

UNDP-Jaffna.

Scope of work: REACTIVATION AND RECONSTRUCTION OF MYLIDDY FISHERIES HARBOUR – PHASE I

CONSTRUCTION OF TWO STOREY BUILDING FOR NET MENDING, OFFICE SPACE FOR FI & FCS, RADIO ROOM AND COMMUNITY HALL

Project Title: Resettlement in Newly Released Area – II (RNRA - II)

• Background information of the project

Further to the situation analysis provided in the Addendum of Northern Livelihood Development Project III (NLDP III) proposal, latter part the year 2015 shows a significant change in the context of the Jaffna District with the resettlement of internally displaced persons, identified as vulnerable communities, in need of immediate recovery support. Accordingly, as of now a land extend of 1,870 acres belonging to 19 Grama Niladhari Divisions¹ (GNDs) were released and out of which 1 GND (Palai Veemankamam South) was fully released and 18 other GNDs (KKS West, KKS Centre, Kurumbasiddy, Thaiyiddy East, Thaiyiddy North, Palaly North, KKS South, Palai Veemankamam North, Kadduvan, Thenmailai, Varuththalaivillan, Vasavillan East, Vasavillan West, Myliddy North, Thaiyiddy South, Palaly South, Palaly East, Naguleswaram) have been partly released. As a result, since March 2015 a total of 3,629 families have expressed their intention to return to their own land. Under the supervision of the Government Agent Jaffna District and the direct interventions of respective Divisional Secretariats and the contribution of UN and civil society organizations, immediate assistance relating to food, sanitation, housing and livelihood for returnees were made available. Nevertheless the recovery needs of these resettled communities continue to be significant, particularly because the released areas of land have turned in to forests, has detrimentally affected the suitability of the living conditions and does not provide the space for socio-economic and cultural activities for the resettled. Further reawakening of basic infrastructure and livelihood has become highest priority of the returnees and as well as relevant authorities.

The key activities:

CONSTRUCTION OF TWO STOREY BUILDING FOR NET MENDING, OFFICE SPACE FOR FI & FCS, RADIO ROOM AND COMMUNITY HALL

¹ Source: Resettlement Unit, District Secretariat, Jaffna District

Objective of this project intervention:

Resettled communities in the Jaffna district have improved socio economic recovery opportunities and better integrated with their communities.

• Involved parties (Govt. CSOs. Etc.)

Ministry of National Integration and Reconciliation, Ministry of Fisheries and Aquatic resources, District Secretariat, Divisional Secretary-Tellipalai , Department of Fisheries and Aquatic Resources, Predeshiya Saba, ,Department of Coastal conservation, Fisheries Cooperative Societies, Consultant Engineer and Valikamam North Fishermen's Federation.

• Targeted beneficiaries:

600-650 return families as direct beneficiaries.

• Expected results/achievements

Support to Myliddy North Fishery harbour development phase 1 and further consolidate the works for Phase II. This intervention will pave way for the fishermen to restart their livelihood and for the accelerated development of the fisheries Sector in the region.

• Location

Tellipalai DS Division – Myliddythurai North GSN and adjoining GN Divisions

• Selection process of the contractors (Competitive)

CWC (National Ad) for Construction of Specified work as given below.

• Technical details of the work

Technical Detail for Construction of Two Storey Building for Net Mending, Office Space for FI & FCS, Radio Room and Community Hall

- 1) This building includes Net Mending Hall, Office Space for FI & FCS, Radio Room and Community Hall with Water and Sanitation facilities
- 2) Foundation with RCC Footing, Columns and RCC beams and hollow cement blocks masonry
- 3) Reinforced concrete floor system on RCC beams, consist of Grade 30 concrete topping with power floated smooth cut and polished floor.
- 4) Doors , windows and fanlights are made out of approved quality timber

- 5) Through lintels for block wall and Beams for front section provided
- 6) Exposed rafter type Calicut pattern tile roof with double side aluminium foil heat insulation and cement fiber ceiling
- 7) Female/Male cum disable toilet with zinc Al roof
- 8) Toilets with marble flooring and hand rail for disable
- 9) Disable access provided for disable toilet and Main building
- 10) Septic tank cum soakage pit to be provided

General Topography of the locality and other information:

Myliddy was one of the highly-concentrated village in the demarcated High Security Zone Palali area. It is located in the administrative division of Vali North, Tellipalai divisional secretariat, Jaffna. Due to the ethnic conflict, over 3 decades, there were several social and economic changes occurred in Jaffna peninsula. In mid-1990 people displaced from this villages due to security purposes and then it was declared as high security zone. About 1,750 families from Myliddy area itself displaced and temporarily settled in neighboring areas.

Under the leadership of His Excellency the President of Sri Lanka Mithiripala Sirisena, the newly elected government started releasing private lands since early 2015. Partial land release in the Myliddy area was initiated in early January 2017 by releasing 04 acres of Myliddythurai North GN division for resettlement, which includes part of Thaiyiddy North GN Division. Further in the month of April 2017, total of 28 acres of Myliddythurai North GN division and again on the 3rd July 2017 another 54 acres of land including Myliddy Fishing Harbour/Pier area was released. Myliddythurai South GN division yet to be released.

Governance for Local Economic Development Programme		
REACTIVATION AND RECONSTRUCTION OF MYLIDDY FISHERIES HARBOUR – PHASE I		
PROJECT TITLE	CONSTRUCTION OF TWO STOREY BUILDING FOR NET MENDING, OFFICE SPACE FOR FI & FCS, RADIO ROOM AND COMMUNITY HALL	
PROJECT NO	JAF/RNRA/101335/001/1B/ 01	
PROJECT LOCATION	MYLIDDY AT TELLIPALAI DS DIVISION	
DISTRICT	JAFFNA	
BID-SUMMARY SHEET		
Bill Section	Description	Amount (LKR)
BILL NO. 1	Preliminaries	
BILL NO. 2	Net mending building	
	Sub Total 1	
	DDT- Discount if Any (.....%)	
	Sub Total 2 (Sub Total 1-Discount)	
	Add; Contingencies (10%)	
	Bid Amount (excluding VAT)	
Bid Amount in Words (excluding VAT) : SLRs.		
.....		
VAT Registration No (if available)		
* Note: The services produced by UNDP are exempted of all taxes. As such the quated price is to be exclusive of VAT		
Signature and seal :.....		
Name of Bidder :.....		
Address :.....		
Date :.....		

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BILL OF QUANTTIES

ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
A	PRELIMINARIES				
	<p>Notes : All the Bidders are requested to refer "Pricing Preamble and notes below" and works items of this Bills of Quantities shall be priced to fulfill the requirements there-in. Also see that no page or items are missing prior to pricing the bill of quantities.</p>				
	The Bidder is advised to refer to the General Notes, Pricing Preambles, Drawings, Specifications, Conditions of Contract, Particular Conditions of Contract and other relevant documents prior to pricing the following items.	Note			
	The Bidder is advised to visit the site of the proposed work, as it is his responsibility to ascertain the conditions governing access to the site, and external working space, storage area etc.	Note			
	A list of typical general items are given below. However, the Bidder is requested to price only those items that may affect this Contract.	Note			
	Exsisting roads & culverts cannot take the passage of heavy vehicle or such in adquate areas to be strenghten by the successful bidder, before make use of such areas, roads and approches.	Note			
	Any other preliminary items not listed below but deemed necessary for the successful execution of the project shall be included in the tender rates, as no claims for extra payments for such, would be entertained.	Note			
	All temporary works shall be dismantled and cleared away from the site on completion of the work.	Note			
	Contractor shall provide helmets, gloves, safety masks, dusk masks, eye goggles, boots etc. for the workmen.	Note			
	Contractor shall provide safety boards, signs and safety ribbons (plastic yellow and black stripes) to be erected at site.	Note			
	Contractor shall take special care for safety of school children, staff and public during transportation of materials and implementation of the contract.	Note			
	Mechanical plant and equipment which emits excessive noise, water, smoke, fumes, or obnoxious liquids, gases etc., will not be allowed to be used on the site. If the use of such machinery becomes necessary, the Contractor is expected to obtain prior approval.	Note			
	No work in any trade shall be carried out in such a manner as to cause any nuisance to adjacent owners or the public.	Note			
	The Engineer has the final decision as and when he deems it necessary for the Contractor to take precautions, maintain or repair such plant and equipment or order their removal from the site.	Note			

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ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
	The contractor shall be responsible for any loss or damage to the works, existing structures, adjoining structures and unfixed materials.	Note			
	The Contractor shall be responsible for necessary lighting, watchman and other suitable measures during construction until handing over	Note			
	Contractor shall be responsible for erection, shifting and maintaining of necessary protective netting, fencing, hording, screens at site and other precautions to the required standard and satisfaction of the Engineer.	Note			
A01	Provide provisional sum for providing a Performance Security.	Prov. Sum			25,000.00
A02	Provide provisional sum for Insurance of Property, Material, Equipment and Works at site.	Prov. Sum			50,000.00
A03	Provide provisional sum for Insurance of third party persons & property and Employer's personnel & property at site.	Prov. Sum			25,000.00
A04	Provide provisional sum for Insurance against accidents and injury to workmen.	Prov. Sum			25,000.00
A05	Allow lump sum for constructing maintaining, dismantling and removal on completion of the works, a temporary building for Consultant Engineer's office (4.5m X 3.0m) in conformity with the plans approved for Engineer's requirements, including necessary furniture and fittings, furnishing sanitary facilities and other facilities	Allow			
A06	Allow lump sum for constructing, maintaining and dismantling on completion of the works a temporary site office of adequate size including staff rest room , Workers Accomodation & toilets with telephone, electricity & water services for the Contractor's site management staff and Workers in accordance with the plans prepared by the Contractor and approved by the Engineer.	Item			

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ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
A07	Allow lump sum for constructing, maintaining and dismantling on completion of the works buildings to be used as workshops and stores for perishable materials. Buildings shall be constructed in accordance with the plans prepared by the Contractor and approved by the Engineer.	Item			
A08	Allow lump sum for setting out works in accordance with the Drawings and other written information given by the Engineer.	Item			
A09	Allow Provisional sum for supplying specimens, samples of materials and carrying out tests and approvals.	Prov. Sum			
A10	Allow lump sum for provision of 03 sets of (hard copies and soft copies) As-Built drawings of all services for Engineer's approval	Item			
A11	Allow lump sum for providing all necessary safety measures to workmen at site conforming to the latest industrial safety regulations and as directed by the Engineer. (*PPE System & Safety Nets)	Item			
A12	Allow lump sum for supplying water for the work and paying all the charges and other expenses in connection with the supply from water mains or any other alternative method of water supply, storage and reticulation.	Item			
A13	Allow lump sum for supplying electricity for the works including connection, distribution system for the work, internal arrangements and all payment to the authorities for consumption.	Item			
A14	Allow lump sum to providing and maintaining of Name Board of Size 1.8 m x 1.2 m, as directed and approved by the engineer. Rate shall include for erection and fixing to the earth firmly on to the concrete base.	Item			
A15	Allow lump sum for removal of all temporary works, rubbish and debris and cleaning up site on completion, levelling all in good order and handing over.	Item			
	SUB TOTAL FOR PRELIMINARIES CARRIED TO SUMMARY				

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BILL OF QUANTITIES

ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
	<u>SUMMARY</u>				
2.1	EXCAVATION & EARTH WORK				
2.2	CONCRETE WORKS				
2.3	MASONRY WORKS				
2.4	WATER PROOFING				
2.5	WOOD WORKS				
2.6	ROOF COVERING & ROOF PLUMBING				
2.7	PLUMBING AND SANITARY INSTALLATION				
2.8	ELECTRICAL INSTALLATION				
2.9	FLOOR /WALL /CEILING FINISHES				
2.10	PAINTING WORK				
2.11	DRAINAGE WORKS				
	TOTAL CARRIED TO MAIN SUMMARY				

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ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
2.1	<u>EXCAVATION & EARTH WORK</u> Rates for excavation shall include for : All necessary shoring, strutting, etc. and removal after completion of work. Stabilisation of excavated surfaces, if required. All working space required, including for planking, strutting, formwork etc. Bulking after excavation and disposal of excavated material as directed. Backfilling with approved material to required levels and surfaces, consolidating and ramming by an approved method for over excavation. Dewatering, if required. Measurement for payment for excavation shall be for the net contact volumes upto the concrete surface. <u>Site clearing / preparation</u>				
2.1.1	Clearing site from all debris and removal of top soil up to 150mm including all bushes and other vegetation away from the site (Measured building perimeter area only); all in accordance with drawings and specifications. <u>Excavating</u> <u>Excavation, any material excluding rock requiring blasting, back filling using selected excavated materials and compactions, levelling and compacting the bottom of excavation and earth work supports ; all in accordance with drawings and specifications.</u>	m ²	239.00		
2.1.2	For reduce level , average depth 100mm	m ³	24.00		
2.1.3	For column / staircase pits	m ³	86.00		
2.1.4	For foundation trench	m ³	18.00		
2.1.5	For tie beams	m ³	2.00		
2.1.6	For soft rock excavation (Coral)	m ³	6.00		
2.1.7	For hard rock excavation (Lime rock) <u>Disposal</u>	m ³	8.00		
2.1.8	Surface and ground water disposal	Item	1.00		
2.1.9	Surplus excavated material disposal	m ³	86.00		

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ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
2.1.8	<u>Filling</u> <u>Imported hard earth filling, well rammed and consolidated to achieve 95% maximum dry density.</u> To make up levels, under ground slab, 150mm layers	m ³	46.00		
2.1.9	<u>Surface Treatment</u> Anti termite treatment "Biflex, John piper, lankem" or equivalent shall be in accordance with the manufacturers specifications by an approved specialist pest control contractor and pest control contractor shall submit a guarantee for a minimum of 10 years from the date of handing over of the project. The said guarantee certificate must be in the name of the employer. (method statement, technical literature, specimen warrantee to be submitted with the bid)	m ²	207.00		
	TOTAL FOR EXCAVATION AND EARTH WORK CARRIED TO SUMMARY				

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ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
2.2	<p><u>CONCRETE WORKS</u></p> <p>Unless otherwise stated all concrete shall be of grade as per Specifications</p> <p>Rates for concrete shall include for construction joints, expansion joints or contraction joints as necessary.</p> <p>Concrete shall be measured as the net area/volume, as shown on the drawings.</p> <p>Rate for concrete shall include for :</p> <p>supply, handling at site, depositing, compacting, vibrating, curing and making good after removal of formwork.</p> <p>preparation of surfaces, roughening/chipping to the approval of the Engineer.</p> <p>providing water stops at temporary construction joints, if necessary.</p> <p>Reinforcement and Formwork paid separately unless specified in the Item.</p> <p>Rate for formwork shall include for all necessary boarding, supports, erecting, framing, cutting angles, cleaning, apply approved foam oil, wetting before placing concrete, removal etc.</p> <p>Formwork is measured as the net contact surface measurement between formwork and concrete.</p> <p>All reinforcement shall be as per relevant British Standards having minimum characteristic strength of 460 N/mm² for ribbed tor steel and 250 N/mm² for mild steel.</p> <p>Rate for reinforcement shall include for supplying, cleaning, cutting, bending, fabricating, binding, placing in position, binding wires, ties, supporting bars, spaces, chairs, wastage etc.</p> <p>Rate for transporting ready mix and pump car to be included where necessary</p> <p><u>Work up to DPC level</u></p> <p><u>Insitu mass concrete (15 N/mm²-20mm) screed, poured into ground; all in accordance with drawings and specifications</u></p>	Note Note Note Note Note Note Note Note Note			
2.2.1	<p>50mm thick, column / staircase footing, masonry foundation and tie beams</p> <p><u>Insitu reinforced concrete (30 N/mm²- 20mm) poured into formwork; all in accordance with drawings and specifications</u></p>	m ²	110.00		
2.2.2	Slab on ground, 100 mm thick	m ³	17.00		
2.2.3	Slab on ground, 150 mm thick	m ³	10.00		
2.2.4	Column / staircase bases	m ³	25.00		
2.2.5	Column / staircase shaft up to tie beams	m ³	3.00		

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ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
2.2.6	Tie beams <u>Work from DPC level to upper floor level</u> <u>Insitu reinforced concrete (30 N/mm²- 20mm) poured into formwork; all in accordance with drawings and specifications</u>	m ³	10.00		
2.2.7	Columns	m ³	10.00		
2.2.8	Beams	m ³	12.00		
2.2.9	Slabs , 150mm thick	m ³	24.00		
2.2.10	Stair cases	m ³	3.00		
	<u>Work from DPC level to upper floor level</u> <u>Insitu reinforced concrete (30 N/mm²- 20mm) poured into formwork; all in accordance with drawings and specifications</u>				
2.2.11	Lintels and sill beams	m ³	0.30		
2.2.12	Vanities	m ³	0.30		
2.2.13	Stiffener columns	m ³	1.00		
2.2.14	Stiffener beams	m ³	0.40		
	<u>Work from upper floor level to roof level</u>				
2.2.15	Columns	m ³	9.00		
2.2.16	Lintels and sill beams	m ³	1.00		
2.2.17	Vanities	m ³	0.30		
2.2.18	Stiffener columns	m ³	1.00		
2.2.19	Roof beams	m ³	6.00		
2.2.20	Roof portal beams	m ³	5.00		

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ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
	<u>FORMWORK</u>				
	<u>Work up to DPC level</u>				
	<u>Plain plywood formwork; all in accordance with drawings and specifications</u>				
2.2.21	Sides of column / staircase bases	m ²	48.00		
2.2.22	Sides of columns / staircase shaft up to tie beams	m ²	25.00		
2.2.23	Sides of tie beam	m ²	65.00		
	<u>Work up to DPC level</u>				
	<u>Plain plywood formwork; all in accordance with drawings and specifications</u>				
2.2.24	Sides of pavement slab edges ≤300 mm	m	59.00		
	<u>Work from DPC level to upper floor level</u>				
	<u>Plain plywood formwork; all in accordance with drawings and specifications</u>				
2.2.25	Sides of columns	m ²	100.00		
2.2.26	Sides and soffit of beams	m ²	103.00		
2.2.27	Soffit of slabs	m ²	160.00		
2.2.28	Sides and soffit of lintels and sill beams	m ²	6.00		
2.2.29	Sides and soffit of vanities	m ²	3.00		
2.2.30	Sides of stiffener columns	m ²	13.00		
2.2.31	Sides and soffit of stiffener beams	m ²	8.00		
2.2.32	Soffit of stair flights	m ²	10.00		
2.2.33	Soffit of landings	m ²	3.00		
2.2.34	Sides of stair flights, height ≤ 300mm	m	16.00		
2.2.35	Sides of risers, height ≤ 300mm	m	29.00		

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ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
	<u>Work from upper floor level to roof level</u>				
2.2.36	Sides of columns	m ²	86.00		
2.2.37	Sides and soffit of lintels and sill beams	m ²	20.00		
2.2.38	Sides and soffit of vanities	m ²	3.00		
2.2.39	Sides of stiffener columns	m ²	13.00		
2.2.40	Sides and soffit of roof beams	m ²	59.00		
2.2.41	Sides and soffit of roof portal beams	m ²	46.00		
	<u>REINFORCEMENT</u>				
	<u>Work up to DPC level</u>				
	<u>High yield and mild steel reinforcement bars; all in accordance with drawings and specifications</u>				
2.2.42	In slab on ground	Kg	813.00		
2.2.43	In column / staircase bases	Kg	1,500.00		
2.2.44	In columns up to tie beams	Kg	180.00		
2.2.45	In tie beams	Kg	588.00		
	<u>Work from DPC level to upper floor level</u>				
	<u>High yield and mild steel reinforcement bars; all in accordance with drawings and specifications</u>				
2.2.46	In columns	Kg	600.00		
2.2.47	In beams	Kg	1,150.00		
2.2.48	In slabs	Kg	2,410.00		
2.2.49	In stair cass	Kg	372.00		
	<u>Work from DPC level to upper floor level</u>				
	<u>High yield and mild steel reinforcement bars; all in accordance with drawings and specifications</u>				
2.2.50	In lintels	Kg	30.00		
2.2.51	In vanities	Kg	30.00		
2.2.52	In stiffener columns	Kg	100.00		
2.2.53	In stiffener beams	Kg	40.00		

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ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
	<u>Work from upper floor level to roof level</u>				
2.2.54	In columns	Kg	516.00		
2.2.55	In lintels	Kg	90.00		
2.2.56	In vanities	Kg	30.00		
2.2.57	In stiffener columns	Kg	110.00		
2.2.58	In roof beams	Kg	378.00		
2.2.59	In roof portal beams	Kg	1,025.00		
	<u>Cutting in to concrete ; all in accordance with drawings and specifications</u>				
2.2.60	Mechanical trowel finish (Power floating) to concrete floor Rate shall include for titanium powder and curing agent	m ²	187.00		
	TOTAL FOR CONCRETE WORK CARRIED TO SUMMARY				

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ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
2.3	<u>MASONRY WORKS</u> Notes : The bidders are requested to refer General Notes, Pricing Preambles, Drawings, Specifications, Conditions of Contract, Special Conditions of Contract and all other relevant documents prior to pricing of the following items. Rates shall include for preparation of surfaces of floor slab, columns (steel or RCC) and wall surfaces for proper bonding Rate to include cost for all concrete stiffner columns & stiffner beams as per specification Rate shall include to, 1. All rough and fair cutting, plumbing angles, normal straight cutting, forming rebated reveals and raking out joints for plastering. 2. Forming rough and fair grooves, throats, mortises, chases, rebates and holes, stops and miters. 3. Supplying & Fixing <u>Rubble work</u>	Note Note Note Note			
2.3.1	Random rubble (150 x 225mm size) masonry wall foundation in cement and sand 1:5 mortar ; all in accordance with drawings and specifications. <u>Work from ground level to upper floor level</u> <u>Block work</u>	m ³			
2.3.2	150mm thick cement hollow block wall in cement and sand 1:5 mortar ; all in accordance with drawings and specifications	m ²			
2.3.3	100mm thick cement hollow block wall in cement and sand 1:5 mortar ; all in accordance with drawings and specifications <u>Brick work</u>	m ²			
2.3.4	225mm thk brick work in cement and sand 1:5 mortar ; all in accordance with drawings and specifications	m ²			

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	<u>Work from upper floor level to roof level</u>				
	<u>Block work</u>				
2.3.5	150mm thick cement hollow block wall in cement and sand 1:5 mortar ; all in accordance with drawings and specifications	m ²	203.00		
2.3.6	100mm thick cement hollow block wall in cement and sand 1:5 mortar ; all in accordance with drawings and specifications	m ²	20.00		
	<u>Brick work</u>				
2.3.7	225mm thick brick work in cement and sand 1:5 mortar ; all in accordance with drawings and specifications	m ²	42.00		
2.3.8	100mm thick, brick work filling ,in cement and sand 1:5 mortar to increase size of columns ,ground floor to upper floor ; all in accordance with drawings and specifications	m ³	6.00		
2.3.9	Brick work in cement and sand 1:5 mortar in between roofing and wall to prevent birds entering to building; all in accordance with drawings and specifications. Rate shall includes for Plastering and painting for the work.	m	67.00		
	TOTAL OF MASONRY WORKS CARRIED TO SUMMARY				

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BILL OF QUANTITIES

ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
2.5	<p>WOOD WORKS</p> <p>Timber shall be of approved quality, Frame shall be of Palai/Palu or Red Balau or Equivalent approved by the Engineer and Sashes Palai/Palu, Satin or Teak or Equivalent approved by the Engineer.</p> <p>All doors shall have heavy duty brass hinges unless specified, locks shall be Mortise cylinder locks with duplicate Keys.</p> <p>All Windows shall have heavy duty brass hinges unless specified,</p> <p>All Doors and Windows shall have necessary barrel bolts, Castement Stays, Draw rings etc.</p> <p>Rate to include for two coats of Varnish painting after preparation of surface.</p> <p>The Contractor shall submit detailed shop drawings for the approval of the Engineer, 14 days prior to fabrication.</p> <p>All cutting, notching, drilling, sinking, trimming, framing jointing, splayed edges and the like including fixing in position complete with all nails, spikes, screws and priming to joints and ends.</p> <p>No application of any description shall be made on any timber unless and until the timber is approved by the Engineer.</p> <p>All exposed faces of timber are to be wrot. The sizes given below are nominal without allowance for planning except where described as finished sizes.</p> <p>Rates shall include for:</p> <p>All labour in framing, jointing and fixing in position complete with all nails, spikes, screws etc.</p> <p>All doors, windows and fanlight shall be fixed complete as per detail drawings.</p> <p>All door frames shall be fixed with spur stone at the foot.</p> <p>All door and window frames shall be fixed to brick walls with M.S. hold fasts.</p> <p><u>Carpentry</u></p> <p><u>Roof frameworks</u></p> <p><u>Hardwood timber, including wood preservatives, treatments, plates, nails, fixing, fittings fixed in position to complete; all in accordance with drawings and specifications (Sizes shown are finish sizes)</u></p>	Note			
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		Note			
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		Note			
2.5.1	150x50 mm timber ridge plate	m	21.00		
2.5.2	125x75 wall plate	m	67.00		
2.5.3	150x50 mm timber hip rafter	m	23.00		

REACTIVATION AND RECONSTRUCTION OF MYLIDY FISHERIES HARBOUR – PHASE I

CONSTRUCTION OF TWO STOREY BUILDING FOR NET MENDING, OFFICE SPACE FOR FI & FCS, RADIO ROOM AND COMMUNITY HALL

BILL OF QUANTITIES

ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
2.5.4	100x150 mm timber purlin rate shall include for 10mm th. Galvanized Steel brackets fixed on portal frame as per drawing	m	100.00		
2.5.5	50x100 mm timber rafters	m	518.00		
2.5.6	25x50 mm timber reapers	m	1,554.00		
2.5.7	225x25 mm valance / barge board with painting	m	74.00		
	<u>Doors</u>				
2.5.8	Door type D, 1200mm x 2100mm high single sash timber door without louvers on top consists of 125x75 frame and 32mm th. Fully panelled sashes s rate shall include for heavy duty brass furnitures such as 3 nos of 100mm x 100mm hinges, 2 nos of 150mm long barrel bolts and mortice lock Union or equivalent all complete as per drawings and as per engineer's instruction	nr	1.00		
2.5.9	Door type D1, 900mm x 2100mm high single sash timber door without louvers on top consists of 100x75 frame and 32mm th. Fully panelled sashes s rate shall include for heavy duty brass furnitures such as 3 nos of 100mm x 100mm hinges, 2 nos of 150mm long barrel bolts and mortice lock Union or equivalent all complete as per drawings and as per engineer's instruction	nr	3.00		
2.5.10	Door type D2, 750mm x 2100mm high single sash timber door without louvers on top consists of 100x75 frame and 32mm th. Fully panelled sashes s rate shall include for heavy duty brass furnitures such as 3 nos of 100mm x 100mm hinges, 2 nos of 150mm long barrel bolts and mortice lock Union or equivalent all complete as per drawings and as per engineer's instruction	nr	4.00		
2.5.11	<u>Doors</u> Door type SW, 2000mm x 1200mm high double sash timber louvered door consists of 100x75 frame and 32mm th. outer frame sashes and 25mm x 32mm louvers rate shall include for heavy duty brass furnitures such as 2 nos of 100mm x 100mm hinges, 2 nos of 150mm long barrel bolts and all complete as per drawings and as per engineer's instruction	nr	4.00		

REACTIVATION AND RECONSTRUCTION OF MYLIDY FISHERIES HARBOUR – PHASE I

CONSTRUCTION OF TWO STOREY BUILDING FOR NET MENDING, OFFICE SPACE FOR FI & FCS, RADIO ROOM AND COMMUNITY HALL

BILL OF QUANTITIES

ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
	<u>Windows</u>				
2.5.12	Type W1, size 1200mm x 1800mm timber window with timber louvers on top consists of 100x75 frame and 28mm th. Fully glazed sashes and 20mm th. 75mm wide louvers rate shall include for heavy duty brass furnitures such as 75mm x 100mm hinges, 2 nos of 100mm long barrel bolts, 250mm long casement stays and 25mm dia draw ring all complete as per drawings and as per engineer's instruction	nr	17.00		
2.5.13	Type FL, size 600mm x 1200mm top hung timber fanlight with timber louvers on top consists of 100x75 frame and 28mm th. Fully glazed sashes and 20mm th. 75mm wide louvers rate shall include for heavy duty brass furnitures such as 75mm x 100mm hinges, casement stay all complete as per drawings and as per engineer's instruction	nr	2.00		
	<u>Handrail</u>				
2.5.14	50 X 50 mm, class I hardwood timber railing to be fixed to the wall using stainless steel bracket as per drawings and specifications. (Type I)	m	13.00		
2.5.15	900 mm high handrail comprising with 50 X 50 mm class 1 hardwood timber top railing, 25 X 25 mm timber stiffeners in each step as per draings and specifications. (Type II)	m	8.00		
	TOTAL FOR WOOD WORKS CARRIED TO SUMMARY				
2.6	<u>ROOF COVERING & ROOF PLUMBING</u>				
	<u>Roof Covering</u>				
2.6.1	Calicut tile roofing laid on timber framework (measured separately) all other accessories required to complete; all in accordance with drawings and specifications	m ²	351.00		
	<u>Roof insulation</u>				

REACTIVATION AND RECONSTRUCTION OF MYLIDDY FISHERIES HARBOUR – PHASE I

CONSTRUCTION OF TWO STOREY BUILDING FOR NET MENDING, OFFICE SPACE FOR FI & FCS, RADIO ROOM AND COMMUNITY HALL

BILL OF QUANTITIES

ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
2.6.2	Roof insulation, 6mm thick double side aluminium foil all other accessories required to complete; all in accordance with drawings and specifications <u>Roof ceiling</u>	m ²	351.00		
2.6.3	Roof ceiling, asbestos free cement fibre board angle ceiling including painting, all other accessories required to complete; all in accordance with drawings and specifications <u>Ridge / hip covering</u>	m ²	351.00		
2.6.4	Ridge /hip covering with Calicut pattern tiles bedded in cement & sand mortar 1:4 and coloured to match the tiles. <u>Eave Gutters</u>	m	42.00		
2.6.5	Supply and fix uPVC eave gutter, size 150x150mm, and end caps with brackets at suitable centres' and all necessary gutter fittings as shown in the detail drawings <u>Down Pipes</u>	m	74.00		
2.6.6	Supply and fix DN 90 rain water down pipes to wall with P.V.C. clips @ 1200mm c/c including necessary sockets, bends, elbows.	m	156.00		
	TOTAL FOR ROOF COVERING AND ROOF PLUMBING CARRIED TO SUMMARY				
2.7	<u>PLUMBING AND SANITARY INSTALLATION</u>				
	<u>COLD WATER SUPPLY SYSTEM</u>				
	<u>Main Distribution pipes</u>				
	<u>uPVC, Type 1000, pipes including fittings , bends, branches, joints, ancillaries sleeves insulations and fixing; as specified all in accordance with the drawings and specifications.</u>				
2.7.1	DN 50 pipes, below ground	m	9.00		
2.7.2	DN 20 pipes, below ground	m	6.00		
2.7.3	DN 40 pipes, in ducts	m	4.00		
2.7.4	DN 32 pipes, in ducts	m	2.00		
2.7.5	DN 32 pipes, chased in wall	m	3.00		
2.7.6	DN 25 pipes, chased in wall	m	2.00		

REACTIVATION AND RECONSTRUCTION OF MYLIDY FISHERIES HARBOUR – PHASE I

CONSTRUCTION OF TWO STOREY BUILDING FOR NET MENDING, OFFICE SPACE FOR FI & FCS, RADIO ROOM AND COMMUNITY HALL

BILL OF QUANTITIES

ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
2.7.7	DN 20 pipes, chased in wall	m	23.00		
	<u>Sanitary fixtures and Fittings</u>				
2.7.8	Wash basin (Vanity type) complete with all the necessary connections and fittings, such as brackets, bottle trap and angle valve,etc. ; all in accordance with drawings and specifications (PC rate for wash basin is Rs. 15,000.00)	nr	2.00		
2.7.9	Double bowl single drain vanity type kitchen sink complete with all the necessary connections and fittings ,such as brackets, bottle trap and angle valve ,etc. ; all in accordance with drawings and specifications (PC rate for wash basin is Rs. 30,000.00)	nr	2.00		
	<u>Sanitary fixtures and Fittings</u>				
2.7.10	Floor mounted type water closet complete with 'S or P' (accordingly) traps and cistern of approved make and complete with all connections and accessories , such as brackets, angle valve ,etc. to the work in order ; all in accordance with drawings and specifications (PC of water closet is Rs. 25,000.00)	nr	2.00		
2.7.11	Bidet spray with flexible connection, angle valve to complete work in order ; all in accordance with drawings and specifications	nr	2.00		
2.7.12	Bib tap with angle valve to complete work in order ; all in accordance with drawings and specifications	nr	2.00		
2.7.13	Shower with approved make including rain shower head, concealed valves and accessories ; all in accordance with drawings and specifications	nr	2.00		
	<u>Sanitary fixtures and Fittings</u>				
2.7.14	Wash basin tap with angle valve to complete work in order ; all in accordance with drawings and specifications	nr	2.00		
2.7.15	Sink tap with angle valve to complete work in order ; all in accordance with drawings and specifications	nr	2.00		
2.7.16	Toilet paper holders ; all in accordance with drawings and specifications	nr	2.00		
2.7.17	Soap tray ; all in accordance with drawings and specifications	nr	2.00		
2.7.18	Towel rail ; all in accordance with drawings and specifications	nr	2.00		

REACTIVATION AND RECONSTRUCTION OF MYLIDDY FISHERIES HARBOUR – PHASE I

CONSTRUCTION OF TWO STOREY BUILDING FOR NET MENDING, OFFICE SPACE FOR FI & FCS, RADIO ROOM AND COMMUNITY HALL

BILL OF QUANTITIES

ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
2.7.19	600x900mm size 6mm thick mirror ; all in accordance with drawings and specifications	nr	2.00		
	<u>Valves and Associated Fittings</u> <u>Valves shall be KITZ, PEX or approved equivalent as per Specifications. Rates shall include for all bolts, nuts, gaskets, couplings etc. fixed into positions</u> <u>Main Distribution system</u>				
2.7.20	50mm dia. gate valve	nr	1.00		
2.7.21	40mm dia. gate valve	nr	1.00		
2.7.22	32mm dia. gate valve	nr	1.00		
2.7.23	20mm dia. gate valve	nr	2.00		
	<u>SUNDRIES</u>				
	<u>Work incidental to plumbing installation</u>				
2.7.24	Making position of holes, mortises and chases and making after completion	item			
2.7.25	Preparing "As built" drawings and "shop" drawings as required	item			
2.7.26	Protective painting	item			
	TOTAL FOR PLUMBING AND SANITARY INSTALLATION CARRIED TO SUMMARY				

CONSTRUCTION OF TWO STOREY BUILDING FOR NET MENDING, OFFICE SPACE FOR FI & FCS, RADIO ROOM AND COMMUNITY HALL

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REACTIVATION AND RECONSTRUCTION OF MYLIDDY FISHERIES HARBOUR – PHASE I

CONSTRUCTION OF TWO STOREY BUILDING FOR NET MENDING, OFFICE SPACE FOR FI & FCS, RADIO ROOM AND COMMUNITY HALL

BILL OF QUANTITIES

ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
2.8.11	Surface/pendent type fluorescent light (IP65)	nr	30.00		
2.8.12	Wall mounted outdoor type light (IP65)	nr	8.00		
2.8.13	Surface/Pendent type down light (IP54)	nr	7.00		
2.8.14	Wall mounted indoor type light (IP54)	nr	1.00		
2.8.15	Aluminium blade wall fan	nr	2.00		
2.8.16	Aluminium blade ceiling fan	nr	3.00		
	<u>Work incidental to electrical installation</u>				
2.8.17	Making position of holes, mortises and chases and making after completion	item			
2.8.18	Preparing "As built" drawings and "shop" drawings as required	item			
2.8.19	Protective painting	item			
	TOTAL FOR ELECTRICAL INSTALLATION CARRIED TO SUMMARY				
2.9	<u>FLOOR /WALL /CEILING FINISHES</u> The Bidders are requested to refer the General Notes, Pricing Preambles, Drawings, Specifications, Conditions of Contract, Special Conditions of Contract and all other relevant documents prior to pricing of the following items. 1. Rates shall include for preparation of surfaces for proper bonding. 2. Rate shall include for measures to provide suitable bonding between different surfaces such as concrete and brick/block surfaces as per specification. Rates shall also include for all tile specials such as corners, edges etc., 3. Rates shall include for cutting tiles as necessary. 4. Rate for tiling shall include for providing acceptable adhesive and/or suitable cement in an approved quality which has no effect to the properties of tiles. 5. Rates for floor finishes shall include for temporary rules, screeds, ground etc., all normal cutting arises, rounded angles and the like, bedding, pointing, forming joints making good between different surfaces, around pipes, sanitary fittings and other fixtures and cleaning down upon completion.	Note			

REACTIVATION AND RECONSTRUCTION OF MYLIDDY FISHERIES HARBOUR – PHASE I

CONSTRUCTION OF TWO STOREY BUILDING FOR NET MENDING, OFFICE SPACE FOR FI & FCS, RADIO ROOM AND COMMUNITY HALL

BILL OF QUANTITIES

ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
	All floor and wall tiles shall be of approved quality (Lanka Tiles/ Rocell Brands) and colour. Tile samples shall be provided for approval by the Engineer/Architect prior to purchase of materials.	Note			
	Rates for plaster work shall include for reinforcing joints between different types of construction material (e.g. block work/ brickwork and concrete work) with 150mm wide galvanized steel mesh as directed by the Engineer. Rate shall include for Reveals.	Note			
	Rates for soffit finishes shall include for preparation of surfaces, cleaning down, smoothing, knotting, stopping, etc., protection of floors and fittings, removing and replacing door and window fittings, if required, and cleaning upon completion.	Note			
	<u>Floor finishes</u>				
	<u>600 X 600 mm homogenous ceramic floor tiles in an approved color and quality including 25 mm thick 1:3 cement sand bedding and pointing with recommended tile adhesives and grout to match the color of tiles laid; all in accordance with drawings and specifications (PC rate for 600x600mm tile Rs. 1200.00)</u>				
2.9.1	To ground floor	m ²	34.00		
2.9.2	To upper floor	m ²	155.00		
	<u>Skirting</u>				
	<u>100mm high, cement floating skirting ; all as per drawings</u>				
2.9.3	To ground floor	m	49.00		
	<u>100mm high, homogeneous floor tile skirting ; all as per drawings</u>				
2.9.4	To ground floor	m	23.00		
2.9.5	To upper floor	m	103.00		
	<u>Wall Finishes</u>				
	<u>Internal Finishes</u>				
	<u>finished smooth with Cement plaster and wall putty on internal walls; all in accordance with drawings and specifications</u>				
2.9.6	Ground floor level to upper floor level	m ²	226.00		
2.9.7	Upper floor level to roof level	m ²	378.00		

REACTIVATION AND RECONSTRUCTION OF MYLIDY FISHERIES HARBOUR – PHASE I

CONSTRUCTION OF TWO STOREY BUILDING FOR NET MENDING, OFFICE SPACE FOR FI & FCS, RADIO ROOM AND COMMUNITY HALL

BILL OF QUANTITIES

ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
	<u>Installation of wall tiles ,toilet walls, 300mm X 600mm size , 1:3 cement sand bedding , jointing and pointing, up to 1500mm high; all in accordance with drawings and specifications (PC rate for 300x600mm5tile Rs. 350.00)</u>				
2.9.8	Ground floor level to upper floor level	m ²	11.00		
2.9.9	Upper floor level to roof level	m ²	11.00		
	<u>Installation of wall tiles ,work top area, 300mm X 600mm size , 1:3 cement sand bedding , jointing and pointing, up to 600mm high; all in accordance with drawings and specifications (PC rate for 300x600mm5tile Rs. 350.00)</u>				
2.9.10	To ground floor	m ²	2.00		
2.9.11	To upper floor	m ²	2.00		
	<u>Work top finished with jet black granite ; all as per drawings and specifications.</u>				
2.9.12	Ground floor level to upper floor level	m ²	2.00		
2.9.13	Upper floor level to roof level	m ²	2.00		
	<u>External Finishes</u>				
	<u>20mm thk. cement and sand 1:3 mortar finished semi rough with wood float on internal walls; all in accordance with drawings and specifications</u>				
2.9.14	Ground floor level to upper floor level	m ²	117.00		
2.9.15	Upper floor level to roof level	m ²	198.00		
	<u>Moulding Finishes</u>				
2.9.16	Moulding on concrete column , overall height 3134mm , column moulding head 560mm high, base 300mm high ;as per detail drawings (concrete work measured separately)	nr	14.00		
	TOTAL FOR FLOOR, WALL AND CEILING FINISHES CARRIED TO SUMMARY				

CONSTRUCTION OF TWO STOREY BUILDING FOR NET MENDING, OFFICE SPACE FOR FI & FCS, RADIO ROOM AND COMMUNITY HALL

ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
2.10	<u>PAINTING WORK</u> Rate shall include for preparation of surfaces, cleaning down, smoothing, knotting, stopping, patching up cracks, etc., protection of floors and fittings, removing and replacing door and window fittings, if required, and cleaning upon completion. All emulsion/ enamel/ weathershield paint shall be of approved make CIC or equivalent approved by Engineer Rate to include for the cost for the scaffoldings. <u>Internal</u> <u>Prepare surface and finish smooth with wall putty, apply one coats of alkali resistant primer and two coats of emulsion paint ; all in accordance with drawings and specifications</u>	Note Note Note			
2.10.1	Ground floor level to upper floor level	m ²	226.00		
2.10.2	Upper floor level to roof level	m ²	378.00		
	<u>External</u> <u>Prepare surface and apply two coats of wall filler and two coats of weather shield paint ; all in accordance with drawings and specifications</u>				
2.10.3	Ground floor level to upper floor level	m ²	117.00		
2.10.4	Upper floor level to roof level	m ²	198.00		
	TOTAL FOR PAINTING WORK CARRIED TO SUMMARY				

REACTIVATION AND RECONSTRUCTION OF MYLIDDY FISHERIES HARBOUR – PHASE I

CONSTRUCTION OF TWO STOREY BUILDING FOR NET MENDING, OFFICE SPACE FOR FI & FCS, RADIO ROOM AND COMMUNITY HALL

BILL OF QUANTITIES

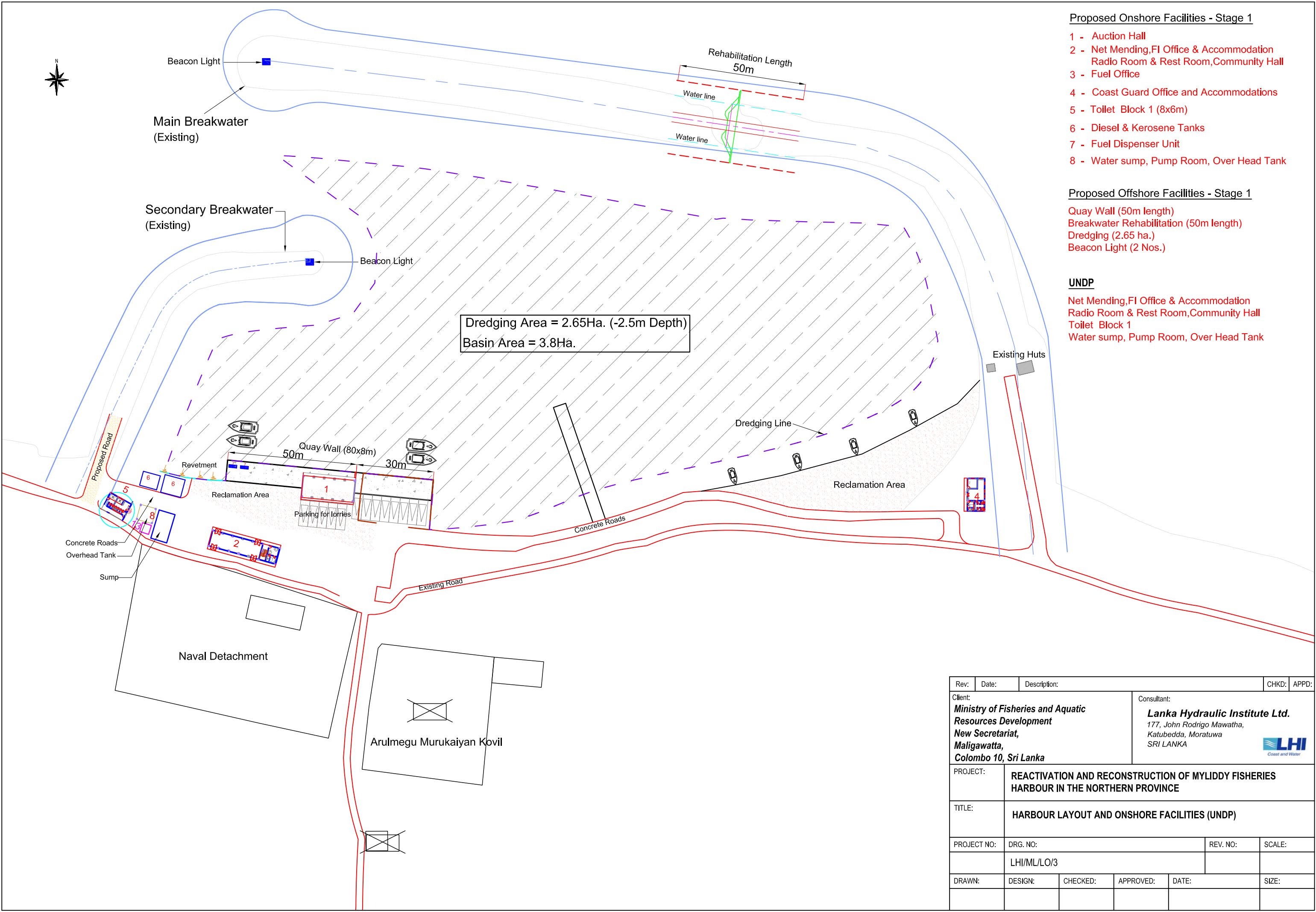
ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
2.11	<u>DRAINAGE WORKS</u>				
	<u>Storm Water Disposal System</u>				
	<u>Storm water pipes uPVC type 600, horizontal, including supports and fitting; all in accordance with drawings and specifications.</u>				
2.11.1	DN 160 pipes , below ground	m	19.00		
2.11.2	DN 110 pipes , below ground	m	80.00		
	<u>Storm water manhole</u>				
2.11.3	300x300mm storm water manhole , depth not exceeding 600mm; as per details and specification	nr	8.00		
	<u>Sewer and Waste Water Disposal System</u>				
	<u>Sewer and waste pipes uPVC type 600, horizontal, including supports and fitting; all in accordance with drawings and specifications.</u>				
2.11.4	DN 110 pipes , below ground	m	5.00		
2.11.5	DN 63 pipes , below ground	m	4.00		
2.11.6	DN 50 pipes , below ground	m	5.00		
2.11.7	DN 40 pipes , below ground	m	2.00		
2.11.8	DN 110 pipes , within floor	m	2.00		
2.11.9	DN 50 pipes , within floor	m	0.20		
2.11.10	DN 40 pipes , within floor	m	2.00		
2.11.11	DN 50 pipes , below benching	m	1.30		
	<u>Sewer and waste pipes uPVC type 600, vertical, including supports and fitting; all in accordance with drawings and specifications.</u>				
2.11.12	110.dia rodding access	nr	1.00		
2.11.13	50.dia rodding access	nr	2.00		
2.11.14	DN 110 pipes , vent pipe	m	10.00		
2.11.15	DN 50 pipes , vent pipe	m	30.00		

REACTIVATION AND RECONSTRUCTION OF MYLIDY FISHERIES HARBOUR – PHASE I

CONSTRUCTION OF TWO STOREY BUILDING FOR NET MENDING, OFFICE SPACE FOR FI & FCS, RADIO ROOM AND COMMUNITY HALL

BILL OF QUANTITIES

ITEM NO	ITEM DESCRIPTION	UNIT	QTY	RATE Rs.	AMOUNT Rs.
2.11.16	DN 50 pipes , wall chases	m	3.00		
2.11.17	DN 40 pipes , wall chases	m	2.00		
	<u>Sewer manholes</u>				
2.11.18	450x450mm sewer manhole , depth not exceeding 600mm; as per details and specification	nr	1.00		
	<u>Trapped gully</u>				
2.11.19	300x300mm trapped gully , depth not exceeding 600mm; as per details and specification	nr	2.00		
	<u>Floor trap gullies</u>				
2.11.20	150 x 150mm floor trap gullies ; as per details and specification	nr	4.00		
2.11.21	Construction of 1200mm dia 2400mm depth soakage pit as per drawing	Nos	1.00		
2.11.22	Construction of septic tank as per drawing	Nos	1.00		
	<u>Work incidental to drainage installation</u>				
2.11.23	Making position of holes, mortises and chases and making after completion	item			
2.11.24	Preparing "As built" drawings and "shop" drawings as required	item			
2.11.25	Protective painting	item			
	TOTAL FOR DRAINAGE WORK CARRIED TO SUMMARY				



Proposed Onshore Facilities - Stage 1

- 1 - Auction Hall
- 2 - Net Mending,FI Office & Accommodation
Radio Room & Rest Room,Community Hall
- 3 - Fuel Office
- 4 - Coast Guard Office and Accommodations
- 5 - Tolle Block 1 (8x6m)
- 6 - Diesel & Kerosene Tanks
- 7 - Fuel Dispenser Unit
- 8 - Water sump, Pump Room, Over Head Tank

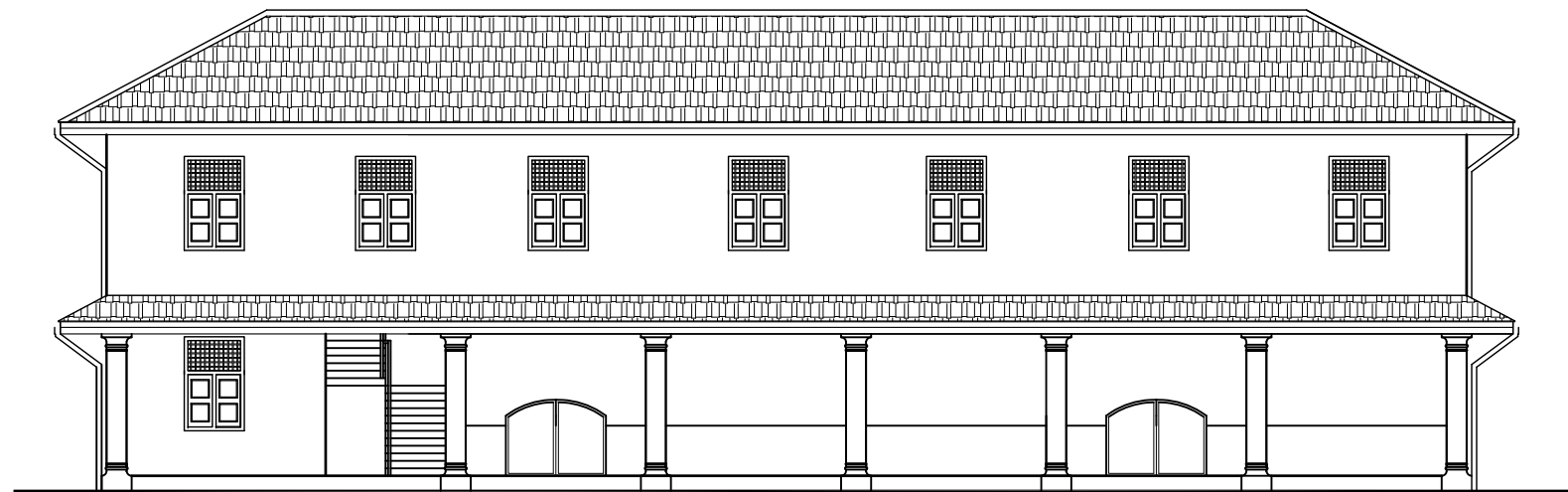
Proposed Offshore Facilities - Stage 1

- Quay Wall (50m length)
- Breakwater Rehabilitation (50m length)
- Dredging (2.65 ha.)
- Beacon Light (2 Nos.)

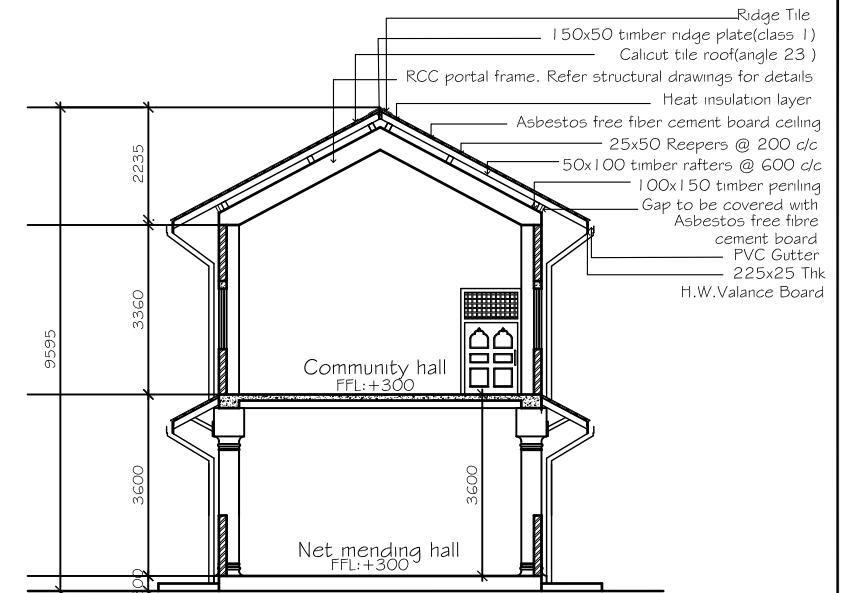
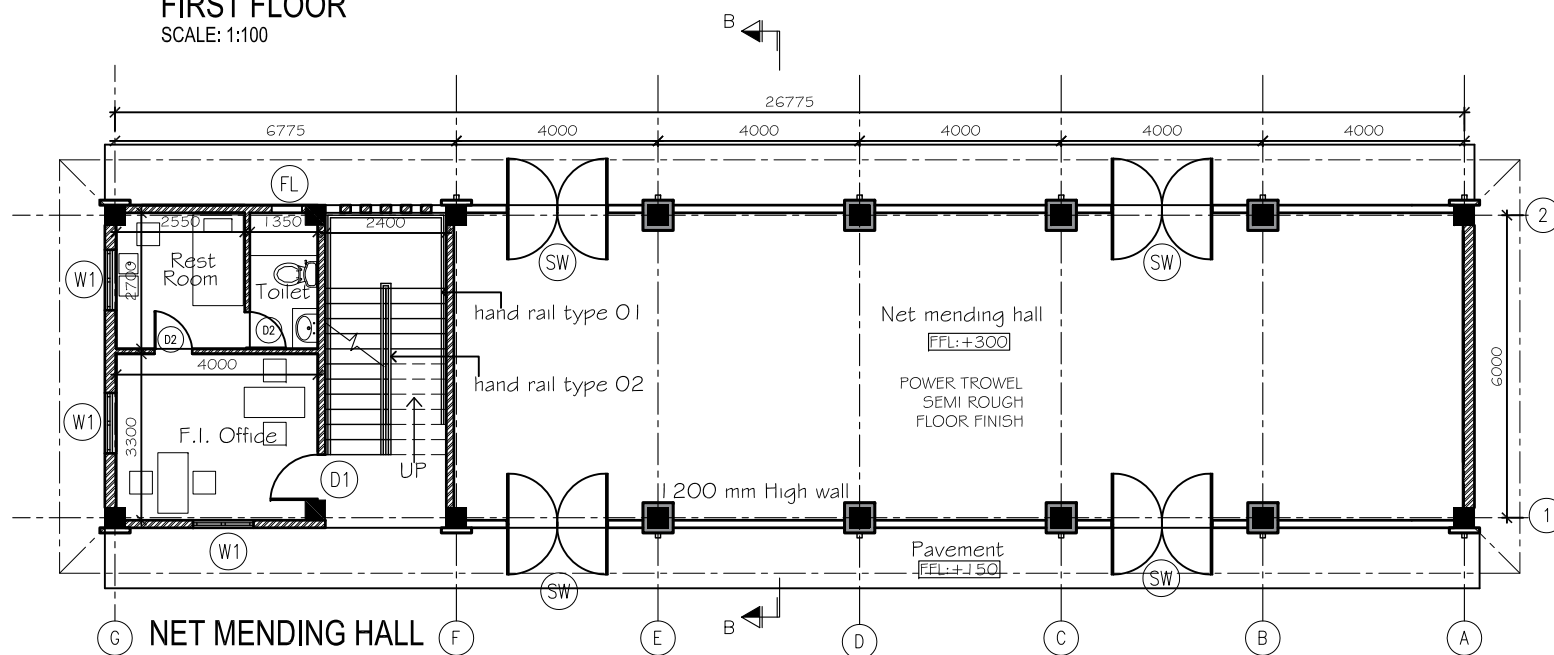
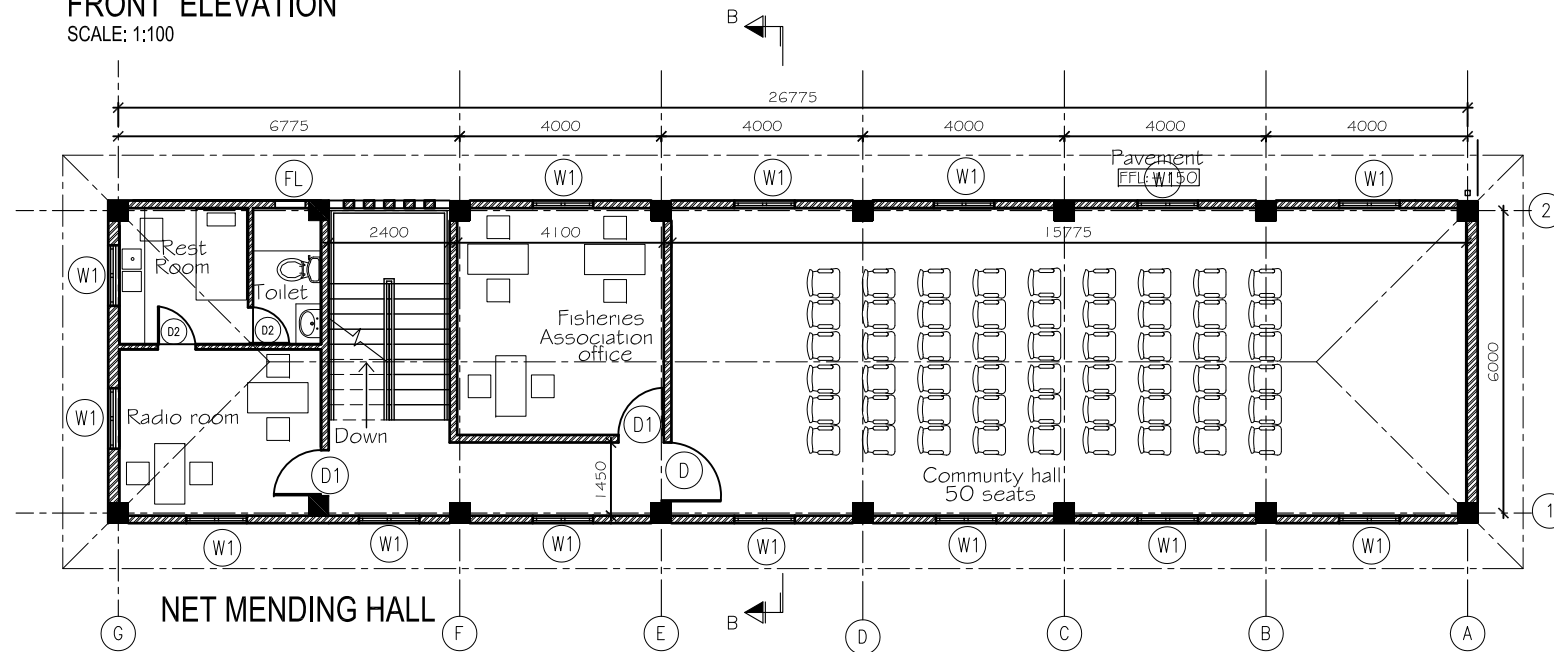
UNDP

- Net Mending,FI Office & Accommodation
- Radio Room & Rest Room,Community Hall
- Toilet Block 1
- Water sump, Pump Room, Over Head Tank

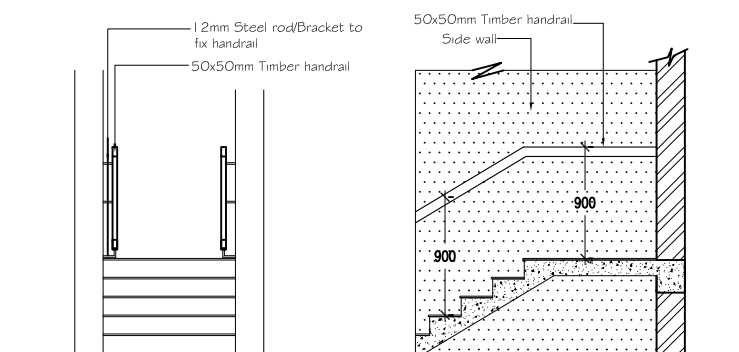
Rev:	Date:	Description:	CHKD:	APPD:
Client: Ministry of Fisheries and Aquatic Resources Development New Secretariat, Maligawatta, Colombo 10, Sri Lanka			Consultant: Lanka Hydraulic Institute Ltd. 177, John Rodrigo Mawatha, Katubedda, Moratuwa SRI LANKA	
PROJECT:			REACTIVATION AND RECONSTRUCTION OF MYLIDDI FISHERIES HARBOUR IN THE NORTHERN PROVINCE	
TITLE:			HARBOUR LAYOUT AND ONSHORE FACILITIES (UNDP)	
PROJECT NO:	DRG. NO:	REV. NO:	SCALE:	
	LHI/ML/LO/3			
DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:



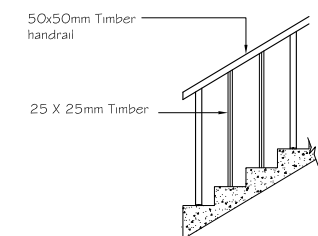
FRONT ELEVATION
SCALE: 1:100



SECTION B- B
SCALE: 1:100



STAIR CASE HAND RAIL - TYPE 01
SCALE: 1:40



STAIR CASE HAND RAIL - TYPE 02
SCALE: 1:40

Rev:	Date:	Description:	CHKD:	APPD:
Client:		Consultant:		
Ministry of Fisheries and Aquatic Resources Development		Lanka Hydraulic Institute Ltd.		
New Secretariat,		177, John Rodrigo Mawatha,		
Maligawatta,		Katubedda, Moratuwa		
Colombo 10, Sri Lanka		SRI LANKA		
PROJECT:		REACTIVATION AND RECONSTRUCTION OF MYLIDDI FISHERIES HARBOUR IN THE NORTHERN PROVINCE		
TITLE:		BUILDING 2 - NET MENDING, FISHERY INSPECTOR OFFICE & ACCOMMODATION RADIO ROOM & REST ROOM, COMMUNITY HALL		
PROJECT NO:	DRG. NO:	REV. NO:	SCALE:	
	LHI/ML/SF/B2/NM/1	0	1:100	
DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:
TRCA	SYNERGO	IW	HMS	FEB 2018
				SIZE:
				A2

GENERAL NOTES:

01. Materials & Workmanship
All workmanship and materials for concrete works shall be in accordance with ICTAD publication No. SCA/4/1.where not specified.
All workmanship and materials for steel works shall be in accordance with BS 5950.where not specified in this note.

02. Concrete mixes
(a) Lean concrete shall be of Grade 15.
(b) Concrete for all Structural elements shall be Grade 30.
(c) Concrete for Water Retaining Structures shall be Grade 35A

03. Maximum Aggregate size
Nominal Maximum size of aggregate shall be 20mm .

04. Minimum Cement Content and Water cement ratio
(a) Minimum cement content for all other mix shall be 300 kg/m³.
(c) Water cement ratio of any mix shall not exceeded 0.6

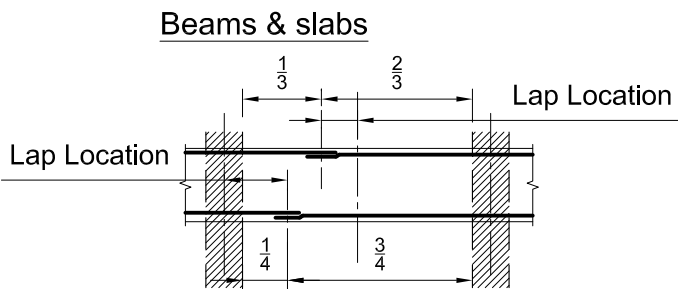
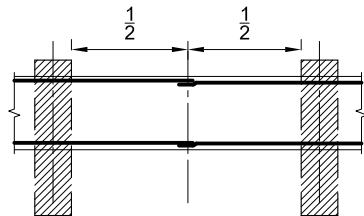
05. Reinforcement
(a) Main reinforcement: High Yield steel with Characteristic strength (fy) 460 N/mm²
(b) Links: Mild steel with Characteristic strength (fy) 250 N/mm².

06. Minimum clear cover to all reinforcement
(a) Foundations 70mm.
(a) Columns up to tie beam 70mm.
(b) Beams & Columns 40mm.
(c) Slabs & Staircases 30mm.

07. Reinforcement bar notation.
Y - High Yield Steel.
R - Mild Steel.
Y10 @200B1 - 01 Indicates
Type of Steel / Bar Diameter/ Spacing./Position/Bar Mark

08 Anchorage and Lap length
(a) Lap and Anchorage length to be = 41 x diameter of the smaller bar Where not shown in the drawings.

09. Lap Locations.
Columns - Laps Should be staggered
Tie beam



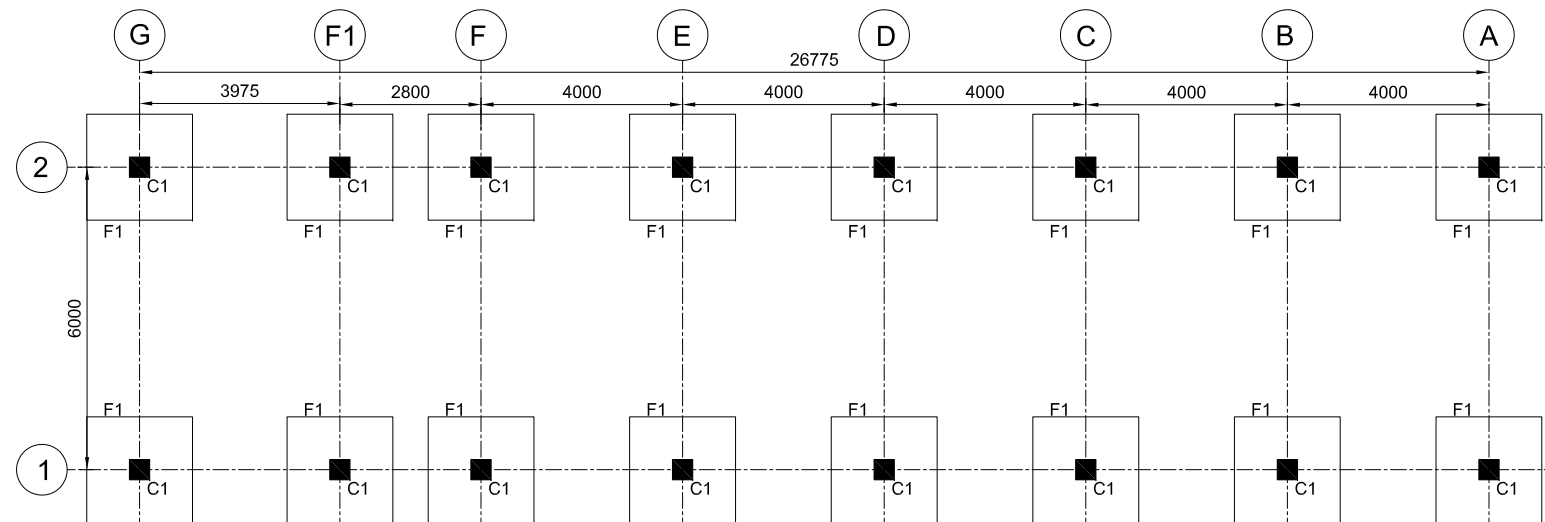
10. This Drawings is to be read in conjunction with all relevant Structural,Architectural, Services and Specification.

11. Bearing capacity shall be taken as per the Geotechnical Investigation Report and should be confirmed at the site.

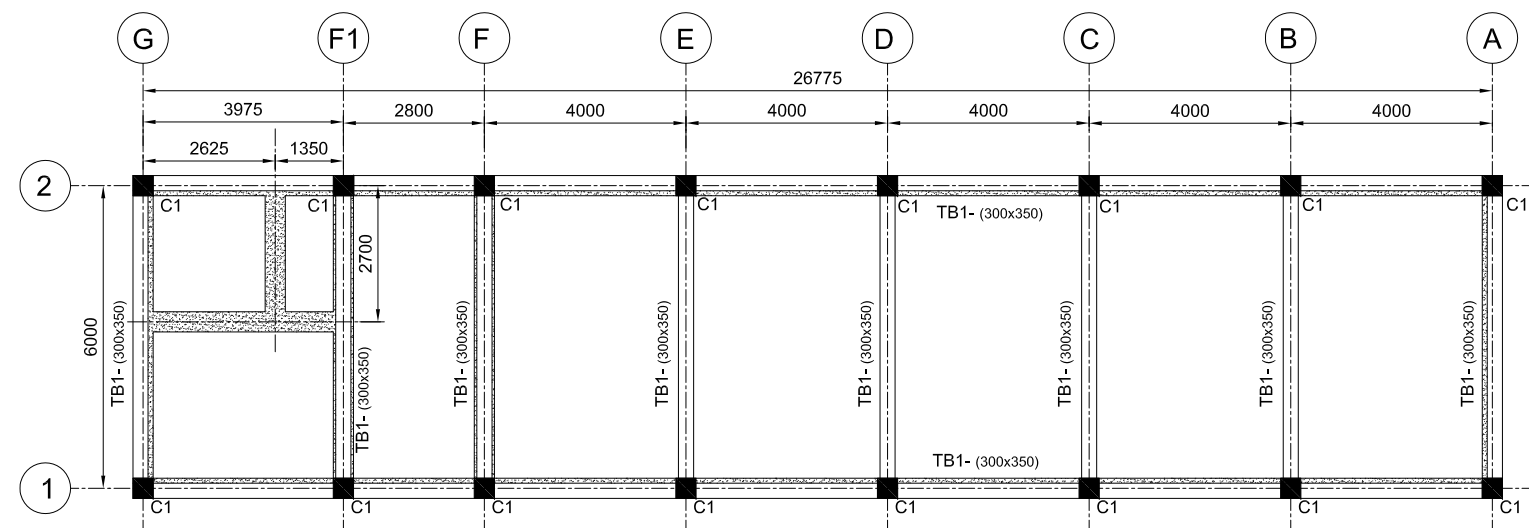
GENERAL SCHEDULE FOR LINTELS

CLEAR SPAN	h	WIDTH (W)						R/F
		W=100		W=150		W=200		
		T	B	T	B	T	B	
1000	150	-	2Y10	-	2Y10	-	2Y10	R6@250
3000	150	-	2Y10	-	2Y10	-	2Y10	R6@250
3000-5000	200	2Y10	2Y12	2Y10	2Y12	2Y10	2Y12	R6@150

Rev:	Date:	Description:	CHKD:	APPD:
Client: Ministry of Fisheries and Aquatic Resources Development New Secretariat, Maligawatta, Colombo 10, Sri Lanka			Consultant: Lanka Hydraulic Institute Ltd. 177, John Rodrigo Mawatha, Katubedda, Moratuwa SRI LANKA	
PROJECT:			REACTIVATION AND RECONSTRUCTION OF MYLIDDY FISHERIES HARBOUR IN THE NORTHERN PROVINCE	
TITLE:			GENERAL NOTE	
PROJECT NO:	DRG. NO:	REV. NO:	SCALE:	
	LHI/ML/SF/GN1	0	AS SHOWN	
DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:
SKF	SYNERGO	MALINDA	MANGALA	FEB 2018
			SIZE:	
			A2	

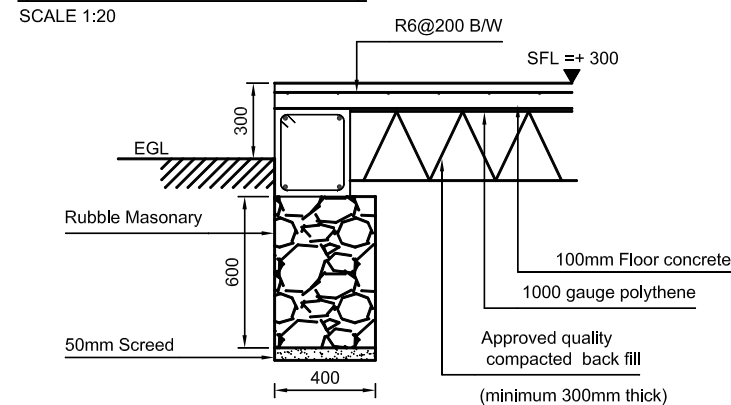


FOOTINGS & COLUMNS LAYOUT
SCALE 1:100

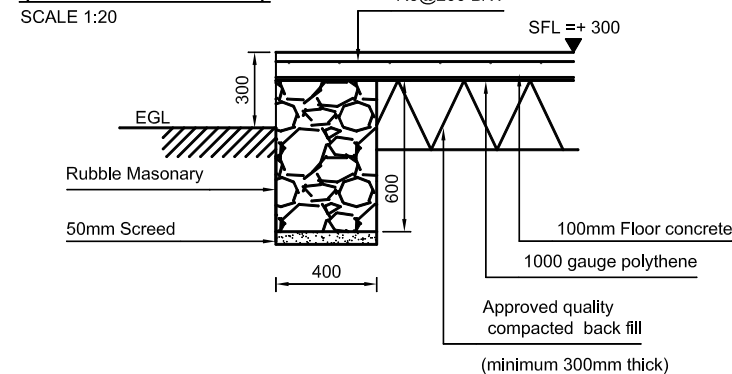


TIE BEAMS & RUBBLE FOUNDATIONS LAYOUT
SCALE 1:100

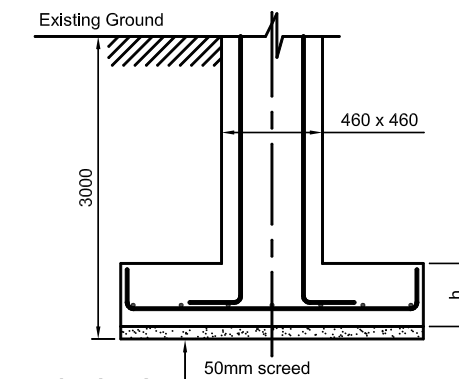
**TYPICAL WALL FOUNDATION
(BELOW TIE BEAMS)**



**TYPICAL WALL FOUNDATION
(BELOW SLAB)**

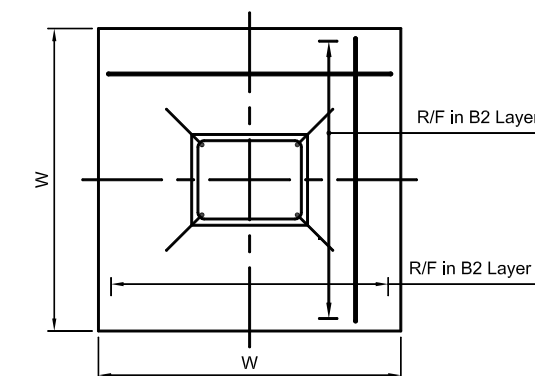


TYPICAL FOOTING DETAIL



SECTION

For w, h and R/F refer footing schedule



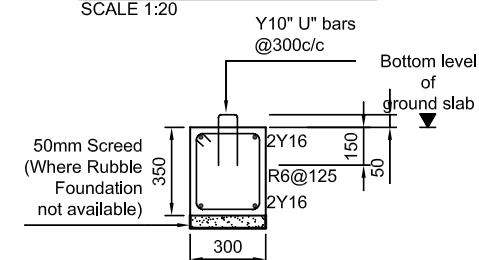
PLAN

FOOTING SCHEDULE

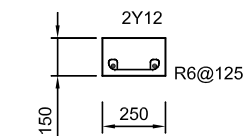
Footing	w(mm)	h(mm)	Reinforcement
F1	2100	350	Y12@150B/W

TIE BEAM DETAIL

SCALE 1:20

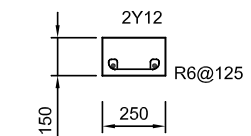


STIFFNER COLUMN DETAIL



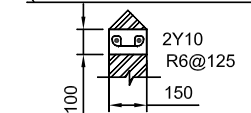
Applicable for both first & ground floor

**STIFFNER COLUMN DETAIL
(BOTH SIDES OF DOOR TYPE SW
GROUND FLOOR)**

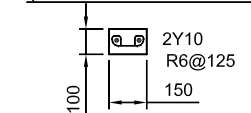


Applicable for both first & ground floor

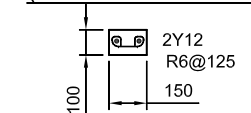
**STIFFNER BEAM DETAIL
(IN SHORT WALLS GROUND FLOOR)**



**STIFFNER BEAM DETAIL
(WINDOW SILL LEVEL)**



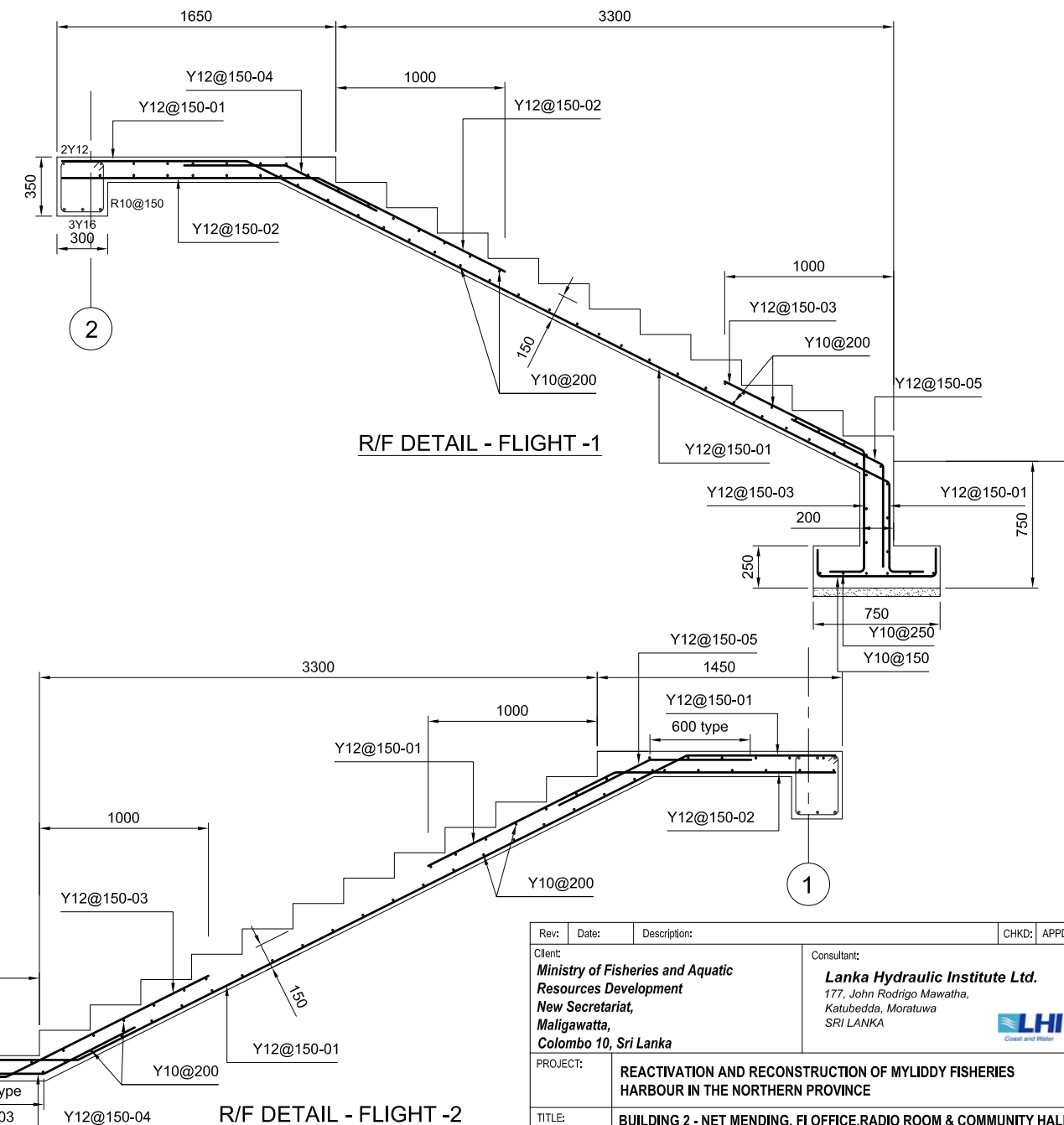
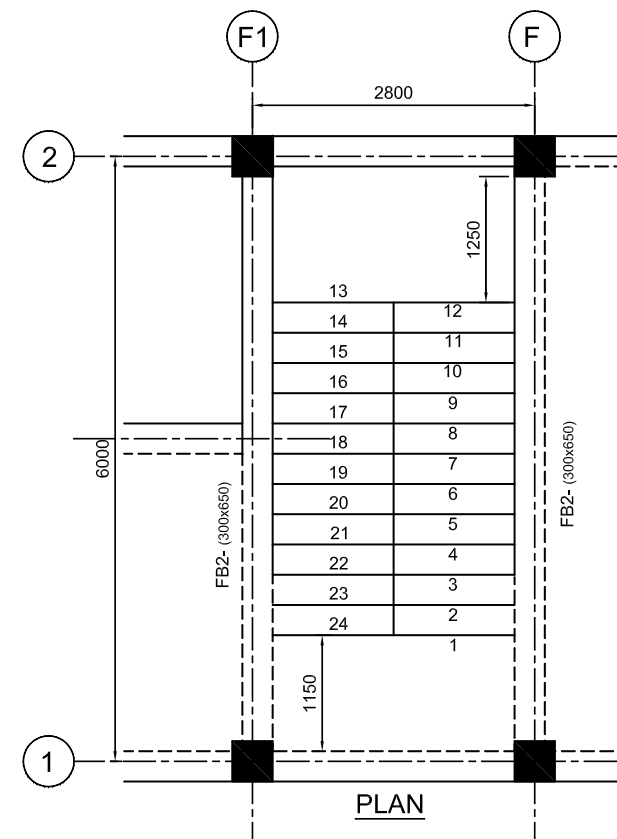
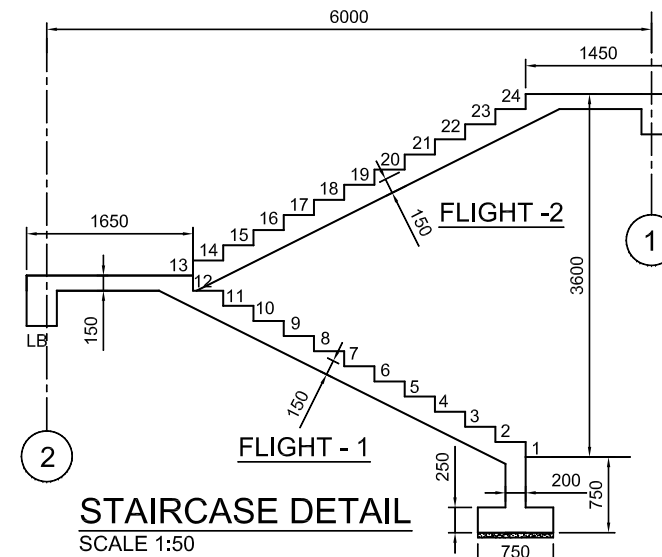
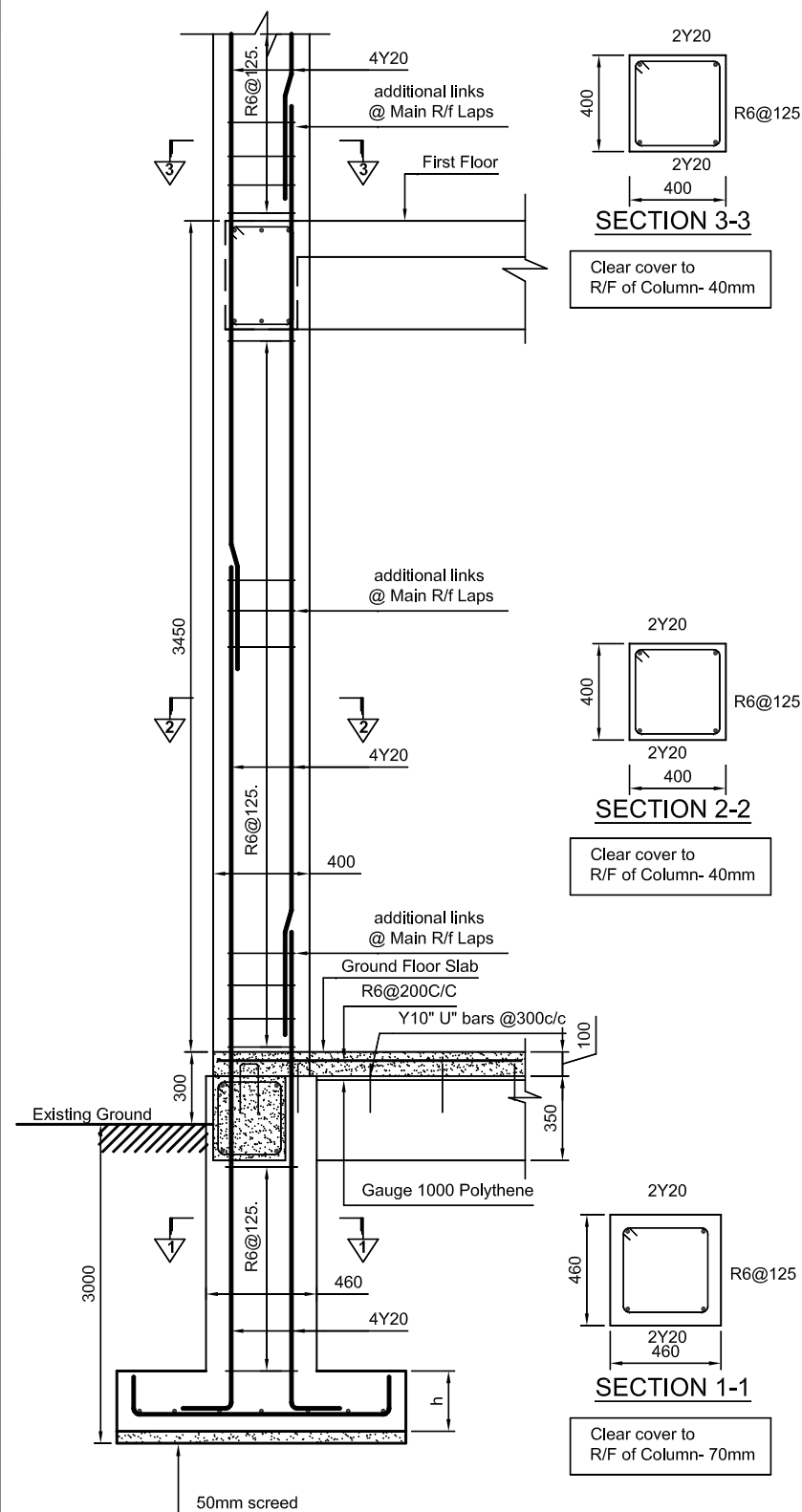
**LINTOL BEAM DETAIL
(ABOVE DOORS & WINDOW)**



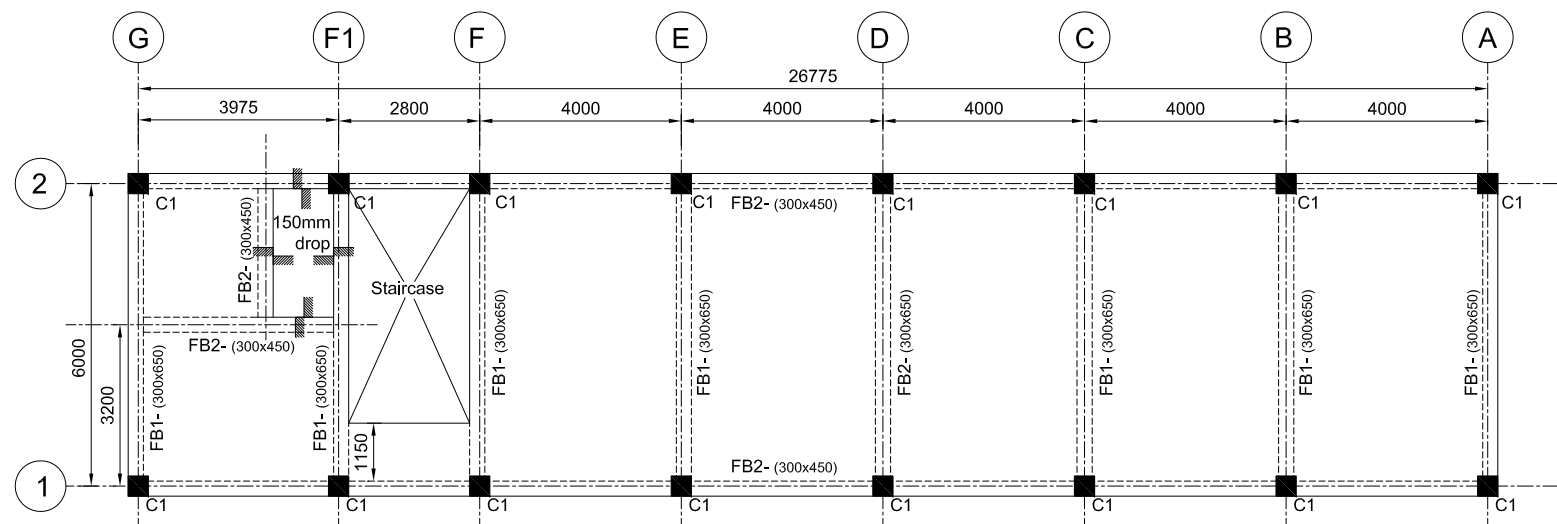
Rev:	Date:	Description:	CHKD:	APPD:
Client:		Consultant:		
Ministry of Fisheries and Aquatic Resources Development		Lanka Hydraulic Institute Ltd.		
New Secretariat, Maligawatta, Colombo 10, Sri Lanka		177, John Rodrigo Mawatha, Katubedda, Moratuwa SRI LANKA		
PROJECT:		REACTIVATION AND RECONSTRUCTION OF MYLIDDI FISHERIES HARBOUR IN THE NORTHERN PROVINCE		
TITLE:		BUILDING 2 - NET MENDING, FI OFFICE,RADIO ROOM & COMMUNITY HALL FOOTINGS, COLUMNS, FOUNDATION LAYOUT & MISCELLANEOUS DETAIL		
PROJECT NO:	DRG. NO:	REV. NO:	SCALE:	
	LHI/ML/SF/B2/NM/S1	0	AS SHOWN	
DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:
CHA.	SYNERGO	MALINDA	MANGALA	FEB 2018
				SIZE:
				A2

TYPICAL COLUMN DETAIL-C1

SCALE 1:20



Rev:	Date:	Description:	CHKD:	APPD:
Client:		Consultant:		
Ministry of Fisheries and Aquatic Resources Development		Lanka Hydraulic Institute Ltd.		
New Secretariat, Maligawatta, Colombo 10, Sri Lanka		177, John Rodrigo Mawatha, Katubedda, Moratuwa SRI LANKA		
PROJECT:		REACTIVATION AND RECONSTRUCTION OF MYLIDDI FISHERIES HARBOUR IN THE NORTHERN PROVINCE		
TITLE:		BUILDING 2 - NET MENDING, FI OFFICE, RADIO ROOM & COMMUNITY HALL COLUMNS & STAIRCASE DETAIL		
PROJECT NO:	DRG. NO:	REV. NO:	SCALE:	
	LHI/ML/SF/B2/NM/S2	0	AS SHOWN	
DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:
CHA.	SYNERGO	MALINDA	MANGALA	FEB 2018
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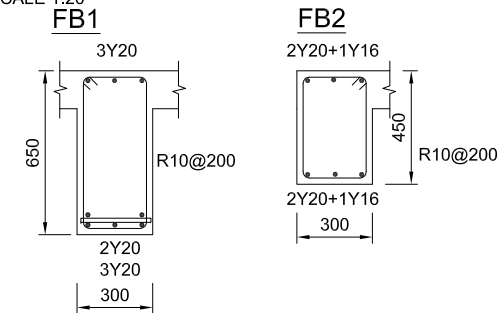


GENERAL ARRANGEMENT - FIRST FLOOR
SCALE 1:100

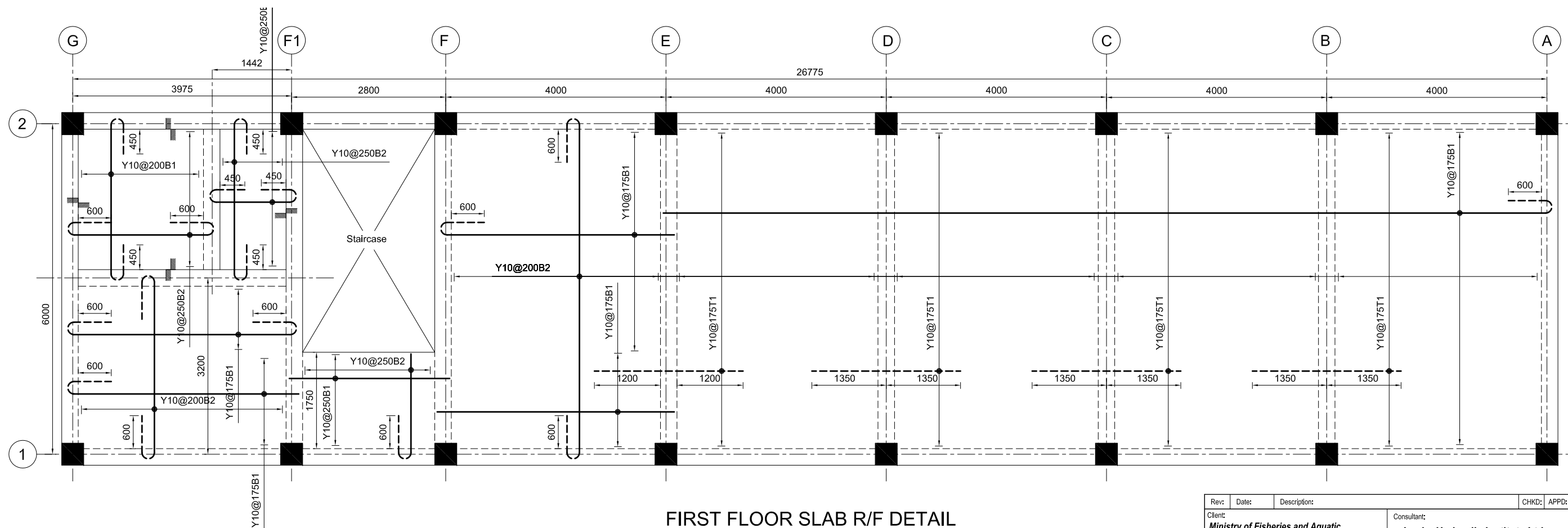
SLAB THICKNESS - 150mm for all panels

BEAM DETAIL -FIRST FLOOR

SCALE 1:20



Min. top cover-40mm

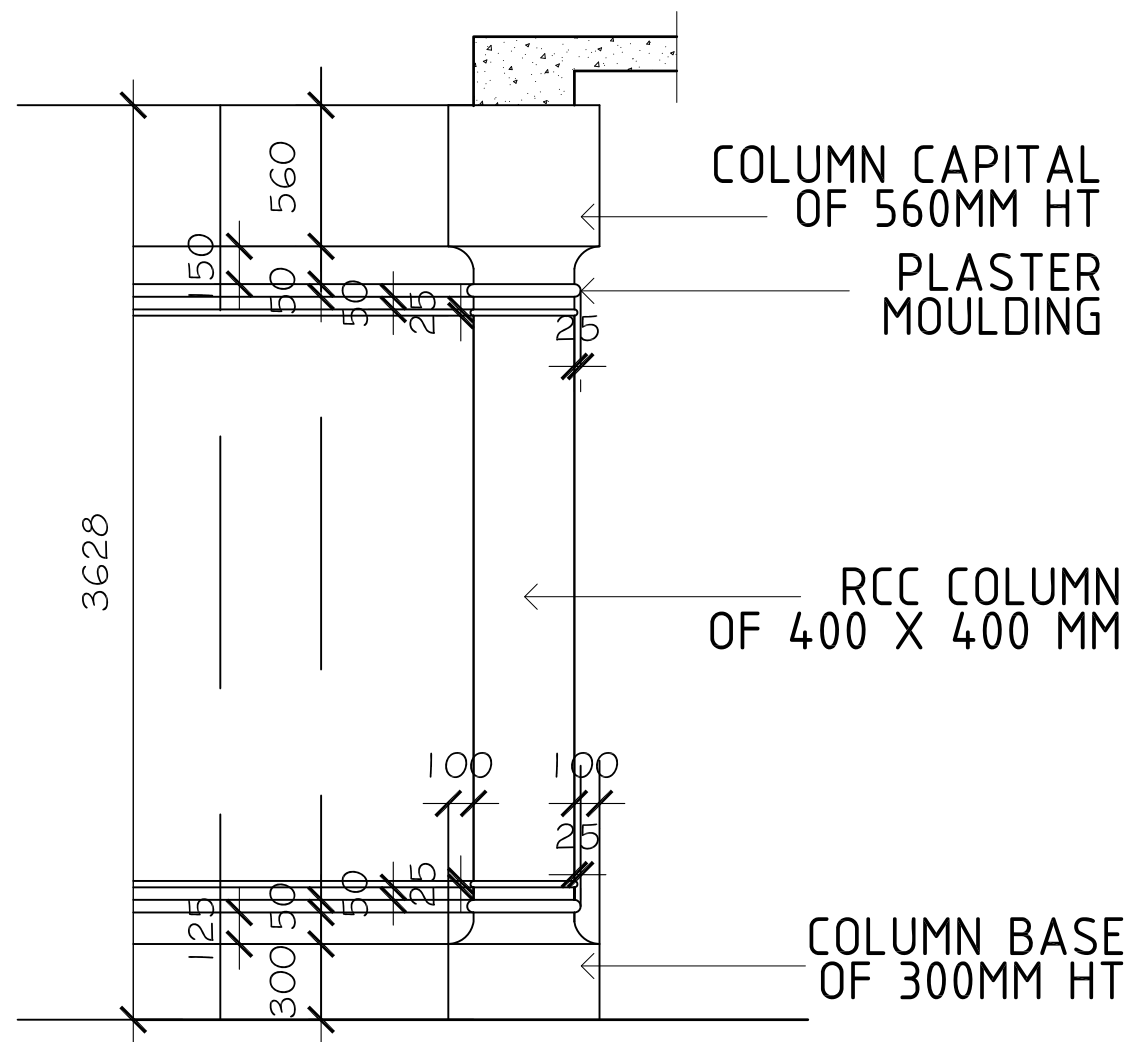


FIRST FLOOR SLAB R/F DETAIL

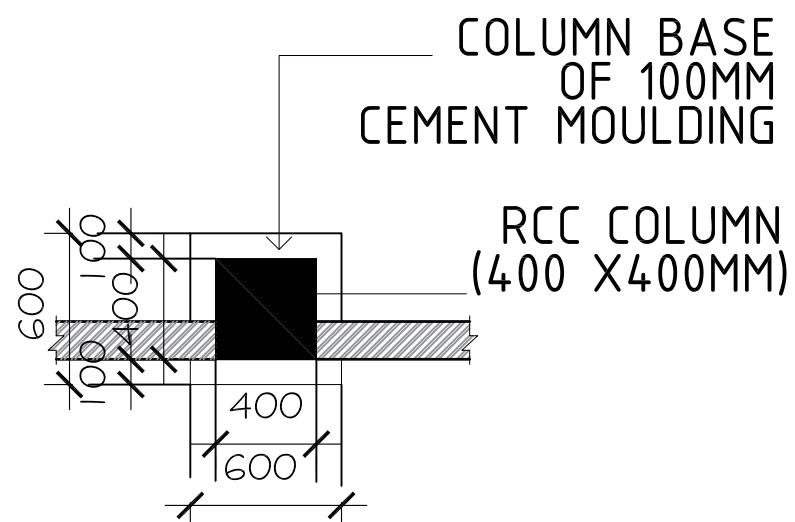
SCALE 1:50

Note : Distribution Steel Where not shown -Y10@250

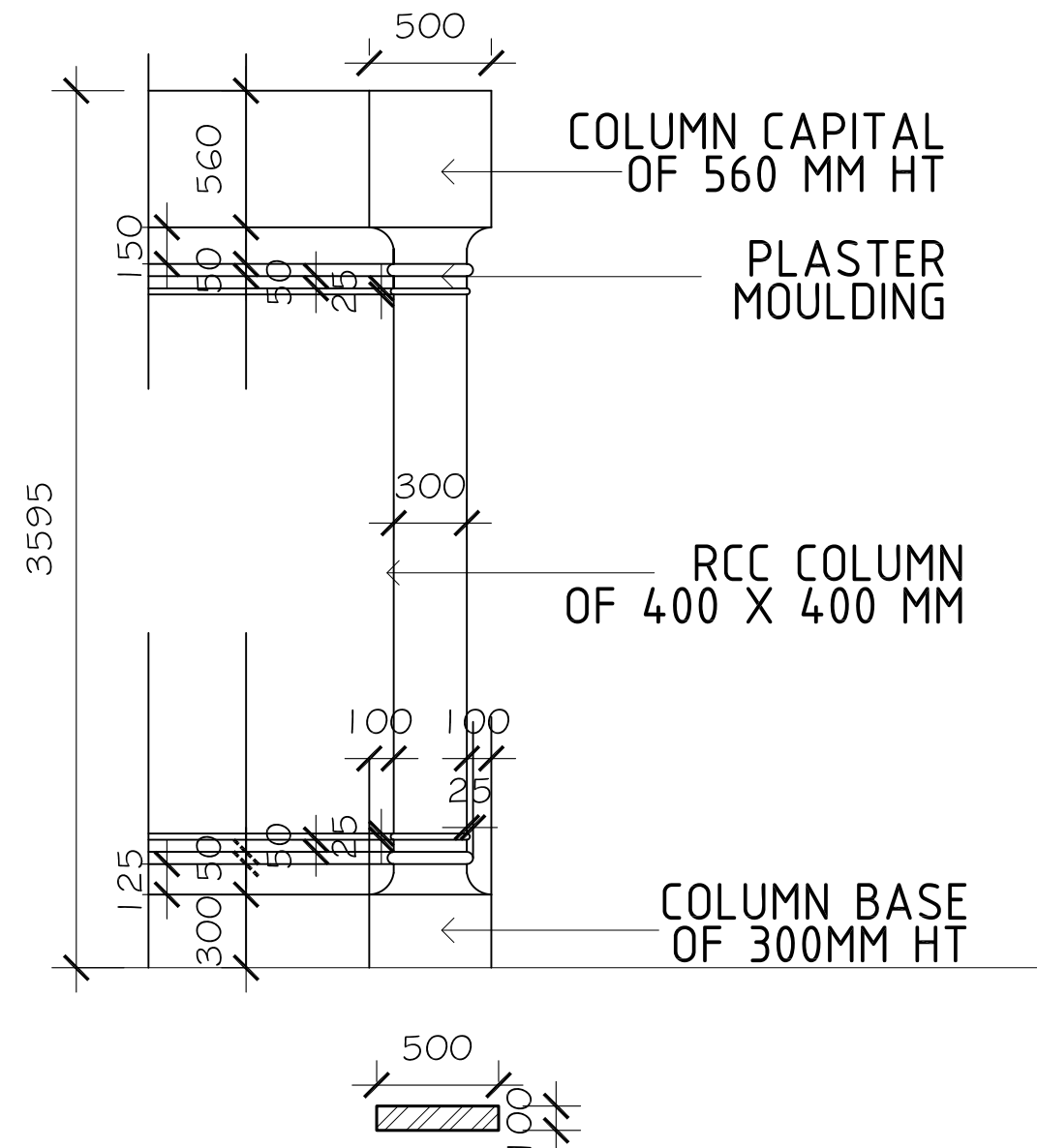
Rev:	Date:	Description:	CHKD:	APPD:
Client: Ministry of Fisheries and Aquatic Resources Development New Secretariat, Maligawatta, Colombo 10, Sri Lanka			Consultant: Lanka Hydraulic Institute Ltd. 177, John Rodrigo Mawatha, Katubedda, Moratuwa SRI LANKA	
PROJECT:			REACTIVATION AND RECONSTRUCTION OF MYLIDDI FISHERIES HARBOUR IN THE NORTHERN PROVINCE	
TITLE:			BUILDING 2 - NET MENDING, FI OFFICE,RADIO ROOM & COMMUNITY HALL FIRST FLOOR GENERAL ARRANGEMENT, BEAM & R/F DETAIL	
PROJECT NO:	DRG. NO:	REV. NO:	SCALE:	
	LHI/ML/SF/B2/NM/S3	0	AS SHOWN	
DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:
CHA.	SYNERGO	MALINDA	MANGALA	FEB 2018
				SIZE:
				A2



FRONT ELEVATION

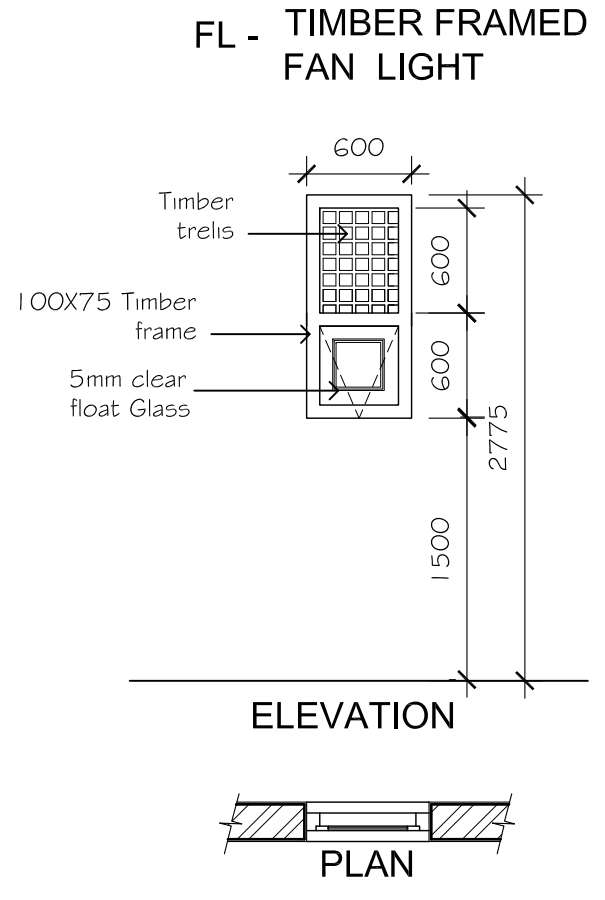
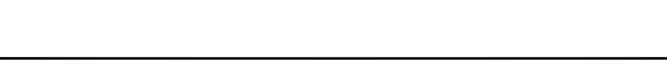
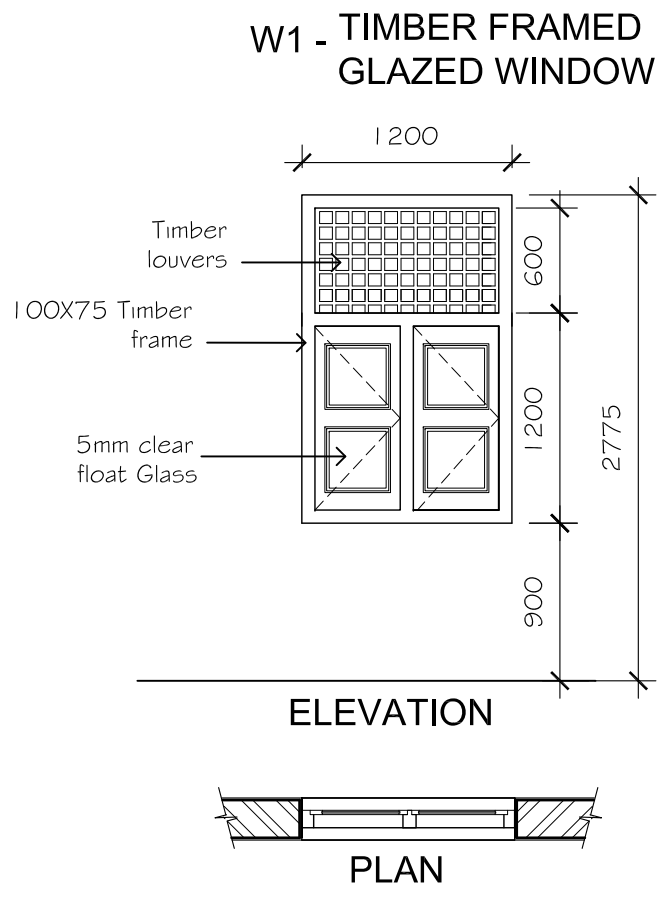
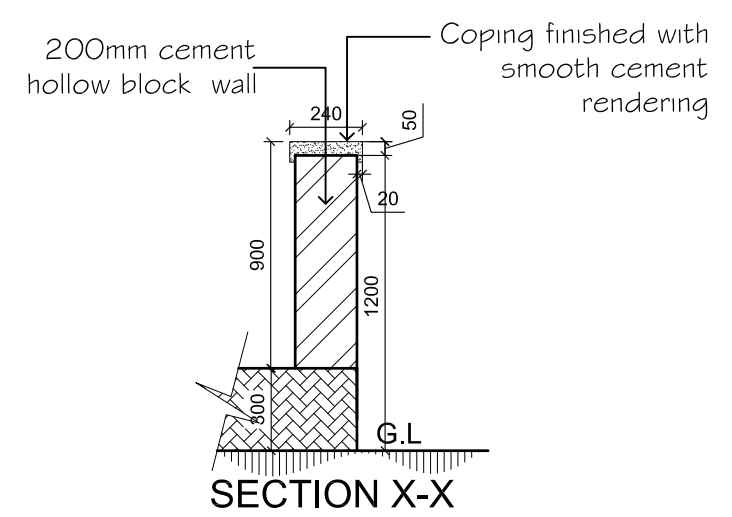
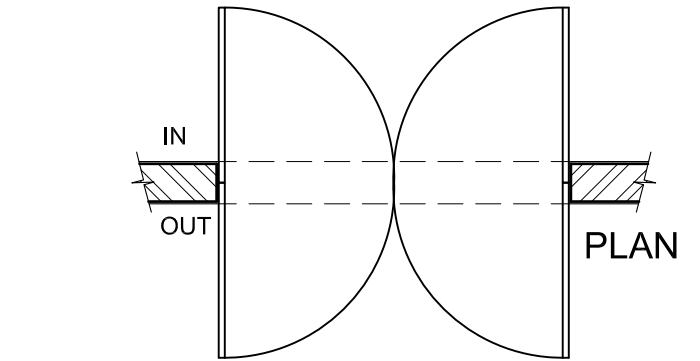
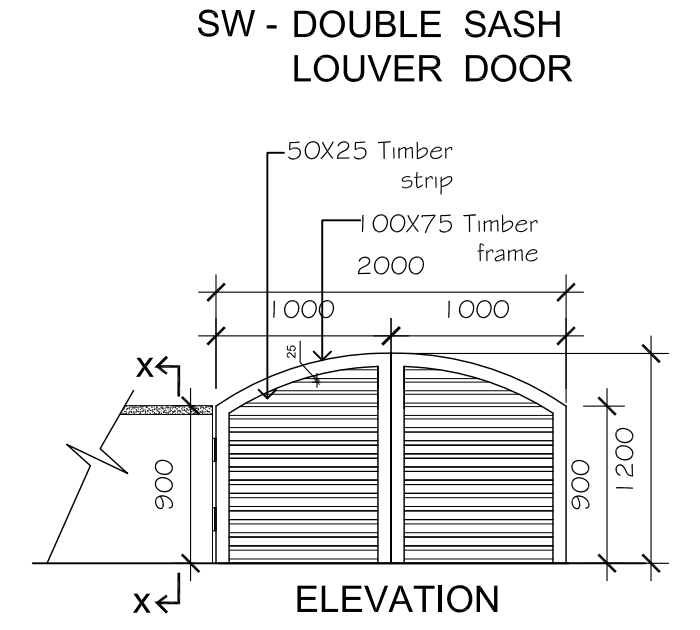
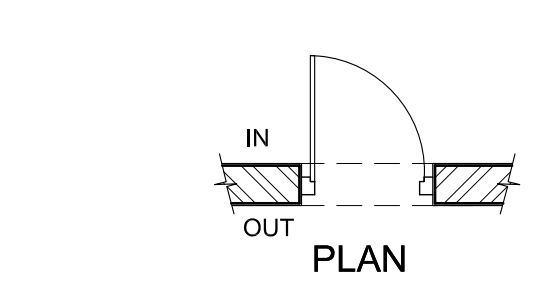
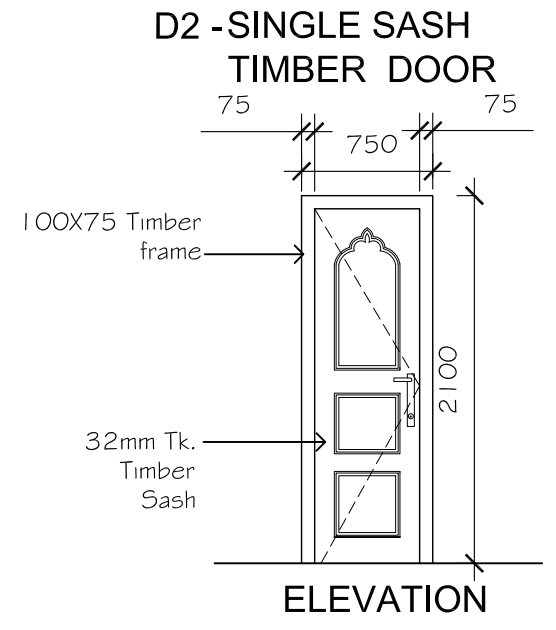
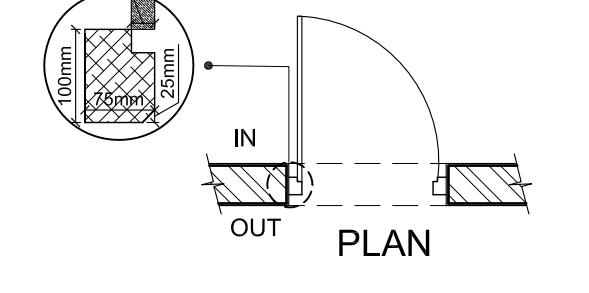
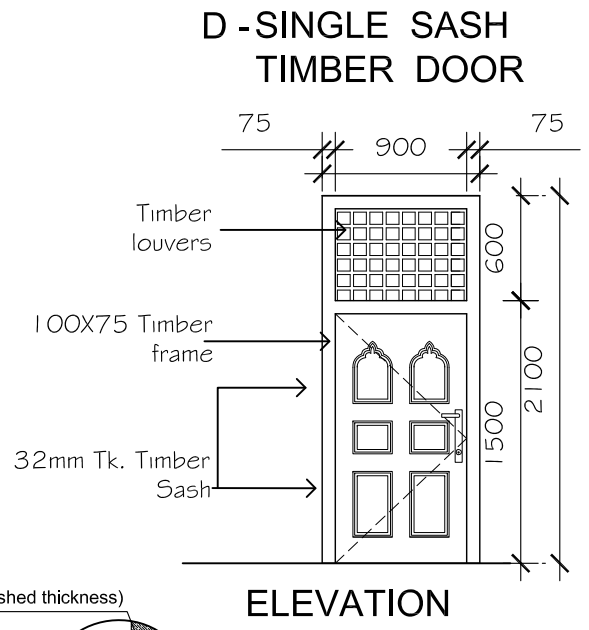
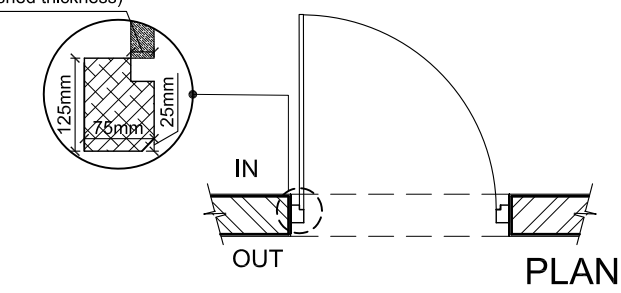
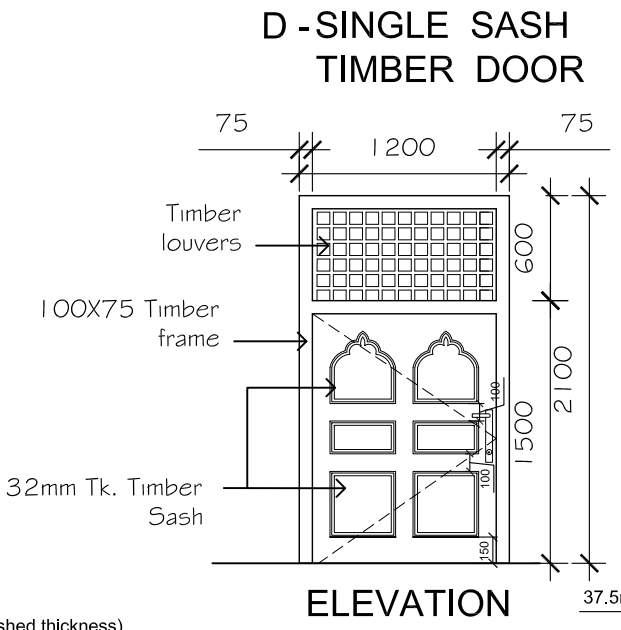


PLAN
COLUMN DETAIL- NET MENDING HALL



MOULDING DETAIL
COAST GUARD OFFICE AND ACCOMMODATION

Rev:	Date:	Description:	CHKD:	APPD:
Client: Ministry of Fisheries and Aquatic Resources Development New Secretariat, Maligawatta, Colombo 10, Sri Lanka			Consultant: Lanka Hydraulic Institute Ltd. 177, John Rodrigo Mawatha, Katubedda, Moratuwa SRI LANKA	
PROJECT:			REACTIVATION AND RECONSTRUCTION OF MYLIDDY FISHERIES HARBOUR IN THE NORTHERN PROVINCE	
TITLE:			COLUMN, MOULDING DETAIL	
PROJECT NO:	DRG. NO:	REV. NO:	SCALE:	
	LHI/ML/SF/CM/1	0	1:100	
DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:
TRCA	SYNERGO	IW	HMS	FEB 2018
				SIZE:
				A2



Rev:	Date:	Description:	CHKD:	APPD:
Client: Ministry of Fisheries and Aquatic Resources Development New Secretariat, Maligawatta, Colombo 10, Sri Lanka			Consultant: Lanka Hydraulic Institute Ltd. 177, John Rodrigo Mawatha, Katubedda, Moratuwa SRI LANKA	
PROJECT:			REACTIVATION AND RECONSTRUCTION OF MYLIDDI FISHERIES HARBOUR IN THE NORTHERN PROVINCE	
TITLE:			DOOR WINDOW DETAIL	
PROJECT NO:	DRG. NO:	REV. NO:	SCALE:	
	LHI/ML/SF/DW/1	0	1:25	
DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:
TRCA	SYNERGO	IW	HMS	FEB 2018
			SIZE:	
			A2	

SCHEDULE OF FINISHES

BUILDING 2 - NET MENDING HALL

Areas	Walls	Floor	Roof	Soffit / Ceiling
	Internal walls	External walls		
Ground floor Net Mending Hall	finished smooth with Cement plaster and wall putty. Painted with one coat of alkali resistant primer and two coats of emulsion paint of approved color. Colors to be decided by the Architect and client.	20 mm thk cement and sand (1:3) mortar finished semi rough with wood float. Painted with two coats of wall filler and two coats of weather shield paint of approved color. Colors to be decided by the Architect and client.	50 mm - 75 mm thick, Grade 25 (1:1.5:3) 12.5 mm agg.) concrete screed power trowel to semi rough finish.	6 mm thick skim coat / cement plastered (Where necessary) soffit finished smooth and apply one coat of primer and two coats of emulsion paint of approved color.
Ground floor F.I. Office & rest room	- do -	- do -	600 X 600 mm homogenous ceramic floor tiles in an approved color and quality including 25 mm thick 1:3 cement sand bedding and pointing with recommended tile adhesives and grout to match the color of tiles laid.	6 mm thick skim coat / cement plastered (Where necessary) soffit finished smooth and apply one coat of primer and two coats of emulsion paint of approved color.
Upper floor Radio room & rest room Fisheries Association Office Community hall	- do -	- do -	600 X 600 mm homogenous ceramic floor tiles in an approved color and quality including 25 mm thick 1:3 cement sand bedding and pointing with recommended tile adhesives and grout to match the color of tiles laid.	-


BUILDING 5 - TOILET BLOCK 1

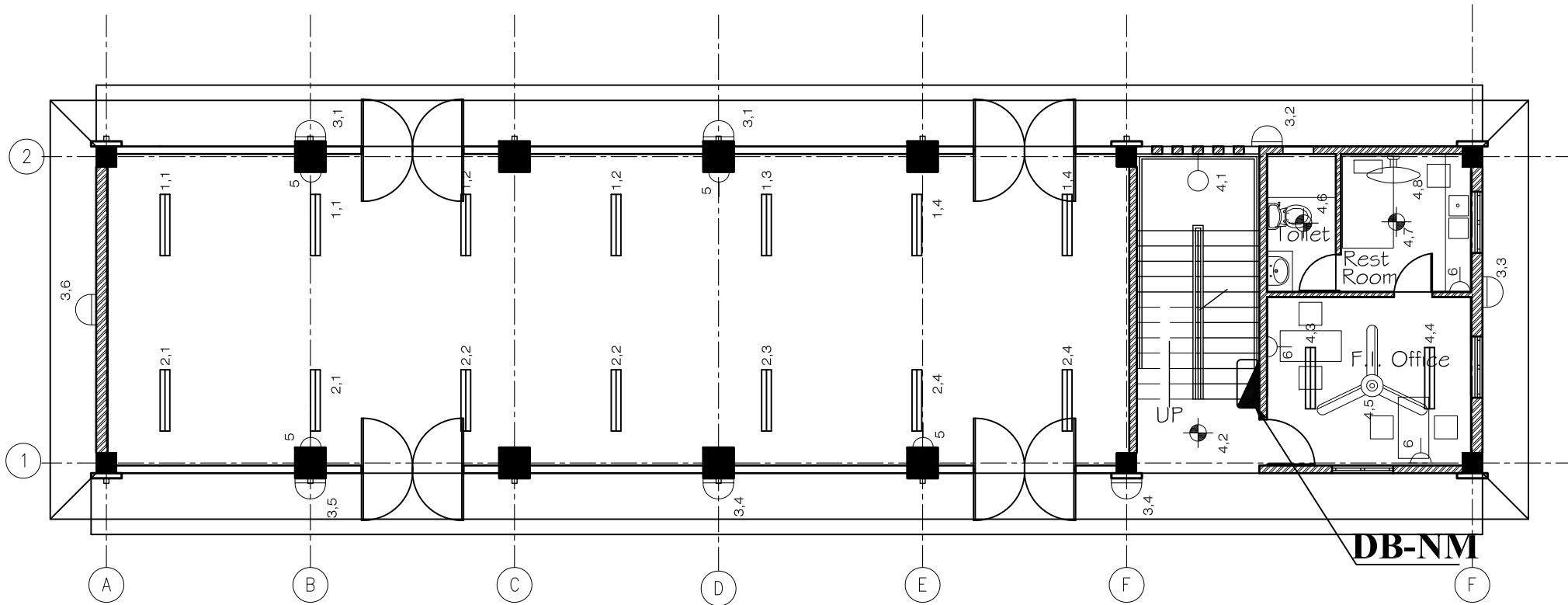
Areas	Walls	Floor	Roof	Soffit / Ceiling
	Internal walls	External walls		
Toilets	600 x 400 mm homogenous ceramic wall tiles up to 2000 mm height. Color to be decided by the client and Architect. Wall above 2000 mm, to be finished smooth with Cement plaster and wall putty. Painted with one coat of alkali resistant primer and two coats of emulsion paint of approved color. Colors to be decided by the Architect and client.	20 mm thk cement and sand (1:3) mortar finished semi rough with wood float. Painted with two coats of wall filler and two coats of weather shield paint of approved color. Colors to be decided by the Architect and client.	600 X 600 mm homogenous ceramic floor tiles in an approved color and quality including 25 mm thick 1:3 cement sand bedding and pointing with recommended tile adhesives and grout to match the color of tiles laid.	Exposed rafter, calicut tile roofing laid on timber roofing framework, including heat insulation layer on asbestos free fibre cement board ceiling.

Pantry	Reinforced concrete work top finished with jet black granite and wall to be finished with polished homogenous ceramic wall tiles (300 X 600 mm) up to 600 mm height with water proofing to the entire work top area. Stainless steel , single bowl kitchen sink with drain board, bottle trap, chromium plated brass 'swan neck' type tap and other accessories.
Doors and windows	Class I timber door frames and sashes as per door window details. Door locks - Union or equivalent - European make. Ironmongeries - High quality Indian make brass ironmongeries.
Staircase handrails.	Handrail 1 : 50 X 50 mm, class I hardwood timber railing to be fixed to the wall using stainless steel bracket as per handrail deatail.
	Handrail 2 : 900 mm high handrail comprising with 50 X 50 mm class I hardwood timber top railing, 25 X 25 mm timber stiffeners in each step as per the handrail detail. ,

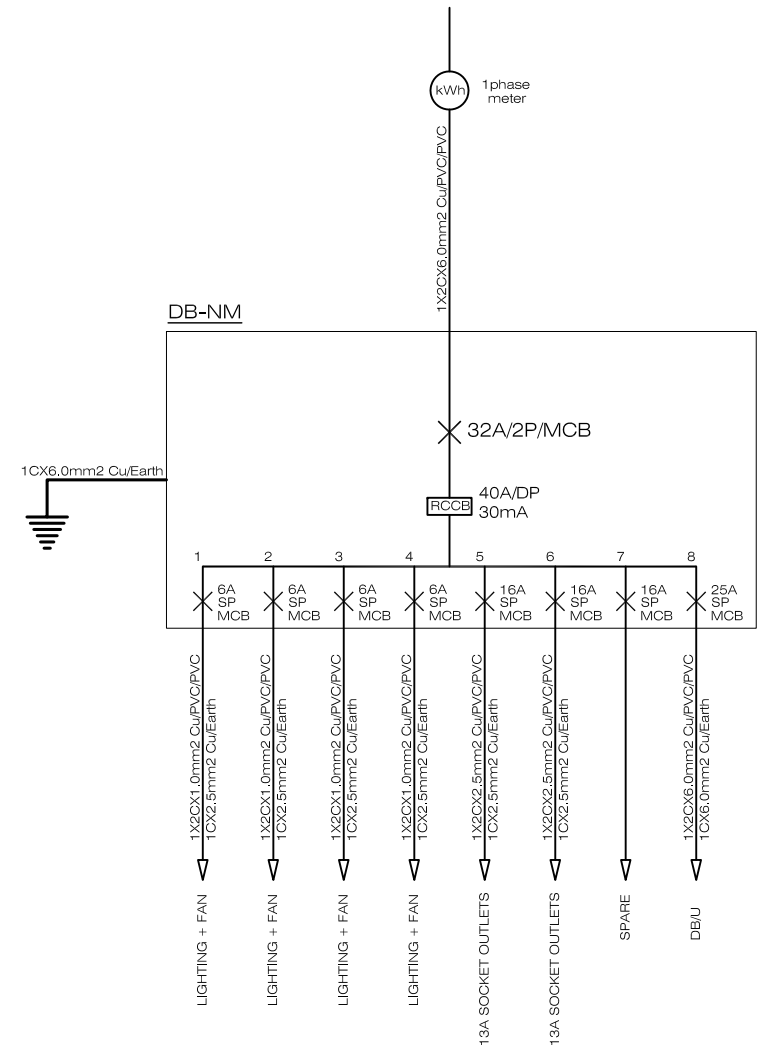
SCHEDULE OF FINISHES - EXTERNAL AREAS.

1.External Area	Roads - Construction of roads including 200 mm thick grade 30 concrete base laid on 300 mm compacted ABC fill as per the Engineer's specifications.
2. Walkways	Supply and lay 100 mm thick, approx. size of 210 X 110 mm, precast interlocking paving blocks of 40 N/mm compressive stregh, on 50 mm thick compacted quarry dust bed laid on top of a leveled and well compacted earth sub base.
3.Kerb stone	Precast curb stone of 900 x 125 X 255 mm size of M-25 grade cement, laying in position to the required line, level and curvature jointed with cement mortar 1:3 including making joints with groves.

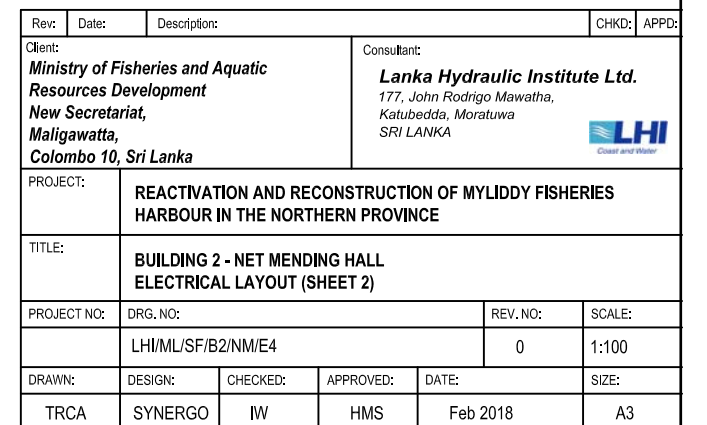
Rev:	Date:	Description:				CHKD:	APPD:
Client: Ministry of Fisheries and Aquatic Resources Development New Secretariat, Maligawatta, Colombo 10, Sri Lanka					Consultant: Lanka Hydraulic Institute Ltd. 177, John Rodrigo Mawatha, Katubedda, Moratuwa SRI LANKA 		
PROJECT:		REACTIVATION AND RECONSTRUCTION OF MYLIDDY FISHERIES HARBOUR IN THE NORTHERN PROVINCE					
TITLE:		SCHEDULE OF FINISHES 3					
PROJECT NO:		DRG. NO:				REV. NO:	SCALE:
		LHI/ML/SF/SF/3				0	1:25
DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:		SIZE:	
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









GROUND FLOOR
SCALE: 1:100
NET MENDING HALL

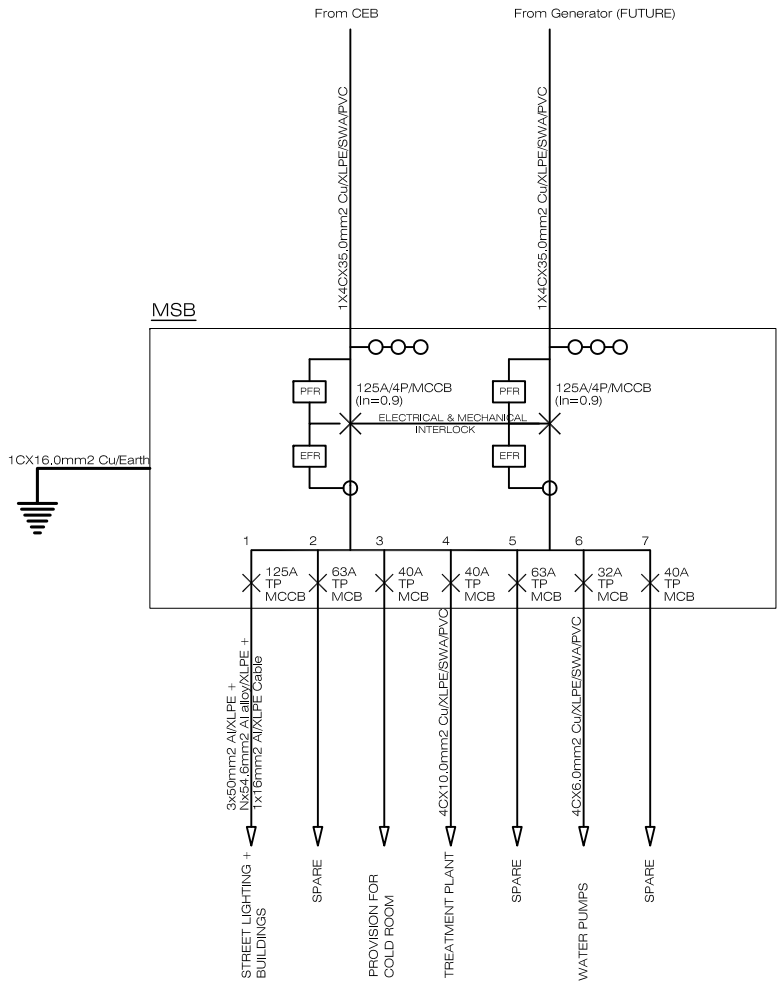


Rev:	Date:	Description:	CHKD:	APPD:
Client:		Consultant:		
Ministry of Fisheries and Aquatic Resources Development New Secretariat, Maligawatta, Colombo 10, Sri Lanka		Lanka Hydraulic Institute Ltd. 177, John Rodrigo Mawatha, Katubedda, Moratuwa SRI LANKA		
PROJECT:		REACTIVATION AND RECONSTRUCTION OF MYLIDY FISHERIES HARBOUR IN THE NORTHERN PROVINCE		
TITLE:		BUILDING 2 - NET MENDING HALL ELECTRICAL LAYOUT (SHEET 1)		
PROJECT NO:	DRG. NO:	REV. NO:	SCALE:	
	LHI/ML/SF/B2/NM/E3	0	1:100	
DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:
TRCA	SYNERGO	IW	HMS	Feb 2018
				SIZE:
				A3



LEGEND

	WALL MOUNTED INDOOR TYPE LIGHT (IP54)
	SURFACE/PENDANT TYPE DOWN LIGHT (IP54)
	WALL MOUNTED OUTDOOR TYPE LIGHT (IP65)
	SURFACE/PENDANT TYPE FLUORESCENT LIGHT (IP65)
	ALUMINIUM BLADE CEILING FAN
	ALUMINIUM BLADE WALL FAN WITH 5A SWITCHED SOCKET OUTLET
	13A SWITCHED SOCKET OUTLET
	15A SWITCHED SOCKET OUTLET
	15A SWITCHED SOCKET OUTLET AT HIGH LEVEL
	13A SWITCHED SOCKET OUTLET (IP65)
	TELEPHONE OUTLET
	100W LED STREET LIGHT WITH 9m HEIGHT HOT DIPPED GALVANIZED OCTAGONAL POLE
	9m HEIGHT HOT DIPPED GALVANIZED OCTAGONAL POLE



Rev:	Date:	Description:	CHKD:		APPD:
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PROJECT:		REACTIVATION AND RECONSTRUCTION OF MYLIDDY FISHERIES HARBOUR IN THE NORTHERN PROVINCE			
TITLE:		LEGEND & MSB			
PROJECT NO:		DRG. NO:		REV. NO:	SCALE:
1802		LHI/ML/SF/E2			
DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:	SIZE:

SCHEDULE OF WATER SUPPLY SERVICES DRAWINGS		
	DRAWING NO:	DRAWING TITLE
WS-0	LHI/MI/SF/0	DRAWING SCHEDULE OF WATER SUPPLY & DRAINAGE
WS-1	LHI/ML/SF/L/WS/EXT/1	EXTERNAL COLD WATER SUPPLY LAYOUT
UWS-1	LHI/ML/SF/B2/NM/WS/1	BUILDING 2 - NET MENDING HALL GROUND FLOOR WATER SUPPLY LAYOUT
UWS-2	LHI/ML/SF/B2/NM/WS/2	BUILDING 2 - NET MENDING HALL FIRST FLOOR WATER SUPPLY LAYOUT
UWS-7	LHI/ML/SF/B5/TB/WS/1	BUILDING 5 - TOILET BLOCK 01 WATER SUPPLY LAYOUT
UWS-10	LHI/ML/SF/B8/WT/WS/1	BUILDING 8- OVER HEAD TANK SCHEMATIC OF OVER HEAD WATER TANK & WATER SUMP (Sheet 01)
UWS-11	LHI/ML/SF/B8/WT/WS/2	BUILDING 8- OVER HEAD TANK SCHEMATIC OF OVER HEAD WATER TANK & WATER SUMP (Sheet 02)


SCHEDULE OF SEWER & WASTE WATER DISPOSAL SERVICES DRAWINGS

WS-3	LHI/ML/SF/L/DR/EXT/3	EXTERNAL SEWER DISPOSAL LAYOUT PLAN
UWS-3	LHI/ML/SF/B2/NM/DR/1	BUILDING 2 - NET MENDING HALL / GROUND FLOOR SEWER & WASTE WATER DISPOSAL LAYOUT
UWS-4	LHI/ML/SF/B2/NM/DR/2	BUILDING 2 - NET MENDING HALL / FIRST FLOOR SEWER & WASTE WATER DISPOSAL LAYOUT
UWS-5	LHI/ML/SF/B2/NM/DR/3	BUILDING 2 - NET MENDING HALL /TOILETS SEWER & WASTE WATER DISPOSAL DETAILED LAYOUT
UWS-8	LHI/ML/SF/B5/TB/DR/1	BUILDING 5 - TOILET BLOCK 01 SEWER & WASTE WATER DISPOSAL LAYOUT

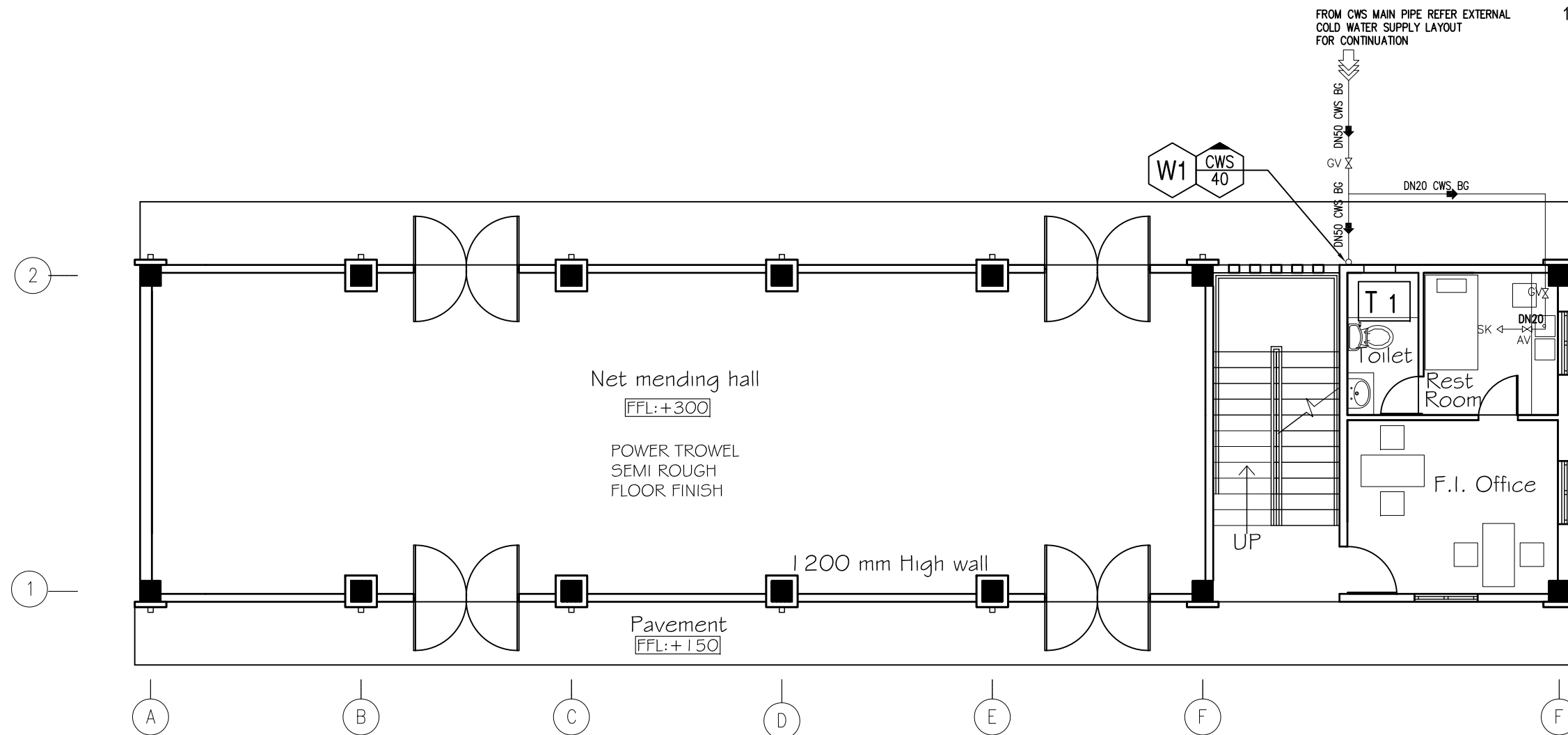
SCHEDULE OF STORM WATER DISPOSAL SERVICES DRAWINGS

WS-2	LHI/ML/SF/L/SWD/EXT/2	EXTERNAL STORM WATER DISPOSAL LAYOUT
UWS-6	LHI/ML/SF/B2/NM/SWD/1	BUILDING 2 - NET MENDING HALL STORM WATER DISPOSAL LAYOUT
UWS-9	LHI/ML/SF/B5/TB/SWD/1	BUILDING 5 - TOILET BLOCK 01 STORM WATER DISPOSAL LAYOUT

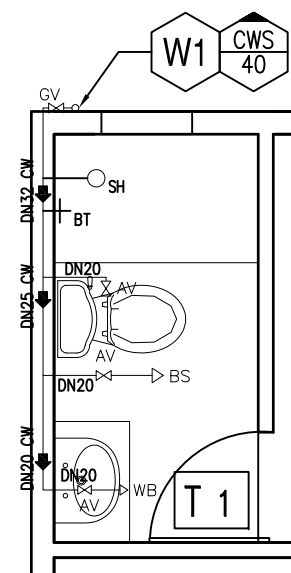
SCHEDULE OF STANDARD DRAWINGS		
	DRAWING NO:	DRAWING TITLE
WS-11	LHI/ML/SF/STD/1	STANDARD DRAWING Sheet 01
WS-12	LHI/ML/SF/STD/2	STANDARD DRAWING Sheet 02
WS-13	LHI/ML/SF/STD/3	STANDARD DRAWING Sheet 03
WS-14	LHI/ML/SF/STD/4	STANDARD DRAWING Sheet 04
WS-15	LHI/ML/SF/STD/5	STANDARD DRAWING Sheet 05

Rev:	Date:	Description:				CHKD:	APPD:
Client: Ministry of Fisheries and Aquatic Resources Development New Secretariat, Maligawatta, Colombo 10, Sri Lanka					Consultant: Lanka Hydraulic Institute Ltd. <i>177, John Rodrigo Mawatha,</i> <i>Katubedda, Moratuwa</i> SRI LANKA		
							
PROJECT:		REACTIVATION AND RECONSTRUCTION OF MYLIDDY FISHERIES HARBOUR IN THE NORTHERN PROVINCE					
TITLE:		DRAWING SCHEDULE OF WATER SUPPLY & DRAINAGE					
PROJECT NO:		DRG. NO:				REV. NO:	SCALE:
		LHI/ML/SF/00					N.T.S.
DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:		SIZE:	
TRCA	SYNERGO	DV	HMS	Feb 2018		A3	

NOTE -
1) FOR LEGEND, ABBREVIATIONS & NOTES
REFER STANDARD DRAWING.



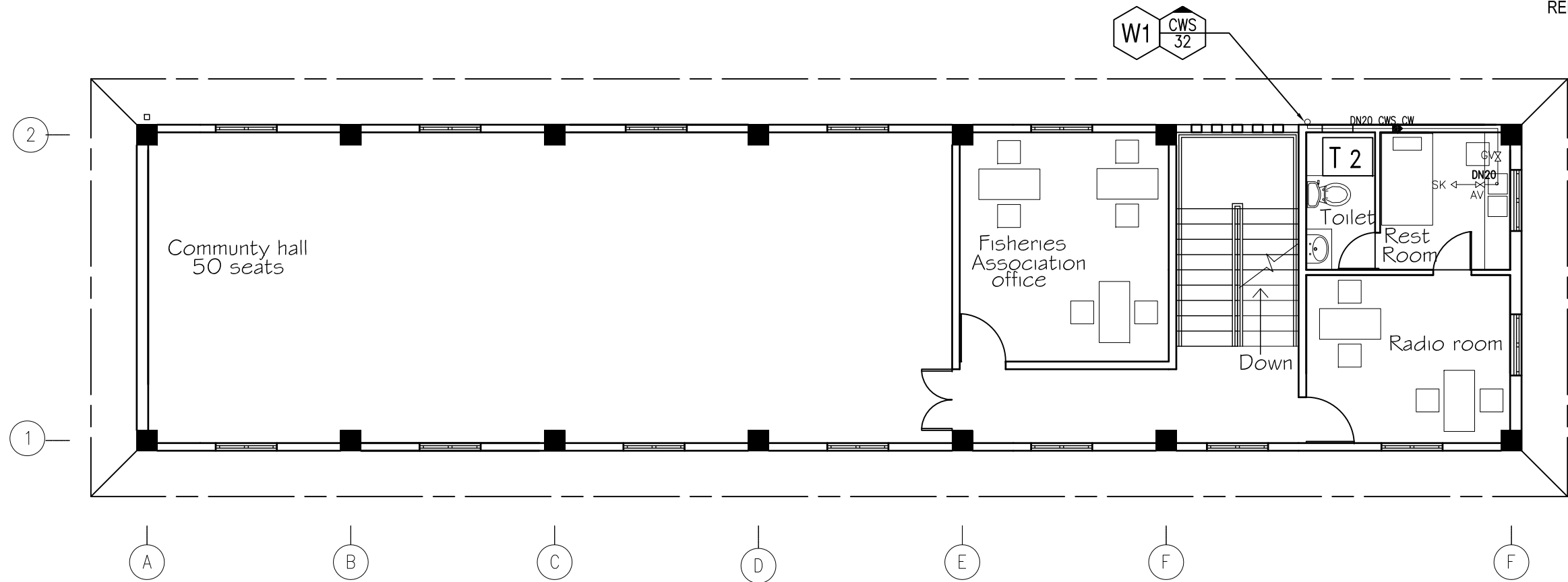
GROUND FLOOR
SCALE: 1:100
NET MENDING HALL



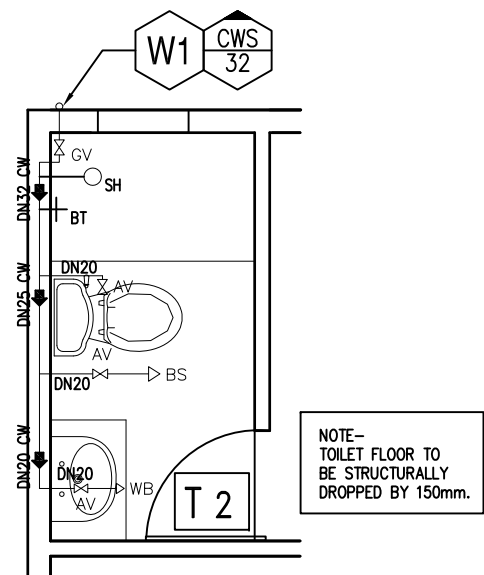
Water Supply Layout of Toilet 'T1'
Scale : 1:50

Rev.	Date:	Description:	CHKD:	APPD:
Client:		Consultant:		
Ministry of Fisheries and Aquatic Resources Development New Secretariat, Maligawatta, Colombo 10, Sri Lanka		Lanka Hydraulic Institute Ltd. 177, John Rodrigo Mawatha, Katubedda, Moratuwa SRI LANKA		
PROJECT:		REACTIVATION AND RECONSTRUCTION OF MYLIDDY FISHERIES HARBOUR IN THE NORTHERN PROVINCE		
TITLE:		BUILDING 2 - NET MENDING HALL / GROUND FLOOR WATER SUPPLY LAYOUT		
PROJECT NO:	DRG. NO:	REV. NO:	SCALE:	
	LHI/ML/SF/B2/NMWS/1	0	1:100	
DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:
TRCA	SYNERGO	IW	HMS	Feb 2018
				SIZE:
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NOTE -
1) FOR LEGEND, ABBREVIATIONS & NOTES
REFER STANDARD DRAWING.

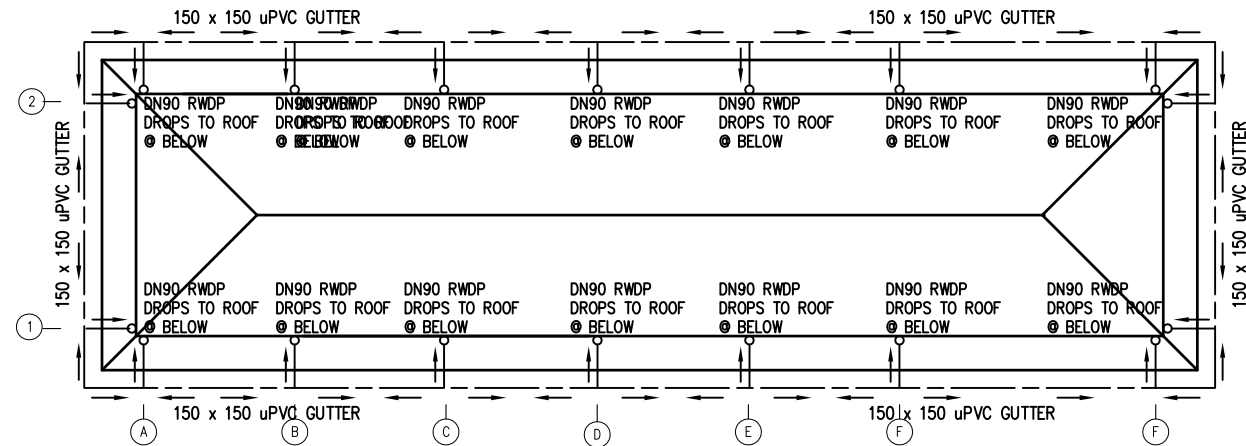


FIRST FLOOR
SCALE: 1:100
NET MENDING HALL

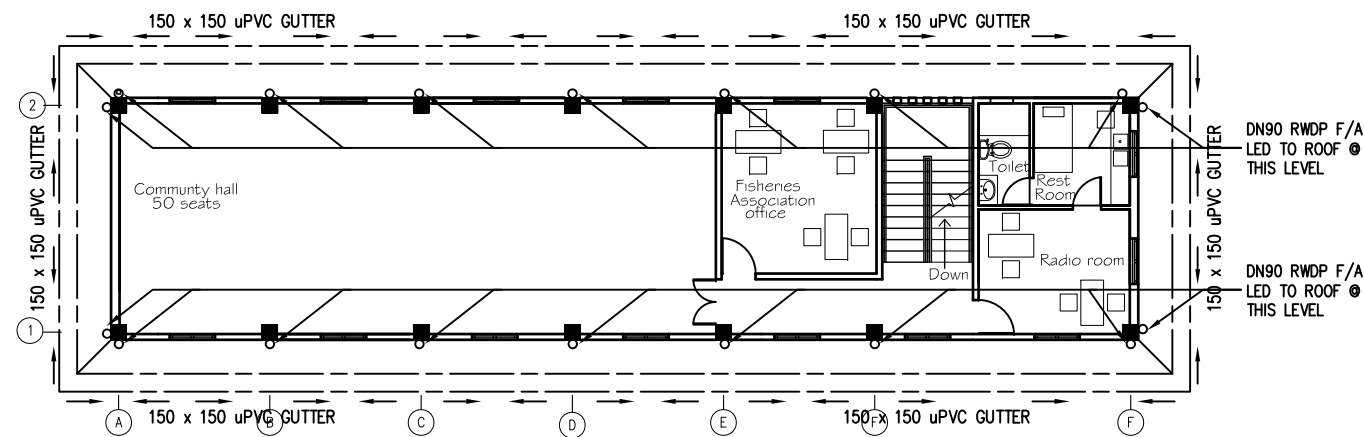


Water Supply Layout of Toilet 'T2'
Scale : 1:50

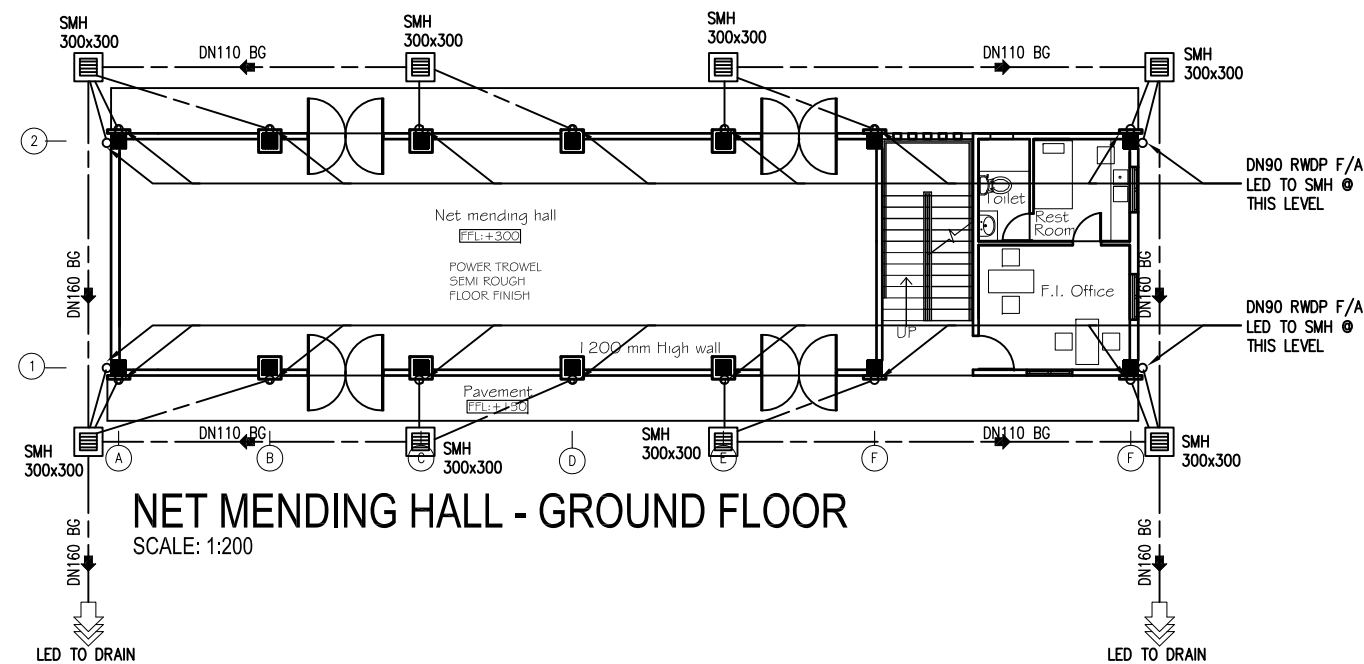
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Client:		Consultant:		
Ministry of Fisheries and Aquatic Resources Development New Secretariat, Maligawatta, Colombo 10, Sri Lanka		Lanka Hydraulic Institute Ltd. 177, John Rodrigo Mawatha, Katubedda, Moratuwa SRI LANKA		
PROJECT:		REACTIVATION AND RECONSTRUCTION OF MYLIDDY FISHERIES HARBOUR IN THE NORTHERN PROVINCE		
TITLE:		BUILDING 2 - NET MENDING HALL / FIRST FLOOR WATER SUPPLY LAYOUT		
PROJECT NO:	DRG. NO:	REV. NO:	SCALE:	
	LHI/ML/SF/B2/NMWS/2	0	1:100	
DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:
TRCA	SYNERGO	IW	HMS	Feb 2018
				SIZE:
				A3



NET MENDING HALL - ROOF
SCALE: 1:200



NET MENDING HALL - FIRST FLOOR
SCALE: 1:200

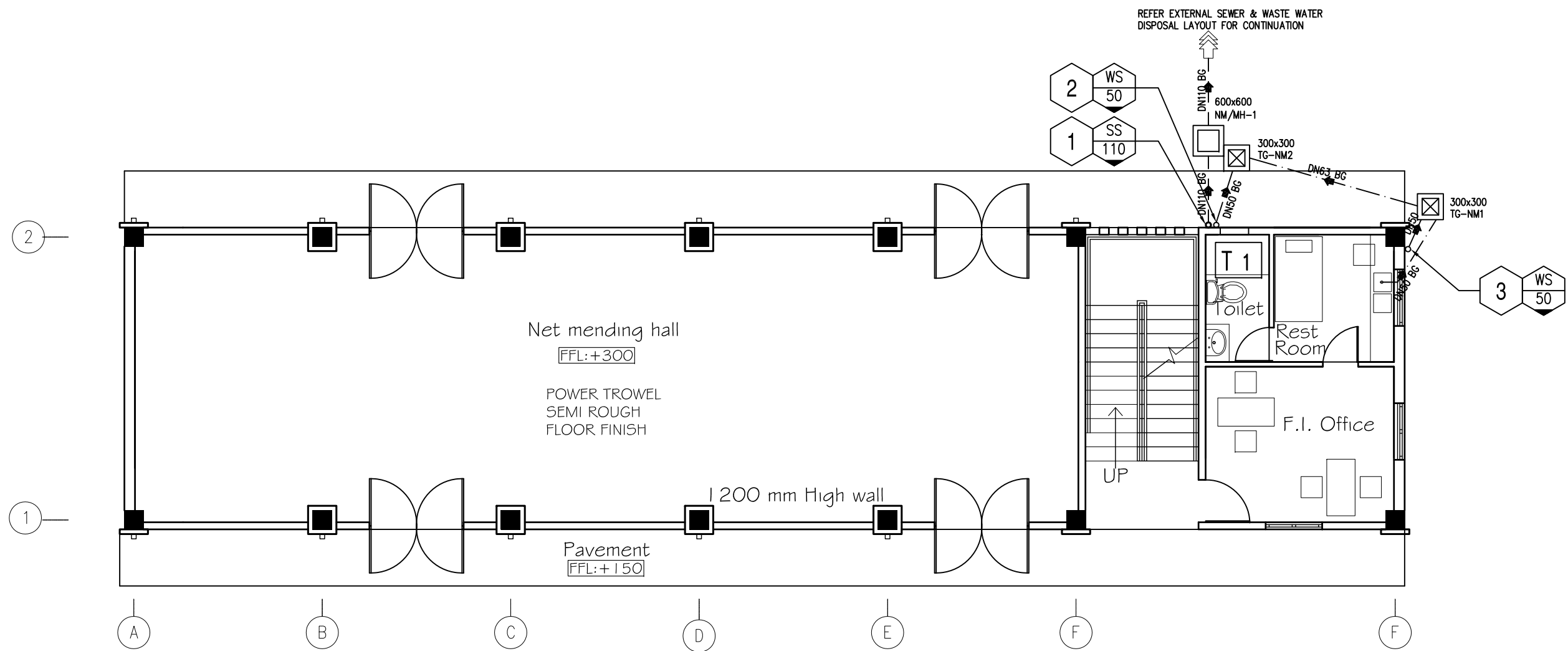


NET MENDING HALL - GROUND FLOOR
SCALE: 1:200


NOTE -
1) FOR LEGEND, ABBREVIATIONS & NOTES
REFER STANDARD DRAWING.

Rev:	Date:	Description:	CHKD:	APPD:
Client:		Consultant:		
Ministry of Fisheries and Aquatic Resources Development New Secretariat, Maligawatta, Colombo 10, Sri Lanka		Lanka Hydraulic Institute Ltd. 177, John Rodrigo Mawatha, Katubedda, Moratuwa SRI LANKA		
PROJECT:		REACTIVATION AND RECONSTRUCTION OF MYLIDDY FISHERIES HARBOUR IN THE NORTHERN PROVINCE		
TITLE:		BUILDING 2 - NET MENDING HALL STORM WATER DISPOSAL LAYOUT		
PROJECT NO:	DRG. NO:	REV. NO:	SCALE:	
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DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:
TRCA	SYNERGO	IW	HMS	Feb 2018
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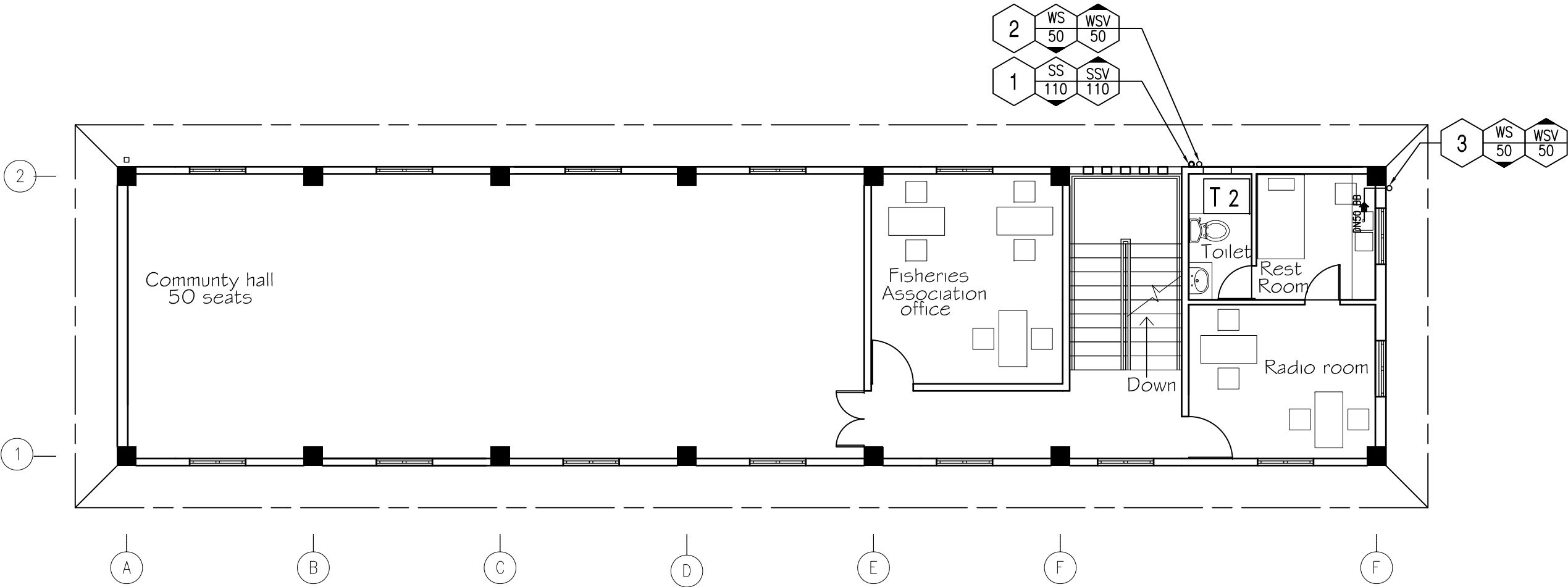
NOTE -
1) FOR LEGEND, ABBREVIATIONS & NOTES
REFER STANDARD DRAWING.




GROUND FLOOR
SCALE: 1:100
NET MENDING HALL

Rev:	Date:	Description:	CHKD:		APPD:
Client: Ministry of Fisheries and Aquatic Resources Development New Secretariat, Maligawatta, Colombo 10, Sri Lanka			Consultant: Lanka Hydraulic Institute Ltd. 177, John Rodrigo Mawatha, Katubedda, Moratuwa SRI LANKA 		
PROJECT:		REACTIVATION AND RECONSTRUCTION OF MYLIDDY FISHERIES HARBOUR IN THE NORTHERN PROVINCE			
TITLE:		BUILDING 2 - NET MENDING HALL / GROUND FLOOR SEWER & WASTE WATER DISPOSAL LAYOUT			
PROJECT NO:		DRG. NO:		REV. NO:	SCALE:
		LHI/ML/SF/B2/NM/DR/1		0	1:100
DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:	SIZE:
TRCA	SYNERGO	IW	HMS	Feb 2018	A3

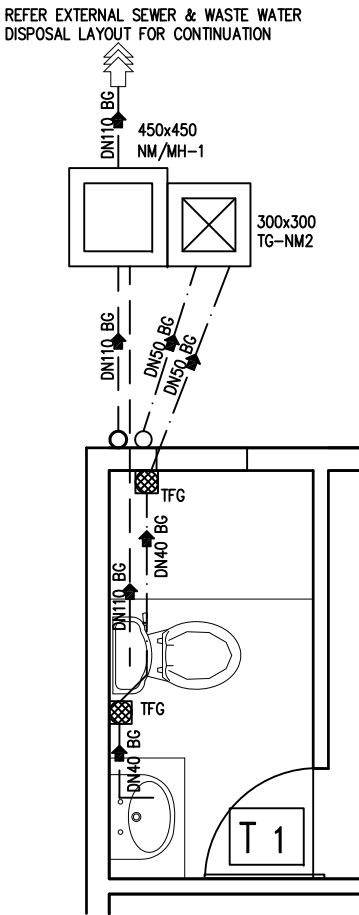
NOTE -
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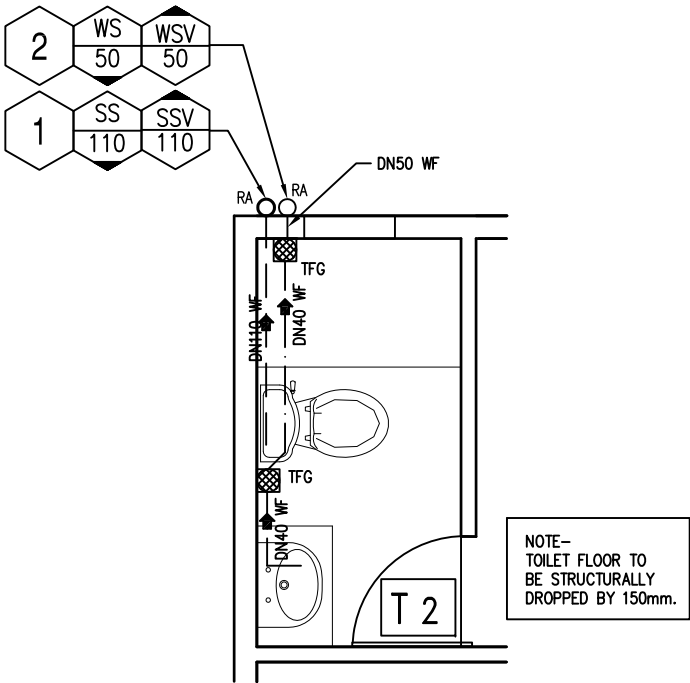
FIRST FLOOR
SCALE: 1:100
NET MENDING HALL

Rev:	Date:	Description:	CHKD:		APPD:
Client: Ministry of Fisheries and Aquatic Resources Development New Secretariat, Maligawatta, Colombo 10, Sri Lanka			Consultant: Lanka Hydraulic Institute Ltd. 177, John Rodrigo Mawatha, Katubedda, Moratuwa SRI LANKA 		
PROJECT:	REACTIVATION AND RECONSTRUCTION OF MYLIDY FISHERIES HARBOUR IN THE NORTHERN PROVINCE				
TITLE:	BUILDING 2 - NET MENDING HALL / FIRST FLOOR SEWER & WASTE WATER DISPOSAL LAYOUT				
PROJECT NO:	DRG. NO:			REV. NO:	SCALE:
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DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:	SIZE:
TRCA	SYNERGO	IW	HMS	Feb 2018	A3

NOTE -
1) FOR LEGEND, ABBREVIATIONS & NOTES
REFER STANDARD DRAWING.

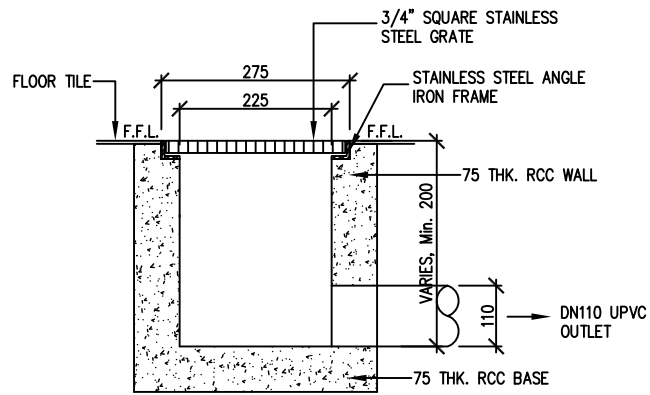


Sewer & Waste Water
Disposal Layout of Toilet 'T1'
Scale : 1:50

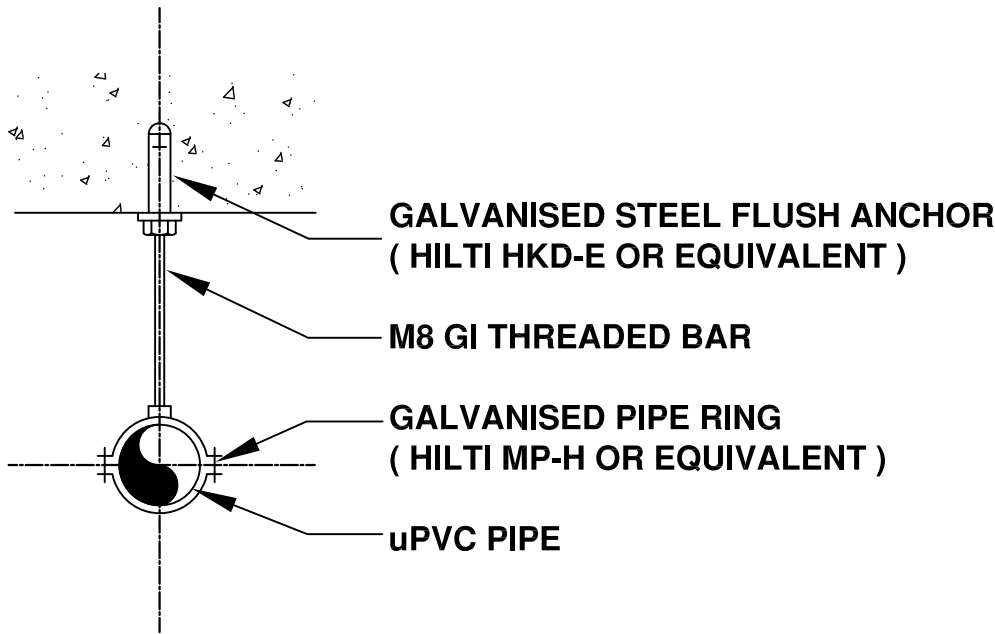


Sewer & Waste Water
Disposal Layout of Toilet 'T2'
Scale : 1:50

Rev:	Date:	Description:	CHKD:	APPD:
Client:		Consultant:		
Ministry of Fisheries and Aquatic Resources Development New Secretariat, Maligawatta, Colombo 10, Sri Lanka		Lanka Hydraulic Institute Ltd. 177, John Rodrigo Mawatha, Katubedda, Moratuwa SRI LANKA		
PROJECT:		REACTIVATION AND RECONSTRUCTION OF MYLIDDY FISHERIES HARBOUR IN THE NORTHERN PROVINCE		
TITLE:		BUILDING 2 - NET MENDING HALL. TOILETS - SEWER & WASTE WATER DISPOSAL DETAILED LAYOUT		
PROJECT NO:	DRG. NO:	REV. NO:	SCALE:	
	LHI/ML/SF/B2/NM/DR/3	0	1:50	
DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:
TRCA	SYNERGO	IW	HMS	Feb 2018
				SIZE:
				A3



TYPICAL SECTION THRO. FLOOR DRAIN
@ AUCTION HALL
SCALE : N.T.S.

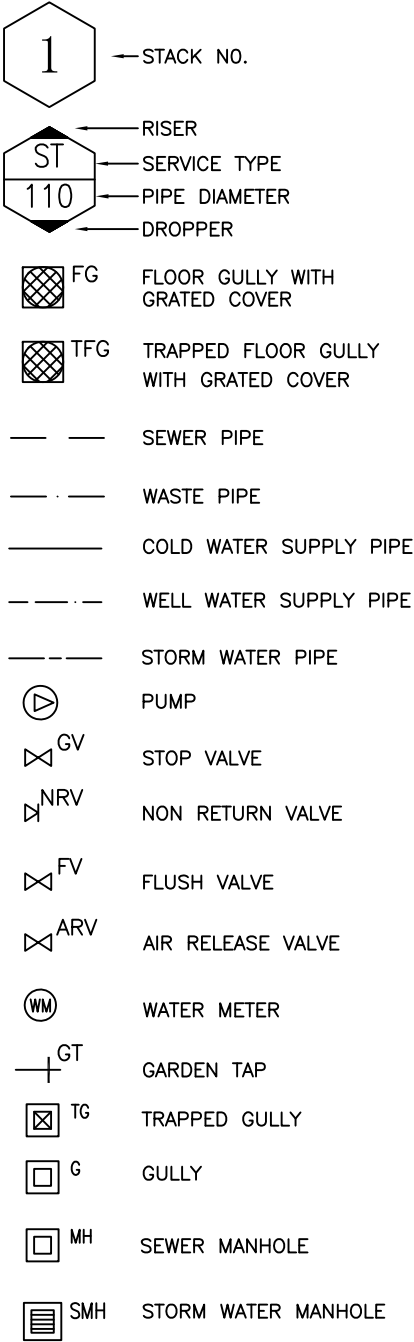


TYPICAL PIPE SUPPORTING DETAIL
SCALE N.T.S.

GENERAL NOTE :

- 01) PIPE GRADIENT – SEWER PIPE 1:80 U.N.O.
WASTE PIPE 1:100 U.N.O.
STORM WATER PIPE 1:120 U.N.O.
- 02) SEWER, WASTE, STORM WATER & WATER PIPES SHALL BE UPVC, SOLVENT SOCKETED CONFORMING TO SLS 147, OF 1993.
- 03) FITTINGS SHALL CONFORM TO SLS 659.
- 04) SOIL, WASTE & STORM WATER DRAINAGE PIPES – TYPE 600
DOMESTIC COLD WATER PIPES – TYPE 1000
- 05) WATER SUPPLY DISTRIBUTION SYSTEM TO BE PRESSURE TESTED TO Min. 05 BAR TO THE APPROVAL OF THE ENGINEER.
- 06) SINKS & WASH BASINS TO BE PROVIDED WITH BOTTLE TRAPS.
- 07) RAIN WATER DOWN PIPES SHALL BE TYPE 600, UNLESS NOTED OTHERWISE.
- 08) PROVIDE RODDING ACCESS AT EACH 'Y' BRANCH OF THE PIPE CONNECTION AND PIPE DEVIATIONS.
- 09) MANHOLE OPENINGS TO BE PROVIDED WITH C.I. COVERS & FRAME.
- 10) WHERE SERVICE PIPES ARE CROSSING THE FLOOR SLABS, PIPES TO BE PROVIDED WITH PUDDLE COLLAR.
- 11) DUCT OPENING WITH REMOVABLE PANELS TO BE PROVIDED AT DUCTS WHERE NECESSARY.
- 12) CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR PIPE SUPPORTS, STRESS / THRUST BLOCK SUPPORTS, WHERE NECESSARY, AND AS SPECIFIED BY THE PIPE MANUFACTURE AND TO OBTAIN APPROVAL FROM THE ENGINEER.
- 13) THE CONTRACTOR TO PREPARE SHOP DRAWINGS & OBTAIN APPROVAL FROM THE ENGINEER ENSURING THAT THE FINAL LAYOUT & THE LEVELS OF THE SEWER, WASTE PIPES & MANHOLES RESULT IN THE MINIMUM DEPTH AT INTERCEPTOR MANHOLE INLET.
- 14) THE CONTRACTOR TO ENSURE THAT ALL SLAB PENETRATIONS ARE PROPERLY SEALED AND WATER PROOFED. THE METHOD OF SEALING AND WATER PROOFING TO BE PROPOSED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL.
- 15) ALL WATER SUPPLY PIPES LEADING TO EACH FITTING FROM BRANCH PIPES TO BE DN20 U.N.O.

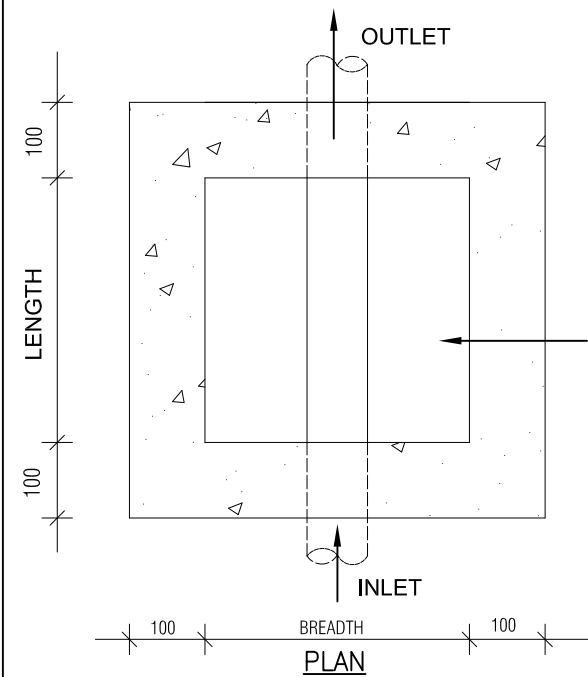
LEGEND



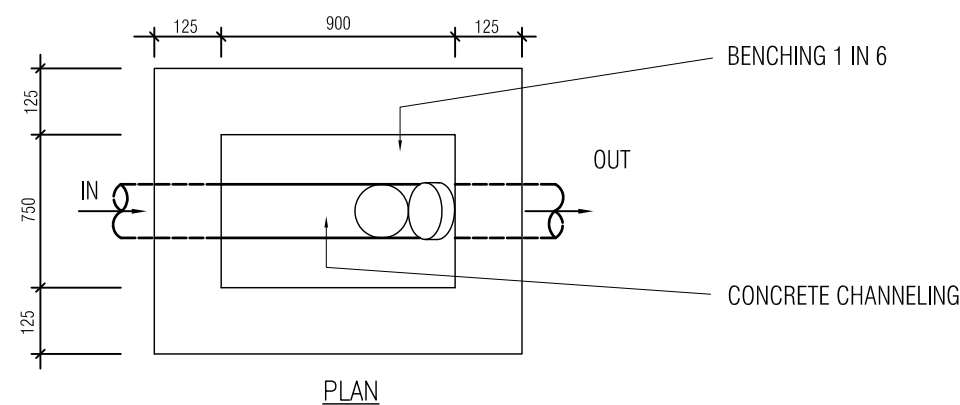
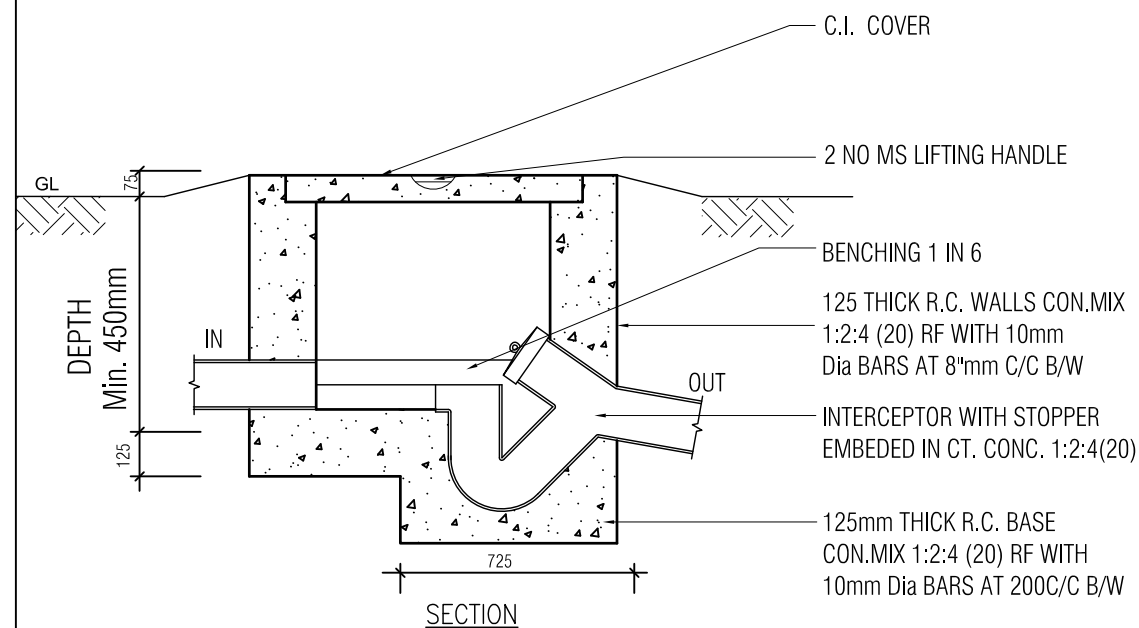
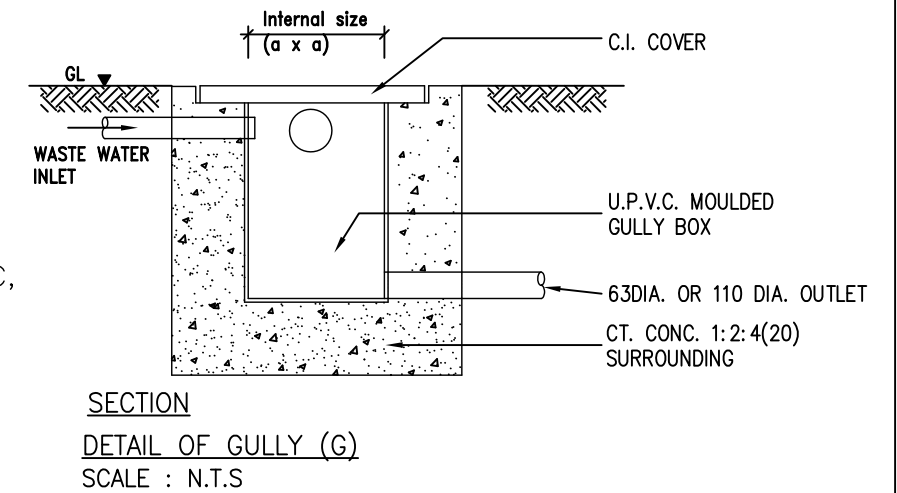
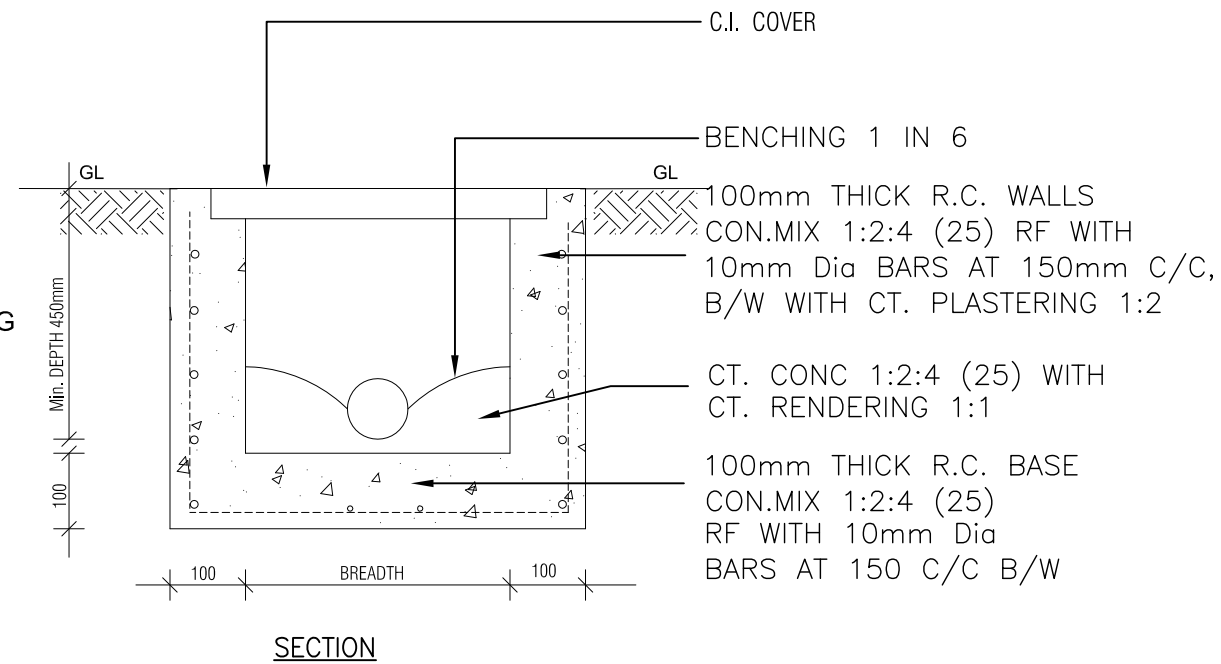
ABBREVIATIONS

SS	SOIL STACK
SSV	SOIL STACK VENT
WS	WASTE STACK
WSV	WASTE STACK VENT
WWS	WELL WATER SUPPLY PIPE
CWS	COLD WATER SUPPLY PIPE
CWF	COLD WATER FEEDER PIPE
RWS	RAIN WATER SUPPLY PIPE
RWO	RAIN WATER OUTLET
RWDP	RAIN WATER DOWN PIPE
DN	NOMINAL DIAMETER
RA	RODDING ACCESS
WB	WASH BASIN
SK	KITCHEN SINK
WC	WATER CLOSET
BS	BIDET SPRAY
SH	SHOWER WITH CONTROL
BT	BIB TAP
GT	GARDEN TAP
BG	BELOW GROUND
BF	BELOW FLOOR
WF	WITHIN FLOOR
CW	CHASED IN WALL
BB	BELOW BENCH
DT	DROPS TO
DT/LL	DROPS TO LOWER LEVEL
HL	HIGH LEVEL
GL	GROUND LEVEL
FA	FROM ABOVE

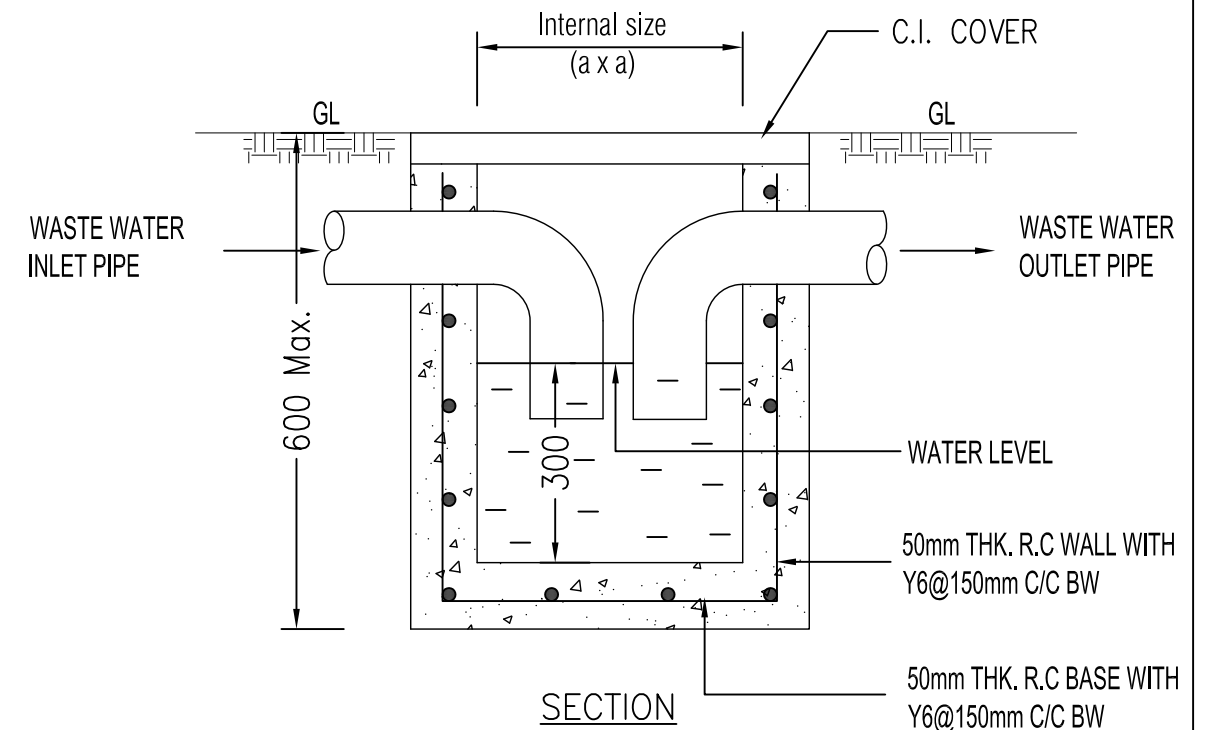
Rev:	Date:	Description:	CHKD:	APPD:
Client:		Consultant:		
Ministry of Fisheries and Aquatic Resources Development New Secretariat, Maligawatta, Colombo 10, Sri Lanka		Lanka Hydraulic Institute Ltd. 177, John Rodrigo Mawatha, Katubedda, Moratuwa SRI LANKA		
PROJECT:		REACTIVATION AND RECONSTRUCTION OF MYLIDY FISHERIES HARBOUR IN THE NORTHERN PROVINCE		
TITLE:		STANDARD DRAWING Sheet 01		
PROJECT NO:	DRG. NO:	REV. NO:	SCALE:	
	LHI/ML/SF/STD/1	0	N.T.S.	
DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:
DV	SYNERGO	KSM	HMS	Feb 2018
				SIZE:
				A3



DETAIL OF SEWER MANHOLE (MH)
SCALE : N.T.S.



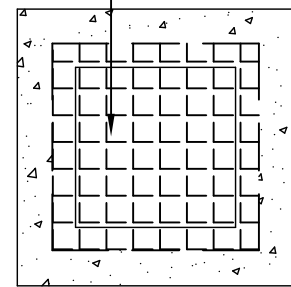
DETAIL OF INTERCEPTOR MANHOLE



DETAIL OF TRAPPED GULLY (TG)
SCALE : N.T.S

Rev.	Date:	Description:	CHKD:	APPD:
Client:		Consultant:		
Ministry of Fisheries and Aquatic Resources Development New Secretariat, Malligawatta, Colombo 10, Sri Lanka		Lanka Hydraulic Institute Ltd. 177, John Rodrigo Mawatha, Katubedda, Moratuwa SRI LANKA		
PROJECT:		REACTIVATION AND RECONSTRUCTION OF MYLIDDI FISHERIES HARBOUR IN THE NORTHERN PROVINCE		
TITLE:		STANDARD DRAWING Sheet 02		
PROJECT NO:	DRG. NO:	REV. NO:	SCALE:	
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DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:
DV	SYNERGO	KSM	HMS	Feb 2018
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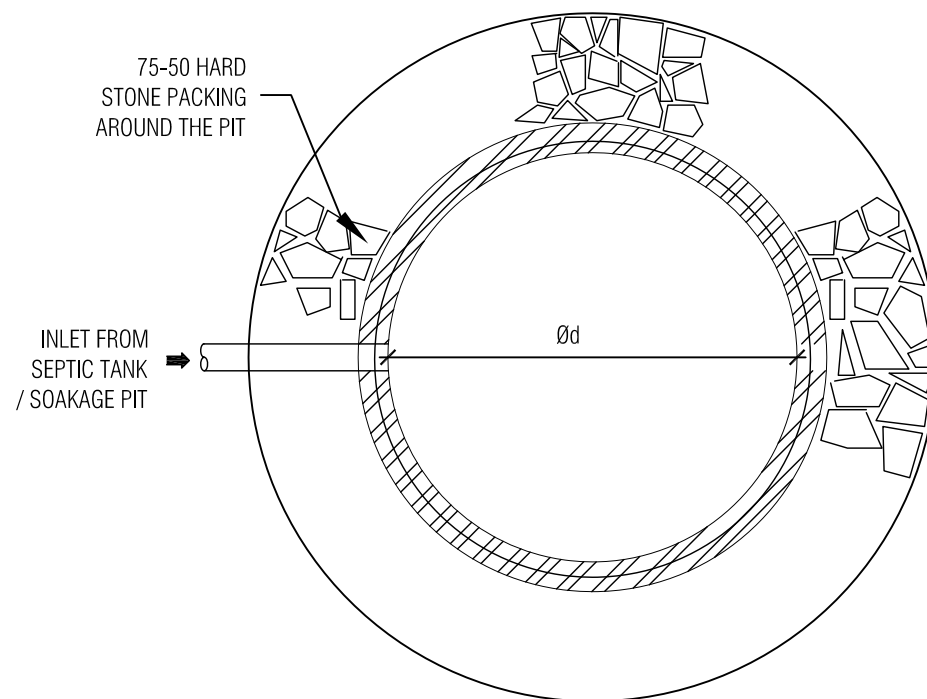
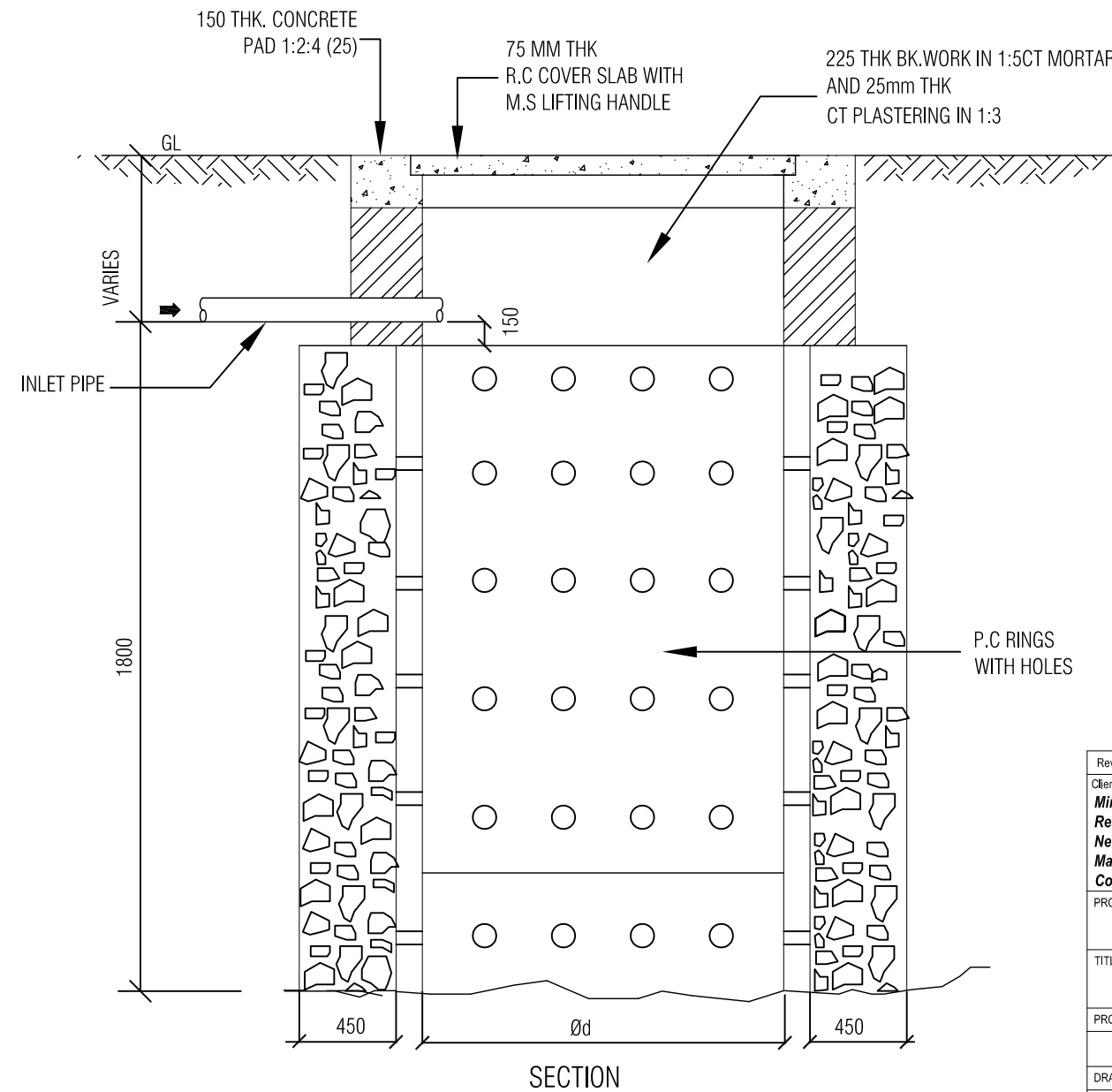
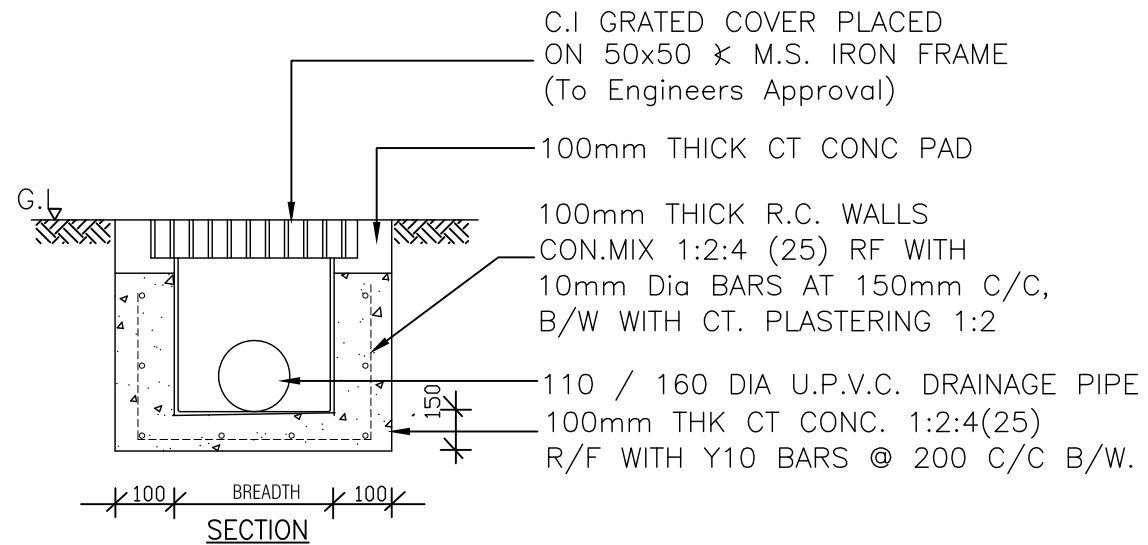
C.I GRATED COVER PLACED
ON 50x50 x M.S. IRON FRAME
(To Engineers Approval)



BREADTH

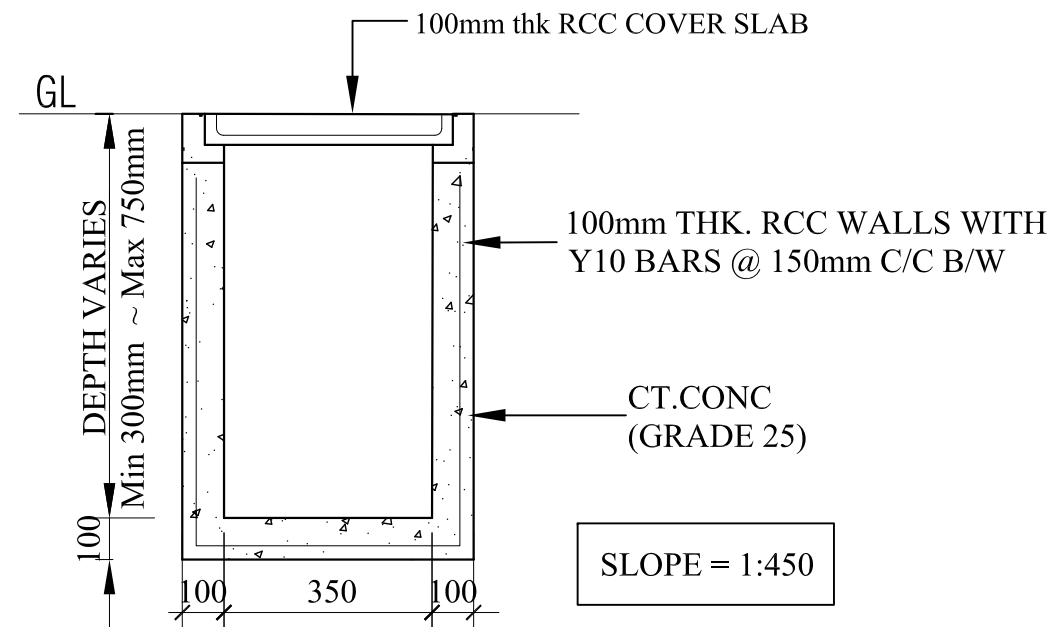
PLAN

DETAIL OF STORM WATER MANHOLE (SMH)
SCALE : N.T.S

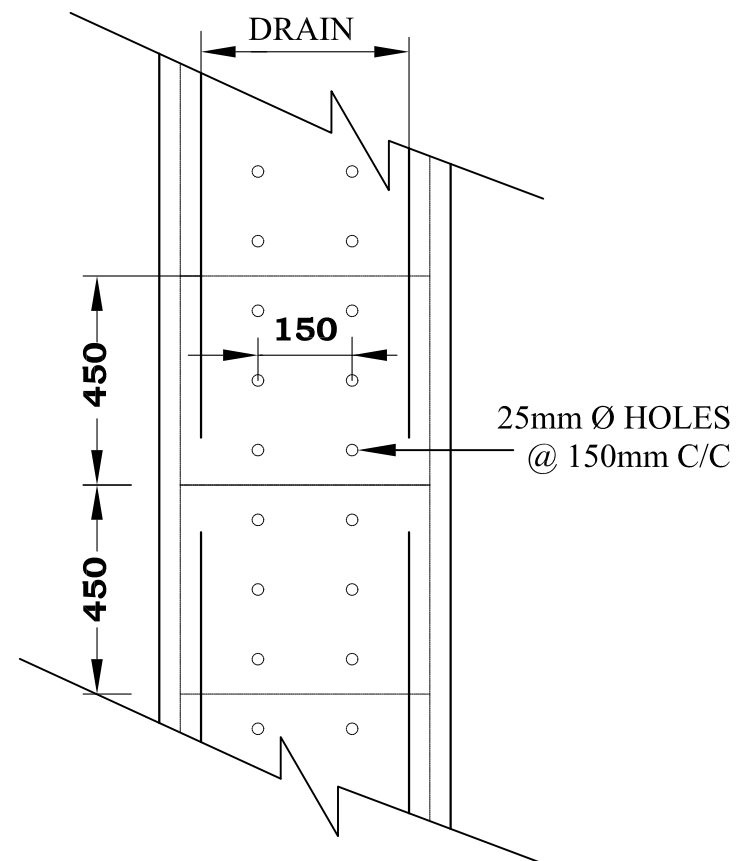


DETAIL OF PRE-CAST SOAKAGE PIT

Rev:	Date:	Description:	CHKD:	APPD:
Client:		Consultant:		
Ministry of Fisheries and Aquatic Resources Development New Secretariat, Maligawatta, Colombo 10, Sri Lanka		Lanka Hydraulic Institute Ltd. 177, John Rodrigo Mawatha, Katubedda, Moratuwa SRI LANKA		
PROJECT:		REACTIVATION AND RECONSTRUCTION OF MYLIDDY FISHERIES HARBOUR IN THE NORTHERN PROVINCE		
TITLE:		STANDARD DRAWING Sheet 03		
PROJECT NO:	DRG. NO:	REV. NO:	SCALE:	
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DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:
DV	SYNERGO	KSM	HMS	Feb 2018
SIZE:		A3		




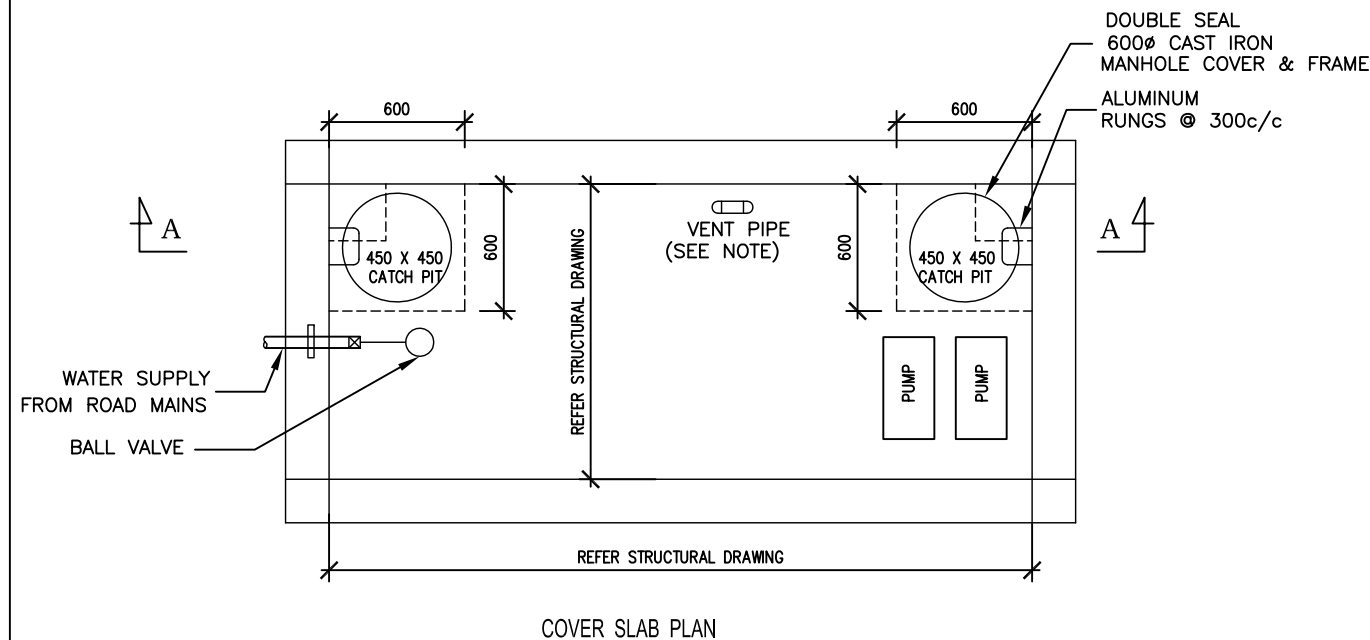
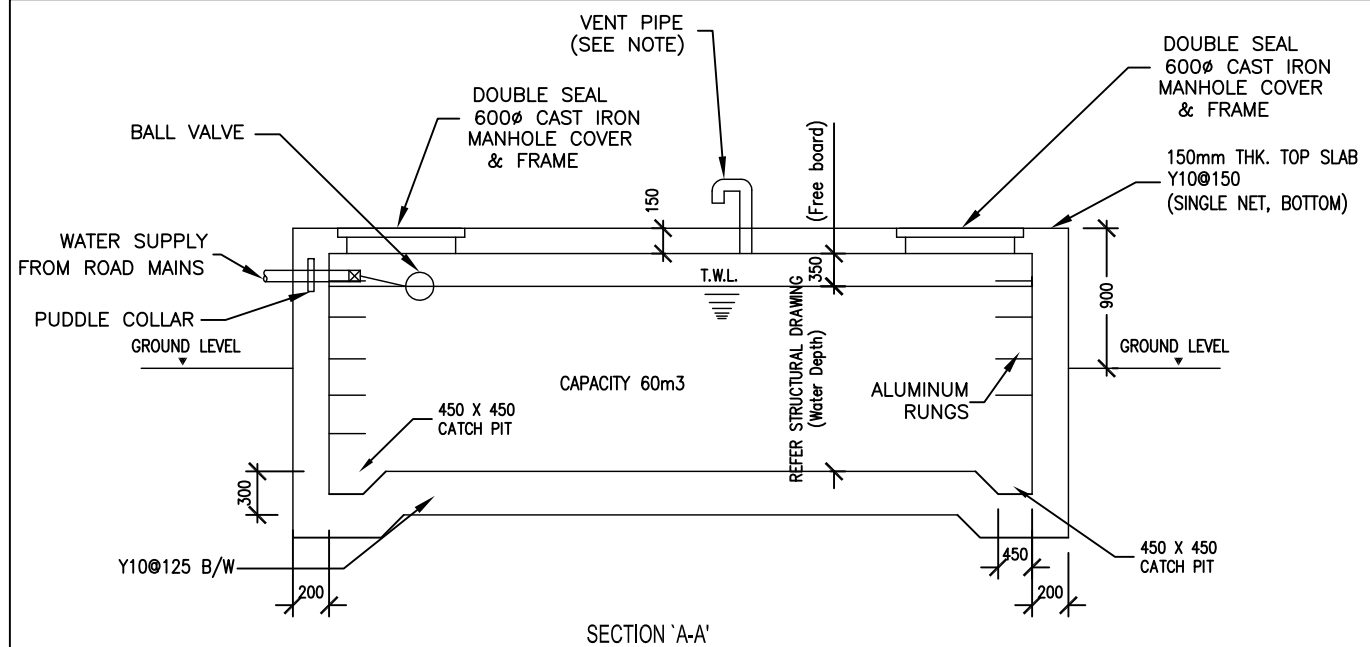
SECTION



DETAIL OF COVERED DRAIN

SCALE : N.T.S.

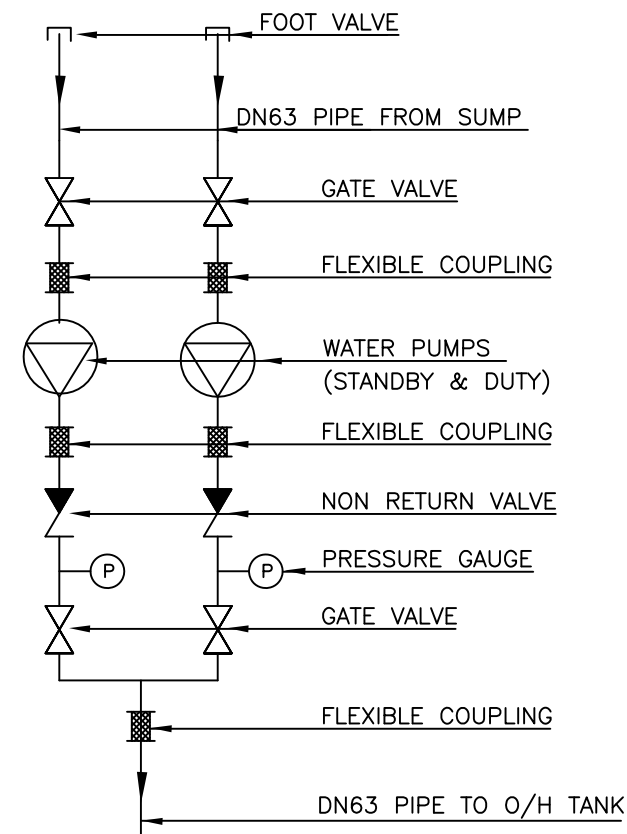
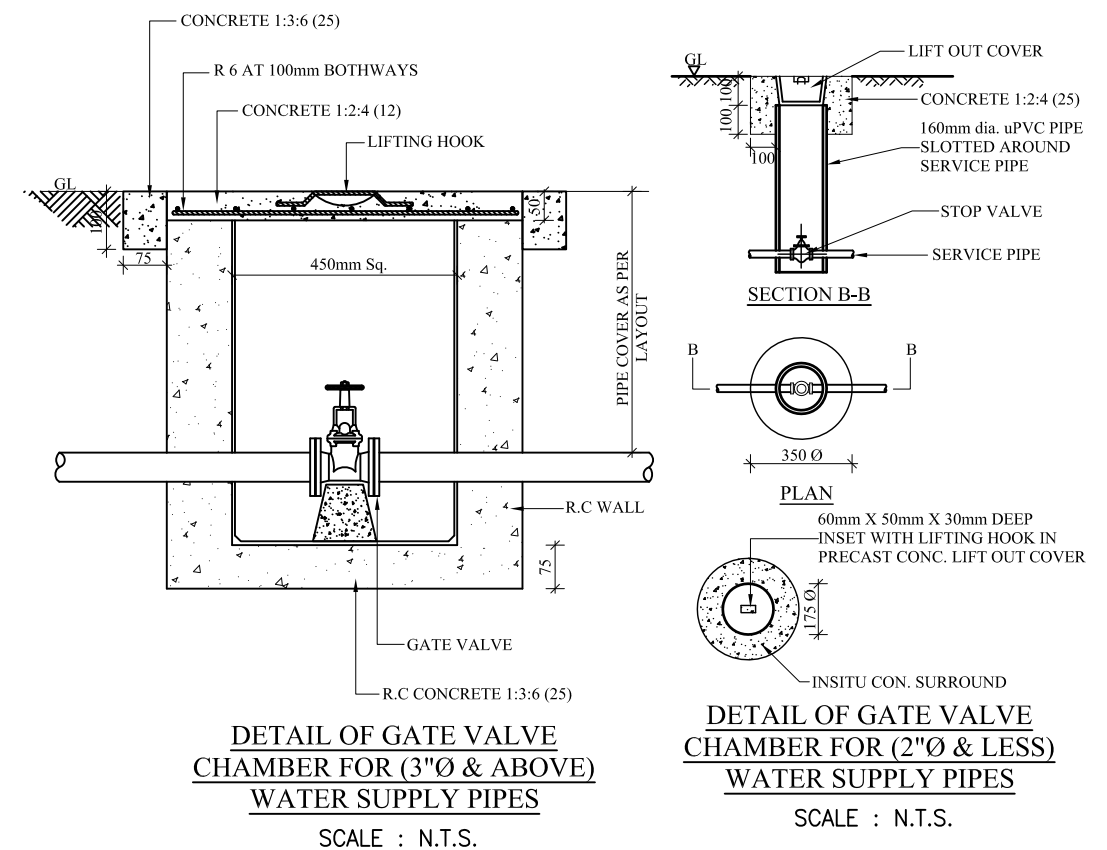
Rev:	Date:	Description:	CHKD:	APPD:	
Client: Ministry of Fisheries and Aquatic Resources Development New Secretariat, Maligawatta, Colombo 10, Sri Lanka			Consultant: Lanka Hydraulic Institute Ltd. 177, John Rodrigo Mawatha, Katubedda, Moratuwa SRI LANKA 		
PROJECT:		REACTIVATION AND RECONSTRUCTION OF MYLIDDY FISHERIES HARBOUR IN THE NORTHERN PROVINCE			
TITLE:		STANDARD DRAWING Sheet 04			
PROJECT NO:		DRG. NO:		REV. NO:	SCALE:
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DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:	SIZE:
DV	SYNERGO	KSM	HMS	Feb 2018	A3




- NOTE:**
- 63mm Ø VENT PIPE TO BE LOCATED TO SUIT THE SITE CONDITION AND IT IS TO BE Min. 1500 HIGH FROM THE COVER LEVEL CLIPPED TO A BOUNDARY WALL / BUILDING WALL.
 - SEE STRUCTURAL DWGS FOR REINFORCEMENT & STRUCTURAL DETAILS.
 - DIMENSIONS GIVEN ARE ALL INTERNAL.
- SCHEMATIC OF COMBINED WATER & FIRE SUMP**
SCALE : N.T.S

NOTE –

- * REFER STRUCTURAL DRAWINGS FOR LENGTH BREADTH & DEPTH OF THE SUMP.
- * STRUCTURAL ENGINEER TO BE CONSULTED FOR REINFORCEMENT & STRUCTURAL DETAILS PRIOR TO CONSTRUCTION.



SCHEMATIC OF WATER PUMPS
N.T.S.

Rev:	Date:	Description:	CHKD:	APPD:
Client: Ministry of Fisheries and Aquatic Resources Development New Secretariat, Maligawatta, Colombo 10, Sri Lanka			Consultant: Lanka Hydraulic Institute Ltd. <i>177, John Rodrigo Mawatha,</i> <i>Katubedda, Moratuwa</i> <i>SRI LANKA</i>	
				
PROJECT:	REACTIVATION AND RECONSTRUCTION OF MYLIDDI FISHERIES HARBOUR IN THE NORTHERN PROVINCE			
TITLE:	STANDARD DRAWING Sheet 05			
PROJECT NO:	DRG. NO:		REV. NO:	SCALE:
	LHI/ML/SF/STD/5		0	N.T.S.
DRAWN:	DESIGN:	CHECKED:	APPROVED:	DATE:
DV	SYNERGO	KSM	HMS	Feb 2018
				SIZE:
				A3