



OIL & GAS DEVELOPMENT COMPANY LIMITED
PROCUREMENT DEPARTMENT (LOCAL), ISLAMABAD
SCHEDULE OF REQUIREMENT

Material :DISMANTLING OF OLD TANK &
CONSTRUCTION,ERECTION,COMMISSIONING OF NEW
TANK,CAPACITY 3000 BBLs

Due Date:

Bid Bond Value : RS.500,000/-

Attachment(if any) : YES

Tender Enquiry No: PROC/LF/PT/18341/21

EVALUATION WILL BE CARRIED OUT ON FULL

Sr No	Description	Quantity	Make/Brand offered	Unit	Unit Price (PKR) Inclusive Of All Taxes Except PST	Unit Price (PKR) Inclusive of PST	Total Price (PKR) Inclusive of PST	Delivery Period Offered	deviation from Tender Spec. If Any
1	Dismantling of Old Condensate Storage Tank T-2811 & Supply Fabrication, Erection, Commissioning of New Tank of same capacity (3000 Bbls.) including complete Internal FRP coating at Qadirpur Plant as per attached TOR's.	1		Number					

Special Note: The prospective bidders also download the master set of Tender Document

- The prospective bidders may keep in touch with OGDCL web site for downloading the clarifications/amendments (if any) issued by OGDCL.
- BID VALIDITY 120 DAYS FROM TECHNICAL BID OPENING.COMPLETION IN 300 DAYS FROM LPOINCLUDING DISMANTLING,CONSTRUCTION,INSTALLATION,TESTING,COMMISSIONING. PAYMENT 30% ADVANCE AGST BANK GUARANTEE,70% AFTER SUCCESSFUL TESTING & COMMISSIONING OF NEW TANK AGAINST COMPLETION CERTIFICATE & VERIFIED INVOICES.



OIL & GAS DEVELOPMENT COMPANY LIMITED
PROCUREMENT DEPARTMENT (LOCAL), ISLAMABAD
SCHEDULE OF REQUIREMENT

Mandatory Checklist

Please confirm the compliance of the following mandatory information along with the bid(s) (failing which bids(s) will not be accepted)

Documents	To be Attached with the Technical/Financial Bids	Compliance	
		Yes <input type="checkbox"/>	No <input type="checkbox"/>
Original Bid Bond	Technical Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Copy of NTN Certificate	Technical Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Copy of GST Certificate	Technical Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Confirmation that the Firm is appearing on FBR's Active Taxpayer List	Technical Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Duly signed and stamped Annexure-A (Un-priced)	Technical Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Duly filled, signed and stamped Annexure-B	Technical Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Duly filled, signed and stamped Annexure-D	Technical Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Duly filled, signed and stamped Annexure-L on Company's Letterhead	Technical Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Duly signed and stamped Annexure-M on Company's Letterhead	Technical Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Duly signed and stamped Annexure-N on Non-Judicial Stamp Paper duly attested by Notary Public	Technical Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Duly filled, signed and stamped Annexure-A (Priced)	Financial Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Duly filled, signed and stamped Annexure-C	Financial Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Duly filled, signed and stamped Annexure-E	Financial Bid	Yes <input type="checkbox"/>	No <input type="checkbox"/>



OIL & GAS DEVELOPMENT COMPANY LIMITED
PROCUREMENT DEPARTMENT (LOCAL), ISLAMABAD
SCHEDULE OF REQUIREMENT

For the Vendors/Contractors who opt to submit Bank Draft/Call Deposit/Pay order against Bid Bond/Performance Bond, our Accounts Department has finalized an arrangement for online payment to such Vendors/Contractors, which will be processed through (IBFT & LFT) for which following information is required:

i.	IBAN No. (International Bank Account Number 24 Digits)	
ii.	Vendor Name as per Title of their Bank Account	
iii.	Contact No.of Company's CEO/ Owner (Mobile & Landline)	
iv.	Bank Name.	
v.	Bank Branch Name and Code	

Name, Sign and Stamp of the authorized official of the Bidder(s) _____

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



QP – 11569, WORK SCOPE EXPLANATORY NOTES FOR CONTRACTOR

DISMANTLING OF EXISTING CONDENSATE STORAGE TANK T-2811 & SUPPLY FABRICATION, ERECTION, COMMISSIONING OF NEW TANK OF SAME CAPACITY (3000 BBL)

- 1- The Owner, Oil & Gas Development Company Limited (OGDCL) is interested in inviting bids for the provision of services at its Qadirpur Gas Plant for dismantling of existing Condensate Storage Tank T-2811 & supply, fabrication, erection, commissioning of New Tank of same Capacity from reputable companies in this field. The scope of work includes all civil work for foundation repair, mechanical works including dismantling of existing tank, Procurement of material, construction of new Tank, Roof supporting structure, Construction as per drawings, testing /inspection, calibration, Commissioning of the Condensate storage Tank. Successful contractor shall have to offer at least 10-year maintenance free guarantee of the installed Tank.
- 2- This specifications given hereunder describe for guideline purpose and covers the minimum requirement of all the mechanical construction, painting, testing, calibration, third party inspection and supervision, inspection and commissioning of condensate storage tank of 3,000 barrels capacity at OGDCL Qadirpur Gas Field District Ghotki Sindh.
- 3- The contractor will be responsible for immediate mobilization of manpower & resources to comply complete job scope.
- 4- The work shall be done, completed in all respects in accordance with the requirements and Owner's instructions/satisfaction at site.
- 5- The Contractor shall be responsible for carrying out all work, complete in all respects, according to the scope of work. Any item of work required for completion but not expressly indicated in the scope shall be deemed to have been included in the unit rates quoted by the Contractor. The successful

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



contractor will be required to submit detailed procedures for undertaking dismantling of existing Condensate Storage Tank T-2811 & supply, fabrication, erection, commissioning of New Tank of same Capacity jobs for Owner's approval.

- 6- The works are to be carried out on a fast track basis and it is, therefore, essential that the Contractor shall be prepared to execute the work on a round the clock basis including any kind of holidays.
- 7- Contractor will be responsible for safe execution of the work. Any damage to the site/equipment/existing installation related/not related to the scope mentioned herewith due to workmanship/machinery etc. will be on contractor's part and will be held responsible to rectify at its own.
- 8- Unit rates quoted by bidder shall be firm. No extra payments on account of escalation in prices due to any reason shall be admissible.
- 9- The Contractor shall be paid only for the work duly approved by Owner's representative. Any rework due to poor quality, demonstrated by NDT results & inspection by OGDCL shall be on Contractor's account.

References:

All the erection, testing & inspection must be as per following standards of oil & gas industry.

- API Standard 650
- API-653
- RP-651
- ASME Section IX
- ASME Section IIIV
- ANSI B31.3 – Petroleum Refinery Piping
- PS 1020 or 1025 specification for carbon steel plate and profiles should be as per ASTM 283-C ASTM-A 106, Sch. 40 (For Seamless pipe.)
- OGDCL's Specifications

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



TERMS & CONDITIONS / CONTRACTOR'S RESPONSIBILITIES:

GENERAL:

- 1- The contractor shall be responsible for minimum but not limited to the following scope of work.
- 2- The contractor is to carry out the work as per drawings and provided scope of work as per contract. Erection, Procurement of material, External epoxy coating, Internal FRP coating, commissioning and testing etc. would also be carried out by the contractor. The Tank is to be completed and tested as per applicable API 650 & API 653 standards.
- 3- All the required material regarding pipe, fittings and other allied equipment associated with tank etc. is included in this scope of supply of contractor. All the mechanical/civil works will be carried out by the contractor according to package duly approved by OGDCL.
- 4- Tentative duration for the execution of dismantling of existing Condensate Storage Tank T-2811 & supply, fabrication, erection, commissioning of New Tank of same Capacity including procurement of related material will be 300 days/ 10 months from the issuance of purchase order.
- 5- Contractor must visit the site to confirm the provided scope of work by OGDCL for bidding and clarification of scope (if any).
- 6- Only land (for placement of caravans) for lodging (accommodation) will be provided to the Contractor's Man Power. However, only 02 Officers Engg. Cadre will be provided temporary residence & messing.
- 7- In case of any delay in completion of dismantling of existing Condensate Storage Tank T-2811 & supply, fabrication, erection, commissioning of New Tank of same Capacity due to contractor. Contractor will be held responsible and will be liable for penalty as per company policy.
- 8- Contractor will provide list of Manpower required for the execution of Job e.g. Engineers, Supervisors, welders, fabricators, fitters, scaffolders, riggers, helpers, supervisors, masons etc. Contractor will further ensure that the manpower being deputed has no criminal background.
- 9- HSD for all contractor's vehicles will be arranged by the contractor.
- 10- Contractor shall provide adequate meals/on-site refreshment twice in 12 hour shift and laundry services to their employees.

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



- 11- Contractor should ensure his manpower has no any kind of ammunition and narcotics. (Security concern)
- 12- Contractor should arrange HSE I/C, supervisors, inspectors, first aid providers and housekeeping man as per work plan activities.
- 13- Each contractor's employee will wear its provided ID card in the premises of plant, ID card will be provided by the contractor displaying name & craft of each employee.
- 14- In case of any injury, workmanship compensation of contractor's staff will be contractor's responsibility.
- 15- Contractor should deploy its security personals to control the manpower's in/out movement at plant and field main gate with the coordination of OGDCL security Incharge.

SCOPE OF INSPECTION:

OGDCL would carry inspection including review of the mechanical construction schedule and progress reporting as per following details. OGDCL inspection would include:

- a. Repair of civil works
- b. Review as built drawings.
- c. Material Identification through mill test certificates or through laboratory testing (if required)
- d. Review / Witnessing of Procedure's qualification record and welder's qualification tests
- e. Inspection of roof, shell and bottom plates materials as per specification given in agreement
- f. Inspection of welding consumables and to check the quality and suitability.
- g. Inspection of Steel Structure assembly and welding. Inspection of Shell Peaking, Bending, Roundness & Plumbness.
- h. Inspection of Nozzle Orientation.

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



- i. Witnessing of DPT and Pneumatic Leak Test where necessary.
- j. Inspection of quality of welding of bottom, shell and roof plates.
- k. Witnessing of vacuum box testing of bottom weld joints
- l. Review results of radiography of horizontal, vertical and T-Joints of tank.
- m. Stage inspections / hold points to be decided according to the Quality Inspection plan to be submitted by bidder/ contractor manufacturer.
- n. Witnessing of Hydrostatic Testing. Report of findings.
- o. Overall responsibility for the excellent workmanship guaranteed through the above inspections and continuous site supervision by contractor's the API 653 certified Inspector at site at its own cost.

Note:

All Inspection results must be evaluated by API-653 Certified Inspector on part of contractor. The contractor would facilitate and support the OGDCL engineers / inspectors during all the phases of the project.

DISMANTLING OF EXISTING TANK K-2811:

Contractor to dismantle the already installed condensate storage Tank safely and the scrap should be placed properly in the allocated area of Qadirpur store.

MATERIAL PROCUREMENT / HANDLING / STORAGE:

- 1- After, final approval from the company, the contractor will proceed for materials procurement and supply as per approved BOQ and data sheets.

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



- 2- In this regard bidder/contractor's responsibilities include procurement of material, transportation from manufacturer's site to the Qadirpur store already established by the contractor.
- 3- The loading/un-loading of the material and shifting from site store to the site location shall be the responsibility of the contractor. OGDCL will not provide any sort of transportation/loading/un-loading facilities. If in case OGDCL provide such facility on contractor's request, that will be charged as per actual.
- 4- All foreign and local procured material shall be inspected by OGDCL engineer(s). OGDCL inspection engineer(s) shall have full right to accept/reject any material/equipment at contractor's warehouse. Inspection report should be prepared by contractor and duly signed by OGDCL engineer after inspection. This report must be sent to dealing procurement officer and provided with material at receiving at Qadirpur Store along with the shipping documents.
- 5- To determine the originality & authenticity of the material being used for this project, all material shall be 100% traceable and suitably marked for easy identification of manufacturer or supplier, grade, source, size and rating and provided at the time of inspection otherwise inspection report will not be acceptable.
- 6- The defected/sub-standard/rejected material not conforming to the OGDCL requirement will be replaced with the new one at bidder/contractor's account including transportation, handling demurrage etc.
- 7- The replaced material will be inspected once again and then be used by contractor after clearance form OGDCL professional.
- 8- All material shall be kept/stored on wooden skids/platform. No material shall be kept on ground.
- 9- Spreader bar shall be used for lifting plates. Hauling of plates and pipe shall not be allowed.
- 10- Contractor shall submit detailed procedure of material handling storage for approval to OGDCL before commencement of any work.

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



CONSTRUCTION OF NEW TANK:

- 1- The bidder/ contractor should be thoroughly familiar with the specifications of all the mechanical works and shall ensure that all works are being completed in accordance with good industrial practice, relevant specifications and API standards. The approved bidder/ contractor must submit the detailed scope of work of each task during erection after approval.
- 2- Contractor shall be responsible for all civil work for foundation repair, mechanical fabrication, inspection, testing and calibration jobs required for completing the project as per approval. Civil work includes the dressing of foundation during the dismantling and installation of base plate. Foundation cracks, if observed, must be rectified by non-shrinkable grouting.

MECHANICAL WORKS

- 1- The mechanical works include but not limited to following:
 - a. Dismantling of old Tank and shifting of material to allocated place within Qadirpur plant.
 - b. Fabrication & welding of steel plates for Tank bottom, shell courses and roof.
 - c. Fabrication and welding of tank roof supporting structure (Internal / external stairs, top fence etc.)
 - d. Fabrication and welding of all tank internals.
 - e. Fabrication and welding of pipe and fitting for all required nozzles along with valves, gaskets stud/nuts, companion flanges and mono block insulation joints wherever required.
 - f. Placement of wind socks on tank.
 - g. Installation of earthing system.
 - h. Top roof railings and fencing with support stairs/steps till the center of top tank.

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



- i. Welding machines (diesel engine driven) in contractor scope as electricity will be only provided for lightening purpose by OGDCL.
- j. Cranes/lifters/truck/trailer in contractor scope.

Note: Contractor has to provide all the relative data of welding material & procedures to be used during project.

- 2- The contractor shall conduct welder's qualification test by any reputable 3rd party for this project according to ASME Section IX and API-650. Only the qualified welders will be allowed for welding jobs for this contract. Contractor Site Engineer must have the copies of the certificates of the welders all the time till completion of the project.
- 3- All the necessary test should be conducted regularly during the construction phase to maintain the quality of construction works mechanical like welding radiography physical inspection, hardness and other related tests.
- 4- The Tank and pipes should be painted according to good industrial practice and specifications. After sand blasting a layer of primer coat must be done on the tank followed by other coats of good quality Epoxy Industrial paint as per design specifications.
- 5- The bottom and internal walls & roof including structure of Tank should be FRP coated to protect the internals against the corrosive effects of water.
- 6- The contractor is responsible to take care of all the necessary safety measures for doing the fabrication, installation and electrical jobs in the potential hazardous areas of oil & gas handling facilities both for the man and machinery as per safety rules.
- 7- The contractor is responsible for living arrangement of its manpower at his own account. Further he is also responsible for ensuring and using all necessary machinery at site required for construction, fabrication, installation and material handling during the entire project schedule at his own account.
- 8- Fitness certificates of all the machinery required at site area must be available on site office of the contractor.
- 9- Company shall have right to inspect all equipment that shall be brought for work. Company has the right to reject any equipment it deems not fit for work. In that case contractor shall immediately remove and replace the equipment with no cost to the company.

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



- 10- If any damage occurred to any equipment due to miss handling, improper storage, wrong installation procedure etc. during the project, that damage shall have to be rectified by the contractor without any cost to OGDCL.
- 11- Contractor should ensure all safety measures before starting of each day job, including safety meeting, emergency response plan meeting necessary HC detection test before and during the process of any hot job or electrical works where the possibility of spark generation. All the necessary safety documents must be available at site/office of the contractors.
- 12- A graduate Project Site Engineer must be deputed by the contractor as the Incharge of all fabrication and construction activities for communication/correspondence with OGDCL site/project Incharge. The said engineer must be supported by qualified supervisors for each job.
- 13- Bidder/contractor is required to provide the project team details and organization to OGDCL with its technical and financial proposal. Any change in organization and person of project team must be intimated to OGDCL for information/approval as required.

COATING & PAINTING:

Prior to the final handover of the Tank to the company, the contractor would ensure the application of internal coating and external painting as per guidelines mentioned below. The vendor and brand to be approved from OGDCL before supply/application.

a. External Protective Coating:

For Shell and Fixed Roof:

- | | | |
|------|--|---------------------------|
| i. | 1 coat of zinc rich epoxy primer at | 50 microns Dft |
| ii. | 2 coats of iron oxide paint at | 100 microns Dft/each coat |
| iii. | 1 coat of acrylic modified polyurethane at | 50 microns Dft |

Total Dft: 300 microns

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



b. Internal Protective Coating:

Internal Tank Complete must be coated with FRP coating @ 3mm thickness Average.

- i. FRP material should be DION 490 terephthalic resin/equivalent (Imported). Procurement/arrangement of material required to complete the job is in contractor/bidder/contractor scope.
- ii. Holiday test must be conducted by the contractor/bidder/contractor in presence of OGDCL officials review for any leakage/ to measure the quality of work.
- iii. All the tank must be cleaned by sand blasting internally & application of FRP imported Grade material.

INSPECTION, TESTING & COMMISSIONING:

- 1- Bidder/contractor is responsible to carry out all tests during construction and post construction phase ensuring the integrity and performance of Condensate Storage Tank. This should include:
 - a. Material inspection jointly with Reps. of Contractor and OGDCL prior to commencement of construction work.
 - b. Welder qualification test.
 - c. Radiography of weld joints of tank as per API-650
 - d. Radiography of weld joints of piping spools.
 - e. Hydraulic and vacuum test of tank.
- 2- Prior to testing and commissioning, the Contractor Shall Submit Detailed Testing & Commissioning Procedures as per codes of the area to be tested.
- 3- Purchaser/Engineering Contractor shall receive from Contractor all information regarding various phases of fabrication work so that Engineer's inspection can establish the quality of workmanship at the required fabrication stages.

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



- 4- Inspection by Owner or his representative shall not relieve the Contractor of the responsibility to replace any inadequate material and to repair any poor workmanship found on site.
- 5- Any material or workmanship that does not meet the requirements of this engineering specification may be rejected.
- 6- Material Certificates of all material etc. proposed to use for the tank shall be witnessed.
- 7- Any defective material or works found after acceptance at the time of rolling, machining or during erection and testing of tank shall be replaced without charge even if it has been accepted previously.
- 8- Welding procedure specification shall be submitted for approval, prior to welding procedure qualification.
- 9- Welding procedure qualification and welder qualification tests shall be carried out in the test facility to be approved.
- 10- Butt welds shall be full penetration and fusion. Quality of shell welded joints shall be evidenced by radiographic inspection, as specified in API-650.
- 11- Extent of Radiography shall be as specified in API-650. Purchaser/Engineering Contractor at any time reserves the right to have any joint radiograph. All welds which are unacceptable shall be repaired and retested through radiograph at contractors expenses.
- 12- All radiographic reports along with the films shall be submitted for approval.
- 13- Fillet welds inspection shall be visual. In case that visual inspection of Purchaser's/Engineering Contractor's inspector reveals poor welds, acceptance or rejection shall depends on sectioning of these welds as per API-650
- 14- All tests be witnessed and approved by Engineer.
- 15- Surface preparation for painting shall have to be approved prior to the application of paint.
- 16- Inspection of fabrication and erection work shall not relieve the manufacturer of the responsibility to replace any inadequate material and to repair any poor workmanship found on site.

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



TANK BOTTOM TESTING:

After welding the tank bottom, the welded joints shall be tested by means of vacuum chamber. Welding seams shall be brushed with soap suds, flax oil or other materials suitable to detect leakage.

TANK SHELL TESTING:

- 1- After erection of the whole tank, all attachments and fixtures used for erection shall be removed and prior to connection to external piping the shell shall be tested by water filling.
- 2- The tank shall be filled up to 2" (50 mm) above the top angle.
- 3- All connections shall be blanked off.
- 4- Filling rate shall not exceed 45m³/hour up to top shell lower edge. From top shell lower edge upwards filling rate shall not exceed to 30m³/hours.
- 5- The telltale holes shall be used to pneumatically test attachment welds on reinforcing pads. The telltale holes shall be plugged after hydro test with non-hardening sealant or grease.

TANK ROOF TESTING:

- 1- After the tank is finished, the welds of the roof shall be tested by an inner pressure which shall not exceed roof plate weight or by vacuum chamber applied on weld outer surface. Welding seams shall be lubricated with soap solution flax oil or other liquid suitable to tested leakage.
- 2- The contractor is responsible for tank calibration after successful completion of all tests through a reputed contractor. The calibration should be as per API 650, API 2555 and API 2250 using physical measurement, strapping and optical reference methods. The calibration must be carried out through well reputed ISO certified companies e.g. M/s SGS, Velosi etc.

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



- 3- All material sources required for the testing to be arranged by the contractor. Only water will be provided by OGDCL, while all other arrangement will be made by the contractor at its own cost. It is not OGDCL responsibility.

INSPECTION / QUALITY PLAN:

<u>Activity</u>	<u>Purchaser Inspection</u>
Preproduction Meeting	H
Material Procurement	R
Heat Treatment Certificates	R
Mill Test Report	R
Material Inspection	H
Welding Procedure & Welder Qualification	H
Fabrication	M
Radiographic Testing	M
Welding Repairs	M
Hydrostatic Testing	H
Painting and Coating	H

Legend:

H - Hold point, inspection or testing shall not proceed without the presence of the purchaser's representative.

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



- M - Monitor point, notification to the purchaser's representative of impending inspection or test activity is required.
- R - Review documents, presentation of the specified.

MARKING:

- 1- All plates, reinforcements, access steel structures, etc. shall be marked as specification in the detailed engineering design.
- 2- Marking shall be stamped in an easily visible place, using a striking dye, after protective coating application (if specified).
- 3- Tank identification tag with capacity, service, dimension, treatment, and year of manufacturing with Contractor complete address to be affixed permanently.

WORK SCHEDULE & REPORTS:

After the award of contractor, a detailed kick-off meeting to discuss the reporting channels and work schedule for timely completion of the project would be held at Qadirpur Gas Field. OGDCL engineers would perform material inspection at the contractor's site; before mobilization for the material of construction, and contractor would intimate its schedule accordingly.

PROGRESS REPORTS:

The contractor shall prepare and submit to the company a weekly progress report detailing all actions that have occurred in the preceding week and actions anticipated in the coming week, the detail should be included but not limited to;

- a. Work in progress in shape of executive summary.
- b. Work completed during the week.

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



- c. Problem areas.
- d. Proposal remedial actions associated with shortfalls/problems areas.
- e. Outstanding matters
- f. All weekly reports will be submitted on or before Saturday of every week with API Inspector signature as well.

FINAL INSPECTION & COMMISSIONING:

OGDCL would undertake its routine site monitoring for the progress and reserves the right to carry out the mutually agreed inspection. Moreover, calibration of Tank; as per API certification requirement; is included in the contractor's scope of work. Contractor will install Name Plate as per API 653.

EXPERIENCE:

The contractor who intends for participate in this project must have **08 (2012~2020) years** of fabrication and installation experience and **03 years** of FRP coating experience. Further, the contractor should submit a list of recent projects of similar nature carried out by him with brief scope of work, cost and completion duration along the technical portion of the bid, **otherwise his bid shall not be considered for further evaluation.**

Technical manpower of supervisory level must be qualified / skilled and have at least five years' experience in its trade in the field of Oil & Gas/Petrochemical Processing Plants. Detailed CV's of direct manpower/supervisors is mandatory.

HIRING OF SERVICES:

In case Contractor hires the services of any activity for the project like installation, fabrication, inspection, FRP coating etc. from other company. He must propose reputed companies at the time of submission of bids having at least 10 years relevant experience for Tank fabrication and 05 years

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



relevant experience for FRP coating. After approval of the bid no change regarding replacement of the sub-contractor can be made. OGDCL would finally nominate one of the proposed sub-contractor.

REPAIRS:

All welding defects shall be brought to the Purchaser's/Engineering Contractor's knowledge and approval shall be obtained before repairing them.

All remedies must get approval of the Purchaser/Engineering Contract.

PEAKING:

Using a horizontal mold to radius of 1m long peaking in any area of inside shell surface shall not exceed 12.7mm. As per API 650.

BANDING:

With a vertical sweep board 1m long, banding shall not exceed 12.7m. Measurements for tank would be performed before hydraulic test. As per API 650.

DELIVERY OF TANK:

The delivery period is 300 days (maximum) in all respects from the date of issuance of Purchase Order (including inspection of material, dismantling of old tank and fabrication/supply/installation/testing/commissioning of new tank).

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



BOX-UP:

After testing and calibration, Tank shall be emptied and water disposed of as per instructions of Contractor. Tank shall be thoroughly cleaned internally and boxed-up, including mounting, fitting, fixing and bolting of tank fittings and accessories provided. The cost of this work shall be considered included in the Contractor's rates for fabrication of tank.

APPLICABLE CODES & STANDARDS:

- 1- The contractor shall have to follow all applicable international codes/standards (especially following listed NACE, API or equivalent BSI codes) and local regulations and practice in vogue to complete the job.
 - a. NACE RP - 01 – 0169 / 2002.
 - b. NACE RP – 01 – 99.
 - c. NACE RP – 05 – 72.
 - d. NACE RP – 02 – 86.
 - e. API RP – 651.
 - f. BS – 7361.
- 2- It will be contractor's responsibility to be fully aware of the requirement of the applicable codes and standards.

BOARDING, LODGING, MESSING, TRANSPORTATION:

- 1- Boarding and Lodging facilities to contractor's team/workers would be arranged by contractor itself, OGDCL would only provide secure place within fenced area. However, only 02 Officers Engg. Cadre will be provided temporary residence & messing.

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



- 2- All utilities like water, electricity etc. would be the responsibility of the Contractor. Arrangement of Camp utilities, portable washrooms/toilets with their cleaning will be responsibility of Contractor.
- 3- All kind of transportation for men-material shall be sole responsibility of the contractor.

HSEQ:

- 1- Contractor will follow OGDCL HSEQ Policy in addition to all governmental regulations applicable to the scope of work for implementation of safe execution of each activity with zero-injury. In case of any accident, OGDCL will not be liable for any claim like insurance etc.
- 2- Contractor shall submit, before the start of dismantling of existing Condensate Storage Tank T-2811 & supply, fabrication, erection, commissioning of New Tank of same Capacity, the detailed documents as follows:
 - a. HSE Risk Assessment
 - b. JHA/JSAs of the relevant Jobs
 - c. Emergency Preparedness and Response Plan.
- 3- Contractor shall strictly follow the Work-to-Permit System and shall provide plan of activities in advance, submit THAs/JHAs where required and engage only certified staff for the hot jobs.
- 4- Contractor shall develop and ensure Toolbox Talk Program on Safety, Health and Environmental matters in daily HSE briefings by its HSEQ Rep.
- 5- Contractor shall immediately report to OGDCL representative all significant and important incidents involving fatality, injury, illness, environmental impacts, near hits, and/or hazardous situations.
- 6- Contractor shall submit to OGDCL representative an HSE Performance Review Report on regular basis.

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



- 7- Contractor will be responsible for housekeeping, clean up the trash, spills, food waste, spill of chemicals, oils, whereas potentially hazardous wastes to be immediately reported to OGDCL HSEQ representative. Further any used material will be transported to store yard by contractor.
- 8- Contractor shall provide orientation on Emergency Preparedness and Response Procedure to its team and ensure that its personnel are well aware of what procedures are in practice and who is to notify in the event of any emergency.
- 9- Arrangement of all the safety equipment & PPE's i.e. Gloves, Helmet, Safety glasses Harness, respirators etc. for contractor employees is contractor's responsibility.
- 10- Mobiles, photo camera, cigarettes, lighter etc. are prohibited in the plant premises and contractor should ensure this.
- 11- Contractor should arrange HSE I/C, supervisors, inspectors, first aid providers, hole watcher, rescuer, fireman and housekeeping man as per work plan activities.
- 12- Each contractor's employee will wear its provided ID card in the premises of plant, ID card will be provided by the contractor displaying name & craft of each employee.
- 13- In case of any accident / emergency, OGDCL will provide only general first aid whereas any other medical treatment would be the responsibility of contractor.
- 14- In case of any injury, workmanship compensation of contractor's staff will be contractor's responsibility.

FIELD WORK:

- 1- All Tools and consumables for the execution of complete job scope will be Contractor's responsibility.
- 2- Contractor will arrange reputable 3rd Party for NDT Inspections & Radiography, while OGDCL may also arrange 3rd Party Inspection company for quality compliance.

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



- 3- Contractor will arrange and shift all equipment along with estimation of single and 3-Phase power load requirement.
- 4- Contractor will arrange all Tools/Tackles (Inclusive of rigging, welding & lifting, Electrical equipments etc.) to complete the job, with fitness certificates.
- 5- Contractor will arrange Certified Mobile Hydraulic Crane as per job requirement with trained/professional driver. Contractor will hire certified crane operator, scaffolder, rigger, drivers, welders, fabricators etc.
- 6- Contractor will arrange scaffolding (Material Arrangement, Installation & Removal, Mob/De-Mob).
- 7- Contractor must follow the API-653.
- 8- New Vertical Joints in adjacent shell courses shall not align but shall be offset from each other a minimum distance of "5t" (where "t" is plate thickness of thicker course at point of offset).
- 9- Radiography of the shell welds i.e. horizontal & vertical welds shall be carried out as per API 650 Section 8.1 & Additionally as per 653.
- 10- Nozzles or Man-ways shall not come on the Shell welds but if not feasible to avoid such situation then radiography of that area shall be carried out.
- 11- Reinforcement Plates of Shell Penetrations shall be given an air leak test.
- 12- New welding on shell to bottom shall be inspected for its entire length by using a right-angle vacuum box and a solution film or by applying light diesel oil.
- 13- Concrete Surfacing of tank foundation shall be completed at broken area and also the cracks shall be repaired/filled on already installed concrete surfacing.
- 14- Arrangement of Cranes, fork lifters, loading hiab (with Valid Third party certificates) suitable to carry out the activities within stipulated time frame will be contractor's responsibility. Contractor will also arrange fuel for operation of these vehicles.
- 15- Contractor will arrange 24V explosion proof High RPM exhaust Fans for the ventilation of Vessels.
- 16- Contractor will arrange 24V explosion proof lighting arrangement inside the vessels.

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



- 17- Arrangement of Electrical Supply Boards/Cables/Lighting/Electrical Tools along with Miniature Circuit Breakers (MCB), Molded Case Circuit Breakers(MCCB) and Earth leakage circuit breaker (ACB) to provide electrical supply/Lighting at different work location as per HSE standard (such as insulation of Electrical Tools where required etc.) will be responsibility of the contractor.
- 18- Contractor will be responsible for arrangement all direct & indirect material e.g. plates, Steel structure, grinding discs, electrodes, filler wires, power brushes, welding gloves, welding glasses, dust masks for Job.
- 19- Removal/Re-installation of insulation Cladding where applicable shall be the responsibility of Contractor.
- 20- The painting of newly constructed tank with primer (red oxide) and top coat with high build solids epoxy as per applicable code shall be the responsibility of Contractor. Contractor will also provide necessary arrangements for DFT testing of painted structure.
- 21- Contractor will be responsible for execution of Fiber Reinforced Protective (FRP) coating inside newly constructed tank.
- 22- In case of emergency OGDCL's Machines, Tools, equipment are to be used by Contractor, if available; they will be charged on Market rate.

PAYMENT TERMS:

- 1- 30% advance payment against bank guarantee.
- 2- Balance payment upon successful testing and commissioning of the newly constructed tank against verified reports and invoices from Qadirpur Field professionals.

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



TO BE FILLED IN COMPLETELY BY THE BIDDER / CONTRACTOR:

Sr. #	DESCRIPTION	PARAMETER	CONTRACTOR to Comply
1	SCOPE	Complete compliance required	
2	INSPECTION & SUPERVISION	Complete compliance required for scope of inspection	
3	Cost overhead for the API 653 engagement and charges for Company at OGDCL camp at contractor cost	Boarding and lodging in OGDCL scope for inspector only.	
4	Experience certificates of the Company (at least five references required, for the technical suitability). Clients guaranteed certificates in the company's name with at least 5 years of tank being in operation.	Client's certificates required with dates, tank capacity and clients letters for completion of projects.	
6	Provision of PEC registration certificate as proof of work experience in mechanical construction for C4 category.	Valid PEC certificate to be attached for applicable category	
7	Number of equivalent 3000 barrels or more tanks constructed by the contractor in its name and at least five tanks of 3000 barrels or more capacity to be on the contractor's credit for qualification.	Mandatory experience required.	
8	Organogram of Company and Organogram of proposed team for site execution.		

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



9	Provision of flame arrestors, vacuum breathers, wind socks with two spares numbers for subsequent operations, Water Sprinkling System, Foam Pouring System, Level Gauge Board, Temperature Gauge with thermowell, Nozzle 3" 150# for Radar Level Troll and Pressure Safety Element.	Compliance required	
10	Delivery period, any bidder/contractor offering additional time that exceeds from the 10 months (300 Days) period, would be asked to match this timeline for further evaluation.	Ten months (300 days)	
12	An authority letter / JV letter in case of Joint bid submission clearly indicating the lead and supportive partner.	Bidder to provide authenticated letter of agreement clearly mentioning the portion of work to be carried out by each JV partner.	
13	1 year trouble free performance guarantee after commissioning.	Bidder to confirm. (In case of JV bid the guarantee shall be submitted individually & jointly).	

OIL AND GAS DEVELOPMENT COMPANY LIMITED

QADIRPUR GAS FIELD

P.O. Box No. 19

District Ghotki, Sindh

Tel.: 0723-660679

Fax: 0723-660676

Email: pm_qp@ogdcl.com



Bidder/Contractor Qualification Criteria:

Sr. No.	Evaluation Item	Description of Criteria	Max. Marks / Calculations	Maximum Marks	Minimum Qualifying Marks	Remarks
1.	Bidder/contractor Experience for Tank Fabrication	10 Years (20 Marks) 09 Years (18 Marks) 08 Years (16 Marks) Less Than 08 Years= (Zero Marks)	Fully Complied: 20 02 marks for each year's experience Less than 08 years: 0 Marks	20	16	Experience of Contractor itself will be considered only (experience of manpower is separately covered in TOR) In case of bidder's hired contractor, 10 years relevant experience for Tank fabrication will be mandatory. Less than 10 years = zero marks.
2.	Bidder/contractor Experience for FRP Coating	05 Years (20 Marks) 04 Years (16 Marks) 03 Years (12 Marks) Less Than 03 Years= (Zero Marks)	Fully Complied: 20 04 marks for each year's experience Less than 03 years: 0 Marks	20	12	Experience of Contractor itself will be considered only (experience of manpower is separately covered in TOR) In case of bidder's hired contractor, 05 years relevant experience for FRP coating will be mandatory. Less than 05 years = zero marks
3.	Complete compliance of TOR	Signed / stamped copy of the TOR's to be submitted along Technical bid	10 Marks	10	10	Bidder/ contractor to confirm the compliance with separate letter.
4.	Previous Service Orders for Tank between 2012 ~2020	10 No's of Tanks with similar/ higher capacity have been fabricated/ repaired (10Marks) 05 No's of Tanks with similar/ higher capacity have been fabricated/ repaired (05Marks)	Fully Complied: 10 01 mark for each tank's experience Less than 05 Tanks: 0 Marks	10	05	Contractor should submit unpriced copies of the purchase orders with their details along with Technical bid.
5.	Previous Service Orders for FRP coating between 2012 ~2020	05 No's FRP coatings of Tanks with similar/higher capacity have been performed (10Marks) 03 No's FRP coating of Tanks with similar/higher capacity have been performed (06 Marks)	Fully Complied: 10 02 marks for each tank's experience Less than 03 Tanks: 0 Marks	10	06	Contractor should submit unpriced copies of the purchase orders with their details along with Technical bid.

OIL AND GAS DEVELOPMENT COMPANY LIMITED
QADIRPUR GAS FIELD

P.O. Box No. 19
 District Ghotki, Sindh
 Tel.: 0723-660679
 Fax: 0723-660676
 Email: pm_qp@ogdcl.com



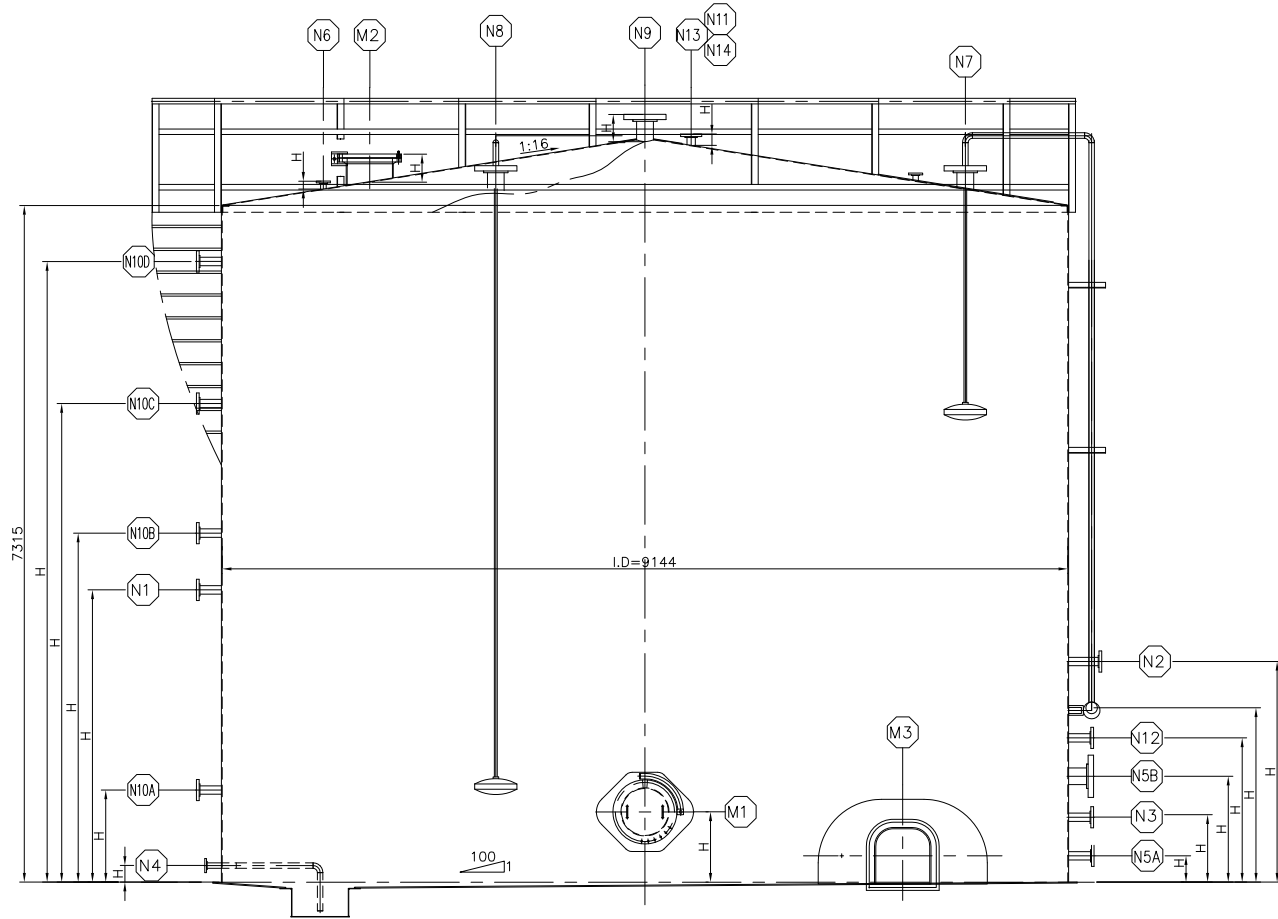
Sr. No.	Evaluation Item	Description of Criteria	Max. Marks / Calculations	Maximum Marks	Minimum Qualifying Marks	Remarks
6.	Experience of site Supervisor	10 Years' Experience (20 Marks) 07 Years' Experience (14 Marks) 05 Years' Experience (10 Marks)	Fully Complied: 10 02 marks for each year's experience Less than 05 year's exp.: 0 Marks	20	10	Bidder/contractor should submit the CV of Site supervisor.
7.	ISO 9000/9001 Certification. PEC Certification	Valid ISO Certification (05 Marks) Valid PEC Certification (05 Marks)	Fully Complied: 10 Both registrations mandatory	10	10	Bidder/ contractor should submit the valid copy of certificates. If the certificate status is in progress, no marks shall be given.

Total Marks= 100

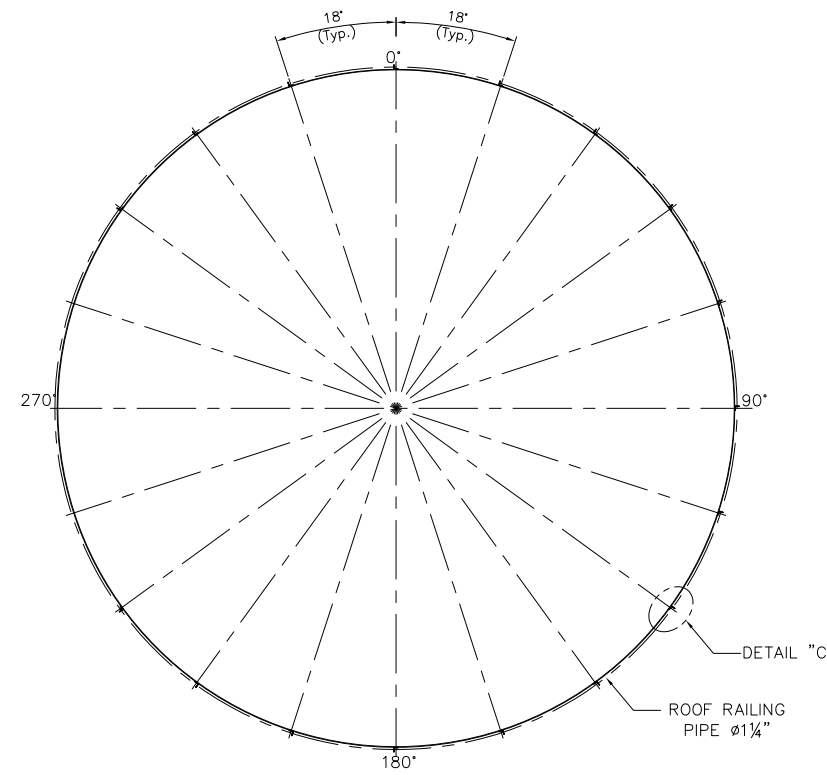
Minimum Qualifying Marks = 69

Note:

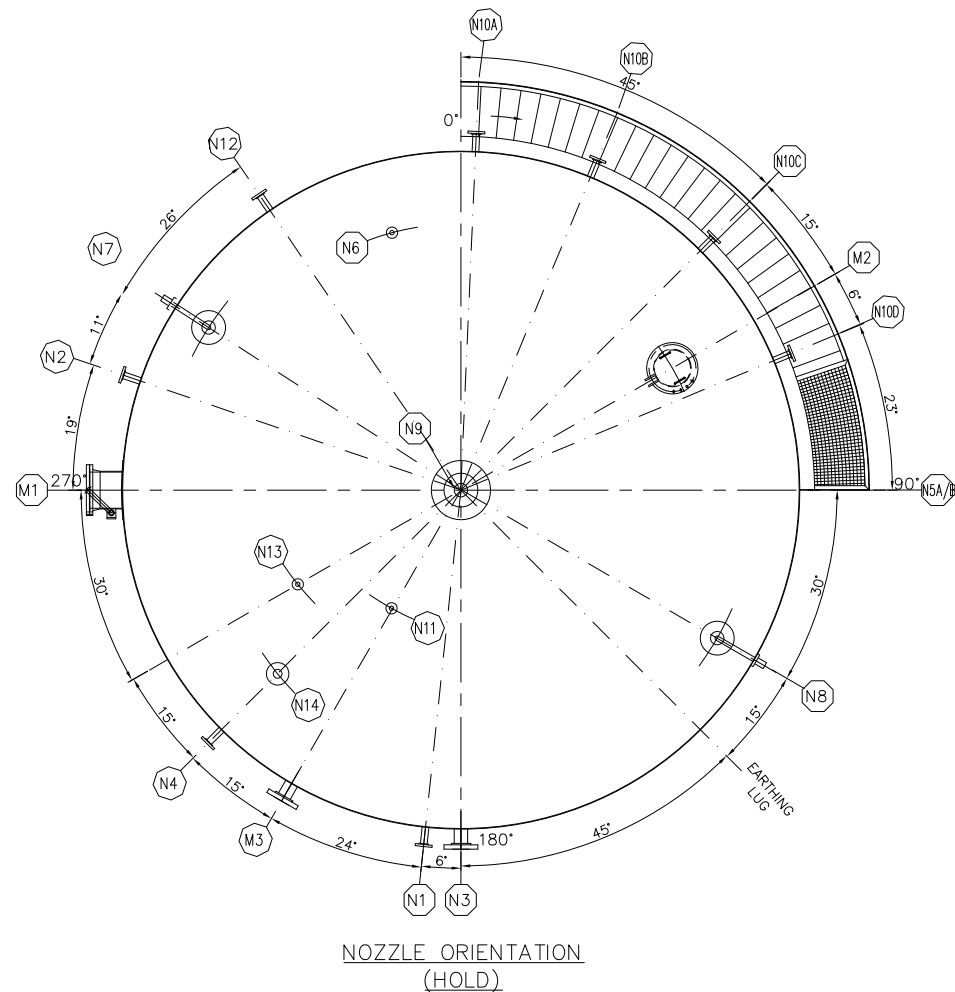
- Contractors capable of executing complete scope will be considered for evaluation process. Partial compliance will be not considered for evaluation.
- Contractor should get minimum qualifying marks in each category as mentioned in above table. Contractor will not be qualified if above mentioned minimum qualifying marks in any category will not be scored by the contractor. In addition, the total marks should also be not less than 69. Any contractor who will score less than 69 marks shall not be considered for evaluation.
- Contractor must have required experience of tank fabrication and FRP coating services. Contractors having experience less than required experience will be disqualified & shall not be considered for evaluation even they score marks more than 69 as per above tabulated criteria. In order to prove required experience, Contractor can claim the experience of tank fabrication less than required capacity along with coating however these tanks shall not be considered for marks calculation and only tanks having capacity similar or higher than required will be considered for marks calculation as per above table Sr. No. 04 & 05.
- In case of JV, JV agreement to be provided by contractor. Experience of both JV partner will be not added together for marks calculation.



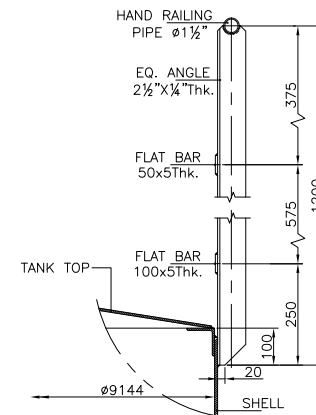
FRONT VIEW



TOP RAILING PLAN



NOZZLE ORIENTATION (HOLD)



DETAIL "C"

NOZZLE / SCHEDULE							
DATA SHEET TAG	NOZZLE No.	QTY.	SIZE (DN)	RATING	SERVICE	ELEV. (H)	REMARK
A	N1	1	3"	150# S.O.R.F	LIQUID INLET	2358	
B	N2	1	6"	150# S.O.R.F	CONDENSATE OUTLET	1653	
C	N3	1	3"	150# S.O.R.F	WATER OUTLET	763	
D	N4	1	2"	150# S.O.R.F	DRAW OFF	688	
E	N5A/B	2	3"	150# S.O.R.F	STAND PIPE (LG/LT)	250/1500	
F	N6	1	2"	150# S.O.R.F	GAS BLANKETING	-	ON ROOF
G	N7	1	6"	150# S.O.R.F	LEVEL INDICATOR CONDENSATE (FLOOT TYPE)	-	ON ROOF
H	N8	1	6"	150# S.O.R.F	LEVEL INDICATOR WATER (FLOOT TYPE)	-	ON ROOF
I	N9	1	6"	150# S.O.R.F	VENT	-	ON ROOF
J	N10A/B/C/D	4	2"	150# S.O.R.F	TEMPERATURE GAUGE	1500/3000/4500/6000	
K	N11	1	4"	150# S.O.R.F	NOZZLE FOR PVRV	-	ON ROOF
L	N12	1	2"	150# S.O.R.F	SAMPLE CONNECTION	1600	
M	N13	1	2"	150# S.O.R.F	SPARE NOZZLES	800	ON ROOF
N	N14	1	8"	150# S.O.R.F	HATCH DIP	-	ON ROOF
O	M1	1	24"	150# S.O.R.F	SHELL MANWAY	350	
P	M2	1	24"	150# S.O.R.F	ROOF MANWAY	-	ON ROOF
Q	M3	1	24"	150# S.O.R.F	CLEAN OUT DOOR	00	

DESIGN DATA			
SERVICE	CONDENSATE	OPERATING PRESS	ATM
SPECIFIC GRAVITY	0.755	DESIGN PRESSURE	ATM
CAPACITY NOMINAL	3000 BBL		
CORROSION ALLOW	3 mm		
OPERATING TEMP.	121 °F	DESIGN TEMP	180 °F
WIND VELOCITY	-	WIND PRESSURE	100
INSULATION	NONE		
PAINTING	A5 PER SPEC.		
BLASTING	A5 PER SPEC.		
EARTH QUAKE ZONE	-		
HYDROSTATIC TEST.	FULL WATER		
JOINT EFFICIENCY	SHELL		
HEAT TREATMENT	No.		
RADIOGRAPHY	-		
EMPTY WEIGHT	53356 LBS		
TEST WEIGHT	-		
CODE OF SPEC	API 650		
NO. OF TANK REQD.	ONE		

ISSUED FOR CONSTRUCTION

NOTES:

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED.
2. NOZZLE ORIENTATION WOULD BE ADJUST AS PER PIPING THE CONTRACTOR / FABRICATOR SHALL CHECK & VERIFY THE DIMENSION PRIOR TO START OF FABRICATION. ANY DEVIATION OCCUR DURING FABRICATION SHELL BE WITH WRITTEN APPROVAL OF COMPANY PRIOR TO EXECUTION OF WORK.

REV.	DATE	DESCRIPTION OF REVISION	DRAWN	DESIGNED	CHECKED	APPR.
1	19-10-2016	ISSUED FOR CONSTRUCTION	SJD	AJ	AJ	AHB
0	22-09-2016	ISSUED FOR APPROVAL	SJD	JSW	ZAH	AH

ENAR PETROTECH SERVICES (PRIVATE) LIMITED
 7-B, Sector 7-A Korangi Industrial Area, Karachi Pakistan
 TEL: (9221) 5062791 E-mail: info@enar.com.pk URL: www.enar.com.pk

Job No. 14-1483
 Dwg. No. 1483-SD-7701

OIL & GAS DEVELOPMENT COMPANY LIMITED
 QADIRPUR GAS FIELD DEVELOPMENT
 GENERAL ARRANGEMENT
 FOR CONDENSATE TANK (T-2811)

COMPUTER CODE 1483-SD-7701-0
 SHEET SIZE A1
 SCALE NTS
 REPLACES DWG. NO.

THIS DOCUMENT IS THE PROPERTY OF ENAR & THE CONTENTS MUST BE TREATED AS CONFIDENTIAL

5	CURB ANGLE 75x75x6THK.28726.72 LG)	1	A-36	6.8 Kg./m	195.34
4	P-4 PLATE 4717x1500X6THK.	3	A-283 Gr.C	47.1 Kg./m ²	999.77
3	P-3 PLATE 6000x1500X6THK.	12	A-283 Gr.C	47.1 Kg./m ²	5086.80
2	P-2 PLATE 4717x1500X8THK.	2	A-283 Gr.C	62.8 Kg./m ²	888.68
1	P-1 PLATE 6000x1500X8THK.	8	A-283 Gr.C	62.8 Kg./m ²	4521.60
ITEM	DESCRIPTION	QTY.	MATERIAL	UNIT WEIGHT TOTAL WEIGHT (Kg.)	11692.2

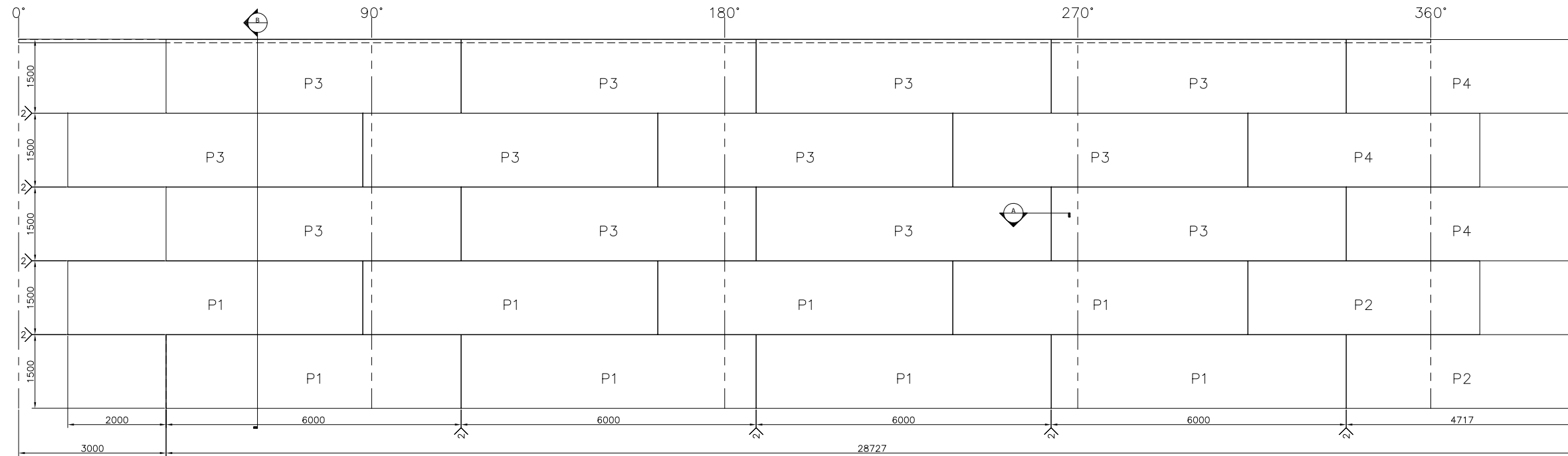
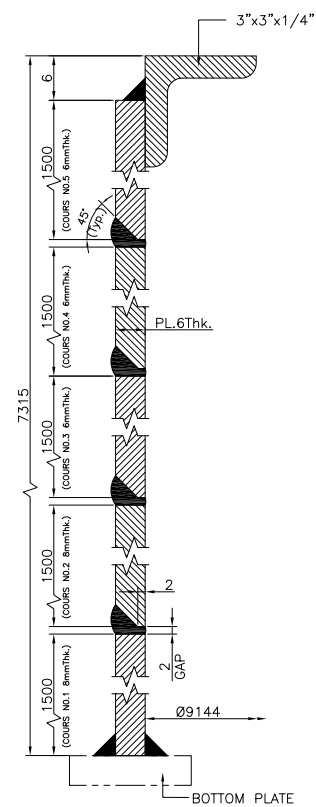
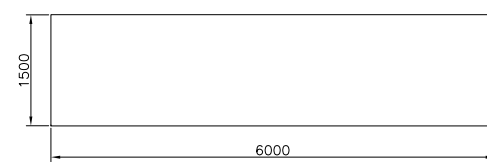


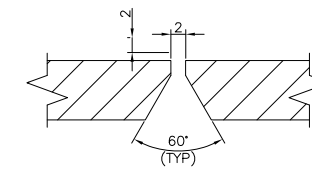
PLATE DEVELOPMENT



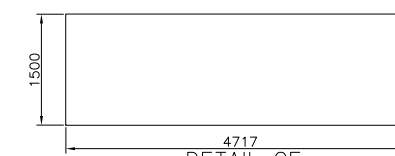
SECTION B-B



DETAIL OF PLATE
(P1 & P3)



SECTION A-A
TPY. VERTICAL WELDING
DETAIL



DETAIL OF
PLATE
(P2 & P4)

ISSUED FOR CONSTRUCTION

NOTES:

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED.
2. NOZZLE ORIENTATION WOULD BE ADJUST AS PER PIPING THE CONTRACTOR / FABRICATION SHALL CHECK & VERIFIED THE DIMENSION PRIOR TO START OF FABRICATION. ANY DEVIATION OCCUR DURING FABRICATION SHALL BE WITH WRITTEN APPROVAL OF COMPANY PRIOR TO EXECUTION OF WORK.

1	19-10-2016	ISSUED FOR CONSTRUCTION	SJD	AJ	AJ	AHB
0	05-09-2016	ISSUED FOR APPROVAL	SJD	JSW	ZAH	AH
REV.	DATE	DESCRIPTION OF REVISION	DRAWN	DESIGNED	CHECKED	APPR.
ENAR PETROTECH SERVICE (PRIVATE) LIMITED			Job No. 14-1483			
7-B, Sector 7-A, Korangi Industrial Area, Karachi Pakistan TEL: (9221) 5082791 E-mail: info@enar.com.pk URL: www.enar.com.pk			Dwg. No.			
OIL & GAS DEVELOPMENT COMPANY LIMITED 1483-SDF-780			COMPUTER CODE 1483-SDF-7801-1			
QADIRPUR GAS FIELD DEVELOPMENT SHELL DETAILS DETAIL			SHEET SIZE A1			
TITLE: FOR CONDENSATE TANK (T-2811)			SCALE MTS			
REPLACES DWG. NO.						
THIS DOCUMENT IS THE PROPERTY OF ENAR & THE CONTENTS MUST BE TREATED AS CONFIDENTIAL						

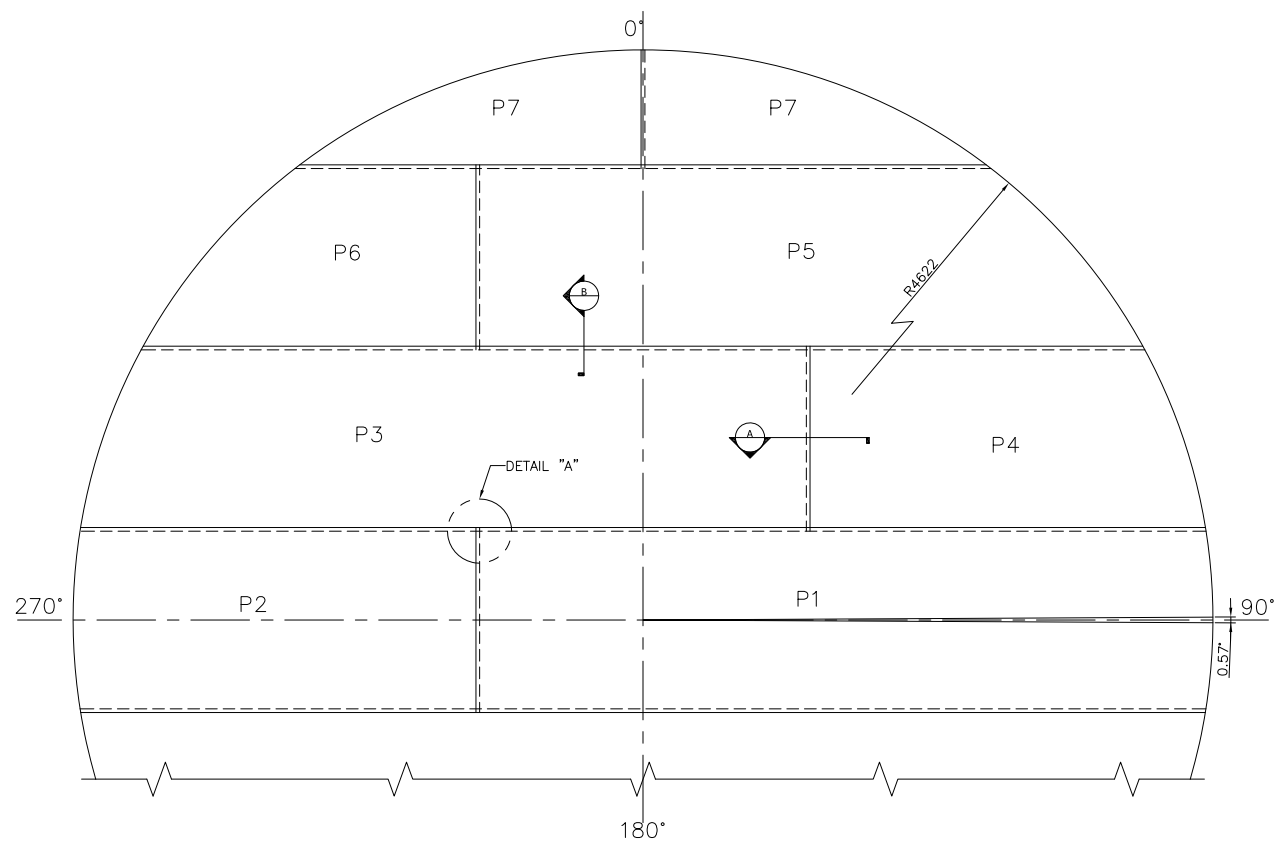
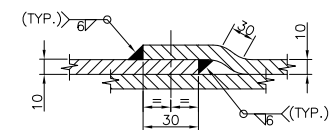
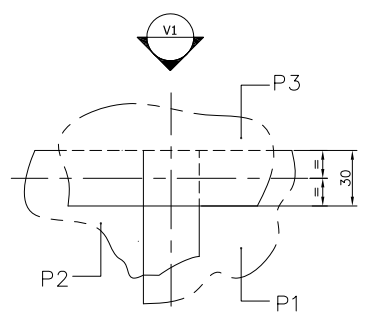


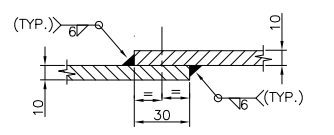
PLATE DEVELOPMENT



VIEW "V1"

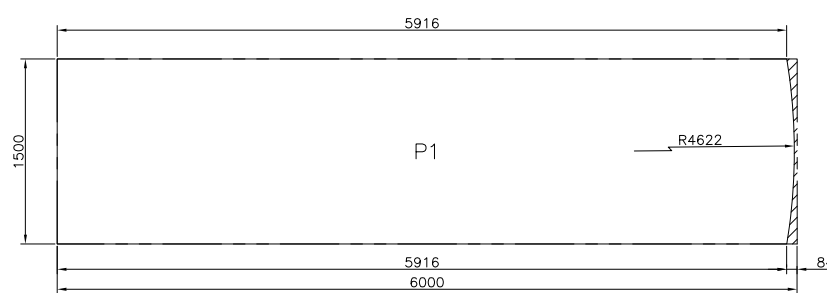


DETAIL "A"

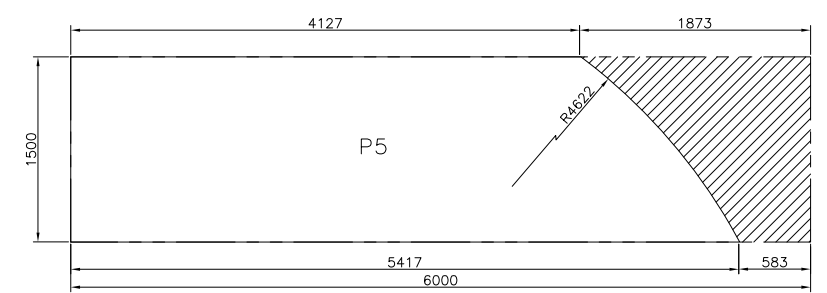


SECTION B-B

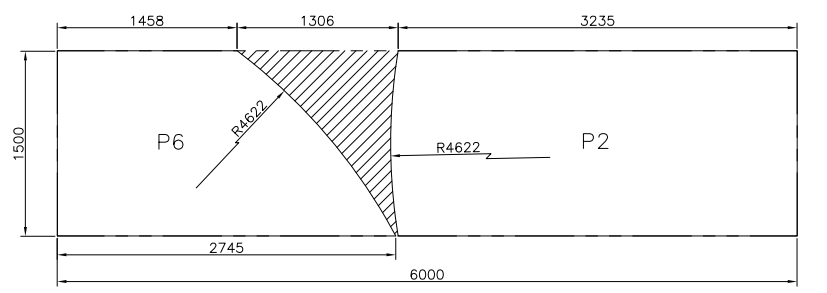
ITEM	DESCRIPTION	QTY.	MATERIAL	UNIT WEIGHT TOTAL WEIGHT (Kg)	5398.2
7	P-7 PLATE 10THK.	4	A-283 Gr.C	78.5 Kg./m ²	586.0
6	P-6 PLATE 10THK.	2	A-283 Gr.C	78.5 Kg./m ²	517.2
5	P-5 PLATE 10THK.	2	A-283 Gr.C	78.5 Kg./m ²	1148.4
4	P-4 PLATE 10THK.	2	A-283 Gr.C	78.5 Kg./m ²	714.4
3	P-3 PLATE 10THK.	2	A-283 Gr.C	78.5 Kg./m ²	1345.4
2	P-2 PLATE 10THK.	1	A-283 Gr.C	78.5 Kg./m ²	385.8
1	P-1 PLATE 10THK.	1	A-283 Gr.C	78.5 Kg./m ²	701.0



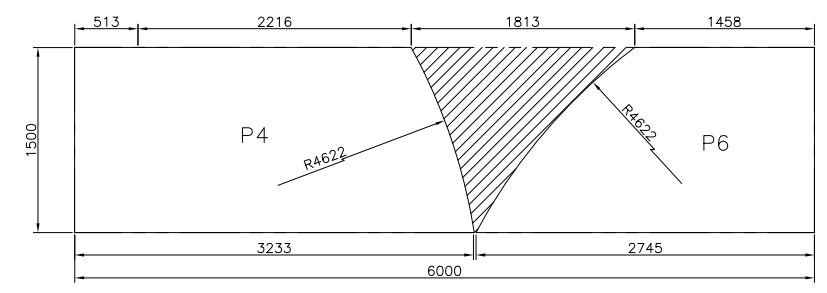
REQ. 01 PLATE



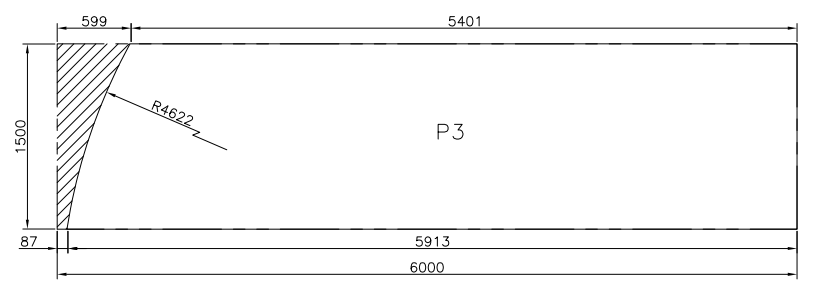
REQ. 02 PLATE



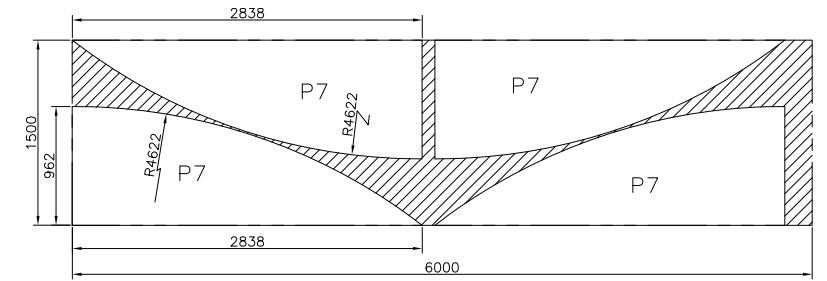
REQ. 01 PLATE



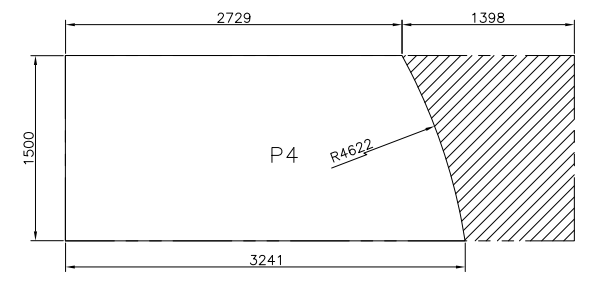
REQ. 01 PLATE



REQ. 02 PLATE



REQ. 01 PLATE



REQ. 01 PLATE

ISSUED FOR CONSTRUCTION

- NOTES:
- ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED.
 - NOZZLE ORIENTATION WOULD BE ADJUST AS PER PIPING
 - THE CONTRACTOR / FABRICATION SHALL CHECK & VERIFIED THE DIMENSION PRIOR TO START OF FABRICATION. ANY DEVIATION OCCUR DURING FABRICATION SHALL BE WITH WRITTEN APPROVAL OF COMPANY PRIOR TO EXECUTION OF WORK.

REV.	DATE	DESCRIPTION OF REVISION	DRAWN	DESIGNED	CHECKED	APPR.
1	19-10-2016	ISSUED FOR CONSTRUCTION	SJD	AJ	AJ	AHB
0	05-09-2016	ISSUED FOR APPROVAL	SJD	JSW	ZAH	AH

ENAR PETROTECH SERVICES (PRIVATE) LIMITED
 7-B, Sector 7-A, Korangi Industrial Area, Karachi Pakistan
 TEL: (9221) 5062781 E-mail: info@enar.com.pk URL: www.enar.com.pk

OIL & GAS DEVELOPMENT COMPANY LIMITED
 QADIRPUR GAS FIELD DEVELOPMENT
 BOTTOM CUTTING DETAIL
 FOR CONDENSATE TANK (T-2811)

Computer Code: 1483-SDF-7802-1
 Sheet Size: A1
 Scale: NTS
 Replaces: DWG. No.

THIS DOCUMENT IS THE PROPERTY OF ENAR & THE CONTENTS MUST BE TREATED AS CONFIDENTIAL

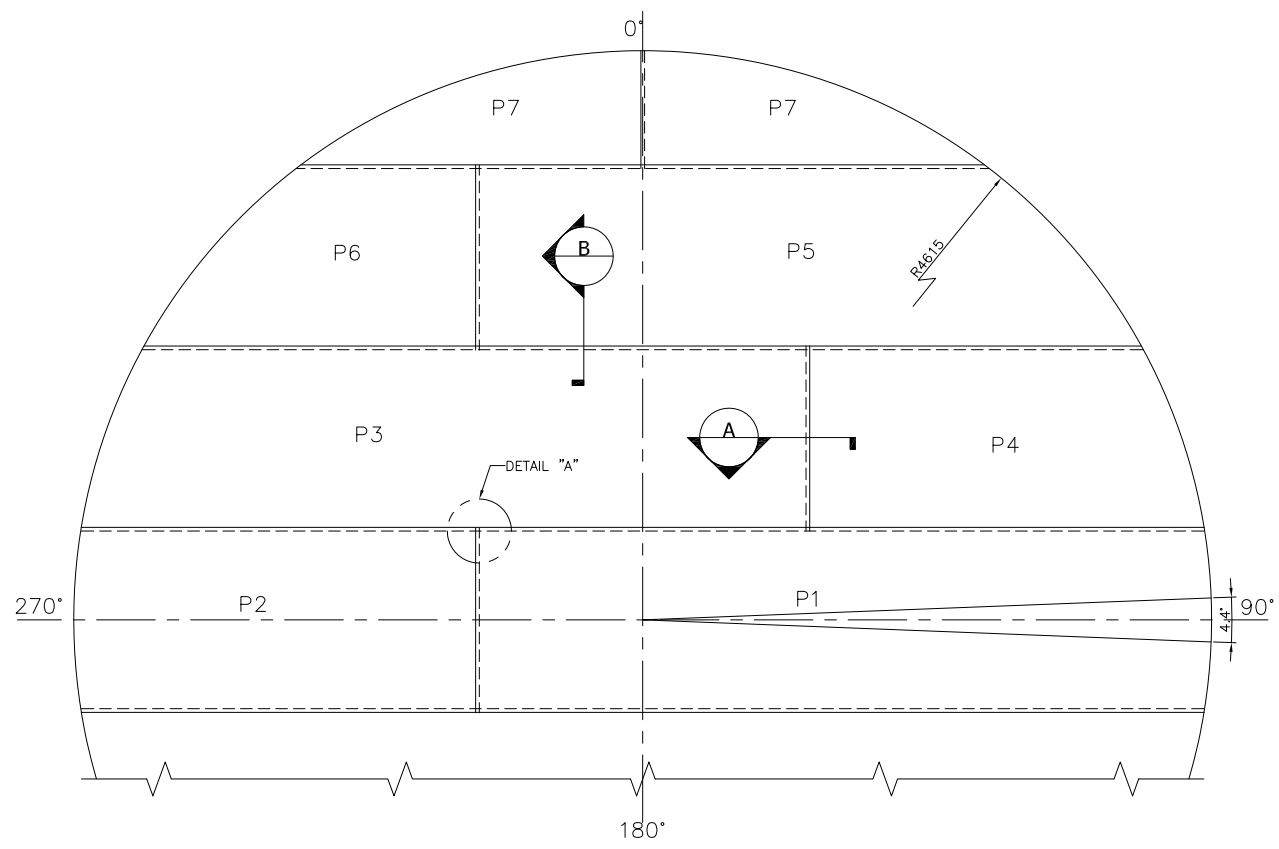
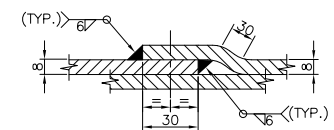
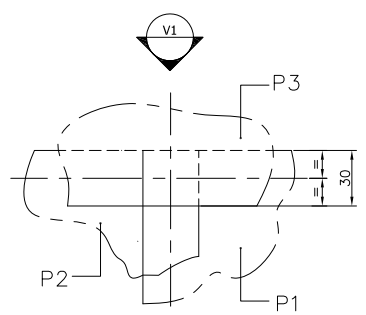


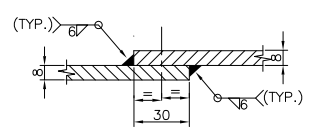
PLATE DEVELOPMENT



VIEW "V1"

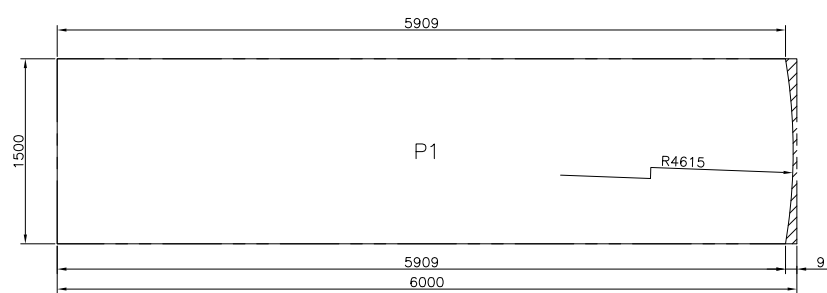


DETAIL "A"

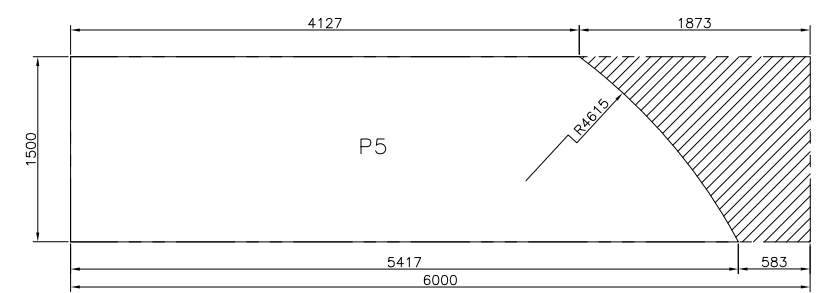


SECTION B-B

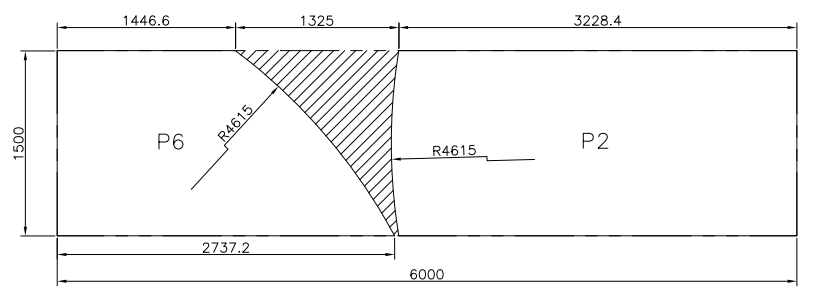
ITEM	DESCRIPTION	QTY.	MATERIAL	UNIT WEIGHT TOTAL WEIGHT (Kg.)	4381.7
7	P-7 PLATE 8THK.	4	A-283 Gr.C	47.1 Kg./m ²	464.0
6	P-6 PLATE 8THK.	2	A-283 Gr.C	47.1 Kg./m ²	412.0
5	P-5 PLATE 8THK.	2	A-283 Gr.C	47.1 Kg./m ²	917.0
4	P-4 PLATE 8THK.	2	A-283 Gr.C	47.1 Kg./m ²	570.2
3	P-3 PLATE 8THK.	2	A-283 Gr.C	47.1 Kg./m ²	1150.0
2	P-2 PLATE 8THK.	1	A-283 Gr.C	47.1 Kg./m ²	308.0
1	P-1 PLATE 8THK.	1	A-283 Gr.C	62.8 Kg./m ²	560.5



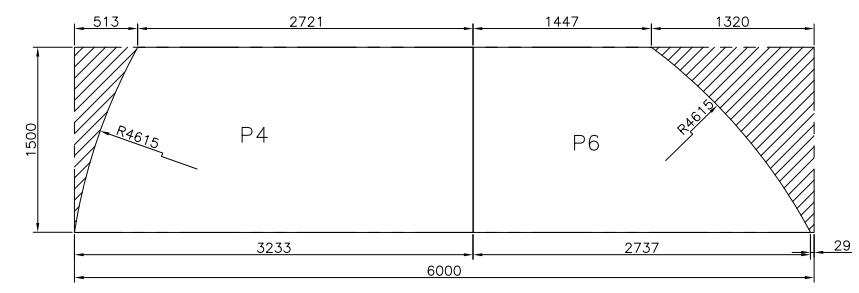
REQ. 01 PLATE



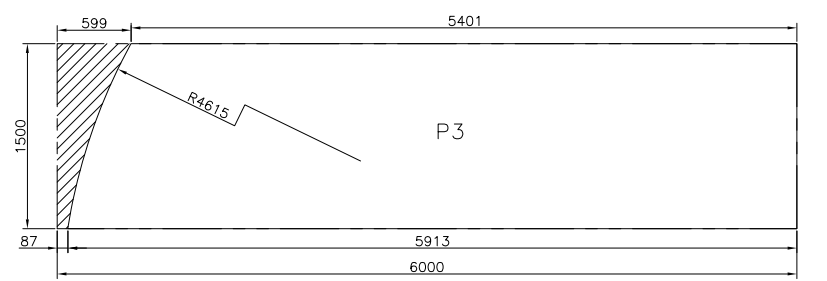
REQ. 02 PLATE



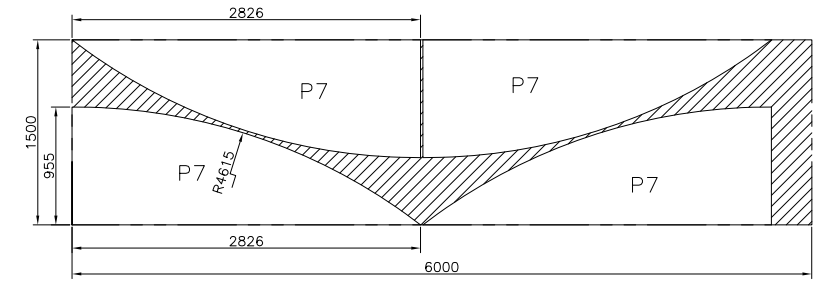
REQ. 01 PLATE



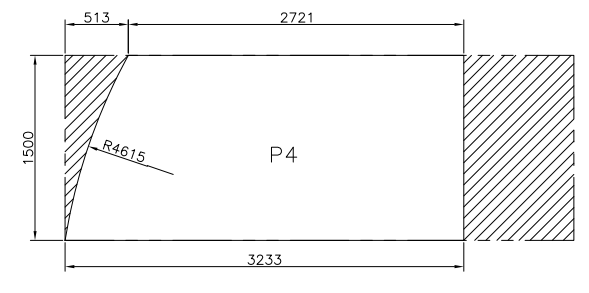
REQ. 01 PLATE



REQ. 02 PLATE



REQ. 01 PLATE



REQ. 01 PLATE

ISSUED FOR CONSTRUCTION

- NOTES:
1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED.
 2. NOZZLE ORIENTATION WOULD BE ADJUST AS PER PIPING THE CONTRACTOR / FABRICATOR SHALL CHECK & VERIFIED THE DIMENSION PRIOR TO START OF FABRICATION. ANY DEVIATION OCCUR DURING FABRICATION SHALL BE WITH WRITTEN APPROVAL OF COMPANY PRIOR TO EXECUTION OF WORK.

REV.	DATE	DESCRIPTION OF REVISION	DRAWN	DESIGNED	CHECKED	APPR.
1	19-10-2016	ISSUED FOR CONSTRUCTION	SJD	AJ	AJ	AHB
0	05-09-2016	ISSUED FOR APPROVAL	SJD	JSW	ZAH	AH

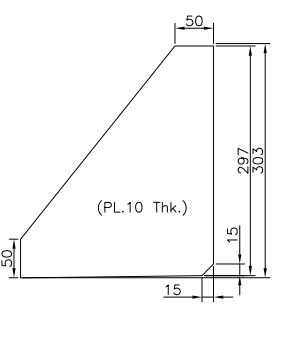
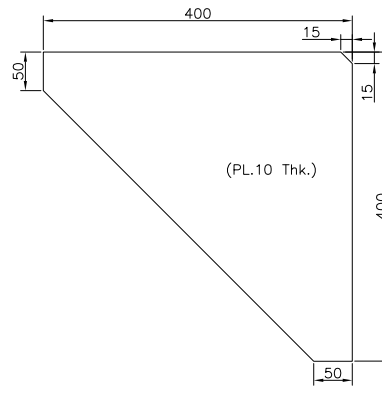
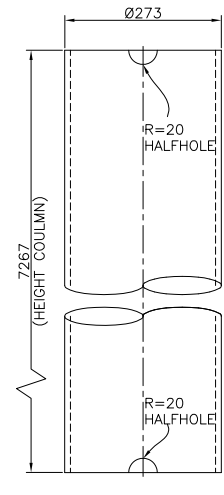
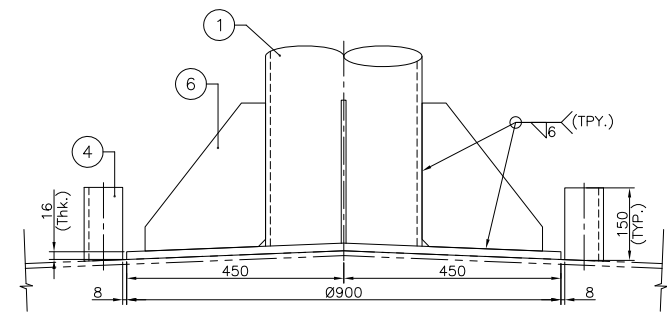
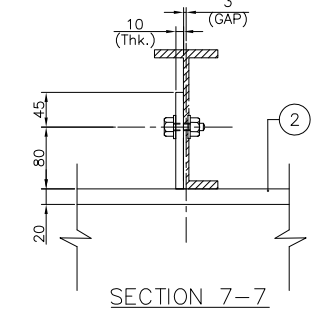
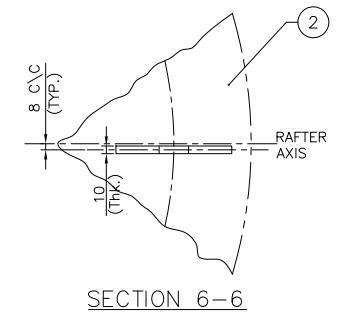
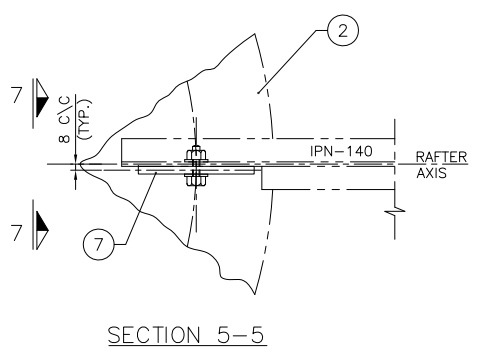
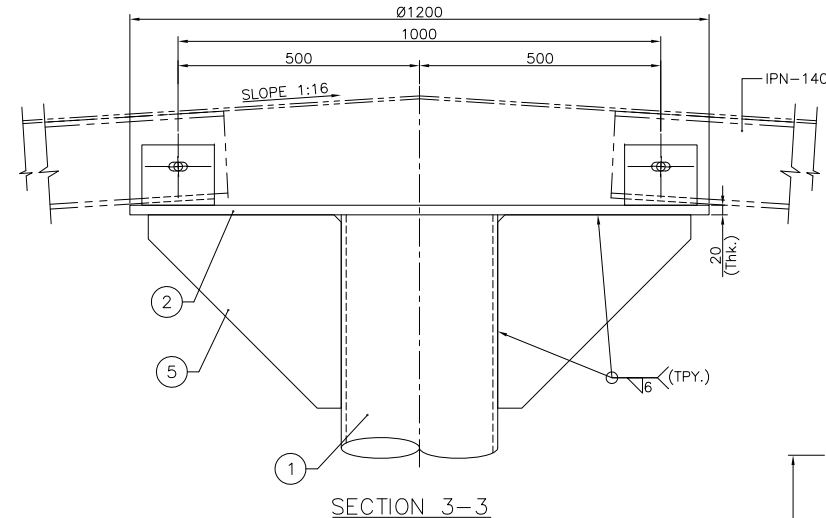
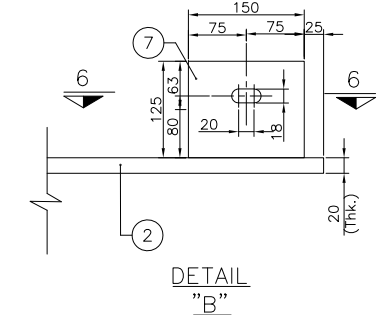
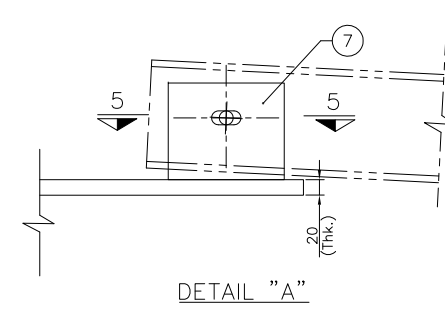
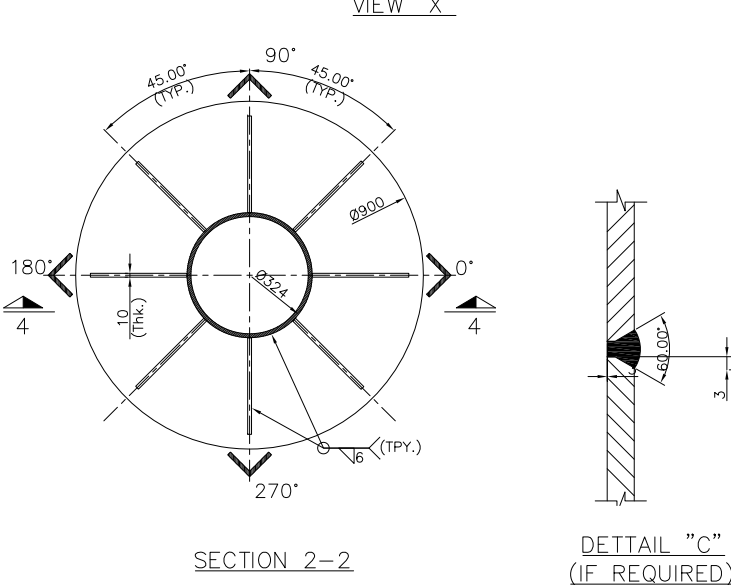
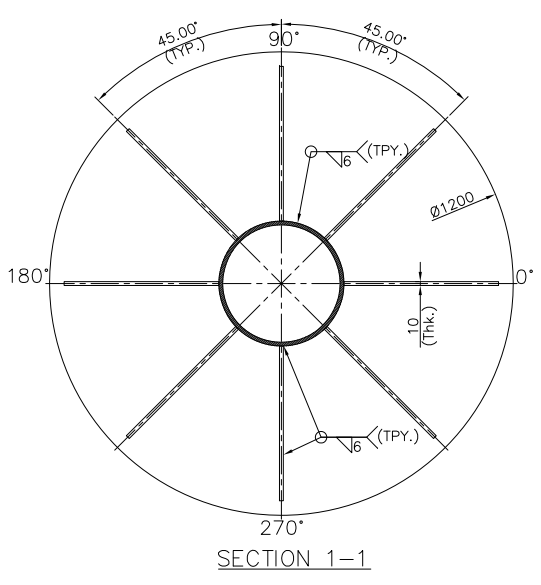
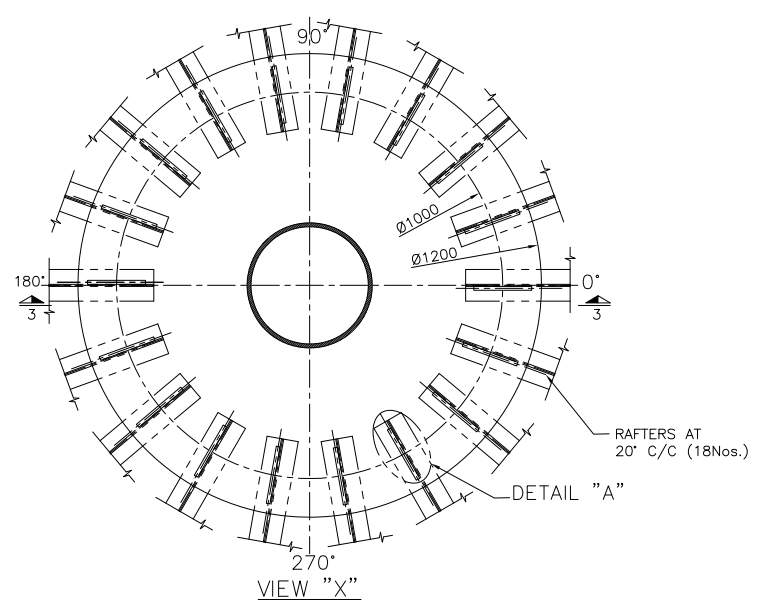
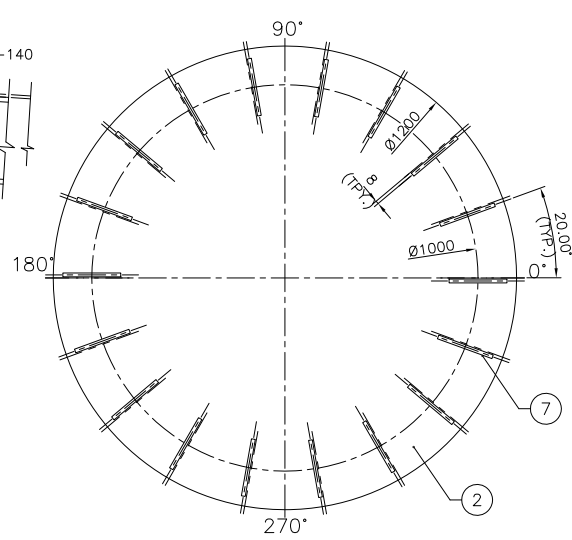
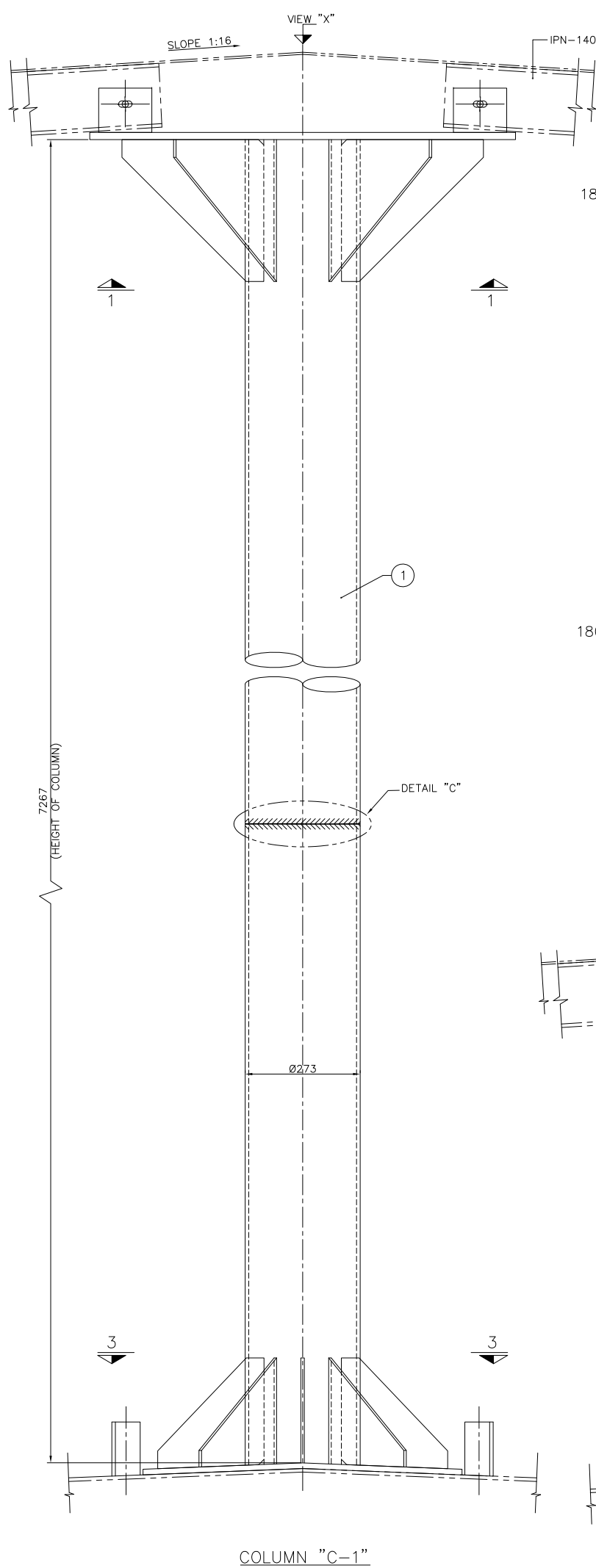
ENAR PETROTECH SERVICE (PRIVATE) LIMITED
 7-B, Sector 7-A Korangi Industrial Area, Karachi Pakistan
 TEL: (9221) 5062791 E-mail: info@enar.com.pk URL: www.enar.com.pk

Job No. 14-1483
 Dwg. No. 1483-SDF-7803-1

OIL & GAS DEVELOPMENT COMPANY LIMITED 1483-SDF-7803
 QADIRPUR GAS FIELD DEVELOPMENT
 TITLE: ROOF CUTTING DETAIL FOR CONDENSATE TANK (T-2811)

COMPUTER CODE: 1483-SDF-7803-1
 SHEET SIZE: A1
 SCALE: MTS
 REPLACES: DWG. No. 1483-SDF-7803-1

THIS DOCUMENT IS THE PROPERTY OF ENAR & THE CONTENTS MUST BE TREATED AS CONFIDENTIAL



ITEM	DESCRIPTION	QTY.	MATERIAL	UNIT WEIGHT	TOTAL WEIGHT (Kg.)
10	WASHER OD 30 x ID 19 x 3THK.	36	ATM AF436	0.68 Kg./100 Pcs.	1
9	NUT M16	18	A-563 Gr.A	3.90 Kg./100 Pcs.	1
8	BOLT M16 x 70 LONG	18	A-516 Gr.60	13 Kg./100 Pcs.	3
7	CLEAT PLATE 10 THK.	18	A-516 Gr.60	78.5 Kg./m ²	27
6	GUSSET PLATE 10 THK.	8	A-516 Gr.60	78.5 Kg./m ²	31
5	GUSSET PLATE 10 THK.	8	A-516 Gr.60	78.5 Kg./m ²	62
4	BASE GUIDE L-80x80x10x150LONG	4	A-36	11.9 Kg./m ²	7
3	BASE PLATE Ø900 x 16 THK.	1	A-516 Gr.60	125.6 Kg./m ²	80
2	TOP PLATE Ø1200 x20 THK.	1	A-516 Gr.60	157 Kg./m ²	178
1	PIPE 10"Ø SCH.STD x7268 LONG	1	A-106 Gr.B	81.0 Kg./m	588.7
				UNIT WEIGHT	
				TOTAL WEIGHT (Kg.)	976.7

ISSUED FOR CONSTRUCTION

- NOTES:
- ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED.
 - NOZZLE ORIENTATION WOULD BE ADJUST AS PER PIPING .THE CONTRACTOR / FABRICATION SHALL CHECK & VERIFIED THE DIMENSION PRIOR TO START OF FABRICATION. ANY DEVIATION OCCUR DURING FABRICATION SHALL BE WITH WRITTEN APPROVAL OF COMPANY PRIOR TO EXECUTION OF WORK.

REV.	DATE	DESCRIPTION OF REVISION	DESIGNED	CHECKED	APPR.
1	19-10-2016	ISSUED FOR CONSTRUCTION	SJD	AJ	AJ
0	05-09-2016	ISSUED FOR APPROVAL	SJD	JSW	ZAH

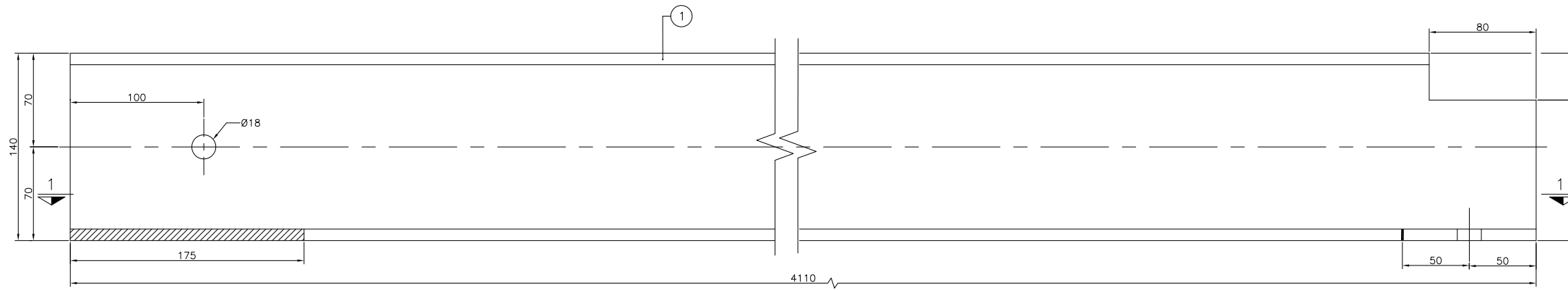
ENAR PETROTECH SERVICE (PRIVATE) LIMITED
 7-B, Sector 7-A Korangi Industrial Area, Karachi Pakistan
 TEL: (9221) 5062791 E-mail: info@enar.com.pk URL:www.enar.com.pk

OIL & GAS DEVELOPMENT COMPANY LIMITED
 QADIRPUR GAS FIELD DEVELOPMENT
 ROOF CUTTING DETAIL
 FOR CONDENSATE TANK (T-2811)

ENAR Dwg. No. 14-1483
 ED 1483-SDF-7804

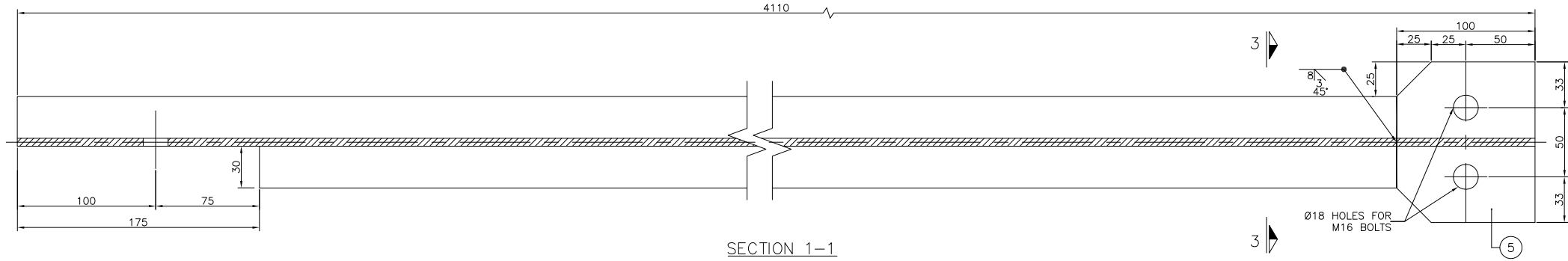
COMPUTER CODE 1483-SDF-7804-1
 SHEET SIZE A1
 SCALE NTS
 REPLACES DRG. NO.

THIS DOCUMENT IS THE PROPERTY OF ENAR & THE CONTENTS MUST BE TREATED AS CONFIDENTIAL

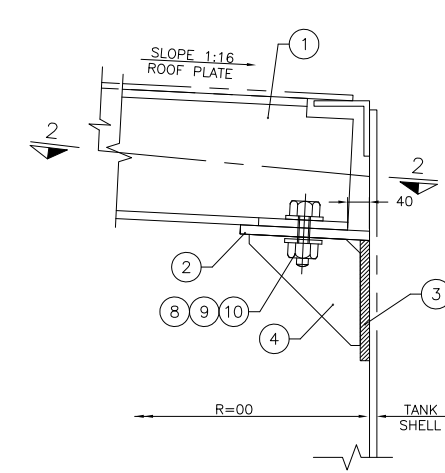


RAFTER

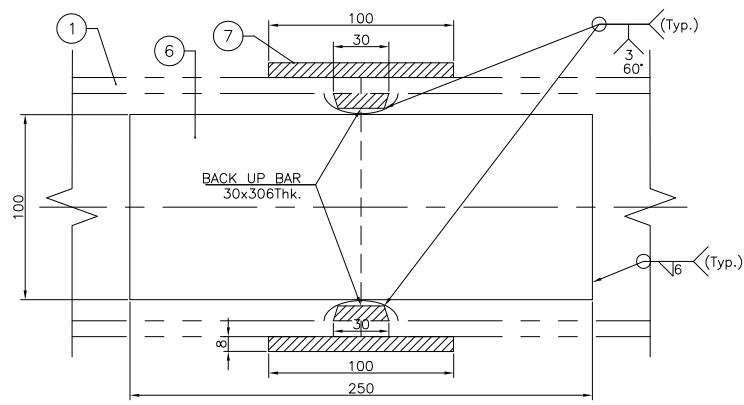
ITEM	DESCRIPTION	QTY.	MATERIAL	UNIT WEIGHT (Kg.)	1134
10	NUT M16	48	A-583 Gr.A	36Kg./100PCS	1.0
9	WASHER I.D.19xO.D.30x3 THK.	64	AF436	36Kg./100PCS	24.0
8	BOLT M 16x50 LONG.	36	A-516 Gr.60	47.4 Kg./m ²	2.0
7	PLATE 100x50x6 THK.	36	A-516 Gr.60	47.4 Kg./m ²	8.0
6	PLATE 250x100x6 THK.	36	A-516 Gr.60	47.1 Kg./m ²	42.0
5	PLATE 116x100x10 THK.	18	A-516 Gr.60	78.5 Kg./m ²	16.0
4	GUSSET PLATE 10 THK.	18	A-516 Gr.60	78.5 Kg./m ²	11.0
3	PLATE 130x120x10 THK.	18	A-516 Gr.60	78.5 Kg./m ²	22.0
2	PLATE 140x136x10 THK.	18	A-516 Gr.60	78.5 Kg./m ²	27.0
1	RAFTERS IPN-140x 4110 LONG	18	A-36	14.3 Kg./m	1057.9



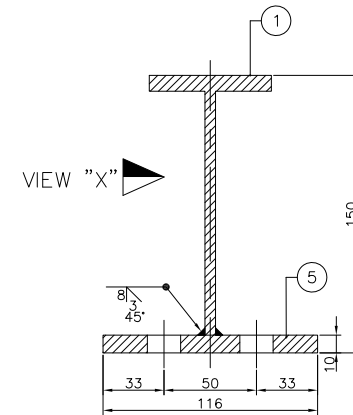
SECTION 1-1



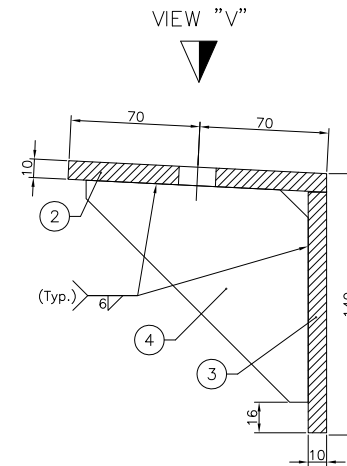
DETAIL "X"



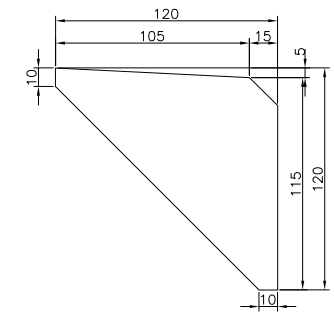
RAFTER FRONT SPLICING DETAIL



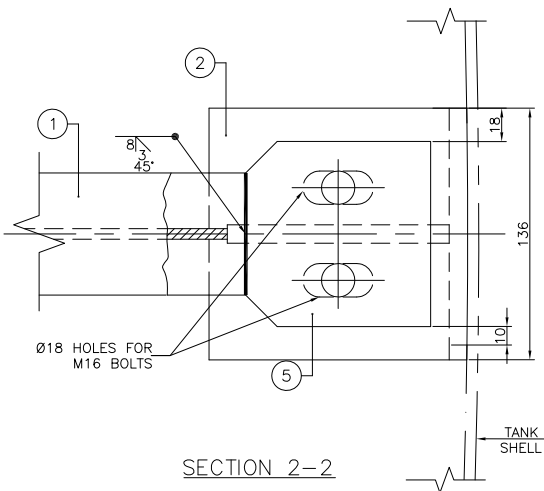
SECTION 3-3



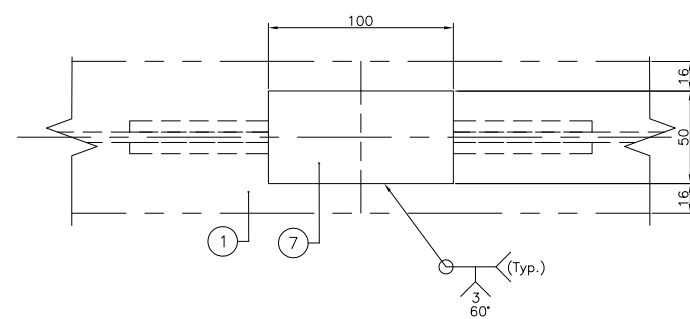
BRACKET SUPPORT DETAIL



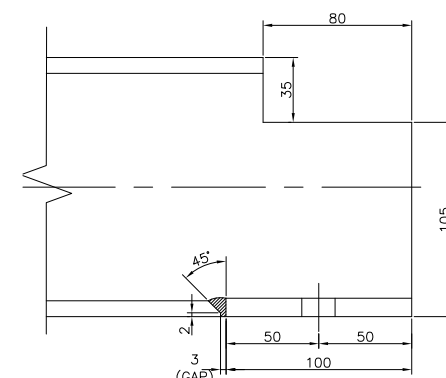
ITEM-4



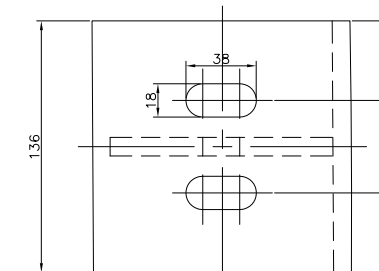
SECTION 2-2



RAFTER TOP SPLICING DETAIL



VIEW DETAIL "X"



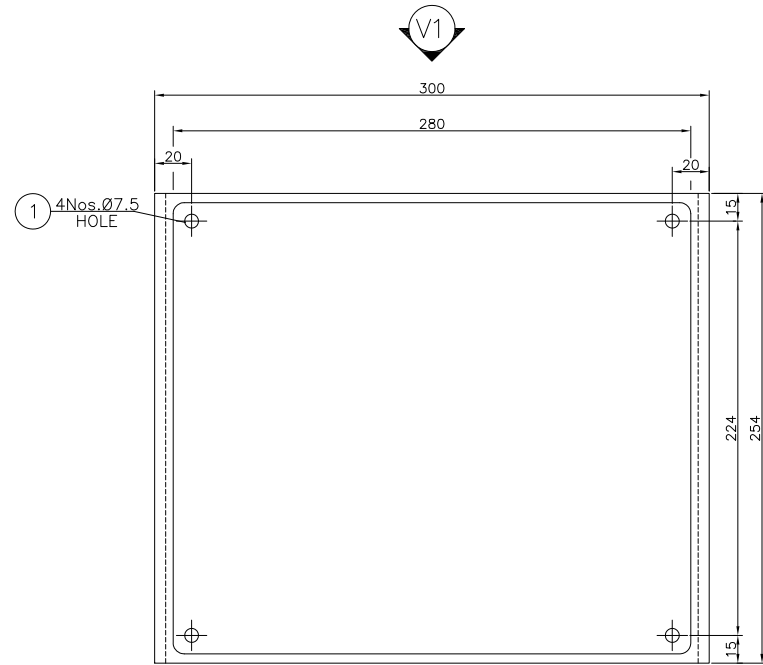
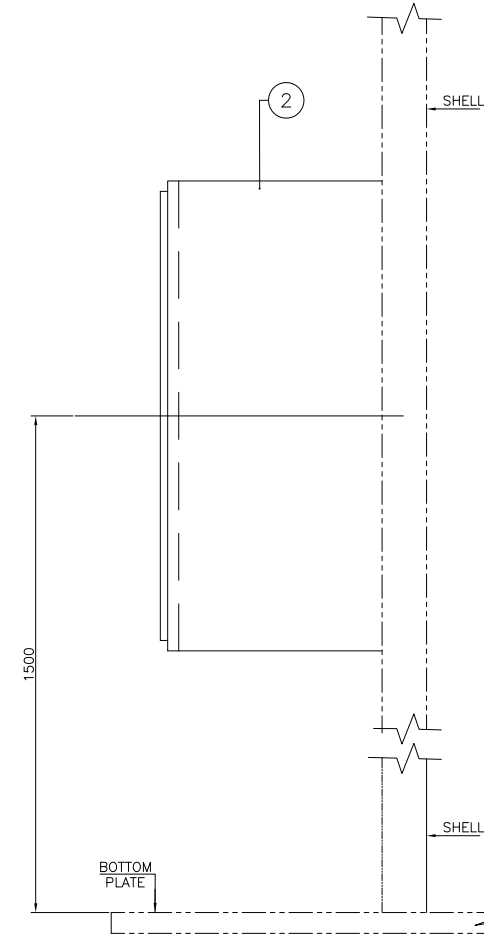
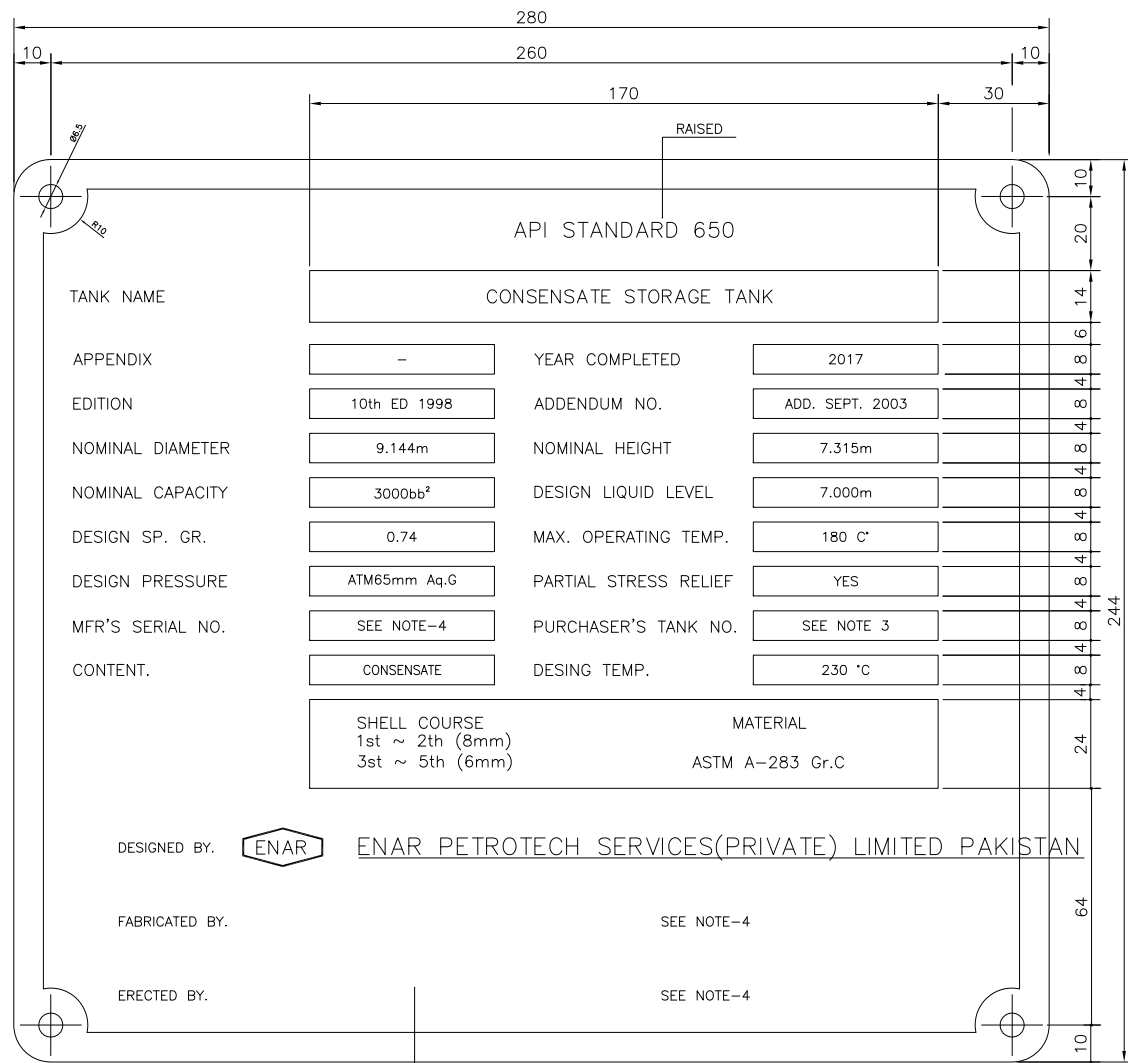
VIEW DETAIL "V"

NOTES:
1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED.

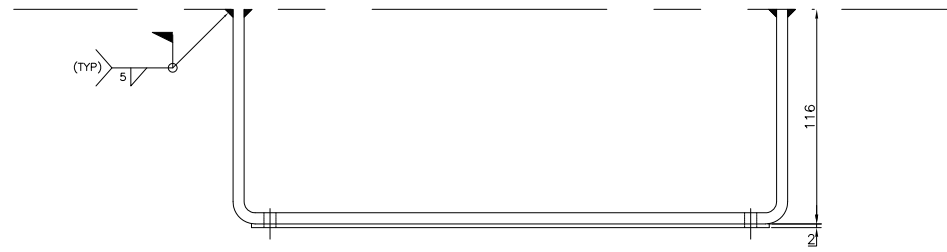
REV.	DATE	ISSUED FOR APPROVAL	DESCRIPTION OF REVISION	SD	JSW	ZAH	AH
0	05-09-2016						
ENAR PETROTECH SERVICE (PRIVATE) LIMITED 7-B, Sector 7-A Korangi Industrial Area, Karachi Pakistan TEL: (9221) 5062791 E-mail: info@enar.com.pk URL: www.enar.com.pk				Dwg. No. 14-1483 OIL & GAS DEVELOPMENT COMPANY LIMITED 1483-SDF-7805 QADIRPUR GAS FIELD DEVELOPMENT RAFTER AND BRACKET DETAIL			

THIS DOCUMENT IS THE PROPERTY OF ENAR & THE CONTENTS MUST BE TREATED AS CONFIDENTIAL

3	ROUND HEAD SCREW & NUT M6x16 LG	4	A193/B7, A194/2H	Kg./m	
2	BRACKET PLATE 532x254x6ThK	1	A-516 Gr.60	47.1 Kg./m	6.4
1	NAME PLATE 280x244x2ThK	1	SS 304	16.0 Kg./m ²	1.1
ITEM	DESCRIPTION	QTY.	MATERIAL	UNIT WT.	7.5
				T WT. (Kg.)	



BRAKET DETAIL
SCALE 1:2



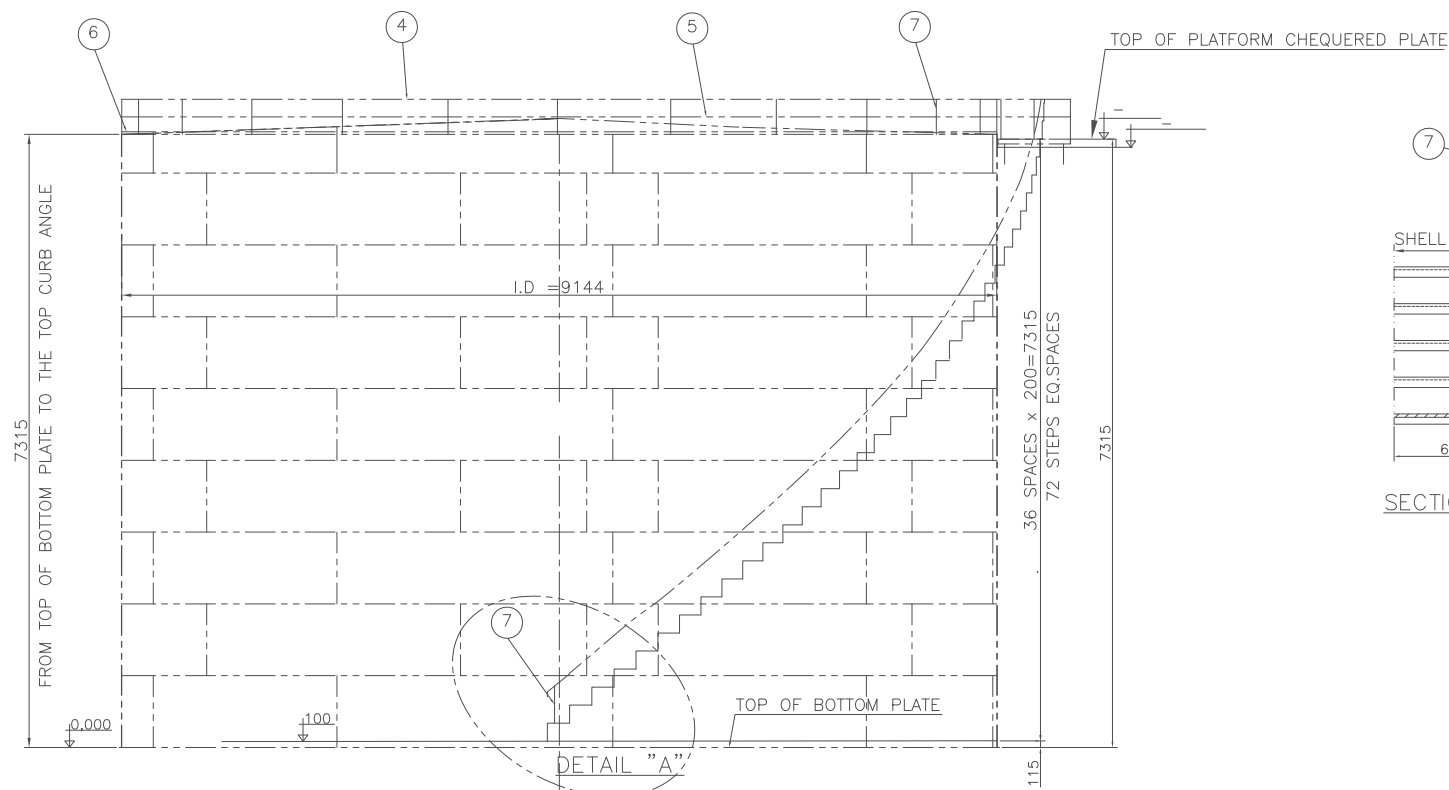
VIEW "V1"
SCALE 1:2

ISSUED FOR CONSTRUCTION

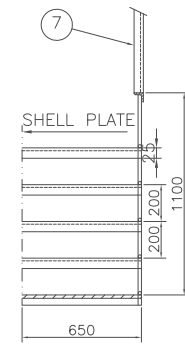
NOTES: --

- ALL DIMENSIONS ARE IN mm. UNLESS OTHERWISE STATED.
- THE PORTIONS SHOWN BY IN THE ILLUSTRATION OF THIS PLATE ARE TO BE OF RAISED SURFACE AND THE DESCRIPTIONS ENTERED THERE IN ARE TO BE ENGRAVED BY MEANS OF ETCHING UNLESS OTHERWISE SPECIFIED. HOWEVER, REGARDING THE OTHER PORTIONS, THE LETTERING ITSELF SHALL BE IN RELIEF.
- 1020-TK-5/6.
- TO BE SPECIFIED BY THE CONTRACTOR.

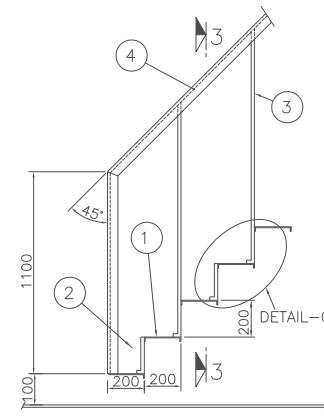
1	19-10-2016	ISSUED FOR CONSTRUCTION	SJD	AJ	AJ	AHB
0	05-09-2016	ISSUED FOR APPROVAL	SJD	JSW	ZAH	AH
REV.	DATE	DESCRIPTION OF REVISION	DRAWN	DESIGNED	CHECKED	APPR.
ENAR PETROTECH SERVICES (PRIVATE) LIMITED			Job No. 14-1483			
7-B, Sector 7-A Korangi Industrial Area, Karachi Pakistan TEL: (9221) 5062791 E-mail: info@enar.com.pk URL: www.enar.com.pk			Dwg. No.			
OIL & GAS DEVELOPMENT COMPANY LIMITED			1483-SDF-7806			
QADIRPUR GAS FIELD DEVELOPMENT			COMPUTER CODE 1483-SDF-7806-1			
DETAIL OF LEVEL GAUGE CONNECTIONS FOR CONDENSATE TANK (T-2811)			SHEET SIZE A3			
			SCALE NTS			
			REPLACES DWG. NO.			
THIS DOCUMENT IS THE PROPERTY OF ENAR & THE CONTENTS MUST BE TREATED AS CONFIDENTIAL						



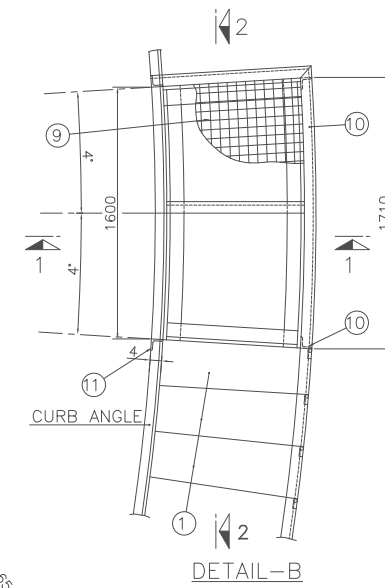
FRONT VIEW



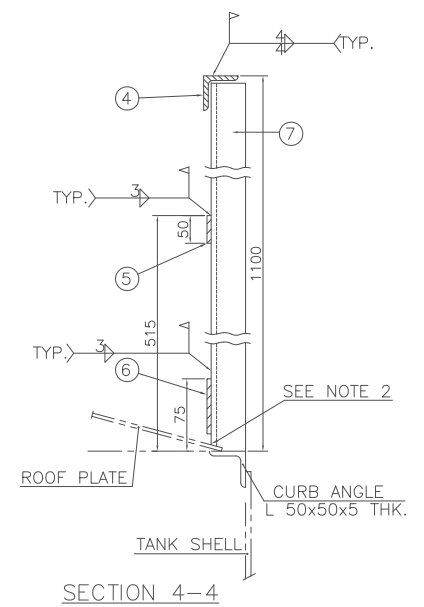
SECTION 3-3



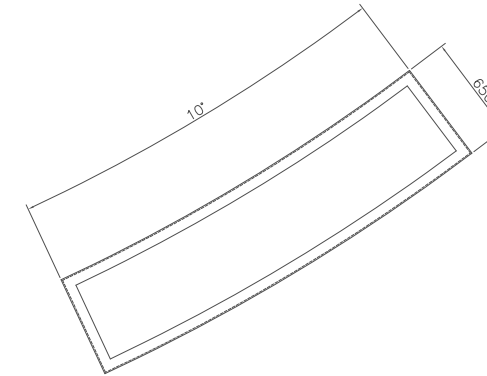
DETAIL-A



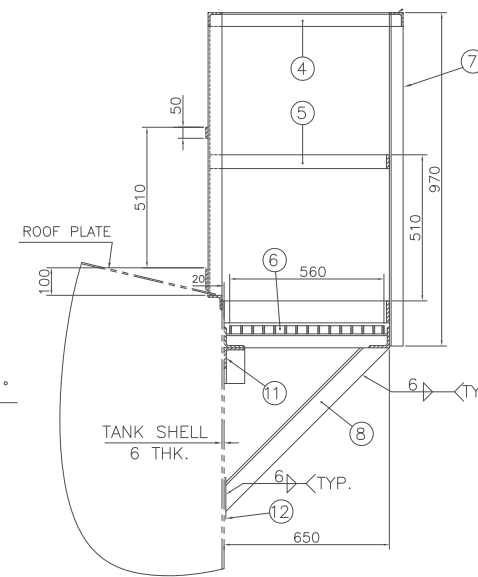
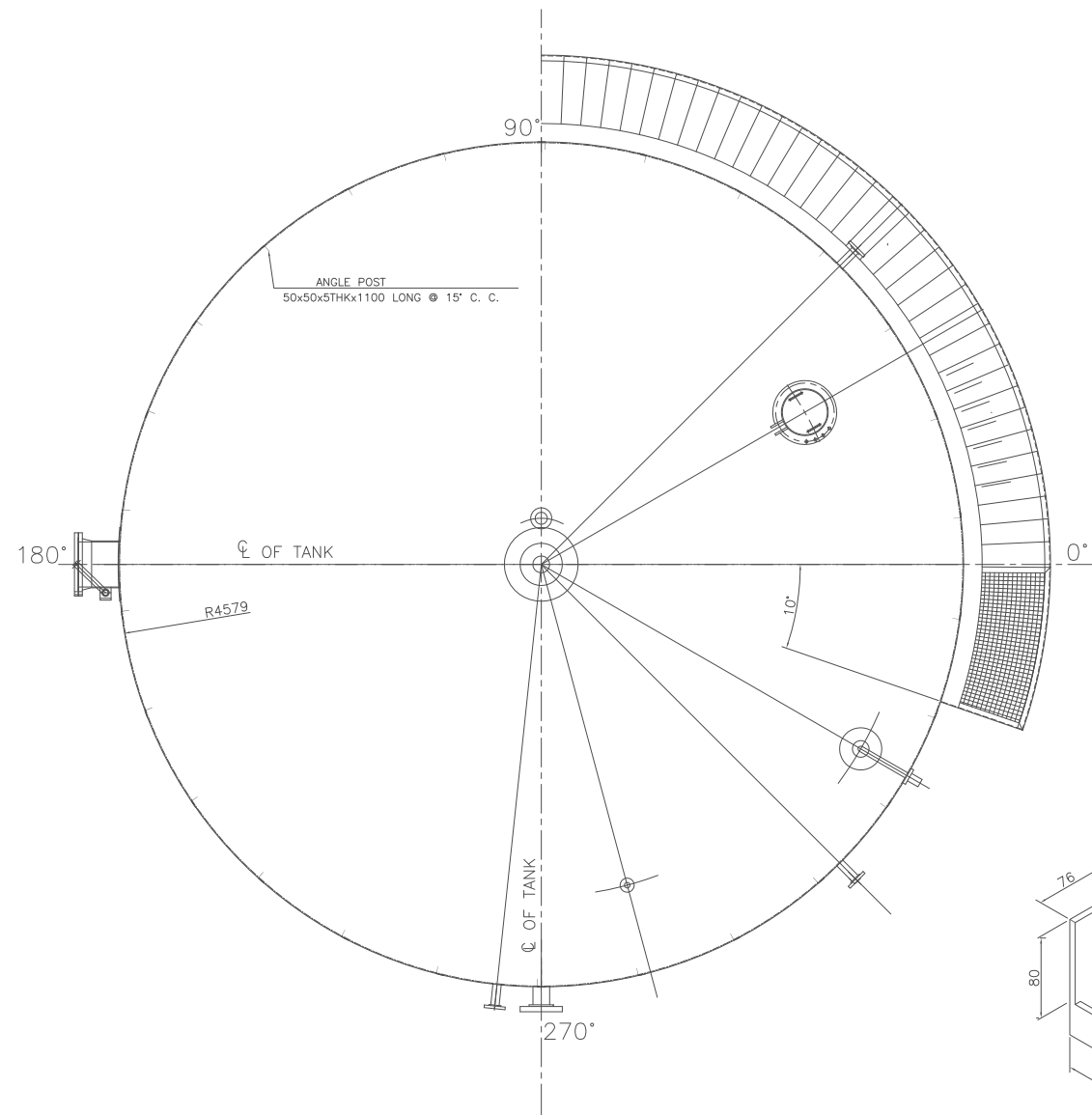
DETAIL-B



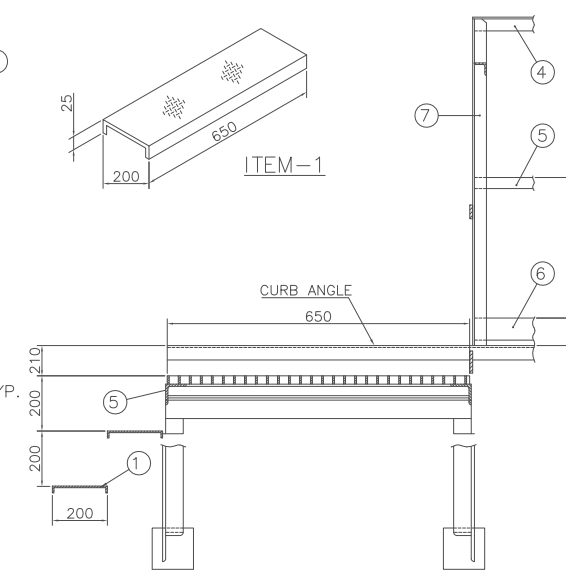
SECTION 4-4



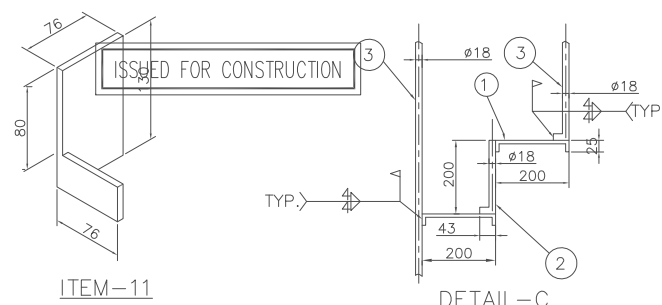
ITEM - 10



SECTION 1-1



SECTION 2-2



ITEM-11

DETAIL OF CUT SHOWN IS FOR RIGHT HAND SIDE FOR LEFT HAND SIDE CUT AT BOTTOM

ITEM	DESCRIPTION	QTY.	MATERIAL	UNIT WT. TOTAL (Kg)	
12	PLATE 150x150x6 THK.	2	PAK STEEL HR-235	1.05 Kg/Pc.	2.20
11	ANGLE CLEAT 75x75x8 THK. x 130 LONG	2	DO	7.95 Kg/m	2.00
10	ANGLE FRAME FOR TOP PLATFORM L-70x70x7 THK. x 4610 LONG	1	DO	7.30 Kg/m	33.00
9	CHEQUERED PLATE 6 THK. (AREA=1M ²) FOR TOP PLAT LANDING	1	DO	34.9 Kg/m ²	35.00
8	EQ. ANGLE BRACING 70x70x7THK. 850 L FOR MID & TOP PLAT PLATFORM	4	DO	7.30 Kg/m	25.00
7	ANGLE POST 50x50x5 THK. x 1100	26	DO	3.77 Kg/m	205.00
6	TOE BAR 80x5 THK. x 30M LONG	1	DO	2.30 Kg/m	69.00
5	KNEE BAR 60x4 THK. x 30M LONG	1	DO	1.25 Kg/m	38.00
4	HAND RAILING L-50x50x5 THKx40M LONG	1	DO	3.77 Kg/m	151.00
3	ROUND BAR 18x18x1100 LONG.	18	DO	2.2 Kg/Pc	41.00
2	ROUND BAR 18x18x225 LONG.	18	DO	0.635 Kg/Pc	12.00
1	CHEQUERED PLATE 650x250x6 THK.(STEPS)	36	A-36	49.74 Kg/m ²	291.00
TEM					904.5

ISSUED FOR CONSTRUCTION

NOTES:

- ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED.
- THE ORIENTATION OF STAIRCASE SHALL BE AS SHOWN IN THE COVER DRAWING OF THE RELEVANT TANK.
- THE OUTER EDGE OF WELDS OF BRACKET SUPPORT PLATE SHALL BE ATLEAST 152 mm FROM THE VERTICAL SHALL JOINT AND 76 mm FROM THE HORIZONTAL SHALL JOINT. THE BRACKET LOCATION MAY BE CHANGED ON SITE ALONG THE DIAGONAL SHOWN TO MAINTAIN THESE DISTANCES.

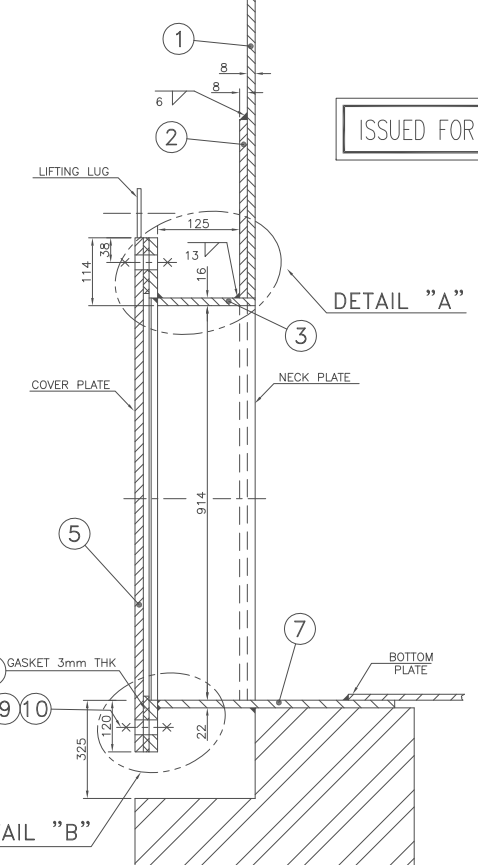
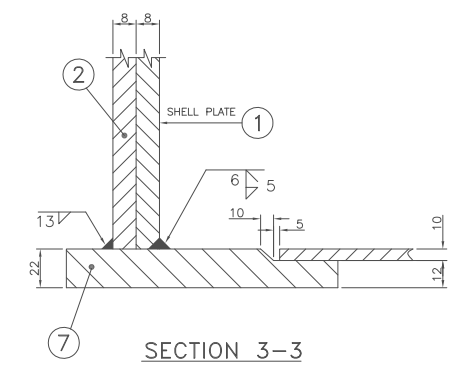
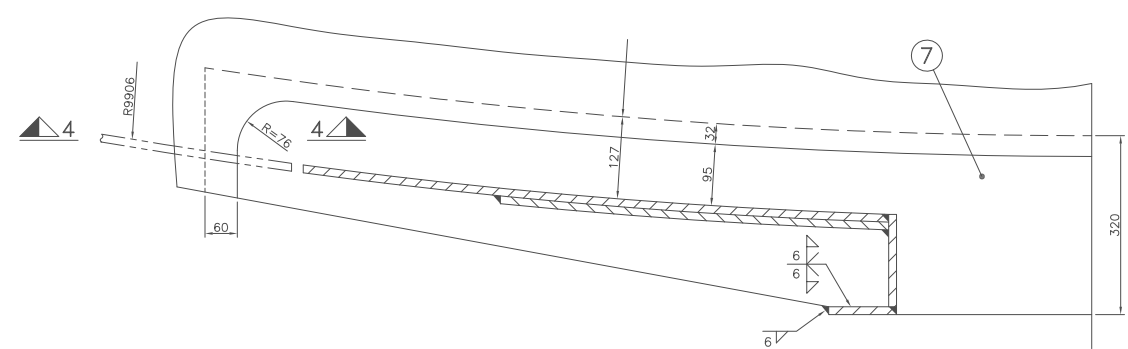
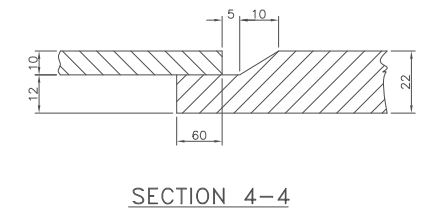
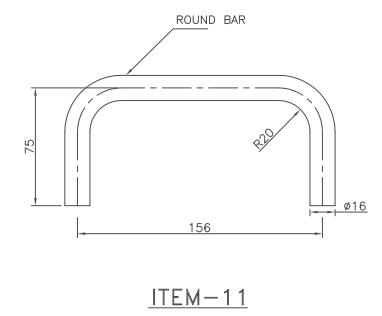
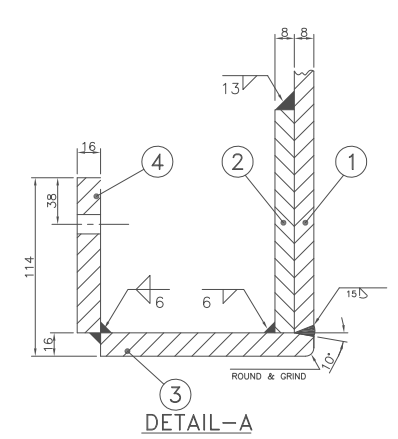
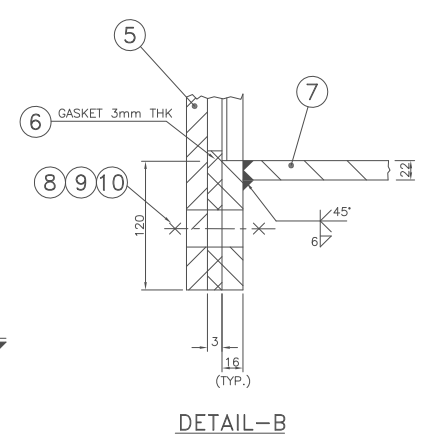
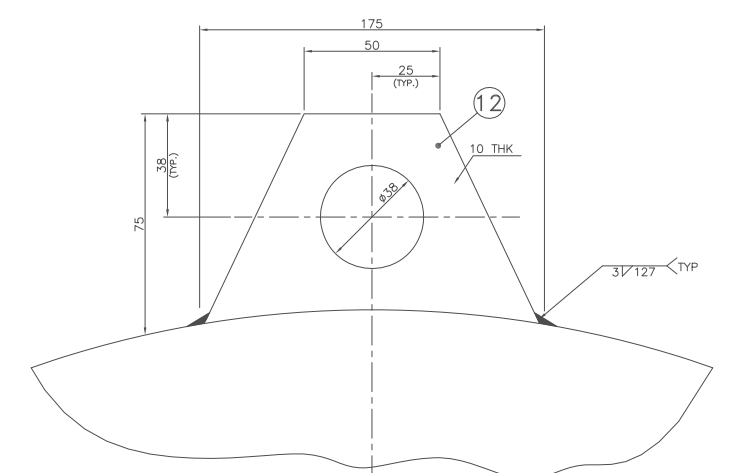
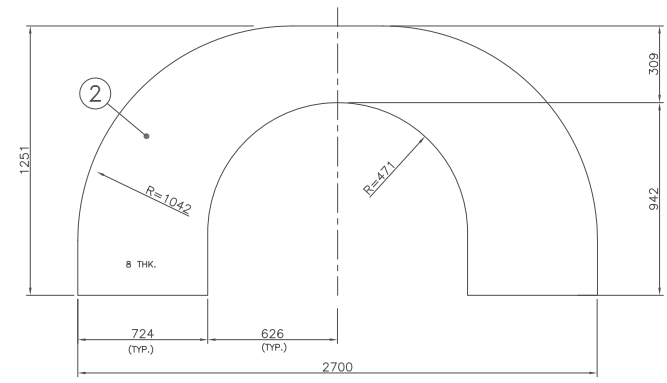
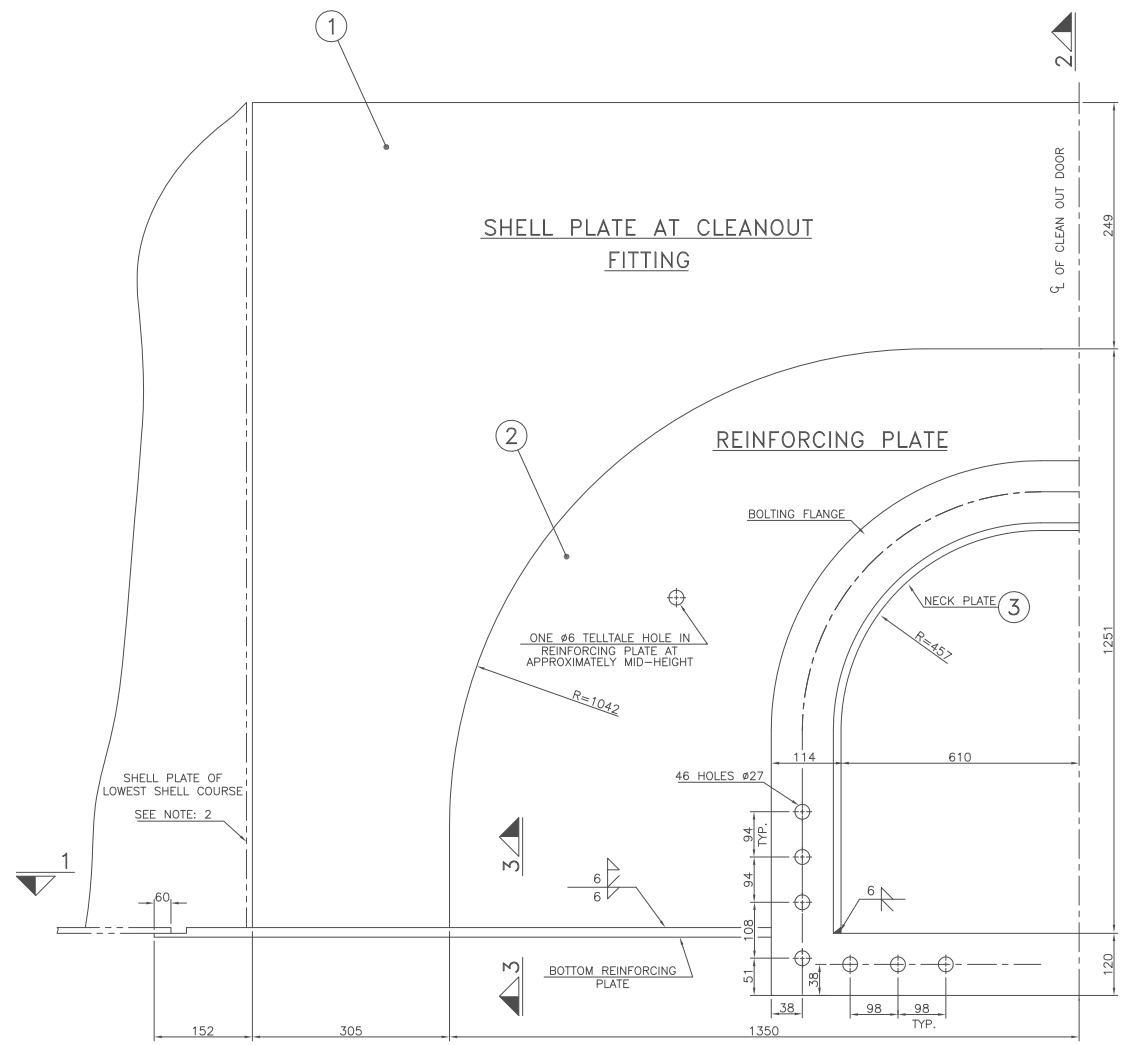
REV.	DATE	DESCRIPTION OF REVISION	DRAWN	DESIGNED	CHECKED	APPR.
1	19-10-2016	ISSUED FOR CONSTRUCTION	SJD	AJ	AJ	AHB
0	05-10-2016	ISSUED FOR APPROVAL	SALEEM	JSW	ZAH	AH

ENAR PETROTECH SERVICES (PRIVATE) LIMITED
 7-B, Sector 7-A Korangi Industrial Area, Karachi Pakistan
 TEL: (9221) 5062791 E-mail: info@enar.com.pk URL:www.enar.com.pk

OIL & GAS DEVELOPMENT COMPANY LIMITED
 QADIRPUR GAS FIELD DEVELOPMENT
 TITLE: SPIRAL STAIR CASE DETAIL FOR CONDENSATE TANK (T-2811)

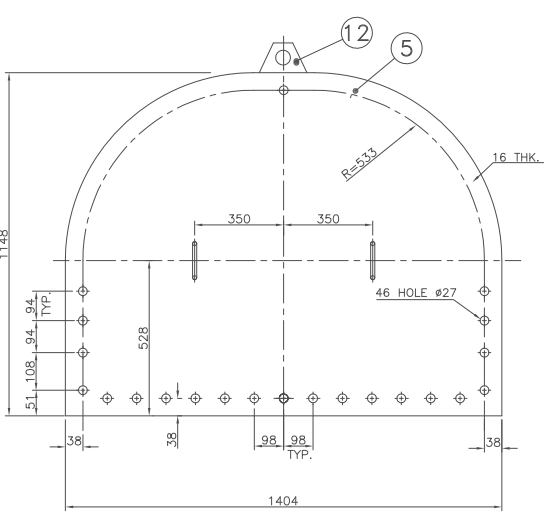
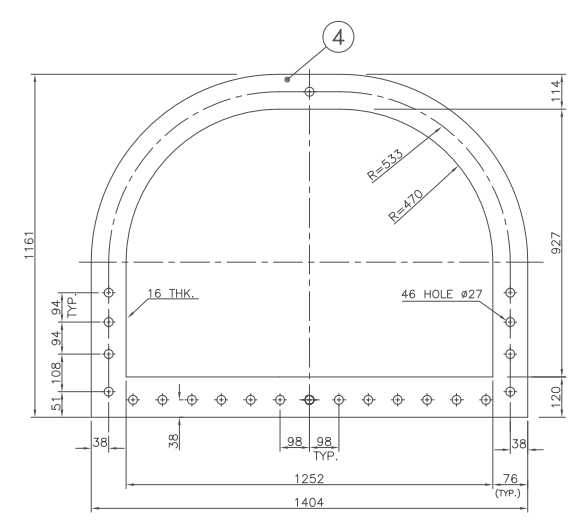
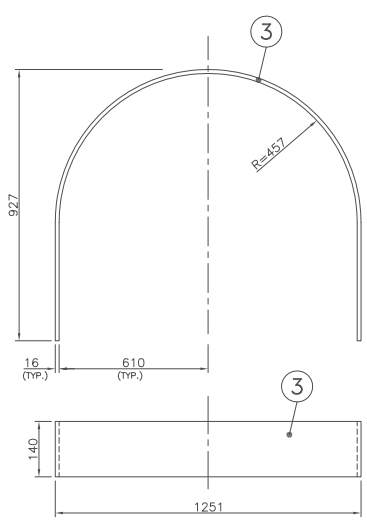
COMPUTER CODE: 1483-SDF-7807-1
 SHEET SIZE: A1
 SCALE: NTS
 REPLACES: DWS. NO.

THIS DOCUMENT IS THE PROPERTY OF ENAR & THE CONTENTS MUST BE TREATED AS CONFIDENTIAL



ITEM NO.	DESCRIPTIONS	QTY.	MATERIAL	UNIT WT.	TOTAL WT.
12	LIFTING LUG	1	ASTM A-36	0.4 Kg./PC	-
11	HANDLE ROUND BAR #16x289 LONG	2	ASTM A36	0.46 Kg./PC	1
10	NUTS M24	92	ASTM A194 Gr.2H	12.5 Kg./100PC	12
9	WASHER ID=27xOD=44x3 THK.	92	ASTM AF436	2.23 Kg./100PC	2
8	STUD BOLTS M24x120 LONG	46	ASTM A193 Gr.B7	35.2 Kg./100PC	16
7	BOTTOM REINFORCING PLATE, 22THK	1	ASTM A-36	172.7 Kg./m ²	200
6	GASKET	1	NON ASBESTOS FILLED	-	-
5	COVER PLATE 16 THK.	1	ASTM A-36	125.6 Kg./m ²	400
4	BOLTING FLANGE 16 THK.	1	ASTM A-36	125.6 Kg./m ²	110
3	NECK PLATE 16 THK.	1	ASTM A-36	125.6 Kg./m ²	35
2	REINFORCING PLATE 8 THK.	1	ASTM A-36	62.8 Kg./m ²	150
1	SHELL PLATE AT CLEANOUT FITTING 6000x1500x8 THK.	1	ASTM A-36	62.8 Kg./m ²	-
					926 Kg.

- NOTE:**
- ALL DIMENSIONS ARE IN mm . UNLESS OTHERWISE STATED.
 - SHELL PLATE AT CLEANOUT FITTING TO HAVE BEVELLED ENDS FOR WELDING WITH ADJACENT SHELL PLATES WELDING AND BEVELING DETAILS WOULD BE AS SHOWN IN RELEVANT SHELL PLATE DRAWINGS.
 - CLEANOUT FITTING AND SHELL CONNECTIONS SHALL BE THERMALLY STRESS RELIEVED AT A TEMPERATURE OF 1100F FOR ONE HOUR.



REV.	DATE	DESCRIPTION OF REVISION	DRAWN	DESIGNED	CHECKED	APPR.
1	19-10-2016	ISSUED FOR CONSTRUCTION	SJD	AJ	AJ	AHB
0	05-10-2016	ISSUED FOR APPROVAL	SJD	JSW	ZAH	AH

ENAR PETROTECH SERVICES (PRIVATE) LIMITED
 7-B, Sector 7-A Korangi Industrial Area, Karachi Pakistan
 TEL: (9221) 5062791 E-mail: info@enar.com.pk URL: www.enar.com.pk

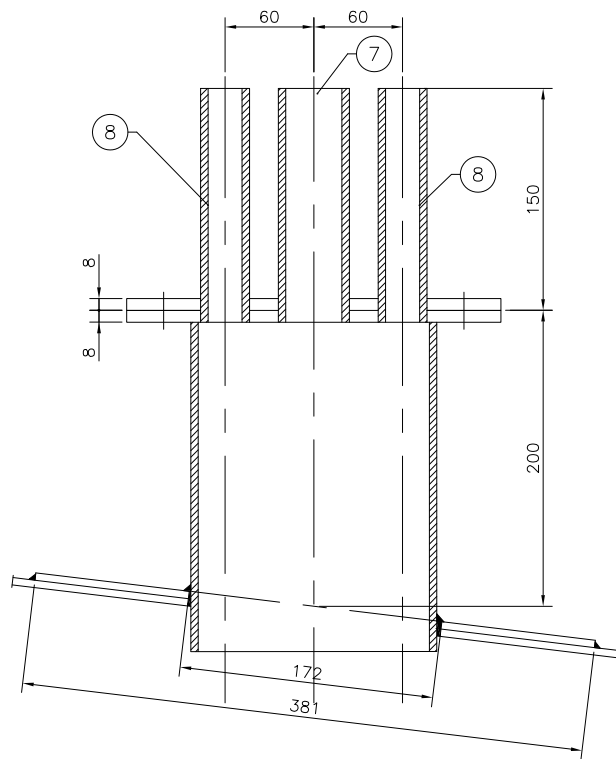
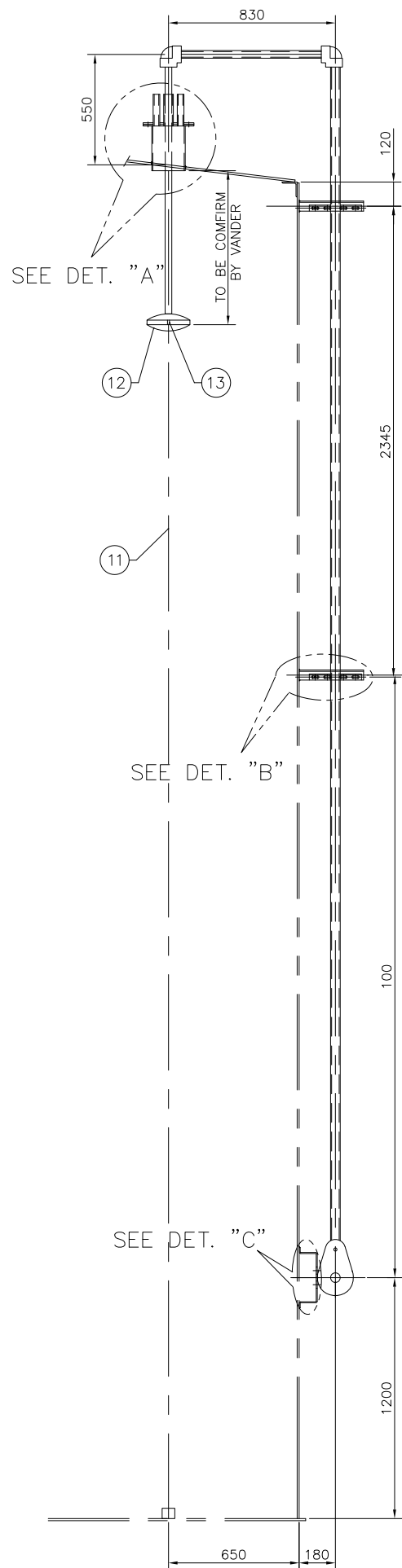
OIL & GAS DEVELOPMENT COMPANY LIMITED
 QADIRPUR GAS FIELD DEVELOPMENT

Job No. 14-1483
Dwg. No. 1483-SDF-7810

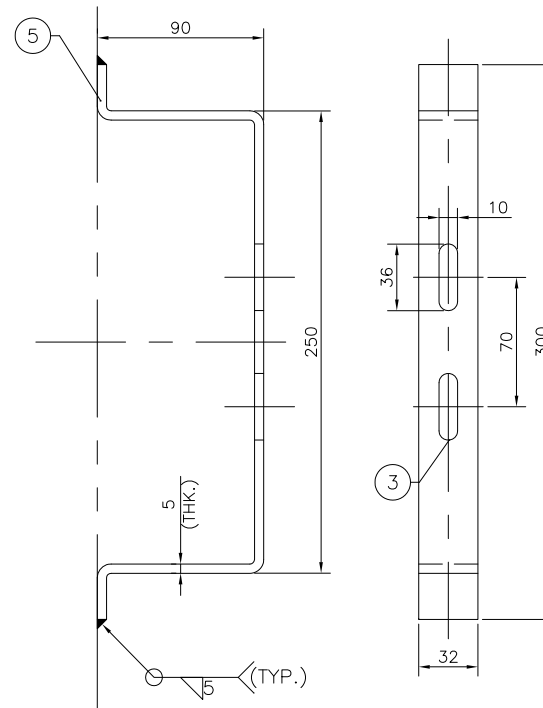
COMPUTER CODE	1483-SDF-7810-1
SHEET SIZE	A1
SCALE	NTS
REPLACES DWG. NO.	

TITLE: 24"x36" FLUSH TYPE CLEANOUT DETAILS FOR CONDENSATE TANK

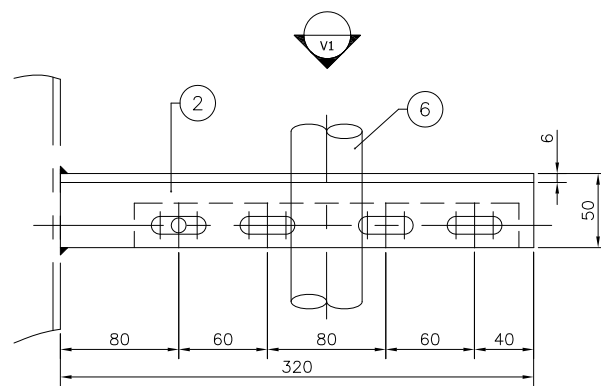
THIS DOCUMENT IS THE PROPERTY OF ENAR & THE CONTENTS MUST BE TREATED AS CONFIDENTIAL



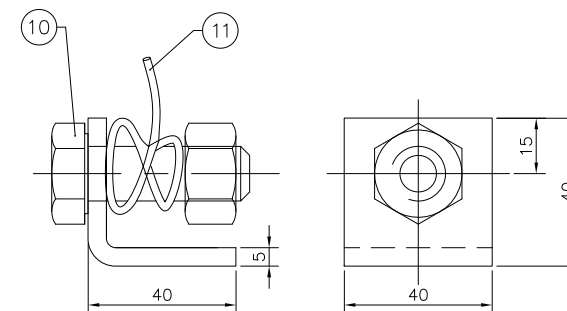
DETAIL : "A"



DETAIL : "C"



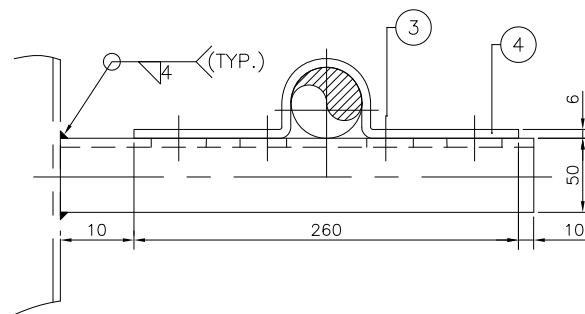
DETAIL : "B"



DETAIL : "D" NOTES:

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED.
2. ITEM # 12, 13, 14 ARE VENDER SCOPE WITH ALL RESPECT.
3. B.O.Q IS ONLY FOR ONE FLOAT GAUGE FOR TWO GAUGES MULTIPLE B.O.Q QUANTITIES BY 2.
4. THE CONTRACTOR / FABRICATION SHALL CHECK & VERIFIED THE DIMENSION PRIOR TO START OF FABRICATION. ANY DEVIATION OCCUR DURING FABRICATION SHELL BE WITH WRITTEN APPROVAL OF COMPANY PRIOR TO EXECUTION OF WORK.

ISSUED FOR CONSTRUCTION



VIEW "V1"

15	1 1/2" ELBOW NB LR		A-234 WPB		
14	LEVEL GAUGE INDICATOR		BY VENDER		
13	FLOAT SIDE RINGS	2	BY VENDER		
12	FLOAT	1	BY VENDER		
11	STAINLESS STEEL GUID WIRE		SS 316		
10	LUG PLATE (40x32x5Thk.)	2	A-283 Gr.C	39.5 Kg./m	1.0
9	HEX NUT BOLT WITH WASHER M10x30LG	2	A193/B7, A194/2H	78.5 Kg./m ²	517.2
8	1" PIPE Sch. STD.	2	A-283 Gr.C	78.5 Kg./m ²	517.2
7	1 1/2" NB Sch. STD.	2	A-283 Gr.C	78.5 Kg./m ²	517.2
6	1 1/2" PIPE Sch. STD.	1	A-283 Gr.C	78.5 Kg./m ²	258.6
5	GAUGE PLATE (475x36x5Thk.)	1	A-283 Gr.C	39.7 Kg./m	18.9
4	CLAMP PLATE (335x40x6Thk.)	1	A-283 Gr.C	47.1 Kg./m	15.8
3	HEX. NUT BOLT WITH WASHER	10	A193/B7, A194/2H	Kg./m	
2	PIPE SUPPORT ANGLE 50x50x6 (320 LG)	2	A36	4.47 Kg./m	0.6
1	STAINLESS STEEL TAPE		SS 318		
ITEM	DESCRIPTION	QTY.	MATERIAL	UNIT WEIGHT TOTAL WEIGHT (Kg.)	1846.5

1	19-10-2016	ISSUED FOR CONSTRUCTION	SJD	AJ	AJ	AHB
0	07-10-2016	ISSUED FOR APPROVAL	SJD	JSW	ZAH	AH
REV.	DATE	DESCRIPTION OF REVISION	DRAWN	DESIGNED	CHECKED	APPR.
ENAR PETROTECH SERVICES (PRIVATE) LIMITED 7-B, Sector 7-A Korangi Industrial Area, Karachi Pakistan TEL: (9221) 5062791 E-mail: info@enar.com.pk URL: www.enar.com.pk			Dwg. No. 14-1483 ENAR No. 14-1483			
OIL & GAS DEVELOPMENT COMPANY LIMITED QADIRPUR GAS FIELD DEVELOPMENT			ED 1483-SDF-7811			
TITLE: DETAIL OF LEVEL GAUGE CONNECTIONS FOR CONDENSATE TANK (T-2811)			COMPUTER CODE: 1483-SDF-7811-1 SHEET SIZE: A3 SCALE: NTS REPLACES DWG. NO.			
THIS DOCUMENT IS THE PROPERTY OF ENAR & THE CONTENTS MUST BE TREATED AS CONFIDENTIAL						

