

S.No.	Query	Clarification
1.(i)	<b>Queries on Registration</b>	<ul style="list-style-type: none"> <li>- The “Registration No. of Firm” means the Registration under the relevant provision of Company/partnership Acts.</li> <li>- If a firm is not registered, then they may provide the PAN number of the proprietor/owner.</li> </ul>
(ii)	<b>Change of category from Individual to Firm or vice versa.</b>	<ul style="list-style-type: none"> <li>- If an individual/firm need to change their application from individual to firm or vice versa, then they need to send a request in the forwarding note of their earlier mail stating the same and revised registration form forwarded.</li> </ul>
(iii)	<b>Can non-architecture background students be involved along with other architects in a group entry?</b>	<ul style="list-style-type: none"> <li>- Yes. Refer eligibility criteria in competition brochure.</li> </ul>
(iv)	<b>Where should the filled out form be submitted?</b>	<ul style="list-style-type: none"> <li>- Refer competition brochure.</li> </ul>
2.(i)	<b>Are we supposed to design both the terminals or can we choose to participate in any one of the terminal? We would like to know if a single registration is enough to participate in both the competitions?</b>	<ul style="list-style-type: none"> <li>- Participants are welcome to design for both the ferry terminals or even choose to design any one of them.</li> <li>- Submission of a single registration form is enough to participate for both the ferry terminals.</li> </ul>
(ii)	<b>We would like to send multiple entries from our different teams in the firm, is it possible?</b>	<ul style="list-style-type: none"> <li>- Participant firms are welcome to send multiple entries from the same firm with <b>different</b> team members. While providing names of the team members in the registration form, also mention the firm name (if you want to be registered as a firm) in the “Participant name”.</li> </ul>
(iii)	<b>We ourselves are a consultancy firm and as per the eligibility criteria can we partner with another consultancy firm and apply for the competition?</b>	<ul style="list-style-type: none"> <li>- Partnership between the firms is disallowed.</li> </ul>
3.(i)	<b>The format specified (4nos A2 sheets), is it for both the terminals, or can we submit 4 sheets for each terminal?</b>	<ul style="list-style-type: none"> <li>- The format specified (4nos A2 sheets), is for each terminal.</li> </ul>

S.No.	Query	Clarification
(ii)	<b>Regarding the report, what is the page limit?</b>	- The design report shall contain comprehensive details of the basis for design undertaken.
(iii)	<b>Can we include a walk-through video in CD or is the mode of presentation fixed to sheets?</b>	- Participants are welcome to include any additional details/presentation other than that specified in the competition brochure but keeping in mind the condition of anonymity in such presentations.
(iv)	<b>Do A2 size presentation boards have to be physically submitted to KMRL or is it possible for us to courier it? Do the 4xA2 boards have to be delivered by 30 September deadline?</b>	- Participants are required to submit their hard copies of their presentation boards and in editable versions (in CD format) via courier on or before 30 September. Additionally, all the details including the design brief shall be sent via e-mail to the address specified below: E-mail : <a href="mailto:ajith.nair@kmrl.co.in">ajith.nair@kmrl.co.in</a> Courier to : AGM (Water Metro), Kochi Metro Rail Limited, 10 <sup>th</sup> Floor, Revenue Tower, Park Avenue, Kochi, Kerala – 682011.
4.(i)	<b>Will we be getting more details, such as CAD files of the site, passenger footfall with surrounding area site information including contours, levels, soil condition &amp; bearing capacity, 360 Deg site photographs?</b>	- The Survey plan is attached herewith along with this mail, also you can access it in this link provided - - Participants need to design only the concept model of the Terminal Building, foundation detailing are not necessary. - Participants can consider the terminal site and the surrounding area are at same level (+3 m from CD). The terminal may be designed accordingly. - Additional data for both terminals attached as <b>Annexure-A</b> for reference only. - Detailed layout of Vytilla inter-modal Hub is attached for reference.
(ii)	<b>Expected number of piers at Fort Kochi.</b>	- Refer layout drawing attached in <b>Annexure-A</b> .
(iii)	<b>Can we create docks into the water for ease of entry?</b>	- Participants may need only design the terminal structures on the land side. The jetty will be connected to the pontoons via gangways. Refer <b>Annexure-A</b> .
(iv)	<b>The type, details of the make, length of the boat, dimensions of its beam, maximum carrying capacity of boats.</b>	- Not relevant. Refer Clause 4(iii).

S.No.	Query	Clarification
(v)	<p><b>Minimum depth of water required by boats at maximum capacity.</b></p> <p><b>What references are available for the waterside development? How much can we extend into the water body (pier design) ?</b></p>	<ul style="list-style-type: none"> <li>- Not relevant. Refer Clause 4(iii).</li> </ul>
5.(i)	<p><b>Are there ferry routes connecting Fort Kochi and Vytilla at the present?</b></p>	<ul style="list-style-type: none"> <li>- At present there are no routes connecting the aforesaid locations.</li> </ul>
(ii)	<p><b>What is the proposed route for boats to and from Fort Kochi?</b></p>	<ul style="list-style-type: none"> <li>- Not relevant. Refer <b>Annexure-A</b>.</li> </ul>
(iii)	<p><b>Will the boat and jankar services in present use be discontinued?</b></p>	<ul style="list-style-type: none"> <li>- Not relevant.</li> </ul>
(iv)	<p><b>Are we expected to integrate/relocate the existing ferry into the new facility?</b></p>	<ul style="list-style-type: none"> <li>- Not relevant.</li> </ul>
(v)	<p><b>Are we expected to plan for ferry services at Vytilla Mobility Hub. If so what will be the entry point of vehicles to the site?</b></p>	<ul style="list-style-type: none"> <li>- No. Participants are requested to follow the competition brochure.</li> </ul>
(vi)	<p><b>Possibility of expanding the ferry terminal into the water body.</b></p>	<ul style="list-style-type: none"> <li>- No. The terminal building shall be designed as a land-based facility only.</li> </ul>
6.(i)	<p><b>Do CRZ rules apply? If so what are the setbacks? Is there any relaxation for CRZ norms?</b></p>	<ul style="list-style-type: none"> <li>- Participants may design the terminal without considering the CRZ rules for competition purpose.</li> </ul>
(ii)	<p><b>The brief has asked us to develop the site with Floor Space Index (FSI) of 1. Is the Hub/Terminal included in the FSI or is it referring to the landscape development?</b></p>	<ul style="list-style-type: none"> <li>- The FSI mentioned is for the maximum development. The terminal shall be developed as per the requirements and Peak Hour Data. Additionally, the terminal building may be designed as an Assembly building category with FAR/FSI of 2.0 &amp; Coverage of 40%.</li> <li>- Additional data for both terminals are attached as <b>Annexure-A</b> for reference only.</li> </ul>
(iii)	<p><b>Regarding site setbacks : Fort Kochi (If we have to provide setbacks according to KMBR, the considerable built up area will not be able to</b></p>	<ul style="list-style-type: none"> <li>- Refer the PHT Data and area requirements in <b>Annexure-A</b> of Corrigendum No.1 attached.</li> </ul>



ARCHITECTURAL DESIGN COMPETITION FOR FERRY TERMINALS  
CLARIFICATIONS - 07 SEP 2017



S.No.	Query	Clarification
	accommodate 600 passengers at a time.	
7.(i)	Will there be a code number shared to enter on the sheet?	<ul style="list-style-type: none"><li>- Participants are requested to enter the Registration number provided by KMRL at the bottom right corner of the sheets.</li><li>- The registration number shall be sent to the respective participants by 13<sup>th</sup> September.</li><li>-</li></ul>
8.(i)	What are the areas required for retail concession and lease spaces?	<ul style="list-style-type: none"><li>- As per the attached sheets the retail spaces shall be designed as Designer Kiosks of temporary nature inside and outside the terminal building.</li><li>- In Fort Kochi terminal, the retail/lease spaces may be provided outside the terminal building.</li><li>- For Vytilla, a mezzanine floor overlooking the river shall be considered for retail spaces.</li></ul>
9.(i)	The maximum number of boats expected to be present at the ferry during peak hours (docked, waiting, maintenance/repair). The maximum and minimum waiting time for boats. The maximum and minimum waiting time of passengers before departure. Expected volume of Walk-on passengers during peak hours.	<ul style="list-style-type: none"><li>- Design as per the PHT data provided in Annexure-A.</li></ul>
10.(i)	Is there any undertaking that the successful entries will lead to ongoing work on the project or is it purely a competition for the design?	<ul style="list-style-type: none"><li>- Will be decided by the management after assessing the quality of works and recommendations of eminent jury members.</li></ul>



FERRY TERMINAL – FORT KOCHI

2035	TERMINAL	FORT KOCHI
<b>PASSENGER DETAILS PER TERMINAL</b>		
S.No	FUNCTION	NUMBER
1	PAX BOARDING during PHT	4074
2	PAX ALIGHTING during PHT	2500
3	Maximum PAX during PHT	4074
4	TOTAL PAX during PHT	6574
5	Total Pax boarding during the day	13580
6	Total ridership for the day	21913
7	Average headway	<b>7.04</b>
8	Average number of trips	9
9	Max pax to be considered for waiting at a time(in transit)	478
10	no of routes	4
11	no of jetties	6.00
12	NIGHT BERTHING	yes -2 nos.
13		

**\*FAR/FSI, Coverage to be based on assembly building category**

Approximate area requirement and amenities required for terminal building given below for reference purposes only.



**ARCHITECTURAL DESIGN COMPETITION FOR FERRY TERMINALS  
ANNEXURE – A (07 SEP 2017)**



S.No	Components	Sizing /number	Calculated Value				Reference
			Unit	Per unit Value	Numbers	Total value	
<b>1</b>	<b>OPERATIONAL SERVICES</b>						
1.1	Station controller		m2	5.76	1	5.76	Other standards
1.2	ticketing counters	per counter	m2	6.25	3	18.75	Processing time calculation as given by AFC consultant , NBC norms , Metric standards
1.3	tourist information desk/police aid post	per counter	m2	6.25	1	6.25	As per Neuferts data edition 3
1.4	excess Fare Office (EFO)	per counter per group of access gates	m2	0.81	2	1.62	As per Neuferts data edition 3
1.7	ticket vending machine	unit	m2	1.20	2	2.40	Other standards
1.8	entry and exit access gates (AFC gates)	flapgates (bidirectional)	m2	0.81	6	4.86	Processing time calculation as given by AFC consultant
		manual gates for wheelchair users	m2	0.90	2	1.80	NBC norms



**ARCHITECTURAL DESIGN COMPETITION FOR FERRY TERMINALS  
ANNEXURE – A (07 SEP 2017)**



S.No	Components	Sizing /number	Calculated Value				Reference
			Unit	Per unit Value	Numbers	Total value	
1.9	staff changing room		m2	9.00	1	9.00	Changing room sizing as per Neuferts data edition 3
1.10	general storage		m2	3.75	1	3.75	storage space requirements as per Neuferts data edition 3
<b>2</b>	<b>PASSENGER SERVICES</b>						
2.1	Seating and waiting areas	seating area	m2	1.21		319.42	calculated as per WSDOT chapter 410
		waiting area	m2	0.81			
		seat for differently abled	m2	1.17	3	3.51	NBC norms
2.2	ATM cubicle	unit	m2	6.25	1	6.25	
2.3	drinking fountain	unit	m2	0.32	1	0.32	As per NBC norms
2.4	toilet and urinal nos: (based on average number of passengers during PHPDT)		m2	1.62	6	9.72	numbers to be provided as per Model Building Bye laws 2016
			m2	0.8	8	6.40	



**ARCHITECTURAL DESIGN COMPETITION FOR FERRY TERMINALS  
ANNEXURE – A (07 SEP 2017)**



S.No	Components	Sizing /number	Calculated Value				Reference
			Unit	Per unit Value	Numbers	Total value	
			m2	1.62	11	17.82	
		toilet for differently abled(unisex)	m2	6.25	1	6.25	NBC norms
2.5	wash basins	unit	m2	0.6	9	5.40	NBC norms
2.6	janitors room		m2	2	1	1.50	
2.7	amenity kiosks and other revenue generation ideas	as required	m2		as per design		
2.8	trash cans	per unit					As Per WSDOT chapter 400





**ARCHITECTURAL DESIGN COMPETITION FOR FERRY TERMINALS  
ANNEXURE – A (07 SEP 2017)**



S.No	Components	Sizing /number	Calculated Value				Reference
			Unit	Per unit Value	Numbers	Total value	
<b>3</b>	<b>BACK OF HOUSE SERVICES</b>						
3.1	under ground water tank		KLD	0.015		328.70	As per Model Building Bye laws 2016
3.2	rainwater harvesting tank		L/m2	50.00	as per design		As per NBC 2016
3.3	pump room		m2	3.60	1	3.60	As per NBC 2016
3.4	firefighting terrace tank		KL	25.00		25.00	As per NBC 2016
3.5	septic tank/STP	based on total ridership per day	KLD	0.90	18	16.20	As per Model Building Bye laws 2016
			KLD	0.35	8	2.80	
3.6	electrical panel c'board	as per design requirements	m2	4.00	1	4.00	as required
3.7	terminal control room	as per design requirements	m2	5.76	as per design		



ARCHITECTURAL DESIGN COMPETITION FOR FERRY TERMINALS  
ANNEXURE – A (07 SEP 2017)



S.No	Components	Sizing /number	Calculated Value				Reference
			Unit	Per unit Value	Numbers	Total value	
3.8	DG room	as per design requirements					As per Neuferts data
3.9	Night guard room	workspace for 1	m2	3	1	3.00	
3.9	Fuelling point						
3.10	charging point	on pier					

**Note:**

1. Other requirements like retail spaces and kiosks shall be designed as per available land area.
2. Future Expansion provision shall also be kept in the designs
3. The above given Data is only for reference purposes and preliminary data. The participants may work out independently the area requirement as per the basis PHT data and relevant codes. **No clarification on the above data shall be entertained.** Participants are encouraged to independently work out the design data

# POSITION OF TREES AT THE PROPOSED SITE AT FORT KOCHI



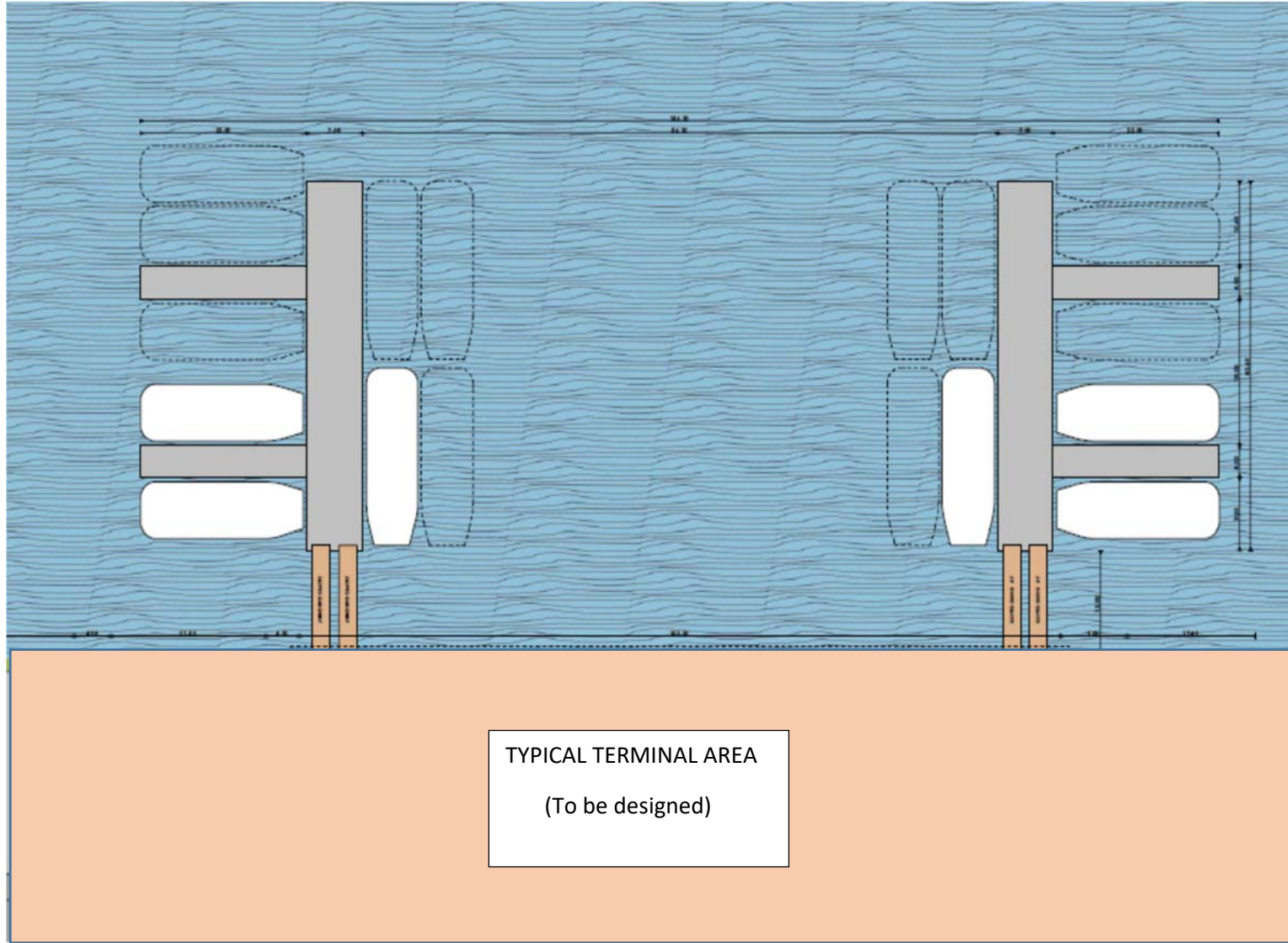
**TREE-1**

**TREE-2**

**TREE-3**

**TREE-4**

Typical Layout options of Piers for Ferry Terminal at FORT Kochi is provided here for reference:





FERRY TERMINAL – VYTILLA

2035	TERMINAL	VYTILLA
<b>PASSENGER DETAILS PER TERMINAL</b>		
S.No	FUNCTION	NUMBER
1	PAX BOARDING during PHT	378
2	PAX ALIGHTING during PHT	397
3	Maximum PAX during PHT	397
4	TOTAL PAX during PHT	775
5	Total Pax boarding during the day	1260
6	Total ridership for the day	2583
7	Average headway	<b>15.94</b>
8	Average number of trips	4
9	Max pax to be considered for waiting at a time(in transit)	105
10	no of routes	2
11	no of jetties for traffic	2.00
12	NIGHT BERTHING	yes - 4 nos.

**\*FAR/FSI, Coverage to be based on assembly building category**

Approximate area requirement and amenities required for terminal building given below for reference purposes only.



ARCHITECTURAL DESIGN COMPETITION FOR FERRY TERMINALS  
ANNEXURE – A (07 SEP 2017)



S.No	Components	Sizing /number	Calculated Value				Reference
			Unit	Per unit Value	Numbers	Total value	
<b>1</b>	<b>OPERATIONAL SERVICES</b>						
1.1	station master		m2	5.76	1	5.76	-
1.2	ticketing counters	per counter	m2	6.25	1	6.25	
1.3	tourist information desk/police aid post	per counter	m2	6.25	1	6.25	As per Neuferts data edition 3
1.4	excess Fare Office (EFO)	per counter per group of access gates	m2	0.81	1	0.81	As per Neuferts data edition 3
1.7	ticket vending machine	unit	m2	1.20	1	1.20	
1.8	entry and exit access gates (AFC gates)	flapgates (bidirectional)	m2	0.81	2	1.62	
		manual gates for wheelchair users	m2	0.90	1	0.90	NBC norms



**ARCHITECTURAL DESIGN COMPETITION FOR FERRY TERMINALS  
ANNEXURE – A (07 SEP 2017)**



S.No	Components	Sizing /number	Calculated Value				Reference
			Unit	Per unit Value	Numbers	Total value	
1.9	staff changing room		m2	9.00	1	9.00	Changing room sizing as per Neuferts data edition 3
1.10	general storage		m2	3.75	1	3.75	storage space requirements as per Neuferts data edition 3
<b>2 PASSENGER SERVICES</b>							
2.1	Seating and waiting areas	seating area	m2	1.21		70.44	As per WSDOT chapter 410
		waiting area	m2	0.81			
		seat for differently abled	m2	1.17	3	3.51	NBC norms
2.2	ATM cubicle	unit	m2	1.2	0	0.00	
2.3	drinking fountain	unit	m2	0.32	1	0.32	NBC norms



**ARCHITECTURAL DESIGN COMPETITION FOR FERRY TERMINALS  
ANNEXURE – A (07 SEP 2017)**



S.No	Components	Sizing /number	Calculated Value				Reference
			Unit	Per unit Value	Numbers	Total value	
2.4	toilet and urinal nos: (based on average number of passengers during PHPDT)		m2	1.62	1	1.62	numbers to be provided as per Model Building Bye laws 2016
			m2	0.8	2	1.60	
			m2	1.62	1	1.62	
			m2	6.25	1	6.25	NBC norms
2.5	wash basins	unit	m2	0.6	3	1.80	nbc norms
2.6	janitors room		m2	2	0	0.00	
2.7	amenity kiosks and other revenue generation ideas	as required	m2		as per design		





**ARCHITECTURAL DESIGN COMPETITION FOR FERRY TERMINALS  
ANNEXURE – A (07 SEP 2017)**



S.No	Components	Sizing /number	Calculated Value				Reference
			Unit	Per unit Value	Numbers	Total value	
2.8	trash cans	per unit					As Per WSDOT chapter 400
<b>3</b>	<b>BACK OF HOUSE SERVICES</b>						
3.1	under ground water tank		KLD	0.015		38.75	As per Model Building Bye laws 2016
3.2	rainwater harvesting tank		L/m2	50.00	as per design		As per NBC 2016
3.3	pump room		m2	3.60	1	3.60	As per NBC 2016
3.4	firefighting terrace tank		KL	20.00		20.00	As per NBC 2016
3.5	septic tank	based on total ridership per day	KLD	0.90	3	2.70	As per Model Building Bye laws 2016
			KLD	0.35	2	0.70	
3.6	electrical panel c'board	as per design requirements	m2	2.00	1	2.00	
3.7	terminal control room	as per design requirements	m2	5.76	as per design		



ARCHITECTURAL DESIGN COMPETITION FOR FERRY TERMINALS  
ANNEXURE – A (07 SEP 2017)

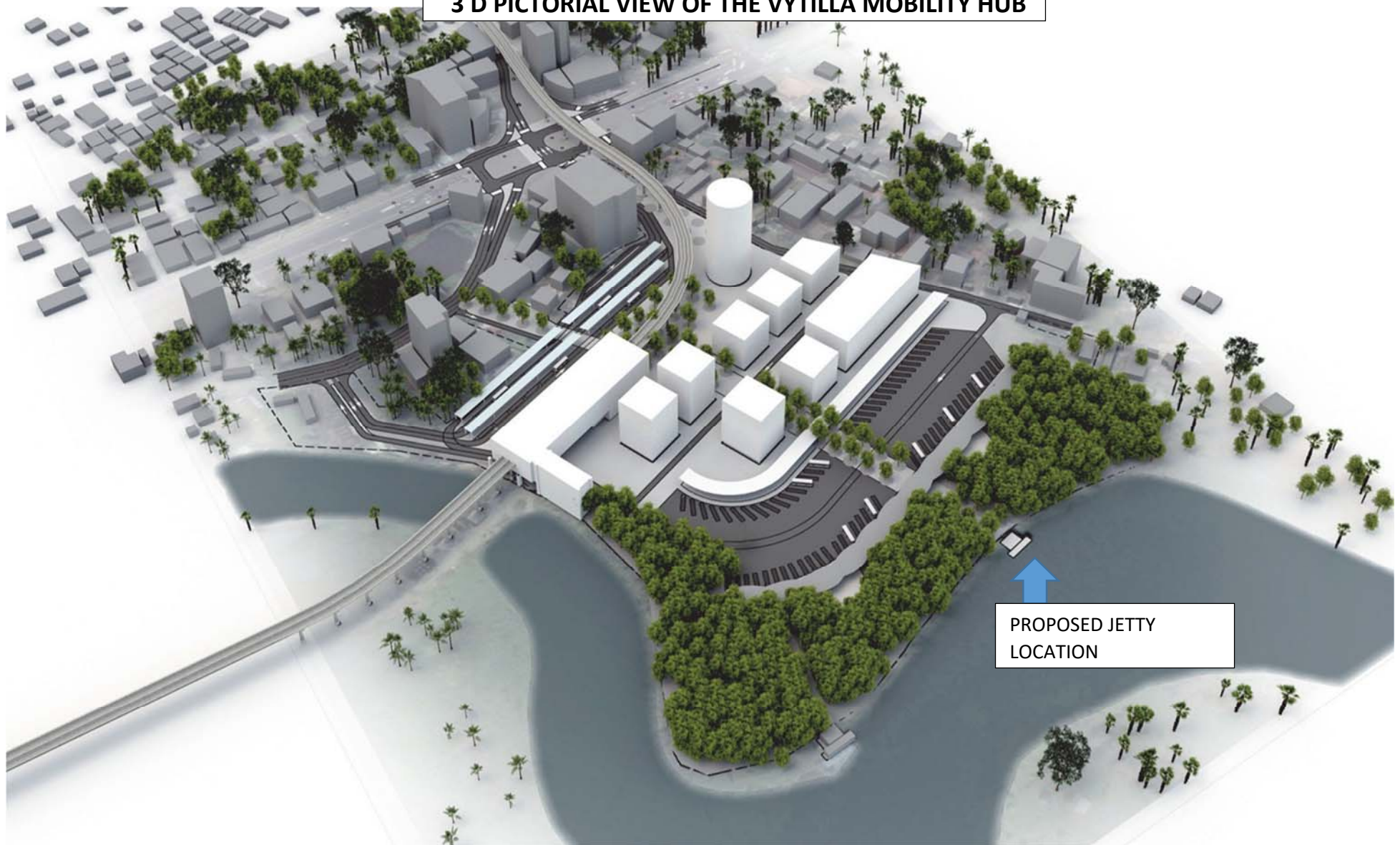


S.No	Components	Sizing /number	Calculated Value				Reference
			Unit	Per unit Value	Numbers	Total value	
3.8	DG room	as per design requirements					As per Neuferts data
3.9	Night guard room	workspace for 1	m2	3	1	3.00	
3.9	Fuelling point		terminal location				
3.10	charging point	on pier	terminal location	on pier			

**Note:**

1. Other requirements like retail spaces and kiosks shall be designed as per available land area.
2. **The participants can also consider the landscaping of the adjacent areas**
3. Future Expansion provision shall also be kept in the designs
4. The above given Data is only for reference purposes. The participants may work out independently the area requirement as per the basis PHT data and relevant codes. **No clarification on the above data shall be entertained.** Participants are encouraged to independently work out the design data

**3 D PICTORIAL VIEW OF THE VYTILLA MOBILITY HUB**



## Codes referred for terminal area requirement calculation

- Model Building Bye-Laws- 2016, Ministry of Urban Development, Government of India, 2016
- Ernest and Peter Neuters Architects data third edition
- The Terminal Design Manual M 3082 by Washington State Department of Transportation, Ferries Division.
- Guide lines and Space Standards for barrier free built environment for disabled and elderly persons, CPWD, Ministry of Urban Affairs & Employment, 1996.
- National Building Code of India 2016, BIS.
- Metric standards.
- Guidelines for Conservation and Preservation, Special Tourism Zone- Fort Kochi, Kerala State Tourism Department, Govt. Of Kerala.
- Australian Standards AS 1428.1
- KMBR, KERALA MUNICIPALITY BUILDING RULES
- KPBR, KERALA PANCHAYAT BUILDING RULES
- Tidal Data – Downloadable data from the internet
- Coastal Regulation Zone
- NFPA 303 – Fire Protection Standard for Marinas & Boatyard