leagues convert fans' (hence cities') willingness to pay for a team into an opportunity for teams to extract revenues. Teams are not required to take advantage of this opportunity, and in two cases—the Charlotte Panthers and, to a lesser extent, the San Francisco Giants—the financial exposure of the city has been the relatively modest costs of site acquisition and infrastructural investments.

The tendency of sports teams to seek new homes has been intensified by new stadium technology. The rather ordinary cookie-cutter, multipurpose facility of the 1960s and 1970s has given way to the elaborate, single-sport facility that features numerous new revenue opportunities: luxury suites, club boxes, elaborate concessions, catering, signage, advertising, theme activities, and even bars, restaurants, and apartments with a view of the field.

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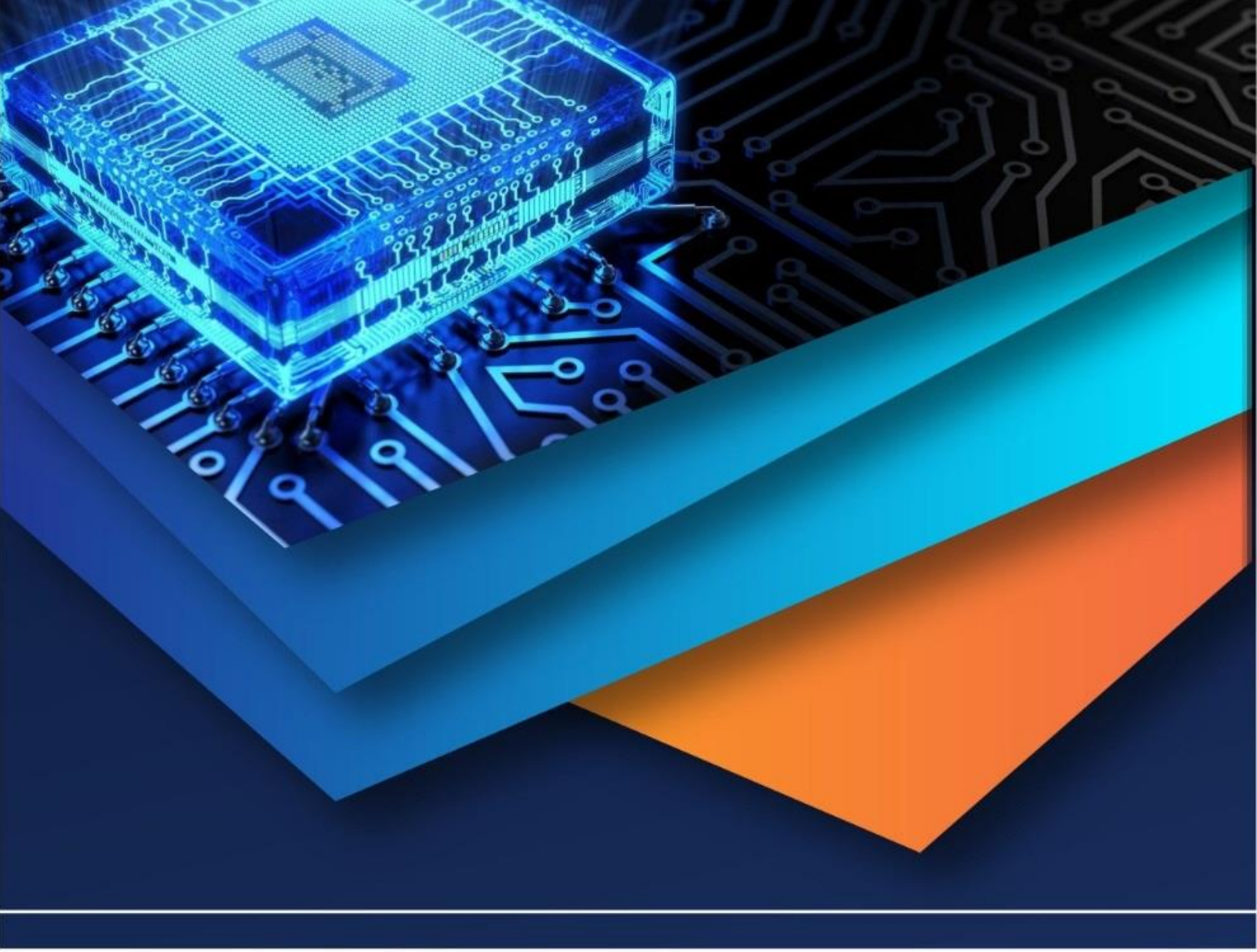

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