SCOPE & SPECIAL CONDITIONS OF CONTRACT

1. **Description of Work:** Construction of Hard Stand with Land Ties Brackets and Service Trench at Nhava Yard, MDL, Navi Mumbai.

2. Scope Of Work

The proposed work is situated at Nhava Yard Raigad

The proposed work consists of construction of a Hard stand jetty along with trenches & SWD service which is mentioned as below.

A) Civil works:

1) HARD STAND JETTY:

- 1. Site Clearance
- 2. Removing & Relaying of WMM
- Providing & laying of new WMM if required
- 4. Providing & laying of M15 PCC
- 5. Rock anchor dowels
- 6. Construction of side trenches which includes Piping trench, Storm water drain & Electrical trench respectively on both sides of hard stand in M30 grade RCC & CRS steel reinforcement.
- 7. M30 grade RCC for hard stand grade on slab, finished with floater & floor hardener.
- 8. Necessary testing at regular interval.

B) Electrical works:

1) HARD STAND JETTY:

- 1. Supply, Installation, Testing & Commissioning of Isolation Transformer.
- 2. Supply, Installation, Testing & Commissioning of 415 V Main LT Panel, Isolator Panel, Outdoor Type Power Panel, etc.
- 3. Supply, Installation, Testing & Commissioning of LT Cables.
- 4. Any other items specified in Schedule of Quantities.
- C) <u>Time Period:</u> 07 Months from date of placement of PO or handing over site, whichever is later and shall include the rainy season.

D) Other terms & Conditions:

- a) Contractor may claim 60% Secured Advance (PBG) against supply of Structural steel and Reinforcement Steel, provided submission of Manufacturers test report, Supply of materials as per IS code provision. The materials shall be of preferred make such as Tata Steel / SAIL / VIZAG/Jindal steel/JSW or equivalent as approved by EIC of MDL before procurement.
- b) The Site is situated within ONGC Nhava premises. For material & man entry permission from CISF is mandatory. After issue of PO, contractor may explore the possibility of man & material movement via sea route, from CBD Belapur Jetty to MDL Nhava Jetty. However, no extra charges will be payable by MDL for movement via sea route.

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F) Defect Liability Period: One year from date of completion/handover of project.

G) SPECIAL CONDITIONS OF CONTRACT

1. **DEFINITIONS**

"Consultant" shall mean Structwel Designers & Consultants Pvt. Ltd., (STRUCTWEL) having their office at Plot No. 15, Sector-24, Off Sion-Panvel Highway, Turbhe, Navi-Mumbai-400705, India.

Engineer-in Charge shall mean Resident Engineer at site designated by Employer/MDL.

2. DOCUMENTS TO BE MAINTAINED AT SITE:

The following registers/documents will be maintained at site by the contractor at its own cost, but may not be limited to the below list. And would be as per the format given by the consultant. They should be available for inspection by Consultant's representative during the site visit or as required by Consultant.

- 1. Work order copy
- 2. BOQ with final rates
- 3. Tender
- 4. Company quality and safety manual
- 5. Organization chart
- 6. Drawing register
- 7. Drawings new and superseded in separate folders
- 8. Latest bar chart
- 9. Daily progress reports
- 10. Weekly progress reports
- 11. Monthly progress reports including coloured photographs of important activities.
- 12. Hindrance register
- 13. Material receipt
- 14. Material challans
- 15. Cement stock register
- 16. Sand stock register
- 17. Steel stock register
- 18. Strata testing report
- 19. Cement testing report
- 20. Sand testing report
- 21. Steel testing report
- 22. Cube register
- 23. Pour cards
- 24. Other material test reports
- 25. Triplicate book for Memos.

3. WATER, COMPRESSED AIR, CRANE AND ELECTRICITY:

Contractor has to make his own arrangement for Water, Compressed Air, Cranes and Electricity. The Contractor will be responsible for overall lighting of the Site.

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4. FOOD & CANTEEN:

Space will be provided for Canteen along with seating arrangement by MDL. Contractor has to make his own arrangement for provision/cooking of food for their workers and staff. Resident cook will not be permitted. Alternatively, they may source cooked food from outside MDL.

5. SITE FACILITIES

- (a) The Contractor shall establish its office, laboratory, stores, steel storage and fabrication yard, cement storage shed, in watertight construction and of adequate capacity, drinking water facilities, sanitization facilities, rest room, for its staff and workers. Proper access and internal roads for vehicular traffic in all-weather shall be provided. The contractor shall prepare and submit to Mazagon Dock Shipbuilders Limited such a drawing/layout showing all the above facilities.
- (b) No labour camp shall be allowed inside the site premises.
- (c) Contractor to make arrangement for Labour toilets and staff toilets in the form of porta cabin along with septic tank and soak pit and the same need to be maintained till the completion of project. After completion of works/project, the toilets and its accessories to be taken out of MDL premises by contractor.
- (d) Contractor shall have to provide computer facilities at site for keeping various records, filling of all projects related data etc. with photocopy machine facility.
- (e) Contractor shall have to establish site laboratory for testing of civil materials.
- (f) Coloured photos, covering all important activities of all structures shall be submitted every month. Contractor to mobilize suitable Digital Camera for the photography. After Photographs, the photos are to be transferred and stored in the hard disk of computer, which shall be handed over to MDL from time to time.

6. MINIMUM RESOURCE REQUIREMENT

Contractor to provide detailed resource planning including machines, men and material required to complete the project within the duration as stipulated in the tender. Resource planning should be indicated per week basis for all activities required for completion of the project. Deficiency if any in the resource planning shall be rectified and resources required shall be mobilized by contractor as per instruction of consultant/ employer with no additional cost. Contractor shall have to engage minimum Full time (working days):

- 1 Project manager (degree holder) minimum 10 years of experience.
- 1 Civil engineer (degree holder) minimum 5 years of experience.
- 1 Electrical engineer (degree holder) minimum 5 years of experience.
- 1 Certified Safety Supervisor with minimum 03 years of experience.
- 1 Supervisor (diploma holder) with 4-5 years' experience at site:

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If the contractor fails to provide the same, the Penalty as stipulated in following table shall be levied subject to a maximum upto 5 % of contract value, deductible from next immediate bill of the contractor.

Sr	Designation	Minimum Experience (Yrs)	Rate at which recovery shall be made from the contractor in event of not fulfilling
1	Project manager (degree holder)	10 years	Rs. 40,000/- per Month per person
2	Civil engineer (degree holder)	05 years	Rs. 25,000/- per Month per person
3	Electrical engineer (degree holder)	05 years	Rs. 25,000/- per Month per person
4	Safety Supervisor	03 years	Rs. 15,000/- per Month per person
5	Supervisor (diploma holder)	04-05 years	Rs. 20,000/- per Month per person

7. On site RMC plant

Considering the quantity of concrete, the contractor has to set up on-site concrete batching plant with the necessary testing lab arrangement to expedite the work. In addition, vendor needs to obtain consent of supply of concrete from nearby RMC plant so that RMC can be sourced in the event of breakdown of the on-site batching plant. This RMC plant shall be nearby to the site location and approved in advance by EIC.

8. PROJECT MANAGEMENT TEAM

Contractor to work in close coordination with the project management team appointed by Employer at site and also to strictly abide by the instruction and requirement given by them.

9. WORKING DURING NIGHT

The contractor shall be prepared to execute the work during night at its own cost and expense and make its own arrangements necessary for the execution of such work, including lights as may be required. The contractor shall not be entitled to claim any expenditure incurred for such works executed at night.

4. APPROVED MAKE LIST

Sr No.	Category	Brand name	
	Notes:-		
	No deviations shall be permitted.		
	All material to be used shall be of first quality unless otherwise specified		
	All sizes of materials mentioned shall be finished sizes.		
	All materials used shall be of I.S.i grade wherever applicable.		
	Wherever Contractor proposes to use "equivalent" makes (other than the specified makes mentioned in the Bill Of Quantities), the same shall be done only after taking prior approval from the Consultant (who may consult the Employer before giving approval), time due to this will be on contractor account and no claims will be entertained		
	A. Civil Works		
1.	Cement	Ultratech, Ambuja, ACC, Birla	
2.	RMC	 Nuvoco (Lafarge) Ultratech Godrej AAC JSW RMC 	
3.	White Cement	Birla , J.K,	
4.	Chemical Admixtures	MC Bauchemie, BASF, MYK Schomburg, Pidilite, Sunanda Chemicals, Sika, FOSROC, Choksey Chemicals	
5.	Coal Tar	Berger, Pidilite, Shalimar	
6.	Grouts	Fosroc, Ultratech, Durabuild	
7.	LDPE sheet	Dunlop, Ramson, Mono	
8.	Rebars	Tata, SAIL, JINDAL, Vizag, JSW.	
9.	Structural Steel	Vizag, TATA, SAIL, RINL, ISPAT,JSW	
10.	Anchors and chemicals fasteners	Hilti, Fisher	
11.	Structural Sealant	Wacker, Dow Corning, GE	
12.	Welding rod	Advani or equivalent	
13.	Clamp, Rebar, Chemical fastener	Hilti, Fischer, Wurth	
14.	Anchor Fasteners / bolts	Hilti, Fischer, Halfen	
15.	Dash Fasteners	SS grade, Hilti/	
16.	Structural Silicon	Dow Corning/ Momentive (GE)	
17.	Backer Road	Supreme Industries Ltd, Sika, Softex Industrial Products	
18.	Salitex board	Shalimar, STP, KIMPL	
19.	Adhesives & Grouts	Pidilite, Bal, Laticrete, KeraKoll,	
20.	Galvanized Iron pipe	Jindal, Zenith.	

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Sr No.	Category	Brand name	
21.	Rolling shutter Motorized	Best locally available after approval from	
		Employer	
22.	Bubble insulation	Aerolam, Trocellen /Supreme	
23.	LOW DENSITY	Arihant industries (india), Ashapura Polymills	
	POLYETHYLENE SHEETS	limited, Divya plastics, shree Sidhivinayak	
	(LDPE SHEETS)	enterprises, Granosphere international	
	B. Electrical Works		
24.	Rigid PVC Conduit	AKG, BEC, Steelkraft	
25.	Accessories for conduit	Same make as of pipe.	
26.	Flexible Copper Wires	FRLSH type: Finolex, RR cable, havells,	
		polycab	
27.		MK(Blenze),Legrand(Arteor),Havell's(carabtree-	
	Switches	Verona), Schneider (Opale)	
28.		Regent, XAL, Philips, Thorn, Osram, Artlite,	
	Link Fish	GE, Keselec Schreder, Disano, XAL, Havell's,	
	Light Fixture	Wipro, Ligman(Sample to be approved by	
		Architect/Consultant/Client)	
29.	LED	CREE, Nichia, Philips,Osram	
30.	Ceiling Fans	Crompton, Usha, orient, havells	
31.	Fan box	Cast Iron Type Only	
32.	Exhaust Fan	Crompton, Almonard, Bajaj	
33.	Call bell	Anchor Ding Dong type.	
34.	PVC tape	Steel grip, Anchor	
35.	Distribution boards	Legrand ,Schneider , L&T, Hager	
		Factory	
		fabricated. Double door type	
36.	MCB/ELMCB & Acc	Legrand, Schneider , L&T, Hager	
37.	I.T. Cables	Finolex, Polycab, KEI, Havells, RR kabel, Ravin	
	LT Cables	cable,	
38.	Panel Fabricators	CPRI Approved panel builders only	
39.	Load Manager / Energy	Conzerve, Secure, Elmeasure, L&T	
	Meter:		
40.	Meters	Conzerve, Secure, Elmeasure, L&T	
41.	Timer	Theban (Indoasain), Legrand, L&T	
42.	Relay	Areva, Siemens, L&T, ABB,CSPC, Schnieder	
43.	MCCB	Legrand, Schneider, L&T, Hager	
44.	A.C.B.	Legrand, Schneider , L&T	
45.	On Load Changeover	C&S, HPL, Havell's	
46.	Connectors	ELMEX, Wago	
47.	Glands	Comet , Dowell's, Jainson, HMI, raychem	
48.		Comet, Dowell's (Biller India), Jainson, 3D,	
.0.	Cable Lugs	Raychem	
49.	Metal Clad and Whether		
. • •	proof Plug-socket	Legrand, Indoasain, RR PCE, BCH, Schnieder	
50.	Button holder, Angle holder,	Anchor, CPL	
	ceiling rose		

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Sr No.	Category	Brand name
51.	HT Joint Kit	Raychem, 3M
52.	HT Cable	Finolex, KEI, Havells, , RR Kabel, Ravin cable
53.	Cable Tray	Indiana, Rushabh Steel, Legrand, OBO
54.	Raceway	MK (Ega), Legrand, OBO
55.	Chemical Type Earthing	Dehn, OBO, ABB,
56.	DB Surge Protector	Legrand, Schnieder, OBO, L&T
57.	Anchor Fastener	Hilti,3M
58.	Fire Stopper / Mortar Form,	Hilti, OBO, Carboline, Stanvac
	coating	
59.	Indication Lamp	LED Type: Schneider, Sumo, L&T, RASS
60.	Voltage Selector Switch	L&T, Salzer
61.	Ammeter Selector Switch	L&T, Salzer
62.	Power Pack	Gogate / Eq.
63.	Thermoplastic Boxes	Hensel, Spelsberg
64.	UPS	APC, Numeric, ETON, EMERSON,
65.	Battery	Global(Rocket), HBL(Life), Exide Amarraja,Hitachi

Note if any changes required from the above list due to non-availability of material the same can be considered after consultation with engineer in charge and consultant.