Standard Bidding Document

Procurement Of Contractor Services for Infrastructure Development of Left-Over / New and Allied Work (Phase-I) at Naushahro Feroze Industrial Park (NFIP), Naushahro Feroze
(Works)

National

Single Stage-Two Envelope

August 20, 2026

Pakistan Industrial Development Corporation (Pvt.) Ltd. (Pakistan Industrial Development Corporation (PIDC)),Assistant Manager
PIDC House, 2nd Floor, Dr. Ziauddin Ahmed Road, Civil Line Sub-Division, Karachi South (District), Karachi (Division), Sindh (Province).
Phone: +92-333-995-5002, Email: kamran.faraz@pidc.com.pk

Table of Contents

REQUEST FOR BIDS 1

Instructions to Bidders 3

Bid Data Sheet 31

Eligibility Criteria 36

Evaluation Criteria 37

Jobs/Lots 40

Work Specifications and Market Rates 41

Scope of Work 195

Price Schedule 196

General Conditions of Contract 198

Special Conditions of Contract 200

Bid Securing Declaration 218

Contract Form 220

DAAB Agreement 223

Retention Money Security Demand Guarantee 1

Integrity Pact 228

Performance Guarantee Form 230

Annexure 233

Adjustment Data 234

Technical Specification 234

Drawings 1 234

Drawings 2 234

Drawings 3 234

Procurement Forms 235

Past Construction Experiences 1

Contractor's Key Personnel Representative and Their Schedules 1

Past Experience and Completed Contracts 1

Current Contracts and Their Progress 1

Financial Capacity and Net Worth Evaluation Form 1

Average Annual Turnover 1

Additional Forms and Documents 238

REQUEST FOR BIDS

PROCUREMENT OF CIVIL WORKS

1. The **Pakistan Industrial Development Corporation (Pvt.) Ltd. (Pakistan Industrial Development Corporation (PIDC))** has reserved Funds for the procurement planned for FY **2026-27**. The **Pakistan Industrial Development Corporation (Pvt.) Ltd. (Pakistan Industrial Development Corporation (PIDC))** intends to apply part of the proceeds of this Fund to cover eligible payments under the contract for the "**Procurement Of Contractor Services for Infrastructure Development of Left-Over / New and Allied Work (Phase-I) at Naushahro Feroze Industrial Park (NFIP), Naushahro Feroze**" with the reference of "**P92743**".

2. The **Pakistan Industrial Development Corporation (Pvt.) Ltd. (Pakistan Industrial Development Corporation (PIDC))** invites electronic Bids from eligible Bidders for procurement of Works **(Procurement Of Contractor Services for Infrastructure Development of Left-Over / New and Allied Work (Phase-I) at Naushahro Feroze Industrial Park (NFIP), Naushahro Feroze)** described in the bidding documents on **EPADS v2.0**.

3. **Single Stage-Two Envelope** will be used by adopting **Least Cost Based Selection (LCBS)** Technique for the subject procurement, in line with the Public Procurement Rules, 2004 and any Regulations, Regulatory Guides, Procurement Guidelines or Instructions issued by the Authority from time to time.

4. All Bids must be accompanied by a Bid Security amounting described in Bid Security Section in Bidding Document in the form of **Pay Order, Call at Deposit, Bank Guarantee, Demand Draft**. Or all bids must be accompanied by bid securing declaration in the format specified in the Bidding documents

5. E-Bidding documents, containing detailed terms & conditions, specifications and requirements etc. are available on **e-Pak Acquisition and Disposal System (EPADS)** at

https://epads.gov.pk/opportunities/federal/procurements/92743 for all the interested bidders registered on **EPADS v2.0**. Bidders are required to get themselves registered on **EPADS v2.0** to participate in Bidding process.

6. The e-bids, prepared in accordance with the instructions in the e-Bidding documents, must be submitted through **EPADS v2.0** on or before **Monday, September 7, 2026 11:00 AM**. E-bids will be opened by using **EPADS v2.0** on the same day at **Monday, September 7, 2026 11:30 AM**. Manual submission of Bids shall not be entertained. Those vendor who have not yet registered on the new version of **EPADS v2.0**, may register themselves on **https://pa.epads.gov.pk/**. A tutorial to explain the registeration process is available at **https://www.youtube.com/watch?v=MNW6T38v7tc.**

In terms of Rules 48 of Public Procurement Rules, 2004 Grievance Redressal Committee (GRC) is notified for the subject procurement and notification copy is available on the procuring agency's website and on Authority's website at (**www.ppra.org.pk**).

Pakistan Industrial Development Corporation (Pvt.) Ltd. (Pakistan Industrial Development Corporation (PIDC)), Assistant Manager
PIDC House, 2nd Floor, Dr. Ziauddin Ahmed Road, Civil Line Sub-Division, Karachi South (District), Karachi (Division), Sindh (Province).
+92-333-995-5002
kamran.faraz@pidc.com.pk

Instructions to Bidders

A. INTRODUCTION

1. **Scope of Bid**

1.1. The Procuring agency/Employer (PA), as indicated in the **Bid Data Sheet** (BDS) invites Bids for the execution of Works as specified in the BDS and **Section V- Works Requirements**. The name, identification, and number of lots (contracts) of this National/ International Competitive Bidding process are specified in the BDS.

2. **Source of Funds**

2.1. Source of funds as referred in Clause 2 of Bid Data Sheet.

3. **Eligible Bidders**

3.1. A bidder may be natural person, company or firm or public or semi-public agency of Pakistan or any foreign country, or any combination of them with a formal existing agreement (on Judicial Papers) in the form of a joint venture or consortium. In the case of a joint venture or consortium, all members shall be jointly and severally liable for the execution of the Contract in accordance with the terms and conditions of the Contract. The joint venture or consortium shall nominate a Lead Member as nominated in the BDS, who shall have the authority to conduct all business for and on behalf of any and all the members of the joint venture or consortium during the Bidding process, and in case of award of contract, during the execution of contract. Verifiable copy of the agreement that forms a joint venture, consortium or association shall be required to be submitted as part of the Bid.

Any bid submitted by the joint venture, consortium or association shall indicate the part of proposed contract to be performed by each party and each party shall be evaluated (or post qualified if required) with respect to its contribution only, and the responsibilities of each party shall not be substantially altered without prior written approval of the Procuring Agency and in line with any instructions issued by the Authority.

(The limit on the number of members of JV or Consortium may be prescribed

in BDS, in accordance with the guidelines issued by the PPRA).

3.2. The invitation for bids is open to all prospective bidders subject to any provisions of incorporation or licensing by the respective national/ international incorporating agency or statutory body established for that particular trade or business. Procuring agencies shall specify the registration/licensing requirements for the foreign bidder keeping in view the requirement of that business.

3.3. A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidders may be considered to have a conflict of interest with one or more parties in this Bidding process, if they:

3.3.1. are associated or have been associated in the past, directly or indirectly with a firm or any of its affiliates which have been engaged by the Procuring agency/Employer to provide consulting services for the preparation of design or technical specifications of the works that are the subject of the bid; or

3.3.2. have controlling shareholders in common; or

3.3.3. receive or have received any direct or indirect subsidy from any of them; or

3.3.4. have the same legal representative for purposes of this Bid; or

3.3.5. have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another bidder, or influence the decisions of the Procuring agency/Employer regarding this Bidding process; or

3.3.6. Submit more than one bid in this bidding process.

3.4. A Bidder may be ineligible if –

3.4.1. he is declared bankrupt or, in the case of company or firm, insolvent;

3.4.2. payments in favor of the bidder is suspended in accordance with the judgment of a court of law other than a judgment declaring bankruptcy and resulting (in accordance with the national laws) in the total or partial loss of the right to administer and dispose of its property;

3.4.3. the bidder is convicted, by a final judgment of a Court of Law or relevant Professional Statuary Body, of any offence involving professional conduct;

3.4.4. The bidder is debarred/ blacklisted by a national level Procuring agency/Employer and hence debarred due to involvement in corrupt and fraudulent practices, or performance failure or due to breach of bid securing declaration.

3.5. As and when required, bidders shall provide to the Procuring agency/Employer evidence of their eligibility, proof of compliance with the necessary legal requirements to carry out the contract effectively.

3.6. Bidders shall submit proposal relating to the nature, conditions and modalities of sub-contracting wherever the sub-contracting of any elements of the contract is envisaged.

4. **Eligible Material and Equipment**

4.1. All the material and equipment to be mobilized under the contract shall have their origin in eligible source countries, and all expenditures made under the contract will be limited to such materials and equipment. For this purpose, ineligible countries are stated in the section-IV titled as “Eligible Countries”.

B. BIDDING DOCUMENTS

5. **Contents of Bidding Documents**

5.1. The scope of Works, bidding procedures, and terms and conditions of the contract are prescribed in the bidding documents. In addition to the Invitation for Bids, the bidding documents which should be read in

conjunction with any addenda issued in accordance with ITB 7.1 include:

i. Section I -Invitation for Bids

ii. Section II Instructions to Bidders (ITBs)

iii. Section III Bid Data Sheet (BDS)

iv. Section IV Eligible Countries

v. Section V Evaluation and Qualification Criteria

vi. Section VI Works Requirements Technical Specifications & Schedule of Requirements

vii. Section VII Standard Bidding Forms

viii. Section VIII General Conditions of Contract (GCC)

ix. Section IX Particular Conditions of Contract (PCC)

x. Section X Contract Forms

5.2. The bidder is expected to examine all instructions, forms, specifications, terms and conditions prescribed in the bidding documents. Failure to furnish all the information required in the bidding documents will be at the bidder’s risk and may result in the rejection of his bid.

6. **Clarification of Bidding Document, Pre-bid Meeting**

6.1. A prospective bidder requiring any clarification of the bidding document may notify the Procuring agency/Employer through **EPADS v2.0**.

6.2. The Procuring agency/Employer shall respond to the request for clarification in accordance with the Public Procurement Rules 2004, Rule No.31 i.e. **Clarification of bids**.

6.3. Should the Procuring Agency deem it necessary to amend the BIDDING document as a result of a clarification, it shall do so following the procedure under **ITB 7**.

6.4. If indicated in the **BDS**, the bidder's designated representative is invited at the bidder's cost to attend a pre-bid meeting at the place, date and time mentioned in the BDS. During this pre-bid meeting, prospective bidders may request clarification of the schedule of requirement, the evaluation criteria or any other aspects of the bidding documents.

6.5. Minutes of the pre-bid meeting, if applicable, including the text of the questions asked by bidders, including those during the meeting (without identifying the source) and the responses given, together with any responses prepared after the meeting will be uploaded on **EPADS v2.0**. Any modification to the bidding documents that may become necessary as a result of the pre-bid meeting shall be made by the Procuring agency/Employer exclusively through the use of an Addendum pursuant to **ITB 7**. Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

6.6. The bidder is advised to visit and examine the Site of Works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the bidder's own expense.

6.7. The bidder and any of its authorized personnel will be granted permission by the Procuring agency/Employer to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the bidder and its personnel will release and indemnify the Procuring agency/Employer from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.

7. **Amendment of Bidding Documents**

7.1. The procuring agency may issue notification of any change, addition, modification or deletion in accordance with the PP Rules 2004, rule no. 23 i.e. **Bidding Documents**.

7.2. To give prospective bidders reasonable time in which to take an addendum/corrigendum into account in preparing their bids, the Procuring

agency/Employer may, at its discretion, extend the deadline for the submission of bids:

Provided that the Procuring agency/Employer shall extend the deadline for submission of bid in pursuance of PP Rules 2004, rule no. 27 i.e. ***Extension of time for submission of bids****, if such an addendum is issued within last three (03) days of the bid submission deadline.*

C. PREPARATION OF BIDS

8. Language of Bid

8.1. The bid prepared by the bidder, as well as all correspondence and documents relating to the bid exchanged by the bidder and the Procuring agency/Employer shall be written in the English language unless specified in the **BDS**. Supporting documents and printed literature furnished by the bidder may be in another language provided they are accompanied by an accurate translation of the relevant pages in the English language unless specified in the **BDS**, in which case, for purposes of interpretation of the bidder, the translation shall govern.

9. **Documents Constituting the Bids**

9.1. The Bids prepared by the Bidder shall constitute of all the documents required in the **BDS**.

10. **Documents Establishing Eligibility of Material, Equipment and Works, their Conformity to Bidding Documents**

10.1. The bid prepared by the bidder shall constitute the following components: -

10.1.1. Documentary evidence established in accordance with **ITB 10** that the material and equipment to be utilized by the Bidder for the executions of works are eligible material and equipment and conform to the Bidding Documents;

10.1.2. Documentary evidence established in accordance with **ITB 11** that the bidder has been authorized to carry out the Construction works;

10.1.3. Documentary evidence established in accordance with **ITB 11** that the bidder is eligible and/or qualified for the subject bidding process;

10.1.4. Form of Bid and Bid Prices completed in accordance with **ITB 12** and **13**;

10.1.5. Completed schedules as required, including priced Bill of Quantities in accordance with **ITB 13**.

10.1.6. Technical Proposal completed in all aspects in accordance with **ITB-15**.

10.1.7. Bid security or Bid Securing Declaration furnished in accordance with **ITB 17**;

10.1.8. Any other document required in the **BDS**.

10.2. In addition to the requirements, bids submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful bid shall be signed by all members and submitted with the bid, together with a copy of the proposed Agreement.

10.3. The bidder shall furnish, as part of its bid, all those documents establishing the eligibility in conformity to the terms and conditions specified in the bidding documents for all material, equipment and works which the bidder proposes to execute.

10.4. The documentary evidence of conformity of the material, equipment and works to the Bidding Documents may be in the form of literature, drawings, and data, and shall consist of:

10.4.1. a detailed description of the work methodology, approach, schedule and resources to be mobilized at site;

10.4.2. an item-by-item commentary on the Procuring agency/Employer's Technical Specifications demonstrating substantial responsiveness of the material, equipment and works to those specifications, or a statement of deviations and exceptions to the provisions of the Technical Specifications;

10.4.3. any other procurement specific documentation requirement as stated in the **BDS**.

10.5. The required documents and other accompanying documents must be in English. In case any other language than English is used the pertinent translation into English shall be attached to the original version.

11. Documents Establishing Eligibility and Qualification of the Bidder

11.1. The bidder shall furnish, as part of its bid, all those documents establishing the bidder's eligibility to participate in the bidding process and/or its qualification to perform the contract if its bid is accepted.

11.2. The documentary evidence of the bidder's eligibility to bid shall establish to the satisfaction of the Procuring agency/Employer that the bidder, at the time of submission of its bid, is from an eligible country as defined in Section-IV titled as "Eligible Countries".

11.3. The documentary evidence of the bidder's qualification to perform the contract if its bid is accepted shall establish to the satisfaction of Procuring agency/Employer that:

11.3.1. The bidder has the financial and technical capability necessary to perform the Contract, meets the qualification criteria specified in Section-V, Evaluation and Qualification Criteria and **BDS**.

11.3.2. In the case of a bidder not doing business within Pakistan, the bidder is or will be (if awarded the contract) represented by a local bidder (Joint Venture) in accordance with the PEC works bylaws, and in case of award of works such foreign firm is required to participate in the execution of works to carry out its obligations as prescribed in the Conditions of Contract and /or Technical Specifications.

11.3.3. That the bidder meets the qualification criteria listed in Section-V, Evaluation and Qualification Criteria and **BDS**.

12. **Forms of Bid**

12.1. The Bidder shall fill the Form of Bids furnished in the bidding documents. The Bids Form must be completed without any alterations to its format and no substitute shall be accepted.

13. **Bid Prices**

13.1. The bid prices quoted by the bidder in the Standard bid Forms, Bill of Quantities and in the Price Schedules shall conform to the requirements specified below or exclusively mentioned hereafter in the bidding documents.

13.2. The bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. If a Price Schedule shows items listed but not priced, their prices shall be construed to be included in the prices of other items in the Bill of Quantities and will not be paid for separately by the Procuring agency/Employer.

13.3. Items not listed in the Price Schedule shall be assumed not to be included in the bid, and provided that the bid is still substantially responsive in their absence or due to their nominal nature, the corresponding average price of the respective item(s) of the remaining substantially responsive bidder(s) shall be construed to be the price of those missing item(s):
Provided that:

13.3.1. where there is only one (substantially) responsive bidder, or

13.3.2. where there is provision for alternate proposals and the respective items are not listed in the other bids,
The Procuring agency/Employer may fix the price of missing items in accordance with market survey, and the same shall be considered as final price.

13.4. The Bid price to be quoted in the Form of Bid in accordance with ITB 12 shall be the total price of the bid.

13.5. Unless otherwise specified in the **BDS** and the Contract, the rates and prices quoted by the bidder are subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract.

13.6. If so specified in ITB 1.1, bids may be invited for individual lots (contracts) or for any combination of lots (packages).

13.7. Prices quoted by the Bidder shall be fixed during the bidder's performance of the contract and not subject to variation on any account. A bid submitted with an adjustable price will be treated as non-responsive and shall be rejected, pursuant to **ITB 27**, unless otherwise price adjustment is permissible under Conditions of the Contract.

13.8. All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date twenty-eight (28) days prior to the deadline for submission of bids, shall be included in the rates and prices and the total bid price submitted by the bidder.

14. **Currencies of Bid and Payment**

14.1. Prices shall be quoted in Pakistani Rupees unless otherwise specified in the **BDS**. Comparison of bids and tie of bid shall be treated in accordance with the PP rules 2004, rule no. 30.

15. **Documents Comprising the Technical Proposal**

15.1. The bidder shall furnish a Technical Proposal including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in Section VII – Standard Bid Forms, in sufficient detail to demonstrate the adequacy of the bidder's proposal to meet the work requirements and the completion time.

16. **Bid Validity Period**

16.1. Bids shall remain valid for the period specified in the BDS after the bid submission deadline prescribed by the Procuring agency/Employer. A bid valid for a shorter period shall be rejected by the Procuring agency/Employer as non-responsive. The period of bid validity will be determined from the complementary bid securing instrument i.e. the expiry period of bid security or bid securing declaration as the case may be.

16.2. Under exceptional circumstances, prior to the expiration of the initial Bids/Bid validity period, the Procuring Agency may request the Bidders' consent to an extension of the period of validity of their Bids/Bid. Such request for extension of the period of bid validity shall be carried out in accordance with the PP rules 2004, rule no. 26 i.e. Bid Validity.

17. **Bid Security or Bid Securing Declaration**

17.1. Pursuant to ITB 11.1 unless otherwise specified in the BDS, the bidder shall furnish as part of its bid, a Bid Security in accordance with the PP Rules 2004, rule no. 25 in the amount and currency specified in the BDS or Bid Securing Declaration as specified in the BDS in the format provided in Section VII (Standard Bidding Forms).

In case Procuring agency/Employer is inviting bids in lots / packages, the bidder shall be required to submit his bid security against the respective lot/ package for which he is submitting his bid.

Until the development of functionality of auto verification of financial instrument in **EPADS v2.0**, the scanned copy of bid security or bid securing declaration, as the case may be, shall be uploaded on **EPADS v2.0** whereas the original instrument to be submitted to the procuring agency before closing of bid submission deadline,

17.2. The Bid Security shall be denominated in the local currency or in another freely convertible currency, and it shall be in the form specified in the BDS which shall be in any of the following:

17.2.1. A bank guarantee, an irrevocable letter of credit issued by a Scheduled bank in the form provided in the Bidding Documents or another form acceptable to the Procuring agency/Employer and valid for twenty-

eight (28) days beyond the end of the validity of the Bid. This shall also apply if the period for Bid Validity is extended. In either case, the form must include the complete name of the bidder;

17.2.2. A cashier's or certified cheque; or

17.2.3. Another security as indicated in the **BDS**.

17.3. The Bid Security or Bid Securing Declaration shall be in accordance with the Form of the Bid Security or Bid Securing Declaration included in Section VII (Standard Bidding Forms) or another form approved by the Procuring agency/Employer prior to the bid submission.

17.4. The Bid Security shall be payable promptly upon written demand by the Procuring agency/Employer in case any of the conditions listed in **ITB 17.9** are invoked.

17.5. Any bid not accompanied by a Bid Security or Bid Securing Declaration in accordance with **ITB 17.1 or 17.3** shall be rejected by the Procuring agency/Employer and shall be declared as non-responsive bid, pursuant to **ITB 27**.

17.6. Unsuccessful bidders' Bid Security will be discharged or returned as promptly as possible, however in no case later than thirty (30) days after the expiration of the period of Bid Validity prescribed by the Procuring agency/Employer pursuant to **ITB 16**. The Procuring agency/Employer shall make no claim to the amount of the Bid Security, and shall promptly return the Bid Security document, after whichever of the following that occurs earliest:

17.6.1. The expiry of the Bid Security;

17.6.2. The entry into force of a procurement contract and the provision of a performance security (or guarantee), for the performance of the contract if such a security (or guarantee), is required by the Biding documents;

17.6.3. The rejection by the Procuring agency/Employer of all Bids;

17.6.4. The withdrawal of the bid prior to the deadline for the submission of bids, unless the biding documents stipulate that no such withdrawal is permitted.

17.7. The successful bidder's Bid Security will be discharged upon the bidder signing the contract pursuant to **ITB 40**, or furnishing the performance security (or guarantee), pursuant to **ITB 41**.

17.8. The Bid Security may be forfeited or the Bid Securing Declaration executed:
if a Bidder:

17.8.1. Withdraws its Bid during the period of Bid Validity as specified by the Procuring agency/Employer, and referred by the bidder on the Form of Bid except as provided for in ITB 16.2; or

17.8.2. In the case of a successful bidder, if the bidder fails:

17.8.2.1. to sign the contract in accordance with ITB 40; or

17.8.2.2. to furnish performance security (or guarantee) in accordance with ITB 41.

17.9. In case of Bid Security issued by the foreign bank is allowed by the Procuring agency/Employer, the same should be counter guaranteed by a corresponding bank in Pakistan. Furthermore, in case of joint venture, it should be in the name of Joint venture to ensure joint responsibility. In case the JV is not legally constituted at the time of bid submission, the bid security or bid securing declaration shall be in the names of all future members as named in the letter of bid.

18. **Withdrawal of Bids**

18.1. Before bid submission deadline, any bidder may withdraw, substitute, or modify its bid after it has been submitted by sending a written notice, duly signed by an authorized representative, and the corresponding must accompany the respective written notice.

19. **Format and Signing of Bid**

19.1. The Bidder shall prepare and submit Bids through EPADS with due diligence after carefully reading all the terms and condition before bid submission deadline.

D. SUBMISSION OF BIDS

20. **Submission of Bids**

20.1. All bids shall be submitted through **EPADS v2.0**.

21. **Deadline for Submission of Bids**

21.1. All bids shall be received through **EPADS v2.0** not later than bid submission deadline as specified in the **BDS**.

21.2. The Procuring agency/Employer may, under exceptional circumstances and at its discretion, extend the deadline for the submission of bids, pursuant to PP Rules 2025, rule no.39 Extension of Time for submission of bid, by amending the Bidding Documents in accordance with ITB 7, in which case all rights and obligations of the Procuring agency/Employer and bidders previously subject to the deadline will thereafter be subject to the new deadline.

22. **Substitution and Modification of bids**

22.1. A bidder may substitute or modify his bid after it has been submitted, provided that written notice of the substitution or modification of the bid, is received by the Procuring agency/Employer prior to the deadline for submission of bids.

22.2. Revised bid may be submitted after the substitution or modification made in the original bid in accordance with the provisions referred in ITB 18.

E. OPENING AND EVALUATION OF BIDS

23. **Opening of Bids**

23.1. The Procuring Agency will open bids in accordance with the PP rules 2004, rule no 28 and as specified in the **BDS**.

24. **Confidentiality**

24.1. Information relating to the examination, clarification, evaluation and comparison of bids and recommendation of contract award shall not be disclosed to bidders or any other persons not officially concerned with such process until the time of the announcement of the respective evaluation report.

25. **Clarification of Bids**

25.1. Clarification of Bidding Documents shall be carried out in accordance with the PP Rules 2025, rule no 38 i.e. Clarifications.

25.2. The alteration or modification in the bid which in any case affect the following parameters will be considered as a change in the substance of a bid:

25.2.1. evaluation & qualification criteria;

25.2.2. required scope of work;

25.2.3. contract price;

25.2.4. all securities requirements;

25.2.5. tax requirements;

25.2.6. terms and conditions of bidding documents.

25.2.7. change in the ranking of the bidder

26. **Preliminary Examination of Bids**

26.1. Prior to the detailed evaluation of bids, the Procuring agency/Employer will determine whether each bid:

26.1.1. meets the eligibility criteria defined in ITB 3 and ITB 4;

26.1.2. has been prepared as per the format and contents defined by the Procuring agency/Employer in the bidding documents;

26.1.3. has been properly signed;

26.1.4. is accompanied by the required securities; and

26.1.5. is substantially responsive to the requirements of the bidding documents.

The Procuring agency/Employer's determination of a bid's substantial responsiveness will be based on the contents of the bid itself.

26.2. A substantially responsive Bid is one which conforms to all the terms, conditions, and specifications of the Bidding Documents, without material deviation or reservation. A material deviation or reservation is one that: -

26.2.1. affects in any substantial way the scope, quality, or performance of the Works;

26.2.2. limits in any substantial way, inconsistent with the bidding documents, the Procuring agency/Employer's rights or the bidders' obligations under the Contract; or

26.2.3. if rectified, would affect unfairly the competitive position of other bidders presenting substantially responsive bids.

26.3. The Procuring agency/Employer will confirm that the documents and information specified under ITB 9, 10 and 11 have been provided in the bid. If any of these documents or information is missing, or is not provided in accordance with the Instructions to Bidders, the bid shall be rejected.

26.4. The Procuring agency/Employer may waive-off any minor informality, nonconformity, or irregularity in a bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.

Explanation: A minor informality, non-conformity or irregularity is one that is merely a matter of form and not of substance. It also pertains to some

immaterial defect in a Bid or variation of a bid from the exact requirements of the invitation that can be corrected or waived without being prejudicial to other bidders. The defect or variation is immaterial when the effect on quantity, quality, or delivery is negligible when contrasted with the total cost or scope of the works. The Procuring agency/Employer either shall give the bidder an opportunity to cure any deficiency resulting from a minor informality or irregularity in a bid or waive the deficiency, whichever is advantageous to the Procuring agency/Employer. Examples of minor informalities or irregularities include failure of a bidder to –

26.4.1. Submit the number of copies of signed bids required by the invitation;

26.4.2. Furnish required information concerning the number of its employees;

26.4.3. the firm submitting a bid has formally adopted or authorized, before the date set for opening of bids, the execution of documents by typewritten, printed, or stamped signature and submits evidence of such authorization and the bid carries such a signature.

26.5. Provided that a Technical Bid is substantially responsive, the Procuring agency/Employer may request the bidder to submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the Technical Bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any such aspect of the technical Proposal linked with the ranking of the bidders. Failure of the bidder to comply with the request may result in the rejection of its bid.

26.6. Provided that a Technical Bid is substantially responsive, the Procuring agency/Employer shall rectify quantifiable nonmaterial nonconformities or omissions related to the Financial Proposal. To this effect, the Bid Price shall be adjusted, for comparison purposes only, to reflect the price of the missing or nonconforming item or component.

26.7. If a bid is not substantially responsive, it will be rejected by the Procuring agency/Employer and may not subsequently be evaluated for

complete technical responsiveness.

27. **Examination of Terms and Conditions; Technical Evaluation**

27.1. The Procuring agency/Employer shall examine the bid to confirm that all terms and conditions specified in the GCC and the PCC have been accepted by the bidder without any material deviation or reservation.
For this purpose:
"**Deviation**" means departure from the requirements specified in the Bidding Document.
"**Reservation**" means setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Document.

27.2. The Procuring agency/Employer shall evaluate the technical aspects of the bid submitted in accordance with ITB 30, to confirm that all requirements specified in Section VI – Works Requirement, Technical Specifications of the Bidding Documents have been met without material deviation or reservation.

27.3. If after the examination of the terms and conditions and the technical evaluation, the Procuring agency/Employer determines that the bid is not substantially responsive in accordance with ITB 27, it shall reject the bid.

28. **Correction of Arithmetic Errors**

28.1. Bids determined to be substantially responsive will be checked for any arithmetic errors. Errors will be corrected as follows: -

28.1.1. if there is a discrepancy between unit prices and the sub-total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the sub-total price shall be corrected, unless in the opinion of the Procuring agency/Employer there is an obvious misplacement of the decimal point in the unit price, in which the total price as quoted shall govern and the unit price shall be corrected;

28.1.2. if there is an error in a total corresponding to the addition or subtraction of sub-totals, the sub-totals shall prevail, and the total shall be corrected; and

28.1.3. where there is a discrepancy between the amounts in figures and in words, the amount in words will govern.

28.1.4. Where there is discrepancy between grand total of price schedule and amount mentioned on the Form of Bid, the amount referred in Price Schedule shall be treated as correct subject to elimination of other errors.

28.2. The amount stated in the Bid will, be rectified by the Procuring agency/Employer in accordance with the above procedure for the correction of errors and, with, the concurrence of the bidder, shall be considered as binding upon the bidder. If the bidder does not accept the corrected amount, its bid shall be rejected after forfeiture of Bid Security or execution of the Bid Securing Declaration, as the case may be, in accordance with ITB 41.3.

29. **Conversion to Single Currency**

29.1. The unit rates and the prices shall be quoted by the bidder entirely in Pak rupees. A bidder expecting to incur expenditures in other currencies for inputs to the Works from outside the Procuring agency/Employer's country (referred to as the "Foreign Currency Requirements") shall indicate the same in the letter of bid-financial proposal. The proportion of the Bid Price (excluding Provisional Sums) needed by him for the payment of such Foreign Currency Requirements either (i) entirely in the currency of the Bidder's home country or, (ii) at the bidder's option, entirely in Pak rupees provided always that a bidder expecting to incur expenditures in a currency or currencies other than those stated in (i) and (ii) above for a portion of the foreign currency requirements, and wishing to be paid accordingly, shall indicate the respective portions in his bid. Comparison of bids quoted in different currencies and conversion of bids into a single currency shall be carried out in accordance with the PP Rule 2004, rule no. 30 (2).

30. **Evaluation of Bids**

30.1. The Procuring agency/Employer shall evaluate and compare only the bids determined to be substantially responsive, pursuant to ITB 27.

30.2. In evaluating the Technical Proposal of each Bid, the Procuring agency/Employer shall use the criteria and methodologies listed in the BDS and in terms of works requirement. No other evaluation criteria or methodologies shall be permitted.

30.3. The Procuring agency/Employer's evaluation of a bid will take into account:

30.3.1. the bid price, excluding provisional sums and the provision, if any, for contingencies in the summary bill of quantities, but including day work items, where priced competitively;

30.3.2. converting the amount resulting from applying above, if relevant, to a single currency in accordance with ITB 29;

30.4. The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in bid evaluation.

30.5. If these bidding documents allow bidders to quote separate prices for different lots, and the award to a single bidder of multiple lots, the methodology of evaluation to determine the lowest evaluated lot combinations in the Form of Bid, is specified in the BDS.

30.6. If the bid, which results in the Evaluated Bid Price (Successful Bid), is seriously unbalanced or front loaded in the opinion of the Employer, the Employer may require the Bidder to produce detailed price analyses for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, taking into consideration the schedule of estimated Contract payments, the Employer may require that the amount of the performance security be increased at the expense of the Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract.

Explanation:

“Unbalanced” or “front-loaded” bids consist of deliberately submitting bids with artificially high prices or unit rates for the early stages of a construction project, offset by artificially low prices or unit rates for the later stages of the project, to improve the contractor’s cash flow.

31. **Domestic Preference**

31.1. If the BDS so specifies, the Procuring agency/Employer will grant a margin of preference to the domestic contractor in line with the rules, regulations, regulatory guides or instructions issued by the Authority from time to time.

32. **Determination of Successful Bid**

32.1. The Procuring agency/Employer shall compare the evaluated bids in accordance with the predefined bidding procedure, of all substantially responsive bids to determine the Successful bidder.

33. **Qualification of Bidder**

33.1. The Procuring agency/Employer shall determine to its satisfaction whether the bidder is substantially responsive and whose bid is declared as Successful bid either continues to meet (if prequalification applies) or meets (if post-qualification applies) the qualifying criteria specified in Evaluation and Qualification Criteria.
Note: In case of international bidding, the parameters for incorporation or licensing within Pakistan may be fulfilled as part of post qualification.

33.2. The determination shall be based upon an examination of the documentary evidence of the bidder’s qualifications submitted by the bidder, pursuant to ITB 11.

33.3. Prior to contract award, the Procuring agency/Employer will verify that the successful bidder (including each member of a JV) is not blacklisted/debarred. The Procuring agency/Employer will conduct the same verification for each sub-contractor proposed by the successful bidder.

34. **Sub-Contractors**

34.1. The bidder shall provide details regarding any specialized sub-contractor to the Procuring agency/Employer. In case change of sub-contractors, the bidder shall promptly notify the Procuring agency/Employer and obtain approval for replacement of sub-contractors.

34.2. Bidders may propose sub-contracting up to the percentage of total value of contracts or the volume of works as specified in the BDS.

35. **Abnormally Low Financial Bid**

35.1. A procuring Agency may reject abnormally low bids in accordance with the PP Rules 2025 rule no. 43. The decision of the Procuring agency/Employer to reject a bid and reasons for the decision shall be recorded in the procurement proceedings and promptly communicated to the bidder concerned. Moreover, the Procuring agency/Employer shall not incur any liability solely by rejecting abnormally bid

Guidance for Procuring agency/Employer:

An abnormally low bid means, in the light of the Procuring agency/Employer's estimate and of all the bids submitted, the bid appears to be abnormally low by not providing a margin for normal levels of profit. In order to identify the Abnormally Low Bid (ALB) following approaches can be considered to minimize the scope of subjectivity:

35.1.1. Comparing the bid price with the cost estimate;

35.1.2. Comparing the bid price with the bids offered by other bidders submitting substantially responsive bids; and

35.1.3. Comparing the bid price with prices paid in similar contracts in the recent past either government- or development partner-funded.

35.2. The Procuring agency/Employer will determine to its satisfaction whether the bidder that is selected as having submitted the successful bid is qualified to perform the contract satisfactorily, in accordance with the criteria listed in ITB 11

35.3. The determination will take into account the bidder's financial and technical capabilities. It will be based upon an examination of the

documentary evidence of the bidder's qualifications submitted by the bidder, pursuant to ITB 11, as well as such other information as the Procuring agency/Employer deems necessary and appropriate. Factors not included in these bidding documents shall not be used in the evaluation of the bidders' qualifications.

35.4. Procuring agency/Employer may seek "Certificate for Independent Price Determination" from the bidder and the results of reference checks may be used in determining award of contract.
Explanation: *The Certificate shall be furnished by the bidder. The bidder shall certify that the price is determined keeping in view of all the essential aspects such as raw material, its processing, value addition, optimization of resources due to economy of scale, transportation, insurance and margin of profit etc.*

35.5. An affirmative determination will be a prerequisite for award of the contract to the bidder. A negative determination will result in rejection of the bidder's bid, in which event the Procuring agency/Employer will proceed to the next ranked bidder to make a similar determination of that bidder's capabilities to perform satisfactorily.

F. AWARD OF CONTRACT

36. **Criteria of Award**

36.1. Subject to ITB 36 and 37, the Procuring agency/Employer will award the Contract to the bidder whose bid has been determined to be substantially responsive to the bidding documents and who has been declared as Successful Bidder, provided that such bidder has been determined to be:

36.1.1. eligible in accordance with the provisions of ITB 3;

36.1.2. is determined to be qualified to perform the Contract satisfactorily; and

36.1.3. Successful negotiations have been concluded, if any.

37. **Negotiations**

37.1. The Committee of the Procuring agency/Employer may negotiate with the Most Advantageous Bidder relating to the following areas:

37.1.1. a minor alteration to the technical (drawings, design technical specifications) details of the statement of works;

37.1.2. Methodology, work plan, staffing in view to streamline the work;

37.1.3. a minor amendment to the Particular conditions of Contract;

37.1.4. finalizing payment arrangements;

37.1.5. clarifying details that were not apparent or could not be finalized at the time of Bidding;

37.2. Where negotiation fails to result into an agreement, the Procuring agency/Employer may invite the next ranked bidder for negotiations. Where negotiations are commenced with the next ranked bidder, the Procuring agency/Employer shall not reopen earlier negotiations.

38. **Procuring agency/Employer's Right to reject All Bids**

38.1. The procuring agency has the right to reject all bids in accordance with the PP Rules 2025 rule no. 45. However, the Authority (i.e. PPRA) may call from the Procuring agency/Employer the justification of those grounds.

39. **Notification of Award**

39.1. The procuring agency shall announce and publish the evaluation result in accordance with the PP Rules 2004, rule no. 40.

39.2. Where no complaints have been lodged, the bidder whose bid has been accepted will be notified of the award by the Procuring agency/Employer prior to expiration of the bid validity period through EPADS. However, the Procuring agency/Employer shall not award any procurement contract at least for five (05) days after the announcement of final evaluation report. The notification letter (herein after and in the condition of the contract and contract form called "Letter of Acceptance"

will specify the sum that the Procuring agency/Employer will pay the successful bidder in consideration for the execution and completion of the works as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price).

39.3. The notification of award will constitute the formation of the Contract, subject to the bidder furnishing the Performance Security (or guarantee) in accordance with ITB 41 and signing of the contract in accordance with ITB 40.

39.4. Upon the successful bidder’s furnishing of the performance security (or guarantee) pursuant to ITB 41, the Procuring agency/Employer will promptly notify each unsuccessful bidder, the name of the successful bidder and the Contract amount and will discharge the Bid Security or Bid Securing Declaration of the bidder(s) pursuant to ITB 17.

40. **Signing of Contract**

40.1. Promptly after notification of award, Procuring agency/Employer shall send the successful bidder the draft agreement, incorporating all terms and conditions as agreed by the parties to the contract.

40.2. Immediately after the Redressal of grievance by the GRC, and after fulfillment of all conditions precedent of the Contract Form, the successful bidder and the Procuring agency/Employer shall sign the contract.

40.3. Where no formal signing of a contract is required, work order issued to the bidder shall be construed to be the contract.

41. **Performance Security (or Guarantee)**

41.1. After the receipt of the Letter of Acceptance, the successful bidder, within the specified time, shall deliver to the Procuring agency/Employer a Performance Guarantee in the amount and in the form stipulated in the BDS and PCC, denominated in the type and proportions of currencies in the Letter of Acceptance and in accordance with the Conditions of Contract.

41.2. If the Performance Guarantee is provided by the successful bidder and it shall be in the form specified in the BDS which shall be in any of the

following:

41.2.1. certified cheque, cashier’s or manager’s cheque, or bank draft;

41.2.2. irrevocable letter of credit issued by a scheduled bank of Pakistan or in the case of an irrevocable letter of credit issued by a foreign bank, the letter shall be confirmed or authenticated by a scheduled bank of Pakistan;

41.2.3. bank guarantee confirmed by a reputable local bank or, in the case of a successful foreign bidder, bonded by a foreign bank; or

41.2.4. surety bond callable upon demand issued by any reputable surety or insurance company.
Any Performance Guarantee submitted shall be enforceable in Pakistan.

41.3. Failure of the Most Advantageous Bidder to comply with the requirement of ITB 40 shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security or declare blacklisted (in case bid securing declaration is submitted) in which event the Procuring agency/Employer may make the award to the next most advantageous bidder or reinitiate the procurement process afresh (as a case may be).

42. **Advance Payment**

42.1. Advance payment will be provided to the bidder in percentage and in the manner as agreed by the both parties in terms of Conditions of the Contract.

42.2. The Procuring agency/Employer will provide an advance payment as stipulated in the Conditions of Contract, subject to a maximum amount, as stated and/or Conditions of the Contract. The advance payment request shall be accompanied by an advance payment security (guarantee) in the form provided in Section X. For the purpose of receiving the advance payment, the bidder shall make and estimate of, and include in its bid, the expenses that will relate to the purchase of equipment, machinery, materials, and on the engagement of labor during the first month beginning with the date of the Procuring agency/Employer’s “Notice to Commence” as specified in the PCC.

43. **General Performance of the Bidders**

43.1. The Procuring agency/Employer reserves the right to obtain information regarding performance of the bidders on their previously awarded contracts / works. The Procuring agency/Employer may seek information / report from the previous employer for consideration. However, the Procuring agency/Employer shall incorporate such parameters in the evaluation criteria and accordingly decide the fate of the bid submitted.

44. **Corrupt & Fraudulent Practices**

44.1. Procuring agencies (including beneficiaries of Government funded projects and procurement) as well as Bidders/Suppliers/Contractors under Government financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts, and will avoid to engage in any corrupt and fraudulent practices.

G. GRIEVANCE REDRESSAL & COMPLAINT REVIEW MECHANISM

45. Grievance Redressal

45.1. Grievance Redressal shall be carried out in accordance with the PP Rules 2025, rule no. 65 i.e. Redressal of grievances by the procuring agency and “Redressal of Grievances Regulations 2021”.

H. MECHANISM OF BLACKLISTING

46. Mechanism of Blacklisting

46.1. The Procuring agency/Employer shall proceed Blacklisting of Bidders/Contractors in accordance with PP Rules 2025, rule no.25 i.e. Blacklisting and “Blacklisting and Debarment of Bidders or Contractors Regulations 2024.

Bid Data Sheet

Bid Data Sheet (BDS)

The following specific data for the procurement of works shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITBs). Whenever there is a conflict, the provisions herein shall prevail over those in ITBs.

A. Introduction

ITB Number
Amendments of, and Supplements to, Clauses in the Instruction to Bidders

ITB Number1.1

Name of Procuring agency/Employer: **Pakistan Industrial Development Corporation (Pvt.) Ltd. (Pakistan Industrial Development Corporation (PIDC))**

The subject of procurement is: **Procurement Of Contractor Services for Infrastructure Development of Left-Over / New and Allied Work (Phase-I) at Naushahro Feroze Industrial Park (NFIP), Naushahro Feroze**

Period for completion of the works **8 Months**

Commencement date execution of the works: **15 Days**

Type of Procurement**:Local**

ITB Number2.1

Financial year for the operations of the Procuring agency/Employer: **2026-27**
Name of Project [insert: name and summary description of the Project if any]

Name of financing institution: [insert: name if any]

Name and identification number of the Contract: **P92743**

ITB Number3.1

JV/Consortium or Association Allowed: **Yes**

Maximum number of members in the joint venture shall be: **2**.

B. Bidding Documents

ITB Number6.4

The Bidders may seek clarifications through **EPADS v2.0**: **Last Clarification Date: Thursday, August 27, 2026**
Pre-Bid Meeting: Thursday, August 27, 2026 12:05 PM

C. Preparation of Bids

ITB Number8.1

The Language of all correspondences and documents related to the Bid is: **English**

ITB Number 5.1 & 9.1

The following documentsmust be includedto constitute the Bid

1. All Supporting Documents as requested in eligibility/mandatory and evaluation criteria.

ITB Number9.4 (b)

Other procurement specific documentation requirements are:

Sign and stamp bidding documents

Power of atorney

Aggrement (in case of JV)

ITB Number12.4

The Bid price will be/will not be subject to the price adjustment **Yes**
Price Adjustment Annexure is attached in the Annexure Section with the name of Adjustment Data.

ITB Number12.6

The Bid price shall be adjusted in accordance with Schedule-A to Bid – “Schedule of Adjustment Data” if available.

ITB Number13.1

Bidders to quote entirely in**Pak rupees (PKR)**

Schedule of Adjustment Data for Local Currency (LC)

Index Code	Index Description	Source of Index	Weighting
1	Non-adjustable	---	0.3
2	Local Labour	PBS Monthly Statistical Bulletin	0.15
3	Bitumen	PBS Monthly Statistical Bulletin	0.10
4	Cement	PBS Monthly Statistical Bulletin	0.15
5	Steel	PBS Monthly Statistical Bulletin	0.15
6	High Speed Diesel (HSD)	Pakistan State Oil	0.15
	Total	Pak Rupees	1.00

ITB Number15.1

The Bid Validity period shall be **120 Days** days.

ITB Number16.1

The amount of Bid Security shall be (insert amount)

The currency of the Bid Security shall be: **PKR**.

ITB Number16.2

The Bid Security shall be in the form of:**Pay Order, Call at Deposit, Bank Guarantee, Demand Draft**

D. Submission of Bids

ITB Number19.1

The deadline for Bid submission is:**Monday, September 7, 2026 11:00 AM**
Address for submission of Original Bid Security:**PIDC House, 2nd Floor, Dr. Ziauddin Ahmed Road, Civil Line Sub-Division, Karachi South (District), Karachi (Division), Sindh (Province).**

ITB Number21.1

The Bid opening shall take place at:**EPADS v2.0**

Day : ***Monday***

Date: ***September 07, 2026***

Time : ***11:30 AM***

ITB Number27.1

The currency that shall be used for Bid evaluation and comparison purposes to convert all Bid prices expressed in various currencies is: **PKR Only**

The source of exchange rate shall be: **Nil**

The date of exchange rate shall be: **Nil**

ITB Number28.2 &28.5

Least Cost Based Selection (LCBS)

see Evaluation Criteria

ITB Number29.1

Domestic preference to apply.

Domestic preference:**Yes**

The Percentage of Domestic Preference is 100%

Preference to domestic or national suppliers or contractors shall be provided in accordance with policies of the Federal Government and/or in accordance with the regulations issued by the Authority.

If Yes, The percentage for the domestic preference alongwith calculation formula is provided in the evaluation and qualification criteria.

ITB Number32.2

Sub-contracting is allowed? : **Yes**

30% of the total value of the contract.

39.1 The Performance Security (or guarantee) shall be **10.00%**

39.2 The Performance Security (or guarantee) shall be in the form of:**Pay Order,Banker's Cheque,Bank Guarantee**

Eligibility Criteria

Bidder's Type	Required Registration
Any	NADRA CITIZENSHIP (CNIC/NICOP) FBR (NTN) PEC

Eligibility Criteria	Document
MANDATORY REQUIREMENTS PEC Registration in C-2 Category or above. Completed 1 similar nature civil infrastructure work with a minimum project value of PKR 600 million with in the last 10 years. Blacklisting Affidavit on non-judicial stamp paper. Active Federal and provincial tax Certificate. Valid Bid Security • Above mandatory is not attended by firms, then they will not be considered for evaluation. • If Joint Venture, each partner must individually meet all the above mandatory crit	Yes

Evaluation Criteria

Least Cost Based Selection (LCBS)

Weightage

Technical Evaluation Weightage
100

Technical Marks	100
Passing Marks	**70**
General Experience (Note: • *(The building, dam, irrigation canals and telecom projects will not be considered as similar nature projects. • No marks will be given in the absence of documentary proof.)	
Firms' registration with PEC since last 10 years. 0.5 marks for each year's registration. (Qualitative)(Doc Required)	5
Completion / Taking Over Certificate from client must be provided. A Projects of similar nature civil Infrastructure works of minimum project value of PKR 600 million completed within last 10 years in an industrial zone. (Qualitative)(Doc Required) 2 Numbers of projects or more **(20)** 1 Number of Project **(10)**	20

Completion / Taking Over Certificate from client must be provided. A Projects of similar nature civil Infrastructure works of minimum project value of PKR 600 million completed within last 10 years. 1 Project = 15 Marks (Quantitative)(Doc Required)	15
Performance Certificate or any documentary proof showing the project / work is in progress must be provided. Ongoing similar nature civil infrastructure work of minimum value of PKR 500 million, awarded not later than 2025. (Qualitative)(Doc Required) 2 Numbers of Project or more **(15)** 1 Number of Project **(8)**	15
B. Personnel Capabilities (Marks will be awarded based on the qualification, experience, and current employment status of key technical personnel. Only individuals currently registered with Pakistan Engineering council (PEC) or holding valid diplom	
Graduate Engineers registered with PEC. PEC detail must be provided. • Registered Engineers 10 years or above experience (Qualitative)(Doc Required) 1 Civil & 1 Electrical Engineer **(12)** 1 Civil or 1 Electrical **(6)**	12
Site Supervisors – Degree details must be provided (2 Nos) Minimum DAE with 12 years' experience / BE or BS with minimum 7 years' experience. (Qualitative)(Doc Required) 1 Civil and 1 Electrical **(4)** 1 Civil or 1 Electrical **(2)**	4

Other Personnel Minimum DAE Civil with 12 years' experience / BE or BS with 7 years' experience. (Qualitative)(Doc Required) Quantity Surveyor and Land Surveyor **(4)** Quantity Surveyor or Land Surveyor **(2)**	4
C. Equipment Capability: Marks will be awarded based on the availability, ownership status and condition of equipment required for the execution of the project. Bidders must provide the details as per Schedule-E along with documentary evidence such a	
Tandem Roller - 1 Nos (Quantitative)(Doc Required)	2
Grader - 1 Nos (Quantitative)(Doc Required)	2
Excavator - 1 Nos (Quantitative)(Doc Required)	2
Loader - 1 Nos (Quantitative)(Doc Required)	1
Dumpers - 1 Nos (Quantitative)(Doc Required)	2
Water Browser - 1 Nos (Quantitative)(Doc Required)	1
D. Financial Soundness Audit Accounts Report of last 3 years should be submitted	
Average Annual turnover in last 3 years (as per last 3 years audited accounts) Full marks for average turnover of PKR 600 million or above. For value below 600 million, marks will be awarded as: (Average Turnover / 600) x 5 (Qualitative)(Doc Required)	5
Net Worth (as per latest audited balance sheet) Full Marks for positive net worth of PKR 500 million or above For value below PKR 500 million, marks will be awarded as: (Net Worth / 500) x 5 (Qualitative) (Doc Required)	5
E. Construction Schedule	

Complete Work Schedule item wise starting from 1st October 2026 should be submitted. (Schedule develop on MS Project or Primavera project Planner P-6 with detailed milestones, start date end date. A comprehensive and clear schedule with well-defined milestones will be awarded full marks. Partial marks may be given for incomplete or unclear schedule (Qualitative)(Doc Required)	5

Jobs/Lots

Jobs Without Lots :

Job	Delivery Schedule	Quantity	Bid Security
Procurement Of Contractor Services for Infrastructure Development of Left-Over / New and Allied Work (Phase-I) at Naushahro Feroze Industrial Park (NFIP), Naushahro Feroze	**Address:** Naushahro Feroze Industrial park**Schedule:** 8 months from commencement date**Quantity:** 1/job	1/job	5000000 PKR

Work Specifications and Market Rates

Jobs Without Lots :

Job: Procurement Of Contractor Services for Infrastructure Development of Left-Over / New and Allied Work (Phase-I) at Naushahro Feroze Industrial Park (NFIP), Naushahro Feroze

Specifications / Requirements:

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
1	Bill # 1 Road Network						
2	MES 1-27	Clearing & Grubbing Clearing and Grubbing, all as specified	Cu.m	32001	31.91	Rupees Thirty One and Ninety One Paisa Only	1021151.91

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
4	MES 1-28	NGC Compaction of Natural Ground upto 95% Modified AASHTO density all as specified.	Sq.m	3569.69	30.91	Rupees Thirty and Ninety One Paisa Only	110339.1179
6	MES 1-31	Embankment Making Embankment, with the specified/approved soil obtained from barrow excavation included loading within 5KM, compaction in 95% Modified AASHTO density, and dressing to required profile shape as specified.	Cum	26695	995.54	Rupees Nine Hundred Ninety Five and Fifty Four Paisa Only	26575940.3

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
8	MES 2-34	Sand Layer Providing Sand Cushion in layer as specified, under concrete road, hard standings and Runways etc.	Cu.m	1861	2863.77	Rupees Two Thousand Eight Hundred Sixty Three and Seventy Seven Paisa Only	5329475.97
10	MES 2-12	Sub Base Bottoming /sub base of any thickness as specified using Soil Aggregate of CBR 30%, laid and compacted to 98% Modified AASHTO density by appropriate compaction equipment and roller.	Cu.m	1760	4034.94	Rupees Four Thousand Hundred Thirty Four and Ninety Four Paisa Only	7101494.4

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
12	MES 2-17	Aggregate Base Course Aggregate Base Course, of any thickness as specified, laid and compacted to 100% Modified AASHTO density, by appropriate compaction equipment and roller.	Cu.m	2299.342	5065.06	Rupees Five Thousand Hundred Sixty Five and Six Paisa Only	11646305.19052
14	MES 2-27	Asphalt Base Course Providing and laying, Asphaltic Base Course of any thickness, as specified, with asphalt cement 60/70 or 80/100 using JMF (except prime coat).	Ton	3792	16243.5	Rupees Sixteen Thousand Two Hundred Forty Three and Fifty Paisa Only	61595352

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
16	MES 2-29	Prime Coat Prime Coat, on Base Course surface	Sq.m	20691	277.55	Rupees Two Hundred Seventy Seven and Fifty Five Paisa Only	5742787.05
17	MES 12-17	Paver 60mm Providing and laying, PCC Paving stone, 60 mm thick in natural colour, as in floors, streets, public parking etc., any pattern and shape, (Hydraulically compressed), laid and jointed in sand, including 50 mm thick sand bed as laying course, all as specified	Sq.m	1763.2	1610.7	Rupees One Thousand Six Hundred Ten and Seventy Paisa Only	2839986.24

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
19	MES 12-19	Paver 80mm Providing and laying Tuff Pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope . complete in all respect. (50% Grey / 50% Coloured)80-mm thick	Sq.m	626.2305	2004.73	Rupees Two Thousand Hundred Four and Seventy Three Paisa Only	1255423.070265
21	MES 15-75	Road Marking paint on any new or old surface by using mechanical means, 1st coat.	Ru.m	1788	495.95	Rupees Four Hundred Ninety Five and Ninety Five Paisa Only	886758.6

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
23	MES 2-47	Reflectorized Plastic Pavement Stud (10cm x 7.5 cm x 2 cm), Raised type.	Each	49	555.1	Rupees Five Hundred Fifty Five and Paisa Only	27199.9
25	MES 2-48	Reflectorized Plastic Pavement Stud (10cm x 7.5 cm x 2 cm), Flush type.	Each	85	985.53	Rupees Nine Hundred Eighty Five and Fifty Three Paisa Only	83770.05

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
27	MES 3-52	Kerb Stone (350x300x150)mm Providing and laying Precast PCC Kerb-stone, size 350 x 300 x 150 mm including setting, jointing and pointing in CM 1:4 all as specified.	Ru.m	8373	1085.63	Rupees One Thousand Hundred Eighty Five and Sixty Three Paisa Only	9089979.99
29	MES 3-5	Providing and laying of PCC with 3000 psi compressive cylindrical strength in all non-structural elements including formwork.	Cu.m	190	23925.72	Rupees Twenty Three Thousand Nine Hundred Twenty Five and Seventy Two Paisa Only	4545886.8

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
31	MES 3-2	Providing and laying of CC 1:4:8 using Crushed or Broken Stone as specified, in Foundation	Cu.m	502	15617.42	Rupees Fifteen Thousand Six Hundred Seventeen and Forty Two Paisa Only	7839944.84
33	Market	Traffic road signs catagory -1, including fixing in cement concrete 1:2:4 complete as per directions of Engineer-in-Charge	Each	10	16945.37	Rupees Sixteen Thousand Nine Hundred Forty Five and Thirty Seven Paisa Only	169453.7

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
35	Market	Traffic road signs catagory -2, including fixing in cement concrete 1:2:4 complete as per directions of Engineer-in-Charge	Each	5	21668.06	Rupees Twenty One Thousand Six Hundred Sixty Eight and Six Paisa Only	108340.3
37	Market	Traffic road signs catagory -3(a), including fixing in cement concrete 1:2:4 complete as per directions of Engineer-in-Charge	Each	3	35638.48	Rupees Thirty Five Thousand Six Hundred Thirty Eight and Forty Eight Paisa Only	106915.44

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
39		REHANDLING, REUSE AND RECONDITIONING OF EXISTING ROAD PAVEMENT					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
40	Market	Removal/rehandling of the existing road pavement sub-base and aggregate base materials already available at site, including loosening, scarifying, excavation/removal to the required depth, loading, transportation and stacking/stockpiling at an approved location within the site as directed by the Engineer-in-Charge, without damage to the underlying formation. After completion of the required earth filling and raising of road level, the existing sub-base and aggregate base materials shall be brought back/rehandled and reused, including spreading, grading, reshaping to the required lines, levels, grades and cross-fall, breaking of lumps, removal of	Cum	5645	1900	Rupees One Thousand Nine Hundred Only	10725500

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
41	Bill No. 2 BOX CULVERT						
42		Excavation					
43		Excavation over areas as in Ordinary/Hard Soil upto 1.5 M depth, in foundation / excavations, throw earth clear of edges of excavation within 50 M.					
44	MES 1-7	upto 1.5 meter lift	Cu.m	104	375	Rupees Three Hundred Seventy Five Only	39000
45	MES 1-8	Same as above but 1.5 M to 3 M depth.	Cu.m	124	735	Rupees Seven Hundred Thirty Five Only	91140

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
46	MES 1-9	Same as above but 3 M and upto 6 M depth	Cu.m	136	814	Rupees Eight Hundred Fourteen Only	110704
47	MES 1-10	Same as above but 6 M and upto 9 M depth	Cu.m	59	866	Rupees Eight Hundred Sixty Six Only	51094
49		Concrete Work in Foundation P.C.C (1:4:8)					
50	MES 3-2	Providing and laying 1:4:8 (1 cement 4 sand and 8 coarse aggregate) cement concrete using graded stone ballast 2 inches (51 mm) and down gauge in foundation including levelling, compacting and curing etc. complete.	Cu.m	11.01	17162	Rupees Seventeen Thousand One Hundred Sixty Two Only	188953.62

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
52		R.C.C. Concrete in Foundation (3000 Psi)					
53	MES 3-7	Providing and laying of RCC with 3000 psi compressive cylindrical strength in different structural elements (foundation etc.) including form work all as specified. Reinforcement measured and paid separately.	Cu.m	0.88	24684	Rupees Twenty Four Thousand Six Hundred Eighty Four Only	21721.92
54		R.C.C. Concrete in Foundation, column, footing (3500 Psi)					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
55	MES 3-17	Providing and laying of RCC with 3500 psi compressive cylindrical strength all as specified in foundations, independent column footings, and rigid floors etc. including form work as specified. Reinforcement measured and paid separately.	Cu.m	58.3	31680	Rupees Thirty One Thousand Six Hundred Eighty Only	1846944
57		R.C.C. Wall, Roof Slab, Plinth Beam (3000 Psi)					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
58	MES 3-9	Providing and laying of RCC with 3000 psi compressive cylindrical strength in different structural elements in roof slabs, landings, walls, plinth beams and bands etc. all as specified including form work (reinforcement measured and paid separately).	Cu.m	40.71	31581	Rupees Thirty One Thousand Five Hundred Eighty One Only	1285662.51
60		RCC Slab (3500 Psi)					
61	MES 3-15	Providing and laying of RCC with 3500 psi compressive cylindrical strength all as specified in roof slabs, landings, walls, plinth beams and bands, etc., including form work. Reinforcement measured and paid separately.	Cu.m	24.54	38056	Rupees Thirty Eight Thousand Hundred Fifty Six Only	933894.24
63		Reinforcement Grade 60					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
64	MES 9-56	Providing and laying hard grade ribbed deformed (minimum yield point 60,000 psi) reinforcement bars with & including the cost of straightening, cutting, bending, binding, wastage, and such overlaps as are not shown in the drawings, placing in position on cement concrete 1:2:4 precast or m.s. chairs, tying with binding wire, cost of chairs and wires etc. in all kinds of RCC work in foundation, basement, plinth and ground floor of building including septic tanks and under ground tanks and in projections for future extension . a) Ground floor	Kg	20157.7	354	Rupees Three Hundred Fifty Four Only	7135825.8

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
66	MES 3-28	Providing and fixing of PVC water stopper 250mm wide and 10 mm thick.	Ru.m	112	2777	Rupees Two Thousand Seven Hundred Seventy Seven Only	311024
67	MES 3-55	Form expansion joint 13mm thick in RCC roof or floor slabs etc., and fill in with bitumen grade 10-20.	Ru.m	20	7576	Rupees Seven Thousand Five Hundred Seventy Six Only	151520
68	Bill No. 3 Water Course						
69		Excavation					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
70		Excavation over areas as in Ordinary/Hard Soil upto 1.5 M depth, in foundation / excavations, throw earth clear of edges of excavation within 50 M.					
71	MES 1-7	upto 1.5 meter lift	Cu.m	62	375	Rupees Three Hundred Seventy Five Only	23250
72		Backfilling					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
73	MES 1-16	Earth filling as in Ordinary or hard soil, filling in foundation, pipe trenches, shafts, wells, independent holes, under floors or around plinths etc., 1.5 M below or above Ground Level (GL), with spoil obtained from excavation in trenches/over areas within 50M including watering and compaction in 150 mm layer and dressing to required profile and shape.	Cu.m	377.79	400	Rupees Four Hundred Only	151116
74		Lean Concrete (1:4:8)					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
75	MES 3-2	Providing and laying 1:4:8 (1 cement 4 sand and 8 coarse aggregate) cement concrete using graded stone ballast 2 inches (51 mm) and down gauge in foundation including levelling, compacting and curing etc. complete.	Cu.m	25.87	17162	Rupees Seventeen Thousand One Hundred Sixty Two Only	443981
77	MES 4-2	Burnt brick work, in walls 115 mm thick, laid and jointed in CM 1:4, straight or to curve with inner radius of 6m and over, upto G.F roof level.					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
78	a)	in bed	Per Cum	5.5125	24271	Rupees Twenty Four Thousand Two Hundred Seventy One Only	133794
79	b)	on slope	Per Cum	16.6992	24271	Rupees Twenty Four Thousand Two Hundred Seventy One Only	405306
80	Bill No. 4 Water Supply System						
81		Excavation					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
82		Excavation over areas as in Ordinary/Hard Soil upto 1.5 M depth, in foundation / excavations, throw earth clear of edges of excavation within 50 M.					
83	MES 1-7	upto 1.5 meter lift	Cu.m	2217	401.25	Rupees Four Hundred One and Twenty Five Paisa Only	889571.25
84		Backfilling					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
85	MES 1-16	Earth filling as in Ordinary or hard soil, filling in foundation, pipe trenches, shafts, wells, independent holes, under floors or around plinths etc., 1.5 M below or above Ground Level (GL), with spoil obtained from excavation in trenches/over areas within 50M including watering and compaction in 150 mm layer and dressing to required profile and shape.	Cu.m	1095	428	Rupees Four Hundred Twenty Eight Only	468660
86		Sand Bedding					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
87	MES 12-34	Supplying stacking and filling sand of approved quality from outside sources in foundation, trenches, plinth or under floor, etc. including dressing, watering and consolidationby ramming in layers not exceeding 9 inches (229 mm) in depth to full compaction and lift upto 5 feet (1 .52 m).	Cu.m	333	3693.64	Rupees Three Thousand Six Hundred Ninety Three and Sixty Four Paisa Only	1229982.12
88		Lean Concrete (1:4:8)					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
89	MES 3-2	Providing and laying 1:4:8 (1 cement 4 sand and 8 coarse aggregate) cement concrete using graded stone ballast 2 inches (51 mm) and down gauge in foundation including levelling, compacting and curing etc. complete.	Cu.m	83.27	18363.34	Rupees Eighteen Thousand Three Hundred Sixty Three and Thirty Four Paisa Only	1529115.3218
91		Sluice Valve					
92		Sluice Valve, according to BSS-3464 class 150,(Table 18-1-6) flanged and drilled to BS, Table 18-1-10, complete with rubber packing, 80 mm dia, supply and fixing.					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
93	MES 18-361	4 inches (for 110 mm) dia	Each	2	44142.85	Rupees Forty Four Thousand One Hundred Forty Two and Eighty Five Paisa Only	88285.7
94	MES 18-362	6 inches (150 mm) dia	Each	8	49442.56	Rupees Forty Nine Thousand Four Hundred Forty Two and Fifty Six Paisa Only	395540.48
95		Fire Hyderants					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
96	MES 18-440	Fire Hydrant flanged and drilled to BS Table 18-1-10, complete with rubber packing, 80 mm dia, supply and fixing.	Each	3	64227.82	Rupees Sixty Four Thousand Two Hundred Twenty Seven and Eighty Two Paisa Only	192683.46
97		Total PWD Scheduled Items 2022=					
98		HDPE Pipe					
99		High Density Polyethylene Pipe (HDPE-100), Class PN-10 / SDR-17 (excluding cost of excavation), supply and fixing. Complete with fusion Joint					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
100	MES 18-555	a) 110 mm	Ru.m	1733	2461	Rupees Two Thousand Four Hundred Sixty One Only	4264913
101	MES 18-557	b) 160 mm	Ru.m	1368	4346.34	Rupees Four Thousand Three Hundred Forty Six and Thirty Four Paisa Only	5945793.12

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
102	MES 18-559	c) 200 mm	Ru.m	573	6667.17	Rupees Six Thousand Six Hundred Sixty Seven and Seven Paisa Only	3820288.41
103	MES 18-560	d) 265 mm	Ru.m	22	10434.64	Rupees Ten Thousand Four Hundred Thirty Four and Sixty Four Paisa Only	229562.08
105		Sluice Valve					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
106		Providing and fixing cast iron sluice valves with' flanged ends and two tail pieces to each valve complete with bolts and nuts, including the cost of insertion rubber washers (valves to stand test pressure head of 400 feet (122 m).					
107	MES 18-363	8" i/d (200 mm	Each	2	97897.51	Rupees Ninety Seven Thousand Eight Hundred Ninety Seven and Fifty One Paisa Only	195795.02
109		Air Release Valve					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
110	MES 18-436	Providing and fixing, air valve 2½ (65mm) dia of B.S.S. quality and weight (complete with jointing material).b) double	Each	2	29277.34	Rupees Twenty Nine Thousand Two Hundred Seventy Seven and Thirty Four Paisa Only	58554.68
112		Valve Chamber					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
113	Market	Providing, & construction of valve Chamber block masonary complete in all respects as per Drawings & Specification & Instruction of the Engineer Incharge. But Excluding the cost of Valve. Ineternal size of valve chamber 1.2m x 1.2m x 1.2m	Each	16	150000	Rupees One Lakh Fifty Thousand Hundred Only	2400000
115		Wash out valve					
116		Providing and fixing Wash out valve of B.S.S. quality and weight, Class `B', for cast iron pipe line, and Asbestos cement pipe line (including cost of jointing material):-					

PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
117	Market	4" i/d (100 mm)	Each	1	23126	Rupees Twenty Three Thousand One Hundred Twenty Six Only	23126
118	Market	6" i/d (150 mm)	Each	1	39283	Rupees Thirty Nine Thousand Two Hundred Eighty Three Only	39283
119	Bill No. 5 O.H.R 100,000 Gallons						
120		Excavation					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
121		Excavation over areas as in Ordinary/Hard Soil upto 1.5 M depth, in foundation / excavations, throw earth clear of edges of excavation within 50 M.					
122	MES 1-7	upto 1.5 meter lift	Cu.m	86.23	375	Rupees Three Hundred Seventy Five Only	32336
123	MES 1-8	Same as above but 1.5 M to 3 M depth.	Cu.m	569.1	735	Rupees Seven Hundred Thirty Five Only	418289
124	MES 1-9	Same as above but 3 M and upto 6 M depth	Cu.m	331.97	814	Rupees Eight Hundred Fourteen Only	270224

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
126		Concrete Work in Foundation P.C.C (1:4:8)					
127	MES 3-2	Providing and laying 1:4:8 (1 cement 4 sand and 8 coarse aggregate) cement concrete using graded stone ballast 2 inches (51 mm) and down gauge in foundation including levelling, compacting and curing etc. complete.	Cu.m	157.46	17162	Rupees Seventeen Thousand One Hundred Sixty Two Only	2702329
129		Floors Concrete 2 inch Thickness (1:2:4)					
130	MES 3-5	Providing and laying of PCC with 3000 psi compressive cylindrical strength in all non-structural elements including formwork	Cu.m	54.62	26292	Rupees Twenty Six Thousand Two Hundred Ninety Two Only	1436069
131		Sand Bedding					

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
132	MES 12-34	Supplying stacking and filling sand of approved quality from outside sources in foundation, trenches, plinth or under floor, etc. including dressing, watering and consolidationby ramming in layers not exceeding 9 inches (229 mm) in depth to full compaction and lift upto 5 feet (1 .52 m).	Cu.m	1.02	3452	Rupees Three Thousand Four Hundred Fifty Two Only	3521
134		Sub-Base					
135	MES 2-12	Bottoming /sub base of any thickness as specified using Soil Aggregate of CBR 30%, laid and compacted to 98% Modified AASHTO density by appropriate compaction equipment and roller.	Cu.m	20	4434	Rupees Four Thousand Four Hundred Thirty Four Only	88680

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
137		Brick Work In Foundation					
138	MES 4-6	Burnt brick work, in wall over 225 mm thick, laid and jointed in CM 1:6, straight or to curve with inner radius of 6m and over, upto G.F roof level.	Cu.m	26.36	20751	Rupees Twenty Thousand Seven Hundred Fifty One Only	546996
140		R.C.C. Concrete in Foundation, column, footing (3500 Psi)					
141	MES 3-17	Providing and laying of RCC with 3500 psi compressive cylindrical strength all as specified in foundations, independent column footings, and rigid floors etc. including form work as specified. Reinforcement measured and paid separately.	Cu.m	485.25	31680	Rupees Thirty One Thousand Six Hundred Eighty Only	15372720
143		RCC Slab (3500 Psi)					

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
144	MES 3-15	Providing and laying of RCC with 3500 psi compressive cylindrical strength all as specified in roof slabs, landings, walls, plinth beams and bands, etc., including form work. Reinforcement measured and paid separately.	Cu.m	28.83	38056	Rupees Thirty Eight Thousand Hundred Fifty Six Only	1097154
146		R.C.C. In Superstructure					
147	MES 3-18	Providing and laying of RCC with 4000 psi compressive cylindrical strength all as specified in roof slabs, landings, walls, plinth beams and bands, etc., including form work. Reinforcement measured and paid separately.	Cu.m	38.6	38497	Rupees Thirty Eight Thousand Four Hundred Ninety Seven Only	1485984

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
148		b) At Level 15'-0" to 25'-0"	Cu.m	38.6	39651.91	Rupees Thirty Nine Thousand Six Hundred Fifty One and Ninety One Paisa Only	1530564
149		c) At Level 25'-0" to 35'-0"	Cu.m	38.6	40036.88	Rupees Forty Thousand Hundred Thirty Six and Eighty Eight Paisa Only	1545424

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
150		d) At Level 35'-0" to 45'-0"	Cu.m	38.6	40421.85	Rupees Forty Thousand Four Hundred Twenty One and Eighty Five Paisa Only	1560283
151		d) At Level 45'-3" to 55'-0"	Cu.m	38.6	40806.82	Rupees Forty Thousand Eight Hundred Six and Eighty Two Paisa Only	1575143

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
152		d) At Level 55'-0" to 65'-0"	Cu.m	90.04	41191.79	Rupees Forty One Thousand One Hundred Ninety One and Seventy Nine Paisa Only	3708909
153		d) At Level 65'-0" to 76'-5"	Cu.m	80.87	41576.76	Rupees Forty One Thousand Five Hundred Seventy Six and Seventy Six Paisa Only	3362313
155		RCC Stairs					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
156	MES 3-19	Providing and laying of RCC with 4000 psi compressive cylindrical strength all as specified in beams, columns, stair, posts, struts, piers, lintels etc., including form work. Reinforcement measured and paid separately. (At Level 5'-0" to 15'-0")	Cu.m	1.41	39246	Rupees Thirty Nine Thousand Two Hundred Forty Six Only	55337
157		b) At Level 15'-0" to 25'-0"	Cu.m	1.41	40423.38	Rupees Forty Thousand Four Hundred Twenty Three and Thirty Eight Paisa Only	56997

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
158		c) At Level 25'-0" to 35'-0"	Cu.m	1.41	40815.84	Rupees Forty Thousand Eight Hundred Fifteen and Eighty Four Paisa Only	57550
159		d) At Level 35'-0" to 45'-0"	Cu.m	1.41	41208.3	Rupees Forty One Thousand Two Hundred Eight and Thirty Paisa Only	58104

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
160		d) At Level 45'-0" to 55'-0"	Cu.m	1.41	41600.76	Rupees Forty One Thousand Six Hundred and Seventy Six Paisa Only	58657
162	MES 28-47	Providing and using sulphate resisting cement in place of ordinary portland cment in O.H.W.T, U.G.W.T & Spetic Tank RCC	Kg	1922504	10.8	Rupees Ten and Eighty Paisa Only	20763043
164		Reinforcement Grade 60					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
165	MES 9-56	Providing and laying hard grade ribbed deformed (minimum yield point 60,000 psi) reinforcement bars with & including the cost of straightening, cutting, bending, binding, wastage, and such overlaps as are not shown in the drawings, placing in position on cement concrete 1:2:4 precast or m.s. chairs, tying with binding wire, cost of chairs and wires etc. in all kinds of RCC work in foundation, basement, plinth and ground floor of building including septic tanks and under ground tanks and in projections for future extension . a) Ground floor (Foundation to 5')	Kg	83281	354	Rupees Three Hundred Fifty Four Only	29481474

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
166	a)	b) At Level 5'-0" to 15'-0"	Kg	3037.5	364.62	Rupees Three Hundred Sixty Four and Sixty Two Paisa Only	1107533
167	b)	b) At Level 15'-0" to 25'-0"	Kg	3037.5	368.16	Rupees Three Hundred Sixty Eight and Six Paisa Only	1118286
168	c)	c) At Level 25'-0" to 35'-0"	Kg	3037.5	371.7	Rupees Three Hundred Seventy One and Seventy Paisa Only	1129039

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
169	d)	d) At Level 35'-0" to 45'-0"	Kg	3037.5	375.24	Rupees Three Hundred Seventy Five and Twenty Four Paisa Only	1139792
170	e)	d) At Level 45'-0" to 55'-0"	Kg	3037.5	378.78	Rupees Three Hundred Seventy Eight and Seventy Eight Paisa Only	1150544

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
171	f)	b) At Level 55'-0" to 65'-0"	Kg	18030.6	382.32	Rupees Three Hundred Eighty Two and Thirty Two Paisa Only	6893459
172	g)	c) At Level 65'-0" to 76'-5"	Kg	13100.9	385.86	Rupees Three Hundred Eighty Five and Eighty Six Paisa Only	5055113
174		G.I Railing					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
175	Market	Providing and fixing G.I. Pipe railing of 1-1/2" (38 mm) diameter comprising, vertical posts and horizontal bracing of G.I-pipe of the same dia, as per design including cost of specials, bends, threading, cutting and making good the floor or wall of any kind in cement concrete 1:2:4 etc. complete in any floor..	Ru.m	102.76	2745	Rupees Two Thousand Seven Hundred Forty Five Only	282076
177		Tuff Pavers					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
178	MES 12-17	Providing and laying, PCC Paving stone, 60 mm thick in natural colour, as in floors, streets, public parking etc., any pattern and shape, (Hydraulically compressed), laid and jointed in sand, including 50 mm thick sand bed as laying course, all as specified	Sq.m	199.12	1776	Rupees One Thousand Seven Hundred Seventy Six Only	353637
180	MES 3-28	Providing and fixing of PVC water stopper 250mm wide and 10 mm thick.	Ru.m	20	2777	Rupees Two Thousand Seven Hundred Seventy Seven Only	55540
182		M.S Door					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
183	Market	Providing and fixing single leaf steel doors made to crittal or equivalent standard and of approved sections fully panelled with M. S. Sheet of 16 gauge painted with two coats of red oxide paint including using approved brass section oxidized fitting iron lugs, cutting holes and making good damages to walls etc. complete as required in any floor.	Sq.m	1.63	11559.53	Rupees Eleven Thousand Five Hundred Fifty Nine and Fifty Three Paisa Only	18842
184		Gate valve					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
185	Market	Providing and fixing heavy duty Gate valve of specified diameter and material for pressure rating PN-16 mde of Crane (USA), Hatersly (UK), Scon (Pakistan) or approved equivalent manufacturer, i/c the cost of all accessories flanges, nut/ bolt and gaskit where required complete in all respect as approved and directed by the Engineer Incharge. Flange Ended Ductile Iron Valve					
186		200 mm dia	Each	5	170000	Rupees One Lakh Seventy Thousand Hundred Only	850000

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
187		Disinfecting flanged					
188	Market	Supplying, laying, cutting, jointing, testing and disinfecting flanged/socketed MS pipe, water quality (heavy), with all fittings i.e. sockets, bends, tees, bell mouth, end cap etc. where required, in accordance with API-5L (Grade-B)/ ASTM A53 Sch 40 including applying two coats of bitumen paint complete in all respect.					
189		200 mm dia	Ru.m	98	34000	Rupees Thirty Four Thousand Hundred Only	3332000

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
191	Market	Supplying and fixing in position 2.75' x 2.75' MS sheet, 1/8" thick at the top of reservoir as per drawings, complete in all respects.	Each	1	25000	Rupees Twenty Five Thousand Hundred Only	25000
192	Market	Cleaning, testing & disinfecting over head reservoir complete in all respects upto the satisfaction of the Project Manager	Job	1	150000	Rupees One Lakh Fifty Thousand Hundred Only	150000
194	Market	Providing and fixing C.I 4" dia air vent of approved quality and design on the top of tank as per details provided in the drawings. Complete in all respects.	Each	2	3500	Rupees Three Thousand Five Hundred Only	7000

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
196	Market	Providing, installing, testing and commissioning Hydrostatic Level Submersible Transmitter/ Indicator for direct mounting in Over Head Reservoirs make of USA/Europe or equivalent, along with Level Display unit, Shielded wire of 3m complete in all respect as per instructions of the Engineer Incharge and including the following features.	Each	1	270000	Rupees Two Lakh Seventy Thousand Hundred Only	270000

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
198	Market	Providing and fixing MS ladder by using stringers of size 2.5"x0.50", 15" apart and steps @ 12" c/c for use inside the water including painting with one coat of primer (Red Oxide) and two coats of enamel of approved brand complete in all respects as per drawings.	Ru.m	13	8200	Rupees Eight Thousand Two Hundred Only	106600

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
200	Market	Providing and fixing steel windows with openable glazed panels, using beam section for frame 1½"x1"x5/8"x1/8" (40x25x16x3 mm), Z-section for leaves ¾"x1"x¾"x1/8" 20x25x20x3 mm), T-section sashes 1"x1"x1/8" (25x25x3mm), glass panes, wooden screed for glazing embedded over a thin layer of putty duly screwed with leaves, brass fittings, holdfast, duly painted, complete in all respects, including all cost of material and labour, etc. as per approved design and as directed by the Engineer-in-charge:- fixed with wire gauze, 22 SWG glass pane 5 mm thick	Ru.m	7.43	14954.05	Rupees Fourteen Thousand Nine Hundred Fifty Four and Five Paisa Only	111109

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
202	Market	Supplying, installation, testing and commissioning of complete lightening arrestor system consisting of 5 point air terminal, copper strip, D.C tape clamp, test clamp, earth connecting clamp, earth rod etc complete in all respects as per drawings, specifications and instructions of the Engineer.	Each	1	1656000	Rupees Sixteen Lakh Fifty Six Thousand Hundred Only	1656000
204	Market	Complete Geotechnical Investigations' for the site of overhead reservoir to determine its bearing capacity along with other relevant tests to be decided by the Engineer. Name of the geotechnical investigation firm will require prior approval.	Each	1	200000	Rupees Two Lakh Thousand Hundred Only	200000

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
205	Bill No. 6 Tubewell Chamber						
206		Excavation					
207		Excavation over areas as in Ordinary/Hard Soil upto 1.5 M depth, in foundation / excavations, throw earth clear of edges of excavation within 50 M.					
208	MES 1-7	upto 1.5 meter lift	Cu.m.	25.37	375	Rupees Three Hundred Seventy Five Only	9513.75
209		Backfilling					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
210	MES 1-16	Earth filling as in Ordinary or hard soil, filling in foundation, pipe trenches, shafts, wells, independent holes, under floors or around plinths etc., 1.5 M below or above Ground Level (GL), with spoil obtained from excavation in trenches/over areas within 50M including watering and compaction in 150 mm layer and dressing to required profile and shape.	Cu.m.	16.21	400	Rupees Four Hundred Only	6484
212		Termite Proofing					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
213	MES 11-1	Providing and layaing out Termite proofing in foundations, under floors and wood work surface with a soloution using of confront TC with water and spraying the solution of the area to be treated as completed as per direction of Enmgineer Incharge.	Sqm	87.51	248	Rupees Two Hundred Forty Eight Only	21702.48
215		Horizontal DPC					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
216	MES 4-71	Providing and laying 2 inches (51 mm) thick damp proof course with cement concrete 1:2:4 cast in situ using graded screened bajri of 3/4 inch (19 mm) and down gauge including compacting, curing, form work and its removal etc. complete with applying a coat of hot bitumen (maxphalt 80/100 or equivalent) using 35 Lbs. per hundred square feet (1.71 Kg/sm) on damp proof course after complete drying and cleaning the surface .	Sq.m.	24.74	872	Rupees Eight Hundred Seventy Two Only	21573.28
218		Vertical DPC					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
219	MES 4-70	Providing damp proof course on vertical surface with 3/4 inch (19 mm) thick cement plaster 1:4 mixed with any approved water proofing agent including curing etc. complete, but excluding the cost of water proofing agent .	Sq.m.	18.51	624	Rupees Six Hundred Twenty Four Only	11550.24
221		P.C.C (1:2:4)					
222	MES 3-5	Providing and laying of PCC with 3000 psi compressive cylindrical strength in all non-structural elements including formwork	Cu.m.	0.45	26292	Rupees Twenty Six Thousand Two Hundred Ninety Two Only	11831.4
224		Concrete Work in Foundation P.C.C (1:4:8)					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
225	MES 3-2	Providing and laying 1:4:8 (1 cement 4 sand and 8 coarse aggregate) cement concrete using graded stone ballast 2 inches (51 mm) and down gauge in foundation including levelling, compacting and curing etc. complete.	Cu.m.	7.26	17162	Rupees Seventeen Thousand One Hundred Sixty Two Only	124596.12
227		Sand Bedding					
228	MES 12-34	Supplying stacking and filling sand of approved quality from outside sources in foundation, trenches, plinth or under floor, etc. including dressing, watering and consolidationby ramming in layers not exceeding 9 inches (229 mm) in depth to full compaction and lift upto 5 feet (1 .52 m).	Cu.m.	2.81	3452	Rupees Three Thousand Four Hundred Fifty Two Only	9700.12

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
230		Brick Work In Foundation					
231	MES 4-6	Burnt brick work, in wall over 225 mm thick, laid and jointed in CM 1:6, straight or to curve with inner radius of 6m and over, upto G.F roof level.	Cu.m.	37.125	20751	Rupees Twenty Thousand Seven Hundred Fifty One Only	770380.875
233	MES 4-12	Burnt brick work, in wall over 225 mm thick, laid and jointed in CM 1:6, straight or to curve with inner radius of 6m and over, upto First Floor roof level.	Cu.m.	22.5	20976	Rupees Twenty Thousand Nine Hundred Seventy Six Only	471960
235		Reinforced Cement Concrete Work					
236		R.C.C. Concrete in Foundation, column, footing (3500 Psi)					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
237	MES 3-17	Providing and laying of RCC with 3500 psi compressive cylindrical strength all as specified in foundations, independent column footings, and rigid floors etc. including form work as specified. Reinforcement measured and paid separately.	Cu.m.	3.84	31680	Rupees Thirty One Thousand Six Hundred Eighty Only	121651.2
239		R.C.C. Plinth Beam					
240	MES 3-15	Providing and laying of RCC with 3500 psi compressive cylindrical strength all as specified in roof slabs, landings, walls, plinth beams and bands, etc., including form work. Reinforcement measured and paid separately.	Cu.m.	1.75	38056	Rupees Thirty Eight Thousand Hundred Fifty Six Only	66598
242		R.C.C. In Superstructure					

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
243	MES 3-18	Providing and laying of RCC with 4000 psi compressive cylindrical strength all as specified in roof slabs, landings, walls, plinth beams and bands, etc., including form work. Reinforcement measured and paid separately.	Cu.m.	5.37	38497	Rupees Thirty Eight Thousand Four Hundred Ninety Seven Only	206728.89
245		Reinforcement Grade 60					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
246	MES 9-56	Providing and laying hard grade ribbed deformed (minimum yield point 60,000 psi) reinforcement bars with & including the cost of straightening, cutting, bending, binding, wastage, and such overlaps as are not shown in the drawings, placing in position on cement concrete 1:2:4 precast or m.s. chairs, tying with binding wire, cost of chairs and wires etc. in all kinds of RCC work in foundation, basement, plinth and ground floor of building including septic tanks and under ground tanks and in projections for future extension . a) Ground floor	Kg	963.9	354	Rupees Three Hundred Fifty Four Only	341220.6

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
247		Stone Ballast P.C.C Under Floor					
248	MES 3-2	Providing and laying floors of 2 inches (51 mm) thick 1:2:4 cement concrete using graded screened bajri 3/4 inch (19 mm) and down gauge in ground floor laid in panels including form work, consolidation, finishing, and curing etc. complete. a) Basement & Ground floor	Cu.m.	1.721	17162	Rupees Seventeen Thousand One Hundred Sixty Two Only	29535.802
250		Iron, Steel and Aluminium Works					
251		Aluminium Sliding Windows					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
252	MES 7-112	Supply of Aluminium Fixed window, Deluxe Quality, of Anodized Aluminium extruded section in any size, colour and texture as specified, including fixing on concrete, wood or steel frames, complete with all necessary fittings except glass.	Sq.m.	5.95	18216	Rupees Eighteen Thousand Two Hundred Sixteen Only	108385.2
254		5mm Glass Panes					
255	MES 16-8	Providing and fixing plain glass panes 5mm thick to M.S. Box pipe / Aluminium doors, windows and ventilators etc including the cost of labour but excluding the cost of M.S. square pipe beading, rubber packing and screw in any floor at any height.	Sq.m.	5.95	4876	Rupees Four Thousand Eight Hundred Seventy Six Only	29012.2
257		M.S Steel Door Frame					

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
258	MES 7-84	Providing and fixing MS moulded steel door frames of 4” X 2 ½” manufactured from steel sheet of 18 gauge conforming to BS 1245 having a single rebate size 1 ½” X ½” with provision of 3 nos. MS plate section 1 ½” X ¼” (2 nos. 6” long welded with frame at not less than 10 points and 1 no. 12” long welded with frame at not less than 20 points) with holes and threads for fixing steel hinges fitted with 1 locking box of same sheet (point welded inside the frame) 6 nos. 6” long flat iron fixing lugs of 1 ¼” X 3/16” section treated with special red oxide primer coat all around including cutting holes and fixing the cavity with cement concrete 1:2:4 etc. in any floor at any height complete as directed by	Ru.m.	1.63	1735	Rupees One Thousand Seven Hundred Thirty Five Only	2828.05

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
260	MES 28-130	Providing and fixing with brass screws or specially supplied screws hydraulic door closer of approved design No. 5002, Japan make, cutting wood etc., to required shape and size as per direction of the engineer-in-charge.	Each	3	4875	Rupees Four Thousand Eight Hundred Seventy Five Only	14625
262	MES 28-240	Providing & fixing approved brass sliding bolt or L-drop bolts 12" x 3/4" size with necessary brass iron bolts and nuts.	Each	3	1508.75	Rupees One Thousand Five Hundred Eight and Seventy Five Paisa Only	4526.25
264		1/4" Th. Ceiling Plaster					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
265	MES 13-9	¼” thick cement plaster 1:3 on soffits of ceiling, cantilever slabs, sides and soffits of beams etc. in basement, mezzanine and ground floor including making edges, corners and curing etc. complete. a) Ground floor	Sq.m.	13.4	817	Rupees Eight Hundred Seventeen Only	10947.8
266		1/2" Th. Internal Plaster					
267	MES 13-4	½” thick cement plaster 1:4 on walls and columns etc. in basement, plinth, mezzanine and ground floor including making edges, corners and curing etc. complete. a) Ground floor	Sq.m.	40.29	795	Rupees Seven Hundred Ninety Five Only	32030.55
268		3/4" Th. External Plaster					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
269	MES 13-7	3/4" inch (19 mm) thick cement, plaster 1:4 on walls and columns etc. in basement, plinth, mezzanine and ground floor including making edges, corners and curing etc., complete.	Sq.m.	48.348	984	Rupees Nine Hundred Eighty Four Only	47574.432
270		Painting on Iron Work					
271	MES 15-28-29	Painting iron work with synthetic enamel paint of approved make and shade two coats over and including the cost of one priming coat complete at any height in any floor .	Sq.m.	6.26	221	Rupees Two Hundred Twenty One Only	1383.46
272		Emulsion Paint					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
273	MES 15-52-53-54	Painting with (ICI) Dulux Plastic emulsion paint VIP of approved shade two coats over and including the cost of one priming coat complete over plastered surface at any height in any floor .	Sq.m.	40.29	494	Rupees Four Hundred Ninety Four Only	19903.26
274		Weather Shield Paint					
275	MES 15-58-59	Painting three coats with weather shield paint deluxe (ICI) make of approved shade on plaster surface (External) and including the cost of cleaning the surface, sand papering etc. complete at any height in any floor.	Sq.m.	48.348	438	Rupees Four Hundred Thirty Eight Only	21176.424
276		Porcelain Tile Flooring					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
277	MES 13-36	Providing and laying light colour, glazed/non skid vitrified porcelean tiles (Polished) exceeding 1600 sqcm and upto 3600 Sqcm each, (Pak made) on walls and floors, in any floor, laid with dry bond (stile bond) over a base of 1" thick cement mortar (1:3) including jointing to tiles with joint filler of approved quality as per direction of the Engineer incharge.	Sqm	18.17	3975	Rupees Three Thousand Nine Hundred Seventy Five Only	72225.75
278		Electrical Work					
279		POINT WIRING IN RECESSED PVC CONDUIT.					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
280	MES 24-9	Wiring for light or fan point with 1.5mm² single core, PVC insulated wire copper conductor wire in 20mm (3/4") dia, uPVC conduit rececessed in wall or column, roof etc. including 1mm² single core PVC insulated wire as ECC as required.	Point	10	8349	Rupees Eight Thousand Three Hundred Forty Nine Only	83490
281	MES 25-331	Supply & drawing of 16 mm², single core, PVC insulated wire in all kinds of existing or given conduit/cable duct as required.	P/Meter.	75	1568	Rupees One Thousand Five Hundred Sixty Eight Only	117600

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
283	MES 25-332	Supply & drawing of 25 mm², single core, PVC insulated wire in all kinds of existing or given conduit/cable duct as required.	P/Meter.	130	1723	Rupees One Thousand Seven Hundred Twenty Three Only	223990
285	MES 24-420	Supply & fixing 25mm (1") dia uPVC conduit with all especial such as bends, sockets, Junction etc fitted on surface as required.	P/Meter.	11	1106	Rupees One Thousand One Hundred Six Only	12166
287	MES 24-422	Supply & fixing 50mm (2") dia PVC conduit with all especial such as bends, sockets, Junction etc fitted on surface as required.	P/Meter.	130	1967	Rupees One Thousand Nine Hundred Sixty Seven Only	255710

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
288		FANS					
289		Wall Brackt Fans.					
290	MES 24-478	Providing & installing 40 Cm (18") sweep wall bracket fan complete with blades, regulator & pulling cord switch, fitted on wall or column with GI clip including connection as required. Millat/Pak/Asia/ Younas/Climax/ Royal.	Each	1	14129	Rupees Fourteen Thousand One Hundred Twenty Nine Only	14129
291		Plastic Body Exhaust Fans					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
292	MES 24-708	Providing & installing 35 Cm (14") sweep Plastic body Louvre wall bracket fan complete with blades, regulator & moving grill with motor, fitted on wall or column with GI clip including connection with 14.0076" flexible wire complete as required. Pak, Raval, GFC,Younas,Miltat.	Each	1	6844	Rupees Six Thousand Eight Hundred Forty Four Only	6844
294		4 CORE LT UN ARMOURED CABLE IN					
295		EXISTING CONDUIT OR CABLE DUCT					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
296		Length of cables are tenetative. Actual length of cables to be installed shall be practically measured at site by the Contractor, duly authenticated by the employers electrical engineer before placing the order with the manufacturer, however, approximate length of cables are shown herewith. Payments shall be made as per actual length installed.					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
297	MES 25-268	Providing & laying 4 core, 16 mm², PVC insulated & PVC sheathed, 600/1000 volts grade with stranded copper conductor , un armored, L.T cable in existing all kind of conduit or cable duct as per Pak. P.W.D specification as required.	P/Meter.	75	2458	Rupees Two Thousand Four Hundred Fifty Eight Only	184350
299	MES 25-269	Providing & laying 4 core, 25 mm², PVC insulated & PVC sheathed, 600/1000 volts grade with stranded copper conductor , un armoured, L.T cable in existing all kind of conduit or cable duct as per Pak. P.W.D specification as required.	P/Meter.	130	3819	Rupees Three Thousand Eight Hundred Nineteen Only	496470
301		Termination & Joint of L.T Cable					

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
302	MES 25-521	Making Termination of 3 or 4 core armoured / un-armoured copper conductor, PVC x PVC L.T Cable including providing & fixing proper lugs, etc. complete in all respect as required.					
303		16mm2 to 25mm2	P/Job	2	11244	Rupees Eleven Thousand Two Hundred Forty Four Only	22488
305		Steel Door					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
306	Market	Providing and fixing double leaf steel doors made to crittal or equivalent standard and of approved sections fully panelled with M. S, Sheet of 16 gauge painted with coats of red oxide paint including using approved brass section oxidized fittings, iron lugs, including cutting holes and making good damages to walls etc. complete as required in any floor.	Sq.m	3.13	12242.02	Rupees Twelve Thousand Two Hundred Forty Two and Two Paisa Only	38317.5226
308		Fitting and Fixtures					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
309	Market	Providing and fixing with C.P. brass screws main door handle type yale lock (Italy make) of approved design, cutting wood etc., to required size, with two operating keys, as per direction of the engineer-in-Charge.	Each	3	18284.28	Rupees Eighteen Thousand Two Hundred Eighty Four and Twenty Eight Paisa Only	54852.84
311		Miscellaneous					
312		Khurras					
313	Market	Providing and laying 1:2:4 cement concrete khuras 2" (51 mm) thick 2 ft. x 2 ft. (610 mm x 610 mm) size on roof including finishing with cement plaster 1:4, curing etc. complete.	Each	3	86.23	Rupees Eighty Six and Twenty Three Paisa Only	258.69

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
315		Length of cables are tenetative. Actual length of cables to be installed shall be practically measured at site by the Contractor, duly authenticated by the employers electrical engineer before placing the order with the manufacturer, however, approximate length of cables are shown herewith. Payments shall be made as per actual length installed.					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
316	Market	Wiring for sub main with 2 x 2.5mm², PVC insulated wire 300/500 volts grade, single core, stranded copper conductor wire in 20mm (3/4")dia, uPVC conduit recessed in the wall, column and roof etc. including 1.5mm² PVC insulated wire single core wire as ECC as required.	P/Meter.	34	516.35	Rupees Five Hundred Sixteen and Thirty Five Paisa Only	17555.9
318	Market	Wiring for sub main with 2 x 4mm², PVC insulated wire 300/500 volts grade, single core, stranded copper conductor wire in 20mm (3/4")dia, uPVC conduit recessed in the wall, column and roof etc. including 1.5mm² PVC insulated wire single core wire as ECC as required.	P/Meter.	38	736	Rupees Seven Hundred Thirty Six Only	27968

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
320		Single PVC Insulated Wire and PVC, PVC Cable					
321		in Existing Conduit / Duct.					
322		Length of cables are tenetative. Actual length of cables to be installed shall be practically measured at site by the Contractor, duly authenticated by the employers electrical engineer before placing the order with the manufacturer, however, approximate length of cables are shown herewith. Payments shall be made as per actual length installed.					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
324	Market	Providing & fixing 10 Amps Polycarbonate flame retardant S.P switch with fancy required gang plate fixed on die fabricated, powder coated metal board recessed in wall or column including connection as required.(Schneider/Philips)	No.	6	541.65	Rupees Five Hundred Forty One and Sixty Five Paisa Only	3249.9
326	Market	Providing & fixing 15 Amps Polycarbonate flame retardant 3-Pin switch socket with fancy required gang plate fixed on die fabricated, powder coated metal board recessed in wall or column including connection as required.(Schneider/Philips)	No.	2	1483.5	Rupees One Thousand Four Hundred Eighty Three and Fifty Paisa Only	2967

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
328	Market	Providing, Installation, Testing and Commissinoing of water proof LED batten lights including driver, having warm /neutral white / cool white color 100-110 lm/W efficiency, 0.9 or above power factor, 40000 - 50000 hours life cycle, including connection, complete in all respect as approved by the engineer incharge.					
329		18-20 Watts	No.	2	23742	Rupees Twenty Three Thousand Seven Hundred Forty Two Only	47484

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
331		Roof Treatment					
332	Market	Single layer of tiles 9"x4½"x1½" (225x113x40 mm) laid over 4"(100 mm) earth and 1" (25 mm) mud plaster without Bhoosa, grouted with cement sand 1:3 on top of RCC roof slab, provided with 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.	Sq.m.	14.049	1418.15	Rupees One Thousand Four Hundred Eighteen and Five Paisa Only	19923.58935
334		Electrical Work					
335		P.V.C. Conduit and Accessories					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
336	Market	Supply at site Installation ,Laying of PVC conduit heavy duty make polo, Popular, Beta to be installed in walls, floor, columns above false ceiling or as required asper site conditions including cost of all PVC conduit accessories, steel pull wires, complete in all respects.					
337		c) 3" dia. PVC pipe	P/Meter	100	1310	Rupees One Thousand Three Hundred Ten Only	131000
339		Earthing System					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
340	Market	Supply, installation, testing and commissioning of earthing system for LT panel including earth spike, one each job includes 4" dia bore70' to 80' deeper near water level along with 70 mm2 stranded copper conductor in 2" dia heavy gauge G.I. pipe upto earth connection point including cost of copper spike 12" long connected with G.I pipe, filling of bore with a mixture of charcoal and lime packed 300 mm all around the vertically bore, construction of inspection chamber with RCC cover plate, to achieve the specified earthing results shall be less than 1ohm as required for completion of the item as per requirements, specifications and drawings. Complete in all	No.	2	160000	Rupees One Lakh Sixty Thousand Hundred Only	320000

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
341		LT Panel					
343		LT Panel Installed in Pump Room					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
344	Market	Fabrication, supply at site, installation and commissioning of Distribution Board(DB) indoor type made of sheet steel 14 SWG , with flexible earthing straps, degreased and de-rusted, zinc phosphated, finished with electro-static powder coating of 100 micron thickness in approved colour, panel housing to comply with protection class IP-67, with hinged door, lockable handle, all auxiliaries, internal wiring, designation labels on termination lugs, brass cable glands for incoming & outgoing cables, wiring from breakers, indication lamps, instruments and control all accessories complete in all respect. All incoming and outgoing breakers shall be accessible by opening the front door having	Nos	1	310000	Rupees Three Lakh Ten Thousand Hundred Only	310000

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
346		Distribution Boards					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
347	Market	Supply of Common distribution board at site, fabrication, installation, testing, commissioning and connections of wires / cables of Distribution Boards “Light / Power” concealed type to be installed as and where shown on drawing, made of MS sheet 16 SWG degreased and degusted, zinc phosphated, finished with electro-static powder coating of 15 micron thickness in approved colour with hinged door, flexible earthing strap lockable handle, catcher, earthing strip neutral strip, internal wiring from MCBs terminating on cable terminal blocks, including cost of all necessary materials complete in all respects. Incoming 1 : 25 Amp 2 Pole MCB, RC 10 KA Outgoing 04 x 10/16 ASP	Nos	1	71000	Rupees Seventy One Thousand Hundred Only	71000

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
349	Market	Supply installation of MCC panel Comsprising of ASDS starter to be installed in Pump Room to automatically opearte 70 HP submersible pump complete in all respects.	Nos	1	65640	Rupees Sixty Five Thousand Six Hundred Forty Only	65640
352	Market	Supply at site & installation of PVC back boxes compatible with switch & socket plates to be installed.					
353		a) Back Box: 3" x 3"	Each	4	421	Rupees Four Hundred Twenty One Only	1684
354		b) Back Box: 3" x 6""	Each	2	610	Rupees Six Hundred Ten Only	1220

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
355		c) Junction Box 9"x7" for general use	Each	1	790	Rupees Seven Hundred Ninety Only	790
356	Bill No. 7 Tubewell						
357		Excavation					
358		Excavation over areas as in Ordinary/Hard Soil upto 1.5 M depth, in foundation / excavations, throw earth clear of edges of excavation within 50 M.					
359	MES 1-7	upto 1.5 meter lift	Cu.m.	13.5	375	Rupees Three Hundred Seventy Five Only	5062.5

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
361	MES 4-21	Burnt brick work, in wall 115 mm thick, laid and jointed in CM 1:6, straight or to curve with inner radius of 6m and over, upto 4.25 m depth.	Cu.m.	18	13694	Rupees Thirteen Thousand Six Hundred Ninety Four Only	246492
363	MES 18-364	Providing and fixing cast iron sluice valves according to BSS-3464 class 150 with 'flanged end sand two tail pieces to each valve complete with bolts and nuts, including the cost of insertion rubber washers (valves to stand test pressure head of 400 feet (122 m). 250 mm i/d.	Each	1	116252	Rupees One Lakh Sixteen Thousand Two Hundred Fifty Two Only	116252

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
365	MES 19-33	In any soil, drilling bore hole, 600 mm dia, employing Reverse Rotary, Hydraulic Percussion method, bore upto 50 M depth, complete.	Ru.m	50	14900	Rupees Fourteen Thousand Nine Hundred Only	745000
367	MES 19-36	In any soil, drilling bore hole, 600 mm dia, employing Reverse Rotary, Hydraulic Percussion method, bore more than 50 M but upto 100 M depth, complete.	Ru.m	25	16868	Rupees Sixteen Thousand Eight Hundred Sixty Eight Only	421700
369	MES 19-60	Supply and Pouring of Shrouding Gravel of requisite grade, in annular space between blind pipe/strainer and bore hole according to specifications for 250 mm dia blind pipe/strainer.	Cu.m.	25.74	712	Rupees Seven Hundred Twelve Only	18327

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
371	MES 19-63	Provision of Sanitary Seal of approved design and specification for 250 mm dia blind pipe.	Ru.m	90	3916	Rupees Three Thousand Nine Hundred Sixteen Only	352440
373	MES 18-436	Air valve automatic, 50 mm size, double acting, supply and fixing.	Each	1	27362	Rupees Twenty Seven Thousand Three Hundred Sixty Two Only	27362
375	MES 19-57	Providing and installing, Fiber Glass Bail plug in tubewell bore hole. . 250 mm i/d 6mm thick 3 m long.	Each	1	26808	Rupees Twenty Six Thousand Eight Hundred Eight Only	26808

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
376	MES 27-67	Pipe line pressure gauge, supply and fixing.	Job	1	24982	Rupees Twenty Four Thousand Nine Hundred Eighty Two Only	24982
378	Market	Providing and installing M.S blind pipe socketed/welded joint, M.S. reducer in tubewells bore hole including jointing/welding with strainer, etc. 18" i/d 1/4" (450 mm i/d 6 mm) thick.	Ru.m	30	45000	Rupees Forty Five Thousand Hundred Only	1350000

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
380	Market	Providing and installing, Fiber Glass strainer in tubewell bore hole including sockets,special socket etc. including jointing complete in all respect.250 mm i/d 6mm thick with 10% open area.	Ru.m	60	11700	Rupees Eleven Thousand Seven Hundred Only	702000
382	Market	Providing and installing, Fiber Glass blank pipe in blank pipe in the tubewell borehole including jointing with the Fiber Glass blank pipe / strainer pipe. 250 mm i/d 6mm thick.	Ru.m	30	9435	Rupees Nine Thousand Four Hundred Thirty Five Only	283050
384	Market	Providing/fixing M.S centerlizers	Each	13	1069	Rupees One Thousand Hundred Sixty Nine Only	13897

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
386	Market	Taking sample one number at every 5 ft. or from each stratum as per direction of Engineer including submission construction charts etc. and results of strata analysis.	Each	90	166	Rupees One Hundred Sixty Six Only	14940
388	Market	Providing and sealing with puddle clay between shrouding and grouting etc.	Job	1	4801	Rupees Four Thousand Eight Hundred One Only	4801
390	Market	Development testing and disinfecting of complete well in accordance with the tendered specifications including disposal arrangement of water as pumped.	Job	1	157102	Rupees One Lakh Fifty Seven Thousand One Hundred Two Only	157102

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
391	Market	Providing and fixing M.S. cap to cover the pump house casing upto 600 mm dia 6mm thick including welding.	Each	1	2113	Rupees Two Thousand One Hundred Thirteen Only	2113
392	Market	Providing/laying cement concrete block size as per drawing with RCC ratio 1:2:4 to house casing complete i/c screening of aggregate shuttering M.S Bars size 1/2" i/d & 2 Nos. clamps at right angle 1/2" thick 6" wide 5 ft long for holding down bolts with nuts complete.	Job	1	54805	Rupees Fifty Four Thousand Eight Hundred Five Only	54805

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
394	Market	Installation of supply well	Job	1	259708	Rupees Two Lakh Fifty Nine Thousand Seven Hundred Eight Only	259708
396	Market	Geophysical bore hole logging	Job	1	60000	Rupees Sixty Thousand Hundred Only	60000
398	Market	Providing/fixing Carrugated Sheet (8'x4') i/c Joints etc around Working Area of the site for Safety Arrangments Complete	Ru.m	76.22	511.68	Rupees Five Hundred Eleven and Sixty Eight Paisa Only	39000

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
400	Market	Providing, installing, testing and lowering vertical shaft water lubricated deep well turbine pump of Europe/USA or equivelent of 250m3/hr capcaity against pumping head of 45 m feet including lowering of bowl assembly about 30m column pipe setting along with vertical solid shaft electrcial motor totally enclosed fann cooled, tropically insulated, 3-Phase, 75 HP / 4P Siemens Vertical Solid Shaft Motor + Motor Control Unit	Job	1	7020000	Rupees Seventy Lakh Twenty Thousand Hundred Only	7020000

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
402	Market	P/fixing D.I non return valve in accordance with BS 3464 PN16 epoxy cotted internally and externally stainless Steel Wedge, stamp and seatas per specifications 250 mm dia with integral flanges i/c rubber rings, complete in all respect.	Each	1	203788	Rupees Two Lakh Three Thousand Seven Hundred Eighty Eight Only	203788
404	Market	Providing cement concrete/brick blocks to support bends with ratio 1:2:4 i/c of screening washing of stone aggregate shuttering and curing etc. complete as per drawing, complete job.	Each	1	700	Rupees Seven Hundred Only	700

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
406	Market	Construction of brick support for tubewell delivery pipe as per drawing complete in all respects.	Job	1	1500	Rupees One Thousand Five Hundred Only	1500
408	Market	Construction of RCC support for tubewell delivery pipe and bend as per drawing complete in all respects.	Job	1	3822.7	Rupees Three Thousand Eight Hundred Twenty Two and Seventy Paisa Only	3823
409	Bill No. 8 Sewerage System						
410		Excavation					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
411		Excavation over areas as in Ordinary/Hard Soil upto 1.5 M depth, in foundation / excavations, throw earth clear of edges of excavation within 50 M.					
412	MES 1-7	upto 1.5 meter lift	Cu.m	4894	341.25	Rupees Three Hundred Forty One and Twenty Five Paisa Only	1670078
413	MES 1-8	Same as above but 1.5 M to 3 M depth.	Cu.m	4894	668.85	Rupees Six Hundred Sixty Eight and Eighty Five Paisa Only	3273352

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
414	MES 1-9	Same as above but 3 M and upto 6 M depth	Cu.m	1813	740.74	Rupees Seven Hundred Forty and Seventy Four Paisa Only	1342962
415		Backfilling					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
416	MES 1-16	Earth filling as in Ordinary or hard soil, filling in foundation, pipe trenches, shafts, wells, independent holes, under floors or around plinths etc., 1.5 M below or above Ground Level (GL), with spoil obtained from excavation in trenches/over areas within 50M including watering and compaction in 150 mm layer and dressing to required profile and shape.	Cu.m	5500	364	Rupees Three Hundred Sixty Four Only	2002000
417		Sand Bedding					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
418	MES 12-34	Supplying stacking and filling sand of approved quality from outside sources in foundation, trenches, plinth or under floor, etc. including dressing, watering and consolidationby ramming in layers not exceeding 9 inches (229 mm) in depth to full compaction and lift upto 5 feet (1 .52 m).	Cu.m	600	3141.32	Rupees Three Thousand One Hundred Forty One and Thirty Two Paisa Only	1884792
420		RCC Pipes					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
421		Providing RCC pipes and collars of class 'A' and fixing in trench including cutting, fitting and jointing with maxphalt composition and cement mortar (1:1) and testing with water to a head of 4 feet (1.22 m) above the top of the highest pipe including cartage within 10 miles (16.09 km.)					
422	MES 21-7	12 inches (305 mm) dia. pipe.	Ru.m	2175	2457	Rupees Two Thousand Four Hundred Fifty Seven Only	5343975

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
423	MES 21-8	15 inches (380 mm) dia. pipe	Ru.m	540	3373.37	Rupees Three Thousand Three Hundred Seventy Three and Thirty Seven Paisa Only	1821620
424	MES 21-9	18 inches (460 mm) dia. pipe...	Ru.m	442	3869.32	Rupees Three Thousand Eight Hundred Sixty Nine and Thirty Two Paisa Only	1710239
426		UPVC Pipes					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
427		Providing and fixing un platisized polyvinyl chloride pipe (P.V.C) "D" class and specials etc. including cutting and fitting complete with and including the cost of cutting trench upto 1-1/2 feet deep refilling, watering, ramming, and disposal of surplus earth within one chain and after cleaning the pipe and cartage within 10 miles (16.09 km.) (working pressure 12 kg/cm2) 1-1/4 inches (32 mm) dia.					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
428	MES 20-4	6 inches (150 mm) dia	Ru.m	400	3757.39	Rupees Three Thousand Seven Hundred Fifty Seven and Thirty Nine Paisa Only	1502956
429		Cunette & RCC Chamber					
430		Concrete Work P.C.C (1:3:6)					
431	MES 3-3	Providing and laying 1:3:6 (1 cement 3 sand and 6 coarse aggregate) cement concrete using graded stone ballast 2 inches (51 mm) and down gauge in foundation including levelling, compacting and curing etc. complete.	100 Cft	3.91	17253.6	Rupees Seventeen Thousand Two Hundred Fifty Three and Sixty Paisa Only	67462

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
433		Concrete Work P.C.C (1:4:8)					
434	MES 3-2	Providing and laying 1:4:8 (1 cement 4 sand and 8 coarse aggregate) cement concrete using graded stone ballast 2 inches (51 mm) and down gauge in foundation including levelling, compacting and curing etc. complete.	100 Cft	0.4	15617.42	Rupees Fifteen Thousand Six Hundred Seventeen and Forty Two Paisa Only	6247
435		R.C.C. Concrete in Foundation (3000 Psi)					

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
436	MES 3-7	Providing and laying of RCC with 3000 psi compressive cylindrical strength in different structural elements (foundation etc.) including form work all as specified. Reinforcement measured and paid separately.	Cu.m	7.521	22462.44	Rupees Twenty Two Thousand Four Hundred Sixty Two and Forty Four Paisa Only	168940
438		R.C.C. Wall, Roof Slab, Plinth Beam (3000 Psi)					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
439	MES 3-9	Providing and laying of RCC with 3000 psi compressive cylindrical strength in different structural elements in roof slabs, landings, walls, plinth beams and bands etc. all as specified including form work (reinforcement measured and paid separately).	Cu.m	57.12	28738.71	Rupees Twenty Eight Thousand Seven Hundred Thirty Eight and Seventy One Paisa Only	1641555
441		Reinforcement Grade 60					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
442	MES 9-56	Providing and laying hard grade ribbed deformed (minimum yield point 60,000 psi) reinforcement bars with & including the cost of straightening, cutting, bending, binding, wastage, and such overlaps as are not shown in the drawings, placing in position on cement concrete 1:2:4 precast or m.s. chairs, tying with binding wire, cost of chairs and wires etc. in all kinds of RCC work in foundation, basement, plinth and ground floor of building including septic tanks and under ground tanks and in projections for future extension . a) Ground floor	Kg	6000	322.14	Rupees Three Hundred Twenty Two and Four Paisa Only	1932840
444		Crushed Stone Bedding					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
445	Market	Supplying, stacking, spreading soil aggregate (Ghara/Pit pan gravel) and sand (a mixture of natured and crushed stone) as approved by Engineer Incharge i/c watering, consolidation, compaction to required density with power robber i/c all lead and lift (actual compacted depth shall be cibsudered for payment.	Cu.m	285	2025.74	Rupees Two Thousand Hundred Twenty Five and Seventy Four Paisa Only	577336
446		Manholes					

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
447	Market	Construction of manholes, complete in all respects as per drawings, specifications & instructions of the Engineer. The unit rate includes but not limited to excavation, backfilling of earth, required compaction, crushed stone, PCC (1:4:8), PCC (1:3:6), (1:2:4) benching, R.C.C 4000 Psi, including reinforcement bitumen coating, top ring, manhole cover with frame, making holes for RCC pipes, etc complete in all respects as per Drawings.					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
448		4' i/d, 10.01-14 ft Height, Type I	Each	60	172835	Rupees One Lakh Seventy Two Thousand Eight Hundred Thirty Five Only	10370100
449		4' i/d, 14.01-18 ft Height, Type II	Each	18	218389	Rupees Two Lakh Eighteen Thousand Three Hundred Eighty Nine Only	3931002

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
450		5' i/d, upto 18 ft Height, Type III	Each	16	287897	Rupees Two Lakh Eighty Seven Thousand Eight Hundred Ninety Seven Only	4606352
452	Market	Providing and fixing D.I Grating with frame 1.5'x1.5' hinged & bolted anti theft complete in all respect as approval and entire satisfaction of the Engineer.	Each	80	81075	Rupees Eighty One Thousand Hundred Seventy Five Only	6486000
453	Bill No. 9 Electrical Sleeves						
454		Excavation					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
455		Excavation over areas as in Ordinary/Hard Soil upto 1.5 M depth, in foundation / excavations, throw earth clear of edges of excavation within 50 M.					
456	MES 1-7	upto 1.5 meter lift	Cu.m	410	375	Rupees Three Hundred Seventy Five Only	153750
457		Backfilling					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
458	MES 1-16	Earth filling as in Ordinary or hard soil, filling in foundation, pipe trenches, shafts, wells, independent holes, under floors or around plinths etc., 1.5 M below or above Ground Level (GL), with spoil obtained from excavation in trenches/over areas within 50M including watering and compaction in 150 mm layer and dressing to required profile and shape.	Cu.m	111	400	Rupees Four Hundred Only	44400
459		Concrete Work P.C.C (1:4:8)					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
460	MES 3-2	Providing and laying 1:4:8 (1 cement 4 sand and 8 coarse aggregate) cement concrete using graded stone ballast 2 inches (51 mm) and down gauge in foundation including levelling, compacting and curing etc. complete.	Cu.m	230	17162	Rupees Seventeen Thousand One Hundred Sixty Two Only	3947260
462		UPVC Pipes					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
463		Providing and fixing un platisized polyvinyl chloride pipe (P.V.C) "D" class and specials etc. including cutting and fitting complete with and including the cost of cutting trench upto 1-1/2 feet deep refilling, watering, ramming, and disposal of surplus earth within one chain and after cleaning the pipe and cartage within 10 miles (16.09 km.) (working pressure 12 kg/cm2) 1-1/4 inches (32 mm) dia.					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
464	MES 20-4	6 inches (150 mm) dia	Ru.m	2877	4129	Rupees Four Thousand One Hundred Twenty Nine Only	11879133
465	MES 20-3	4 inches (100 mm) dia	Ru.m	900	2759	Rupees Two Thousand Seven Hundred Fifty Nine Only	2483100
466		HDPE Pipe					
467		High Density Polyethylene Pipe (HDPE-100), Class PN-10 / SDR-17 (excluding cost of excavation), supply and fixing. Complete with fusion Joint					

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
468	MES 18-562	315 mm	Ru.m	150	15609	Rupees Fifteen Thousand Six Hundred Nine Only	2341350
469	Bill No. 10 EXTERNAL LIGHTING WORKS						

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
470		Length of cables are tenetative. Actual length of cables to be installed shall be practically measured at site by the Contractor, duly authenticated by the employers electrical engineer before placing the order with the manufacturer, however, approximate length of cables are shown herewith. Payments shall be made as per actual length installed.					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
471	MES 25-257	Providing & laying 4-core, PVC insulated & PVC sheathed, 600/1000 Volts grade with stranded copper conductor, armoured underground, LT cable buried in the ground dully covered with sand and warning cable tiles as per Pak. P.W.D specification as required.					
472		16mmsq	P/Meter.	2080	3411.52	Rupees Three Thousand Four Hundred Eleven and Fifty Two Paisa Only	7095961.6

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
474	MES 25-331	Supply & drawing of 16 mm^2, single core, PVC insulated wire in all kinds of existing or given conduit/cable duct as required. (From Transformer to SLCP)	P/Meter.	2080	1756.16	Rupees One Thousand Seven Hundred Fifty Six and Six Paisa Only	3652813
476	Market	Making Termination of 3 or 4 core armoured / un-armoured copper conductor, PVC X PVC L.T Cable including providing & fixing proper lugs etc complete in all respect as required.					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
477		a) 16mmsq to 25mmsq	P/Job	4	2954.56	Rupees Two Thousand Nine Hundred Fifty Four and Fifty Six Paisa Only	11818.24
479	MES 25-592	Providing and fixing indoor/outdoor, Single core, 11KV, XLPE, heat shrink termination ends kit complete in all respect as required					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
480		a) 16mmsq to 25mmsq	P/Job	4	3794.56	Rupees Three Thousand Seven Hundred Ninety Four and Fifty Six Paisa Only	15178.24
482	MES 25-492	Making Straight through joint of 3 or 4 core armoured, copper conductor L.T cable, complete with heat shrink tubes, ferules, GI flexible Earth net, joint box and compound solution including excavation & back filling as required.					

PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
483		a) 16mmsq	P/Job	7	14605.92	Rupees Fourteen Thousand Six Hundred Five and Ninety Two Paisa Only	102241.44
485		Providing, Installation, Testing and Commissinoing of Street / Road Lights (IP 65) including driver, having warm / neutral white / cool white colour 110-120 lm/ watts efficiency 0.9 or above power factor 40000-50000 hours life cycle, including connection, complete in all respect as approved by the engineer incharge.					

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
486	MES 25-1010	90-100 Watts	No.	84	49035.84	Rupees Forty Nine Thousand Hundred Thirty Five and Eighty Four Paisa Only	4119010.56

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
488		Supply and installation of hot-dipped galvanized inside and outside with 4mm wall thickness Octagonal Steel poles. Including base plate, galvanized J bolt, nuts and washer, self locking inspection weather proof type door with rubber gasket, earthing lugs strip in side pole, special key, as per specification and details shown on the drawings. The product complying with the specification shall be used or approved by the Engineer.					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
491	MES 25-25	9 meter high Hot-dipped galvanized, Octagonal Steel pole with single arm.	Each	46	106243.2	Rupees One Lakh Six Thousand Two Hundred Forty Three and Twenty Paisa Only	4887187.2
492		9 meter high Hot-dipped galvanized, Octagonal Steel pole with Double arm	Each	19	104220.48	Rupees One Lakh Four Thousand Two Hundred Twenty and Forty Eight Paisa Only	1980189.12

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
494		Supply, installation testing and comissioning of uPVC conduit/ pipe Class D including cost of all fittings i.e., Elbows, Tee, Sockets, Reducer etc jointing with accessories. complete in all respect as shown in drawings and as per specifications.					
496	MES 24-422	50 mm Dia uPVC Conduit	Mtr	2080	2203.04	Rupees Two Thousand Two Hundred Three and Four Paisa Only	4582323.2

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
498	Market	Wiring for sub main with 2 x 2.5mm², PVC insulated wire 300/500 volts grade, single core, stranded copper conductor wire in 20mm (3/4")dia, uPVC conduit recessed in the wall, column and roof etc. including 1.5mm² PVC insulated wire single core wire as ECC as required.	P/Meter.	1176	516.35	Rupees Five Hundred Sixteen and Thirty Five Paisa Only	607227.6
500		Supply, installation, testing and commissioning of following cable terminal box comprising with 2Amp Miniature circuit breaker (MCB) including 415 volt high voltage resistance Copper terminal, Complete in all respect as per specification and drawing.					

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
501	Market	Cable Terminal Box with 1x2 Amp miniature circuit breaker.	Each	46	1792	Rupees One Thousand Seven Hundred Ninety Two Only	82432
502	Market	Cable Terminal Box with 2x2 Amp miniature circuit breaker.	Each	19	2689	Rupees Two Thousand Six Hundred Eighty Nine Only	51091

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
504	Market	Supply, installation , testing & commissioning of following out door type Street Light Control Panel (IP-67) rated, as per single line schematic diagram including provision of Pad Mounted foundation , complete in all respect as per drawing and specification:-					
505		SLCP-1 :					
506		INCOMING:					
507		1 No: 40A TP MCCB (Isc: 10KA)					
508		1 No: 40A TP Contactor On/Off Push Button					
509		1 No. : 3 Phase Kwh Energy Meter					
510		1 No. : Surge Protector (15-20 kA)					

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
511		1 No. : Photo Sensor with manual bypaas timer contactor arrangement .					
512		OUTGOING:					
513	Market	09 Nos: 15A TP MCCB (Isc:10 KA)	Each	1	368000	Rupees Three Lakh Sixty Eight Thousand Hundred Only	368000
514		Earthing System					

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
515	Market	Supply , installation , testing and commissioning of earthing system with 3 meter long 20 mm dia earth Copper rod at both end of each circuit of street light, directly driven to ground to obtain earth resistance Not less than 3 ohm including 16 sq mm bare conductor wire from earth rod to lighting pole, Marconite concrete, drilling in ground etc, complete in all repect as per specification and drawing or as directed by Engineer.	Each	2	64381	Rupees Sixty Four Thousand Three Hundred Eighty One Only	128762

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
517	Market	Supply , installation , testing and commissioning of earthing system for protecting Earthing of SLCP with 3 meter long Copper rod with 20 mm dia size with bare Copper Earth conductor 2 x 70 sq. mm, up to Earth connecting point, inspection chamber, marconite concrete, drilling etc, to achieve less than 1 ohms specified Earthing results. Complete in all respect as per drawing and specification or as directed by Engineer.	Each	2	80220	Rupees Eighty Thousand Two Hundred Twenty Only	160440

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
519	Market	Supply, installation, testing and commissioning of earthing system with 3 meter long 20 mm dia earth copper rod at both end of each circuit of street light, directly driven to ground to obtain earth resistance not less than 3 ohm including 16 sq mm bare conductor wire from earth rod to lighting pole, marconite concrete, drilling in ground etc. Complete in all repect as per specification and drawing or as directed by Engineer.	Each	2	64000	Rupees Sixty Four Thousand Hundred Only	128000

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
521	Market	Supply, installation, testing and commissioning of earthing system for protecting earthing of SLCP with 3 meter long copper rod with 20 mm dia size with bare copper earth conductor 2 x 70 sq. mm, up to earth connecting point, inspection chamber, marconite concrete, drilling etc, to achieve less than 1 ohms specified earthing results. Complete in all respect as per drawing and specification or as directed by the Engineer.	Each	2	81726	Rupees Eighty One Thousand Seven Hundred Twenty Six Only	163452

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
523	Market	Excavation and backfilling of every type of trench in any type of soil with in the project area for laying of street light cables, including and cushion, protective bricks, warning tape and excvated compaction in layers not exceeding 9 inch thick, site cleaning etc. as per drawing and specification or as directed by the Engineer.					
524		Excavation, back filling and compaction	Cu.m	683	351.3	Rupees Three Hundred Fifty One and Thirty Paisa Only	239937.9

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Sr. No	Sr. Nr.	Description	Unit	Qty	Rate		Amount
525		River Sand (Bed and cover)	Cu.m	230	750	Rupees Seven Hundred Fifty Only	172500
526		Bricks	Cu.m	45	9516.5	Rupees Nine Thousand Five Hundred Sixteen and Fifty Paisa Only	428242.5
527		Warning Tape with 300 mm width and 0.5 mm thickness	Rm	2082	60	Rupees Sixty Only	124920
						GRAND TOTAL:	Rs421,744,734.28

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Scope of Work

As per BOQ

Price Schedule

For Individual Jobs

#	Job Title	Quantity	Unit Price (PKR)	Total Price (PKR)	Delivery Location	Delivery Period / Year	Country of Origin
1							
2							

For Lots

#	Lot Title	Total Lot Price (PKR)	Country of Origin
1	[Lot 1 Title]		

PUBLIC PROCUREMENT REGULATORY AUTHORITY
(PPRA)
EPADS

General Conditions of Contract

Red Book:
© FIDIC 2017. All rights reserved.

The Conditions of Contract are the “General Conditions” which form part of the “Conditions of Contract for Construction for Building and Engineering Works Designed by the Employer (“Red book”) Second edition 2017” published by the Federation Internationale Des Ingenieurs – Conseils (FIDIC) and the following “Particular Conditions” which shall complement the General Conditions of the Contract.

The successful Bidder, upon contract award, shall be required to furnish two (02) copies of aforementioned “General Conditions” for incorporation in the Works Contract.

International Federation of Consulting Engineers (FIDIC) FIDIC
Bookshop – Box- 311 – CH – 1215 Geneva 15, Switzerland
Fax: +41 22 799 49 054
Telephone: **+41 22 568 0500**
E-mail: **fidic@fidic.org**
Website: www.fidic.org
FIDIC code: ISBN13: 978-2-88432-084-9

Special Conditions of Contract

PARTICULAR CONDITIONS OF CONTRACT (PCC)

Particular Conditions
(Mandatory Provisions not to be amended/substituted)

The Particular Conditions (PCC) complement the General Conditions (GCC) to specify dates, contractual requirements, and special circumstances related to the Works. The PCC consists of two parts, Part A - Contract Data and Part B - Special Provisions. The provisions to be found in the Special Provisions (Particular Conditions - Part B) take precedence over the equivalent provisions found under the same Sub-Clause number(s) in the General Conditions, and the provisions of the Contract Data (Particular Conditions - Part A) take precedence over the Special Provisions (Particular Conditions - Part B).

PART A - Contract Data

Sub-Clause 1.1.27
Defects Notification Period (DNP): **180** Days

Sub-Clause 1.1.31
Employer's name & address: **Pakistan Industrial Development Corporation (Pvt.) Ltd. (Pakistan Industrial Development Corporation (PIDC)), Assistant Manager PIDC House, 2nd Floor, Dr. Ziauddin Ahmed Road, Civil Line Sub-Division, Karachi South (District), Karachi (Division), Sindh (Province).**

Sub-Clause 1.1.35
Engineer's name & address: Asian Consulting Engineers

Lahore

Sub-Clause 1.1.84
Time for Completion: **240** days for whole of the works

Sub-Clause 1.3 (a)(ii)
Agreed method of electronic transmission: Not Agreed

Sub-Clause 1.3 (d)
Address of Empoyer for Communications: **PIDC House, 2nd Floor, Dr. Ziauddin Ahmed Road, Civil Line Sub-Division, Karachi South (District), Karachi (Division), Sindh (Province).**
Address of Engineer for Communications:

Lahore

Address of Contractor for Communications: ----------

Sub-Clause 1.4
Contract shall be governed by the law of: **Islamic Republic of Pakistan**
Ruling language: **English**
Language for communications: **English**

Sub-Clause 2.1
After receiving the Letter of Acceptance, the Contractor shall be given right of access to all or part of the Site within: **15** days after Commencement Date

Sub-Clause 2.4
Employer’s financial arrangements:

PIDC Own Funds

Sub-Clause 3.2 (e)(ii)
Engineer’s Duties and Authority: **Variation resulting in an increase of the Accepted Contract Amount in excess ofone percent (1%)subject to accumulative Variations not exceeding five percent (5%)of the Accepted Contract Amount**

Sub-Clause 4.2
Performance Security (as percentage of the Accepted Contract Amount in Currencies): 10.00%
Form of Performance Guarantee: **Pay Order, Banker's Cheque, Bank Guarantee**

Sub-Clause 4.2.1
List of Insurance Companies:

All AA rating insurance companies

Sub-Clause 4.7.2
period for notification of errors in the items of reference: **Twenty Eight (28) days**

Sub-Clause 4.19
Period of payment for temporary utilities: **Each Month**

Sub-Clause 5.1 (a)
Maximum allowable accumulated value of work subcontracted (as a percentage of the Accepted Contract Amount): **Nil** %

Sub-Clause 5.1 (b)
Parts of the Works for which subcontracting is not permitted: Nil

Sub-Clause 6.5
Normal working hours on the Site: **9**

Sub-Clause 8.3
Number of additional paper copies of programmes: **3**

Sub-Clause 8.8 & 14.15(b)
Delay Damages payable for each day of delay **0.01**% of the Accepted Contract Amountfor delay in completion of whole of the Works

Sub-Clause 8.8
Maximum amount of Delay Damages **10.00 %** of the Accepted Contract Amount

Sub-Clause 8.14
Applicability of Incentives for Early Completion **No**

Sub-Clause 12.3
Percentage profit (Not more than 10%): **Nil**

Sub-Clause 13.4.(b)(ii)
Percentage rate to be applied to Provisional Sums for overhead charges and profit: **Twenty Five percent (25%)**

Sub-Clause 14.2
Total Advance Payment: **Fifteen percent (15%) of the Accepted Contract Amount excluding Provisional Sums payable in the currencies and proportions in which the Accepted Contract Amount is payable**

Sub-Clause 14.2.1
Advance Payment Insurance **Allowed**

Only Bank Guarantee Applicable

Sub-Clause 14.2.3
Percentage deductions for the repayment of the Advance Payment: Deduction shall be made at the amortization rate of 17.5 % of the value of the Works executed of each IPC as provided in paragraph (i) of Sub-Clause GCC 14.3, starting from 2nd IPC provided that the advance payment shall be completely repaid prior to the time when 90% of the Accepted Contract Amount less Provisional Sums has been certified for payment. It may be more than 17.5% in the last instalment to ensure full repayment.

Sub-Clause 14.3
Period of payment **One Month**

Sub-Clause 14.3(b)
Number of additional paper copies of Statements: **3**

Sub-Clause 14.3 (iii)
Percentage of retention: **Seven percent (7%)**

Sub-Clause 14.3 (iii)
Limit of Retention Money (as a percentage of the Accepted Contract Amount): **Five percent (5%)**

Sub-Clause 14.5(b)(i)
Plant and Materials for payment when shipped: **Plant and Materials under Bill of "Imported Plant and Materials"**

Imported Plants and Materials

Not Applicable

Sub-Clause 14.5(c)(i)
Plant and Materials for payment when delivered to the Site: Plant and Non Perishable Materials

Plants and Materials Onsite

Not Applicable

Sub-Clause 14.6.2
Minimum amount of Interim Payment Certificate (IPC): **Yes**
The Minimum Amount IPC is 40000000
[Employer to give value not exceeding one fifth of the average expected value of Interim Payment Certificate]

Sub-Clause 14.7(a)
Period of payment of Advance Payment to the Contractor**: 14 days**

Sub-Clause 14.7b(i)
Period for the Employer to make interim payments to the Contractor under Sub-Clause 14.6: **28** days

Sub-Clause 14.7b(ii)
Period for the Employer to make interim payments to the Contractor under Sub-Clause 14.13 (Final Payment)**: 56** days

Sub-Clause 14.7(c)
Period for the Employer to make final payment to the Contractor**: 56** days

Sub-Clause 14.8
Financing charges for delayed payment Local Currency (PKR):
6-Month KIBOR (Offer) +3% per annum.
Foreign Currency:
USD
6-Month SOFR (Secured Overnight Financing Rate for USD) +1% per annum.

EURO
6-Month EURIBOR (EURO Interbank Offered Rate for EURO) +1% per annum.

Others
Appropriate rates +1% (for other foreign currencies, Ref. Schedule-A, A-4 to Bid).

Sub-Clause 14.11.1(b)
Number of additional paper copies of draft Final Statements**: 3**
[insert number of copies say six (06)]

Sub-Clause 14.15
Currencies of payment of Contract Price: **as stated in the Table Schedule of Adjustment Data of Schedule A (if Given)**

Sub-Clause 14.15(a)(i)
Proportions or amounts of Local and Foreign currencies: **as stated in the Table Schedule of Adjustment Data of Schedule A (if Given)**

Sub-Clause 14.15(c)
Currencies and proportions for payment of Delay Damages: **as stated in the Table Schedule of Adjustment Data of Schedule A (if Given)**

Sub-Clause 14.15(f)
rates of exchange: **as stated in the Table IV of Schedule A (If Given)**

Sub-Clause 17.2(d)
Forces of nature, the risks of which are allocated to the Contractor: **Nil**

Sub-Clause 19.1
Permitted deductible limits:
i) insurance required for the Works: **Ten percent (10%) of loss amount on each & every loss**
ii) insurance required for Goods: **Nil**
iii) insurance required for liability for breach of professional duty: **Nil**
iv) insurance required against liability for fitness for purpose (if any is required): **Nil**
v) insurance required for injury to persons and damage to property: **Nil**
vi) insurance required for injury to employees: **Nil**
vii) other insurances required by Laws and by local practice : **Nil**

Periods for submission of insurance:
a) evidence of insurance: Not later than the Commencement Date
b) relevant policies: Within twenty eight (28) day from the Commencement Date

Sub-Clause 19.2.1(b)
Additional amount to be insured (as a percentage of the replacement value): 15% of the replacement value (Accepted Contract Amount)
Sub-Clause 19.2.2
Extent of insurance required for Goods: From Ex-Works (i.e., works, factory, warehouse, etc) to delivery at the Site
Amount of insurance required for Goods: Full replacement value

Sub-Clause 19.2.3(a)
Amount of insurance required for liability for breach of professional duty: Full replacement value of the Works to be designed by the Contractor

Sub-Clause 19.2.3(b)
Insurance required against liability for fitness for purpose: **Yes**

Sub-Clause 19.2.3
Period of insurance required for liability for breach of professional duty: Until the date of issuance of Performance Certificate

Sub-Clause 19.2.4
Amount of insurance required for injury to persons and damage to property: Injury to person and Fatal case: in accordance with Workmen Compensation Act
Damage to Property: The Amount of Insurance Required for Person Injury is 50000
The Amount of Insurance Required for Damage to Property is 50000 as per his assessment of the adjoining property(ies) other than the Works]
without limit to the number of incidents

Sub-Clause 19.2.6
Other insurances required by Laws and by local practice: All insurances as applicable, to the extent of execution of the project, under Federal and Provincial laws of Islamic Republic of Pakistan

Sub-Clause 21.1
Time for appointment of the DAAB: Within 28 days from the Commencement Date.
In case the Accepted Contract Amount is lesser than PKR one (01) billion, appointment of the DAAB shall be made when Dispute arises between the Parties.

Sub-Clause 21.1
The DAAB shall comprise 1
[insert either “a sole Member” or “Three Members”]
[For a Contract estimated to cost above PKR 2.5billion, the DAAB shall comprise of three members. For a Contract estimated to cost between PKR1billion and PKR2.5billion, the DAAB may comprise of three members or a sole member. For a Contract estimated to cost less than PKR1billion, a sole member is recommended.]

Sub-Clause 21.1
List of proposed members of DAAB
- proposed by Employer

Time for appointment of the DAAB: Within 56 days from the Commencement Date.

- proposed by Contractor
[to be inserted at the time of signing of the Contract]
1._____
2._____
3._____

Sub-Clause 21.2
Appointing entity (official) for DAAB members Managing Director Public Procurement Regulatory Authority (PPRA) or Chairman Pakistan Engineering Council (PEC) from the list of PEC approved arbitrators published at its website

Sub-Clause 21.6
Rules of Arbitration: PEC Rules of Conciliation and Arbitration or Pakistan Arbitration Act of 1940, if the former is inactive.
The place of Arbitration shall be in the Employer's country: **Karachi**
[Insert name of city]

Particular Conditions

PartB - Special Provisions

1.1 Definitions

1.1.76 "Specification"
Following is added at the end:
"and consists of two parts i.e.,
i) "Part A - Specific Provisions"; and
ii) "Part B - Technical Provisions"."

1.2 Interpretation

"and" is deleted from the end of sub-paragraph (i) and added at the end of sub-paragraph (j).
Sub-paragraph (k) is added:
"(k) The word "tender" is synonymous with "bid" the word tenderer with "bidder", the words "tender documents" with "bidding documents" and "Schedule of Prices" with "Bill of Quantities", as applicable."
1.5 Priority of Documents The documents listed at (a) through (k) of this Sub-Clause are deleted and substituted with the following:
(a) the Contract Agreement;
(b) the Letter of Acceptance;
(c) the Letter of Bid;
(d) the Particular Conditions Part A - Contract Data;
(e) the Particular Conditions Part B - SpecialProvisions;
(f) the General Conditions;
(g) the Specification Part A - SpecificProvisions;
(h) the Specification Part B- Technical Provisions;
(i) the Drawings;
(j) the completed Schedules to Bid includingBillof Quantities;
(k) the JV Undertaking (if the Contractor is a JV); and
(l) any other documents forming part of the Contract.
The addenda/corrigenda, if any, shall be deemed to have been incorporated at the appropriate places in the documents forming the Contract.

1.6 Contract Agreement

In the last line of the 1st paragraph the text “shall be borne by the Employer” is substituted by “shall be reimbursed by the Employer to the Contractor”.

3.1 The Engineer

In sub-paragraph (a) the text “as defined in the Pakistan Engineering Council Act, 1975 (Act No.V of 1976)” are added after the words “professional engineer”.

3.2 Engineer’s Duties and Authority

The Engineer shall obtain the consent in writing of the Employer before taking action under the following Sub-Clauses of these Conditions:
(a) Consenting to the subcontracting of any part of the Works under Sub-Clause 5.1 [Subcontractors]
(b) Any action under Sub-Clauses 8.9 [Employer’s Suspension] and 8.12 [Prolonged Suspension]
(c) Issuance of “Taking Over Certificate” under Sub-Clause 10.1 [Taking Over the Works and Sections].
(d) Issuing the “Performance Certificate” under Sub-Clause 11.9 [Performance Certificate].
(e) Sub-Clause 13.1 [Right to Vary]: instructing a Variation, except;
(i) in an emergency situation as determined by the Engineer, or
(ii) if such a Variation would increase the Accepted Contract Amount by less than the percentage specified in the Contract Data.
(f) Sub-Clause 13.3 [Variation Procedure]: approving a proposal for Variation submitted by the Contractor in accordance with Sub-Clause 13.3.2 [Variation by Request for Proposal] or 13.2 [Value Engineering].
(g) Certifying release of second half of the Retention Money under Sub-Clause 14.9 [Release of Retention Money].
(h) Issuing Final Payment Certificate under Sub-Clause 14.13 [Issue of FPC].
(i)

Issue of FPC Sub Clauses

Issuing Final Payment Certificate under Sub-Clause 14.13 [Issue of FPC].

*[insert Sub-Clause number (not Sub-Clause 3.7 [Agreement or Determination]
Any such requirement shall not be applied to any action by the Engineer under Sub-Clause 3.7 [Agreement or Determination], as stated in Sub-Clause 3.2 [Engineer’s Duties and Authority] of the General Conditions. Notwithstanding the obligation, as set out above, to obtain approval, if, in the opinion of the Engineer, an emergency occurs affecting the safety of life or of the Works or of adjoining property, he may, without relieving the Contractor of any of his duties and responsibility under the Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Engineer, be necessary to abate or reduce the risk. The Contractor shall forthwith comply, despite the absence of approval of the Employer, with any such instruction of the Engineer. The Engineer shall determine an addition to the Contract Price, in respect of such instruction, in accordance with Clause 13 and shall notify the Contractor accordingly, with a copy to the Employer.
Following is added after the words “the Employer’s consent is required” in 4th paragraph:
“stating that the Employer’s consent has been obtained for that specified authority”

4.2 Performance Security

4.2.1 Contractor’s Obligations
The entity issuing the Performance Security and its form shall be as under:
The Performance Security shall be, at the option of the Contractor,issuedin the prescribed form included in

the Bidding Documents,by(a) a Scheduled Bank in Pakistan or (b) a foreign bank duly counter-guaranteed by a Scheduled Bank in Pakistan or (c)an Insurance Companylisted in the Contract Data and rated by PACRA/VIS ofratingas provided in Table below:

Accepted Contract Amount (In Eq. PKR million)	Minimum Rating of Insurance Companies
Up to 1000	A (+)
1001 to no limit	AA

In case of Joint Venture, the Performance Security shall be in the name of the Joint Venture or in the name of Lead/either firm of the JV or in ratio of shares of the individual JV partners.
Following paragraph is added at the end of this Sub-Clause:
“The amount of Performance Security shall be reducedto 50%following issue of the Taking-Over Certificate for the whole of the Works under Clause 10 of Conditions of Contract.”

4.3 Contractor’s Representative

In second paragraphthe text “professional engineer as defined in the Pakistan Engineering Council Act, 1975 (Act No. V of 1976) (having temporary licence in case of foreign engineer under Section 12 of the Pakistan Engineering Council Act, 1975 (Act No. V of 1976)” are added after the words “qualified, experienced”.
In the 3rd paragraph the words “28 days” are substituted by “14 days”. In 2nd line of 4thparagraph the text “or appoint a replacement” is substituted by “except appointment of a suitable temporary replacement is deployed at the Site”

4.4 Contractor’s Documents

4.4.2 As-Built Records
First paragraph is deleted and the text in the last paragraph is substituted with the following:
“The Contractor shall furnish to the Engineer 6 copies, one reproducible and one electronic copy(provided the Engineer has made available to the Contractor editable form of the Drawings)of all Drawings amended to conform to the Works as built.In case the Engineer does not make available to the Contractor editable form of the Drawings, the Contractor shall furnish to the Engineer as-built data for incorporation in the Drawings. Upon receipt of PDF versions of the as-built drawings prepared by the Engineer, the Contractor shall furnish to the Engineer 6copies and one reproducible of these Drawings.
The price of such Drawings shall be deemed to be included in the Contract Price.”
Following Sub-Clause is added:
4.4.4 ShopDrawings
The Contractor shall submit to the Engineer for review 3 copies of all shop and erection drawings applicable to this Contract as per provision of relevant Sub-Clause of the Contract.
Review and approval by the Engineer shall not exceed 21 days and be construed as a complete check but will indicate only that the general method of construction and detailing is satisfactory and the Engineer’s review or approval shall not relieve the Contractor of any of his responsibilities under the Contract.

4.8 Health and Safety Obligations

The following text is added at the end ofthis Sub-Clause:
In the event of work being carried out outside the normal working hours and in the event of work being carried out at night, the Contractor shall at his own cost, provide and maintain such good and sufficient light as will enable the work to proceed satisfactorily and without danger. The approaches to the Site and the Works where the night work is being carried out shall be sufficiently lighted. All arrangement adopted for such lighting shall be to the satisfaction of the Engineer.

4.20 Progress Reports

At the end of sub-paragraph (g) the word “and” is deleted and at the end of sub-paragraph (h) the full stop (.) is replaced with “;”, and the following new sub-paragraphs are added as:
(i) planned programme for the execution of the Works for next 56 days to enable the Engineer to determine

its programme of inspection and testing;
(j) monthly summery of daily job record indicating weather conditions, deployment of Contractor's Equipment, labour employment, local material procurement and material import, if any; and
(k) salient contractual and project information.

5.1 Subcontractors

Add the following text at the end of paragraph (ii):
"underSchedule to Bid"
The following is added at the end of the last paragraph of Sub-Clause 5.1:
"All subcontracts relating to the Works shall include provisions which entitle the Employer to require the subcontract to be assigned to the Employer under sub-paragraph (a) of Sub-Clause 15.2.3 [After Termination].
The Contractor shall give reasonable opportunity to contractors from Islamic Republic of Pakistan for subcontracts for the Works, and endeavour to employ such contractors as Subcontractors."

5.2 Nominated Subcontractors

5.2.2 Objection to Nomination
In sub-paragraph (c), "and" is deleted from the end of (i);
"." at the end of (ii) is replaced with: ", and".
The following is then added as (iii):
"(iii) be paid only if and when the Contractor has received from the Employer payments for sums due under the Subcontract referred to under Sub-Clause 5.2.3 [Payment to nominated Subcontractors]."

6.1 Engagement of Staff and Labour

The following paragraph is added at the end of the Sub-Clause:
"The Contractor shall, to the extent practicable and reasonable, employ staff (not less than 50%) and labour (not less than 85%) with appropriate qualifications and experience from sources within the Islamic Republic of Pakistan."

6.7 Health and Safety of Personnel

The existing text is substituted with the following:
"In order to provide for the safety, health and welfare of persons, and for prevention of damage of any kind, all operations for the purposes of or in connection with the Contract shall be carried out in compliance with the Safety Requirements of the Government of Pakistan with such modifications thereto as the Engineer may authorize or direct and the Contractor shall take or cause to be taken such further measures and comply with such further requirements as the Engineer may determine to be reasonably necessary for such purpose. The Contractor shall also provide all other medical services and appoint a health and safety officer at Site if stated in the Specifications. In case of any fatality or serious accident, the Contractor shall, in addition, notify the Engineer immediately by the quickest available means."

6.8 Contractor's Superintendence

Insert at the end of sub-paragraph (a) of this Sub-Clause:
"or, if not, the Contractor shall make competent interpreters available during all working hours, in a number sufficient for those persons to properly perform their superintendence duties"
The following text is added at the end of this Sub-Clause:
"The Contractor's authorized representative and his other engineers working at site shall possess valid registration with the Pakistan Engineering Council.
The Contractor's authorized representative at Site shall be authorized to exercise adequate administrative and financial powers on behalf of the Contractor so as to achieve completion of the Works as per the Contract."

6.12 Key Personnel

The following is inserted at the end of the last paragraph:
"If any of the Key Personnel are not fluent in this language, the Contractor shall make competent interpreters available during all working hours in a number deemed sufficient by the Engineer."
The following Sub-Clauses 6.13 to 6.26 are added at the end of Sub-Clause 6.12:

6.13 Foreign Personnel

The Contractor may bring in to the Country any foreign personnel who are necessary for the execution of the Works to the extent allowed by the applicable Laws. The Contractor shall ensure that these personnel are provided with the required residence visas and work permits. The Employer will, if requested by the Contractor, use all reasonable endeavours in a timely and expeditious manner to assist the Contractor in obtaining any local, state, national, or government permission required for bringing in the Contractor's personnel.
The Contractor shall be responsible for the return of these personnel to the place where they were recruited or to their domicile. In the event of the death in the Country of any of these personnel or members of their families, the Contractor shall similarly be responsible for making the appropriate arrangements for their return or burial.

6.14 Supply of Foodstuffs

The Contractor shall arrange for the provision of a sufficient supply of suitable food as may be stated in the Specification at reasonable prices for the Contractor's Personnel for the purposes of or in connection with the Contract.

6.15 Supply of Water

The Contractor shall, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Contractor's Personnel.

6.16 Measures against Insect and Pest Nuisance

The Contractor shall at all times take the necessary precautions to protect the Contractor's Personnel employed on the Site from insect and pest nuisance, and to reduce the danger to their health. The Contractor shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.

6.17 Alcoholic Liquor or Drugs

The Contractor shall not, otherwise than in accordance with the Laws of the Country, import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift, barter or disposal thereto by Contractor's Personnel.

6.18 Arms and Ammunition

The Contractor shall not give, barter, or otherwise dispose of, to any person, any arms or ammunition of any kind, or allow Contractor's Personnel to do so.

6.19 Festivals and Religious Customs

The Contractor shall respect the Country's recognized festivals, days of rest and religious or other customs.

6.20 Funeral Arrangements

The Contractor shall be responsible, to the extent required by local regulations, for making any funeral arrangements for any of its local employees who may die while engaged upon the Works.

6.21 Forced Labour

The Contractor, including its Subcontractors, shall not employ or engage forced labour which consists of any work or service, not voluntarily performed, that is exacted from an individual under threat of force or penalty, and includes any kind of involuntary or compulsory labour, such as indentured labour, bonded labour or similar labour-contracting arrangements.

6.22 Child Labour

The Contractor, including its Subcontractors, shall not employ or engage child labour in accordance with relevant law(s) in force in Islamic Republic of Pakistan.

6.23 Employment Records of Workers

The Contractor shall keep complete and accurate records of the employment of labour at the Site. The records shall include the names, ages, genders, hours worked and wages paid to all workers. These records shall be summarized on a monthly basis and submitted to the Engineer. These records shall be included in the details to be submitted by the Contractor under Sub-Clause 6.10 [Contractor's Records].

6.24 Workers' Organizations

The Contractor shall comply with the relevant labour laws of Pakistan which recognize workers' rights to form and to join workers' organizations/Trade Union of their choosing and to bargain collectively without interference.

6.25 Non-Discrimination and Equal Opportunity

The Contractor shall not make decisions relating to the employment or treatment of Contractor's Personnel on the basis of personal characteristics unrelated to inherent job requirements. The Contractor shall base the employment of Contractor's Personnel on the principle of equal opportunity and fair treatment, and shall not discriminate with respect to any aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices.
Special measures of protection or assistance to remedy past discrimination or selection for a particular job based on the inherent requirements of the job shall not be deemed discrimination. The Contractor shall provide protection and assistance as necessary to ensure nondiscrimination and equal opportunity, including for specific groups such as women, persons with disabilities, migrant workers and children (of working age in accordance with Sub-Clause 6.22).

6.26 Epidemics

In the event of any out-break of illness of epidemic nature, the Contractor shall comply with and carry out such regulations, orders and requirements as may be made by the Government or the local medical or sanitary authorities for the purpose of overcoming the same.

7.7 Ownership of Plant and Materials

The following is added before the first paragraph:
"Except as otherwise provided in the Contract,"
The following is added at the end of the Sub-Clause:
"No Plant and/or Materials that is the property of the Employer shallbe removed from the Site. If it becomes

necessary to:
(i) remove any item of such Plant from the Site for the purposesof repair, the Contractor shall give a Notice, with reasons, tothe Engineer requesting consent to remove the defective ordamaged item off the Site. This Notice shall clearly identifythe item of defective or damaged Plant, and shall give detailsof: the defect or damage to be repaired; the place to whichdefective or damaged item of Plant is to be taken for repair;the transportation to be used (and insurance cover for suchtransportation); the proposed inspections and testing off theSite; and the planned duration required before the repaireditem of Plant shall be returned to the Site. The Contractorshall also provide any further details that the Employer mayreasonably require; or
(ii) replace any item(s) of such Plant and/or Materials, theContractor shall give a Notice, with reasons, to the Engineerclearly identifying the item(s) of Plant and/or Materials to bereplaced, and giving details of the due date of delivery tothe Site of the replacement item(s).
Where any item of Plant and/or Materials has become the propertyof the Employer under this Sub-Clause before it has been deliveredto the Site, the Contractor shall ensure that such an item is notmoved except for its delivery to the Site.
The Contractor shall indemnify and hold the Employer harmlessagainst and from the consequences of any defect in title orencumbrance or charge (except any reasonable restrictionarising from the intellectual property rights of the manufacturer orproducer) on any item of Plant and/or Materials that has becomethe property of the Employer under this Sub-Clause."
The following Sub-Clause7.9 is added after Sub Clause 7.8:

7.9 Use of Pakistani Materials and Services

The Contractor shall, so far as may be consistent with the Contract, make the maximum use of materials, supplies, plant and equipment indigenous to or produced or fabricated in Pakistan and services available in Pakistan provided such materials, supplies, plant, equipment and services shall be of required standard.

8.1 Commencement of Works

The following is added before the first paragraph:
“After signing of the Contract Agreement by both Parties,” and thereafter the word “The” is replaced with the word “the”.

8.5 Extension of Time for Completion

The following is added after paragraph (c):
“for last five years”.
The following Sub-Clause 8.14 is added after Sub-Clause 8.13:

8.14 Incentives For Early Completion

If Contract Data does not state applicability of incentives for early completion, this Sub-Clause shall not apply.
The Contractor shall be entitled subject to Sub-Clause 20.2 [Claims for Payment and/or EOT] to bonus payment if the Works and/or each Section is completed earlier than the Time for Completion for the Works or Section (as the case may be). The amount of bonus for early completion of the Works and/or each Section shall be upto a limit and at a rate to 50% of the relevant limit and rate of delay damages prescribed in Contract Data and shall be paid for every day which shall elapse between the relevant Date of Completion of the Works or Section and the relevant Time for Completion.
For the purposes of calculating any bonus payment, the applicableTime for Completion stated in the Contract Data is fixed and noadjustments of this time by reason of granting an EOT will beallowed.
The following Sub-Clause 11.12 is added after Sub-Clause 11.11:

11.12 Supervisory Assistance During DNP

If provided under the Schedule of Prices, the Contractor shall provide supervisory assistance to the Employer during the DNP for the Works. Such supervisory assistance shall be as described in the Specification for the purpose of supporting the Employer's operation and maintenance of the Plant for the period specified in the Schedule of Prices after the Date of Completion.

12.2 Method of Measurement

The following paragraph is added at the end of the Sub-Clause:
“Summary of measured quantity for payment shall be delineated item-wise under four headsnamely; “Schedule of Prices Quantity”, “Quantity Executed To-date”, “Quantity Certified Previously” and “Net Quantity Executed under this Certificate”.

12.3 Valuation of the Works

The following text is added at the end of fifth paragraph of the Sub-Clause:
“Sum of overhead charges and profit for sub-paragraph (a) shall be Twenty Five percent (25%)”.

13.4 Provisional Sums

The following paragraph is inserted as the penultimate paragraph:
“The Provisional Sum shall be used to cover the Employer’s share of the DAAB members’ fees and expenses, in accordance with Clause 21. No prior instruction of the Engineer shall be required with respect to the work of the DAAB. The Contractor shall submit the DAAB members’ invoices and the satisfactory evidence of having paid 100% of such invoices as part of the substantiation of those Statements submitted under Sub-Clause 14.3.

13.6 Adjustments for Changes in Laws

The following paragraphsare added at the end of the Sub-Clause:
“Notwithstanding the foregoing, the Contractor shall not be entitled to an extension of time if the relevant delay has already been taken into account in the determination of a previous extension of time and such Cost shall not be separately paid if the same shall already have been taken into account in the indexing of any inputs to the Table of Adjustment Data in accordance with the provisions of Sub-Clause 13.7 [Adjustments for Changes in Cost].”

14.1 The Contract Price

The following is added at the end of the Sub-Clause:
“Notwithstanding the provisions of subparagraph (b), Contractor's Equipment, including essential spare parts, imported by the Contractor for the sole purpose of executing the Contract shall be temporarily exempt from the payment of import duties and taxes upon initial importation, provided the Contractor shall post with the customs authorities at the port of entry an approved re-export bond or bank guarantee, valid until the Time for Completion plus six months, in an amount equal to the full import duties and taxes which would be payable on the assessed imported value of such Contractor's Equipment and spare parts, and callable in the event the Contractor's Equipment is not re-exported from the Country on completion of the Contract. A copy of the bond or bank guarantee endorsed by the customs authorities shall be provided by the Contractor to the Employer upon the importation of individual items of Contractor's Equipment and spare parts. Upon re-export of individual items of Contractor's Equipment or spare parts, or upon the completion of the Contract, the Contractor shall prepare, for approval by the customs authorities, an assessment of the residual value of the Contractor's Equipment and spare part to be re-exported, based on the depreciation scale(s) and other criteria used by the customs authorities for such purposes under the provisions of the applicable Laws. Import duties and taxes shall be due and payable to the customs authorities by the Contractor on (a) the difference between the initial imported value and the residual value of the Contractor's Equipment and spare parts to re-exported; and (b) on the initial imported value of the Contractor's Equipment and spare parts remaining in the

Country after completion of the Contract. Upon payment of such dues within 28 days of being invoiced, the bond or bank guarantee shall be reduced or released accordingly; otherwise the security shall be called in the full amount remaining."
[The Employer may change or delete this Sub-Clause as per Project requirements]

14.2 Advance Payment

14.2.1 Advance Payment Guarantee
The entity issuing the Advance PaymentGuaranteeand its form shall be as under:
The Advance PaymentGuarantee shall be in the form of Guarantee issued by (a) a Scheduled Bank in Pakistan or (b) a foreign bank duly counter-guaranteed by a Scheduled Bank in Pakistanor (c)an Insurance Companylisted in the Contract Data and rated by PACRA/VIS ofrating as provided in Table below:
Accepted Contract Amount (In Eq. million PKR) Minimum Rating of Insurance Companies
Up to 1000 A (+)
1001 to no limit AA
In case of Joint Venture, the Advance PaymentGuarantee(s)shall be in the name of the Joint Venture or in the name of Lead/either firm of the JV or in ratio of shares of the individual JV partners.

14.6 Issue of IPC

14.6.1 The IPC
In the first line of the 1st paragraph the words "28 days" are substituted by "14 days".

14.7 Payment

The words "or through crossed cheque in favour of the Contractor or JV partners. The Payment to JV partners shall be made at the request of the Joint Ventures in the ratio of their shares specified by them" are added at the end of the Sub-Clause.

14.8 Delayed Payment

In the first paragraph, third line, the words "compounded monthly" are deleted.
The text of 2nd paragraph is deleted and substituted with the following:
"The Employer shall pay to the Contractor compensation at the rate stated in the Contract Data."

14.9 Release of Retention Money

The following is added at the end of Sub-Clause 14.9:
"Unless otherwise stated in the Contract, when the Taking-Over Certificate has been issued for the Works and the first half of the Retention Money has been certified for payment by the Engineer, the Contractor shall be entitled to substitute a guarantee, in the form annexed to the Particular Conditions or in another form approved by the Employer and issued by a schedule bank selected by the Contractor, for the second half of the Retention Money. The Contractor shall ensure that the guarantee is in the amounts and currencies of the second half of the Retention Money and is valid and enforceable until the Contractor has executed and completed the Works and remedied any defects, as specified for the Performance Security. On receipt by the Employer of the required guarantee, the Engineer shall certify, and the Employer shall pay the second half of the Retention Money. The release of the second half of the Retention Money against a guarantee shall then be in lieu of the release after the latest of the expiry dates of the Defects Notification Periods. The Employer shall return the guarantee to the Contractor within 21 days after receiving a copy of the Performance Certificate.

If the Performance Security required under Sub-Clause 4.2 is in the form of a demand guarantee, and the amount guaranteed under them when the Taking-Over Certificate is issued is more than half of the Retention Money, then the Retention Money guarantee will not be required. If the amount guaranteed under the

Performance Security when the Taking-Over Certificate is issued is less than half of the Retention Money, the Retention Money guarantee will only be required for the difference between half of the Retention Money and the amount guaranteed under the Performance Security.

15.2 Termination for Contractor's Default

15.2.1 Notice
Following text is added at the end of sub-paragraph (h) of this Sub-Clause:
"For the purposes of this Contract, corrupt and fraudulent practices have been defined in Public Procurement Rules 2004."
15.2.3 After Termination
The word "and" at the end of sub-paragraph (ii) of paragraph (b) is deleted the following paragraph is added after sub-paragraph (iii):
"(iv) all Employer-Supplied Materials and/or Employer's Equipment madeavailable to the Contractor in accordance with Sub-Clause 2.6 [Employer-Supplied Materials and Employer's Equipment], and"

15.4 Payment after Termination

The following text is added at the end of this Sub-Clause:
"The Employer shall be entitled to sell any of the Contractor's Equipment, Temporary Works and unused materials and apply the proceeds of sale towards payment of any debt due from the Contractor to the Employer under this Clause including any outstanding payments to the Subcontractors.

16.2 Termination by Contractor

16.2.1 Notice
The sub-paragraph (j) is deleted in its entirety.
At the end of sub-paragraph (i) "; or" is replaced with "." and at the end of sub-paragraph (h) ";" is replaced with "; or".
In sub-paragraph (f) "84 days" are replaced with "180 days" and text "for reasons not attributable to the Contractor" is added at the end.

16.3 Contractor's Obligations After Termination

Sub-paragraph (c) is deleted and replaced with:
"(c) deliver to the Engineer all Employer-Supplied Materials and/orEmployer's Equipment made available to the Contractor in accordance with Sub-Clause 2.6 [Employer-Supplied Materials and Employer's Equipment]; and
(d) remove all other Goods from the Site, except as necessary for safety,and leave the Site."

17.1 Responsibility for Care of the Works

After the two instances of "Goods" in the last paragraph, the words "Employer-Supplied Materials and/orEmployer's Equipment" are added.
The following Sub-Clause 17.7 is added after Sub-Clause 17.6:

17.7 Use of Employer's Accommodation/Facilities

The Contractor shall take full responsibility for the care of the items of the Employer's facilities and/or accommodation, if any, as detailed in the Specification, from the date of use and/or occupation by the Contractor until the date on which such use and/or occupation is re-vested in the Employer.
If any loss or damage happens to any of the above items during a time while the Contractor is responsible for its care, arising from any cause other than a cause for which the Employer is responsible or liable, the Contractor shall promptly rectify the loss or damage at the Contractor's risk and cost.

18.1 Exceptional Events

The words “or disorder” are replaced with “disorder or sabotage” in sub-paragraph (c) of the Clause.

18.4 Consequences of an Exceptional Event

The following is added at the end of sub-paragraph (b) after deleting the “.”:
“, including the costs of rectifying or replacing the Works and/or Goods damaged or destroyed by Exceptional Events, to the extent they are not indemnified through the insurance policy referred to in Sub-Clause 19.2 [Insurance to be provided by the Contractor].”

18.5 Optional Termination

In sub-paragraph (c), the words “and necessarily” areadded after the words “was reasonably”.

19.1 General Requirements

Following text is added at the end of first paragraph:
“The Contractor shall immediately after the date of the Letter of Acceptance submit the draft of insurance policies for the Employer’s consent.”
Following text is added at the end of third paragraph:
“The Contractor shall, within the respective periods stated in the Contract Data submit to the Engineer and the Employer a) evidence that the insurances described in this Clause have been effected, and b) copies of policies of the insurances described in Sub-Clauses 19.2.1, 19.2.4 and 19.2.5.”

19.2 Insurance to be provided by the Contractor

19.2.5 Injury to employees
The words “sickness, disease” are deleted in the third line of first paragraph.

The following Sub-Clause is added after Sub-Clause 19.2.6:
19.2.7 Insurance Company
“The Contractor shall be obliged to place all insurances described in this Clause with insurers listed in the Contract Data and rated byPACRA/VISofrating as provided in Table below:

Accepted Contract Amount (In Eq. million PKR) Minimum Rating of Insurance Companies
Up to 1000 A (+)
1001 to no limit AA

21.6 Arbitration

The word “international” is deleted in the sixth line of first paragraph. The text of sub-paragraph (a) is substituted with the following:
“the Dispute shall be finally settled under the Rules of Arbitration, specified in the Contract Data;”
The following Clauses are added after Clause 21

22 Custom Duty

[Employer may incorporate provisions where applicable. However, in order to make the bid more balanced, the payment of Customs Duties should be the responsibility of the Employer.]

23 Taxes

The Contractor, Subcontractors and their employees shall be liable to pay income tax, withholding tax, super tax and other taxes on income arising out of the Contract. The rates and prices as stated in the contract shall

be deemed to cover all such taxes.

24 Integrity Part

If it is found and established at any stage that the Contractor or any of his Subcontractors, agents or servants have violated or involved in violation of the Integrity Pact signed by the Contractor then the Employer shall be entitled to :

(a) recover from the Contractor an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by the Contractor or any of his Subcontractors, agent or servants;

(b) terminate the Contract; and

(c) recover from the Contractor any loss or damage to the Employer as a result of such termination or of any other corrupt business practices of the Contractor or any of his Subcontractors, agent or servants.

The termination under sub-paragraph(b) of this Sub-Clause shall proceed in the manner prescribed under Sub-Clause 15.1 to 15.4 and the payment under Sub-Clause 15.4 shall be made after having deducted the amounts due to the Employer under sub-paragraph(a) and (c) of this Sub-Clause.

Appendix General Conditions of Dispute Avoidance/Adjudication Agreement

12 Disputes Under DAAB Agreement

In the first paragraph, third, fourth and fifth line, the text "under the Rules of Arbitration of the International Chamber of Commerce 2017……shall apply" is substituted with "under the Arbitration Act 1940 by sole arbitrator appointed by the Managing Director Public Procurement Regulatory Authority or Chairman Pakistan Engineering Council."

Bid Securing Declaration

FORM OF BID SECURING DECLARATION

Date:
No.:
Alternative No.: ***P92743***

To: **Pakistan Industrial Development Corporation (Pvt.) Ltd. (Pakistan Industrial Development Corporation (PIDC)), Assistant Manager PIDC House, 2nd Floor, Dr. Ziauddin Ahmed Road, Civil Line Sub-Division, Karachi South (District), Karachi (Division), Sindh (Province).**

We, the undersigned, declare that:

We understand that, according to your conditions, Bids must be supported by a Bid-Securing Declaration.

We accept that we will be blacklisted and henceforth cross debarred for participating in respective category of public procurement proceedings for a period of (not more than) six months, if fail to abide with a bid securing declaration, however without indulging in corrupt and fraudulent practices, if we are in breach of our obligation(s) under the Bid conditions, because we:

(a) have withdrawn our Bid during the period of Bid validity specified in the Letter of Bid; or
(b) having been notified of the acceptance of our Bid by the Procuring agency/Employer during the period of Bid validity, (i) fail or refuse to sign the Contract; or (ii) fail or refuse to furnish the Performance Security (or guarantee), if required, in accordance with the ITB.

We understand this Bid Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) twenty-eight days after the expiration of our Bid.

Name of the Bidder*
Name of the person duly authorized to sign the Bid on behalf of the Bidder** _____
Title of the person signing the Bid _____
Signature of the person named above _____
Date signed _____ day of _____, _____
*: In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder
**: Person signing the Bid shall have the power of attorney given by the Bidder attached to the Bid

[Note: In case of a Joint Venture, the Bid-Securing Declaration must be in the name of all members to the Joint Venture that submits the Bid.]

Contract Form

FORM OF CONTRACT AGREEMENT

THIS CONTRACT AGREEMENT (hereinafter called the "Agreement") made on the _____ day of _____ (month) 20_____ between **Pakistan Industrial Development Corporation (Pvt.) Ltd. (Pakistan Industrial Development Corporation (PIDC)), Assistant Manager PIDC House, 2nd Floor, Dr. Ziauddin Ahmed Road, Civil Line Sub-Division, Karachi South (District), Karachi (Division), Sindh (Province).** (hereinafter called the "Employer") of the one part and _____ (hereinafter called the "Contractor") of the other part.

WHEREAS the Employer is desirous that certain Works, viz., **Procurement Of Contractor Services for Infrastructure Development of Left-Over / New and Allied Work (Phase-I) at Naushahro Feroze Industrial Park (NFIP), Naushahro Feroze (*P92743*)** should be executed by the Contractor and has accepted a Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW this Agreement witnessed as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents, in the order of priority, after incorporating addenda, if any, except those parts relating to Instructions to Bidders shall be deemed to form and be read and construed as part of this Agreement:

a) This Contract Agreement;
b) The Letter of Acceptance;
c) The Letter of Bid;
d) The Particular Conditions Part A - Contract Data;
e) The Particular Conditions Part B - SpecialProvisions;
f) The General Conditions;
g) The Specifications Part A - SpecificProvisions;
h) The Specifications Part B- Technical Provisions;
i) The Drawings;
j) The Completed Schedules to Bid including Schedule of Prices;
k) the JV Undertaking (if the Contractor is a JV); and
l) [Employer to insert any other documents forming part of the Contract]

The addenda/corrigenda,if any, (Excluding part relating to Instructions to Bidders alongwith Bidding Data) shall be deemed to have been incorporated at the appropriate places in the "Documents forming the Contract".

3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy defects therein in conformity and in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor, in consideration of the execution and completion of the Works as per provisions of the Contract, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS WHEREOF the parties hereto have caused this Agreement to be executed on the day, month and year first before written in accordance with their respective laws.

Signature of the Contactor Signature of Employer

(Seal) (Seal)
Signed, Sealed and Delivered in the presence of:

Witness Witness

(Name, Title and Address) (Name, Title and Address)

DAAB Agreement

[All italicised text and any text within square brackets (except sub-clause headings) in this form of agreement is for use in preparing the form and should be deleted from the final product].

Name and details of the Contract Procurement Of Contractor Services for Infrastructure Development of Left-Over / New and Allied Work (Phase-I) at Naushahro Feroze Industrial Park (NFIP), Naushahro Feroze

_____

This Agreement made the _____day of _____ [month], _____ [year], between

Name and contact details of the Employer **Pakistan Industrial Development Corporation (Pvt.) Ltd. (Pakistan Industrial Development Corporation (PIDC)), Assistant Manager**
PIDC House, 2nd Floor, Dr. Ziauddin Ahmed Road, Civil Line Sub-Division, Karachi South (District), Karachi (Division), Sindh (Province).
+92-333-995-5002
kamran.faraz@pidc.com.pk

Name and contact details of the Contractor _____ (name)
_____ (address)
_____ (telephone)
_____(email / other contact details);

Name and contact details of the DAAB Member _____ (name)
_____ (address)
_____ (telephone)
_____(email / other contact details);

("DAAB Agreement")

Whereas:
A. the Employer and the Contractor have entered (or intend to enter) into the Contract;
B. under the Contract, the "DAAB" or "Dispute Avoidance/Adjudication Board" means the sole member or three members (as stated in the Contract Data of the Contract) so named in the Contract, or appointed under Sub-Clause 21.1 [Constitution of the DAAB] or Sub-Clause 21.2 [Failure to Appoint DAAB Members] of the Conditions of Contract;
C. the Employer and the Contractor desire jointly to appoint the above-named DAAB Member to act on the DAAB as:
a. the sole member of the DAAB, and where this is the case, all references to the "Other Members" do not apply; or
b. one of three members / chairman [delete the one which is not applicable] of the DAAB and, where this is the case, the other two persons are:

_____ (name) _____ (name)
_____ (address) _____ (address)
_____(telephone) _____(telephone)

_____(email/ other contact details) _____ (email/other contact details)

the "**Other Members**"; and
D. the DAAB Member accepts this appointment.

The Employer, Contractor and DAAB Member jointly agree as follows:

1. The conditions of this DAAB Agreement comprise:
(a) Clause 21 [Disputes and Arbitration] of the Conditions of Contract, and any other provisions of the Contract that are applicable to the DAAB's Activities; and
(b) the "General Conditions of Dispute Avoidance/Adjudication Agreement", which is appended to the General Conditions of the "Conditions of Contract for Construction" Second Edition 2017 published by FIDIC ("GCs"), as amended and/or added to by the following provisions.
2. [Details of amendments to the GCs, if any. For example:
In the procedural rules annexed to the GCs, Rule _ is deleted and replaced by: " … "]
3. The DAAB Member shall be paid in accordance with Clause 9 of the GCs. The currency of payment shall be _____.
In respect of Sub-Clauses 9.1 and 9.2 of the GCs, the amounts of the DAAB Member's monthly fee and daily fee shall be:
monthly fee_____ per month, and
daily fee of_____ per day
(or as otherwise set under Sub-Clause 9.3 of the GCs).
4. In consideration of the above fees, and other payments to be made to the DAAB Member in accordance with the GCs, the DAAB Member undertakes to act as DAAB Member in accordance with the terms of this DAAB Agreement.
5. The Employer and the Contractor shall be jointly and severally liable for the DAAB Member's fees and other payments to be made to the DAAB Member in accordance with the GCs.
6. This DAAB Agreement shall be governed by the law of _____ (if not stated, the law that governs the Contract under Sub-Clause 1.4 of the Conditions of Contract).

SIGNED by:_____	SIGNED by:_____	SIGNED by:_____
Print name:_____	Print name:_____	DAAB Member
Title: _____	Title:_____	Title:_____
for and on behalf of the Employer	for and on behalf of the Contractor	
in the presence of	in the presence of	in the presence of
Witness:_____	Witness:_____	Witness:_____
Name:_____	Name:_____	Name:_____
Address:_____	Address:_____	Address:_____
_____	_____	_____
Date:_____	Date:_____	Date:_____

FORM OF MOBILIZATION ADVANCE GUARANTEE/ BOND

Guarantee No._____ Date _____

WHEREAS _____ (hereinafter called the 'Employer')
has entered into a Contract for _____
(Particulars of Contract)
with _____ (hereinafter called the "Contractor').
AND WHEREAS, the Employer has agreed to advance to the Contractor, at the Contractor's request, an amount of Pak Rupees _____ (PKR _____) which amount shall be advanced to the Contractor as per provisions of the Contract.
AND WHEREAS, the Employer has asked the Contractor to furnish Guarantee to secure the mobilization advance for the performance of his obligations under the said Contract.
AND WHEREAS, _____

(hereinafter called the “Guarantor”) at the request of the Contractor and in consideration of theEmployer agreeing to make the above advance to the Contractor, has agreed to furnish the said Guarantee.
NOW, THEREFORE, the Guarantor hereby guarantees that the Contractor shall use the advance for the purpose of above mentioned Contract and if he fails and commits default in fulfilment of any of his obligations for which the advance payment is made, the Guarantor shall be liable to the Employer for payment not exceeding the aforementioned amount.
Notice in writing of any default,on the part of the Contractor, of which the Employer at his discretion of making decision, shall be given by the Employer to the Guarantor, and on such first written demand, payment shall be made by the Guarantor of all sums then due under this Guarantee without any reference to the Contractor and without any objection.
This Guarantee shall remain in force until the advance is fully adjusted against payments from the Interim Payment Certificates of the Contractor or until _____whichever is earlier.
(Date)
The Guarantor's liability under this Guarantee shall not in any case exceed the sum of
PKR _____ (PakRupees _____).
This Guarantee shall remain valid up to the aforesaid date and shall be null and void after the aforesaid date or earlier if the advance made to the Contractor is fully adjusted against paymentsfrom Interim Payment Certificates of the Contractor provided that the Guarantor

agrees that the aforesaid period of validity shall be deemed to be extended if on the above mentioned date the advance payment is not fully adjusted.

Guarantor
(Scheduled Bank/ Insurance Company)

Signature _____
Name _____
Title _____

WITNESS:

1. _____
_____
Corporate Secretary (Seal) Corporate Guarantor (Seal)

2. _____
_____
Name, Title & Address

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Retention Money Security
Demand Guarantee

_____ [Guarantor letterhead or SWIFT identifier code]
Beneficiary: _____ [Insert name and Address of Employer]
Date: _____[Insert date of issue]
RETENTION MONEY GUARANTEE No.: [Insert guarantee reference number]
Guarantor: [Insert name and address of place of issue, unless indicated in the letterhead]

We have been informed that _____ [insert name of Contractor, which in the case of a joint venture shall be the name of the joint venture] (hereinafter called "the Contractor") has entered into Contract No. _____ [insert reference number of the contract] dated _____ with the Employer, for the execution of _____ [insert name of contract and brief description of Works] (hereinafter called "the Contract").
Furthermore, we understand that, according to the conditions of the Contract, the Employer retains moneys up to the limit set forth in the Contract ("the Retention Money"), and that when the Taking-Over Certificate has been issued under the Contract and the first half of the Retention Money has been certified for payment, payment of [insert the second half of the Retention Money orifthe amount guaranteed under the Performance Guarantee when the Taking-Over Certificate is issued is less than half of the Retention Money, the difference between half of the Retention Money and the amount guaranteed under the Performance Security and, if required, the ES Performance Security] is to be made against a Retention Money guarantee.
At the request of the Applicant, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ [insert amount in figures] () [amount in words] upon receipt by us of the Employer's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without your needing to prove or show grounds for your demand or the sum specified therein.
A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Employer's bank stating that the second half of the Retention Money as referred to above has been credited to the contractor on its account number _____ at _____ [insert name and address of Contractor's bank].
This guarantee shall expire no later than the …. day of ……, 2…, and any demand for payment under it must be received by us at the office indicated above on or before that date.

_____
[signature(s)]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

Integrity Pact

Integrity Pact

DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC. PAYABLE BYTHE SUPPLIERS OF GOODS, SERVICES & WORKS IN CONTRACTS WORTH RS.10.00 MILLION OR MORE

Contract Number: Contract Value: Contract Title:

Dated:

[Name of Supplier] hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GoP) through any corrupt business practice.

Without limiting the generality of the foregoing [Name of Supplier] represents and warrants that it has fully declared the brokerage, commission, fee etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultations fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP, except that which has been expressly declared pursuant hereto.

[Name of Supplier] certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoP and has not taken any action or will not take any action to circumvent the above declaration, representative or warranty.

[Name of Supplier] accepts full responsibility and strict liability for making and false declaration, not making full disclosure, misrepresenting fact or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to GoP under any law, contract or other instrument, be voidable at the option of GoP.

Notwithstanding any rights and remedies exercised by GoP in this regard, [Name of Supplier] agrees to indemnify GoP for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoP in an amount equivalent to ten time the sum of any commission, gratification, bribe, finder's fee or kickback given by [Name of Supplier] as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP.

Name of Employer: ……
Signature: ……
[Seal]

Name of Bidder/Contractor: ……
Signature: …….
[Seal]

Performance Guarantee Form

FORM OF PERFORMANCE SECURITY

Guarantee No._____
Executed on _____
Expiry date _____

Name of Guarantor with address:
_____

Name of Principal (Contractor) with address:_____

Penal Sum of Security (express in words and figures)
_____

Letter of Acceptance No. _____Dated _____

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bidding Documents and above said Letter of Acceptance (hereinafter called the Documents) and at the request of the said Principal we, the Guarantor above named, are held and firmly bound unto the **Pakistan Industrial Development Corporation (Pvt.) Ltd. (Pakistan Industrial Development Corporation (PIDC)), Assistant Manager PIDC House, 2nd Floor, Dr. Ziauddin Ahmed Road, Civil Line Sub-Division, Karachi South (District), Karachi (Division), Sindh (Province).** (hereinafter called the Employer) in the penal sum of the amount stated above for the payment of which sum well and truly to be made to the said Employer, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has accepted the Employer's above said Letter of Acceptance for _____
_____

(Name of Contract) for the **Procurement Of Contractor Services for Infrastructure Development of Left-Over / New and Allied Work (Phase-I) at Naushahro Feroze Industrial Park (NFIP), Naushahro Feroze** (**P92743**)
_____ (Name of Project).

NOW THEREFORE, if the Principal (Contractor) shall well and truly perform and fulfill all the undertakings, covenants, terms and conditions of the said Documents during the original terms of the said Documents and any extensions thereof that may be granted by the Employer, with or without notice to the Guarantor, which notice is, hereby, waived and shall also well and truly perform and fulfill all the undertakings, covenants terms and conditions of the Contract and of any and all modifications of said Documents that may hereafter be made, notice of which modifications to the Guarantor being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue till all requirements of Clause11, Defects After Taking Over, of Conditions of Contract are fulfilled.

Our total liability under this Guarantee is limited to the sum stated above and it is a condition of any liability attaching to us under this Guarantee that the claim for payment in writing shall be received by us within the validity period of this Guarantee, failing which we shall be discharged of our liability, if any, under this Guarantee.

We, _____ (the Guarantor), waiving all objections and defense under the Contract, do hereby irrevocably and independently guarantee to pay to the Employer

without delay upon the Employer's first written demand without cavil or arguments and without requiring the Employer to prove or to show grounds or reasons for such demand any sum or sums up to the amount stated above, against the Employer's written declaration that the Principal has refused or failed to perform the obligations under the Contract which payment will be effected by the Guarantor to Employer’s designated Bank & Account Number.

PROVIDED ALSO THAT the Employer shall decide, whether the Principal (Contractor) has duly performed his obligations under the Contract or has defaulted in fulfilling said obligations and the Guarantor shall pay without objection any sum or sums up to the amount stated above upon first written demand from the Employer forthwith and without any reference to the Principal or any other person.

IN WITNESS WHEREOF, the above-bounden Guarantor has executed this Instrument under its seal on the date indicated above, the name and corporate seal of the Guarantor being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Guarantor
(Schedule Bank/ Insurance Company)
Signature: _____
Name: _____
Title: _____

Corporate Guarantor (Seal)

WITNESS:

1.
_____
_____

2.

_____
_____
Name, Title & Address

Annexure

Adjustment Data

Price Adjustment annexured is attached

SBD Document (Read-Only)

See Form Under Additional Forms and Documents: **Adjustment Data** (page number: 239)

Technical Specification

Information (Read-Only)

See Form Under Additional Forms and Documents: **Technical Specification** (page number: 241)

Drawings 1

Information (Read-Only)

See Form Under Additional Forms and Documents: **Drawings 1** (page number: 540)

Drawings 2

Information (Read-Only)

See Form Under Additional Forms and Documents: **Drawings 2** (page number: 573)

Drawings 3

Information (Read-Only)

See Form Under Additional Forms and Documents: **Drawings 3** (page number: 606)

Procurement Forms

Past Construction Experiences

Kindly fill the form

See Form Under Additional Forms and Documents: **Past Construction Experiences** (page number: 640)

Contractor's Key Personnel Representative and Their Schedules

Kindly fill the form along with CVs

See Form Under Additional Forms and Documents: **Contractor's Key Personnel Representative and Their Schedules** (page number: 646)

Past Experience and Completed Contracts

Kindly fill the form

See Form Under Additional Forms and Documents: **Past Experience and Completed Contracts** (page number: 650)

Current Contracts and Their Progress

Kindly fill the form

See Form Under Additional Forms and Documents: **Current Contracts and Their Progress** (page number: 651)

Financial Capacity and Net Worth Evaluation Form

Kindly fill the form

See Form Under Additional Forms and Documents: **Financial Capacity and Net Worth Evaluation Form** (page number: 652)

Average Annual Turnover

Kindly fill the form

See Form Under Additional Forms and Documents: **Average Annual Turnover** (page number: 654)

PUBLIC PROCUREMENT REGULATORY AUTHORITY
(PPRA)
EPADS

Additional Forms and Documents

SCHEDULE OF ADJUSTMENT DATA

Table I. Local Currency (LC)

Cost Element	Description	Weightages	Applicable index
1	2	3	4
(i)	Fixed Portion	0.3	
(ii)	Local Labour	0.15	Pakistan Bureau of Statistics (PBS) Monthly Statistical Bulletin.
(iii)	Bitumen	0.10	Pakistan Bureau of Statistics (PBS) Monthly Statistical Bulletin.
(iv)	Cement	0.15	Pakistan Bureau of Statistics (PBS) Monthly Statistical Bulletin.
(v)	Steel	0.15	Pakistan Bureau of Statistics (PBS) Monthly Statistical Bulletin.
(vi)	High Speed Diesel (HSD)	0.15	As announced by Pakistan State Oil (PSO) on Twenty-Eight (28) days prior to the latest day for submission of bids
	Total	1.00	

Notes:

1. Indices for "(ii)", & "(vi)" are taken from the Pakistan Bureau of Statistics, Monthly Statistical Bulletin. The base cost indices or prices shall be those applying 28 days prior to the latest day for submission of bids. Current indices or prices shall be those applying 28 days prior to the last day of the billing period.
2. Any fluctuation in the indices or prices of materials other than those given above shall not be subject to adjustment of the Contract Price.
3. The provision of Price Adjustment will be proceeded upon Consultants' recommendation

PUBLIC PROCUREMENT REGULATORY AUTHORITY
(PPRA)
EPADS

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)

"(INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE)"

(Road Network, Boundary Wall & Gate, Water Supply & Sewerage Network and Electrical Infrastructure)

TENDER DRAWINGS (VOLUME-IV)

MAY, 2025

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

ROAD NETWORK

LIST OF DRAWINGS
ROAD NETWORK

Page. No.	Description	Dwg.No.	Page. No.	Description	Dwg.No.
	General			**Typical Details**	
1	List of Drawings	NFIP-R-LOD-1000	24	Sign Post Foundation Details	NFIP-R-STD-5008
2	General Notes	NFIP-R-GN-1001	25	Sign Post Foundation Details	NFIP-R-STD-5009
	Typical Road X-Sections		26	Footpath Access Ramps And Speed Hump Details	NFIP-R-STD-5010
3	25m Wide (Type-A) and20m Wide (Type-B)	NFIP-R-TCS-2001		**Water Course**	
4	20m Wide (Type-C), 15m Cul-De-Sac	NFIP-R-TCS-2002	27	Layout Plan & Typical Details	NFIP-R-WC-LP-01
5	20m Cul-De-Sac and Roundabout	NFIP-R-TCS-2003		**Road Crossing Sleeves**	
6	Roundabout Within Commercial Area and Details	NFIP-R-TCS-2004	28	Road Crossing Sleeves Key Plan	NFIP-ES-KP-01
	Layout Plans		29	Enlarged Plan Road Crossing sleeves layout Plan	NFIP-ES-LP-01
7	Key Plan	NFIP-R-KP-3000	30	Enlarged Plan Road Crossing sleeves layout Plan	NFIP-ES-LP-02
8	Road Layout Plan	NFIP-R-LP-3001	31	Enlarged Plan Road Crossing sleeves layout Plan	NFIP-ES-LP-03
9	Road Layout Plan	NFIP-R-LP-3002	32	Enlarged Plan Road Crossing sleeves layout Plan	NFIP-ES-LP-04
10	Road Layout Plan	NFIP-R-LP-3003	33	Typical Details of Road Crossing Sleeves	NFIP-ES-TD-01
11	Road Layout Plan	NFIP-R-LP-3004		**Street Lighting**	
	Road Profiles		34	Key Plan	NFIP-E-SLL-KP-01
12	Road Profile	NFIP-R-RP-4001	35	Enlarged Street Lighting Layout	NFIP-E-SLL-LP-01
13	Road Profile	NFIP-R-RP-4002	36	Enlarged Street Lighting Layout	NFIP-E-SLL-LP-02
14	Road Profile	NFIP-R-RP-4003	37	Enlarged Street Lighting Layout	NFIP-E-SLL-LP-03
	Structural Drawings		38	Enlarged Street Lighting Layout	NFIP-E-SLL-LP-04
15	Box Culvert Layout & Section	NFIP-STR-LS-01	39	Light Pole Installation and Miscellaneous Details	NFIP-E-SLL-TD-01
16	Box Culvert Details	NFIP-STR-TD-01	40	Single Line Diagram of Street Lighting Control Panels	NFIP-E-SLL-SLD-01
	Typical Details			**Storm Water Drainage**	
17	Road Traffic Signs Details	NFIP-R-STD-5001	41	Key Plan	NFIP-SWD-KP-8000
18	Road Traffic Signs Details	NFIP-R-STD-5002	42	Layout Plan 1/3	NFIP-SWD-LP-8001
19	Road Traffic Signs Details	NFIP-R-STD-5003	43	Layout Plan 2/3	NFIP-SWD-LP-8002
20	Road Traffic Signs Details	NFIP-R-STD-5004	44	Layout Plan 3/3	NFIP-SWD-LP-8003
21	Road Traffic Signs Details	NFIP-R-STD-5005	45	Typical Details	NFIP-SWD-TD-01
22	Pavement Markings	NFIP-R-STD-5006	46	Typical Details	NFIP-SWD-TD-02
23	Pavement Markings	NFIP-R-STD-5007			

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
ROADS NETWORK
LIST OF DRAWINGS

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR. SHEHROZE	ENGR. ARSLAN
26-05-2025	TENDER DRAWINGS	SAQLAIN	ENGR. SHEHROZE	ENGR. RAMEEZ

DRAWING Nº: NFIP-R-LOD-1000 | SHEET | REV 01

CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP Typical Cross Sections (26-05-2025)

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

GENERAL NOTES

1. ALL LINER DIMENSIONS AND UNITS ARE IN DECIMAL M OR MM WHERE AS ANGULAR MEASUREMENTS ARE IN DEGREES, MINUTES AND SECONDS (360 TO A CIRCLE), EXCEPT WHERE OTHERWISE INDICATED ON PLAN & PROFILE AND TYPICAL CROSS SECTION DRAWINGS. ALL GENERAL DETAIL DRAWINGS ARE IN METERS AND MILLIMETERS.

2. ELEVATIONS AND TOPOGRAPHY SHOWN ON THE DRAWINGS REPRESENT CONDITIONS AT THE TIME OF SURVEY CARRIED OUT IN AUGUST, 2021.

3. GRID COORDINATES & ELEVATIONS ARE BASED ON SURVEY GRID AND DATUM AS ESTABLISHED BY BM VALUES.

4. EACH DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS.

5. NOTES AND LEGEND SHOWN ON THE SPECIFIC DRAWING PERTAIN TO THAT DRAWING AND TO OTHER IF REFERRED.

6. ANY CONFLICT FOUND BETWEEN DRAWINGS SHALL BE BROUGHT TO KNOWLEDGE OF THE ENGINEER FOR HIS CLARIFICATION AND INSTRUCTIONS BEFORE PROCEEDING WITH THE WORK.

7. CONTRACTOR SHALL CARRY OUT THE PRE-WORK SURVEY AND VERIFY THE EXISTING LEVELS JOINTLY WITH THE ENGINEER.

8. UNLESS OTHERWISE INDICATED, SECTIONS ARE SHOWN IN THE DIRECTION OF INCREASING STATIONS.

9. MODIFIED MARSHALL METHOD FOR MIX DESIGN SHALL BE ADOPTED.

10. PRIME COAT AND TACK COAT SHALL BE APPLIED ON TOP OF AGGREGATE BASE COURSE AND ASPHALT BASE / BINDER COURSE LAYERS PRIOR TO LAYING OF OTHER LAYER MATERIAL ON IT

11. STRUCTURES SHOWN ON PLAN & PROFILE ARE SYMBOLIC. FOR DETAIL OF STRUCTURES AND PROTECTION WORKS, REFER RELEVANT DRAWING.

12. FOR PAVEMENT MARKING AND ROAD SIGNS CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS FOR APPROVAL OF THE ENGINEER.

13. CONCRETE CURB STONES, PAVEMENT STUDS AND OTHER ANCILLARY ITEMS SHALL BE PROVIDED AS PER THE BOQ ITEMS OR AS PER SITE REQUIREMENT OR AS DIRECTED BY THE ENGINEER. CONTRACTOR SHALL PREPARE THE SHOP DRAWINGS FOR EACH ACTIVITY LOCATION ALONG WITH METHODOLOGY AND SHALL SUBMIT FOR APPROVAL TO THE ENGINEER PRIOR TO START OF CONSTRUCTION.

14. FOUNDATION BASE OF STRUCTURES SHALL BE PLACED ON FIRM / HARD / ROCKY STRATA OR AS DIRECTED BY THE ENGINEER.

15. UNSUITABLE SOILS WHICH DO NOT MEET SPECIFIED REQUIREMENTS SHALL BE REMOVED AND REPLACED WITH SUITABLE SOILS AS PER ROAD CROSS SECTION DRAWING OR TO DEPTH AS DIRECTED BY THE ENGINEER.

16. 750MM ROAD SIGNS SHALL BE USED ALONG MAIN ROADS WHEREAS 600MM ROAD SIGNS SHALL BE USED ALONG STREETS.

17. FOR PURPOSES OF THE CONTRACT, THE ADDITIONAL PLANS AND DRAWINGS SHALL BE ISSUED TO THE CONTRACTOR DURING THE COURSE OF HIS WORKS AS DEEMED NECESSARY BY THE ENGINEER.

18. BITUMEN COATING (2 COATS) SHALL BE APPLIED ON CONCRETE WORKS FACING BACKFILL MATERIAL / EARTHEN FACE .

19. ASPHALT LAYERS SHALL NOT BE LAID DURING CONSTRUCTION ON MAIN ROADS AND SURFACE ONLY UP TO PRIME COAT SHALL BE DONE TO PREVENT SURFACE ASPHALT FROM CONSTRUCTION EQUIPMENT / VEHICLE LOAD DAMAGES.

20. CONSTRUCTION VEHICLE SHALL NOT RUN ON FINISHED ROAD SURFACE. IN CASE OF NEGLIGENCE, CONTRACTOR HAS TO REPAIR DAMAGES TO FINISHED ASPHALT SURFACE AT HIS OWN COST.

21. THE CONTRACTOR SHALL NOT BLOCK ACCESS TO ANY EXISTING COMMERCIAL / RESIDENTIAL AREAS WITHIN THE CONSTRUCTION ZONE AT ANY TIME.

22. THE CONSTRUCTION OF FOOTPATH AND GREEN BELT WILL BE UNDERTAKEN AFTER LAYING OF THE RESPECTIVE UTILITIES / SERVICES.

23. THE CONTRACTOR SHALL COORDINATE HIS ACTIVITIES WITH THE LAYING UNDERGROUND UTILITIES SERVICES BY THE RESPECTIVE DEPARTMENT / OTHER CONTRACTORS.

24. THE CONTRACTOR SHALL ENSURE PRIOR APPROVAL FROM THE ENGINEER FOR CUTTING / REMOVAL OF TREES.

25. THE ROAD PROFILE / CROSS SECTION SHALL BE ADJUSTED AT INTERSECTIONS / JUNCTIONS.

METHODOLOGY FOR ROAD CONSTRUCTION
(WHERE SUB-BASE/AGGREGATE BASE COURSE IS ALREADY LAID)

1. EXISTING LAID SUB-BASE AND BASE COURSE SHALL BE SCARIFIED AND MATERIAL SHALL BE REUSED.

2. METHOD FOR SCARIFICATION OF SUB-BASE AND AGGREGATE BASE COURSE SHALL BE PROPOSED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER, IN ACCORDANCE WITH THE REQUIREMENTS OF SITE SITUATION.

3. SUB-BASE AND AGGREGATE BASE MATERIAL, AFTER SCARIFICATION, SHALL BE REMOVED AND DUMPED OUTSIDE THE RIGHT-OF-WAY OF ROADS, IN ACCORDANCE WITH THE SATISFACTION OF THE ENGINEER. BOTH MATERIALS SHALL BE DUMPED SEPARATELY SO AS TO AVOID INTER-MIXING OF MATERIALS.

4. THE SCARIFIED & DUMPED SUB-BASE MATERIAL SHALL BE USED AGAIN IN THE CONSTRUCTION OF ROADS AS SUB-BASE MATERIAL. THE EXISTING SUB-BASE MATERIAL CAN ALSO BE MIXED WITH NEW SUB-BASE MATERIAL SO AS TO ACHIEVE THE DESIRED MATERIAL SPECIFICATIONS AS INCLUDED IN THE CONTRACT.

5. SIMILARLY, SCARIFIED & DUMPED AGGREGATE BASE MATERIAL SHALL BE USED AGAIN IN THE CONSTRUCTION OF ROADS AS AGGREGATE BASE MATERIAL. THE EXISTING AGGREGATE BASE MATERIAL CAN ALSO BE MIXED WITH NEW AGGREGATE BASE MATERIAL SO AS TO ACHIEVE THE DESIRED MATERIAL SPECIFICATIONS AS INCLUDED IN THE CONTRACT.

6. BOTH SUB-BASE AND AGGREGATE BASE COURSES SHALL BE LAID WITH THESE SCARIFIED MATERIALS. THE ADDITIONAL MATERIALS REQUIRED SO AS TO ACHIEVE THE DESIRED THICKNESS OF SUB-BASE/AGGREGATE BASE, AS INCLUDED IN THE DRAWINGS, SHALL BE PROCURED FROM THE APPROVED QUARRIES.

7. MEASUREMENT AND PAYMENT FOR SCARIFICATION, DUMPING AND MIXING SHALL BE MADE FOR ITEMS AS INCLUDED IN THE BILL OF QUANTITIES.

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
ROADS NETWORK
GENERAL NOTES

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR. SHEHROZE	ENGR. ARSLAN

DRAWING Nº: NFIP-R-GN-1001 | SHEET | REV 00

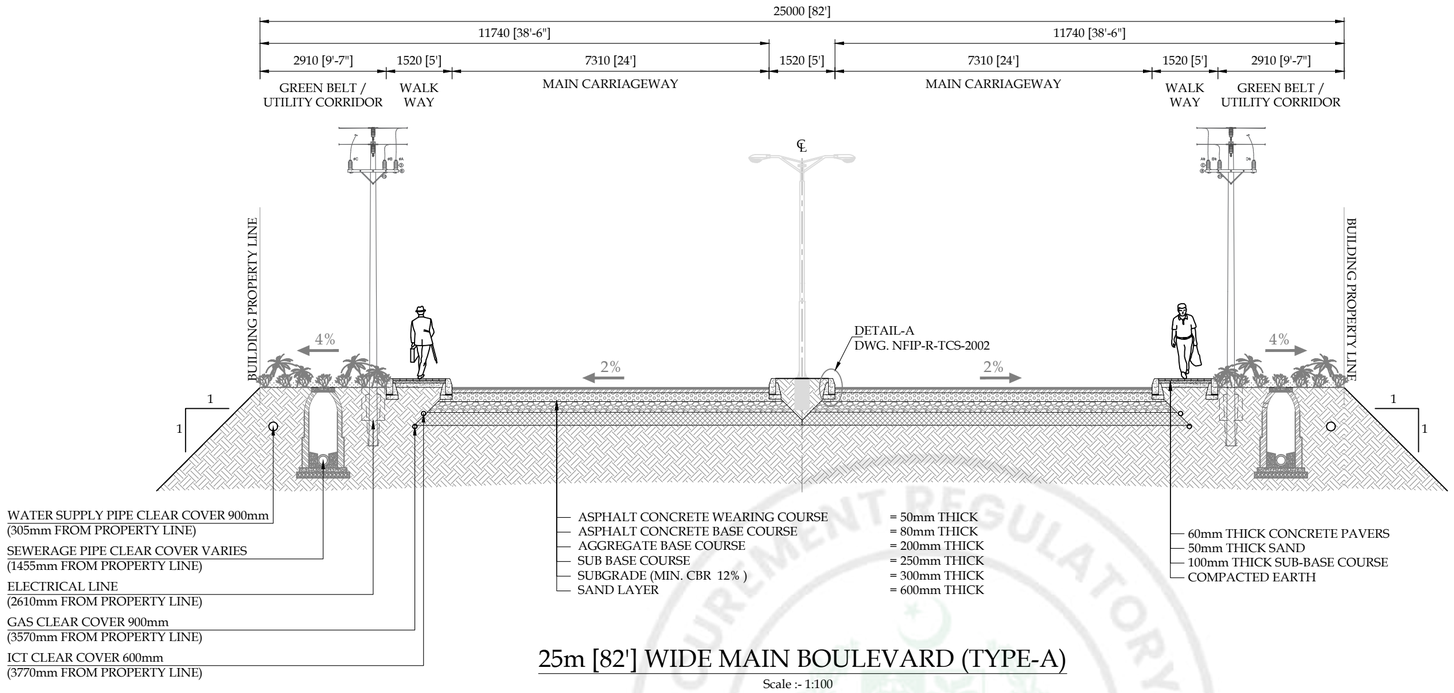
CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP Typical Cross Sections(30-11-2021)

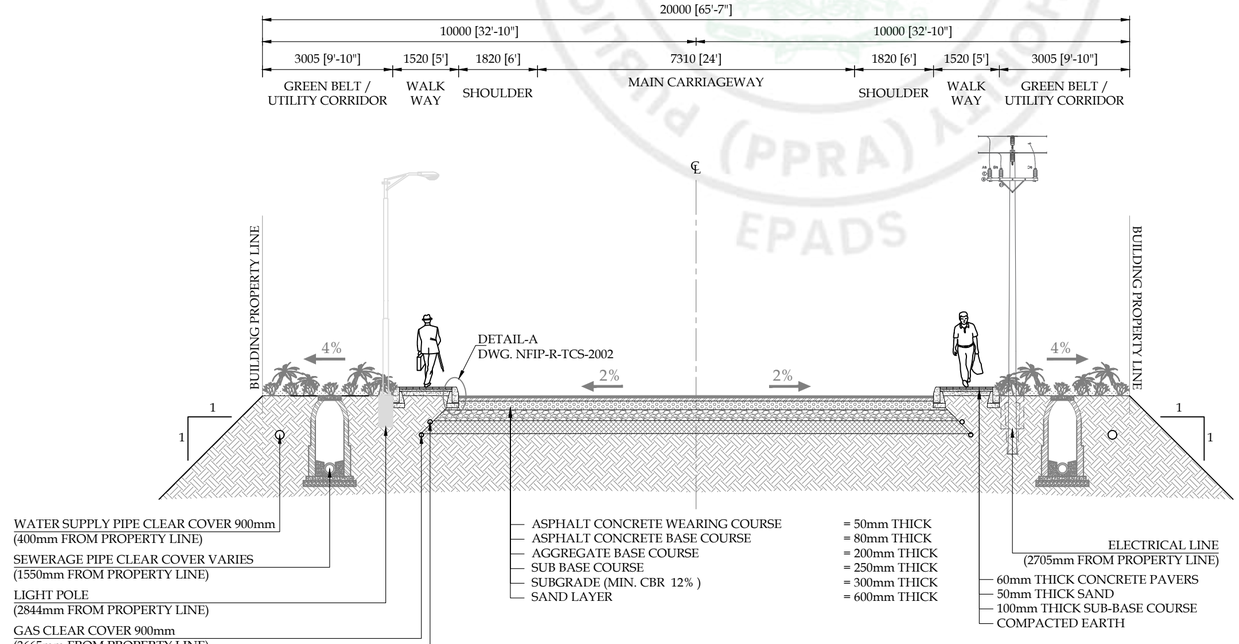
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

TYPICAL CROSS SECTION



25m [82'] WIDE MAIN BOULEVARD (TYPE-A)

Scale :- 1:100



20m [65'-7"] WIDE LOCAL ROAD (TYPE-B)

Scale :- 1:100

NOTES

1. ALL DIMENSIONS AND DISTANCES SHOWN ON TYPICAL X-SECTION DRAWING ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
2. FOR ROAD LAYOUT PLAN REFER RELEVANT DRAWINGS.
3. **SIDE SLOPES**
   CUT SLOPE = 1:1 (H:V)
   FILL SLOPE = 2:1 (H:V)
4. FOR DETAILS OF STORM WATER DRAINAGE, SEWERAGE NETWORK AND WATER SUPPLY NETWORK REFER RELEVANT DRAWINGS.
5. FOR ROAD WHERE PAVEMENT STRUCTURE HAS ALREADY BEEN LAID ON SITE, CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE THE LAYERS (ON TOP OF SUB-GRADE) TO BE RELAYED AGAIN.
6. ONCE THE MATERIAL WILL BE REMOVED, STRUCTURE WILL BE RELAYED AS PER CROSS-SECTIONS AND LONGITUDINAL PROFILES.

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK
TYPICAL ROAD CROSS SECTION
25m WIDE (TYPE-A) & 20m WIDE (TYPE-B)

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR. SHEHROZE	ENGR. ARSLAN
26-05-2025	TENDER DRAWINGS	SAQLAIN	ENGR. SHEHROZE	ENGR. RAMEEZ

DRAWING Nº:

NFIP-R-TCS-2001

SHEET 1 OF 4

REV 01

CLIENT:

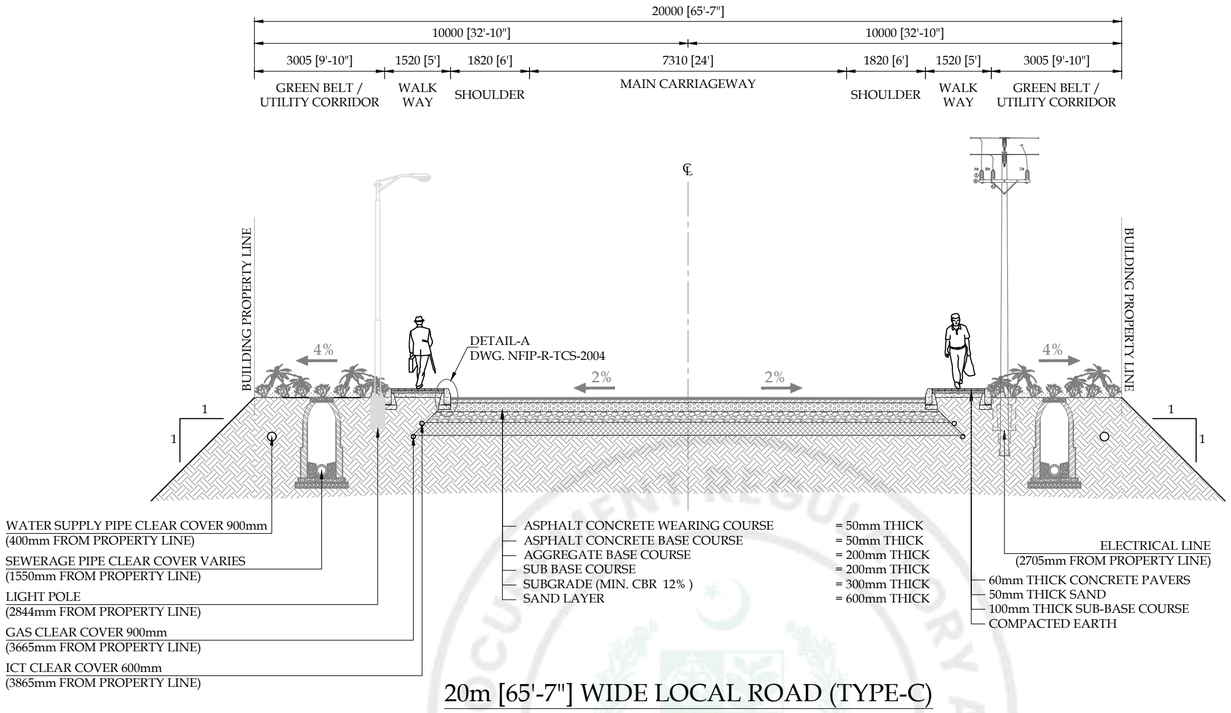
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

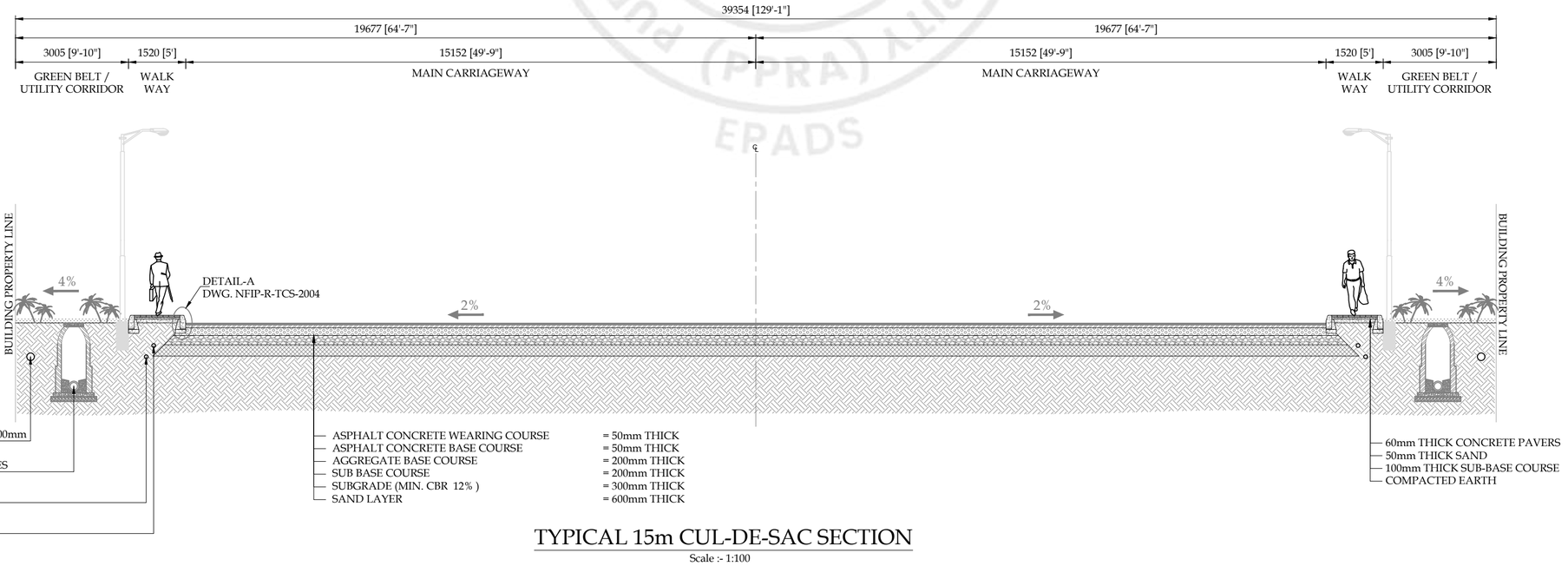
NFIP Typical Cross Sections (26-05-2025)

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



20m [65'-7"] WIDE LOCAL ROAD (TYPE-C)

Scale :- 1:100



TYPICAL 15m CUL-DE-SAC SECTION

Scale :- 1:100

NFIP Typical Cross Sections (26-05-2025)

NOTES

1. ALL DIMENSIONS AND DISTANCES SHOWN ON TYPICAL X-SECTION DRAWING ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
2. FOR ROAD LAYOUT PLAN REFER RELEVANT DRAWINGS.
3. **SIDE SLOPES**
   CUT SLOPE = 1:1 (H:V)
   FILL SLOPE = 2:1 (H:V)
4. FOR DETAILS OF STORM WATER DRAINAGE, SEWERAGE NETWORK AND WATER SUPPLY NETWORK REFER RELEVANT DRAWINGS.
5. FOR ROAD WHERE PAVEMENT STRUCTURE HAS ALREADY BEEN LAID ON SITE, CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE THE LAYERS (ON TOP OF SUB-GRADE) TO BE RELAYED AGAIN.
6. ONCE THE MATERIAL WILL BE REMOVED, STRUCTURE WILL BE RELAYED AS PER CROSS-SECTIONS AND LONGITUDINAL PROFILES.

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK
TYPICAL ROAD CROSS SECTION
20m WIDE (TYPE-C), 15m CUL-DE-SAC

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR. SHEHROZE	ENGR. ARSLAN
26-05-2025	TENDER DRAWINGS	SAQLAIN	ENGR. SHEHROZE	ENGR. RAMEEZ

DRAWING Nº:

NFIP-R-TCS-2002

SHEET 2 OF 4

REV 01

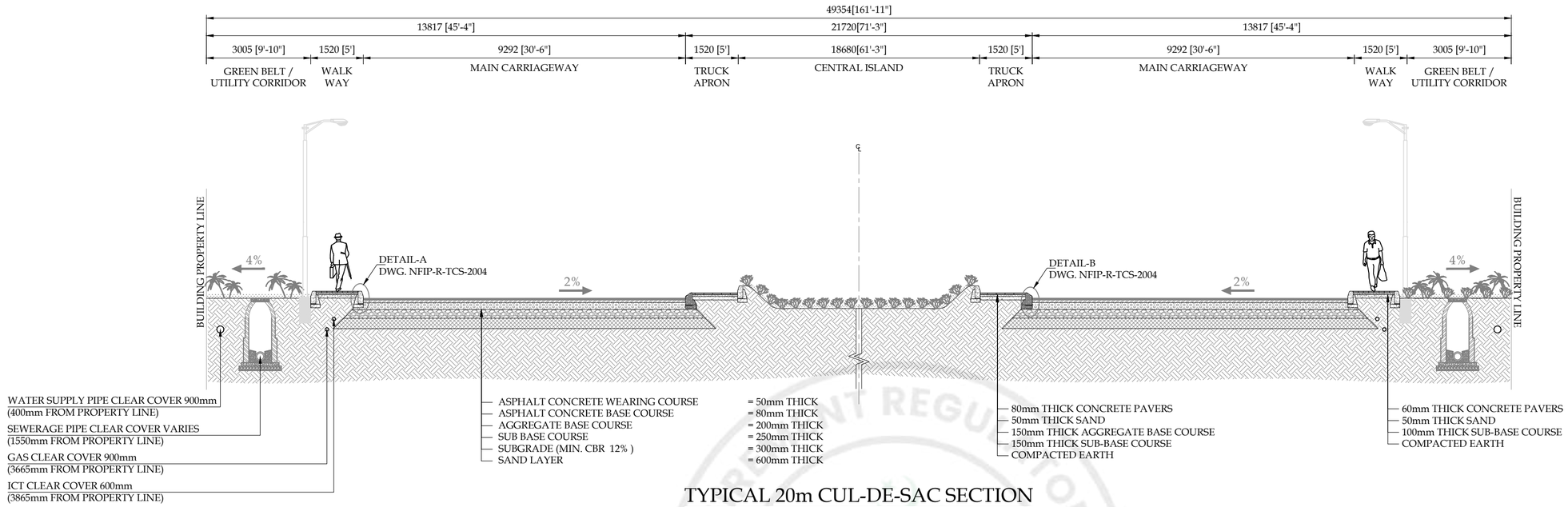
CLIENT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

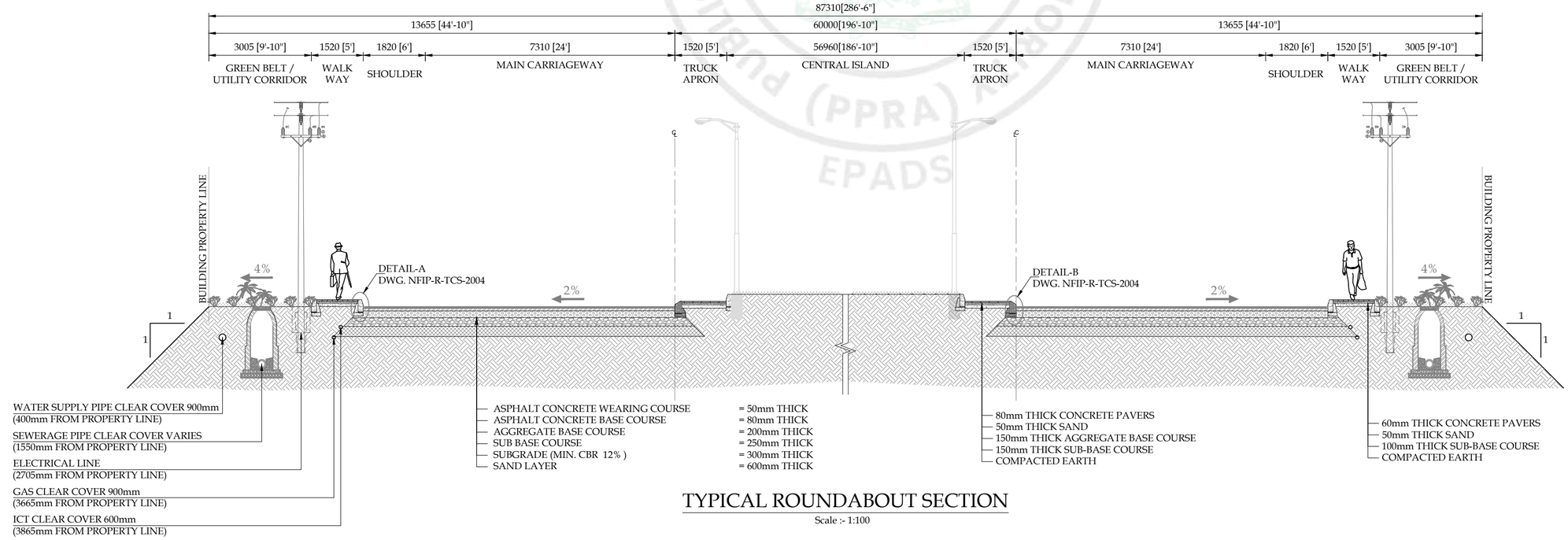
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



TYPICAL 20m CUL-DE-SAC SECTION

Scale :- 1:100



TYPICAL ROUNDABOUT SECTION

Scale :- 1:100

NOTES

1. ALL DIMENSIONS AND DISTANCES SHOWN ON TYPICAL X-SECTION DRAWING ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
2. FOR ROAD LAYOUT PLAN REFER RELEVANT DRAWINGS.
3. **SIDE SLOPES**
   CUT SLOPE = 1:1 (H:V)
   FILL SLOPE = 2:1 (H:V)
4. FOR DETAILS OF STORM WATER DRAINAGE, SEWERAGE NETWORK AND WATER SUPPLY NETWORK REFER RELEVANT DRAWINGS.
5. FOR ROAD WHERE PAVEMENT STRUCTURE HAS ALREADY BEEN LAID ON SITE, CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE THE LAYERS (ON TOP OF SUB-GRADE) TO BE RELAYED AGAIN.
6. ONCE THE MATERIAL WILL BE REMOVED, STRUCTURE WILL BE RELAYED AS PER CROSS-SECTIONS AND LONGITUDINAL PROFILES.

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK
TYPICAL ROAD CROSS SECTION
20m CUL-DE-SAC & ROUNDABOUT

ORIGINAL :		DATE :		SCALE :
A2		JULY, 2021		

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR. SHEHROZE	ENGR. ARSLAN
26-05-2025	TENDER DRAWINGS	SAQLAIN	ENGR. SHEHROZE	ENGR. RAMEEZ

DRAWING Nº:

NFIP-R-TCS-2003

SHEET 3 OF 4

REV 01

CLIENT:

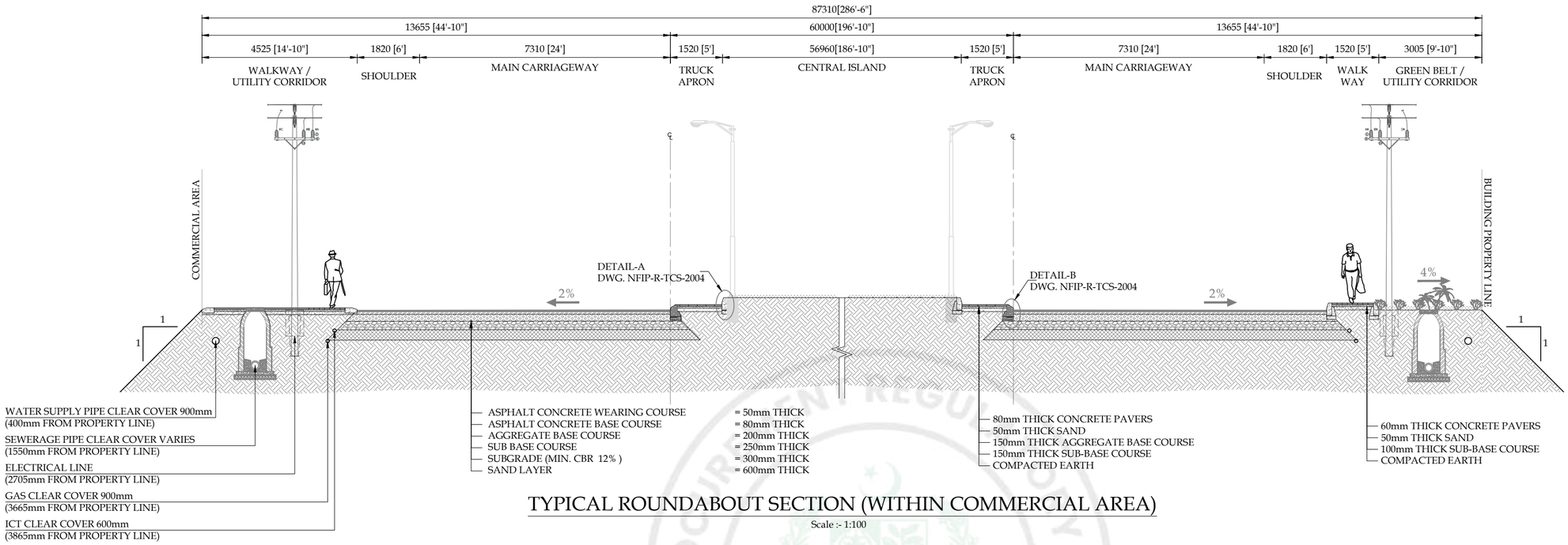
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

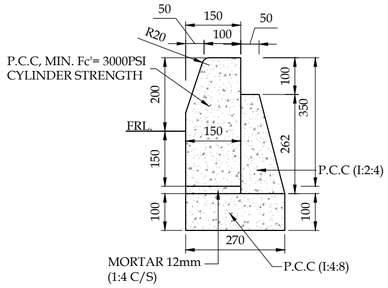
NFIP Typical Cross Sections (26-05-2025)

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



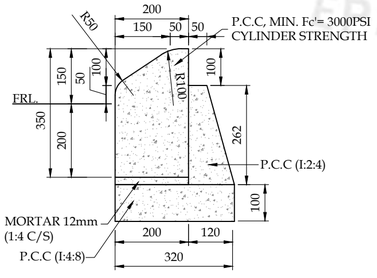
TYPICAL ROUNDABOUT SECTION (WITHIN COMMERCIAL AREA)

Scale :- 1:100



CURB STONE DETAIL "A"

Scale :- 1:12



CURB STONE DETAIL "B"

Scale :- 1:12

NOTES

1. ALL DIMENSIONS AND DISTANCES SHOWN ON TYPICAL X-SECTION DRAWING ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
2. FOR ROAD LAYOUT PLAN REFER RELEVANT DRAWINGS.
3. **SIDE SLOPES**
   CUT SLOPE = 1:1 (H:V)
   FILL SLOPE = 2:1 (H:V)
4. FOR DETAILS OF STORM WATER DRAINAGE, SEWERAGE NETWORK AND WATER SUPPLY NETWORK REFER RELEVANT DRAWINGS.
5. FOR ROAD WHERE PAVEMENT STRUCTURE HAS ALREADY BEEN LAID ON SITE, CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE THE LAYERS (ON TOP OF SUB-GRADE) TO BE RELAYED AGAIN.
6. ONCE THE MATERIAL WILL BE REMOVED, STRUCTURE WILL BE RELAYED AS PER CROSS-SECTIONS AND LONGITUDINAL PROFILES.

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE
ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK
TYPICAL ROAD CROSS SECTION
ROUNDABOUT WITHIN
COMMERCIAL AREA & DETAILS

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR. SHEHROZE	ENGR. ARSLAN
26-05-2025	TENDER DRAWINGS	SAQLAIN	ENGR. SHEHROZE	ENGR. RAMEEZ

DRAWING Nº: NFIP-R-TCS-2004

SHEET 4 OF 4

REV 01

CLIENT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

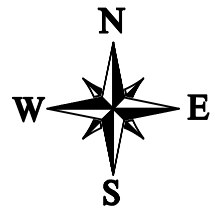
CONSULTANT:

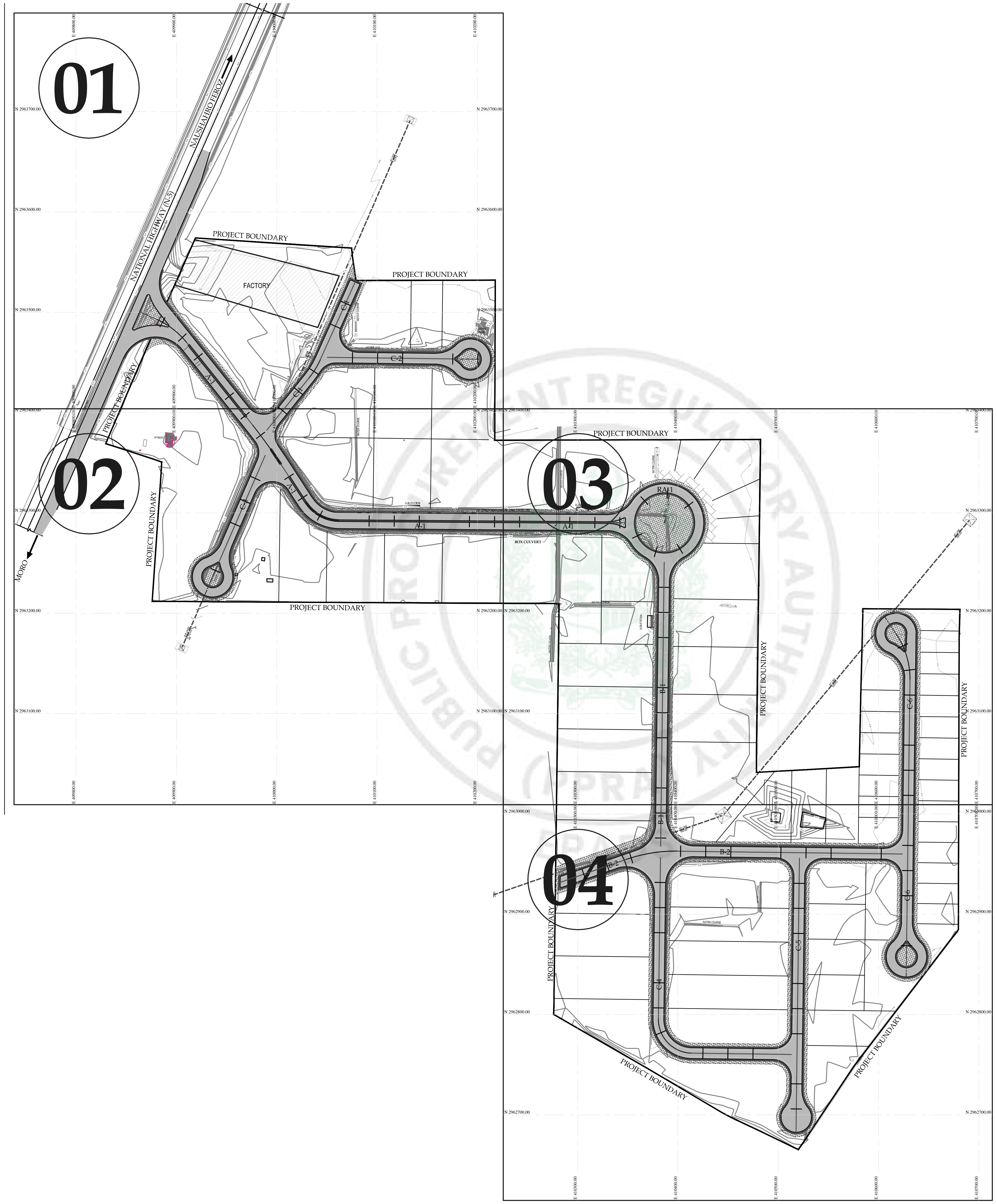
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP Typical Cross Sections (26-05-2025)

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

ROAD LAYOUT





PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT
NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE
ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY &
SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK
KEY PLAN

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR. SHEHROZE	ENGR. ARSLAN

DRAWING Nº:	SHEET	REV
NFIP-R-KP-3000	1 OF 1	00

CLIENT:

PAKISTAN INDUSTRIAL DEVELOPMENT
CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI,
PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-R-LP-3001 to
3004(17-12-2021)

E 409800.00
E 409900.00
E 410000.00
E 410100.00
E 410200.00
N 2963700.00
N 2963600.00
N 2963500.00

NAUSHAHRO FEROZ

NATIONAL HIGHWAY (N-5)

Green Belt

PROJECT BOUNDARY

FACTORY

PROJECT BOUNDARY

HT LINE 132 KV

WATER COURSE

SEWER LINE

WATER TANK

A-1

C-1

C-2

BOP=0+000.000
N=2963500.493
E=409863.414
FRL=38.591

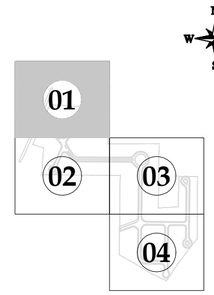
BOP=0+000.000
N=2963455.088
E=410050.526
FRL=38.780

EOP=0+173.407
N=2963530.324
E=410078.247
FRL=39.131

EOP=0+153.306
N=2963453.120
E=410203.819
FRL=38.321

0+000
0+100
0+153

37.50



KEY PLAN

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
ROADS NETWORK
LAYOUT PLAN

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR. SHEHROZE	ENGR. ARSLAN

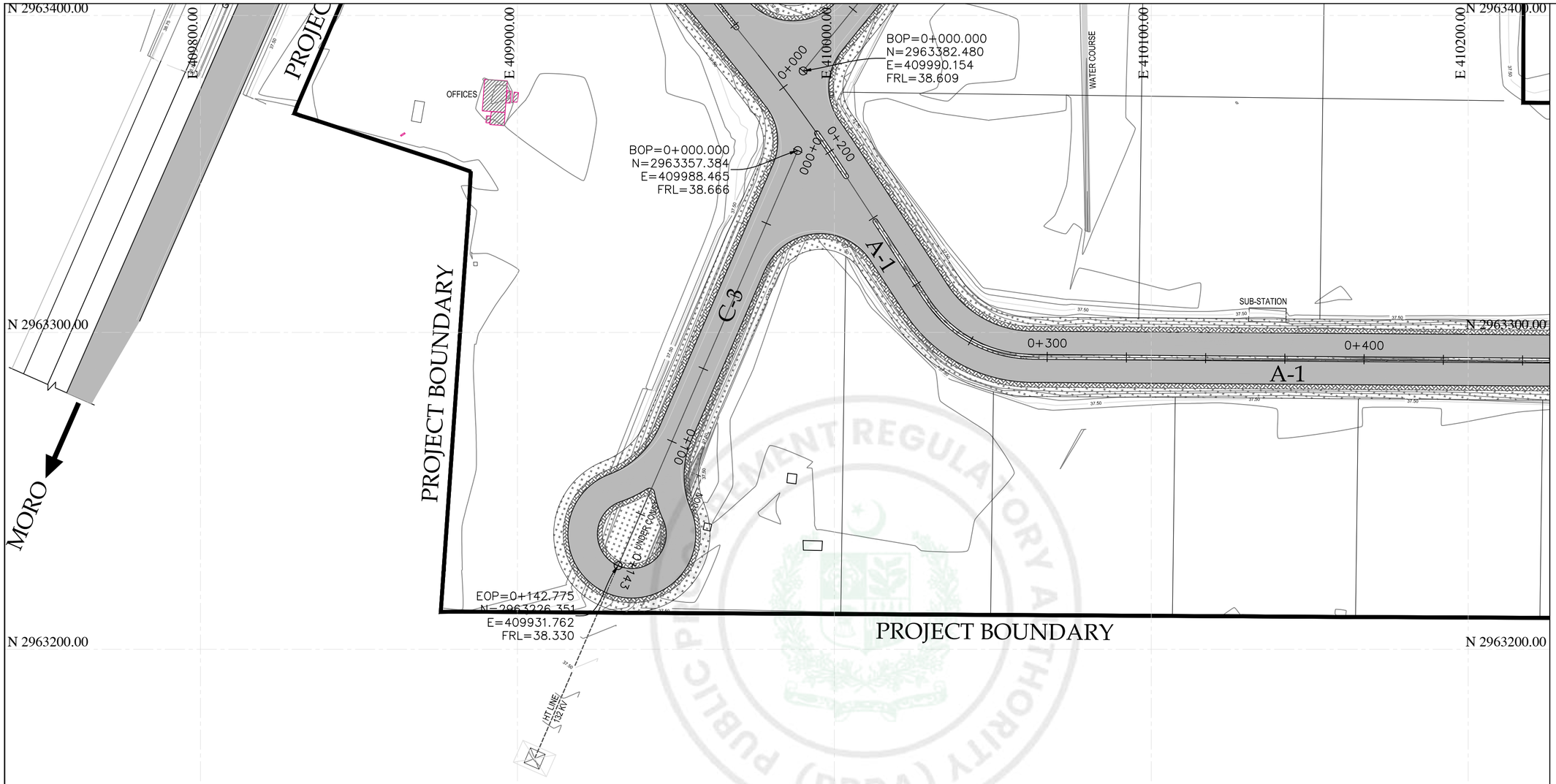
DRAWING Nº: NFIP-R-LP-3001
SHEET 01 OF 04
REV 00

CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-III, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAX: +92 42 35450916 WEB: www.asiancon.com

NFIP-R-LP-3001 to 3004(17-12-2021)

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



NFIP-R-LP-3001 to 3004(17-12-2021)

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK LAYOUT PLAN

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR. SHEHROZE	ENGR. ARSLAN

DRAWING Nº: NFIP-R-LP-3002

SHEET 02 OF 04

REV 00

CLIENT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

N 2963400.00 | E 410300.00 | E 410400.00 | E 410500.00 | E 410600.00 | E 410700.00 | N 2963400.00

PROJECT BOUNDARY

N 2963300.00

N 2963200.00

N 2963100.00

WATER COURSE

SUB-STATION

0+500

A-1

BOX CULVERT

EOP=0+580.287
N=2963290.220
E=410347.436
FRL=38.767

0+580

0+088

RA-1

0+148

BOP=0+000.000
N=2963290.157
E=410356.565
FRL=38.950

EOP=0+188.496
N=2963290.157
E=410356.565
FRL=38.950

0+100

0+000

BOP=0+000.000
N=2963250.807
E=410386.364
FRL=38.909

B-1

0+100

0+200

HT LINE
500 KV

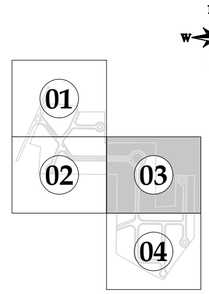
BOP=0+000.000
N=2963188.746
E=410611.270
FRL=39.100

C-6

0+100

PROJECT BOUNDARY

PROJECT BOUNDARY



KEY PLAN

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
ROADS NETWORK
LAYOUT PLAN

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR. SHEHROZE	ENGR. ARSLAN

DRAWING Nº: NFIP-R-LP-3003

SHEET 03 OF 04

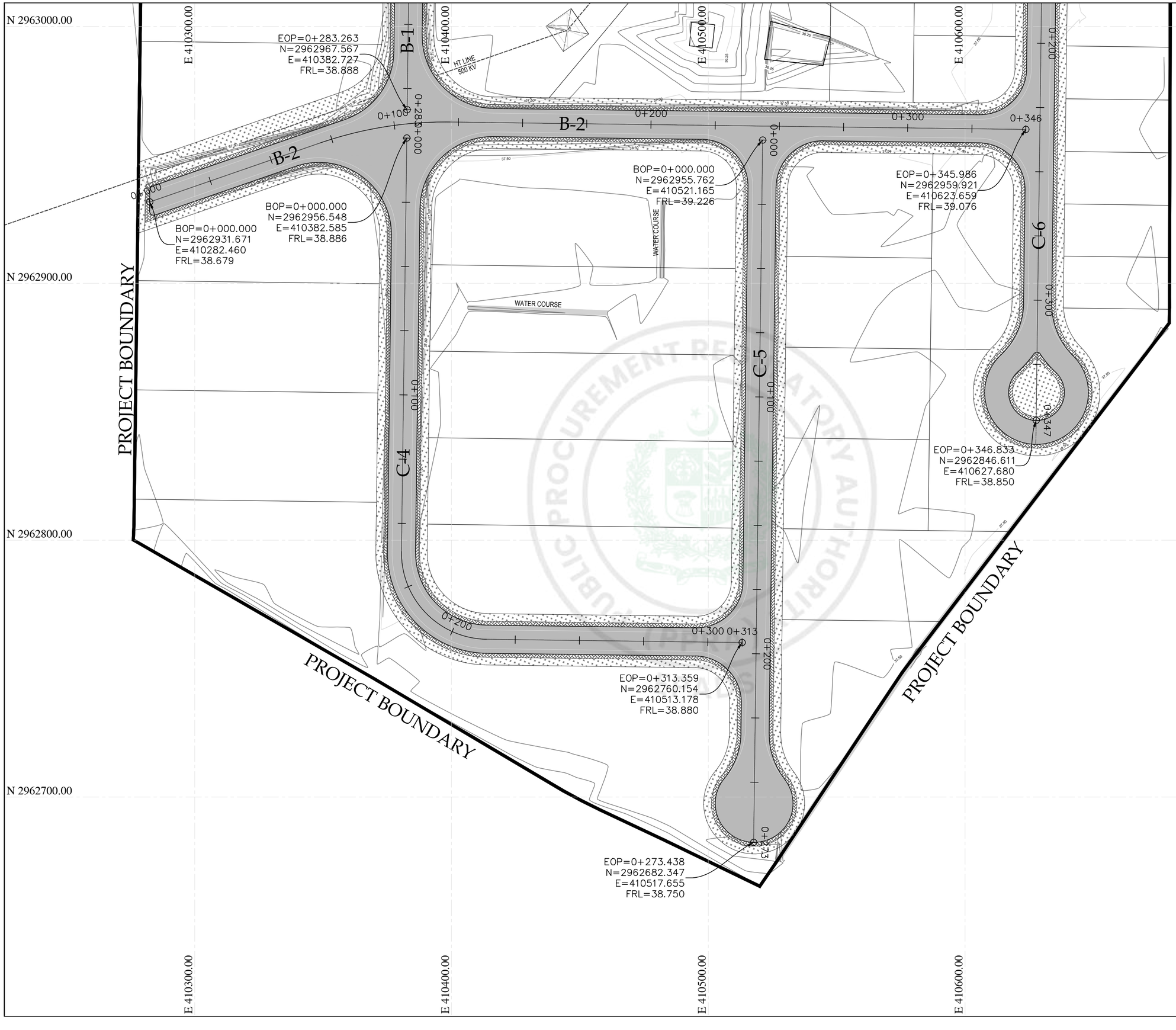
REV 00

CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-R-LP-3001 to 3004(17-12-2021)

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



NFIP-R-LP-3001 to 3004(17-12-2021)

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK LAYOUT PLAN

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR. SHEHROZE	ENGR. ARSLAN

DRAWING Nº: NFIP-R-LP-3004

SHEET 04 OF 04

REV 00

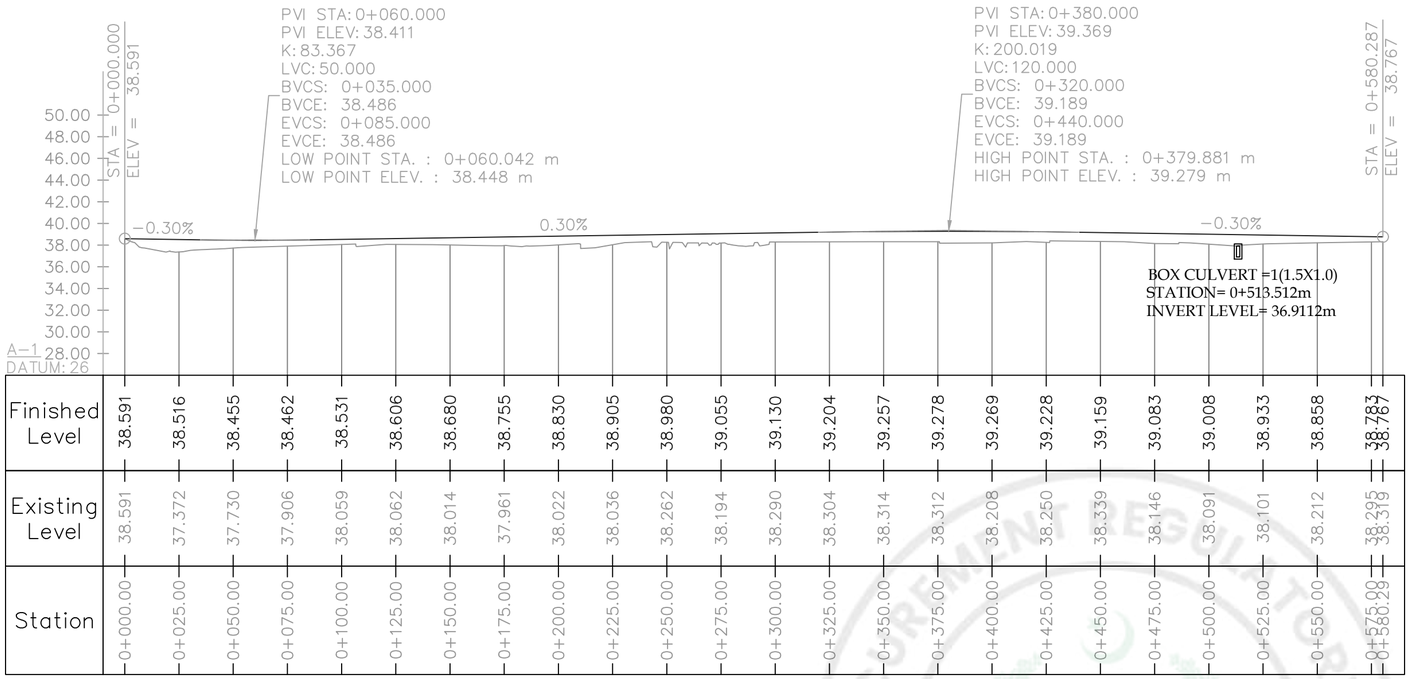
CLIENT:

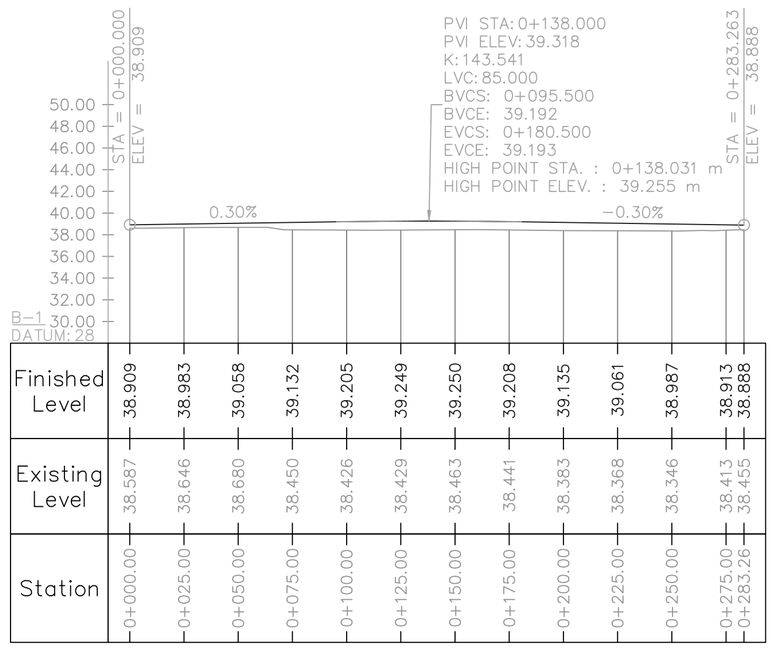
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

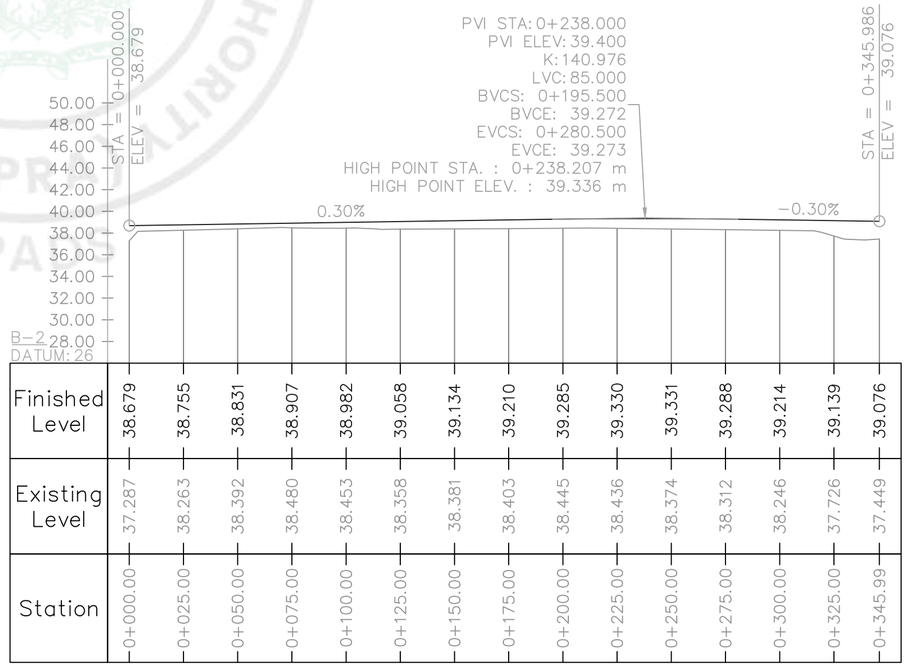
CONSULTANT:

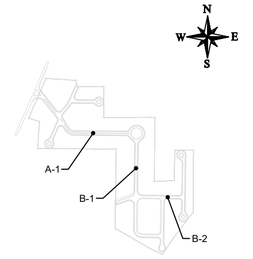
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026









KEY PLAN

NOTES

1. ALL DIMENSIONS, CHAINAGES AND LEVELS ARE IN METERS UNLESS INDICATED OTHERWISE.
2. FOR ROAD LAYOUT PLAN DETAILS REFER RELEVANT DRAWINGS.
3. FOR TYPICAL CROSS SECTION DETAILS REFER RELEVANT DRAWINGS.

LEGEND:

FINISH ROAD LEVEL (FRL) ——————
NATURAL GROUND LEVEL (NGL) — — — — —

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK
ROAD PROFILES
A-1, B-1 & B-2

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR. SHEHROZE	ENGR. ARSLAN
26-05-2025	TENDER DRAWINGS	SAQLAIN	ENGR. SHEHROZE	ENGR. RAMEEZ

DRAWING Nº: NFIP-R-RP-4001 | SHEET 01 OF 03 | REV 01

CLIENT:

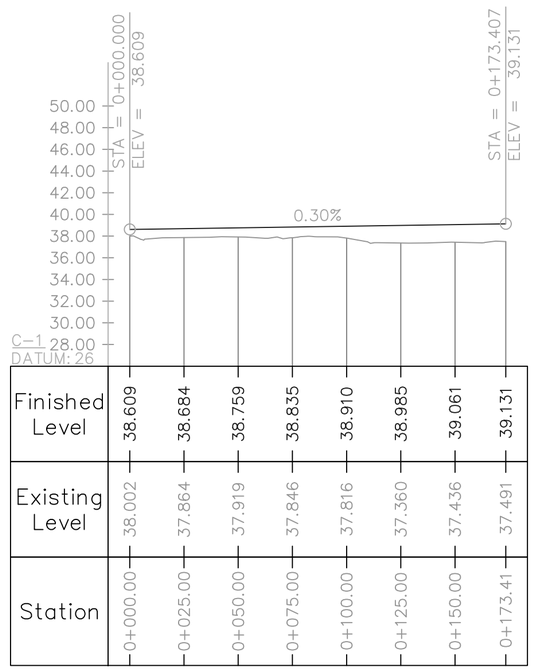
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

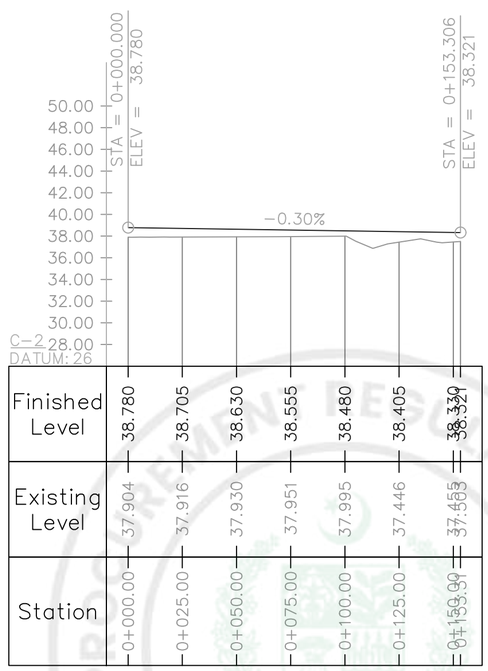
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

03. Plan & Profile_NFIP (21-12-2021)

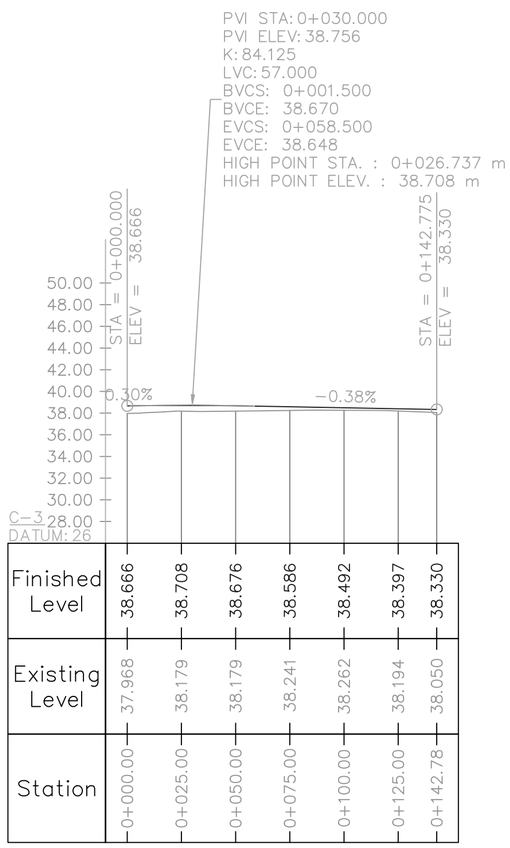
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



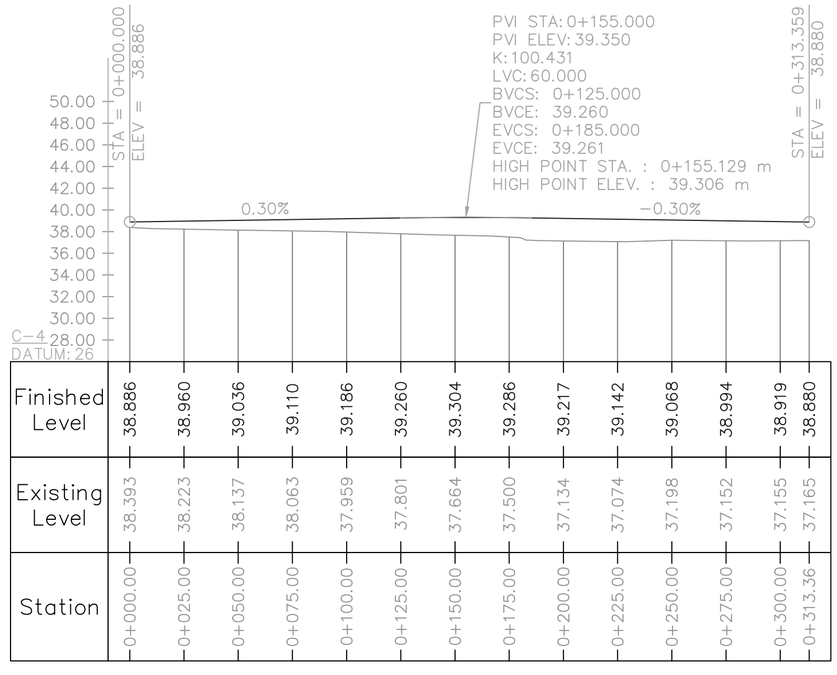
Station	Existing Level	Finished Level
0+000.00	38.002	38.609
0+025.00	37.864	38.684
0+050.00	37.919	38.759
0+075.00	37.846	38.835
0+100.00	37.816	38.910
0+125.00	37.360	38.985
0+150.00	37.436	39.061
0+173.41	37.491	39.131



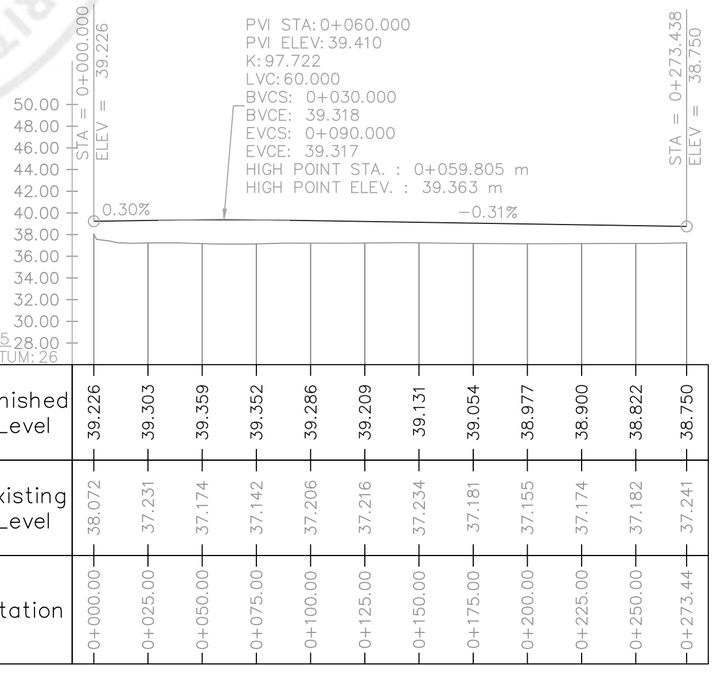
Station	Existing Level	Finished Level
0+000.00	37.904	38.780
0+025.00	37.916	38.705
0+050.00	37.930	38.630
0+075.00	37.951	38.555
0+100.00	37.995	38.480
0+125.00	37.446	38.405
0+150.00	37.553	38.330
0+153.31	37.453	38.321



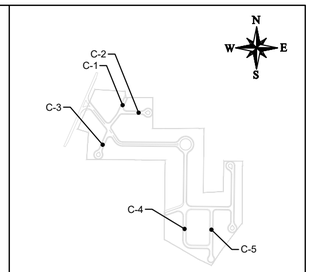
Station	Existing Level	Finished Level
0+000.00	37.968	38.666
0+025.00	38.179	38.708
0+050.00	38.179	38.676
0+075.00	38.241	38.586
0+100.00	38.262	38.492
0+125.00	38.194	38.397
0+142.78	38.050	38.330



Station	Existing Level	Finished Level
0+000.00	38.393	38.886
0+025.00	38.223	38.960
0+050.00	38.137	39.036
0+075.00	38.063	39.110
0+100.00	37.959	39.186
0+125.00	37.801	39.260
0+150.00	37.664	39.304
0+175.00	37.500	39.286
0+200.00	37.134	39.217
0+225.00	37.074	39.142
0+250.00	37.198	39.068
0+275.00	37.152	38.994
0+300.00	37.155	38.919
0+313.36	37.165	38.880



Station	Existing Level	Finished Level
0+000.00	38.072	39.226
0+025.00	37.231	39.303
0+050.00	37.174	39.359
0+075.00	37.142	39.352
0+100.00	37.206	39.286
0+125.00	37.216	39.209
0+150.00	37.234	39.131
0+175.00	37.181	39.054
0+200.00	37.155	38.977
0+225.00	37.174	38.900
0+250.00	37.182	38.822
0+273.44	37.241	38.750



KEY PLAN

NOTES

1. ALL DIMENSIONS, CHAINAGES AND LEVELS ARE IN METERS UNLESS INDICATED OTHERWISE.
2. FOR ROAD LAYOUT PLAN DETAILS REFER RELEVANT DRAWINGS.
3. FOR TYPICAL CROSS SECTION DETAILS REFER RELEVANT DRAWINGS.

LEGEND:

FINISH ROAD LEVEL (FRL) ——————
NATURAL GROUND LEVEL (NGL) — — — —

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK
ROAD PROFILES
C-1, C-2, C-3, C-4 & C-5

ORIGNAL :		DATE :		SCALE :
A2		JULY, 2021		
DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR. SHEHROZE	ENGR. ABSILAN
26-05-2025	TENDER DRAWINGS	SAQLAIN	ENGR. SHEHROZE	ENGR. RAMEEZ

DRAWING Nº: NFIP-R-RP-4002 | SHEET 02 OF 03 | REV 01

CLIENT:

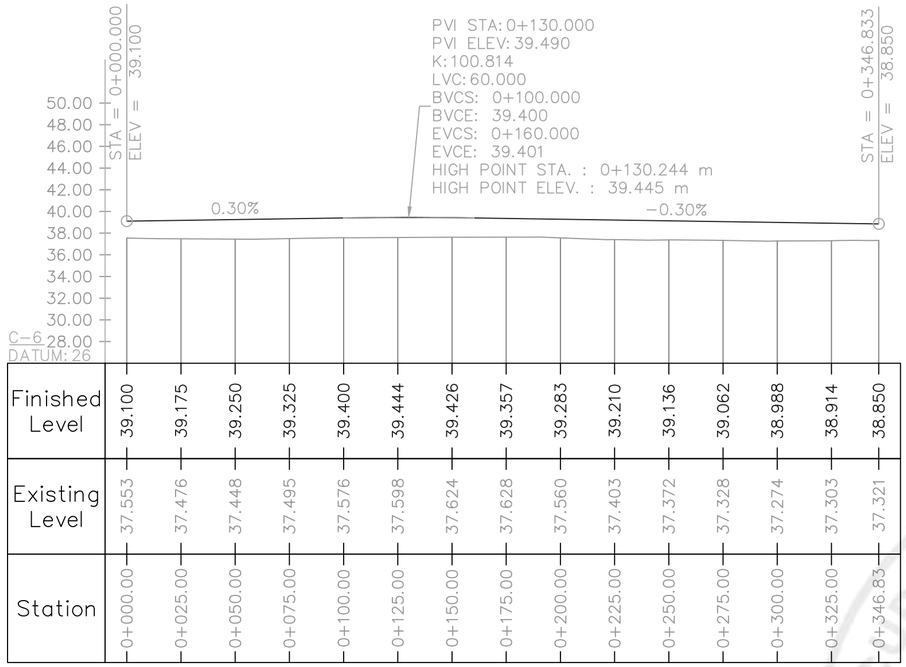
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

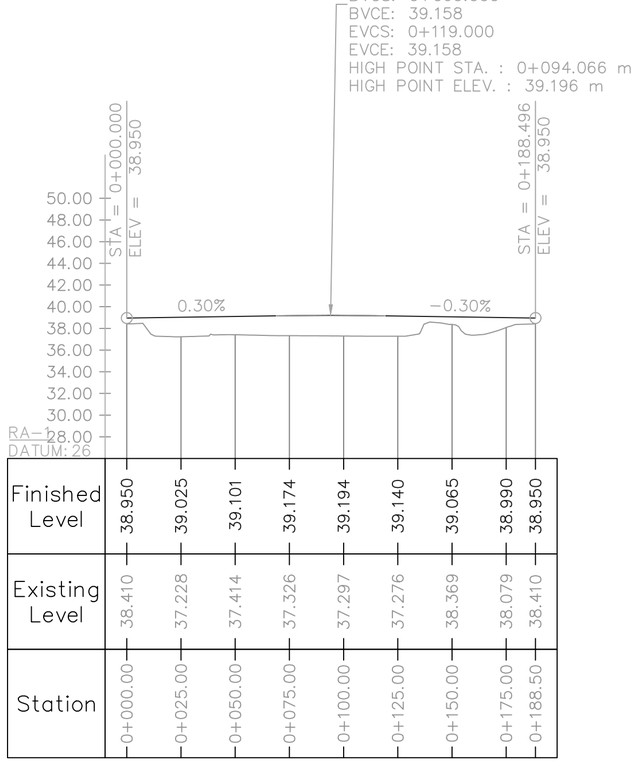
CONSULTANT:

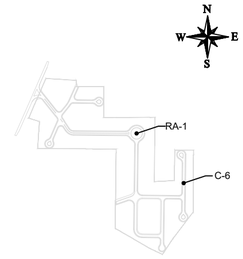
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

03. Plan & Profile_NFIP (21-12-2021)

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026







KEY PLAN

NOTES

1. ALL DIMENSIONS, CHAINAGES AND LEVELS ARE IN METERS UNLESS INDICATED OTHERWISE.
2. FOR ROAD LAYOUT PLAN DETAILS REFER RELEVANT DRAWINGS.
3. FOR TYPICAL CROSS SECTION DETAILS REFER RELEVANT DRAWINGS.

LEGEND:

FINISH ROAD LEVEL (FRL)
NATURAL GROUND LEVEL (NGL)

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK
ROAD PROFILES
C-6 & RA-1

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR. SHEHROZE	ENGR. ARSLAN
26-05-2025	TENDER DRAWINGS	SAQLAIN	ENGR. SHEHROZE	ENGR. RAMEEZ

DRAWING Nº: NFIP-R-RP-4003

SHEET 03 OF 03

REV 01

CLIENT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

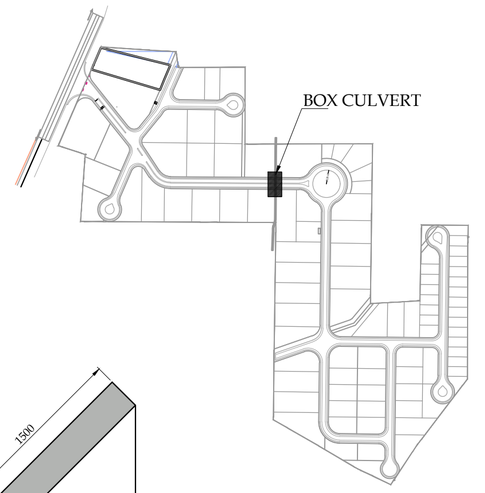
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

03. Plan & Profile_NFIP (21-12-2021)

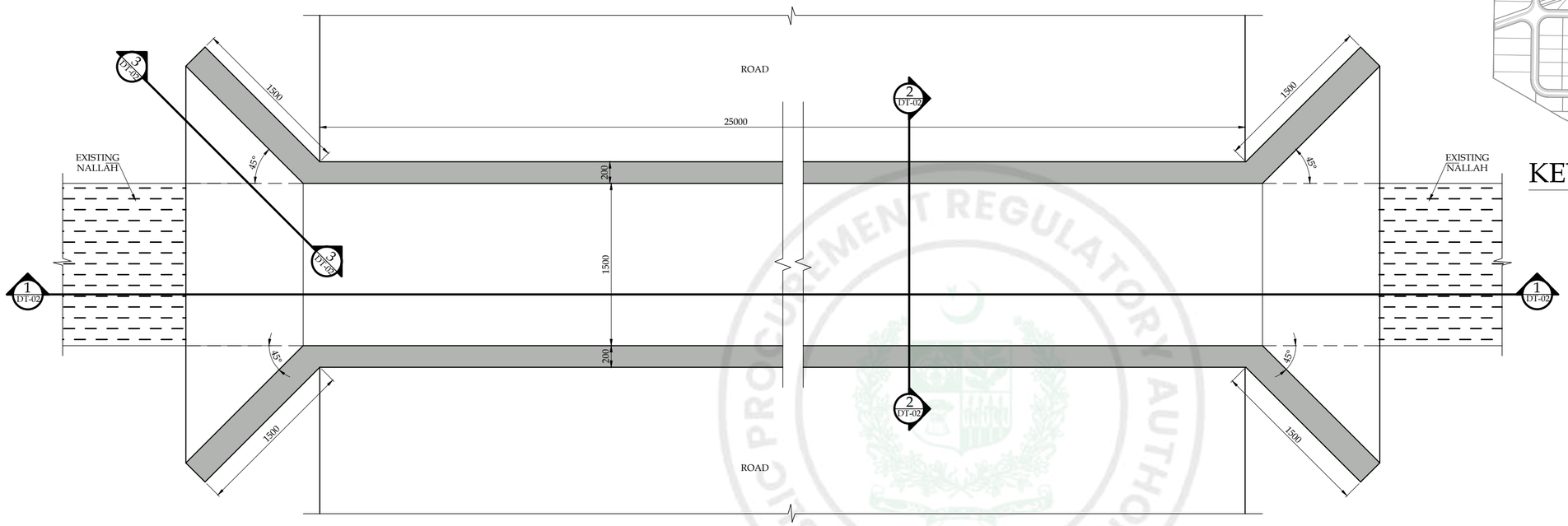
PROCUREMENT REGULATORY AUTHORITY (PPRA) PUBLIC EPADS

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

STRUCTURAL DRAWINGS

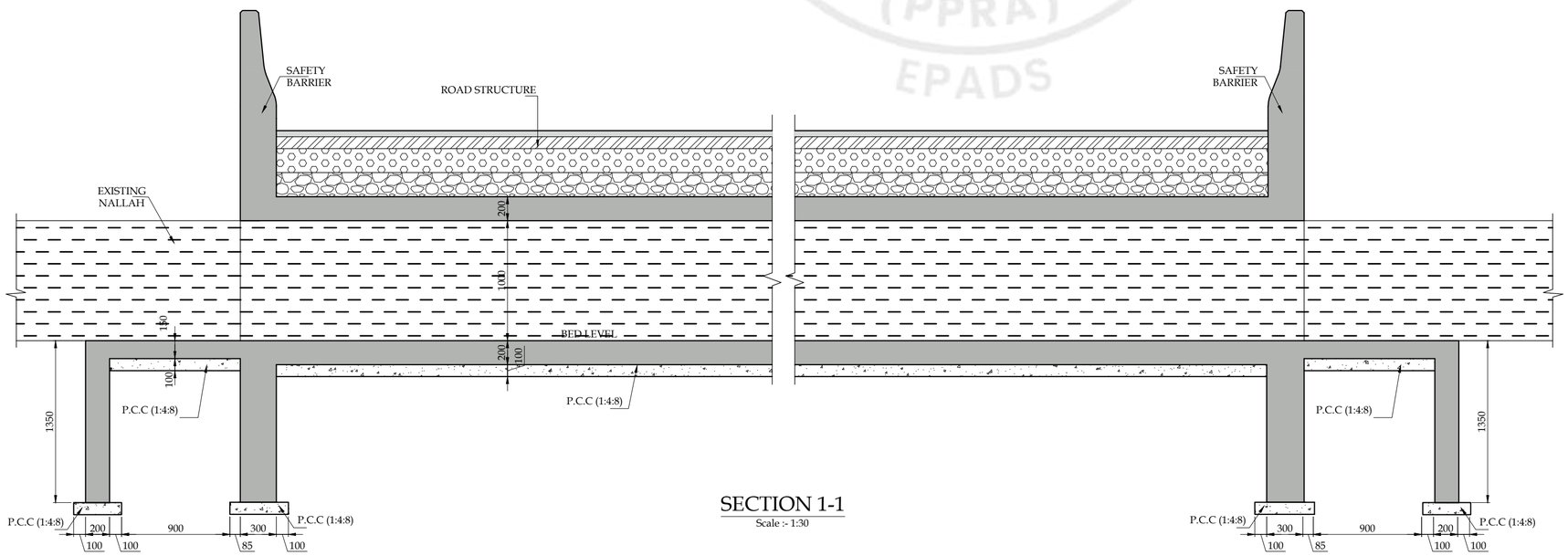


KEY PLAN



BOX CULVERT LAYOUT PLAN

Scale :- 1:30



SECTION 1-1

Scale :- 1:30

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK

BOX CULVERT LAYOUT AND SECTION

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	FIDA	ENGR. UMAIR	ENGR. ARSLAN

DRAWING NO:

NFIP-STR-LS-01

SHEET 1 OF 1

REV 00

CLIENT:

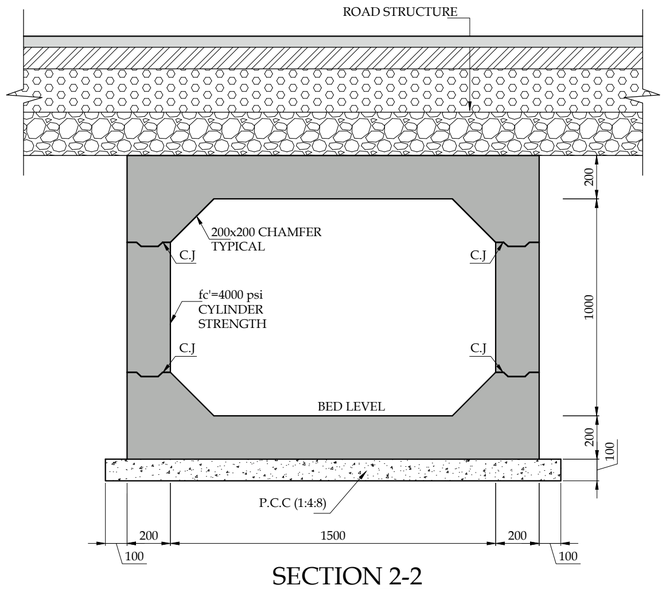
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

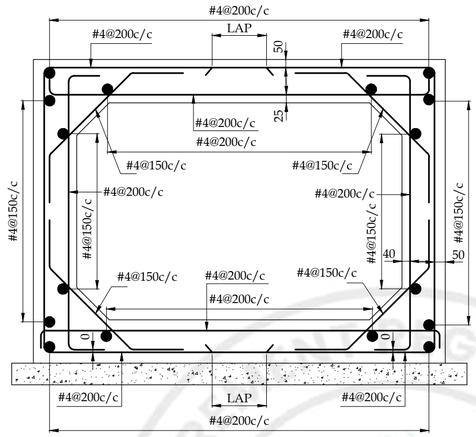
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

Box Culvert

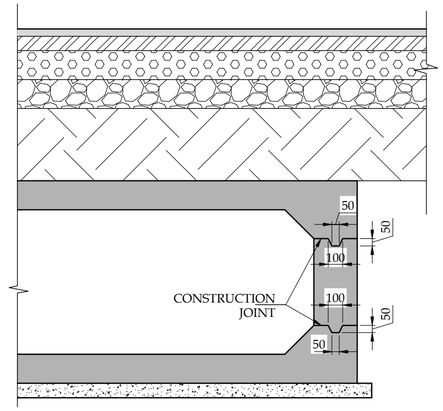
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



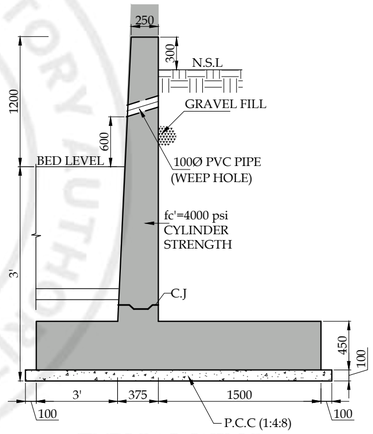
SECTION 2-2
CONCRETE OUT LINE



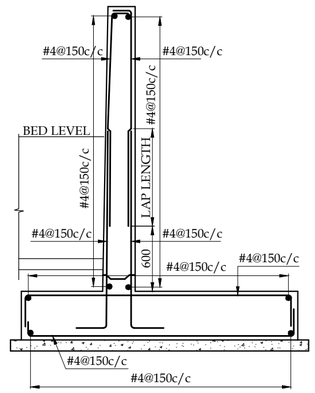
SECTION 2-2
REINFORCEMENT



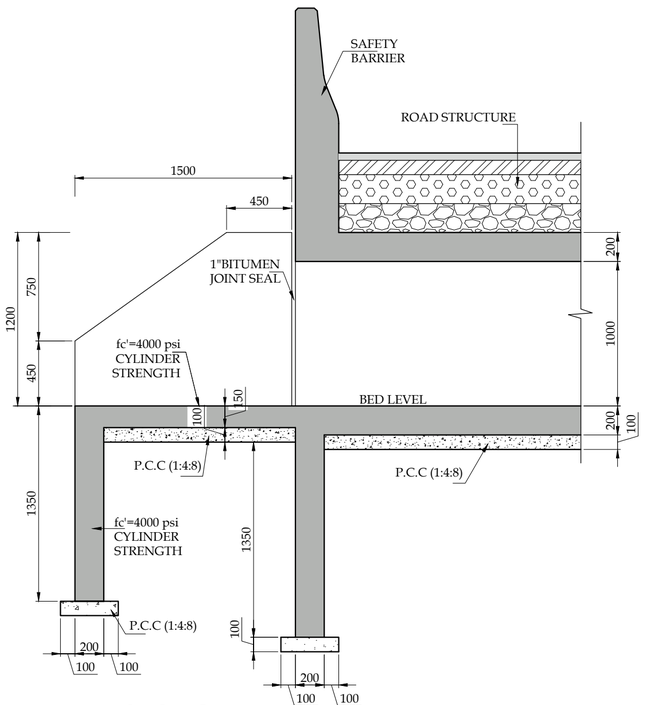
TYPICAL DETAIL OF CONSTRUCTION JOINT
Scale :- 1:30



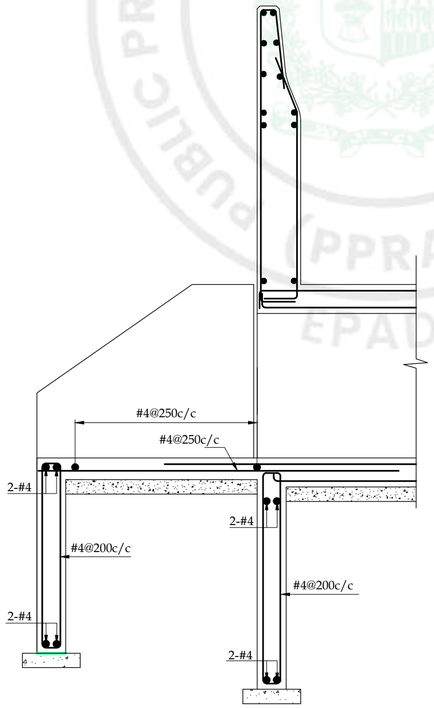
TYPICAL WING WALL SECTION
Scale :- 1:40



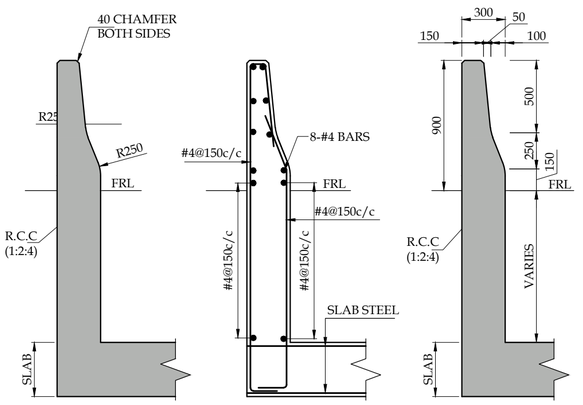
WING WALL REINFORCEMENT
Scale :- 1:40



SECTION 3-3
CONCRETE OUT LINE
Scale :- 1:30



SECTION 3-3
(REINFORCEMENT)
Scale :- 1:30



SAFETY BARRIER
Scale :- 1:30

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
ROADS NETWORK
BOX CULVERT DETAILS

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	FIDA	ENGR. UMAIR	ENGR. ARSLAN

DRAWING Nº: NFIP-STR-TD-01
SHEET 1 OF 1
REV 00

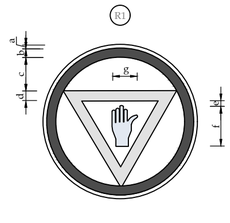
CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

Box Culvert

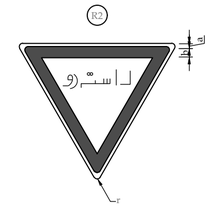
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

TYPICAL DETAILS



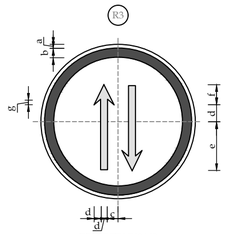
STOP SIGN
DIMENSION (com)

PARTS	SIGN SIZE			
	60cm	75cm	90cm	105cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	10.7	13.3	16.0	18.7
d	3.7	4.6	5.5	6.4
e	2.3	2.9	3.5	4.1
f	20.0	25.0	30.0	35.0
g	12.3	15.4	18.5	21.6



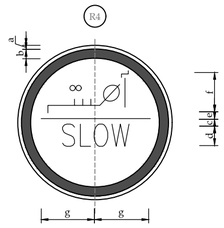
GIVE WAY SIGN
DIMENSION (com)

PARTS	SIGN SIZE			
	60cm	75cm	90cm	105cm
r	0.7	0.8	3.5	4.1
a	4.3	5.4	1.0	1.2
b	2.3	2.9	6.5	7.6



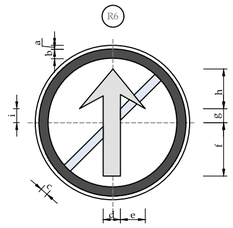
PRIORITY ROAD
DIMENSION (com)

PARTS	SIGN SIZE			
	60cm	75cm	90 cm	105 cm
a	1.0	1.2	1.0	1.2
b	4.3	5.4	6.5	7.6
c	7.0	8.7	10.5	12.2
d	4.7	5.8	7.0	8.2
e	17.3	21.7	26.0	30.3
f	12.7	15.8	19.0	22.3
g	1.3	1.7	2.0	2.3



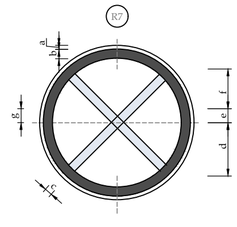
SLOW SIGN
DIMENSION (com)

PARTS	SIGN SIZE			
	60cm	75cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.7	3.3	4.0	4.7
d	9.7	12.1	14.5	16.9
e	1.3	1.7	2.0	2.3
f	16.0	20.4	24.5	28.6
g	18.0	22.5	27.6	31.5



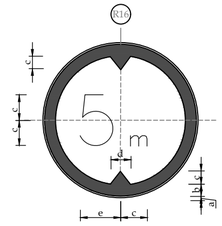
NO ENTRY SIGN
DIMENSION (com)

PARTS	SIGN SIZE			
	60cm	75cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	3.7	4.6	5.5	6.4
d	5.3	6.7	8.0	9.3
e	6.3	7.5	9.0	10.5
f	20.3	25.4	30.5	35.5
g	4.7	5.8	7.0	8.2
h	15.7	19.6	23.0	27.4
i	3.0	3.7	4.5	5.2



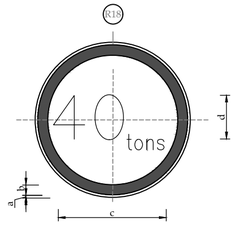
PARKING & STOPPING
PROHIBITED
DIMENSION (com)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	3.7	4.6	5.5	6.4
d	20.3	25.4	30.5	35.6
e	4.7	5.8	7.0	8.2
f	15.7	19.6	23.5	27.4
g	3.0	3.7	4.5	5.2



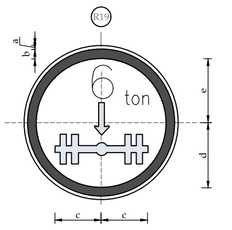
HEIGHT LIMIT SIGN
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	11.0	13.7	16.5	19.2
d	17.3	21.7	26.0	30.3
e	13.3	16.7	20.0	23.3



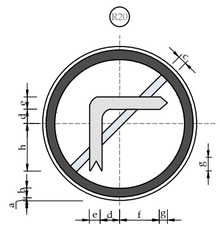
GROSS WEIGHT LIMIT SIGN
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	32.7	40.8	49.0	57.2
d	26.7	33.3	40.0	46.7



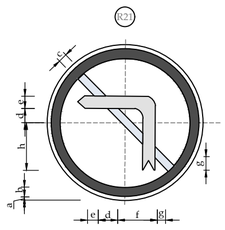
ALEX WEIGHT LIMIT SIGN
DIMENSION (cm)

PARTS	SIGN SIZE			
	60cm	75cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	18.7	23.3	28.0	32.7
d	15.3	19.2	23.0	26.8
e	21.3	26.7	32.0	37.3



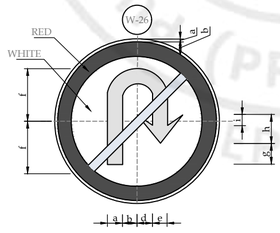
NO RIGHT TURN
DIMENSION (com)

PARTS	SIGN SIZE			
	60cm	75cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	3.7	4.6	5.5	6.4
d	4.0	5.0	6.0	7.0
e	6.7	8.3	10.0	11.6
f	16.7	20.8	25.0	29.2
g	3.3	4.2	5.0	5.8
h	20.0	25.0	30.0	35.0



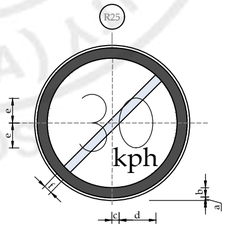
NO LEFT TURN
DIMENSION (com)

PARTS	SIGN SIZE			
	60cm	75cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	3.7	4.6	5.5	6.4
d	4.0	5.0	6.0	7.0
e	6.7	8.3	10.0	11.6
f	16.7	20.8	25.0	29.2
g	3.3	4.2	6.0	5.8
h	20.0	25.0	30.0	35.0



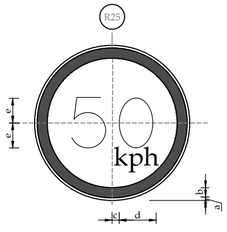
NO U- TURN
DIMENSION (com)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	3.7	4.6	5.5	6.4
d	5.3	6.7	8.0	9.3
e	6.0	7.5	9.0	10.5
f	18.7	23.3	28.0	32.7
g	7.0	8.7	10.5	12.2
h	15.7	19.6	23.5	27.4
i	3.0	3.7	4.5	5.2



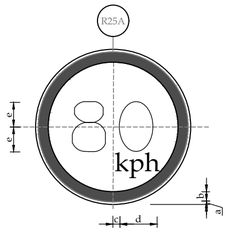
SPEED LIMIT
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.0	2.5	3.0	3.6
d	15.3	19.2	23.0	26.8
e	13.3	16.7	20.0	23.3
f	3.7	4.6	5.5	6.4



SPEED LIMIT
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.0	2.5	3.0	3.5
d	15.3	19.2	23.0	26.8
e	13.3	16.7	20.0	23.3



SPEED LIMIT
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.0	2.5	3.0	3.5
d	15.3	19.2	23.0	26.8
e	13.3	16.7	20.0	23.3

NOTES

1. ALL DIMENSIONS ARE IN CENTIMETERS/MILLIMETERS UNLESS INDICATED OTHERWISE.
2. THE TRAFFIC SIGNS DETAILS SHOWN IN THE DRAWINGS ARE BASED ON "NTRC'S MANUAL OF SIGNS, SIGNALS AND ROAD MARKINGS, JULY 1989. FOR COLOR SCHEME SAME MANUAL SHOULD BE USED.
3. TRAFFIC SIGNS WITH DESIGNATION R51 TO R52 AND W43 TO W47 ARE NOT IN NTRC MANUAL.
4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL OF THE ENGINEER.
5. ALL TRAFFIC SIGNS SHALL BE MANUFACTURED AS PER SPECIFICATIONS. REFER TRAFFIC SIGNS AND MOUNTING DETAILS FOR FURTHER INFORMATION ABOUT TRAFFIC SIGNS MATERIAL.
6. THE MATERIAL OF SIGN PANELS AND REFLECTIVE SHEETING SHALL BE APPROVED BY THE ENGINEER PRIOR TO MANUFACTURING OF TRAFFIC SIGNS.

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK

ROAD TRAFFIC SIGNS DETAILS

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR SHEHROZE	ENGR ARSLAN

DRAWING Nº:

NFIP-R-STD-5001

SHEET 1 OF 5

REV 00

CLIENT:

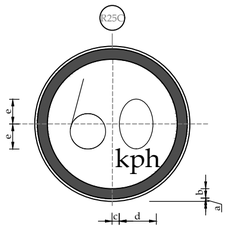
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

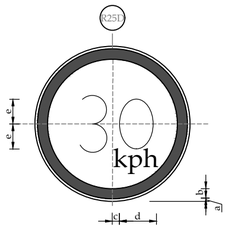
NFIP Typical Cross Sections(30-11-2021)

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) AUTHORITY



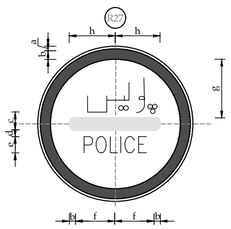
SPEED LIMIT
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.0	2.5	3.0	3.6
d	15.3	19.2	23.0	26.8
e	13.3	16.7	20.0	23.3



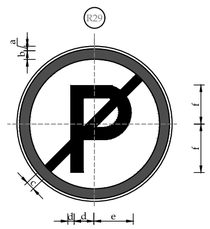
SPEED LIMIT
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.0	2.5	3.0	3.6
d	15.3	19.2	23.0	26.8
e	13.3	16.7	20.0	23.3



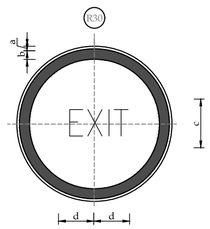
POLICE CHECK
DIMENSION (com)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	5.0	6.3	7.5	8.8
d	2.0	2.5	3.0	3.5
e	6.7	8.3	10.0	11.7
f	18.3	22.9	27.5	32.1
g	19.3	24.2	29.0	33.0
h	18.7	23.3	28.0	32.7



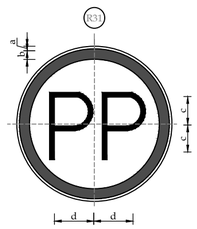
PARKING PROHIBITION
DIMENSION (com)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	3.7	4.6	5.5	6.4
d	5.3	6.7	8.0	9.3
e	10.6	13.3	16.0	18.7
f	18.0	22.5	27.0	31.5



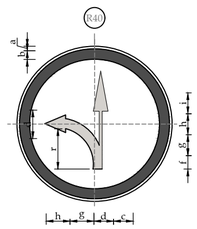
EXIT
DIMENSION (com)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	18.0	22.5	27.0	31.5
d	18.3	22.9	27.5	32.1



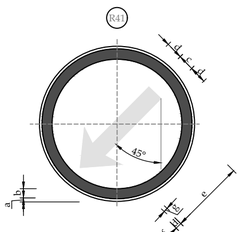
PARALLEL PARKING
DIMENSION (com)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	18.0	22.5	27.0	31.5
d	18.3	22.9	27.5	32.1



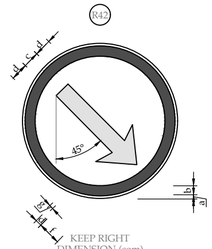
PROCEED STRAIGHT
OR LEFT ONLY
DIMENSION (com)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	2.7	3.3	4.0	4.7
c	3.3	4.2	5.0	5.8
d	5.3	6.7	8.0	9.3
e	6.0	7.5	9.0	10.5
f	22.7	28.3	34.0	39.7
g	7.0	8.7	10.5	12.2
h	15.7	19.6	23.5	27.4
i	3.0	3.7	4.5	5.2
r	5.3	6.7	8.0	9.3



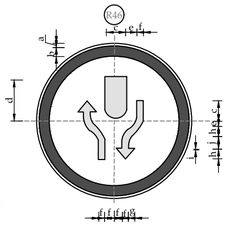
KEEP LEFT
DIMENSION (com)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	2.7	3.3	4.0	4.7
c	5.3	6.7	8.0	9.3
d	6.0	7.5	9.0	10.5
e	21.3	26.7	32.0	37.3
f	15.3	19.2	23.0	26.8
g	3.0	3.7	4.5	5.2



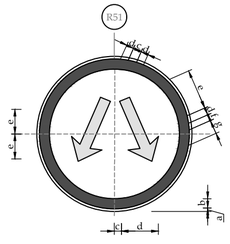
KEEP RIGHT
DIMENSION (com)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	2.7	3.3	4.0	4.7
c	5.3	6.7	8.0	9.3
d	6.0	7.5	9.0	10.5
e	21.3	26.7	32.0	37.3
f	15.3	19.2	23.0	26.8
g	3.0	3.7	4.5	5.2



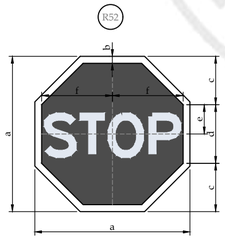
DIVIDED HIGHWAY BEGINS SIGN
DIMENSION (com)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	2.7	3.3	4.0	4.7
c	9.3	11.7	14.0	16.3
d	20.7	25.8	31.0	36.2
e	5.3	6.7	8.0	9.3
f	4.7	5.8	7.0	8.2
g	4.0	5.0	6.0	7.0
h	8.7	10.8	13.0	15.2
i	1.0	1.2	1.5	1.7
j	3.5	4.2	5.0	5.8



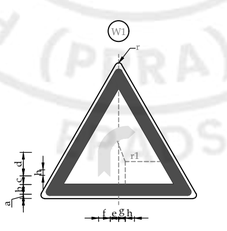
PASS EITHER SIDE
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	2.7	3.3	4.0	4.7
c	5.3	6.7	8.0	9.3
d	6.0	7.5	9.0	10.5
e	21.3	26.7	32.0	37.3
f	15.3	19.2	23.0	26.8
g	3.0	3.7	4.5	5.2



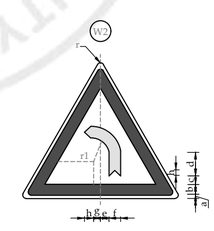
STOP
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	60.0	75.0	90.0	120.0
b	1.5	2.0	2.5	3.0
c	20.0	25.0	30.0	40.0
d	20.0	25.0	30.0	40.0
e	10.0	12.5	15.0	20.0
f	25	30	38	63.5



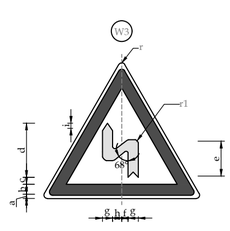
CURVE TOWARDS RIGHT
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.7	3.3	4.0	4.7
d	7.6	9.6	11.5	13.4
e	5.7	7.1	8.5	9.9
f	4.7	5.8	7.0	8.2
g	4.0	5.0	6.0	7.0
h	2.3	2.9	3.5	4.1
r	2.3	2.9	3.5	4.1
r1	8.3	10.4	12.5	14.6



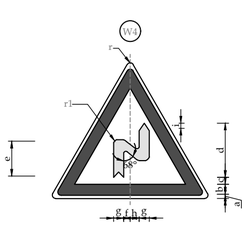
CURVE TOWARDS LEFT
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
r	0.7	0.8	3.5	4.1
a	4.3	5.4	1.0	1.2
b	2.7	3.3	6.5	7.6
c	7.6	9.6	4.0	4.7
d	5.7	7.1	11.5	13.4
e	4.7	5.8	8.5	9.9
f	4.0	5.0	7.0	8.2
g	2.3	2.9	6.0	7.0
h	2.3	2.9	3.5	4.1
r1	8.3	10.4	12.5	14.6



LEFT REVERSE CURVE
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.0	2.5	3.0	3.5
d	22.0	27.5	33.0	38.5
e	9.3	11.7	14.0	16.3
f	5.3	6.7	8.0	9.3
g	4.5	5.8	7.0	8.2
h	1.3	1.7	2.0	2.3
i	2.3	2.9	3.5	4.1
r	2.3	2.9	3.5	4.1
r1	3.0	3.7	4.5	5.2



RIGHT REVERSE CURVE
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.0	2.5	3.0	3.5
d	22.0	27.5	33.0	38.5
e	9.3	11.7	14.0	16.3
f	5.3	6.7	8.0	9.3
g	4.7	5.8	7.0	8.2
h	1.3	1.7	2.0	2.3
i	2.3	2.9	3.5	4.1
r	2.3	2.9	3.5	4.1
r1	3.0	3.7	4.5	5.2

NOTES

1. ALL DIMENSIONS ARE IN CENTIMETERS/MILLIMETERS UNLESS INDICATED OTHERWISE.
2. THE TRAFFIC SIGNS DETAILS SHOWN IN THE DRAWINGS ARE BASED ON "NTRC'S MANUAL OF SIGNS, SIGNALS AND ROAD MARKINGS, JULY 1989. FOR COLOR SCHEME SAME MANUAL SHOULD BE USED.
3. TRAFFIC SIGNS WITH DESIGNATION R51 TO R52 AND W43 TO W47 ARE NOT IN NTRC MANUAL.
4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL OF THE ENGINEER.
5. ALL TRAFFIC SIGNS SHALL BE MANUFACTURED AS PER SPECIFICATIONS. REFER TRAFFIC SIGNS AND MOUNTING DETAILS FOR FURTHER INFORMATION ABOUT TRAFFIC SIGNS MATERIAL.
6. THE MATERIAL OF SIGN PANELS AND REFLECTIVE SHEETING SHALL BE APPROVED BY THE ENGINEER PRIOR TO MANUFACTURING OF TRAFFIC SIGNS.

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK

ROAD TRAFFIC SIGNS DETAILS

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR SHEHROZE	ENGR ARSLAN

DRAWING Nº:

NFIP-R-STD-5002

SHEET 2 OF 5

REV 00

CLIENT:

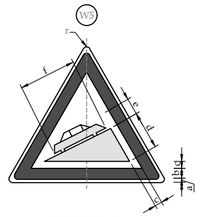
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

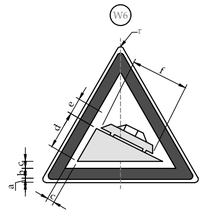
NFIP Typical Cross Sections(30-11-2021)

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) GOVT. OF PAKISTAN



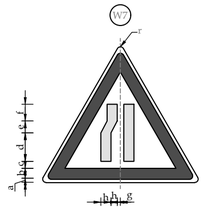
UP-GRADE SIGN
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.3	6.5	7.6
c	2.3	2.9	3.5	4.1
d	15.7	19.6	23.5	27.4
e	7.7	9.6	11.5	13.4
f	22.0	27	33.0	38.5
r	2.3	2.9	3.5	4.1



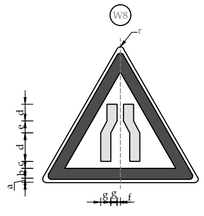
DOWN-GRADE SIGN
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.3	6.5	7.6
c	2.3	2.9	3.5	4.1
d	15.7	19.6	23.5	27.4
e	7.7	9.6	11.5	13.4
f	22.0	27	33.0	38.5
r	2.3	2.9	3.5	4.1



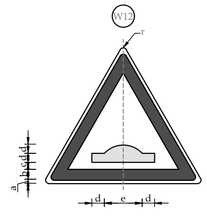
LANE AT LEFT END
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.0	2.5	3.0	3.5
d	9.3	11.7	14.0	16.3
e	4.8	6.0	7.2	8.4
f	7.5	9.4	11.3	13.2
g	2.3	2.9	3.5	4.1
h	3.3	4.2	5.0	5.8
r	2.3	2.9	3.5	4.1



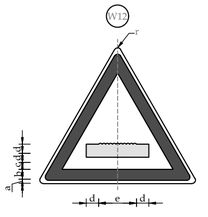
ROADWAY NARROWS
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.3	2.9	3.5	4.1
d	6.7	8.3	10.0	11.7
e	9.3	11.7	14.0	16.3
f	1.7	2.1	2.5	2.9
g	3.3	4.2	5.0	5.8
r	2.3	2.9	3.5	4.1



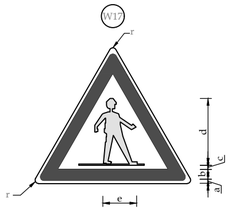
HUMP RIDGE
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.7	3.3	4.0	4.7
d	4.7	5.8	7.0	8.2
e	21.3	26.7	32.0	37.3
r	2.3	2.9	3.5	4.1



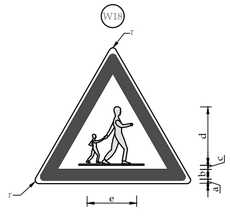
RUMBLE STRIP
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.7	3.3	4.0	4.7
d	4.7	5.8	7.0	8.2
e	8.0	10.0	12.0	14.0
r	2.3	2.9	3.5	4.1



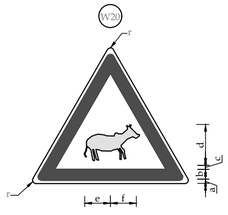
PEDESTRIAN CROSSING
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	1.7	2.1	2.5	2.9
d	28.7	35.8	43.0	50.2
e	15.3	19.2	23.0	26.8
r	2.3	2.9	3.5	4.1



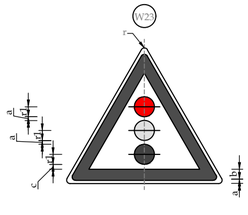
CHILDREN CROSSING
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	3.0	3.8	4.5	5.3
d	19.0	23.8	28.5	33.3
e	25.0	31.3	37.5	43.8
r	2.3	2.9	3.5	4.1



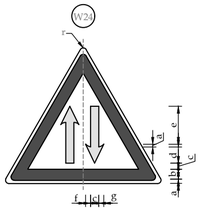
CATTLE CROSSING
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	1.3	1.7	2.0	2.3
d	14.7	18.3	22.0	25.7
e	12.3	15.4	18.5	21.6
f	11.7	14.6	17.5	20.4
r	2.3	2.9	3.5	4.1



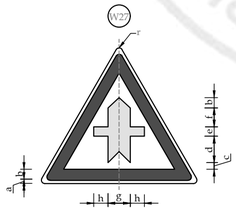
SIGNAL AHEAD
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	1.7	2.1	2.5	2.9
r1	4.3	5.4	6.5	7.8
r	2.3	2.9	3.5	4.1



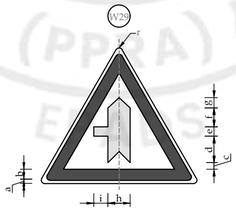
TWO-WAY TRAFFIC
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.7	3.3	4.0	4.7
d	6.0	7.5	9.0	10.5
e	12.7	12.8	19.0	22.2
f	3.3	4.2	5.0	5.8
g	2.3	2.9	3.5	4.1
r	2.3	2.9	3.5	4.1



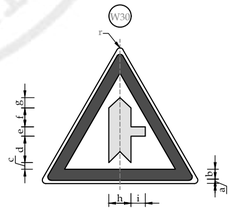
MINOR ROAD CROSSING AT RIGHT ANGLE
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.7	3.3	4.0	4.7
d	10.0	12.5	15.0	17.5
e	4.0	5.0	6.0	7.0
f	7.3	9.2	11.0	12.8
g	9.0	11.2	13.5	15.7
h	5.7	7.1	8.5	9.9
r	2.3	2.9	3.5	4.1



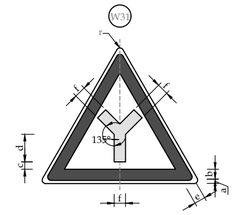
MINOR ROAD ON LEFT SIDE ONLY
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.0	2.5	3.0	3.5
d	9.0	11.3	13.5	15.8
e	3.7	4.6	5.5	6.4
f	10.0	12.5	15.0	17.5
g	4.7	5.8	7.0	8.2
h	9.3	11.7	14.0	16.3
i	7.0	8.8	10.5	12.3
r	2.3	2.9	3.5	4.1



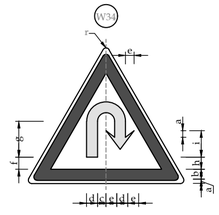
MINOR ROAD ON RIGHT SIDE ONLY
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.0	2.5	3.0	3.5
d	9.0	11.3	13.5	15.8
e	3.7	4.6	5.5	6.4
f	10.0	12.5	15.0	17.5
g	4.7	5.8	7.0	8.2
h	9.3	11.7	14.0	16.3
i	7.0	8.8	10.5	12.3
r	2.3	2.9	3.5	4.1



JUNCTION SIGN
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.0	2.5	3.0	3.5
d	11.3	14.2	17.0	19.8
e	8.7	10.8	13.0	15.2
f	4.7	5.8	7.0	8.2
r	2.3	4.1	3.5	4.1



U-TURN SIGN
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	3.7	4.6	5.5	6.4
d	4.7	5.8	7.0	8.2
e	3.3	4.2	5.0	5.8
f	1.7	2.1	2.5	2.9
g	15.3	19.2	23.0	26.8
h	5.0	6.3	7.5	8.8
i	8.0	10.0	12.0	14.0
r	2.3	2.9	3.5	4.1

NOTES

1. ALL DIMENSIONS ARE IN CENTIMETERS/MILLIMETERS UNLESS INDICATED OTHERWISE.
2. THE TRAFFIC SIGNS DETAILS SHOWN IN THE DRAWINGS ARE BASED ON "NTRC'S MANUAL OF SIGNS, SIGNALS AND ROAD MARKINGS, JULY 1989. FOR COLOR SCHEME SAME MANUAL SHOULD BE USED.
3. TRAFFIC SIGNS WITH DESIGNATION R51 TO R52 AND W43 TO W47 ARE NOT IN NTRC MANUAL.
4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL OF THE ENGINEER.
5. ALL TRAFFIC SIGNS SHALL BE MANUFACTURED AS PER SPECIFICATIONS. REFER TRAFFIC SIGNS AND MOUNTING DETAILS FOR FURTHER INFORMATION ABOUT TRAFFIC SIGNS MATERIAL.
6. THE MATERIAL OF SIGN PANELS AND REFLECTIVE SHEETING SHALL BE APPROVED BY THE ENGINEER PRIOR TO MANUFACTURING OF TRAFFIC SIGNS.

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK

ROAD TRAFFIC SIGNS DETAILS

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR SHEHROZE	ENGR ARSLAN

DRAWING Nº:

NFIP-R-STD-5003

SHEET 3 OF 5

REV 00

CLIENT:

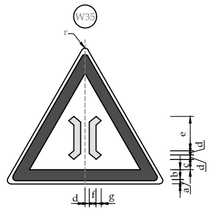
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

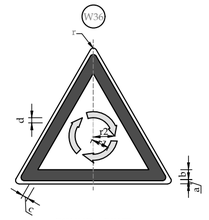
NFIP Typical Cross Sections(30-11-2021)

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



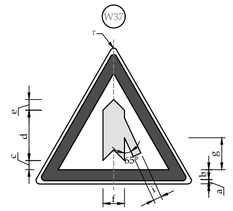
NARROW BRIDGE
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	4.0	5.0	6.0	7.0
d	1.2	2.1	2.5	2.9
e	10.0	12.5	15.0	17.5
f	2.7	3.3	4.0	4.7
g	2.0	2.5	3.0	3.5
r	2.3	2.9	3.5	4.1



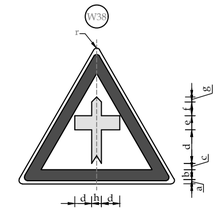
ROUND ABOUT
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.0	2.5	3.0	3.5
d	6.0	7.5	9.0	10.5
r1	8.0	10.0	12.0	14.0
r2	10.7	13.3	16.0	18.7
r	2.3	2.9	3.5	4.1



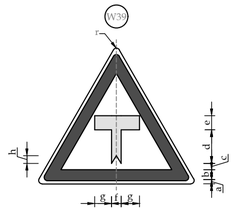
MERGE
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.3	2.9	3.5	4.1
d	22.0	27.5	33.0	38.5
e	4.7	5.8	7.0	8.2
f	9.3	11.7	14.0	16.3
g	10.0	12.5	15.0	17.5
h	2.0	2.5	3.0	3.5
i	3.7	4.6	5.5	6.4
r	2.3	2.9	3.5	4.1



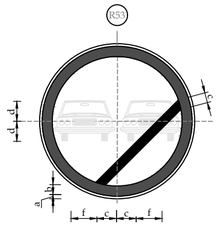
MAJOR ROAD AHEAD
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.0	2.5	3.5	3.5
d	8.7	10.8	13.0	15.2
e	4.7	5.8	7.0	8.2
f	6.7	8.3	10.0	11.7
g	1.7	2.1	2.5	2.9
h	3.3	4.2	5.0	5.8
r	2.3	2.9	3.5	4.1



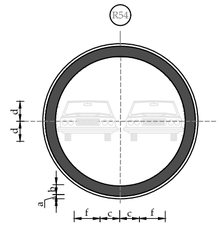
MAJOR ROAD HEAD
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.0	2.5	3.0	3.5
d	10.3	12.9	15.5	18.1
e	4.7	5.8	7.0	8.2
f	3.3	4.2	5.0	5.8
g	7.3	9.2	11.0	12.8
h	1.7	2.1	2.5	2.9
r	2.3	2.9	3.5	4.1



OVERTAKING PROHIBITION
DIMENSION (com)

PARTS	SIGN SIZE	
	60 cm	75 cm
a	0.7	0.8
b	4.3	5.4
c	3.7	4.6
d	8.0	10.0
e	2.0	2.5
f	19.7	24.6

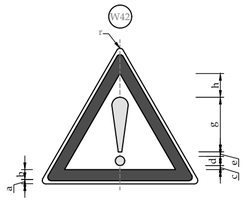


END OF OVERTAKING RESTRICTION
DIMENSION (com)

PARTS	SIGN SIZE	
	60 cm	75 cm
a	0.7	0.8
b	4.3	5.4
c	3.7	4.6
d	8.0	10.0
e	2.0	2.5
f	19.7	24.6

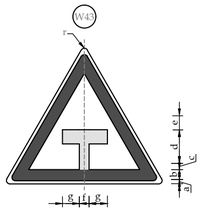
NOTES

1. ALL DIMENSIONS ARE IN CENTIMETERS/MILLIMETERS UNLESS INDICATED OTHERWISE.
2. THE TRAFFIC SIGNS DETAILS SHOWN IN THE DRAWINGS ARE BASED ON "NTRC'S MANUAL OF SIGNS, SIGNALS AND ROAD MARKINGS, JULY 1989. FOR COLOR SCHEME SAME MANUAL SHOULD BE USED.
3. TRAFFIC SIGNS WITH DESIGNATION R51 TO R52 AND W43 TO W47 ARE NOT IN NTRC MANUAL.
4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL OF THE ENGINEER.
5. ALL TRAFFIC SIGNS SHALL BE MANUFACTURED AS PER SPECIFICATIONS. REFER TRAFFIC SIGNS AND MOUNTING DETAILS FOR FURTHER INFORMATION ABOUT TRAFFIC SIGNS MATERIAL.
6. THE MATERIAL OF SIGN PANELS AND REFLECTIVE SHEETING SHALL BE APPROVED BY THE ENGINEER PRIOR TO MANUFACTURING OF TRAFFIC SIGNS.



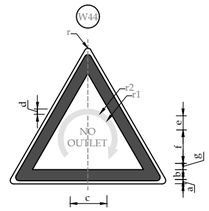
OTHER DANGER WARNING
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	1.7	2.1	2.5	2.9
d	6.7	8.3	10.0	11.7
e	1.3	1.7	2.0	2.3
f	1.1	1.4	1.7	2.0
g	16.7	20.8	25.0	29.2
h	3.3	4.2	5.0	5.8
r	2.3	2.9	3.5	4.1



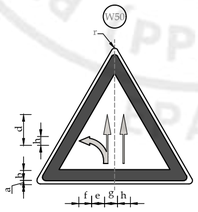
NO THROUGH ROAD
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	2.0	2.5	3.0	3.5
d	10.3	12.9	15.5	18.1
e	4.7	5.8	7.0	8.2
f	4.7	5.8	7.0	8.2
g	7.3	9.2	11.0	12.8
r	2.3	2.9	3.5	4.1



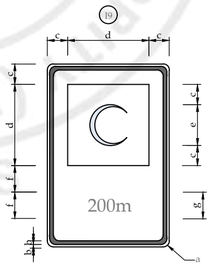
CUL-DE-SAC
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	4.3	5.4	6.5	7.6
c	20.9	26.2	31.4	36.7
d	3.6	4.5	5.4	6.3
e	4.2	5.2	6.3	7.3
f	3.7	4.6	5.5	6.4
g	2.4	2.9	3.5	4.1
r1	10.8	13.5	16.2	18.9
r2	12.6	15.7	18.9	22.0
r	2.3	2.9	3.5	4.1



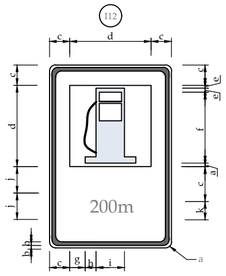
CUL-DE-SAC
DIMENSION (cm)

PARTS	SIGN SIZE			
	60 cm	75 cm	90 cm	105 cm
a	0.7	0.8	1.0	1.2
b	2.7	2.3	4.0	4.7
c	6.0	7.5	9.0	10.5
d	4.0	5.0	6.0	7.0
e	3.3	4.2	5.0	5.8
f	20.0	25.0	30.0	35.0
g	10.3	12.9	15.5	18.1
h	9.7	12.1	14.5	16.9
i	1.0	1.2	1.5	1.7
j	4.7	5.8	7.0	8.2
k	14.0	17.5	21.0	24.5



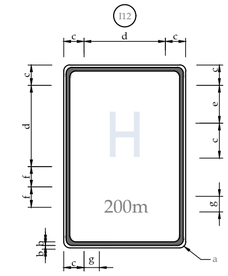
FIRST AID STATION
DIMENSION (cm)

PARTS	SIGN SIZE	
	60x90	90x135
a	3.0	4.5
b	1.2	1.8
c	10.0	15.0
d	40.0	60.0
e	20.0	30.0
f	13.0	19.5
g	7.0	10.5



PETROL PUMP
DIMENSION (cm)

PARTS	SIGN SIZE	
	60x90	90x135
a	3.0	4.5
b	1.2	1.8
c	10.0	15.0
d	40.0	60.0
e	20.0	30.0
f	13.0	19.5
g	7.0	10.5



HOSPITAL
DIMENSION (cm)

PARTS	SIGN SIZE	
	60x90	90x135
a	3.0	4.5
b	1.2	1.8
c	10.0	15.0
d	40.0	60.0
e	20.0	30.0
f	13.0	19.5
g	7.0	10.5

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK

ROAD TRAFFIC SIGNS DETAILS

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR. SHEHROZE	ENGR. ARSLAN

DRAWING Nº:

NFIP-R-STD-5004

SHEET 4 OF 5

REV 00

CLIENT:

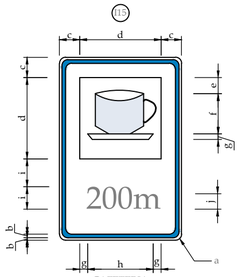
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

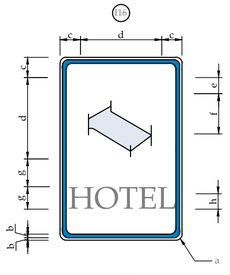
NFIP Typical Cross Sections(30-11-2021)

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



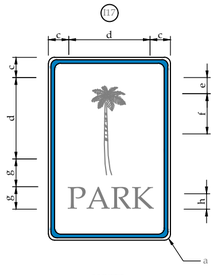
CAFETERIA
DIMENSION (cm)

PARTS	SIGN SIZE 60x90	SIGN SIZE 60x135
a	3.0	4.5
b	1.2	1.8
c	10.0	15.0
d	40.0	60.0
e	8.0	12.0
f	17.0	25.5
g	4.0	6.0
h	32.0	48.0
i	13.0	19.5
j	7.0	10.5



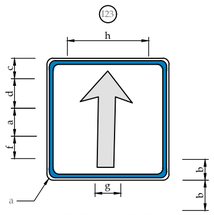
HOTEL
DIMENSION (cm)

PARTS	SIGN SIZE 60x90	SIGN SIZE 60x135
a	3.0	4.5
b	1.2	1.8
c	10.0	15.0
d	40.0	60.0
e	12.5	18.0
f	16.0	24.0
g	13.0	19.5
h	10.8	13.8



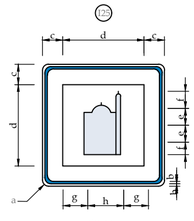
HOTEL
DIMENSION (cm)

PARTS	SIGN SIZE 60x90	SIGN SIZE 90x135
a	3.0	4.5
b	1.2	1.8
c	10.0	15.0
d	40.0	60.0
e	12.5	18.0
f	16.0	24.0
g	13.0	19.5
h	10.8	13.8



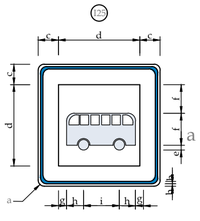
ONE-WAY-AHEAD
DIMENSION (cm)

PARTS	SIGN SIZE 60x60	SIGN SIZE 90x90
a	3.0	4.5
b	1.2	1.8
c	6.0	9.0
d	21.0	31.5
e	2.0	3.0
f	26.0	39.0
g	7.5	11.3
h	27.0	49.5



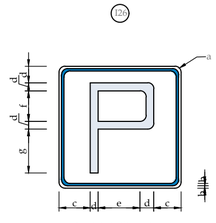
MOSQUE
DIMENSION (cm)

PARTS	SIGN SIZE 60x60	SIGN SIZE 90x90
a	3.0	4.5
b	1.2	1.8
c	10.0	15.0
d	40.0	60.0
e	15.0	21.2
f	2.6	5.2
g	15.6	29.4
h	24.0	36.0



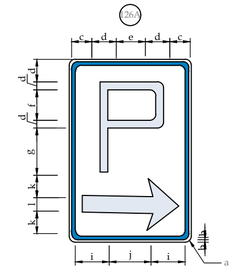
BUS STOP
DIMENSION (cm)

PARTS	SIGN SIZE 60x60	SIGN SIZE 90x90
a	3.0	4.5
b	1.2	1.8
c	10.0	15.0
d	40.0	60.0
e	4.0	6.0
f	13.0	19.5
g	2.0	3.0
h	6.0	9.0



PARKING AREA
DIMENSION (cm)

PARTS	SIGN SIZE 60x60	SIGN SIZE 90x90
a	3.0	4.5
b	1.2	1.8
c	15.0	22.5
d	6.5	9.8
e	17.0	25.5
f	14.0	21.8
g	20.0	30.0



PARKING
DIMENSION (cm)

PARTS	SIGN SIZE 60x90	SIGN SIZE 90x135
a	3.0	4.5
b	1.2	1.8
c	15.0	22.5
d	6.5	9.8
e	17.0	25.5
f	14.0	21.8
g	20.0	30.0
i	5.5	9.0
j	49.0	73.5
k	11.85	17.65
l	7.5	11.3

NOTES

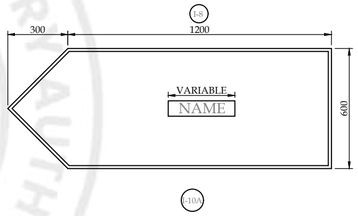
1. ALL DIMENSIONS ARE IN CENTIMETERS/MILLIMETERS UNLESS INDICATED OTHERWISE.
2. THE TRAFFIC SIGNS DETAILS SHOWN IN THE DRAWINGS ARE BASED ON "NTRC'S MANUAL OF SIGNS, SIGNALS AND ROAD MARKINGS, JULY 1989. FOR COLOR SCHEME SAME MANUAL SHOULD BE USED.
3. TRAFFIC SIGNS WITH DESIGNATION R51 TO R52 AND W43 TO W47 ARE NOT IN NTRC MANUAL.
4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL OF THE ENGINEER.
5. ALL TRAFFIC SIGNS SHALL BE MANUFACTURED AS PER SPECIFICATIONS. REFER TRAFFIC SIGNS AND MOUNTING DETAILS FOR FURTHER INFORMATION ABOUT TRAFFIC SIGNS MATERIAL.
6. THE MATERIAL OF SIGN PANELS AND REFLECTIVE SHEETING SHALL BE APPROVED BY THE ENGINEER PRIOR TO MANUFACTURING OF TRAFFIC SIGNS.

CATEGORIES PF TRAFFIC SIGN

CATEGORY	SHAPE OF MODEL	TYPE
01		WARNING/DANGER
02		REGULATORY/ PROHIBITORY
3a	1 sqm	INFORMATORY
3b	2 sqm	
3c		

SIZE & LOCATION OF TRAFFIC SIGNS

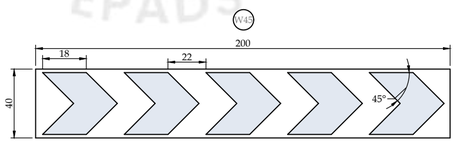
ROAD TYPE	SIZE OF TRAFFIC SIGNS	LOCATION OF WARNING SIGNS	
		MINIMUM	MAXIMUM
PRINCIPAL ARTERIALS	90	75m	150m
SECOND ARTERIALS	90	75m	150m
COLLECTOR ROADS	75	60m	120m
LOCAL STREETS	60	30m	60m



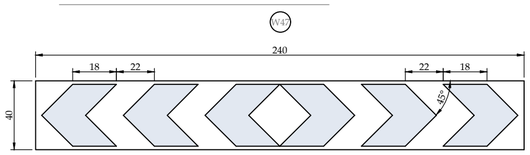
INFORMATORY SIGN

SIZE & LOCATION OF TRAFFIC SIGNS

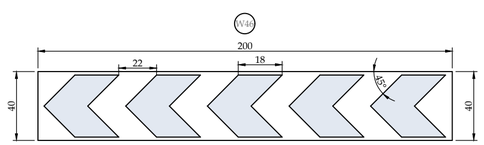
ROAD TYPE	SIZE & LOCATION OF WARNING SIGNS	SIZE & LOCATION OF REGULATORY SIGNS
ARTERIALS	HEIGHT OF TRIANGLE=750mm	DIAMETER OF SIGN=750mm
(MAJOR & MINORS)	DISTANCE FROM A HAZARD=60M	DISTANCE FROM NEAR SIDE EDGE OF CROSS ROAD=75M
COLLECTORS & LOCAL STREETS	HEIGHT OF TRIANGLE=600mm	DIAMETER OF SIGN=600mm
	DISTANCE FROM A HAZARD=30M	DISTANCE FROM NEAR SIDE EDGE OF CROSS ROAD=75M



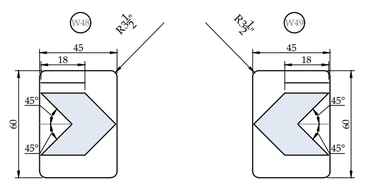
MLUTIPLE CHEVRON (RIGHT)



MLUTIPLE CHEVRON (BOTH WAYS)



MLUTIPLE CHEVRON (LEFT)



PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
ROADS NETWORK
ROAD TRAFFIC SIGNS DETAILS

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR. SHEHROZE	ENGR. ARSLAN

DRAWING Nº: NFIP-R-STD-5005
SHEET 5 OF 5
REV 00

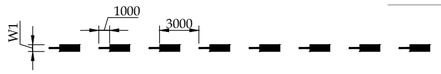
CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP Typical Cross Sections(30-11-2021)

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

PAVEMENT MARKING LINE



M-1 CENTER LINE (WHITE)



M-2 NO PASSING LINE ONE SIDE(YELLOW)



M-3 NO PASSING LINE(WHITE)



M-4 TRAFFIC LANE LINE(WHITE)



M-5 TRAFFIC LANE LINE IN CENTER(WHITE)



M-6 EDGE MARKING(YELLOW)



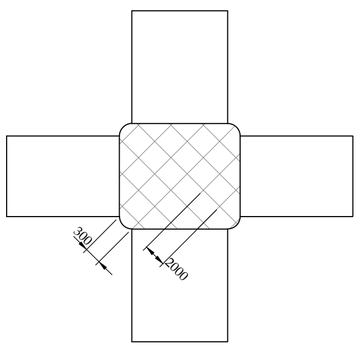
M-7 NO PARKING LINE (YELLOW)



M-8 NO STOPPING LINE (WHITE)



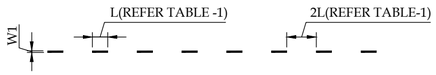
M-9 MEDIAN LINES (YELLOW)



M22 BOX JUNCTION MARKING



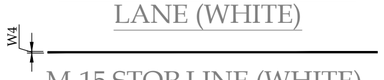
M11 OBSTRUCTION MARKING(YELLOW)



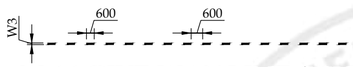
M-12 GUIDE LINE(WHITE)



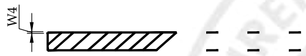
M-14 EXCLUSIVE TURN LANE (WHITE)



M-15 STOP LINE (WHITE)



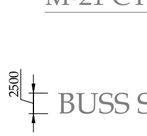
M-16 GIVE WAY LINE (WHITE)



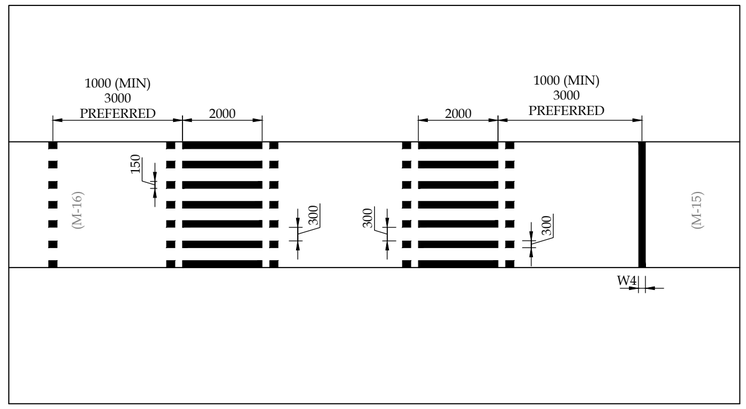
M-20 PAVEMENT REDUCTION MARKING(YELLOW)



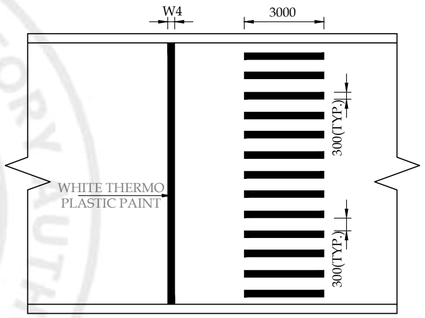
M-21 CYCLIST CROSSING (WHITE)



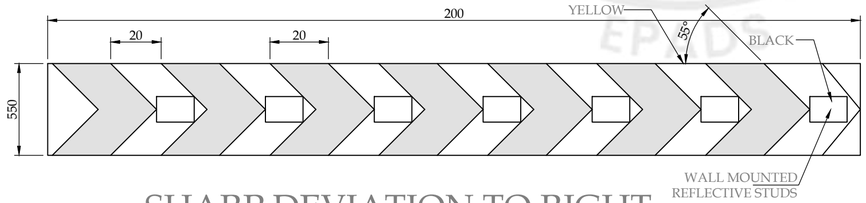
M-26 WORD MARKING (WHITE)



M-18 CROSS WALK WITH LONGITUDINAL LINES



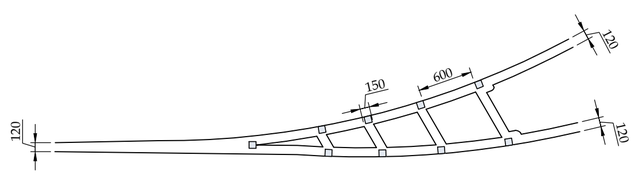
M-18 TYPICALLY DETAIL OF PEDESTRIAN CROSSING

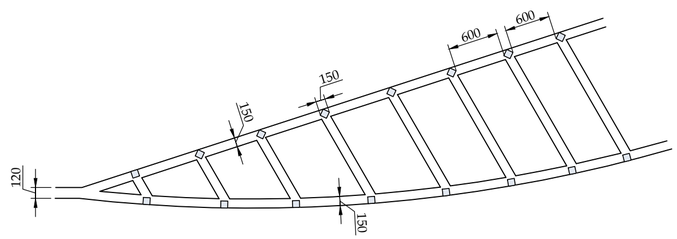


SHARP DEVIATION TO RIGHT

TABLE-1

ROADWAY SPEED		L (mm)	W1	W2	W3	W4	W5
SERVICE ROAD	< 30 km/hr	2000	100	100	100	300	100
STREETS	50-30 km/hr	3000	120	120	150	300	100
MAIN BOULEVARD	> 50 km/hr	4000	120	150	200	400	100





TYPICAL DETAIL OF ISLAND APPROACH/EXIT

NFIP Typical Cross Sections(30-11-2021)

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE INDICATED .

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK

PAVEMENT MARKINGS

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR. SHEHROZE	ENGR. ARSLAN

DRAWING Nº:

NFIP-R-STD-5006

SHEET 1 OF 2

REV 00

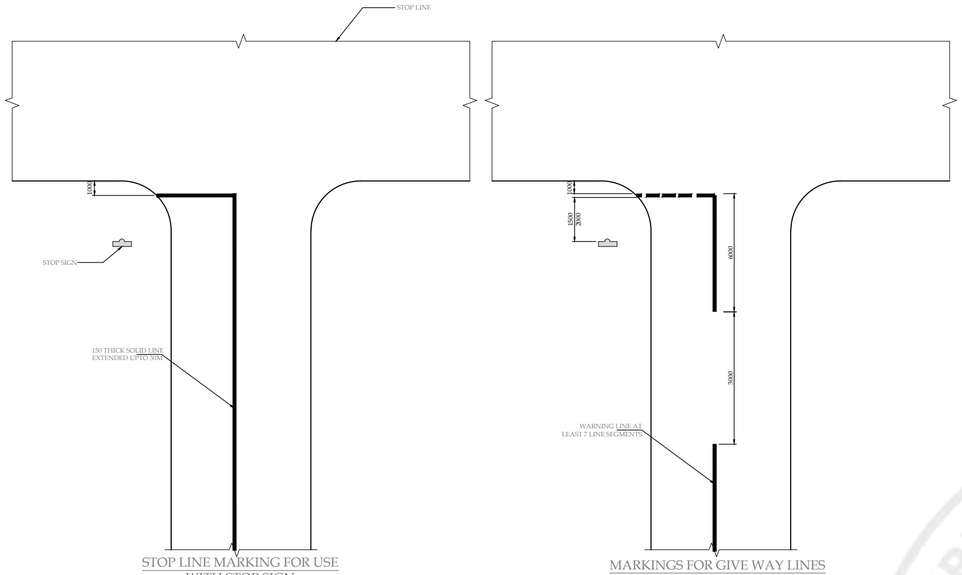
CLIENT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

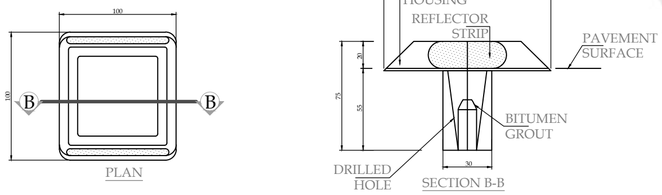
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



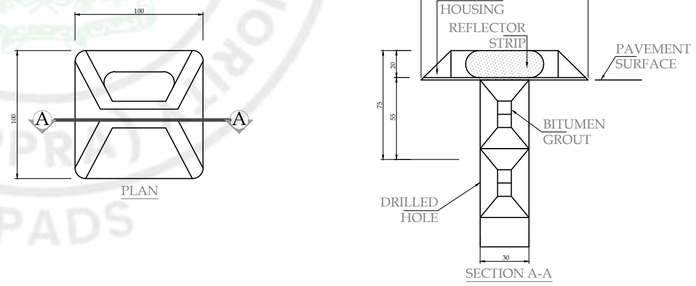
STOP LINE MARKING FOR USE WITH STOP SIGN

MARKINGS FOR GIVE WAY LINES

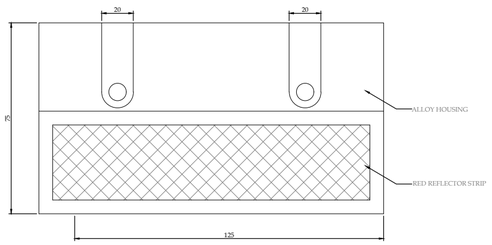
COLOR OF REFLECTIVE STUDS	USAGE	LOCATION
WHITE	FOR LANE LINE,CENTER LINE & NO PASSING MARKING	AT START OF EVERY STROKE
YELLOW	FOR EDGE MARKING & MEDIAN LINE	6000 C/C
GREEN	FOR EDGE LINE CONTINUATION,AT JUNCTION/U-TURNS CROSS ROADS WHERE CROSSING OF THE EDGE LINE IS ALLOWED	
RED	AT HAZARDS LIKE BEGINNING OF NARROW BRIDGES,RIGID STRUCTURES CLOSE TO THE ROAD,LOW UNDERPASS.	

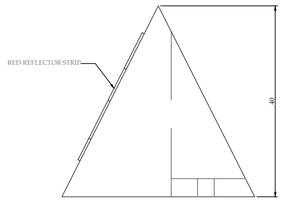


GORE STUD (HEAVY DUTY)

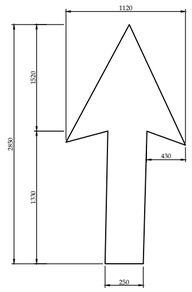


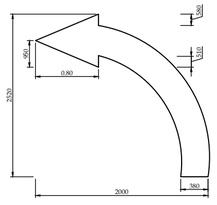
ROAD STUD(HEAVY DUTY)

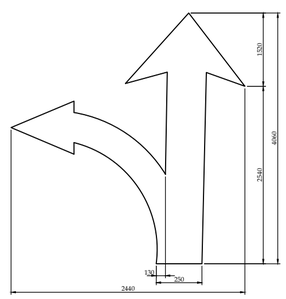




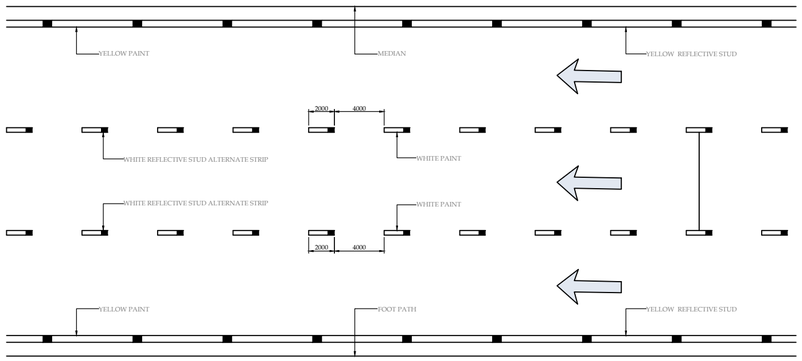
TYPICAL DETAIL OF WALL MOUNTED REFLECTIVE STUDS



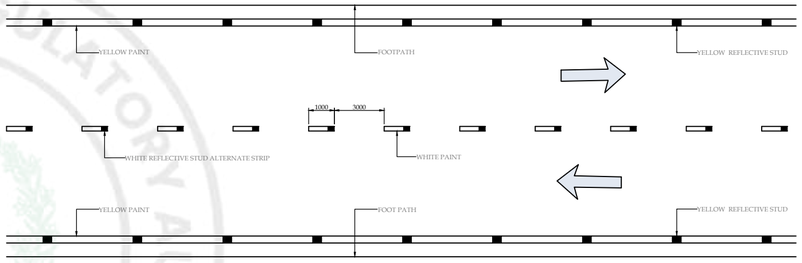




ARROW SIGNS



CARRIAGEWAY MARKINGS MAJOR/MINAR ROAD



CARRIAGEWAY MARKINGS FOR STREETS

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE INDICATED .

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK

PAVEMENT MARKINGS

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR. SHEHROZE	ENGR. ARSLAN

DRAWING N°:

NFIP-R-STD-5007

SHEET 2 OF 2

REV 00

CLIENT:

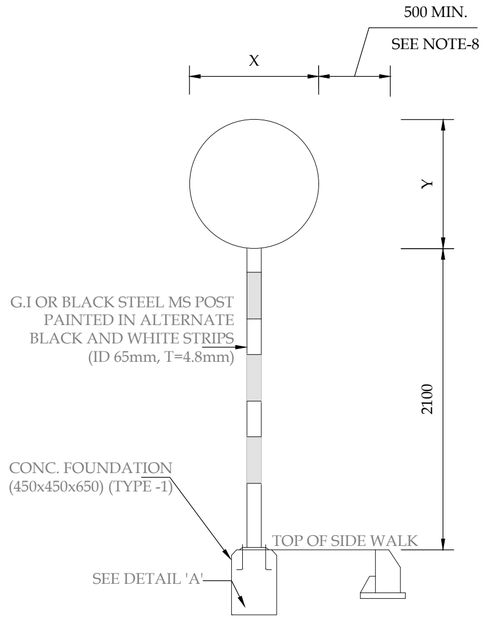
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

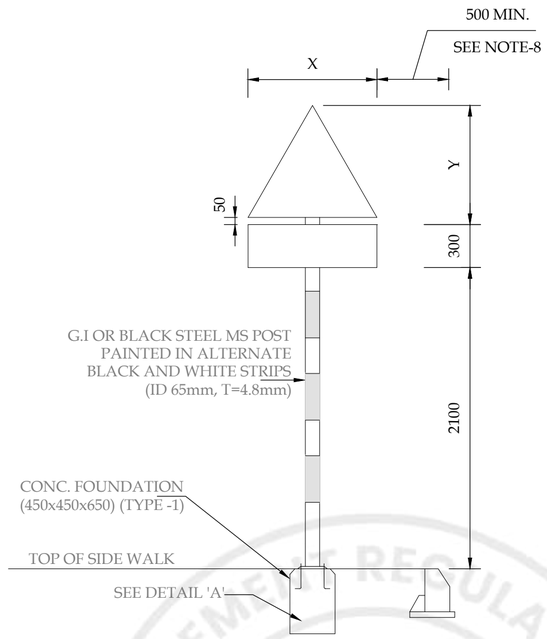
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-III, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP Typical Cross Sections(30-11-2021)

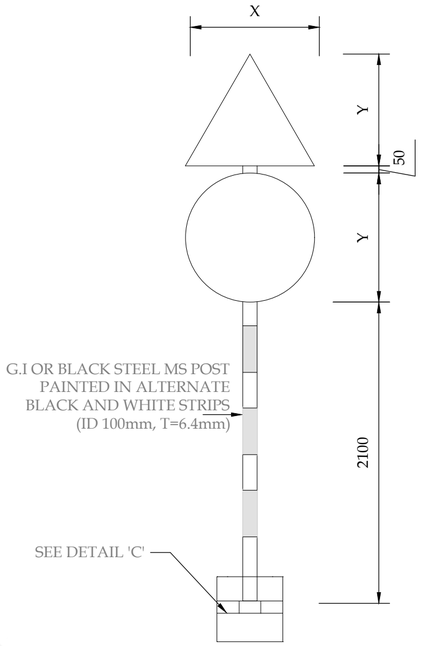
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



CATEGORY -02

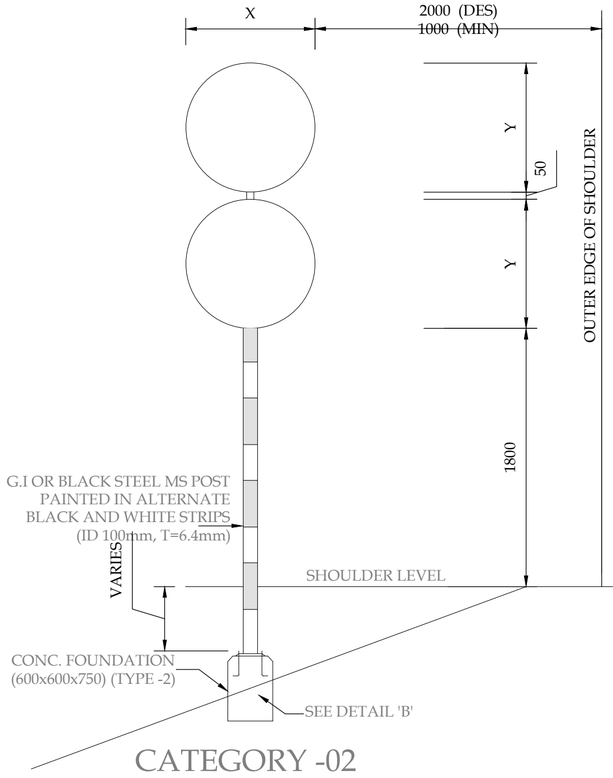


CATEGORY -01

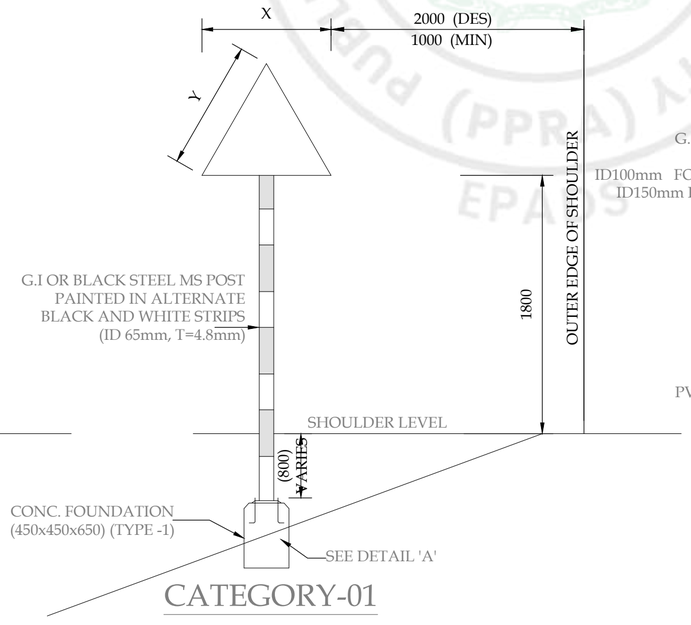


CATEGORY 1&2
MOUNTED ON STRUCTURE

MOUNTED ALONG SIDEWALK OR ISLAND

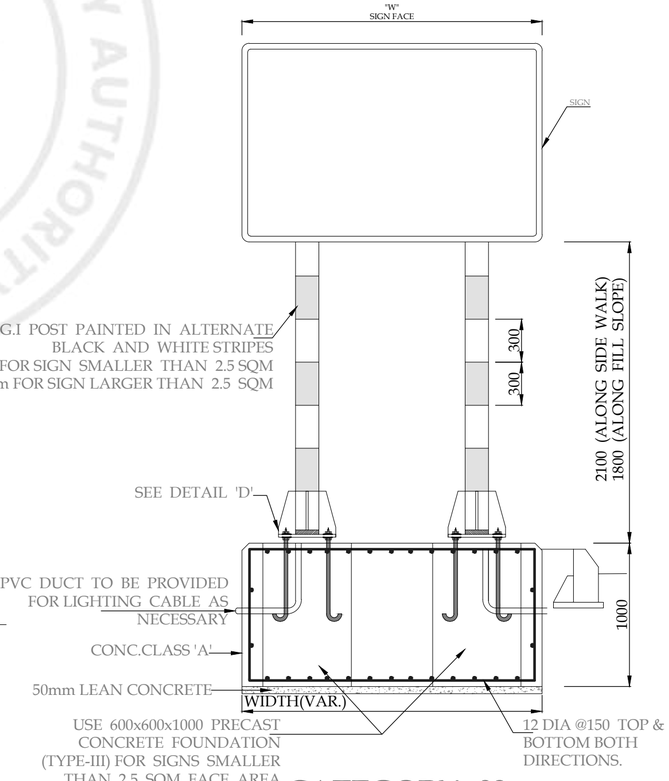


CATEGORY -02



CATEGORY-01

MOUNTED ALONG FILL SLOOPE
TYPICAL PLACING DETAILS OF ROAD SIGNS



CATEGORY -03
POST FOR LARGE SIGNS (> 1.5sqm FACE AREA)
(TYPE - 3 & 4)
(SEE NOTE-5&6)

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS INDICATED OTHERWISE.
2. SIGNS PANELS SHALL BE MADE OF ALUMINUM ALLOY OR POLYVINYL PLATES OF 3MM THICKNESS AS PER DECISION THE ENGINEER.
3. HIGH INTENSITY GRADE REFLECTIVE SHEETING TO BE USED FOR TRAFFIC SIGNS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
4. TWO SIGN PLATES MAXIMUM MAY BE PLACED ON ONE POST ASSEMBLY.
5. USE DIA 65mm GI OR BLACK STEEL MS POST WITH 450x450x550 (TYPE-I), DIA 100mm GI OR BLACK STEEL MS POST WITH 600x500x750 FOUNDATION (TYPE-II) FOR PROHIBITIVE MANDATORY, WARNING AND SMALL INFORMATORY SIGNS.FOR LARGE SIGNS, USE 100mm DIA GI OR BLACK STEEL MS POST WITH 600x500x1000mm CONCRETE POST FOUNDATION (TYPE-III). FOR SIGNS WITH FACE AREA LARGER THAN 2.5 Sq.M. USE 150mm DIA GI OR BLACK STEEL MS POST WITH IN SITU REINFORCED CONCRETE FOUNDATION (TYPE-IV).
6. WIDTH OF CAST IN SITU CONCRETE FOUNDATION FOR LARGE SIGNS (TYPE-IV) SHALL BE SAME AS THAT OF SIGN FACE, WHERE AS ITS BREADTH AND DEPTH SHALL BE 1000mm.
7. BLACK STEEL MS PIPE SHALL BE PAINTED WITH PRIMER (ANTI CORROSIVE) AND TWO COATS OF GRAY COLOR.
8. A SIGN POST SHALL NOT BE MOUNTED IN THE MIDDLE OF SIDE WALK.
9. THE CONTRACTOR SHALL SUBMIT THE SHOP DRAWING OF TRAFFIC SIGNS WITH MOUNTING AND FASTENING DETAILS FOR THE ENGINEER'S APPROVAL.

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
ROADS NETWORK
SIGN POST FOUNDATION DETAILS

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR. SHEHROZE	ENGR. ARSLAN

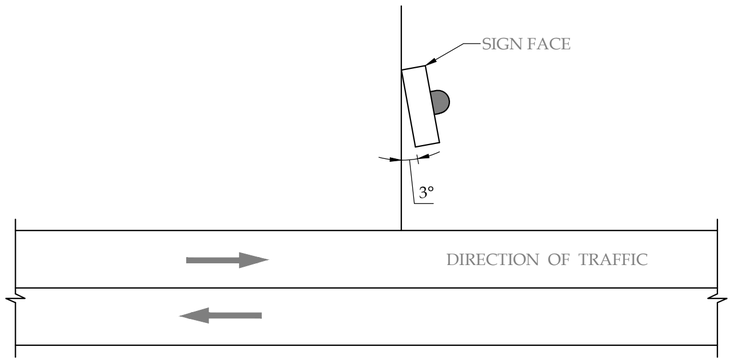
DRAWING Nº: NFIP-R-STD-5008 | SHEET 1 OF 2 | REV 00

CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

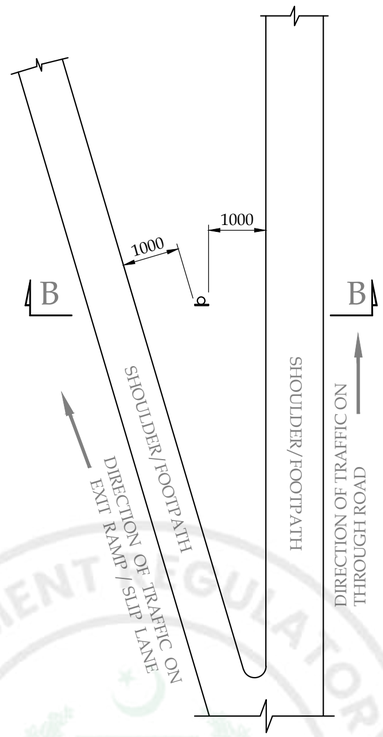
CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP Typical Cross Sections(30-11-2021)

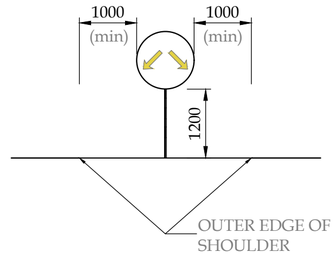
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



ORIENTATION OF SIGN IN PLAN
RELATED TO DIRECTION OF TRAFFIC

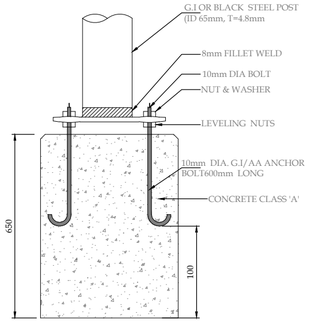


PLACING OF SIGN AT NOSE

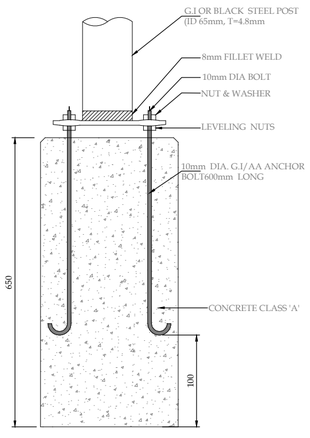


SECTION B-B

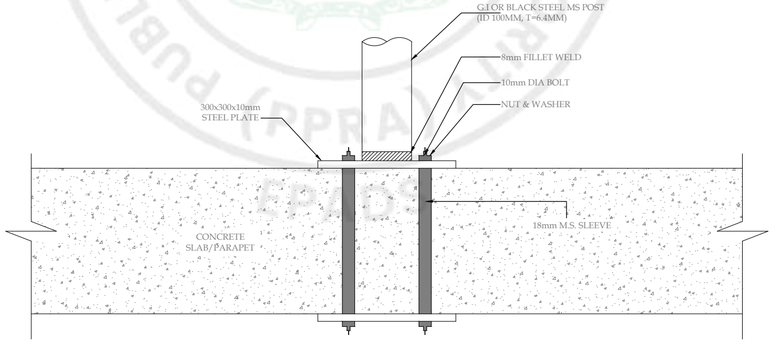
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS INDICATED OTHERWISE.
2. SIGNS PANELS SHALL BE MADE OF ALUMINUM ALLOY OR POLYVINYL PLATES OF 3MM THICKNESS AS PER DECISION THE ENGINEER.
3. HIGH INTENSITY GRADE REFLECTIVE SHEETING TO BE USED FOR TRAFFIC SIGNS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
4. TWO SIGN PLATES MAXIMUM MAY BE PLACED ON ONE POST ASSEMBLY.
5. USE DIA 65mm GI OR BLACK STEEL MS POST WITH 450x450x550 (TYPE-I), DIA 100mm GI OR BLACK STEEL MS POST WITH 600x500x750 FOUNDATION (TYPE-II) FOR PROHIBITIVE MANDATORY, WARNING AND SMALL INFORMATORY SIGNS.FOR LARGE SIGNS, USE 100mm DIA GI OR BLACK STEEL MS POST WITH 600x500x1000mm CONCRETE POST FOUNDATION (TYPE-III). FOR SIGNS WITH FACE AREA LARGER THAN 2.5 Sq.M. USE 150mm DIA GI OR BLACK STEEL MS POST WITH IN SITU REINFORCED CONCRETE FOUNDATION (TYPE-IV).
6. WIDTH OF CAST IN SITU CONCRETE FOUNDATION FOR LARGE SIGNS (TYPE-IV) SHALL BE SAME AS THAT OF SIGN FACE, WHERE AS ITS BREADTH AND DEPTH SHALL BE 1000mm.
7. BLACK STEEL MS PIPE SHALL BE PAINTED WITH PRIMER (ANTI CORROSIVE) AND TWO COATS OF GRAY COLOR.
8. A SIGN POST SHALL NOT BE MOUNTED IN THE MIDDLE OF SIDE WALK.
9. THE CONTRACTOR SHALL SUBMIT THE SHOP DRAWING OF TRAFFIC SIGNS WITH MOUNTING AND FASTENING DETAILS FOR THE ENGINEER'S APPROVAL.



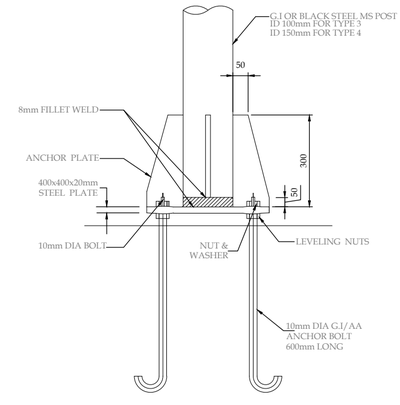
DETAIL 'A'
PRECAST FOUNDATION DETAIL
(TYPE - 1)



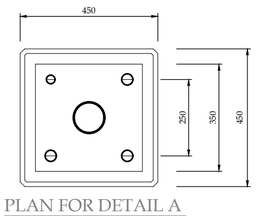
DETAIL 'B'
PRECAST FOUNDATION DETAIL
(TYPE - 2)



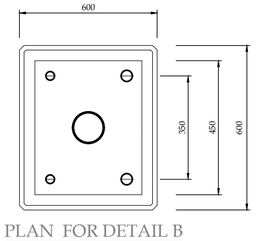
DETAIL 'C'



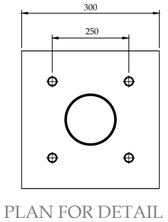
DETAIL 'D'
(TYPE - 3 & 4)



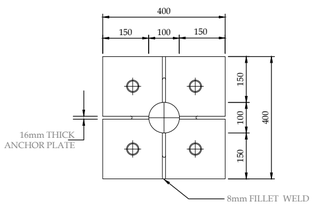
PLAN FOR DETAIL A



PLAN FOR DETAIL B



PLAN FOR DETAIL C



PLAN FOR DETAIL D

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
ROADS NETWORK
SIGN POST FOUNDATION DETAILS

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR SHEHROZE	ENGR ARSLAN

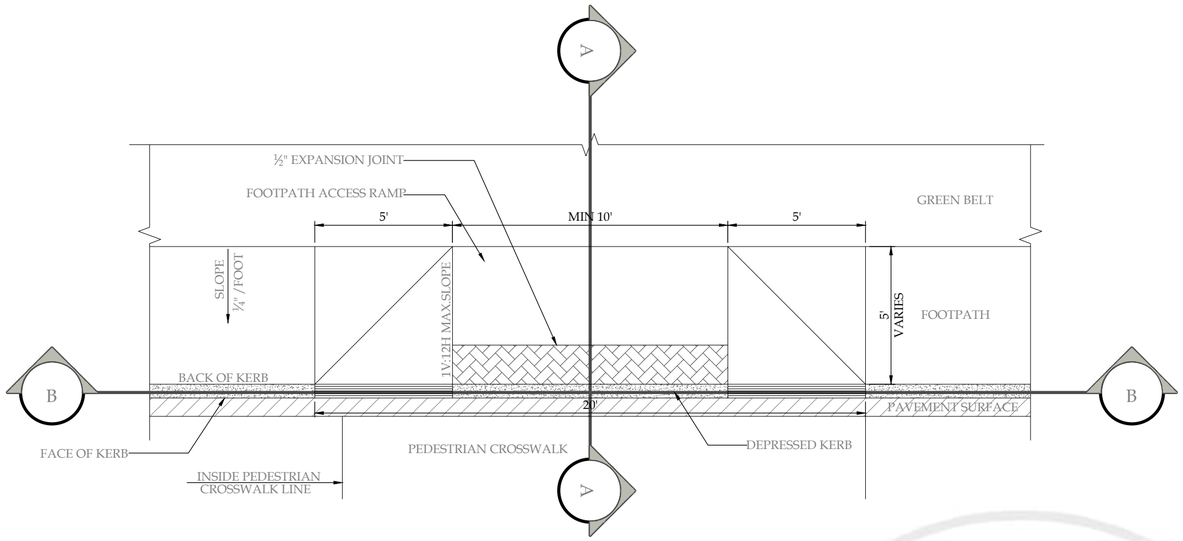
DRAWING Nº: NFIP-R-STD-5009
SHEET 2 OF 2
REV 00

CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

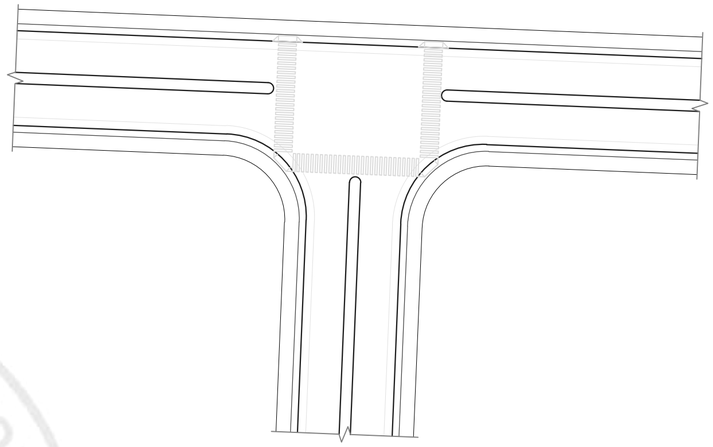
NFIP Typical Cross Sections(30-11-2021)

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



FOOTPATH ACCESS RAMP

SCALE:- 1/4" = 1'-0"



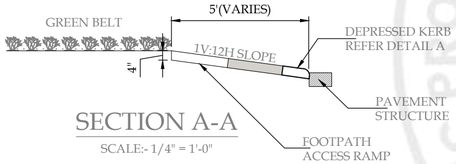
TYPICAL LOCATION OF FOOTPATH ACCESS RAMP

SCALE:- 1/4" = 1'-0"



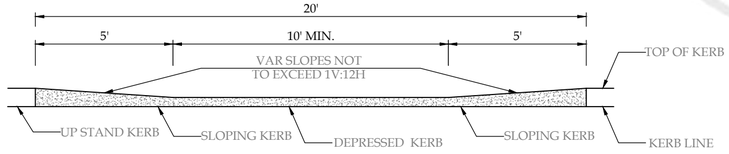
DETAIL-A

SCALE:- 1/4" = 1'-0"



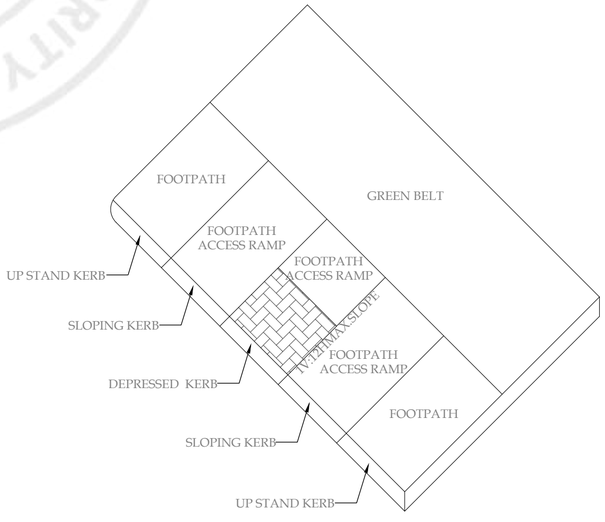
SECTION A-A

SCALE:- 1/4" = 1'-0"



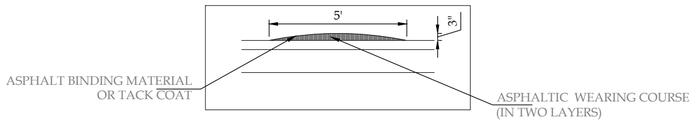
SECTION B-B

SCALE:- 1/4" = 1'-0"



ISOMETRIC VIEW

SCALE:- 1/4" = 1'-0"



TYPICAL ROAD SPEED HUMP DETAIL

SCALE:- 1/4" = 1'-0"

NFIP Typical Cross Sections(30-11-2021)

NOTES

1. ALL DIMENSIONS ARE IN FEET / INCHS UNLESS INDICATED OTHERWISE.
2. FOOTPATH ACCESS RAMPS FOR THE PHYSICALLY HANDICAPPED SHALL BE PROVIDED AT ALL INTERSECTIONS WHERE BOTH CURB AND FOOTPATHS ARE PROVIDED AND AT THE OTHER POINTS OF PEDESTRIAN CROSSINGS.
3. DEPRESSED OR DROP CURB SHALL BE PROVIDED AT FOOTPATH ACCESS RAMPS.
4. FOOTPATH ACCESS RAMPS SHALL BE PROVIDED AT LOCATION AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER. FOOTPATH ACCESS RAMP SHALL BE CONSTRUCTED AS SHOWN IN THE DETAIL. HOWEVER, THE LOCATION MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER WHERE LIGHT POLES, MANHOLES, FIRE HYDRANTS, DROP INLETS, CHAMBERS, ETC. AFFECT PLACEMENT.
5. NO SLOPE ON THE FOOTPATH ACCESS RAMP SHALL EXCEED 8% (1V:12H) IN RELATIONSHIP TO THE GRADE OF THE STREET.
6. IN NO CASE SHALL THE WIDTH OF THE FOOTPATH ACCESS RAMP BE LESS THAN 4 FEET.
7. CONTRACTOR SHALL SUBMIT A SHOP DRAWING SHOWING LOCATION OF ALL FOOTPATH ACCESS RAMPS FOR APPROVAL OF THE ENGINEER PRIOR TO PROCEEDING WITH EXECUTION OF THESE RAMPS.
8. SPEED HUMS/RUMBLE STRIPS WILL BE PROVIDED NEAR AMENITIES SUCH AS MOSQUES, PLAYGROUNDS, SCHOOLS, HOSPITALS, ETC. FOR TRAFFIC CALMING AS PER DECISION OF THE ENGINEER.

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK
FOOTPATH ACCESS RAMPS
AND SPEED HUMP DETAILS

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	TAHIR	ENGR. SHEHROZE	ENGR. ARSLAN

DRAWING Nº:

NFIP-R-STD-5010

SHEET 1 OF 1

REV 00

CLIENT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

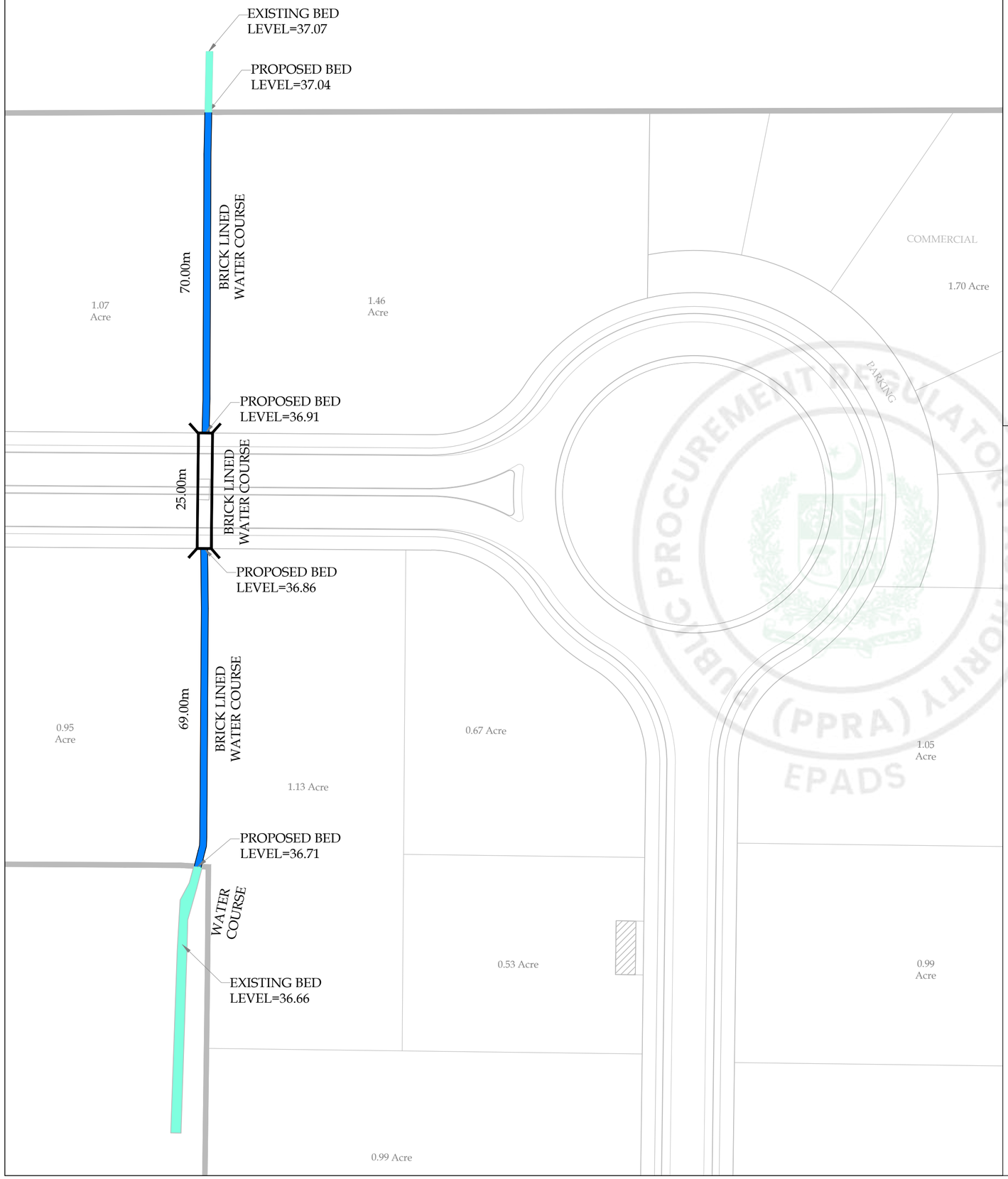
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

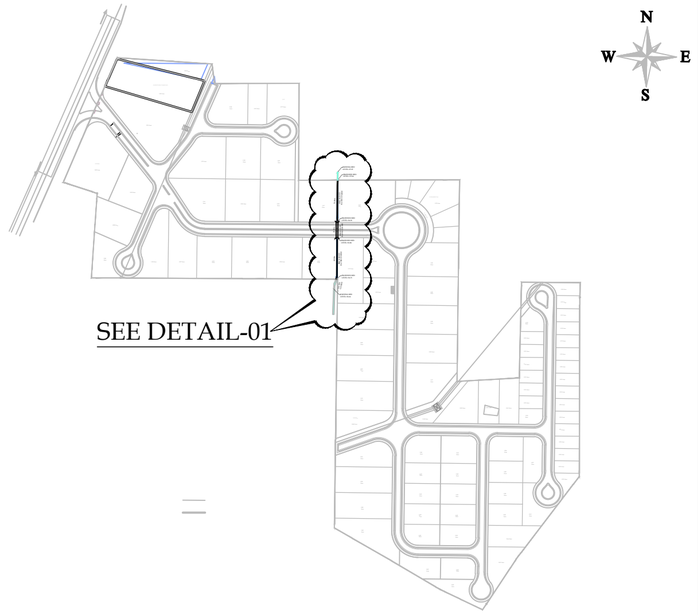
PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

WATER COURSE

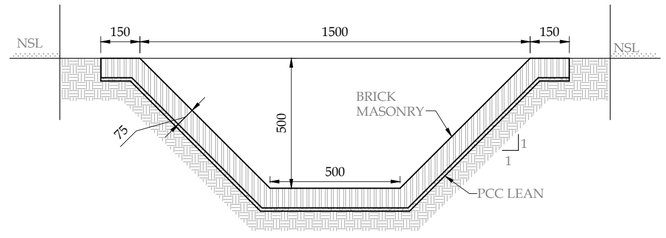
PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

DETAIL-01





KEY PLAN



WATER COURSE
TYPICAL CROSS SECTION

LEGEND

EXISTING WATER COURSE

BRICK LINED
WATER COURSE

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

WATER COURSE
LAYOUT PLAN & TYPICAL DETAIL

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:

NFIP-R-WC-LP-01

SHEET

REV
00

CLIENT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

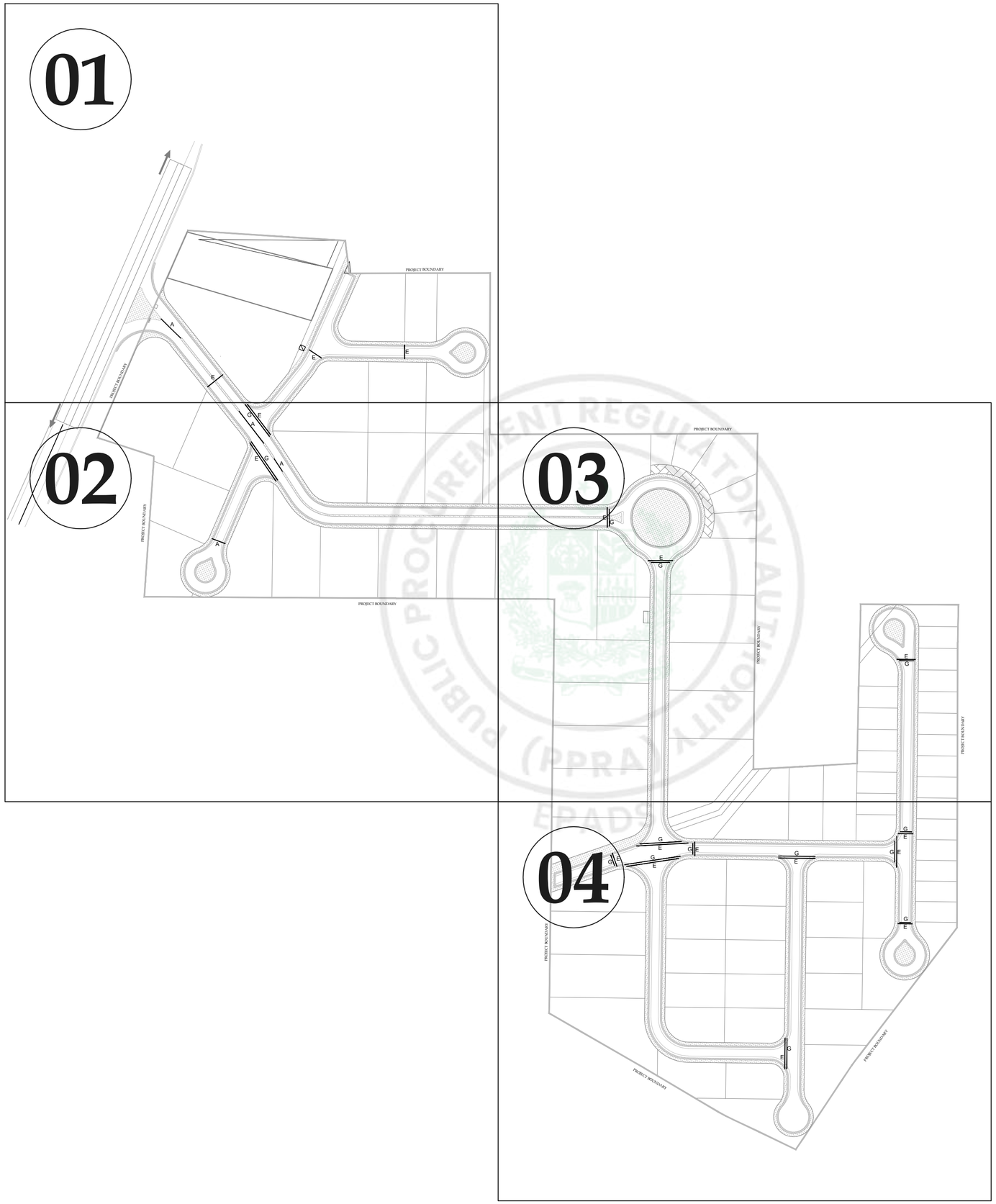
CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-WC-LP-TD-01

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

ROAD CROSSING SLEEVES



N
W E
S

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
ROADS NETWORK
ROAD CROSSING SLEEVES
KEY PLAN

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	M DEEN	ENGR. UMAIR KHALID	ENGR. RAZA HAMID

DRAWING Nº:
NFIP-ES-LP-01

SHEET
1 OF 1

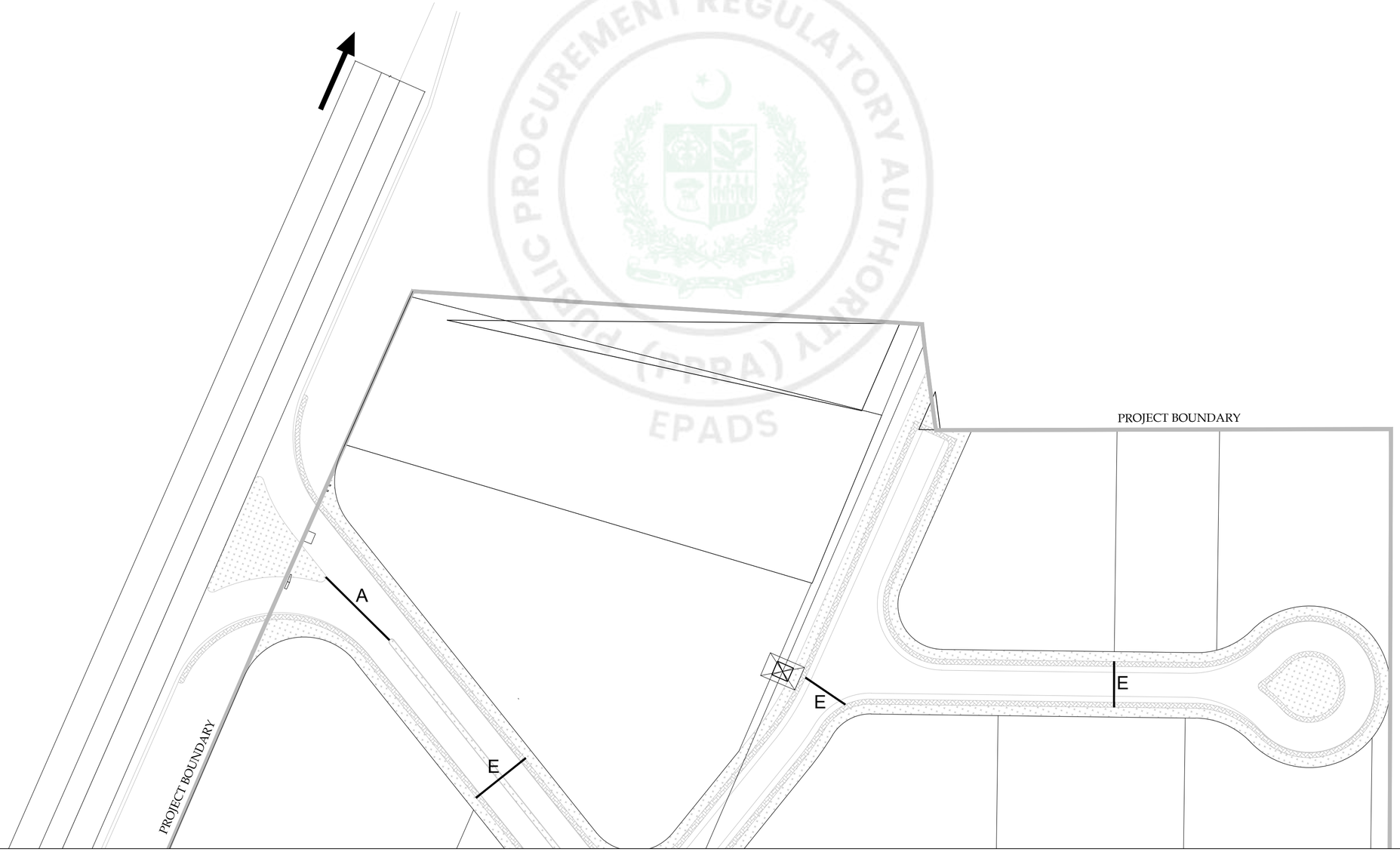
REV
00

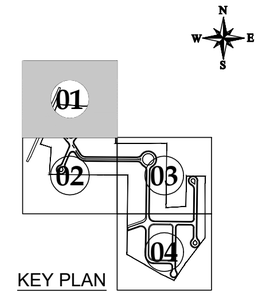
CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-ES-LP-01-04

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026





KEY PLAN

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK
ENLARGED PLAN ROAD
CROSSING SLEEVES LAYOUT

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	M DEEN	ENGR. UMAIR KHALID	ENGR. RAZA HAMID

DRAWING Nº:

NFIP-ES-LP-01

SHEET 01 OF 04

REV 00

CLIENT:

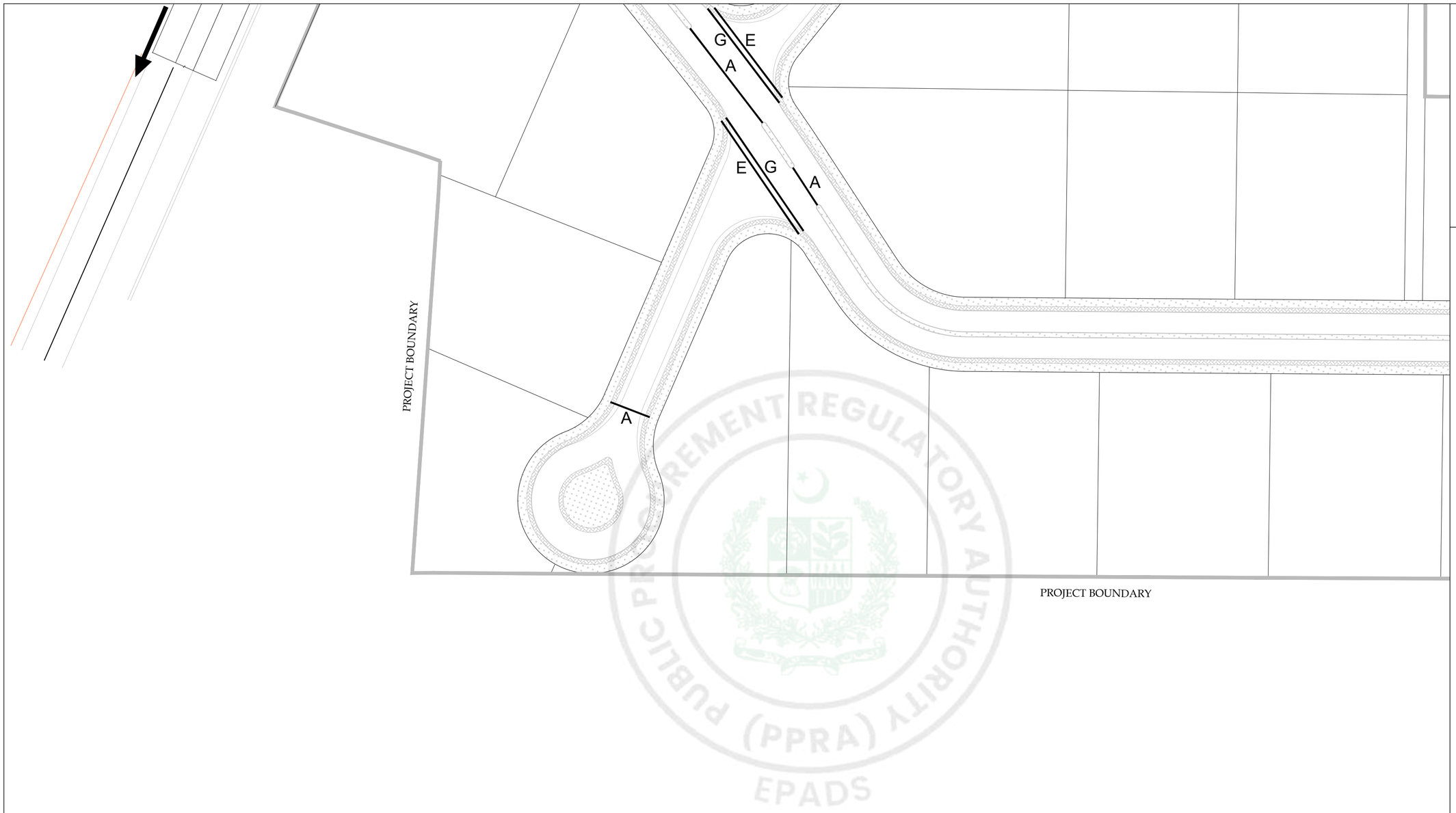
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

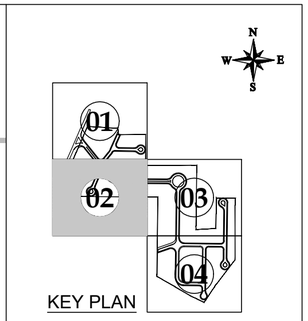
CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-ES-LP-01-04

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026





KEY PLAN

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK
ENLARGED PLAN ROAD
CROSSING SLEEVES LAYOUT

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	M DEEN	ENGR. UMAIR KHALID	ENGR. RAZA HAMID

DRAWING Nº:

NFIP-ES-LP-02

SHEET 02 OF 04

REV 00

CLIENT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-ES-LP-01-04

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

PROJECT BOUNDARY

E
G

E
G

PROJECT BOUNDARY

E
G

PROJECT BOUNDARY

NFIP-ES-LP-01-04

N
W
E
S

01
02
03
04

KEY PLAN

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK
ENLARGED PLAN ROAD
CROSSING SLEEVES LAYOUT

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	M DEEN	ENGR. UMAIR KHALID	ENGR. RAZA HAMID

DRAWING Nº:

NFIP-ES-LP-03

SHEET 03 OF 04

REV 00

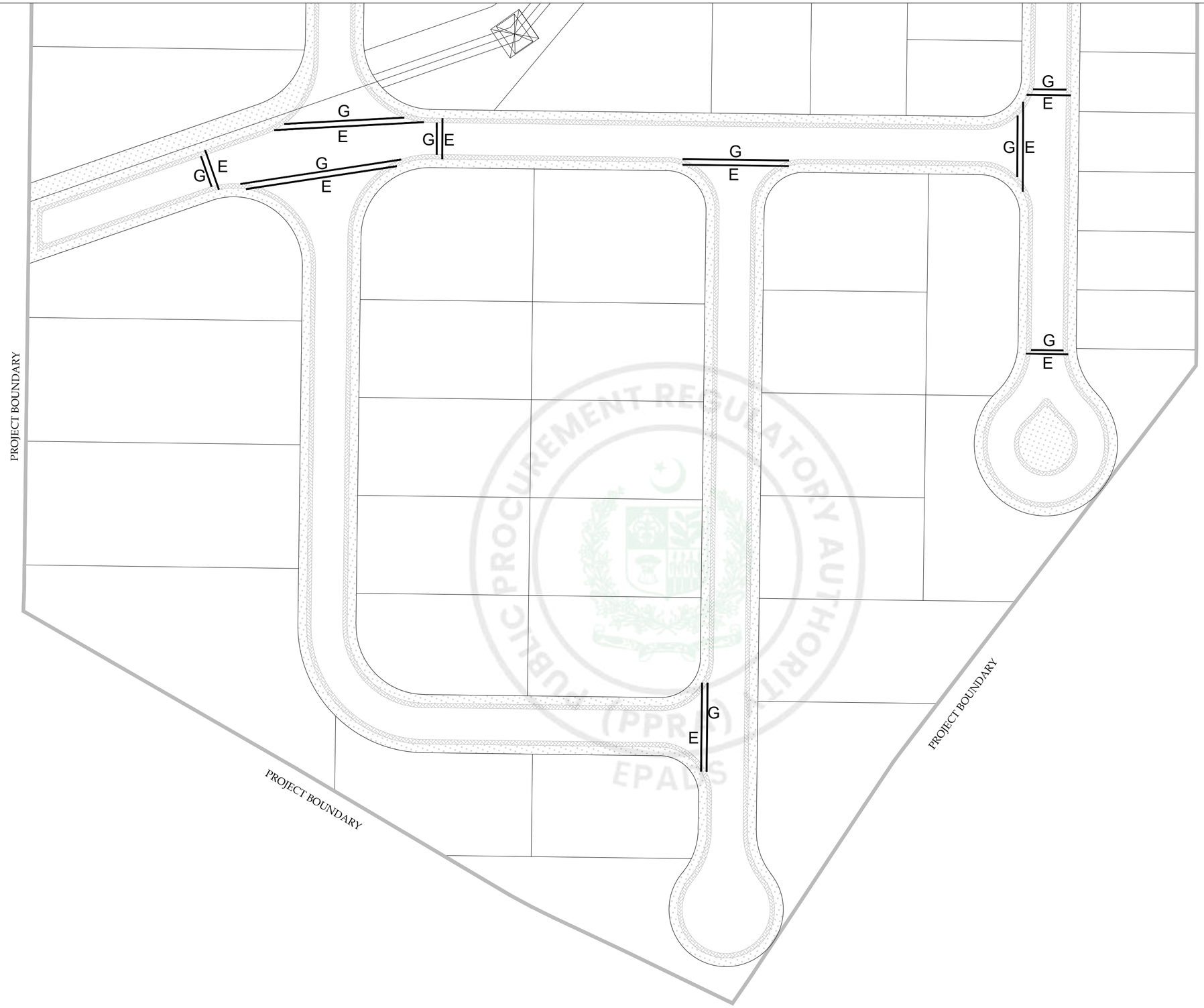
CLIENT:

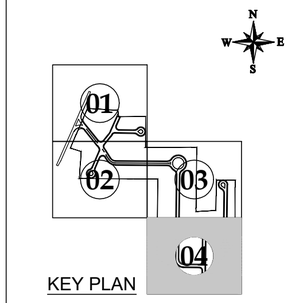
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026





KEY PLAN

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK
ENLARGED PLAN ROAD
CROSSING SLEEVES LAYOUT

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	M DEEN	ENGR. UMAIR KHALID	ENGR. RAZA HAMID

DRAWING Nº:

NFIP-ES-LP-04

SHEET 04 OF 04

REV 00

CLIENT:

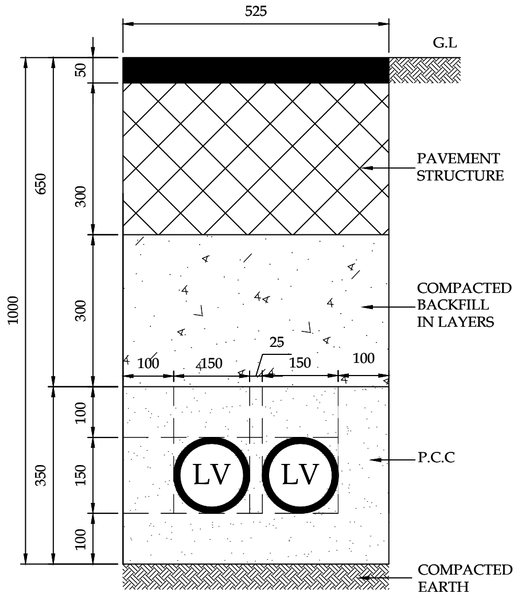
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-ES-LP-01-04

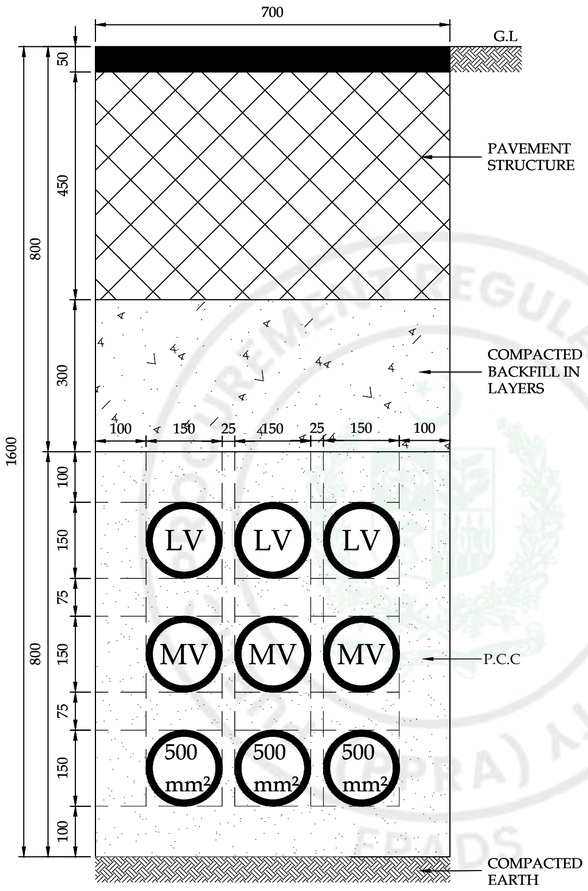
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



ROAD CROSSING PIPE SLEEVES (TYPE - A)

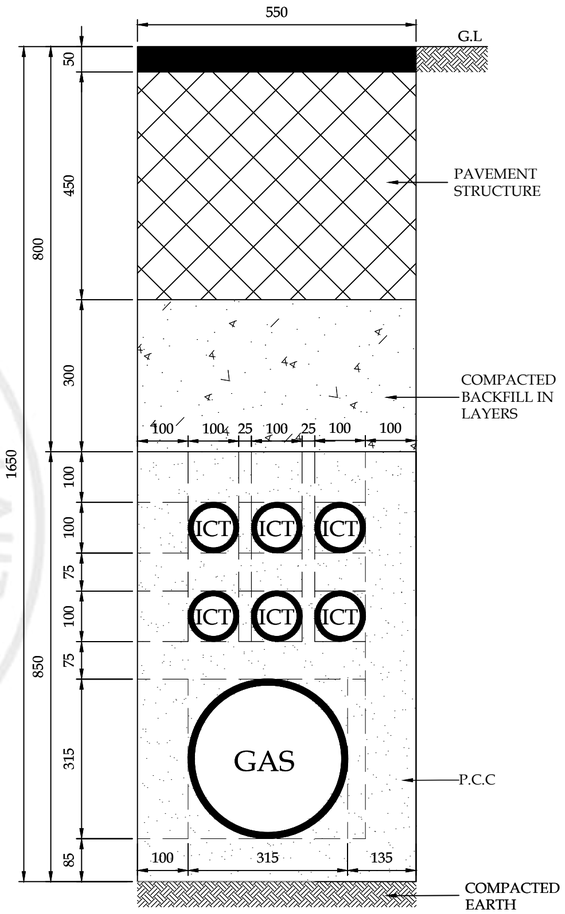
SCALE :- 1:10

ICT -100 mm Ø UPVC PIPE
LV -150 mm Ø UPVC PIPE
MV- 150 mm Ø UPVC PIPE
GAS-300 mm Ø PE PIPE PIPE



ROAD CROSSING PIPE SLEEVES (TYPE - E)

SCALE :- 1:10



ROAD CROSSING PIPE SLEEVES (TYPE - G)

SCALE :- 1:10

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK
TYPICAL DETAIL OF ROAD CROSSING SLEEVES.

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	M DEEN	ENGR. UMAIR KHALID	ENGR. RAZA HAMID

DRAWING Nº:

NFIP-ES-TD-01

SHEET 01 OF 01

REV 00

CLIENT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

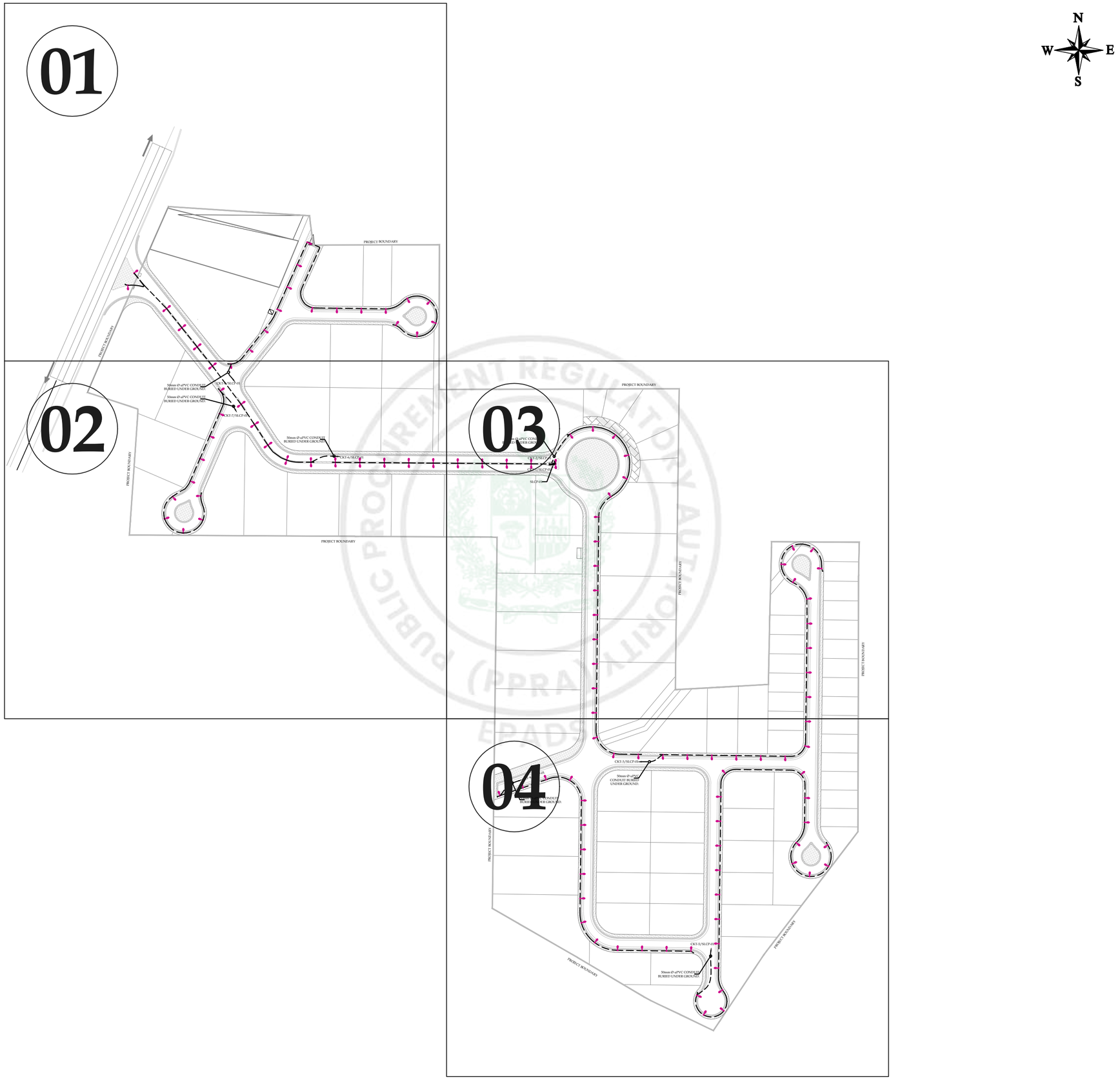
CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-ES-LP-01-04

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

STREET LIGHTING



PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK
STREET LIGHTING LAYOUT
KEY PLAN

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	M DEEN	ENGR. UMAIR KHALID	ENGR. RAZA HAMID

DRAWING Nº:

NFIP-E-SLL-KP-01

SHEET 1 OF 1

REV 00

CLIENT:

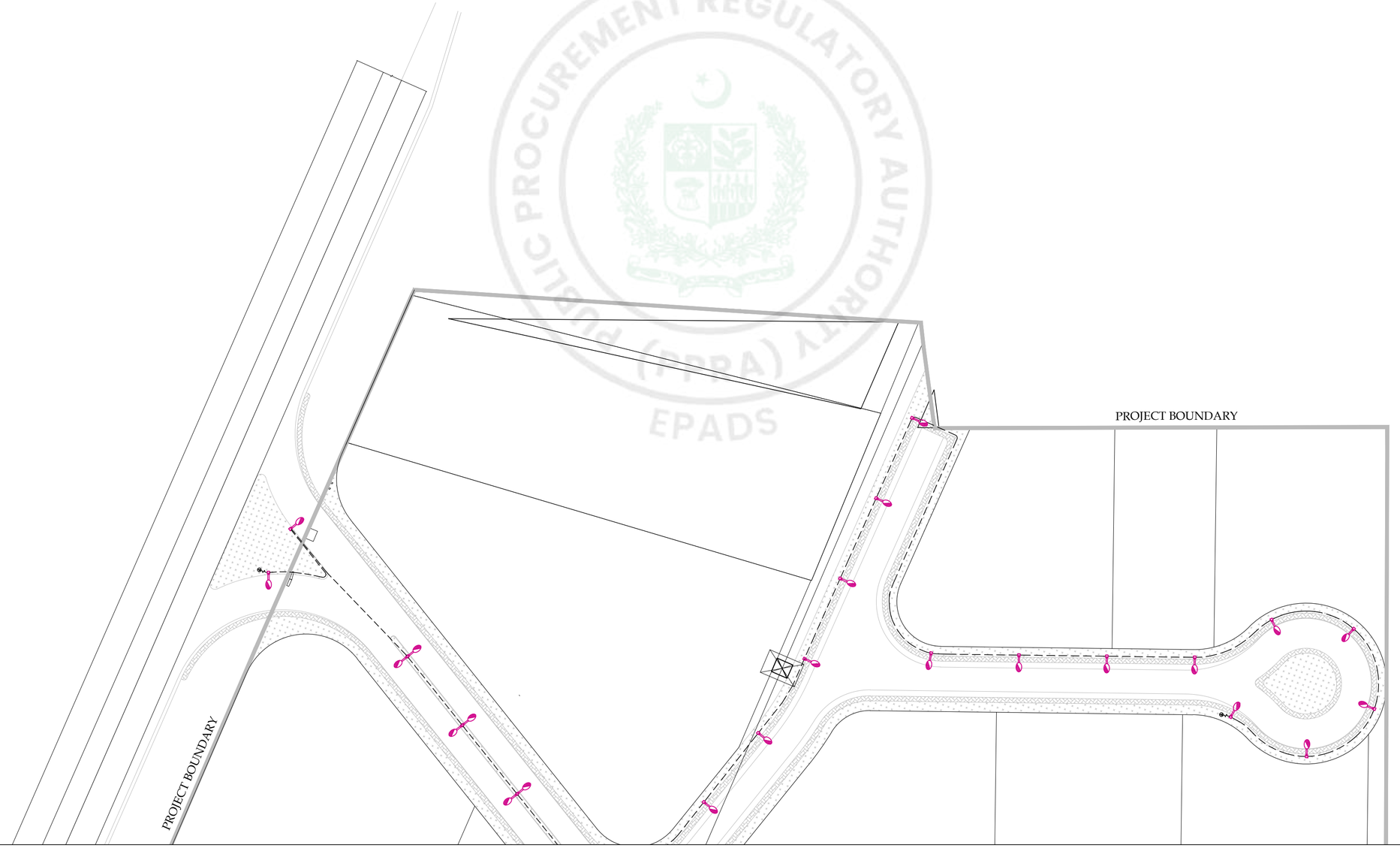
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

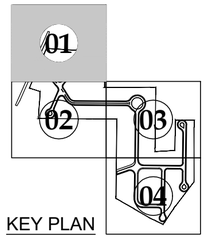
CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT (LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SLL-LP-01-04

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026





KEY PLAN

LEGEND		
S.NO	SYMBOLS	DISCRIPTION
01		STREET LIGHTING CONTROL PANEL (SLCP)
02		9 METER HIGH DOUBLE ARM STREET LIGHT POLE.
03		9 METER HIGH SINGLE ARM STREET LIGHT POLE.

NOTES :-

1. ALL DIMENSIONS ARE IN METER UNLESS OTHERWISE NOTED.
2. FOR STREET LIGHTING CABLES SIZES REFER TO SLCP SLD DRAWING.
3. DISTANCE BETWEEN POLE TO POLE SHALL BE .

a) FOR 9 METER HEIGHT POLE = 27M

4. AT CURVES, DISTANCE BETWEEN POLE TO POLE SHALL BE .

a) FOR 9 METER HEIGHT POLE = 22M

ROD TYPE EARTHING FOR STREET LIGHTING POLE.

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
ROADS NETWORK
ENLARGED STREET
LIGHTING LAYOUT

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	D E S C R I P T I O N	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	M DEEN	ENGR. UMAIR KHALID	ENGR. RAZA HAMID

DRAWING Nº:
NFIP-E-SLL-LP-01

SHEET 01 OF 04

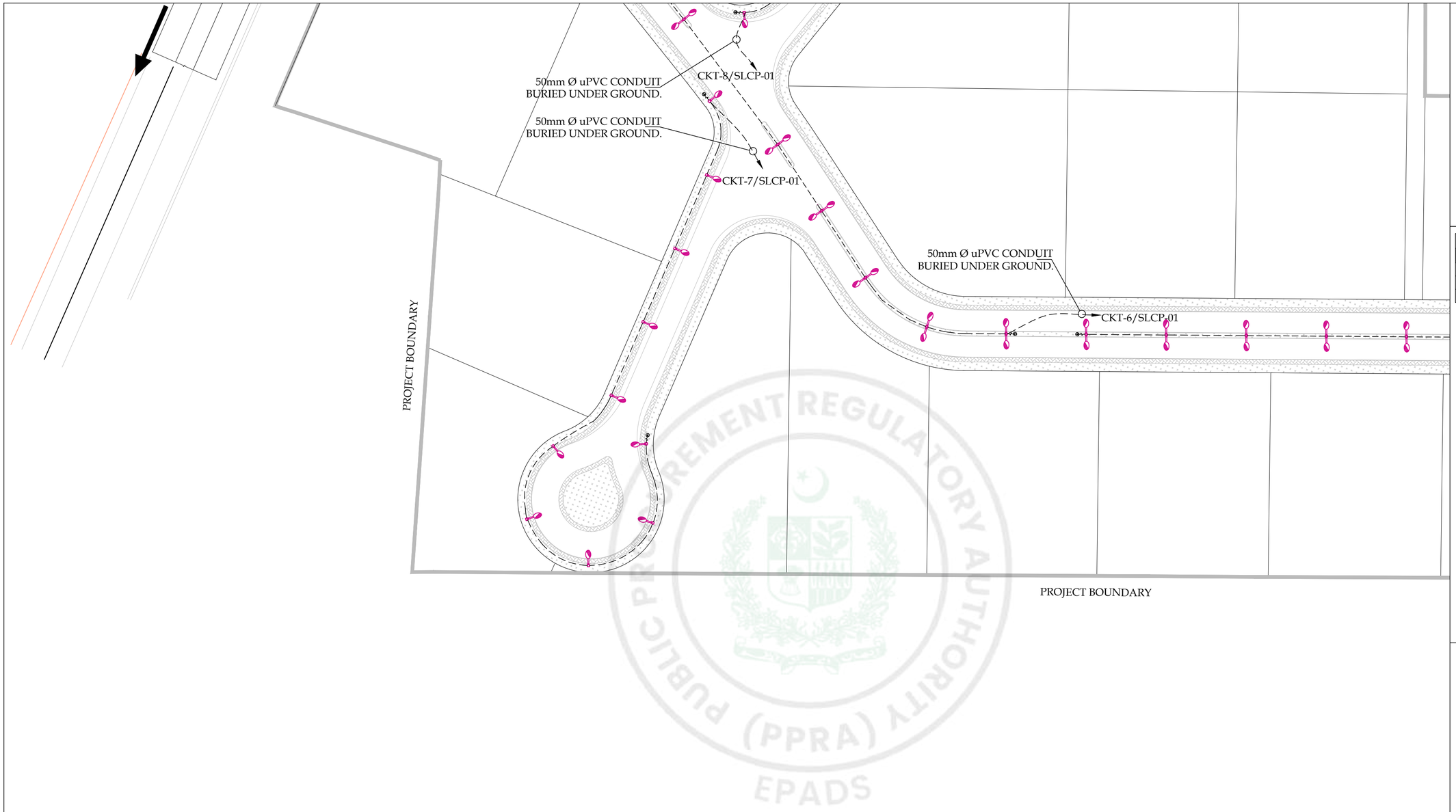
REV 00

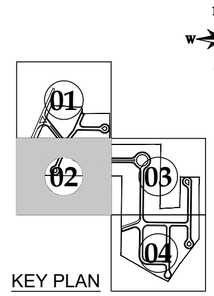
CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SLL-LP-01-04

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026





KEY PLAN

LEGEND		
S.NO	SYMBOLS	DISCRIPTION
01		STREET LIGHTING CONTROL PANEL (SLCP)
02		9 METER HIGH DOUBLE ARM STREET LIGHT POLE.
03		9 METER HIGH SINGLE ARM STREET LIGHT POLE.

NOTES :-

1. ALL DIMENSIONS ARE IN METER UNLESS OTHERWISE NOTED.
2. FOR STREET LIGHTING CABLES SIZES REFER TO SLCP SLD DRAWING.
3. DISTANCE BETWEEN POLE TO POLE SHALL BE .

a) FOR 9 METER HEIGHT POLE = 27M

4. AT CURVES, DISTANCE BETWEEN POLE TO POLE SHALL BE .

a) FOR 9 METER HEIGHT POLE = 22M

ROD TYPE EARTHING FOR STREET LIGHTING POLE.

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK
ENLARGED STREET
LIGHTING LAYOUT

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	M DEEN	ENGR. UMAIR KHALID	ENGR. RAZA HAMID

DRAWING Nº: NFIP-E-SLL-LP-02

SHEET 02 OF 04

REV 00

CLIENT:

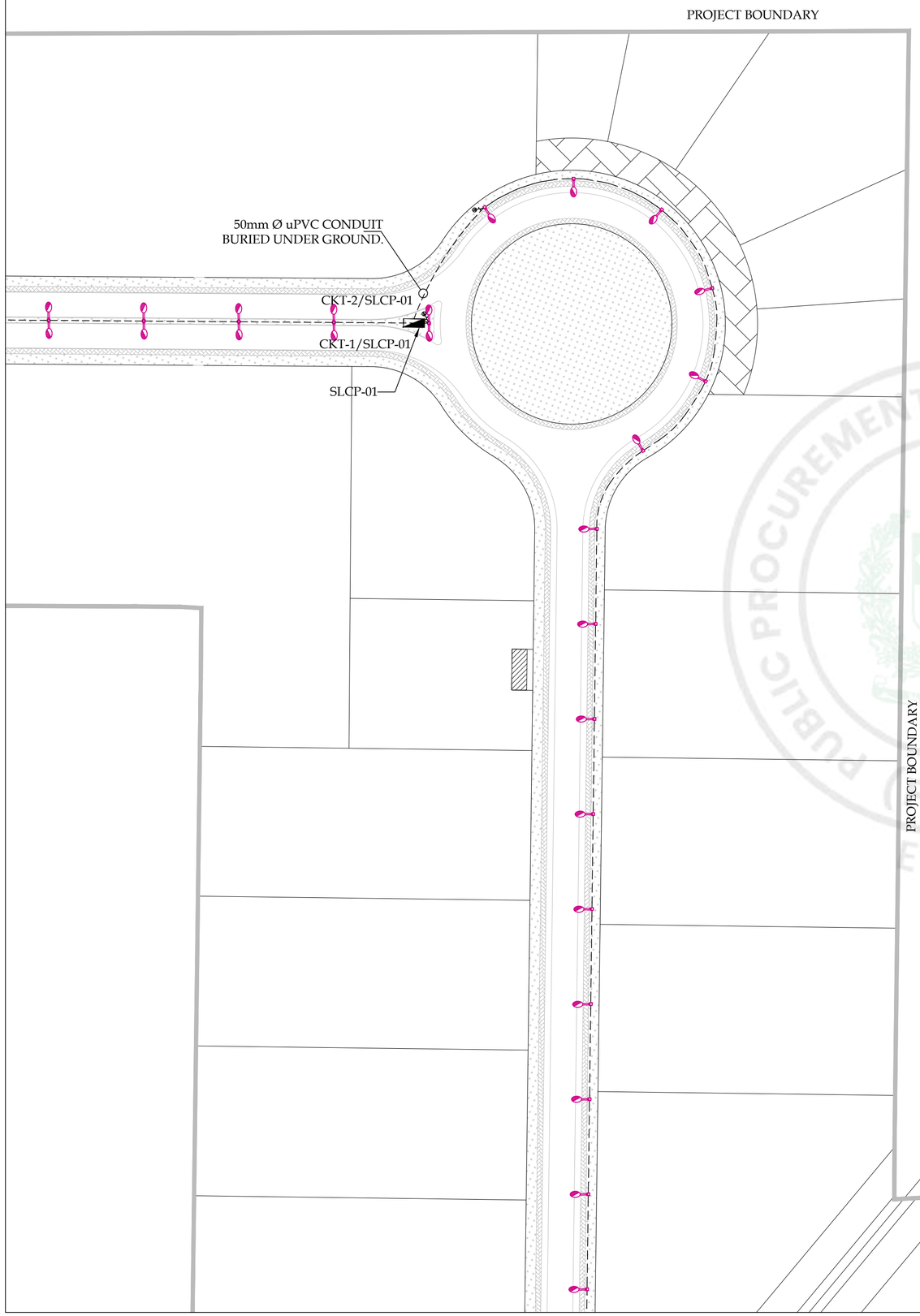
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

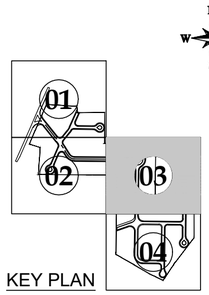
CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SLL-LP-01-04

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026





KEY PLAN

LEGEND

S.NO	SYMBOLS	DISCRIPTION
01		STREET LIGHTING CONTROL PANEL (SLCP)
02		9 METER HIGH DOUBLE ARM STREET LIGHT POLE.
03		9 METER HIGH SINGLE ARM STREET LIGHT POLE.

NOTES :-

1. ALL DIMENSIONS ARE IN METER UNLESS OTHERWISE NOTED.
2. FOR STREET LIGHTING CABLES SIZES REFER TO SLCP SLD DRAWING.
3. DISTANCE BETWEEN POLE TO POLE SHALL BE .

a) FOR 9 METER HEIGHT POLE = 27M

4. AT CURVES, DISTANCE BETWEEN POLE TO POLE SHALL BE .

a) FOR 9 METER HEIGHT POLE = 22M

ROD TYPE EARTHING FOR STREET LIGHTING POLE.

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

ROADS NETWORK
ENLARGED STREET
LIGHTING LAYOUT

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	M DEEN	ENGR. UMAIR KHALID	ENGR. RAZA HAMID

DRAWING Nº:

NFIP-E-SLL-LP-03

SHEET 03 OF 04

REV 00

CLIENT:

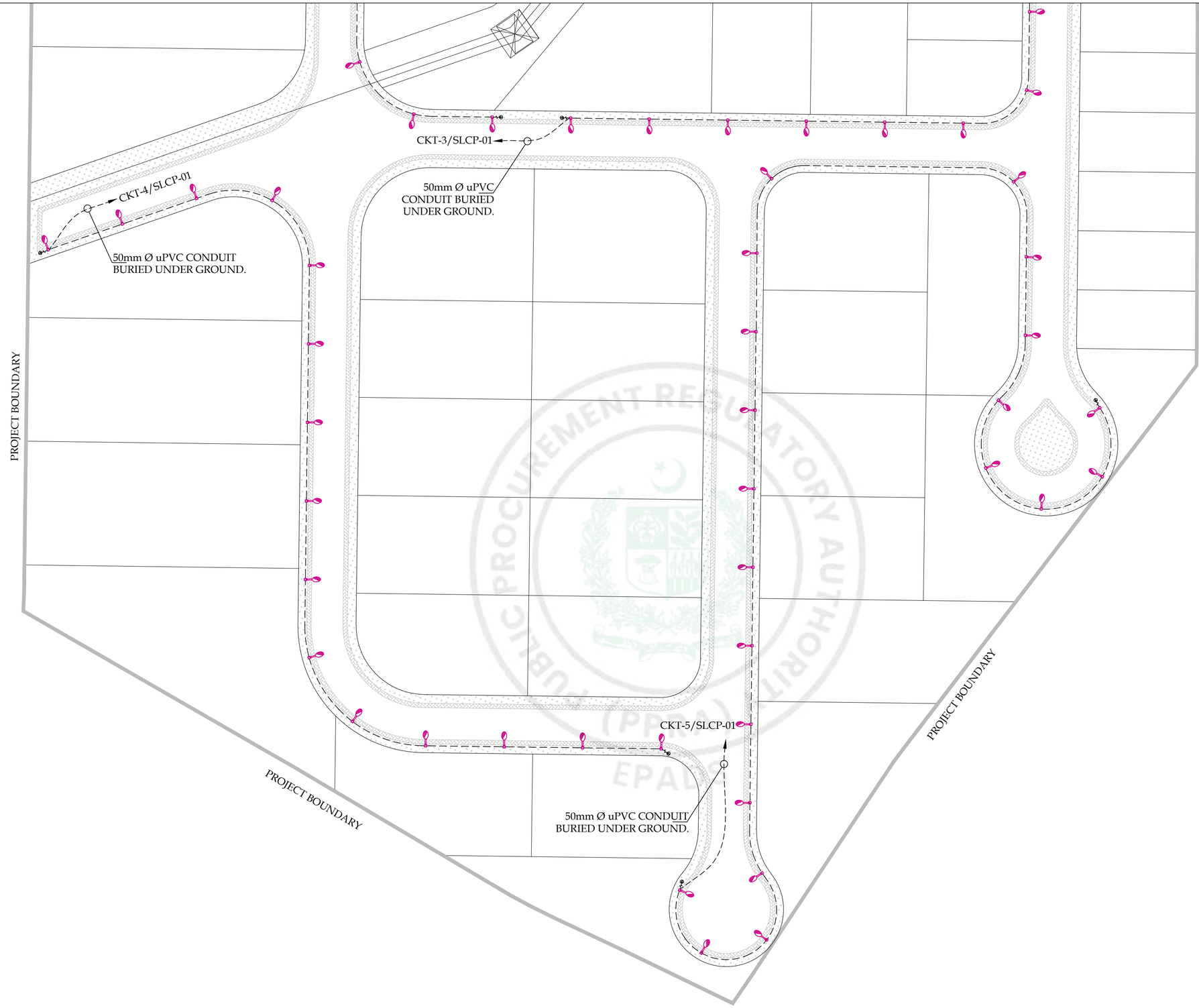
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

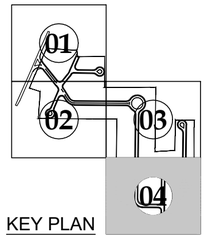
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SLL-LP-01-04

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS



N
W E
S



KEY PLAN

LEGEND		
S.NO	SYMBOLS	DISCRIPTION
01		STREET LIGHTING CONTROL PANEL (SLCP)
02		9 METER HIGH DOUBLE ARM STREET LIGHT POLE.
03		9 METER HIGH SINGLE ARM STREET LIGHT POLE.

NOTES :-

1. ALL DIMENSIONS ARE IN METER UNLESS OTHERWISE NOTED.
2. FOR STREET LIGHTING CABLES SIZES REFER TO SLCP SLD DRAWING.
3. DISTANCE BETWEEN POLE TO POLE SHALL BE .

a) FOR 9 METER HEIGHT POLE = 27M

4. AT CURVES, DISTANCE BETWEEN POLE TO POLE SHALL BE .

a) FOR 9 METER HEIGHT POLE = 22M

ROD TYPE EARTHING FOR STREET LIGHTING POLE.

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
ROADS NETWORK
ENLARGED STREET LIGHTING LAYOUT

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	M DEEN	ENGR. UMAIR KHALID	ENGR. RAZA HAMID

DRAWING Nº:
NFIP-E-SLL-LP-04

SHEET
04 OF 04

REV
00

CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

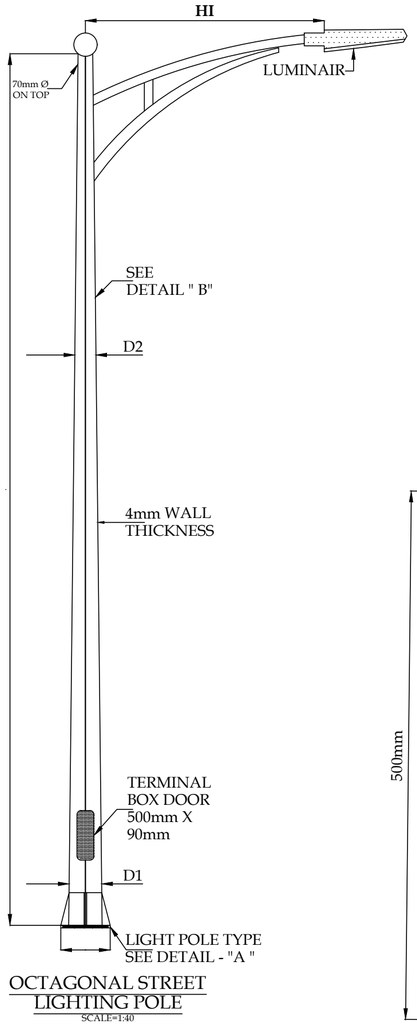
CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SLL-LP-01-04

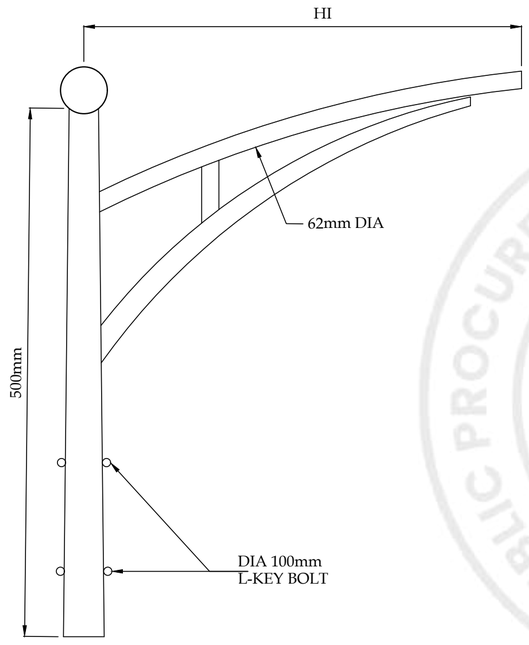
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

STREET LIGHT POLE SCHEDULE

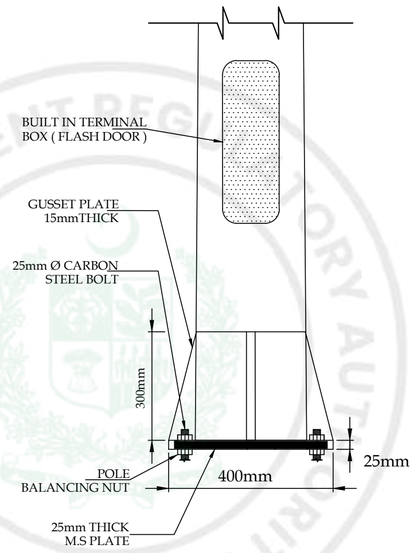
S./NO	SYMBOL	POLE DEMENSIONS					FIXTURE & POLE ARM DETAILS	
		H (mm)	D1 (mm)	D2 (mm)	OVER HANG H1 (mm)	ANGLE TILT 90°	LUMINAIR	BRACKET
01		90000	190	75	1200	10°	100 WATTS LED LIGHT FIXTURE (IP-66)	SINGLE ARM
02		90000	190	75	1200	10°	100 WATTS LED LIGHT FIXTURE (IP-66)	DOUBLE ARM



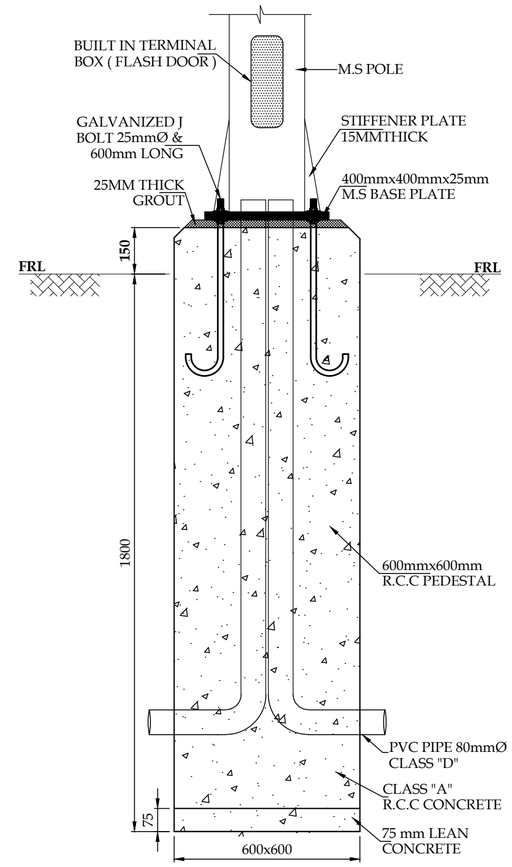
OCTAGONAL STREET LIGHTING POLE
SCALE=1:40



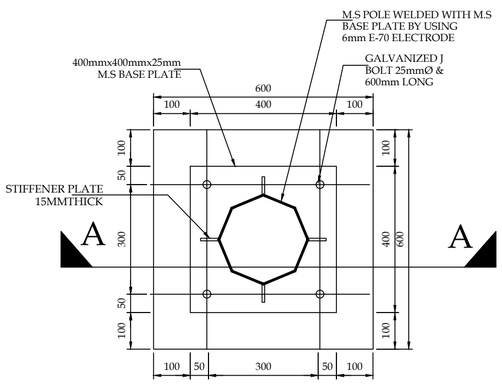
SINGLE ARM DETAIL
SCALE=1:20



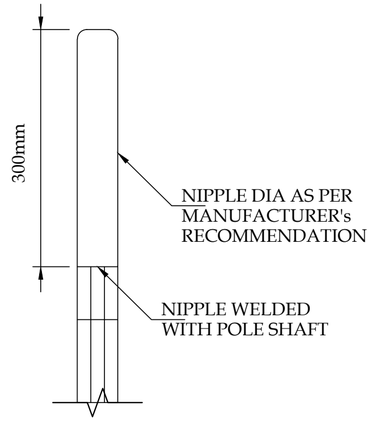
STREET LIGHT POLE TYPE. DETAIL- A
SCALE=1:12



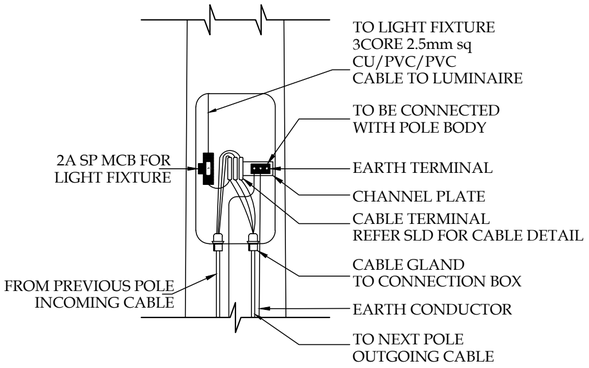
SECTION A-A
TYPICAL FOUNDATION DETAIL FOR STREET LIGHTING POLE (9M)
SCALE=1:16



M.S BASE PLATE DETAIL
SCALE:1:10



DETAIL " B "
SCAL=1:8



TERMINAL BOX INSTALLATION DETAIL IN LIGHTING POLE
SCALE=1:16

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
ROADS NETWORK
LIGHTING POLE INSTALLATION & MISCELLANEOUS DETAIL

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	M DEEN	ENGR. UMAR KHALID	ENGR. RAZA HAMID

DRAWING N°: NFIP-E-SLL-TD-01
SHEET 01 OF 01
REV 00

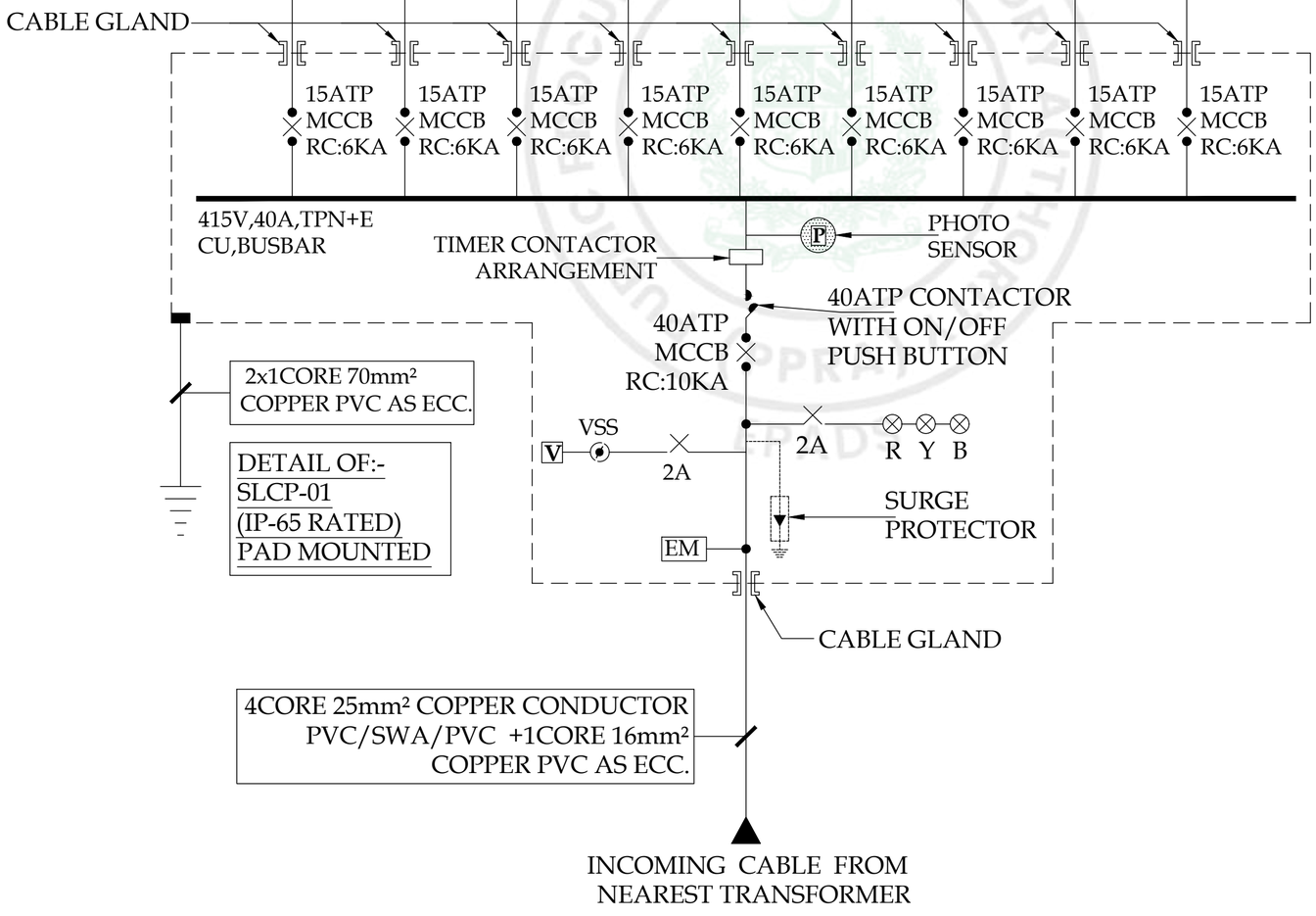
CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SLL-TD-01

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

CKT	DESCRIPTION	SIZE OF CABLES
RYB-1	STREET LIGHTING	4 CORE 16mm² ALUMINUM PVC/SWA/PVC+1CORE 16mm² COPPER CABLE AS ECC.
RYB-2	STREET LIGHTING	4 CORE 16mm² ALUMINUM PVC/SWA/PVC+1CORE 16mm² COPPER CABLE AS ECC.
RYB-3	STREET LIGHTING	4 CORE 16mm² ALUMINUM PVC/SWA/PVC+1CORE 16mm² COPPER CABLE AS ECC.
RYB-4	STREET LIGHTING	4 CORE 16mm² ALUMINUM PVC/SWA/PVC+1CORE 16mm² COPPER CABLE AS ECC.
RYB-5	STREET LIGHTING	4 CORE 16mm² ALUMINUM PVC/SWA/PVC+1CORE 16mm² COPPER CABLE AS ECC.
RYB-6	STREET LIGHTING	4 CORE 16mm² ALUMINUM PVC/SWA/PVC+1CORE 16mm² COPPER CABLE AS ECC.
RYB-7	STREET LIGHTING	4 CORE 16mm² ALUMINUM PVC/SWA/PVC+1CORE 16mm² COPPER CABLE AS ECC.
RYB-8	SPARE	4 CORE 16mm² ALUMINUM PVC/SWA/PVC+1CORE 16mm² COPPER CABLE AS ECC.
RYB-9	SPARE	——



PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
ROADS NETWORK
SINGLE LINE DIAGRAM OF:-
STREET LIGHTING CONTROL PANEL.

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	M DEEN	ENGR. UMAIR KHALID	ENGR. RAZA HAMID

DRAWING Nº: NFIP-E-SLL-SLD-01
SHEET 01 OF 01
REV 00

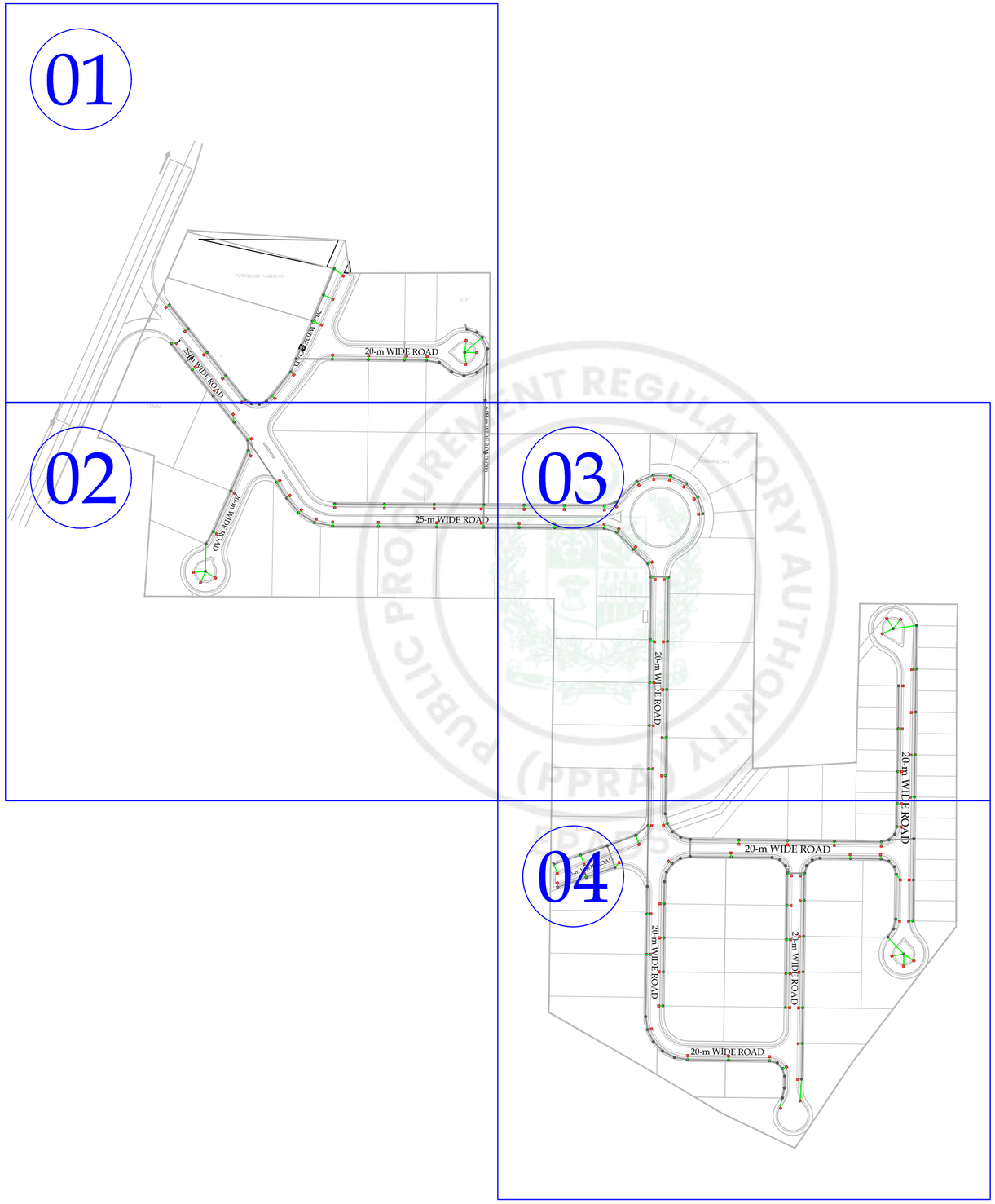
CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SLL-TD-01

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

STORM WATER DRAINAGE



N
W E
S

NOTES:

1. ALL DIMENSIONS SHOWN ARE IN METERS UNLESS OTHERWISE MENTIONED.

LEGEND:

6"Ø uPVC PIPE

CATCH PIT

MANHOLE

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

STORM WATER DRAINAGE CATCH PIT KEY PLAN

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
26-05-2025	TENDER DRAWINGS	ASAD	ENGR. TAHA	ENGR. HASEEB

DRAWING Nº: NFIP-SWD-KP-8000

SHEET 01 OF 1

REV 00

CLIENT:

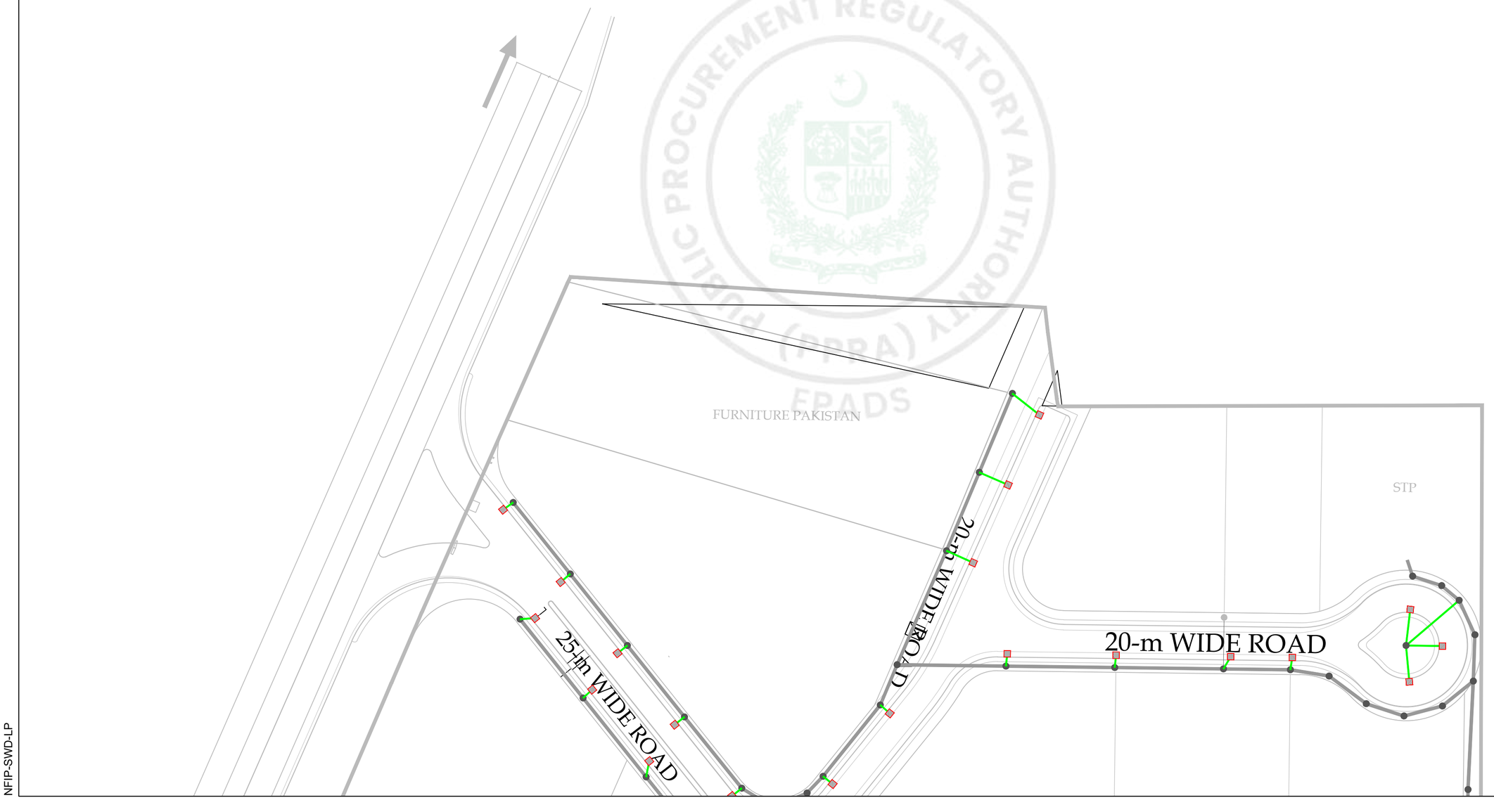
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN
PHONE: 021-3568-5041-9

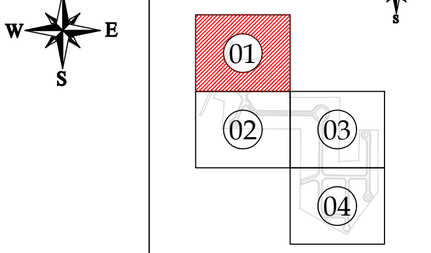
CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SWD-LP

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026





KEY PLAN

NOTES:

1. ALL DIMENSIONS SHOWN ARE IN METERS UNLESS OTHERWISE MENTIONED.

LEGEND:

- 6"Ø uPVC PIPE
- CATCH PIT
- MANHOLE

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

STORM WATER DRAINAGE
CATCH PIT
LAYOUT PLAN

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
26-05-2025	TENDER DRAWINGS	ASAD	ENGR. TAHA	ENGR. HASEEB

DRAWING Nº:	SHEET	REV
NFIP-SWD-LP-8001	01 OF 04	00

CLIENT:

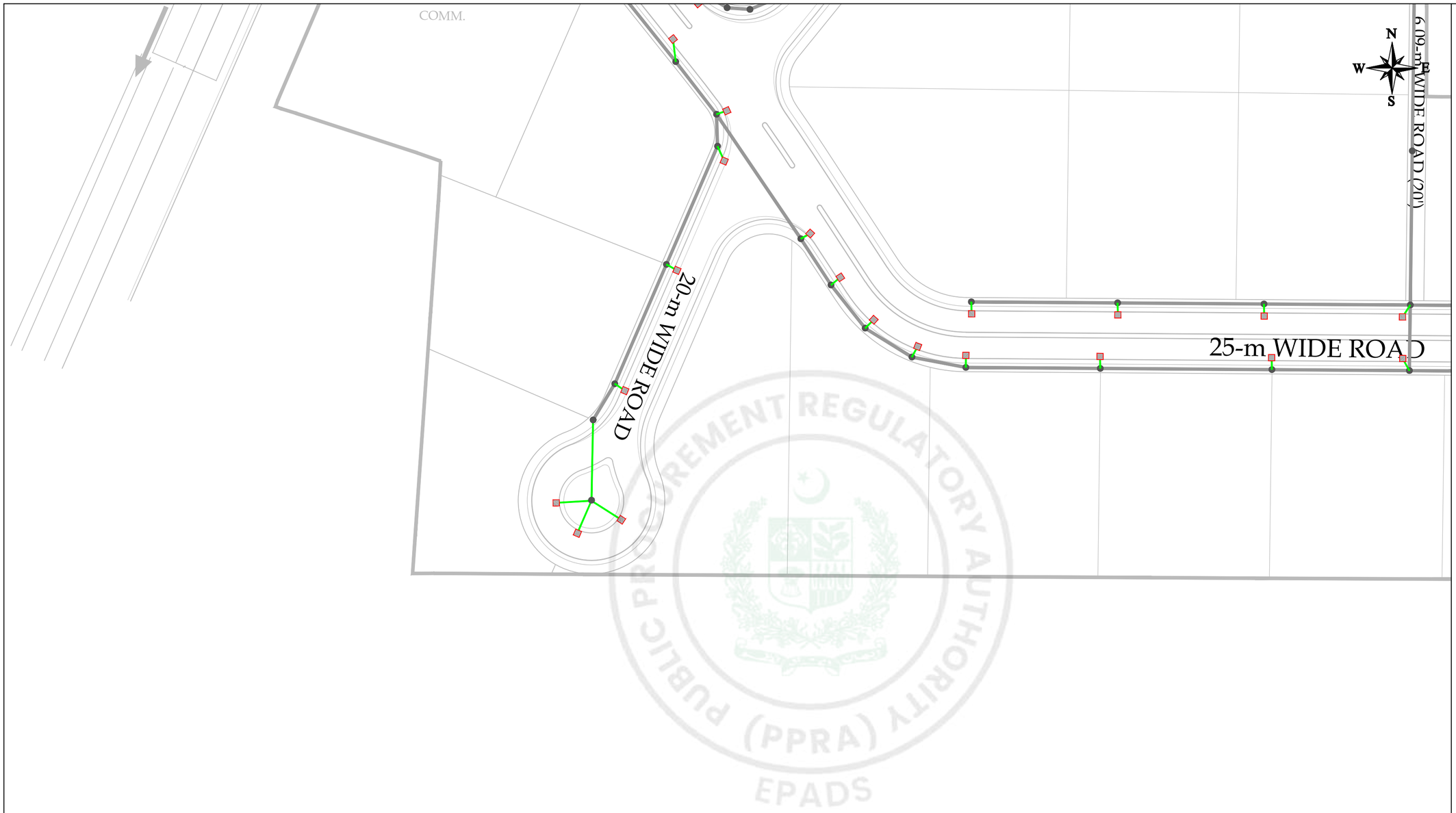
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

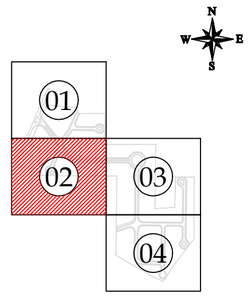
CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SWD-LP

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026





KEY PLAN

NOTES:

1. ALL DIMENSIONS SHOWN ARE IN METERS UNLESS OTHERWISE MENTIONED.

LEGEND:

6"Ø uPVC PIPE

CATCH PIT

MANHOLE

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

STORM WATER DRAINAGE
CATCH PIT
LAYOUT PLAN

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
26-05-2025	TENDER DRAWINGS	ASAD	ENGR. TAHA	ENGR. HASEEB

DRAWING Nº:

NFIP-SWD-LP-8002

SHEET 02 OF 04

REV 00

CLIENT:

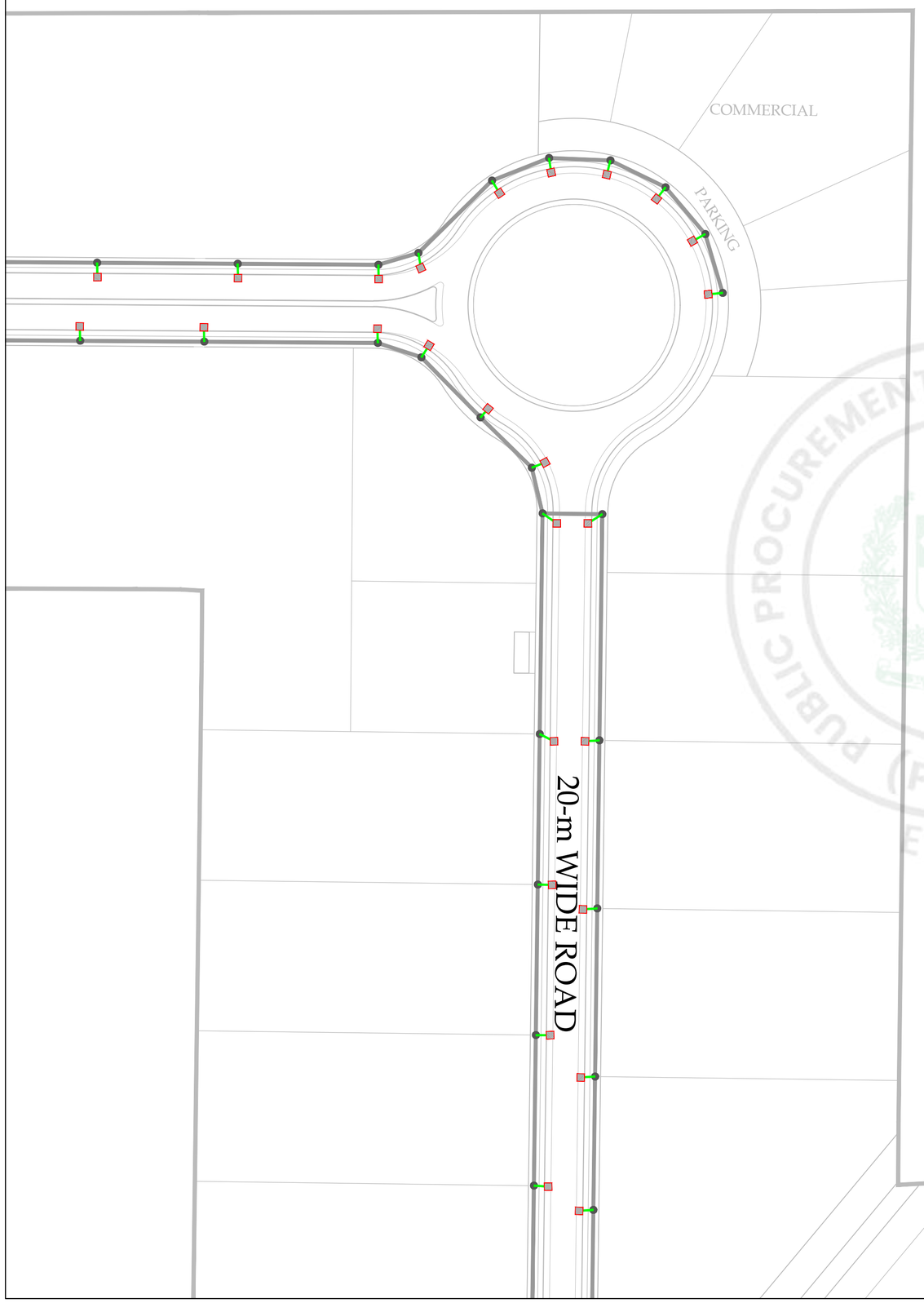
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN
PHONE: 021-3568-5041-9

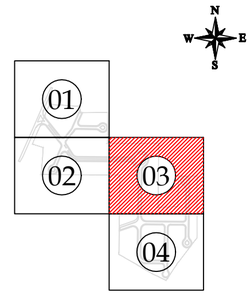
CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SWD-LP

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS





KEY PLAN

NOTES:

1. ALL DIMENSIONS SHOWN ARE IN METERS UNLESS OTHERWISE MENTIONED.

LEGEND:

6"Ø uPVC PIPE

CATCH PIT

MANHOLE

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

STORM WATER DRAINAGE
CATCH PIT
LAYOUT PLAN

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
26-05-2025	TENDER DRAWINGS	ASAD	ENGR. TAHA	ENGR. HASEEB

DRAWING Nº:

NFIP-SWD-LP-8003

SHEET 03 OF 04

REV 00

CLIENT:

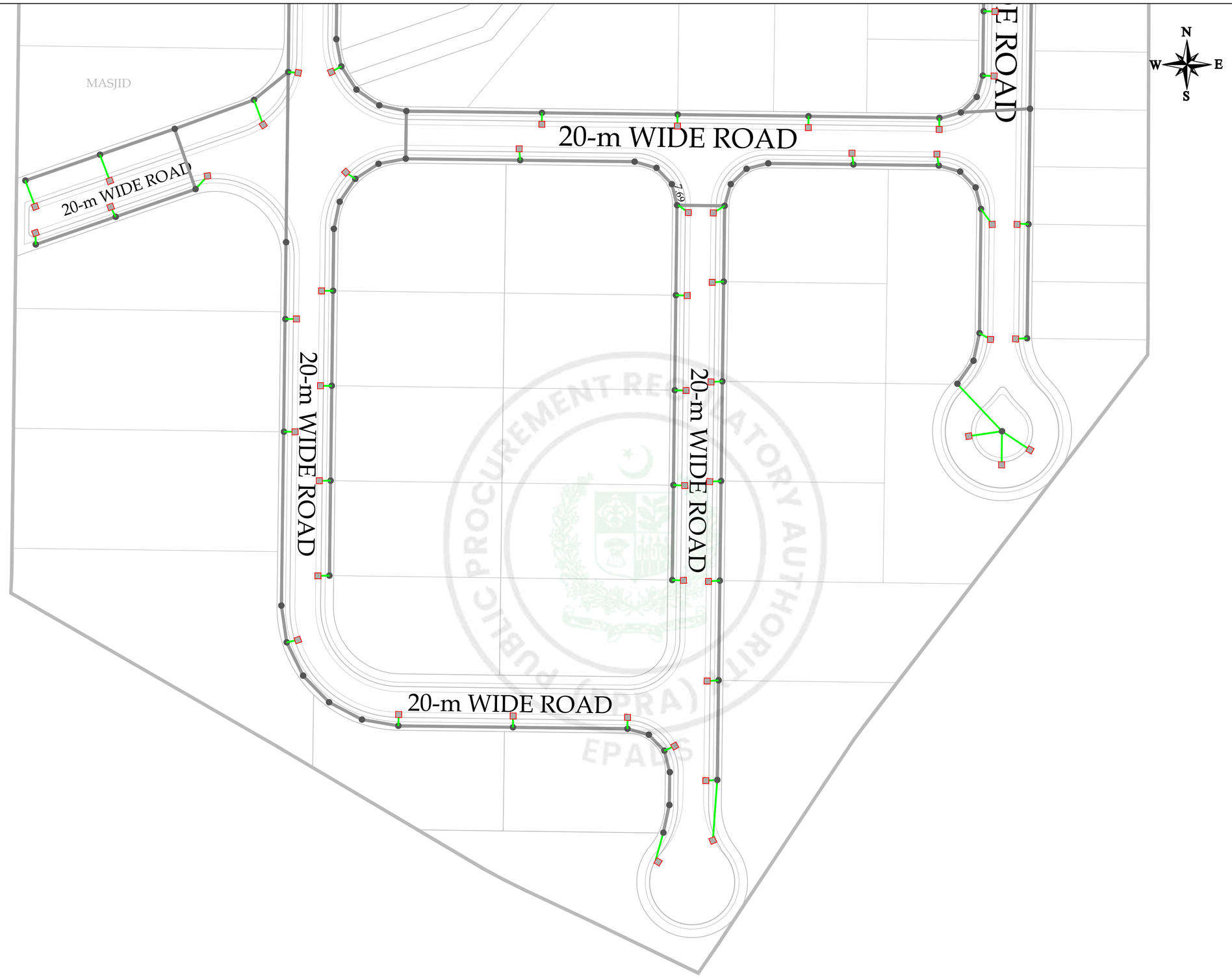
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

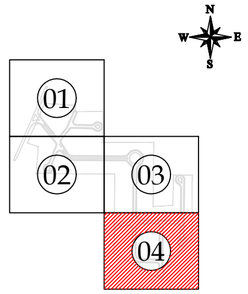
CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SWD-LP

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS





KEY PLAN

NOTES:

1. ALL DIMENSIONS SHOWN ARE IN METERS UNLESS OTHERWISE MENTIONED.

LEGEND:

- 6"Ø uPVC PIPE
- CATCH PIT
- MANHOLE

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

STORM WATER DRAINAGE
CATCH PIT
LAYOUT PLAN

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
26-05-2025	TENDER DRAWINGS	ASAD	ENGR. TAHA	ENGR. HASEEB

DRAWING Nº:

NFIP-SWD-LP-8004

SHEET 04 OF 04

REV 00

CLIENT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

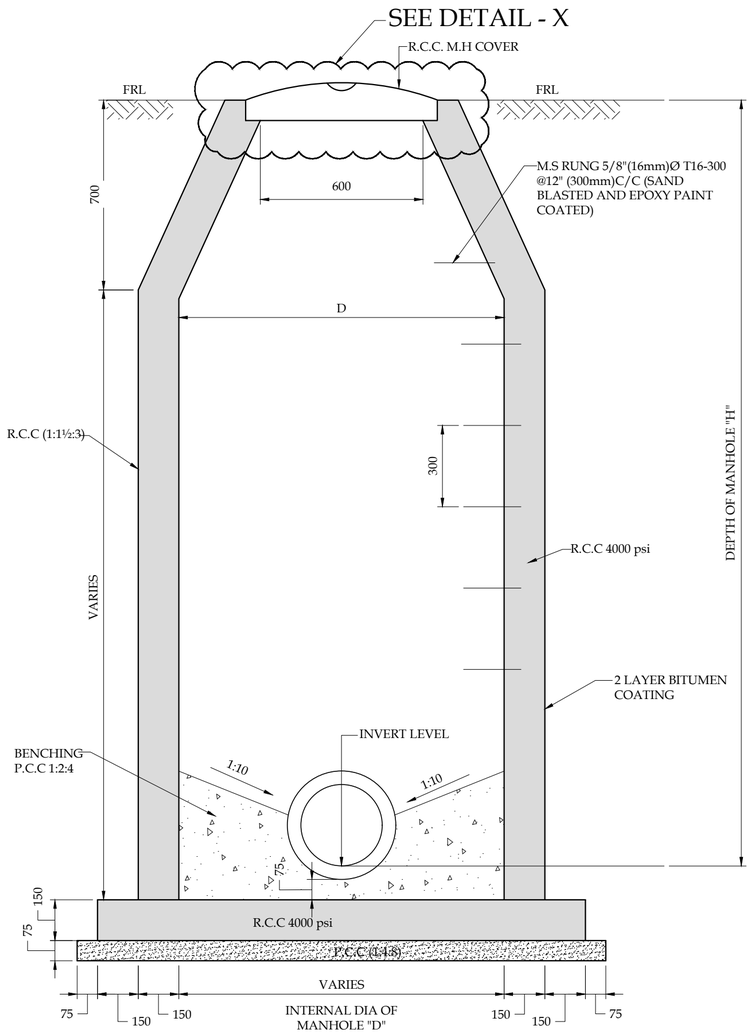
CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

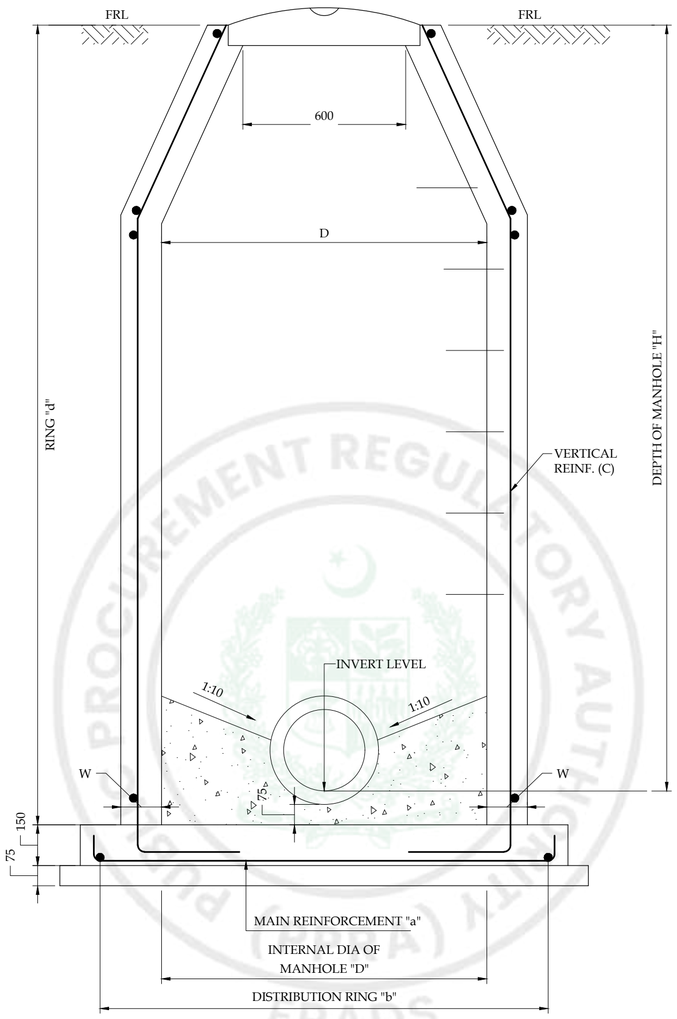
NFIP-SWD-LP

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

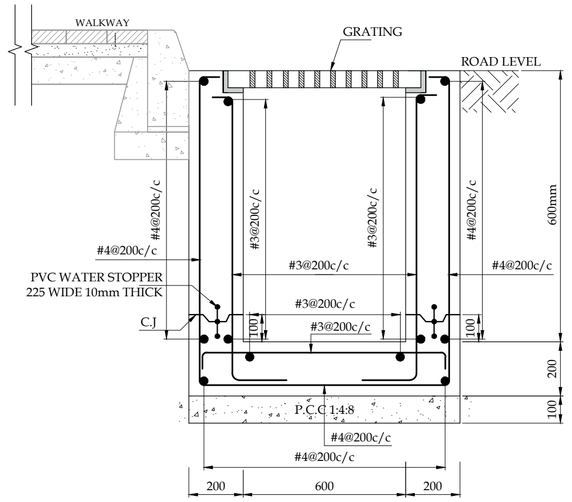
TYPICAL DETAILS



(A) SECTION

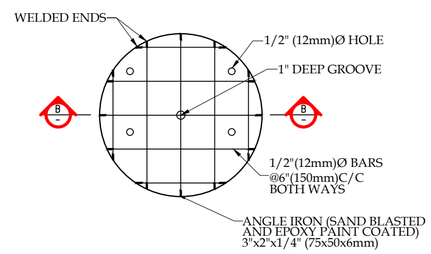


(A) SECTION

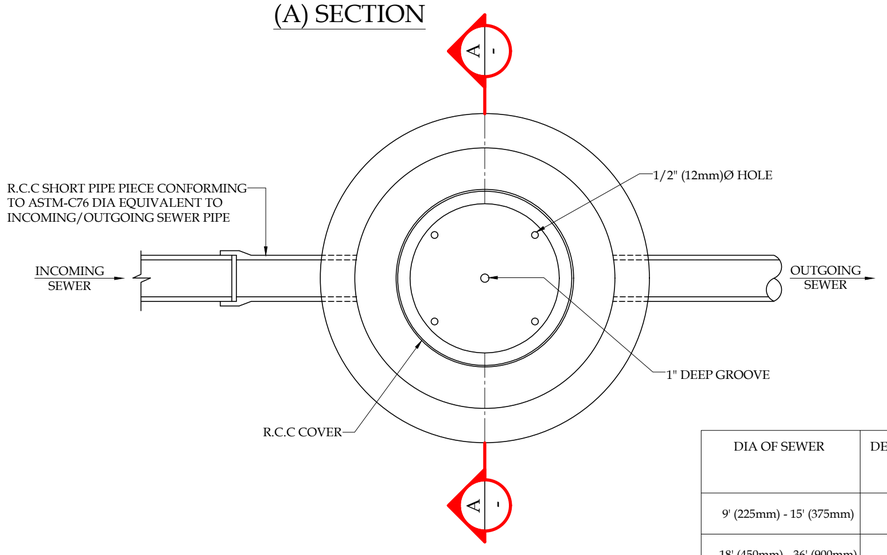


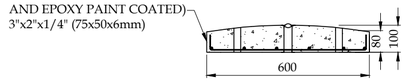
SECTION B-B

(REINFORCEMENT)
Scale :- 1:16

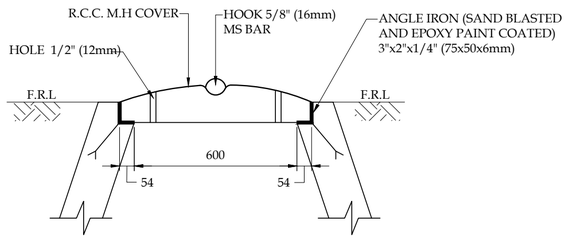


DETAIL OF MANHOLE COVER





(B) SECTION



DETAIL-X
R.C.C M.H COVER AND FRAME

SCHEDULE OF MANHOLE

DIA OF SEWER	DEPTH OF MANHOLE FT. "H"	INTERNAL DIA OF MANHOLE FT "D"	THICKNESS OF WALL "W" INCHES	BASE SLAB "B" INCHES	WALL REINFORCEMENT		BASE SLAB REINFORCEMENT	
					VERTICAL REINF."C"	RING REINF. "d"	MAIN REINFORCEMENT "a"	DISTRIBUTION RING "b"
9' (225mm) - 15' (375mm)	ABOVE 8' (2400mm) UPTO 14' (4200mm)	4'-0" (1200mm)	6" (150mm)	6" (150mm)	3/8" (10mm) @5" (125mm) C/C	3/8" (10mm) @5" (125mm) C/C	3/8" (10mm) @5" (125mm) C/C	3/8" (10mm) @5" (125mm) C/C
18' (450mm) - 36' (900mm)	ABOVE 8' (2400mm) UPTO 14' (4200mm)	5'-0" (1500mm)	6" (150mm)	6" (150mm)	3/8" (10mm) @5" (125mm) C/C	3/8" (10mm) @5" (125mm) C/C	3/8" (10mm) @5" (125mm) C/C	3/8" (10mm) @5" (125mm) C/C

NOTES

1. ALL DIMENSIONS ARE IN MM, EXCEPT WHERE OTHERWISE MENTIONED.
2. EXCEPT WHERE OTHERWISE SPECIFIED, ALL REINFORCED CEMENT CONCRETE IN WASTEWATER RETAINING STRUCTURES, SHALL BE CLASS B, USING SULFATE RESISTANT PORTLAND CEMENT (ASTM: C150 - TYPE V).
3. ALL STEEL REINFORCEMENT (#3 & ABOVE), EXCEPT FOR SHEAR STIRRUPS AND COLUMN TIES, SHALL CONFORM TO ASTM A-615 (GRADE 60).

Concrete Class	Minimum 28-day Cylinder Strength kg/cm^2 (psi)	Minimum Cement Contents kg/m^3 (lb/ft^3)	Mix Ratio by Volume
Class B	281 (4000)	396 (24.7)	-

4. CONCRETE COVER
   - FOUNDATION
     BOTTOM = 2" TOP = 2"
     SIDES = 3"
   - SLAB = 1"
   - R.C.C WALL = 2"

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
TYPICAL MANHOLE DETAILS

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	---

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
26-05-2025	TENDER DRAWINGS	ASAD	ENGR. TAHA	ENGR. HASEEB

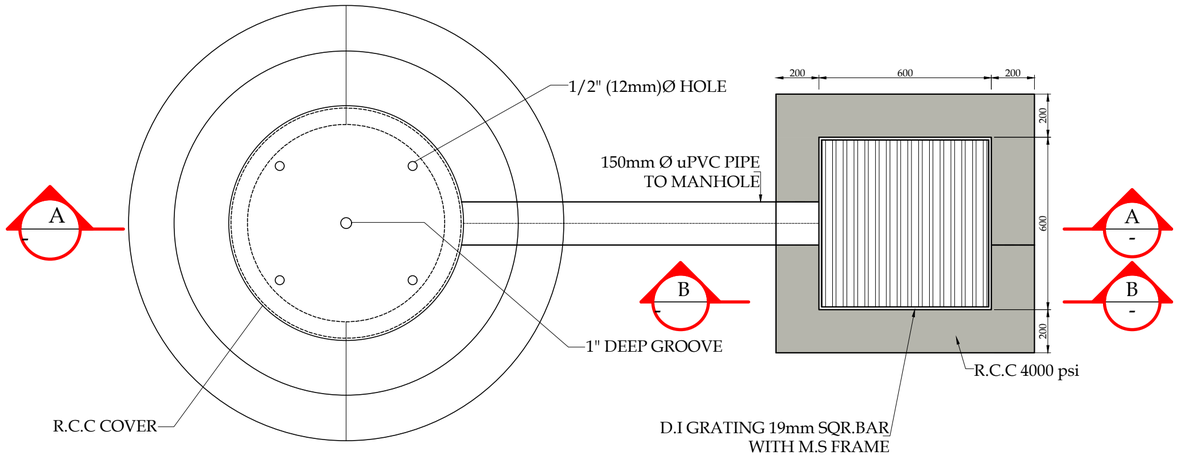
DRAWING Nº: NFIP-SWD-TD-01
SHEET --
REV 00

CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

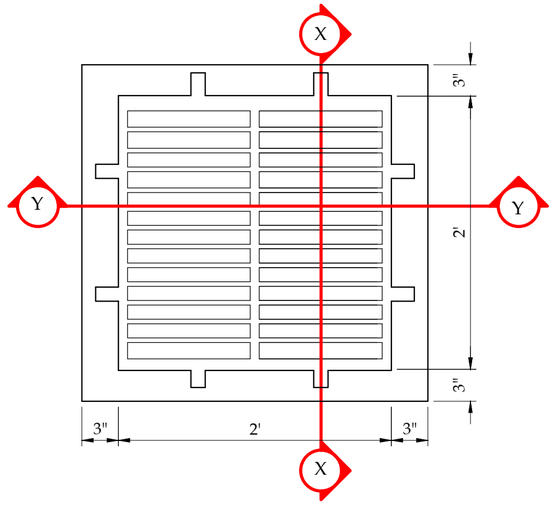
CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SWD-TD-01

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

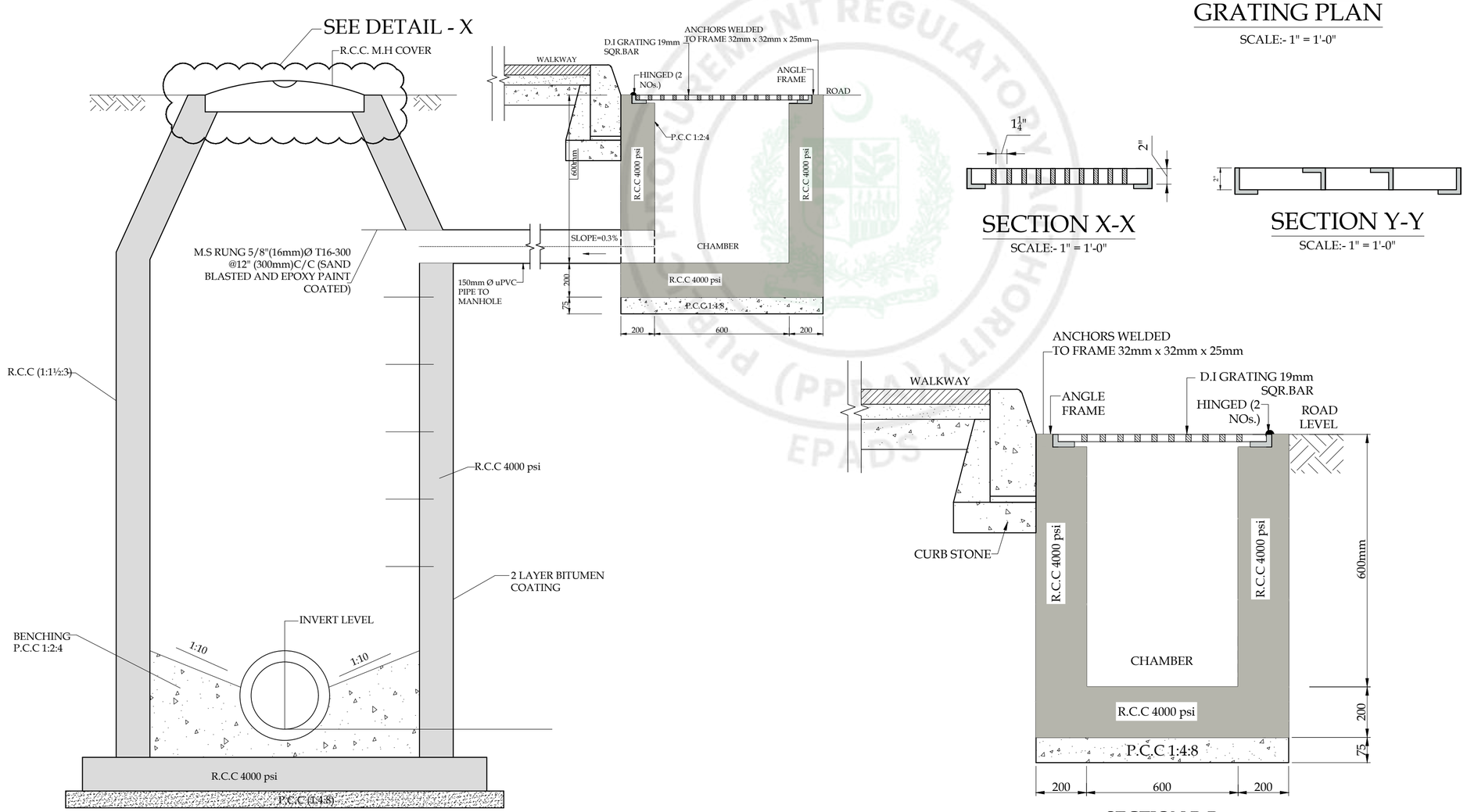


CHAMBER TO MANHOLE PLAN



DUCTILE IRON GRATING PLAN

SCALE:- 1" = 1'-0"



SECTION A-A

SECTION X-X

SCALE:- 1" = 1'-0"

SECTION Y-Y

SCALE:- 1" = 1'-0"

SECTION B-B

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

CHAMBER TO MANHOLE DETAILS

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	—

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
26-05-2025	TENDER DRAWINGS	ASAD	ENGR. TAHA	ENGR. HASEEB

DRAWING Nº: NFIP-SWD-TD-02

SHEET: --

REV: 00

CLIENT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SWD-TD-02

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

WATER SUPPLY SYSTEM

LIST OF DRAWINGS
WATER SUPPLY SYSTEM

Page. Nr.	Description	Drg.Nr.	Page. Nr.	Description	Drg.Nr.
	LAYOUT PLANS		17	Piping & Reinforcement Details - IV	NFIP-WS-OHR-08
1	Key Plans	NFIP-WS-KP-7000	18	Lightening Arrestor Details	NFIP-WS-OHR-09
2	Water Supply System Layout Plan	NFIP-WS-LP-7001		**TUBE WELL**	
3	Water Supply System Layout Plan	NFIP-WS-LP-7002		Tube Well General Notes	NFIP-WS-TW-01
4	Water Supply System Layout Plan	NFIP-WS-LP-7003		Plan & Elevation	NFIP-WS-TW-02
	TYPICAL DETAILS			Section & Tube Well Details	NFIP-WS-TW-03
5	Valve Details	NFIP-WS-TD-01		Tube Well Doors, Window, Excavation, Roof Drainage & Reinforcement Detail	NFIP-WS-TW-04
6	Fire Hydrant & Chamber Cover	NFIP-WS-TD-02		Foundation Details	NFIP-WS-TW-05
7	Service Connection	NFIP-WS-TD-03		Electrification Plan	NFIP-WS-TW-06
8	Thrust Block - Horizontal	NFIP-WS-TD-04		**WATE R SUPPLY PIPE SLEEVES**	
9	Trench & Bedding Details	NFIP-WS-TD-05		Key Plans	NFIP-WS-PS-KP-00
	OVERHEAD RESERVOIR 100,000 Gallons			Layout Plan-01	NFIP-WS-PS-LP-01
10	General Notes - I	NFIP-WS-OHR-GN-01		Layout Plan-02	NFIP-WS-PS-LP-02
11	General Notes - II	NFIP-WS-OHR-GN-02		Layout Plan-03	NFIP-WS-PS-LP-03
12	General Notes - III	NFIP-WS-OHR-GN-03			
13	Plan Sectional & Elevation	NFIP-WS-OHR-04			
14	Misc. Details	NFIP-WS-OHR-05			
15	Piping & Reinforcement Details - I	NFIP-WS-OHR-06			
16	Piping & Reinforcement Details - II & III	NFIP-WS-OHR-07			

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

LIST OF DRAWINGS

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº: NFIP-WS-LOD | SHEET | REV 00

CLIENT:

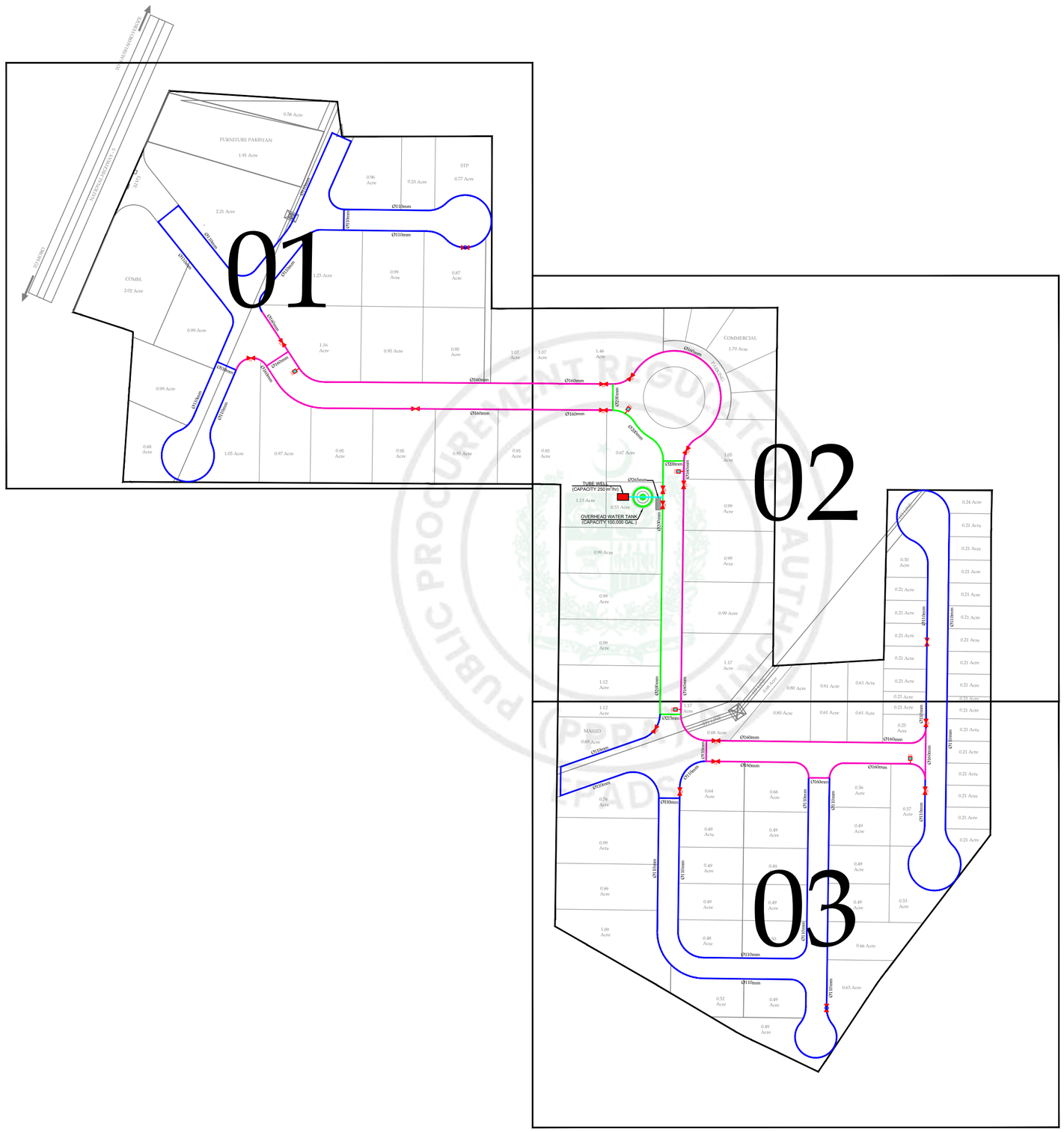
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

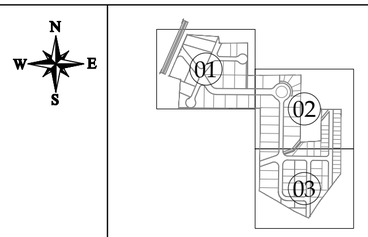
CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE. PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

BQIP-SW-LOD

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026





KEY PLAN

NOTES:

1. ALL WATER MAIN SHOULD HAVE A MINIMUM CLEAR COVER OF 3'(900mm) AS FAR AS POSSIBLE, ON THE RESERVE RIGHT OF WAY.
2. WATER MAIN SHALL BE LAID ON A SMOOTH GRADIENT AVOIDING CREST AND TROUGH.
3. THRUST BLOCK SHALL BE PROVIDED AT ALL TEES, BENDS AND REDUCERS. FOR DETAILS REFER DWG. # NFIP-WS-TD-04.
4. IN CASE OF ROAD CROSSING, R.C.C. PIPE SLEEVE SHALL BE PROVIDED AS PER TRENCH DETAIL DRAWING. REFER DWG. #NFIP-WS-TD-05
5. INDUSTRIAL CONNECTION SHALL BE RESPONSIBILITY OF INDUSTRY OWNER PROVIDED.
6. ALL WATER SUPPLY PIPES SHALL BE OF HDPE PN-10.
7. JOINT SHELL BE MADE BY BUTT FUSIUN.
8. PIPE SHALL BE LAID AS INDICATED ON THE LAYOUT PLAN.
9. FOR STANDARD DETAILS. GV,AV, SEE REFER DWGS # NFIP-WS-TD-01.

LEGEND

- PROPOSED 110mm Ø HDPE PIPE
- PROPOSED 160mm Ø HDPE PIPE
- PROPOSED 200mm Ø HDPE PIPE
- PROPOSED 265mm Ø HDPE PIPE
- SLUICE VALVE (SV)
- AIR RELEASE VALVE (AV)
- WASHOUT VALVE (W)
- FIRE HYDRANT (FH)

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

WATER SUPPLY SYSTEM
KEY PLAN

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:

NFIP-WS-KP-7000

SHEET 01 OF 01

REV 00

CLIENT:

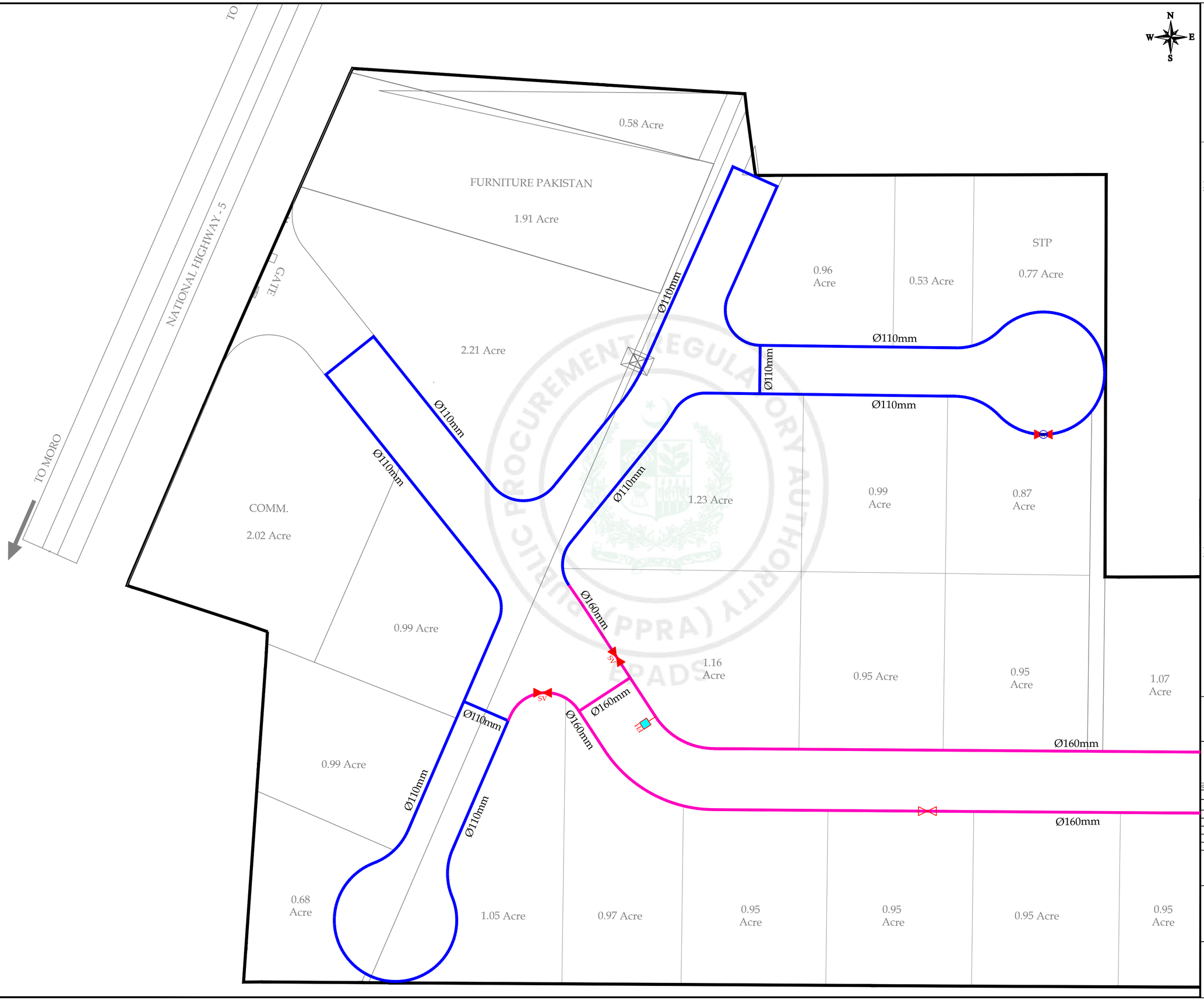
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-WS-KP-7000

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



KEY PLAN

NOTES:

1. ALL WATER MAIN SHOULD HAVE A MINIMUM CLEAR COVER OF 3'(900mm) AS FAR AS POSSIBLE, ON THE RESERVE RIGHT OF WAY.
2. WATER MAIN SHALL BE LAID ON A SMOOTH GRADIENT AVOIDING CREST AND TROUGH.
3. THRUST BLOCK SHALL BE PROVIDED AT ALL TEES, BENDS AND REDUCERS. FOR DETAILS REFER DWG. # NFIP-WS-TD-04.
4. IN CASE OF ROAD CROSSING, R.C.C. PIPE SLEEVE SHALL BE PROVIDED AS PER TRENCH DETAIL DRAWING. REFER DWG. #NFIP-WS-TD-05
5. INDUSTRIAL CONNECTION SHALL BE RESPONSIBILITY OF INDUSTRY OWNER PROVIDED.
6. ALL WATER SUPPLY PIPES SHALL BE OF HDPE PN-10.
7. JOINT SHELL BE MADE BY BUTT FUSIUN.
8. PIPE SHALL BE LAID AS INDICATED ON THE LAYOUT PLAN.
9. FOR STANDARD DETAILS. GV,AV, SEE REFER DWGS # NFIP-WS-TD-01.

LEGEND

- PROPOSED 110mm Ø HDPE PIPE
- PROPOSED 160mm Ø HDPE PIPE
- PROPOSED 200mm Ø HDPE PIPE
- PROPOSED 265mm Ø HDPE PIPE
- SLUICE VALVE (SV)
- AIR RELEASE VALVE (AV)
- WASHOUT VALVE (W)
- FIRE HYDRANT (FH)

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

WATER SUPPLY SYSTEM
LAYOUT PLAN-01

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:

NFIP-WS-LP-7001

SHEET 01 OF 03

REV 00

CLIENT:

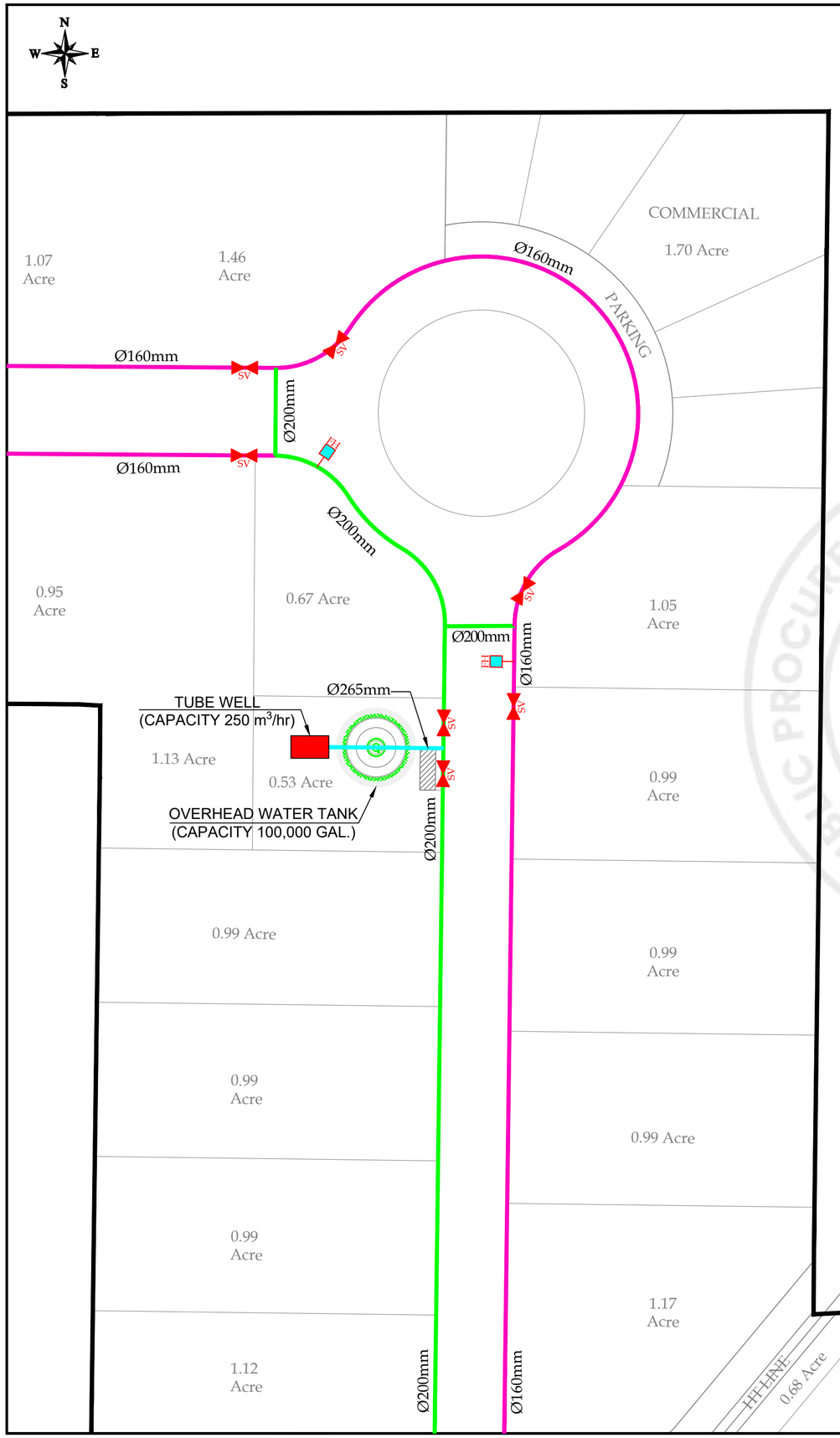
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

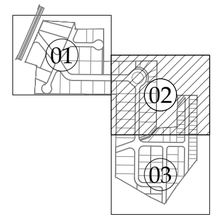
CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-WS-LP-7001

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026





KEY PLAN

NOTES:

1. ALL WATER MAIN SHOULD HAVE A MINIMUM CLEAR COVER OF 3'(900mm) AS FAR AS POSSIBLE, ON THE RESERVE RIGHT OF WAY.
2. WATER MAIN SHALL BE LAID ON A SMOOTH GRADIENT AVOIDING CREST AND TROUGH.
3. THRUST BLOCK SHALL BE PROVIDED AT ALL TEES, BENDS AND REDUCERS. FOR DETAILS REFER DWG. # NFIP-WS-TD-04.
4. IN CASE OF ROAD CROSSING, R.C.C. PIPE SLEEVE SHALL BE PROVIDED AS PER TRENCH DETAIL DRAWING. REFER DWG. #NFIP-WS-TD-05
5. INDUSTRIAL CONNECTION SHALL BE RESPONSIBILITY OF INDUSTRY OWNER PROVIDED.
6. ALL WATER SUPPLY PIPES SHALL BE OF HDPE PN-10.
7. JOINT SHELL BE MADE BY BUTT FUSIUN.
8. PIPE SHALL BE LAID AS INDICATED ON THE LAYOUT PLAN.
9. FOR STANDARD DETAILS. GV,AV, SEE REFER DWGS # NFIP-WS-TD-01.

LEGEND

- PROPOSED 110mm Ø HDPE PIPE
- PROPOSED 160mm Ø HDPE PIPE
- PROPOSED 200mm Ø HDPE PIPE
- PROPOSED 265mm Ø HDPE PIPE
- SLUICE VALVE (SV)
- AIR RELEASE VALVE (AV)
- WASHOUT VALVE (W)
- FIRE HYDRANT (FH)

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

WATER SUPPLY SYSTEM
LAYOUT PLAN-02

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING N°: NFIP-WS-LP-7002

SHEET: 02 OF 03

REV: 00

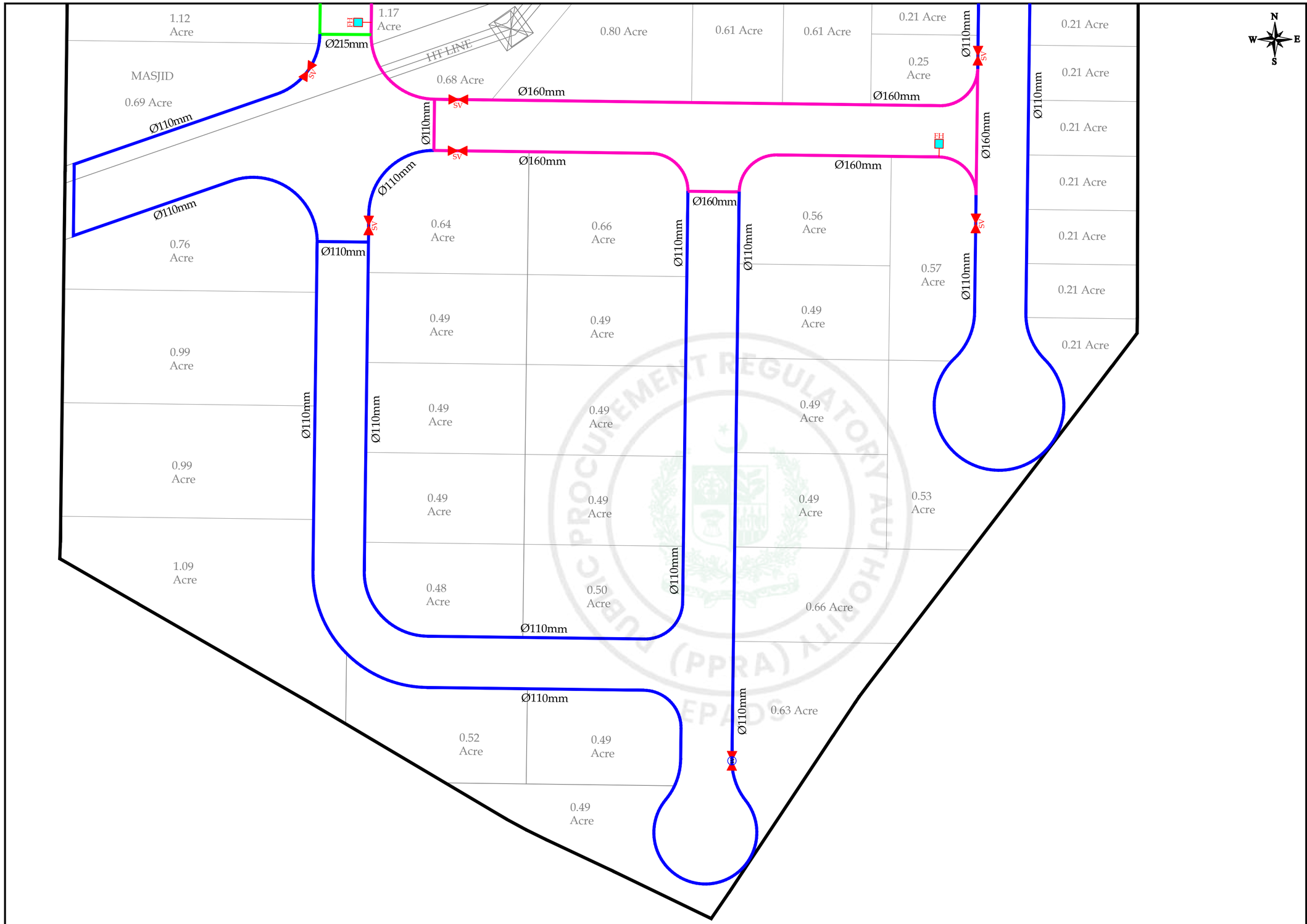
CLIENT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS



KEY PLAN

NOTES:

1. ALL WATER MAIN SHOULD HAVE A MINIMUM CLEAR COVER OF 3'(900mm) AS FAR AS POSSIBLE, ON THE RESERVE RIGHT OF WAY.
2. WATER MAIN SHALL BE LAID ON A SMOOTH GRADIENT AVOIDING CREST AND TROUGH.
3. THRUST BLOCK SHALL BE PROVIDED AT ALL TEES, BENDS AND REDUCERS. FOR DETAILS REFER DWG. # NFIP-WS-TD-04.
4. IN CASE OF ROAD CROSSING, R.C.C. PIPE SLEEVE SHALL BE PROVIDED AS PER TRENCH DETAIL DRAWING. REFER DWG. #NFIP-WS-TD-05
5. INDUSTRIAL CONNECTION SHALL BE RESPONSIBILITY OF INDUSTRY OWNER PROVIDED.
6. ALL WATER SUPPLY PIPES SHALL BE OF HDPE PN-10.
7. JOINT SHELL BE MADE BY BUTT FUSIUN.
8. PIPE SHALL BE LAID AS INDICATED ON THE LAYOUT PLAN.
9. FOR STANDARD DETAILS. GV,AV, SEE REFER DWGS # NFIP-WS-TD-01.

LEGEND

- PROPOSED 110mm Ø HDPE PIPE
- PROPOSED 160mm Ø HDPE PIPE
- PROPOSED 200mm Ø HDPE PIPE
- PROPOSED 265mm Ø HDPE PIPE
- SLUICE VALVE (SV)
- AIR RELEASE VALVE (AV)
- WASHOUT VALVE (W)
- FIRE HYDRANT (FH)

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

WATER SUPPLY SYSTEM
LAYOUT PLAN-03

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:

NFIP-WS-LP-7003

SHEET 03 OF 03

REV 00

CLIENT:

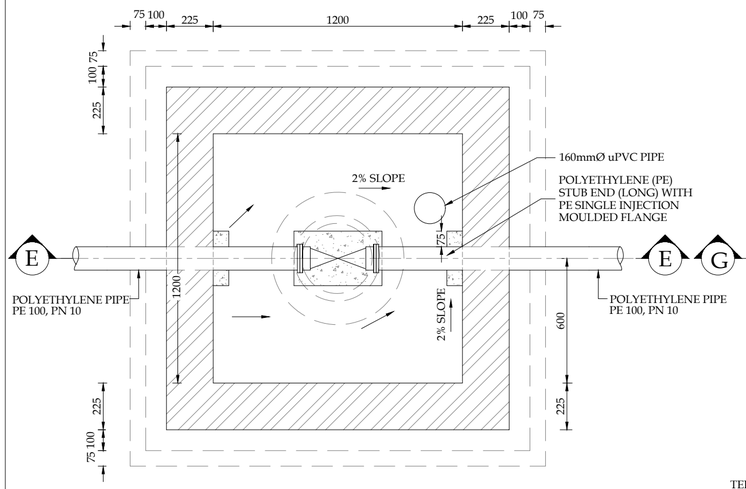
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

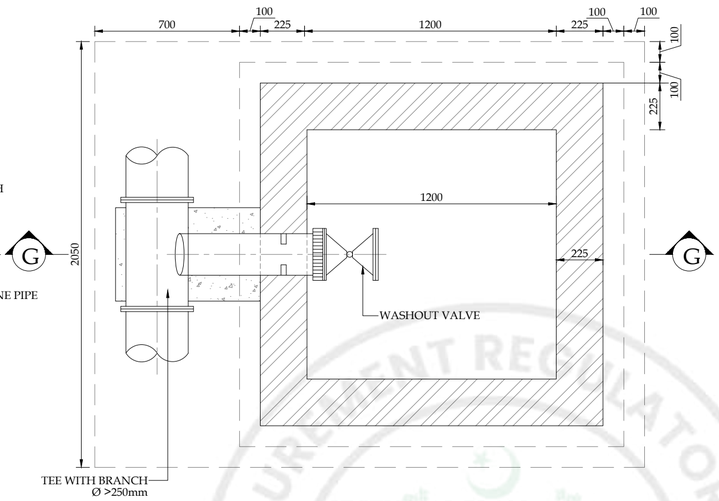
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-WS-LP-7003

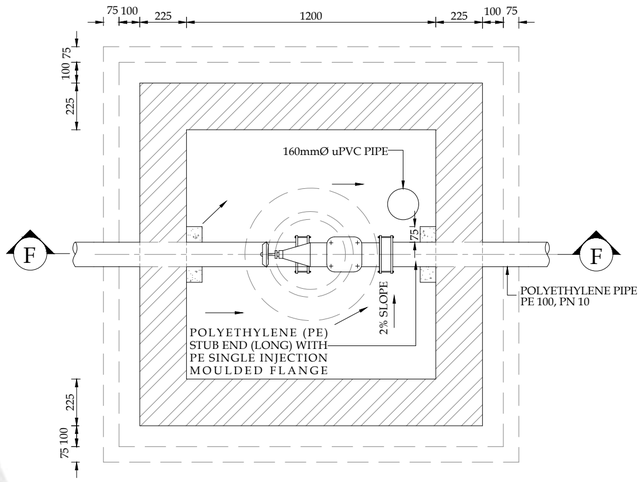
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



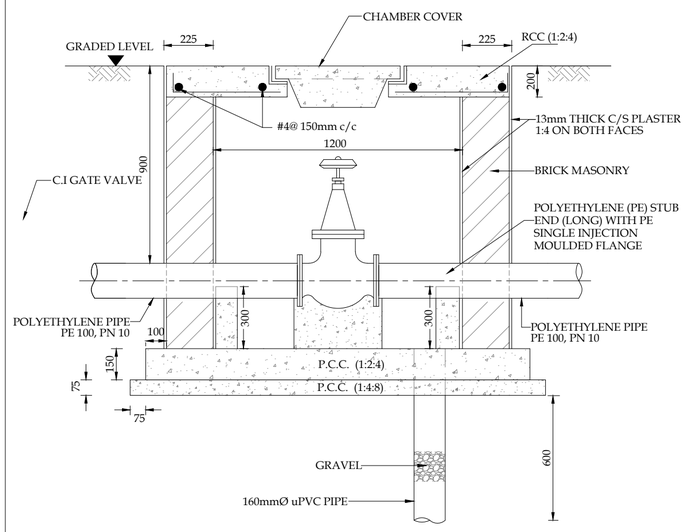
SECTIONAL PLAN
GATE VALVE



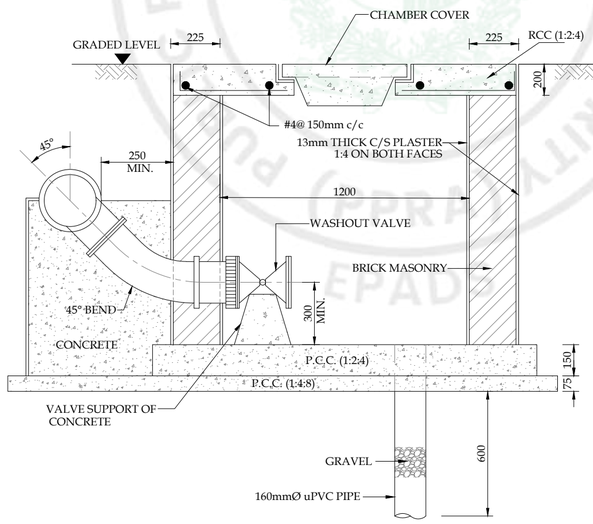
SECTIONAL PLAN
WASHOUT VALVE



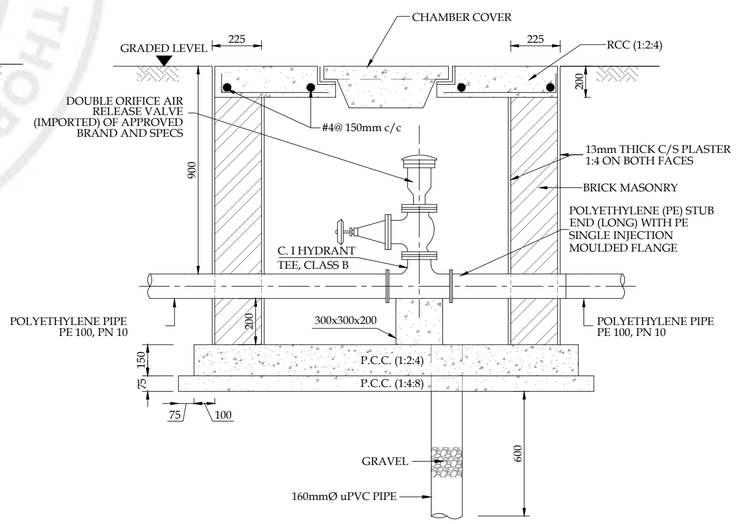
SECTIONAL PLAN
AIR RELEASE VALVE



SECTION E-E



SECTION G-G



SECTION F-F

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

WATER SUPPLY SYSTEM
TYPICAL DETAILS
VALVE DETAILS

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	---

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:

NFIP-WS-TD-01

SHEET: --

REV: 00

CLIENT:

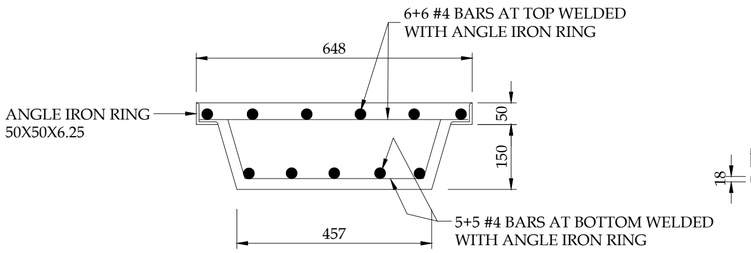
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

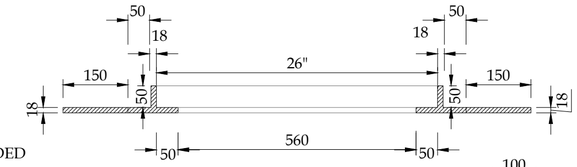
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-WS-TD-01

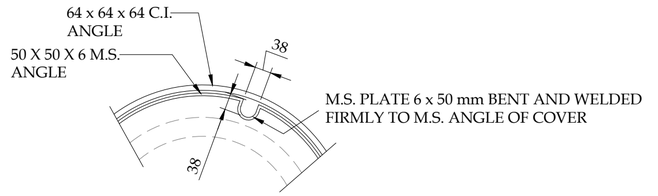
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



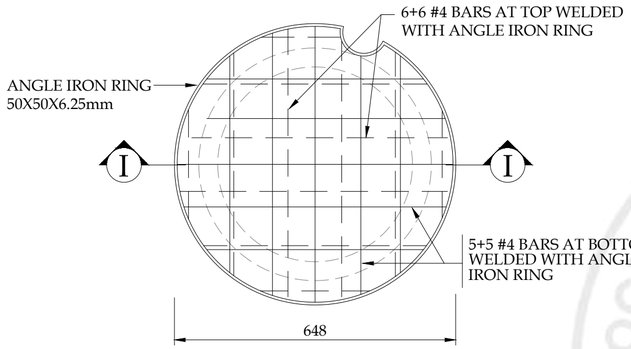
SECTION AT I-I



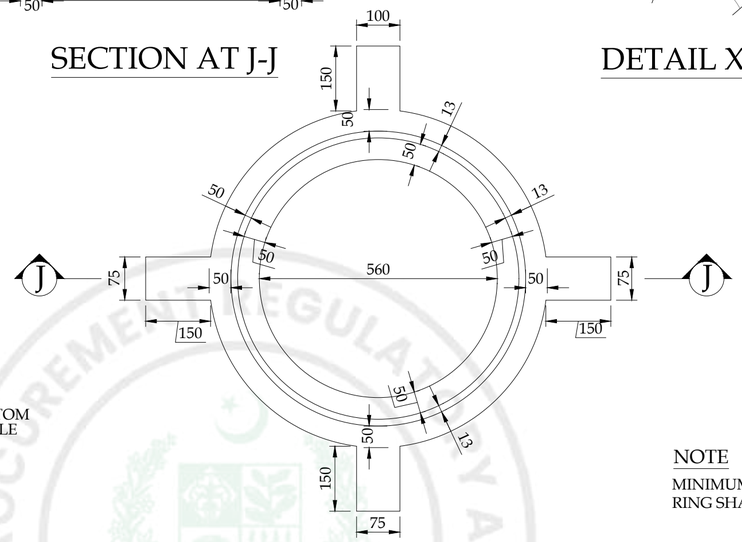
SECTION AT J-J



DETAIL X



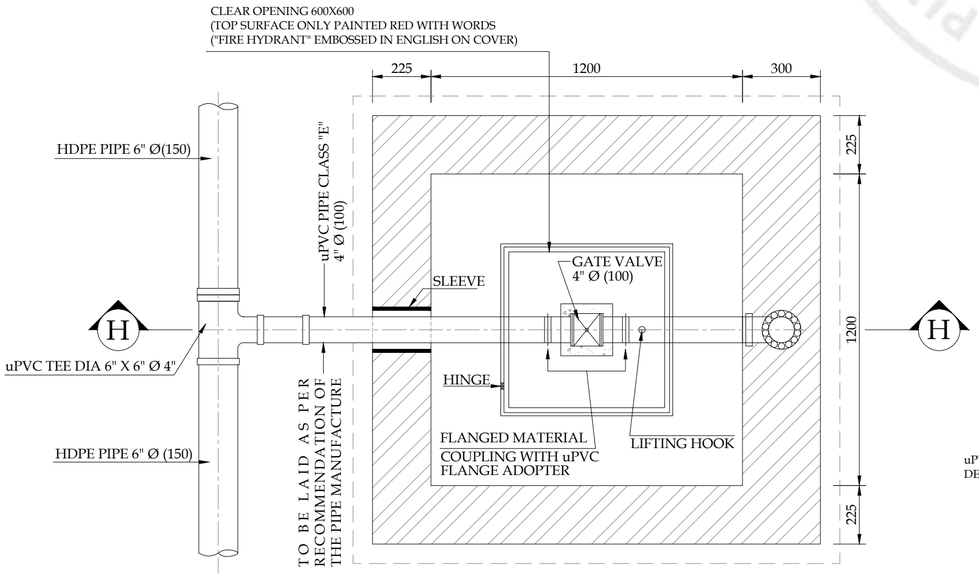
CHAMBER COVER



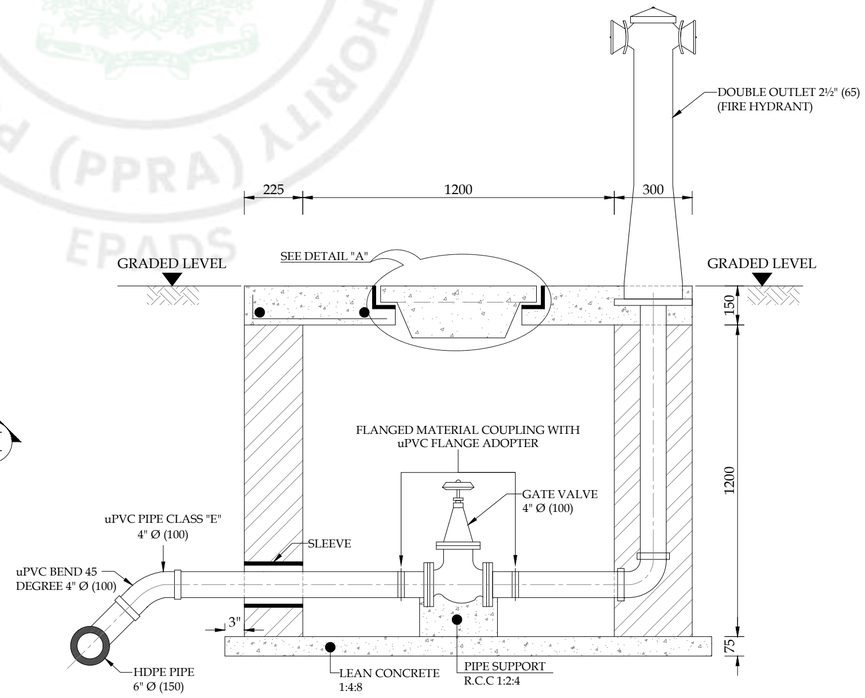
C.I FRAME

NOTE

MINIMUM WEIGHT OF FRAME
RING SHALL BE 37.324 kg



SECTIONAL PLAN
FIRE HYDRANT



SECTION F-F

NFIP-WS-TD-02

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

WATER SUPPLY SYSTEM
TYPICAL DETAILS
FIRE HYDRANT & CHAMBER COVER

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	---

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:

NFIP-WS-TD-02

SHEET --

REV 00

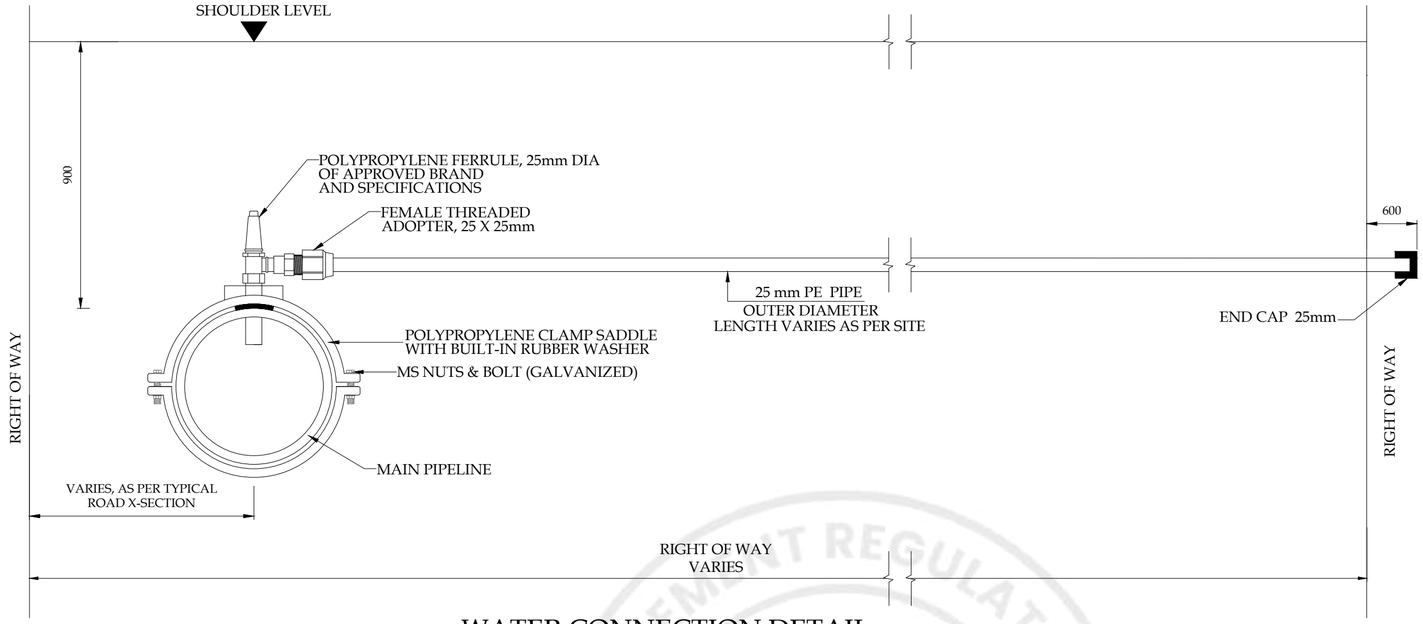
CLIENT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

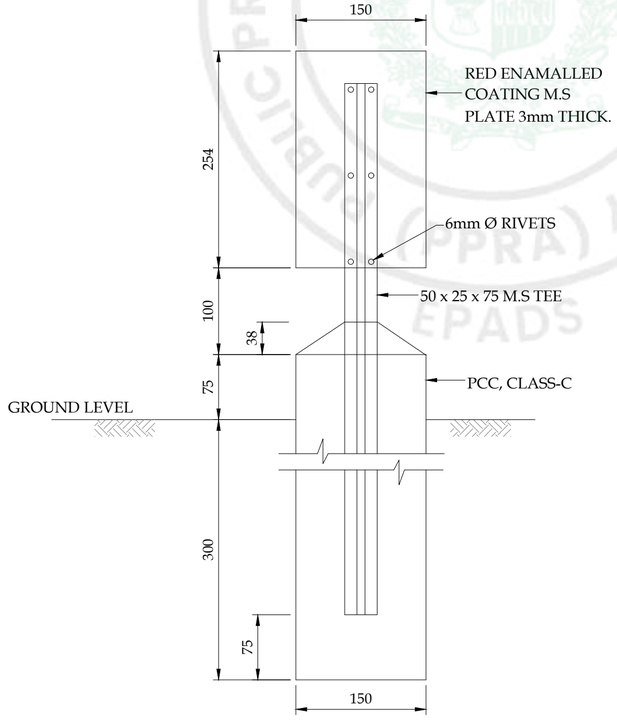
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



WATER CONNECTION DETAIL

NOTE:

A CONNECTION OF 25mm IS TO BE ADOPTED FOR INDUSTRIAL PLOTS;



INDICATION PLATE
(FOR GATE VALVE, FIRE HYDRANT, AIR VALVE AND WASHOUT VALVE)

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

WATER SUPPLY SYSTEM
TYPICAL DETAILS
SERVICE CONNECTION - I & II

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	---

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:

NFIP-WS-TD-03

SHEET --

REV 00

CLIENT:

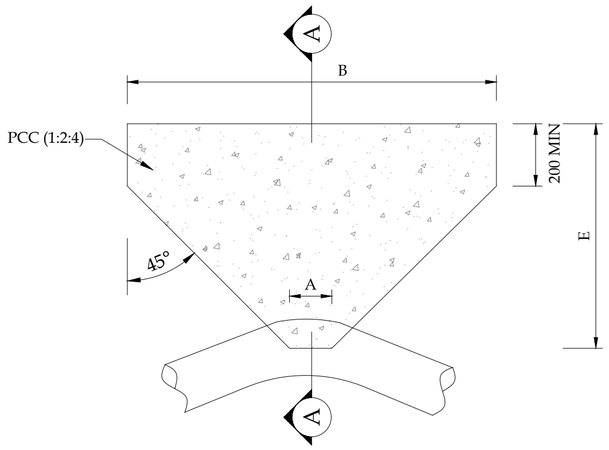
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

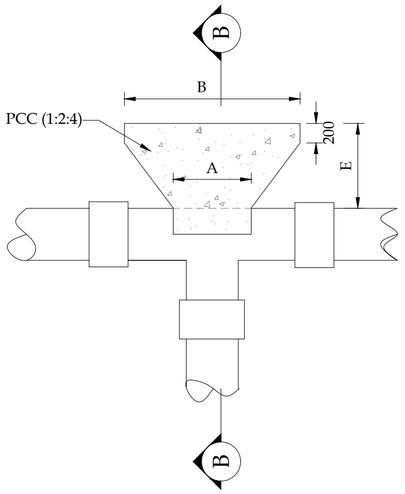
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-WS-TD-03

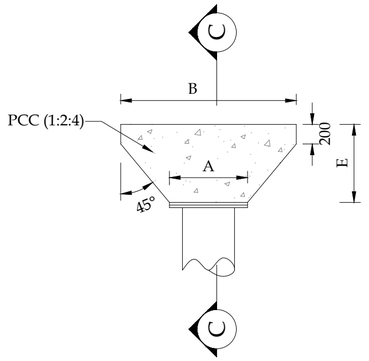
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



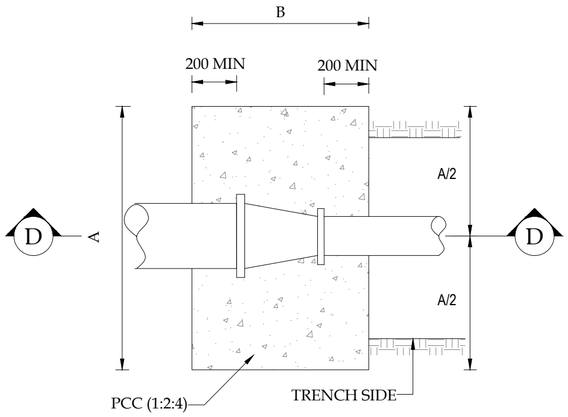
PLAN



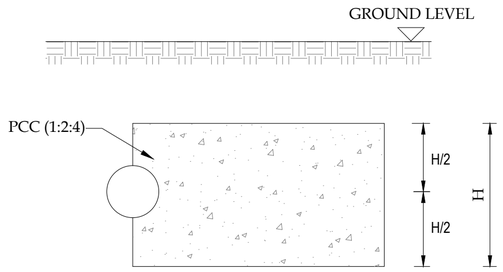
PLAN



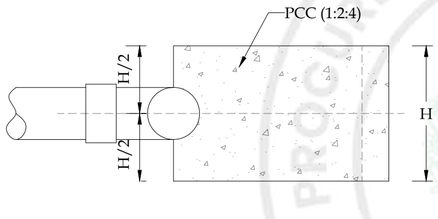
PLAN



PLAN

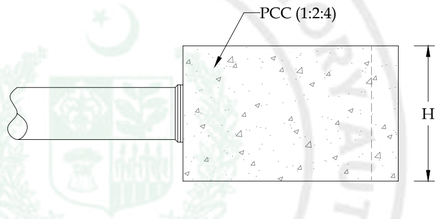


SECTION A-A



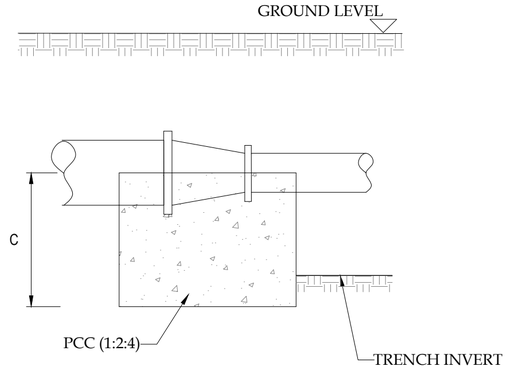
SECTION B-B

TEES



SECTION C-C

DEAD END



SECTION D-D

TYPICAL DETAILS THRUST

PIPE DIA (mm)	BEND	11.25 °	22.50 °	45.00 °	90.00 °
90	H	450	450	450	450
	A	150	150	150	200
	B	300	300	300	400
	E	275	275	275	300
110	H	450	450	450	450
	A	150	150	225	300
	B	300	300	375	600
	E	275	275	275	350
160	H	600	600	600	600
	A	150	300	375	400
	B	300	450	675	900
	E	275	275	350	450
200	H	600	600	600	600
	A	250	300	400	425
	B	450	600	900	1125
	E	300	350	450	550
250	H	750	750	750	750
	A	300	425	425	550
	B	600	825	1125	1500
	E	350	400	550	675
315	H	750	750	750	750
	A	400	400	550	850
	B	750	900	1350	1800
	E	375	450	600	825

TEES

PIPE DIA (mm)	DIMENSIONS	
90	H	450
	A	275
	B	525
	E	325
110	H	450
	A	275
	B	675
	E	400
160	H	600
	A	250
	B	900
	E	525
200	H	600
	A	400
	B	1350
	E	675
250	H	750
	A	550
	B	1800
	E	825
315	H	450
	A	550
	B	2100
	E	975

DEAD ENDS

PIPE DIA (mm)	DIMENSIONS	
90	H	450
	A	175
	B	375
	E	300
110	H	450
	A	250
	B	450
	E	300
160	H	600
	A	250
	B	750
	E	450
200	H	600
	A	350
	B	900
	E	475
250	H	750
	A	425
	B	1125
	E	550
315	H	750
	A	400
	B	1350
	E	675

TAPER SIZE (mm)	DIMENSIONS	
110-90	A	900
	B	525
	C	450
160-90	A	1125
	B	750
	C	525
160-110	A	975
	B	750
	C	525
200-110	A	1200
	B	750
	C	525
200-160	A	1200
	B	750
	C	525
250-160	A	1500
	B	750
	C	600
250-200	A	1275
	B	750
	C	600
315-160	A	1950
	B	825
	C	675
315-200	A	1800
	B	825
	C	675
315-250	A	1425
	B	825
	C	675

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

WATER SUPPLY SYSTEM
TYPICAL DETAILS
THRUST BLOCKS - HORIZONTAL

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	---

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING N°:

NFIP-WS-TD-04

SHEET --

REV 00

CLIENT:

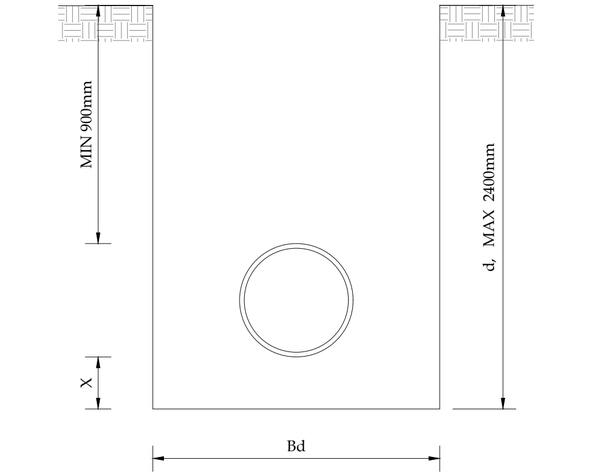
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

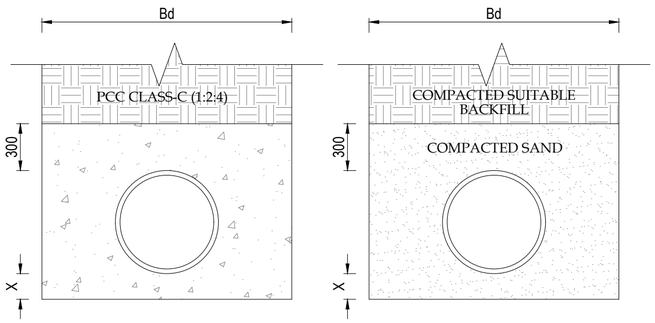
CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-III, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-WS-TD-04

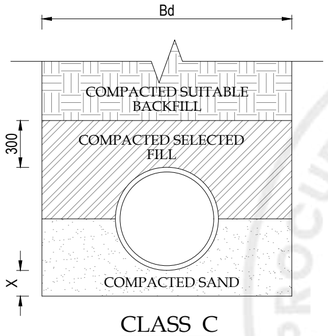
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



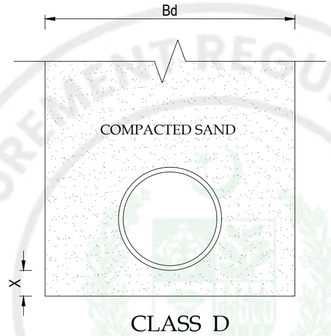


CLASS A

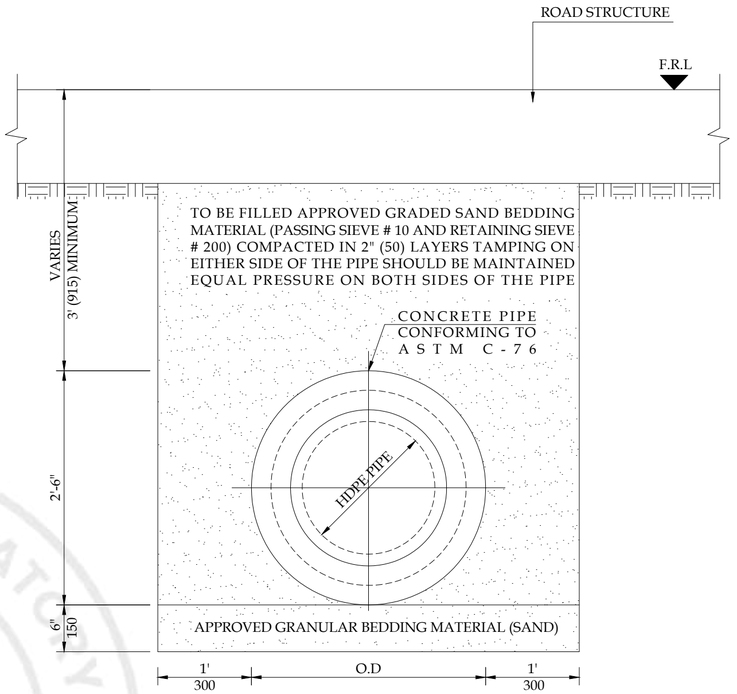
CLASS B



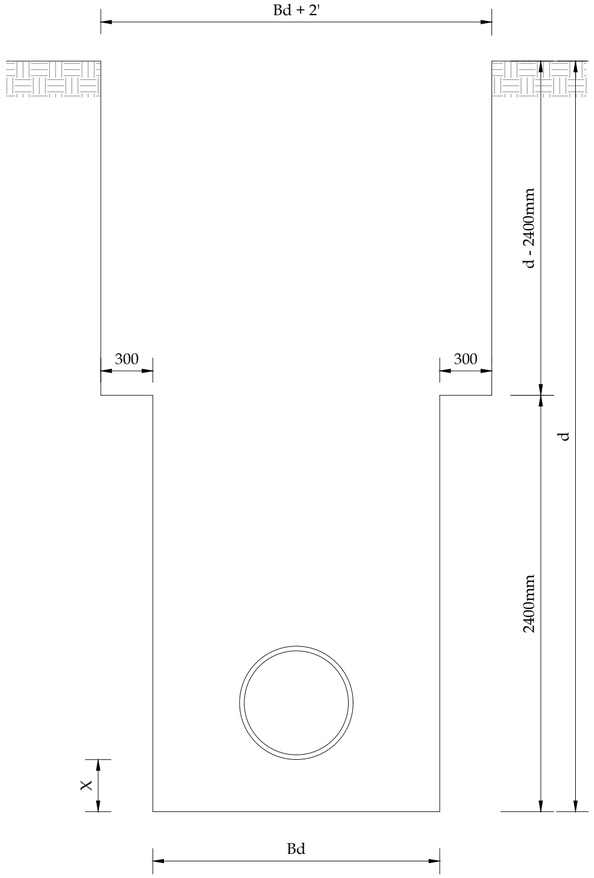
CLASS C
(RECOMMENDED/APPLICABLE)

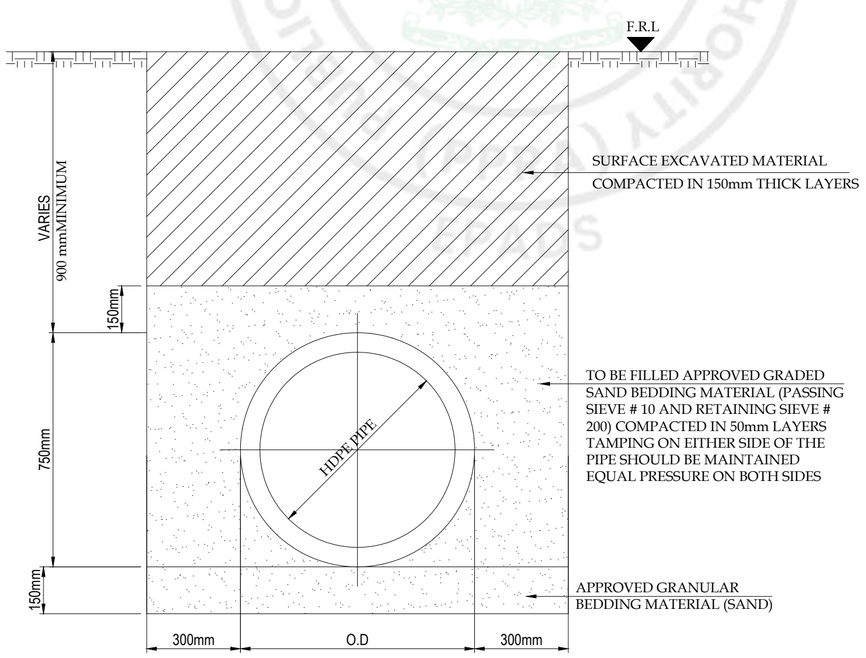


CLASS D
(ROAD CROSSING)



ENCASEMENT OF HDPE PIPE AT ROAD CROSSING





TYPICAL DETAIL OF TRENCH HDPE

ENCASEMENT OF HDPE PIPE BY R.C.C PIPE SLEEVE AT ROAD CROSSING

DIA OF HDPE PIPE	DIA OF R.C.C PIPE SLEEVE
50mm	150mm
100mm	250mm/225mm
150mm	300mm
200mm	375mm
250mm	450mm
300mm	450mm

PIPE DIA	TRENCH WIDTH (Bd)	X
90mm-180mm	450 mm	100 mm
200mm	600 mm	100 mm
250mm	600 mm	125 mm
280mm	600 mm	150 mm
315mm	750 mm	175 mm
355mm	750 mm	200 mm

NOTES:

1. "Bd" IS TRENCH WIDTH.
2. USE CLASS "C" BEDDING UNDER NORMAL OVER OF 900mm AND LIGHT TRAFFIC.(RECOMMENDED / APPLICABLE)
3. USE CLASS "B" BEDDING UNDER NORMAL COVER OF 900mm AND HEAVY TRAFFIC.
4. USE CLASS "A" BEDDING WHERE COVERS IS LESS THAN 90mm AND HEAVY TRAFFIC.
5. ALLOW CONCRETE TO ATTAIN STRENGTH OF AT LEAST 2,000 PSI BEFORE BACKFILLING THE TRENCH.
6. VALUES OF"X" ARE PRESENT IN TABLE.
7. BEDDING SOURCE AND MATERIAL SHALL APPROVED BY THE RESIDENT ENGINEER.

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
WATER SUPPLY SYSTEM
TYPICAL DETAILS
TRENCH & BEDDING DETAILS

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	---

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº: NFIP-WS-TD-05 | SHEET -- | REV 00

CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-III, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB. www.asiancon.com

NFIP-WS-TD-05

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

GENERAL NOTES - I

GENERAL

1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH EACH OTHER INCLUDING PLANS, SECTIONS, ELEVATIONS, AND OTHER DRAWINGS AND WHERE THERE IS ANY DIFFERENCE IN DIMENSION OR OTHERWISE, IT SHOULD BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR RESOLUTION.
2. ANY MISSING DETAIL IN DRAWINGS IS TO BE BROUGHT TO THE NOTICE OF ENGINEER, WELL IN TIME, FOR PROVIDING THE SAME, SO AS TO AVOID ANY LIKELY DELAY.
3. ALL DIMENSIONS SHOWN ARE IN FEET AND INCHES UNLESS OTHERWISE MENTIONED.
4. NO DIMENSION IS TO BE SCALED OUT FROM THE DRAWINGS.
5. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO CONTRACT SPECIFICATIONS. IN THE ABSENCE OF ANY SPECIFICATION, THE MATERIALS AND WORKMANSHIP SHALL CONFORM TO RELEVANT ACI CODES, ASTM/BRITISH/PAKISTAN STANDARDS AND SHALL SUBJECT TO APPROVAL OF THE ENGINEER.
6. ALL METAL WORKS SHALL BE PAINTED OR GALVANIZED AS PER SPECIFICATIONS. THE COLOUR OF PAINT SHALL BE AS APPROVED BY THE ENGINEER.
7. THE SHOP DRAWINGS FOR THE INSTALLATION OF ELECTRICAL AND MECHANICAL WORKS SHALL BE PREPARED BY THE CONTRACTOR FOR THE APPROVAL OF THE ENGINEER BEFORE ACTUAL FABRICATION AND INSTALLATION AT THE SITE OF WORKS.
8. THE CONTRACTOR IS ADVISED TO FOLLOW OCCUPATIONAL SAFETY AND HEALTH STANDARDS DURING THE DURATION OF THE PROJECT TO AVOID ANY MISHAP.
9. ANY DISCREPANCY, ERROR OR OMISSION, IF FOUND SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR CORRECTION AND APPROVAL
10. WATER PROOFING, FOR ADDITIONAL PROTECTION, MAY BE PERFORMED AS PER RECOMMENDATIONS OF THE ENGINEER/MANUFACTURER.

EXCAVATION

1. BEFORE START OF THE WORK, THE CONTRACTOR SHALL SUBMIT HIS METHOD STATEMENT OF CONSTRUCTION, FOR APPROVAL OF ENGINEER.
2. EXCAVATION SHALL BE MADE TO THE LINES AND LEVELS SHOWN ON THE DRAWING OR AS DIRECTED BY ENGINEER, IN WRITING.
3. THE CONTRACTOR MAY USE STABLE SLOPES OTHER THAN THOSE SHOWN ON THE DRAWING WITH THE PRIOR APPROVAL OF THE ENGINEER, IN WRITING.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF THE EXCAVATED AREA AND SHALL KEEP THE AREA IN A SOUND AND DRY CONDITION.
5. ALL OVER EXCAVATED AREAS OR DOUBTFUL PATCHES SHALL BE FILLED WITH APPROVED SELECT MATERIAL OR AS DIRECTED BY THE ENGINEER AND AT THE COST OF THE CONTRACTOR.
6. ALL EXCAVATED AREA SHALL BE WELL COMPACTED TO ACHIEVE DENSITY NOT LESS THAN 95% OF THE MAX. DENSITY AS ACHIEVED BY AASHTO T-180 (MODIFIED PROCTOR) BEFORE BLINDING/LEAN CONCRETE POURING.
7. FOUNDATIONS SHOULD BE BACKFILLED BY APPROVED MATERIAL AND COMPACTED IN LAYERS OF MAXIMUM 6-INCH COMPACTED THICKNESS WITH DENSITY AS ABOVE.
8. FOUNDATION DESIGN MAY REQUIRE REVIEW, IF SOIL ENCOUNTERED DURING EXCAVATION IS IN VARIANCE TO SOIL ENCOUNTERED DURING GEO-TECHNICAL INVESTIGATIONS.

MATERIAL REQUIREMENTS

1. UNLESS OTHERWISE NOTED, MINIMUM CONCRETE CYLINDER STRENGTH AT 28-DAYS (DESIGN CONCRETE STRENGTH), SHALL BE AS FOLLOWS:
   - ALL STRUCTURES IN CONTACT WITH WATER 4,000 PSI
   - ALL OTHER STRUCTURES THAN ABOVE 4,000 PSI
   - LEAN OR BLINDING CONCRETE 1,500 PSI
2. REINFORCEMENT STEEL SHALL BE DEFORMED GRADE-60 BARS CONFORMING TO ASTM A-615 WITH MINIMUM YIELD STRENGTH OF 60,000 PSI.
3. SULPHATE RESISTANT CEMENT (TYPE-II) SHALL BE USED FOR CONCRETE IN CONTACT WITH SOIL AS PER ASTM C-150 AND ASTM C-1157.
4. ORDINARY PORTLAND CEMENT (TYPE-I) SHALL BE USED FOR ALL SUPER STRUCTURES NOT IN CONTACT WITH SOIL OR ANY LIQUID AS PER ASTM C-150 AND ASTM C-1157.
5. THE COARSE AND FINE AGGREGATES SHALL CONFORM TO ASTM C-33 AND MAXIMUM SIZE OF COARSE AGGREGATE FOR CONCRETE SHALL BE 3/4-INCH.
6. THE ADMIXTURES IN CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-494.
7. THE READY MIX CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-94.
8. NO WELDING FOR STEEL REINFORCEMENT IS ALLOWED.
9. WATER REQUIRED FOR CONCRETE SHALL BE FREE FROM DIRT, ORGANIC MATTER, SUSPENDED SOLIDS AND MEET THE PRESCRIBED QUALITY REQUIREMENTS.
10. PROVIDE PVC WATER-STOPPER, 10" WIDE AND 1/2" THICK, IN ALL CONSTRUCTION JOINTS OF THE PRESCRIBED QUALITY REQUIREMENTS.
11. MILD STEEL (M.S) PIPE SHALL CONFORM TO ASTM, SCHEDULE 40.

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
WATER SUPPLY SYSTEM
OVER HEAD WATER TANK
GENERAL NOTES - I

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	---

DATE	D E S C R I P T I O N	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	FIDA	ENGR. UMAIR	ENGR. YASIR

DRAWING Nº: NFIP-WS-OHR-GN-01 | SHEET --- | REV 00

CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-WS-OHR-GN-01

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

GENERAL NOTES - II

CONCRETE CONSTRUCTION

1. ALL CONCRETE CONSTRUCTION AND REINFORCING BAR DETAILS SHALL CONFORM TO ACI 315 AND ACI 318.
2. ALL CONCRETE SURFACES IN CONTACT WITH SOIL SHALL BE COATED WITH TWO COATS OF HOT BITUMEN, GRADE 10/20. THE COVERAGE OF EACH COAT IS 10 LBS PER 100 SFT, MINIMUM.
3. ALL EXPOSED CONCRETE SURFACES SHALL HAVE FAIR FACED.
4. ALL CORNERS AND EDGES OF EXPOSED CONCRETE, WHERE REQUIRED, SHALL BE CHAMFERED TO 3/4", UNLESS OTHERWISE MENTIONED.
5. THE CLEAR COVER TO CONCRETE REINFORCEMENT SHALL BE AS UNDER:
   a) CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:
      - ALL MEMBERS 3.00 INCH
   b) CONCRETE EXPOSED TO EARTH, LIQUID, WEATHER OR CAST AGAINST A CONCRETE WORK MAT:
      - SLABS & JOISTS 2.00 INCH
      - BEAMS AND COLUMNS:
        PRIMARY REINFORCEMENT 2.50 INCH
        STIRRUPS, SPIRAL & TIES 2.00 INCH
      - WALLS 2.00 INCH
      - FOOTINGS & BASE SLABS 2.00 INCH
      - SHELLS, FOLDED PLATE MEMBERS 1.50 INCH
   c) CONDITIONS NOT COVERED IN (a) & (b), ABOVE:
      - SLABS & JOISTS 0.75 INCH
      - BEAMS & COLUMNS
        PRIMARY REINFORCEMENT 2.00 INCH
        STIRRUPS, SPIRAL & TIES 1.50 INCH
      - WALLS 0.75 INCH
      - SHELLS, FOLDED PLATE MEMBERS
        #5 BARS & SMALLER 0.50 INCH
        #6 BARS & LARGER 0.75 INCH
6. THE MAXIMUM TEMPERATURE OF CONCRETE AT NO TIME DURING ITS PRODUCTION, TRANSPORTATION OR PLACEMENT SHALL EXCEED 32°C.
7. THE CONTRACTOR SHALL SUBMIT CONCRETE POURING SCHEDULE ON WEEKLY BASIS FOR ENGINEER'S APPROVAL. NO CONCRETE SHALL BE PLACED UNTIL WRITTEN PERMISSION IS GIVEN BY THE ENGINEER.
8. THE CONTRACTOR IS REQUIRED TO SUBMIT THE BAR BENDING SCHEDULE FOR THE APPROVAL OF THE ENGINEER BEFORE ACTUAL CONSTRUCTION.
9. CONCRETING SHALL NOT BE DONE IN STANDING WATER AND BLINDING CONCRETE MUST BE PLACED ON UNDISTURBED AND FIRM SOIL.
10. IN CASE OF EXISTENCE OF GROUND WATER, DEWATERING SHALL BE DONE BEFORE THE CONSTRUCTION OF FOUNDATION, AT NO ADDITIONAL COST.
11. THE USE OF CONSTRUCTION JOINTS, NOT INDICATED ON THE DRAWINGS, SHALL BE APPROVED BY THE DESIGNER BEFORE ACTUAL CONSTRUCTION AT THE SITE OF WORKS.
12. ALL OPENINGS IN CONCRETE FOR THE REQUIREMENTS OF EQUIPMENT ARE TO BE CO-ORDINATED WITH THE DIMENSIONS OF THE ACTUAL PROCURED OR TO BE PROCURED EQUIPMENT AND ADJUSTMENTS IN OPENINGS ARE TO BE MADE ACCORDINGLY.
13. ALL CONCRETE SHALL BE PLACED SO AS TO MINIMIZE THE EFFECT OF SHRINKAGE. ADJACENT SECTIONS SHALL NOT BE PLACED UNTIL THE EARLIER CONCRETE HAS CURED FOR 72-HOURS.
14. THE FORM WORK SHALL COMPLY WITH, BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH ACI 347.
15. THE MIX DESIGN OF CONCRETE SHALL BE SUBMITTED TO THE ENGINEER, BEFORE ACTUAL CONCRETE CONSTRUCTION AT THE SITE OF WORKS.
16. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36 HAVING MINIMUM YIELD STRENGTH OF 36,000 PSI.
17. DEVELOPMENT AND SPLICES OF REINFORCEMENTS SHALL BE AS PER ACI 350.

CONCRETE TESTING

1. CONCRETE CYLINDERS (6 INCH X 12 INCH) SHALL BE CASTED AND TESTED FOR COMPRESSIVE STRENGTH IN ACCORDANCE WITH THE PROVISIONS OF CONTRACT. THE CYLINDERS BE PREPARED BY METHODS COMPARABLE TO THOSE USED TO CONSOLIDATE THE CONCRETE IN THE ACTUAL CONSTRUCTION. SIMILARLY, CYLINDERS SHALL BE EXPOSED TO THE SAME CURING CONDITIONS AS USED IN THE ACTUAL CONSTRUCTION.
2. PREPARE NOT LESS THAN SIX TEST CONCRETE CYLINDERS FOR EACH BATCH OF CONCRETE (THREE TO BE TESTED AT 7-DAYS AND REMAINING THREE AT 28-DAYS). IN NO CASE LESS THAN SIX CONCRETE CYLINDERS BE CASTED ON ANY DAY'S PRODUCTION.
3. IF NONE OF THE THREE CYLINDERS, WHEN TESTED AT 28-DAYS, HAVE A COMPRESSIVE STRENGTH LESS THAN DESIGN CONCRETE STRENGTH OR WHEN THE AVERAGE COMPRESSIVE STRENGTH OF ALL THREE CYLINDERS TESTED AT 28 DAYS IS EQUAL TO OR GREATER THAN THE DESIGN CONCRETE STRENGTH AND THE DIFFERENCE BETWEEN THE GREATEST AND LEAST STRENGTH IS NOT MORE THAN 20% OF THE AVERAGE, THAT DAY'S CONCRETE PRODUCTION MAY BE ACCEPTED.

REINFORCEMENT BARS TESTING

1. EVERY REINFORCEMENT STEEL BARS DELIVERY TO THE SITE OF WORKS IS TO BE TESTED BY THE 3RD PARTY LABORATORY FOR UNIT WEIGHT, YIELD / ULTIMATE STRENGTH, ELONGATION AND BEND TEST.

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
WATER SUPPLY SYSTEM
OVER HEAD WATER TANK
GENERAL NOTES - II

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	---

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	FIDA	ENGR. UMAIR	ENGR. YASIR

DRAWING Nº: NFIP-WS-OHR-GN-02 | SHEET: --- | REV: 00

CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-WS-OHR-GN-02

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

LAP LENGTH (INCHES)FOR GRADE 60, UNCOATED,OTHER THAN TOP BARS

BAR NO.	F'C (NORMAL WEIGHT CONCRETE) , PSI	
	3000	4000
3	21	18
4	27	24
5	36	30
6	42	36
7	63	54
8	72	63

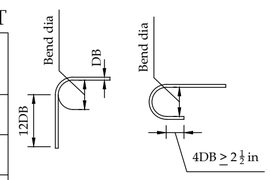
LAP LENGTH INCHES)FOR GRADE 60, UNCOATED TOP BARS

BAR NO.	F'C (NORMAL WEIGHT CONCRETE) , PSI	
	3000	4000
3	27	24
4	39	33
5	48	42
6	54	48
7	81	72
8	93	81

STANDARD HOOKS FOR PRIMARY REINFORCEMENT

BAR SIZE, NO.	MIN.FINISHED BEND DIA. (a)
3 THROUGH 8	$6D_B$
9, 10, 11	$8D_B$
14 and 18	$10D_B$

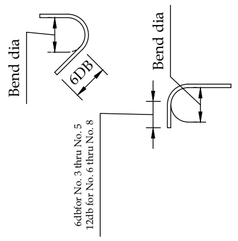
(a) MEASURED ON INSIDE OF BAR



STANDARD HOOKS FOR STIRRUPS AND TIE REINFORCEMENT

BAR SIZE, NO.	MIN. FINISHED BEND DIA. (B)
3 THROUGH 5	$4D_B$
6 THROUGH 8	$6D_B$

(b) MEASURED ON INSIDE OF BAR

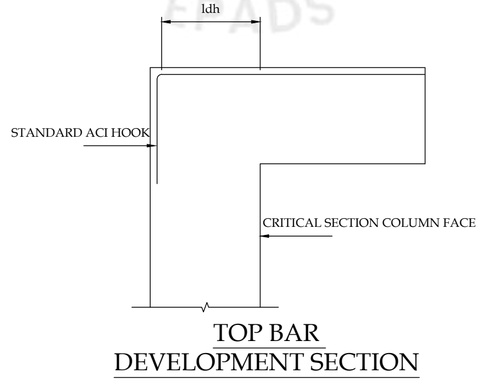


DEVELOPMENT LENGTH (INCHES) IN TENSION OF TOP BARS

BAR NO.	F'C (NORMAL WEIGHT CONCRETE) , PSI	
	3000	4000
3	21	18
4	30	24
5	36	33
6	42	36
7	63	54
8	72	63

DEVELOPMENT LENGTH (INCHES) IN TENSION OF BOTTOM BARS

BAR NO.	F'C (NORMAL WEIGHT CONCRETE) , PSI	
	3000	4000
3	18	15
4	21	18
5	27	24
6	33	30
7	48	42
8	54	48



TOP BAR
DEVELOPMENT SECTION

DEVELOPMENT LENGTH ldh (INCHES) OF STANDARD HOOKS FOR UNCOATED GRADE 60 BARS*

BAR NO.	F'C (NORMAL WEIGHT CONCRETE) , PSI					
	3000	4000	5000	6000	8000	10,000
3	8.2	7.1	6.4	5.8	5.0	4.5
4	11.0	9.5	8.5	7.7	6.7	6.0
5	13.7	11.9	10.6	9.7	8.4	7.5
6	16.4	14.2	12.7	11.6	10.1	9.0
7	19.2	16.6	14.8	13.6	11.7	10.5
8	21.9	19.0	17.0	15.5	13.4	12.0
9	24.7	21.4	19.1	17.5	15.1	13.5
10	27.8	24.1	21.6	19.7	17.0	15.2
11	30.9	26.8	23.9	21.8	18.9	16.9
14	37.1	32.1	28.7	26.2	22.7	20.3
18	49.5	42.8	38.3	35.0	30.3	27.1

EQUIVALENT DIAMETERS OF BUNDLED BARS, IN.

BAR NO	BAR DIAMETER	2-BAR BUNDLE	3-BAR BUNDLE	4-BAR BUNDLE
6	0.750	1.06	1.30	1.50
7	0.875	1.24	1.51	1.75
8	1.000	1.42	1.74	2.01
9	1.128	1.60	1.95	2.26
10	1.270	1.80	2.20	2.54
11	1.410	1.99	2.44	2.82
14	1.693	2.39	2.93	3.39

POSSIBLE REINFORCING BAR BUNDLING SCHEMES

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
WATER SUPPLY SYSTEM
OVER HEAD WATER TANK
GENERAL NOTES-III

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	---

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	FIDA	ENGR. UMAIR	ENGR. YASIR

DRAWING Nº:
NFIP-WS-OHR-GN-03

SHEET ---

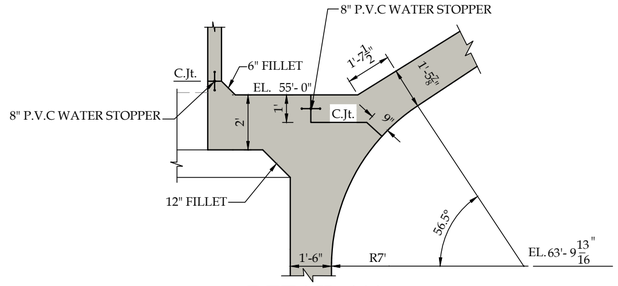
REV 00

CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

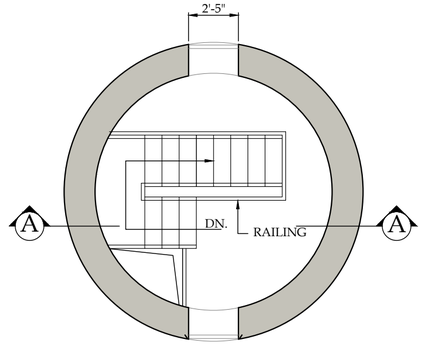
NFIP-WS-OHR-GN-03

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



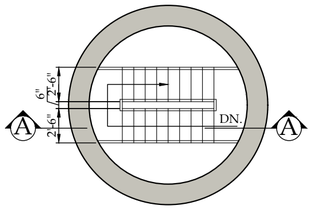
DETAIL 'A'

SCALE: 1/4"=1'-0"



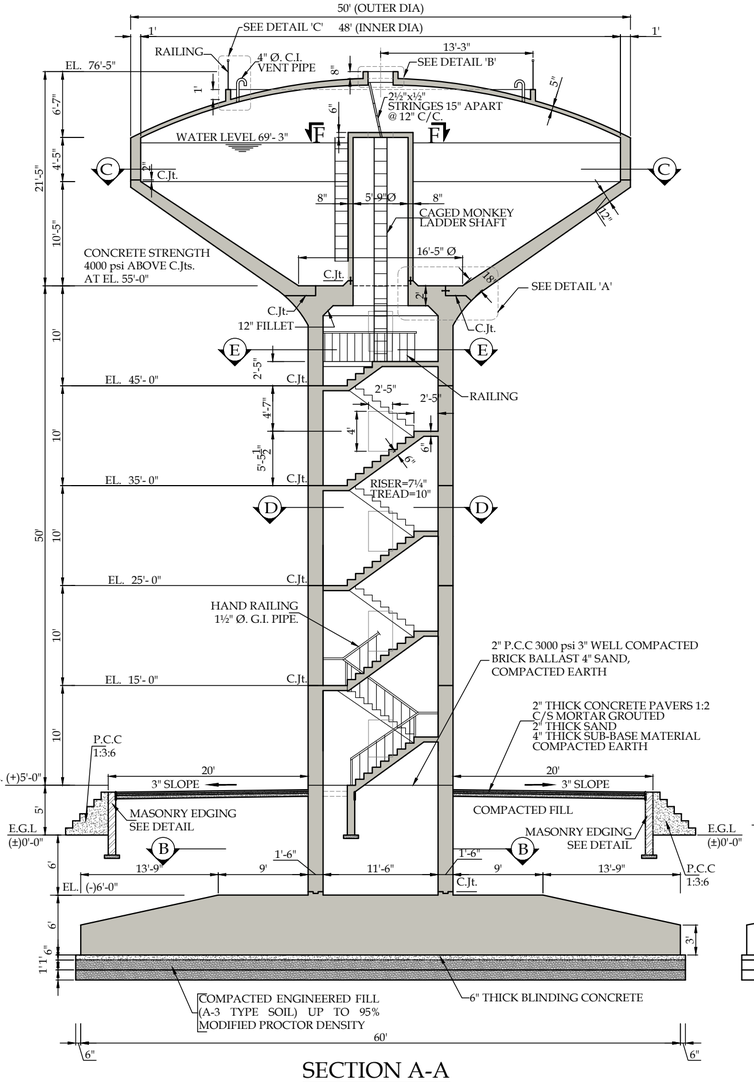
SEC. PLAN E-E

SCALE: 3/16"=1'-0"



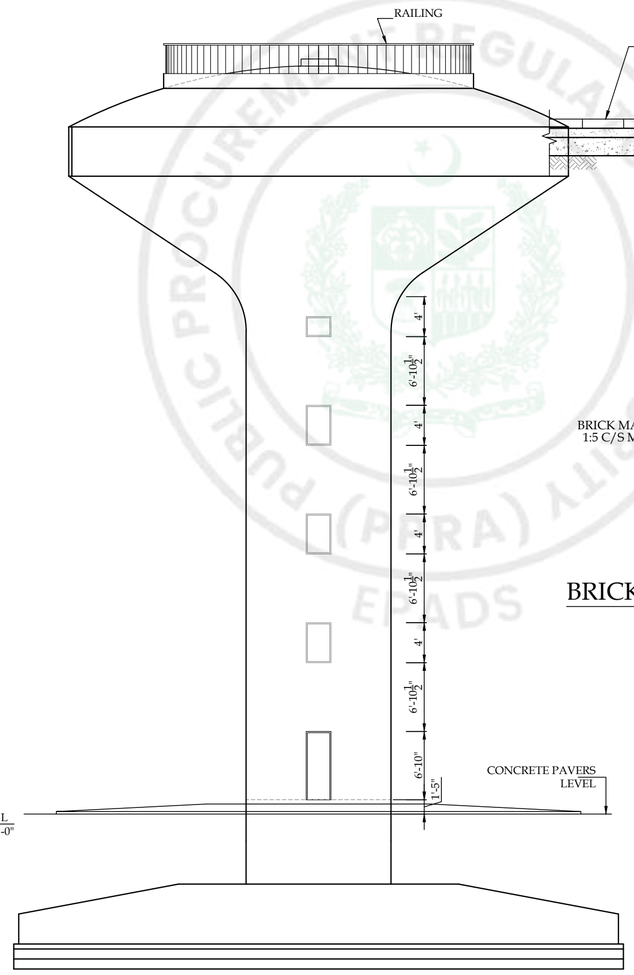
SEC. PLAN D-D

SCALE:- 1/8" = 1'-0"



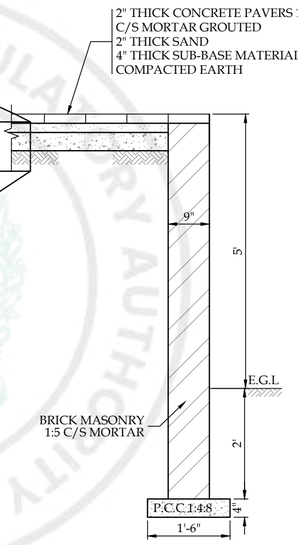
SECTION A-A

SCALE: 1/10"=1'

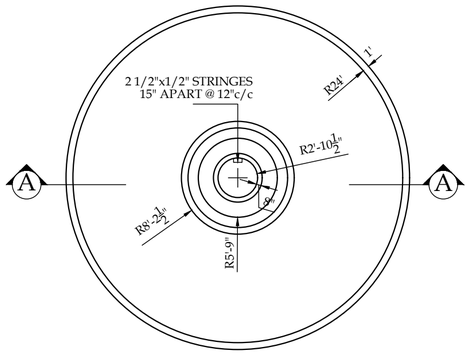


ELEVATION

SCALE: 1/10"=1'

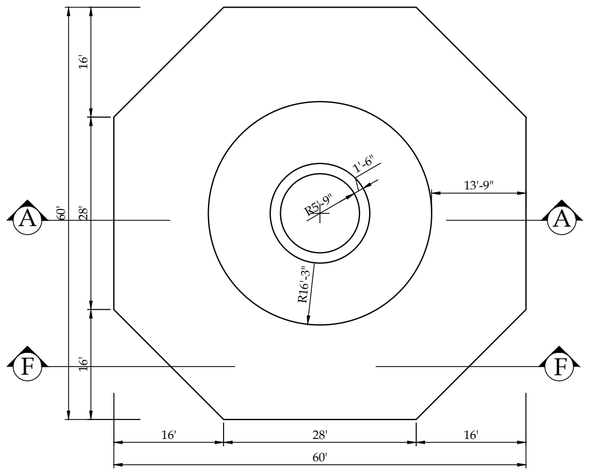


BRICK MASONRY EDGING



SEC. PLAN C-C

SCALE:- 1/16" = 1'-0"



SEC. PLAN B-B

SCALE:- 1/16" = 1'-0"

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

WATER SUPPLY SYSTEM
OVER HEAD WATER TANK
PLAN SECTIONAL & ELEVATION

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	---

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	FIDA	ENGR. UMAIR	ENGR. YASIR

DRAWING Nº:

NFIP-WS-OHR-04

SHEET ---

REV 00

CLIENT:

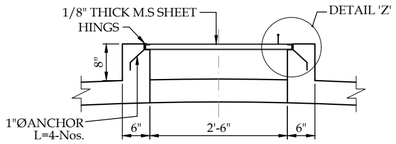
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

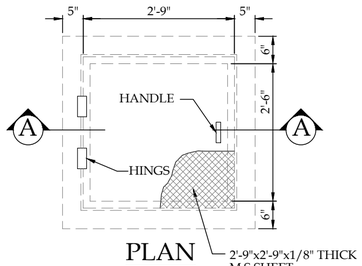
NFIP-WS-OHR-04

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



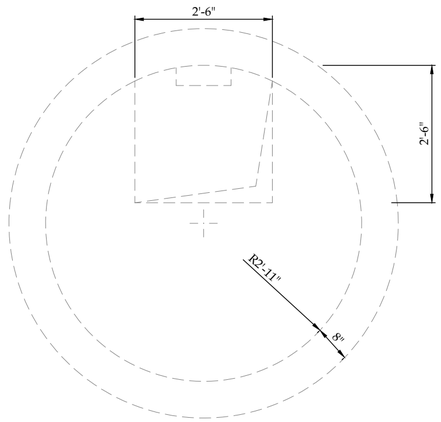
SECTION G-G

SCALE:- 1/2" = 1'-0"



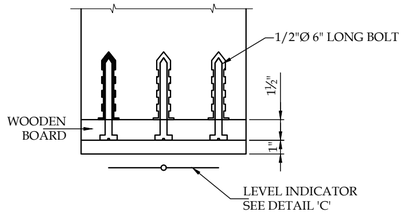
PLAN
DETAIL 'B'

SCALE:- 1/2" = 1'-0"



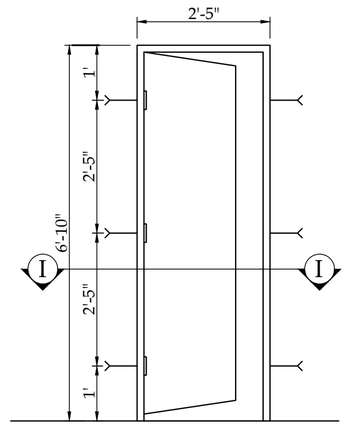
PLAN F-F

SCALE:- 1/2" = 1'-0"

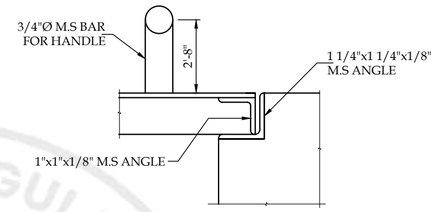


SECTION H-H

SCALE :- NTS

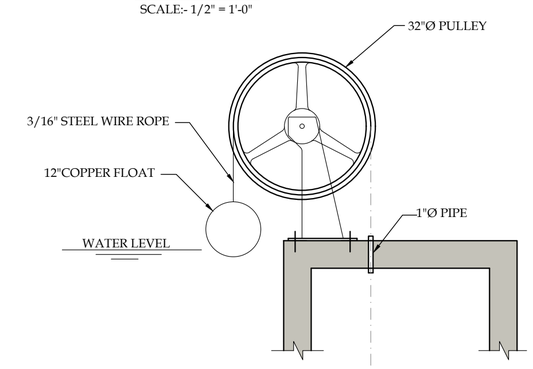


DOOR DETAIL



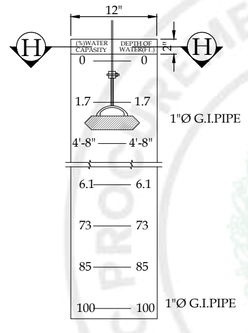
DETAIL 'G'

SCALE:- 1/4" = 1'-0"



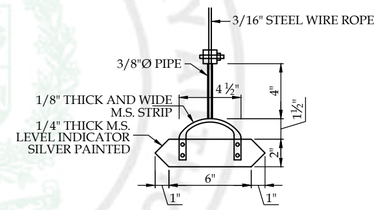
DETAIL 'E'

SCALE:- 1/2" = 1'-0"



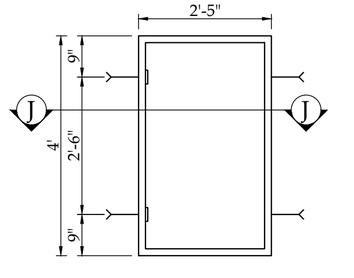
GAUGE BOARD
DETAIL 'D'

SCALE:- 3/16" = 1'-0"

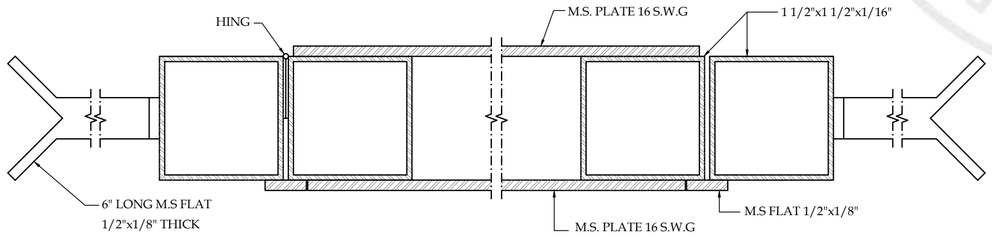


DETAIL 'F'

SCALE:- 3/16" = 1'-0"

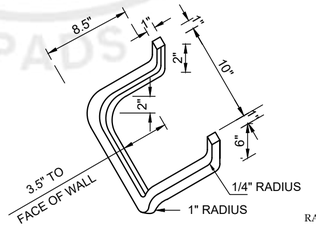


WINDOW DETAIL

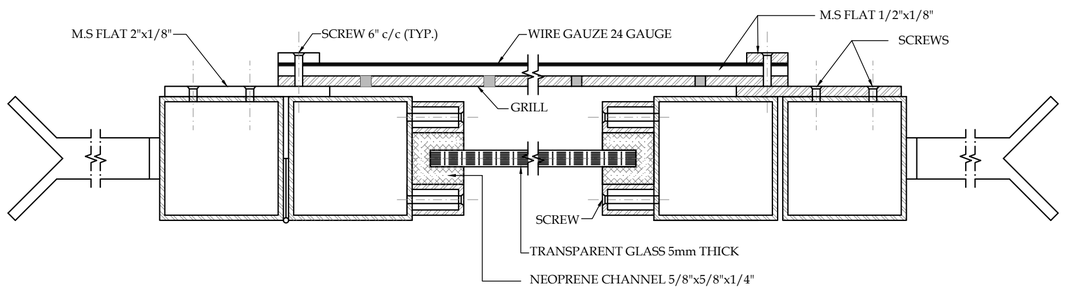


SECTION I-I

SCALE:- 3/8"=1'

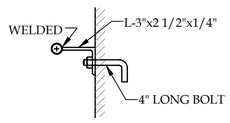


MALLEABLE IRON STEP



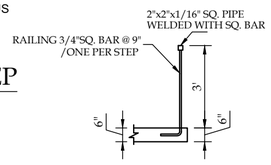
SECTION J-J

SCALE:- 3/8"=1'



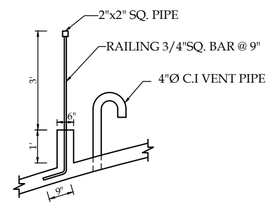
PLAN DETAIL 'B'

SCALE:- N.T.S



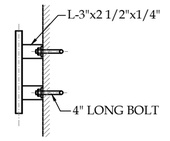
RAILING DETAIL

SCALE:- N.T.S



DETAIL 'C'

SCALE:- N.T.S



ELEVATION DETAIL 'B'

SCALE:- N.T.S

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
WATER SUPPLY SYSTEM
OVER HEAD WATER TANK
MISC.DETAILS

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	---

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	FIDA	ENGR. UMAIR	ENGR. YASIR

DRAWING Nº:
NFIP-WS-OHR-05

SHEET ---

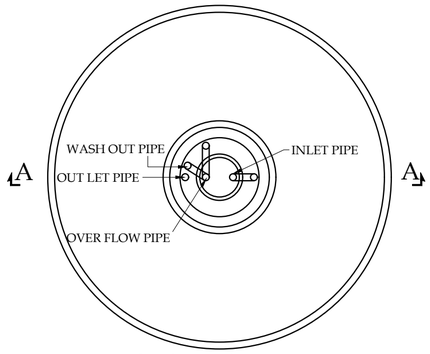
REV 00

CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

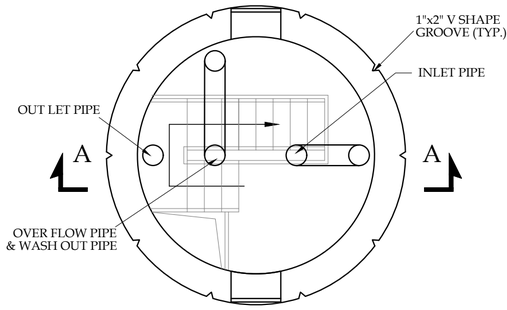
NFIP-WS-OHR-05

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



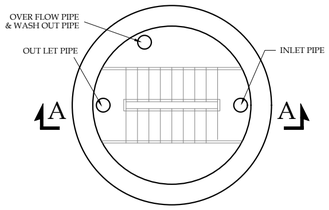
SEC. PLAN K-K

SCALE: 1/16"=1'



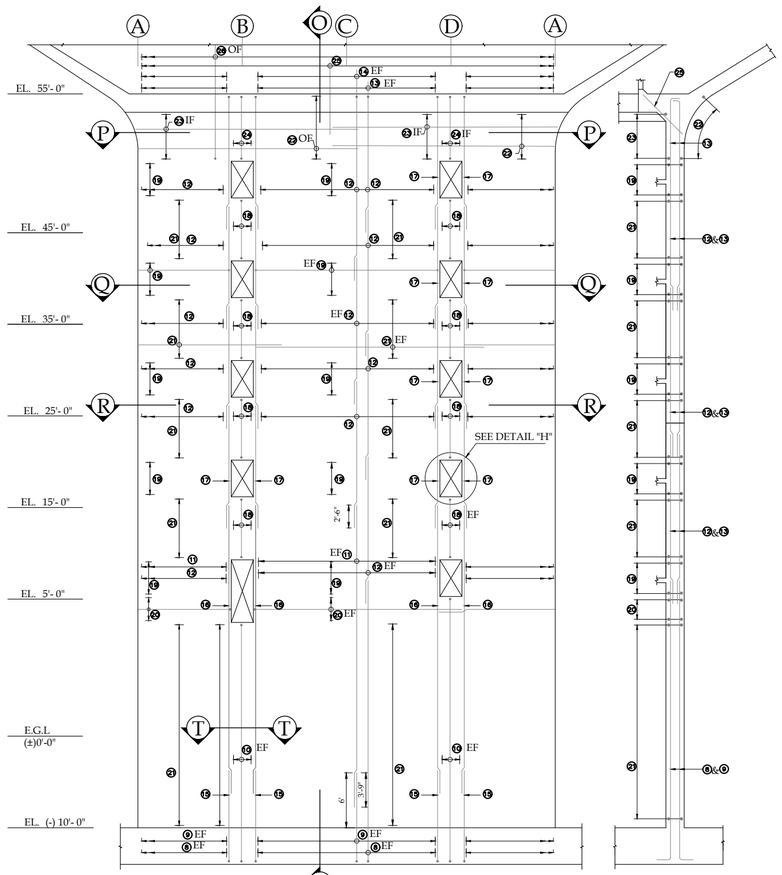
SEC. PLAN M-M

SCALE: 3/16"=1'-0"



SEC. PLAN L-L

SCALE: 1/8"=1'

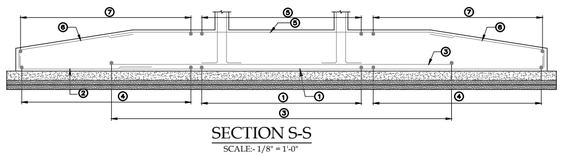


DEVELOPED ELEVATION OF WALL

SCALE- 1/8" = 1'-0"

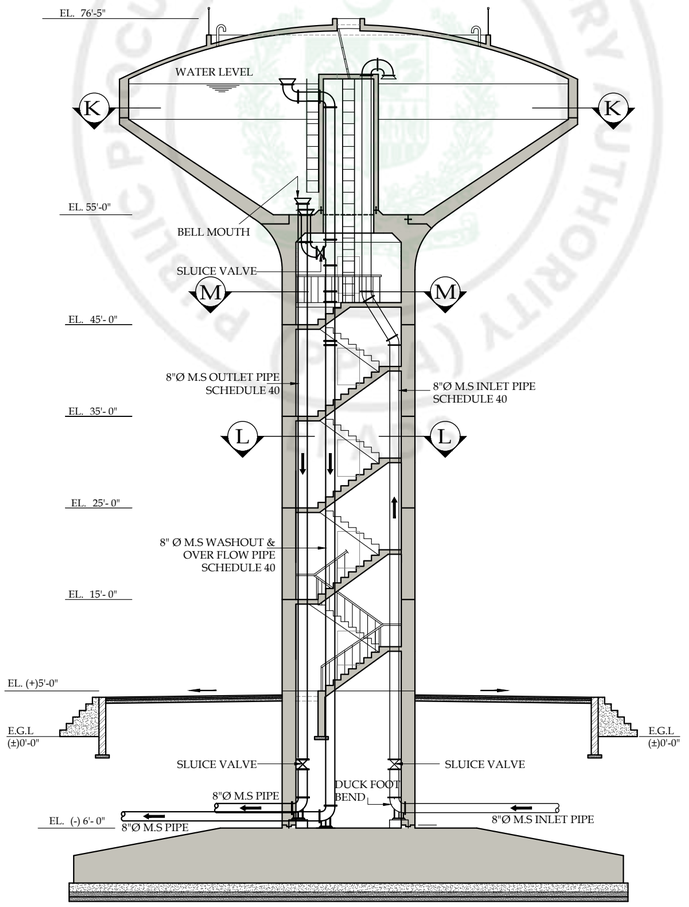
SECTION O-O

SCALE:- 1/8" = 1'-0"



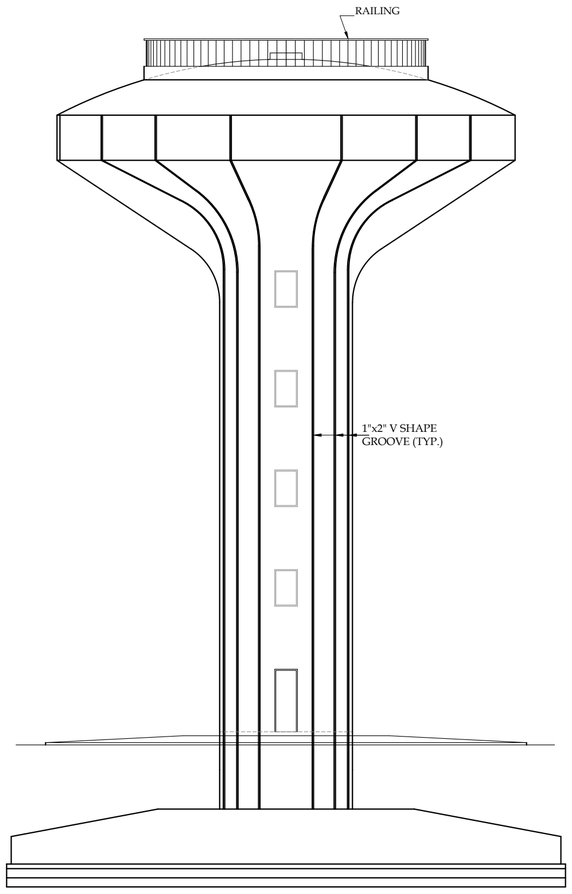
SECTION S-S

SCALE- 1/8" = 1'-0"



SECTION A-A

SCALE: 1/10"=1'



ELEVATION

SCALE: 1/10"=1'

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

WATER SUPPLY SYSTEM
OVER HEAD WATER TANK
PIPING & REINFORCEMENT DETAILS-I

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	---

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	FIDA	ENGR. UMAIR	ENGR. YASIR

DRAWING Nº:

NFIP-WS-OHR-06

SHEET ---

REV 00

CLIENT:

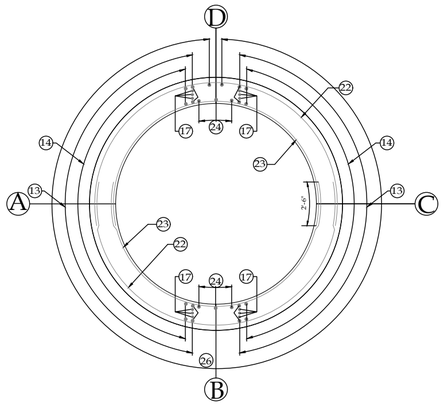
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 3545091-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

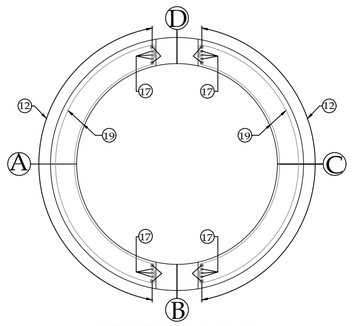
NFIP-WS-OHR-06

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



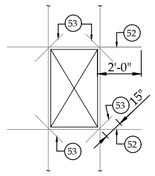
SECTION P-P

SCALE:- 1/8" = 1'

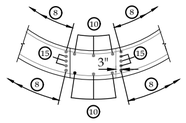


SECTION Q-Q

SCALE:- 1/8" = 1'- 0"

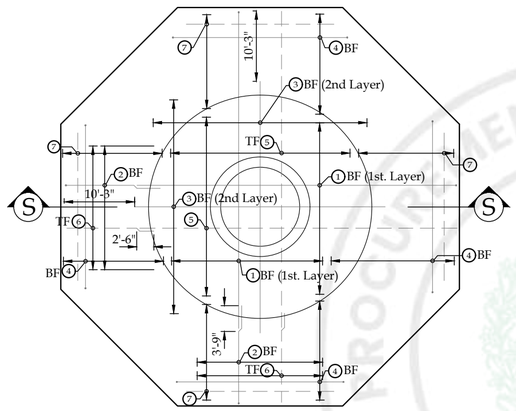


DETAIL 'H'



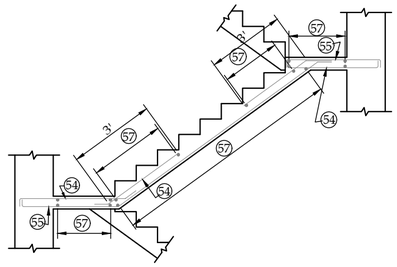
SEC. PLAN T-T

SCALE 3/16"=1'-0"



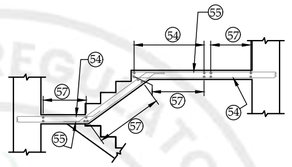
FOUNDATION LAYOUT PLAN

SCALE 1/16"=1'-0"



TYPICAL SECTION OF STAIRS

SCALE:- 3/16" = 1'-0"



SECTION F-F

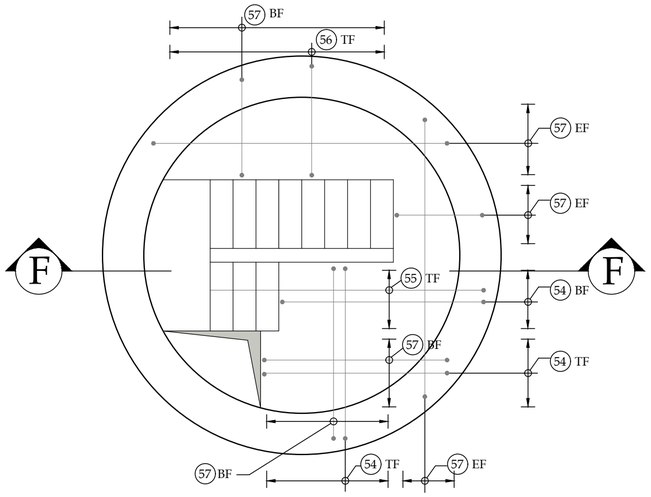
SCALE:- 1/4" = 1'-0"

GENERAL NOTES

1. UNLESS OTHERWISE SPECIFIED, ALL REINFORCED CONCRETE SHALL HAVE MINIMUM CYLINDER STRENGTH OF 4000 psi AT 28 DAYS EXCEPT ABOVE EL. 70'-0". AS SHOWN IN SECTION A-A (RPC-W-OR-01) REINFORCED
2. CONCRETE ABOVE EL.70'-0" SHALL HAVE MINIMUM CYLINDER STRENGTH OF 4000 psi AT 28 DAYS.
3. ALL BLINDING CONCRETE SHALL HAVE MINIMUM CUBE STRENGTH OF 2000 psi AT 28 DAYS.
4. ALL REINFORCING STEEL SHALL BE DEFORMED BARS
5. CONFORMING TO ASTM A615 GRADE 60.
6. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36.
7. COORDINATE STRUCTURAL DRAWINGS WITH RELEVANT
8. ARCHITECTURAL, PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS.
9. UNLESS OTHERWISE SHOWN, CLEAR COVER TO
10. REINFORCEMENT SHALL BE AS FOLLOWS:-CONCRETE EXPOSED TO EARTH (i) 3" CONCRETE EXPOSED TO WATER (ii) 2" CONCRETE EXPOSED TO WEATHER (iii) 1 1/2"
11. THE CONTRACTOR SHALL SUBMIT THE DETAIL OF CONSTRUCTION FOR THE APPROVAL OF ENGINEER.
12. STANDARD MANHOLE COVER AS APPROVED BY THE ENGINEER SHALL BE PROVIDED.
13. 8" PVC WATER STOPPER, 1/4" THICK SHALL BE PROVIDED AT
14. CONSTRUCTION JOINTS IN THE WALLS OF THE TANK.
15. LAPS OF ADJACENT HORIZONTAL & VERTICAL BARS
16. SHALL BE STAGGERED ATLEAST BY 2FT.
17. LAPS OF ADJACENT BARS SHALL BE PLACED OPPOSITE HANDED. FOR EXAMPLE:- LAPS OF BAR MARK 1 & 2 SHALL BE PLACED AS SHOWN BELOW.

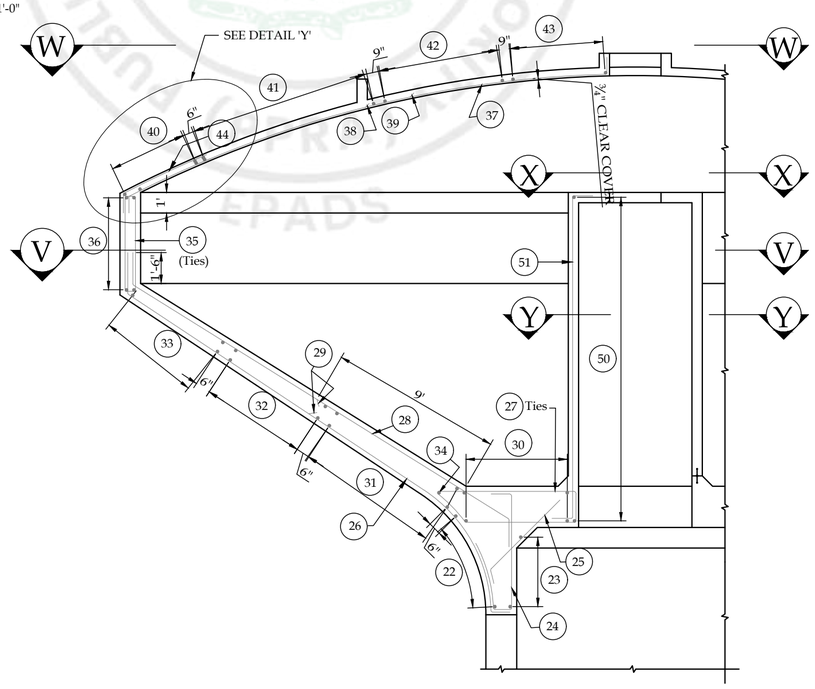


13. ABBREVIATIONS:-
EF-EACH FACE, OF-OUTER FACE, IF-INNER FACE, BF-BOTTOM FACE, TF-TOP FACE.
14. FOUNDATION DESIGN IS BASED ON BEARING CAPACITY OF 1.1 TSF AT 10' DEPTH BELOW N.S.L PROVIDED IN GEO-TECHNICAL REPORT.



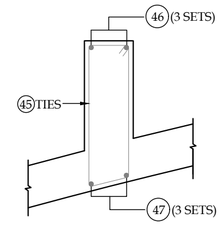
PLAN AT EL (+)60'-0"

SCALE:- 1/4" = 1'-0"



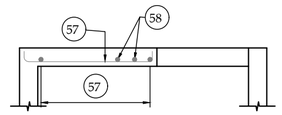
SECTION U-U

SCALE:- 3/16" = 1'-0"



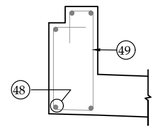
SECTION H-H

SCALE:- 1/2" = 1'-0"



SECTION X1-X1

SCALE:- 1/2" = 1'-0"



SECTION J-J

SCALE:- 1/2" = 1'-0"

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

WATER SUPPLY SYSTEM
OVER HEAD WATER TANK
REINFORCEMENT DETAILS-II&III

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	---

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	FIDA	ENGR. UMAIR	ENGR. YASIR

DRAWING Nº:

NFIP-WS-OHR-07

SHEET ---

REV 00

CLIENT:

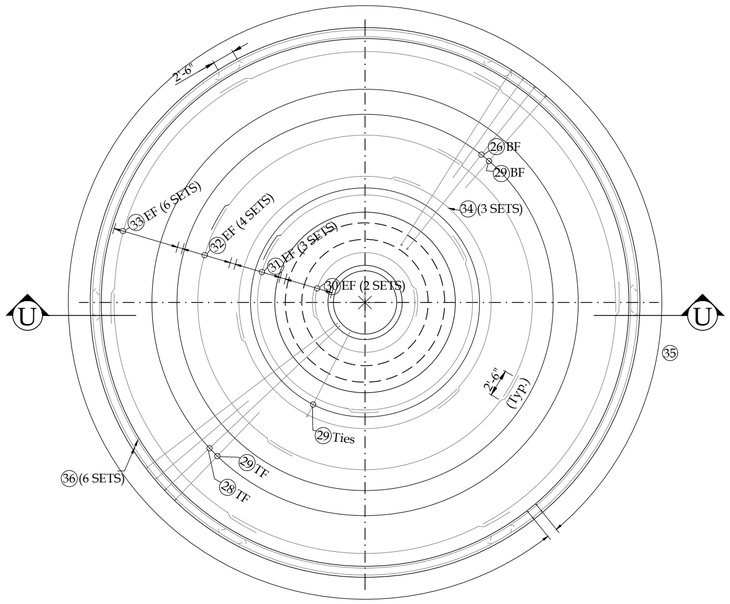
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

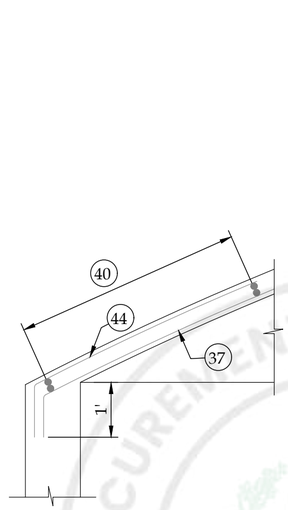
NFIP-WS-OHR-07

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



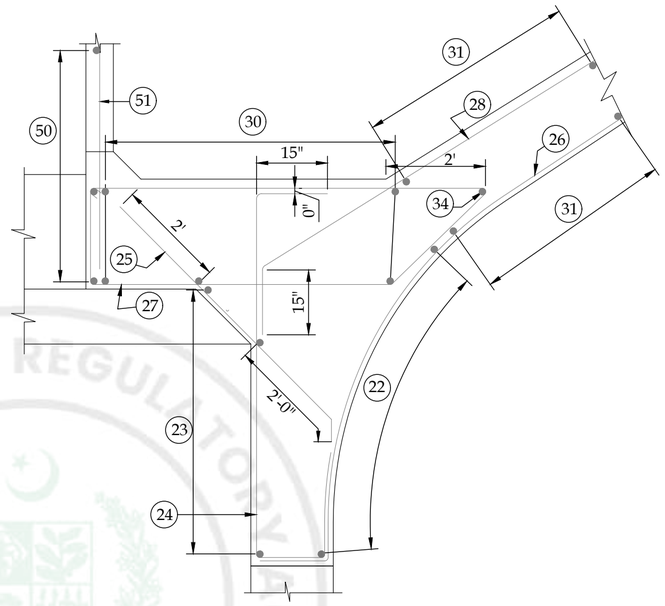
SEC.PLAN V-V

SCALE:- 1/10" = 1'-0"



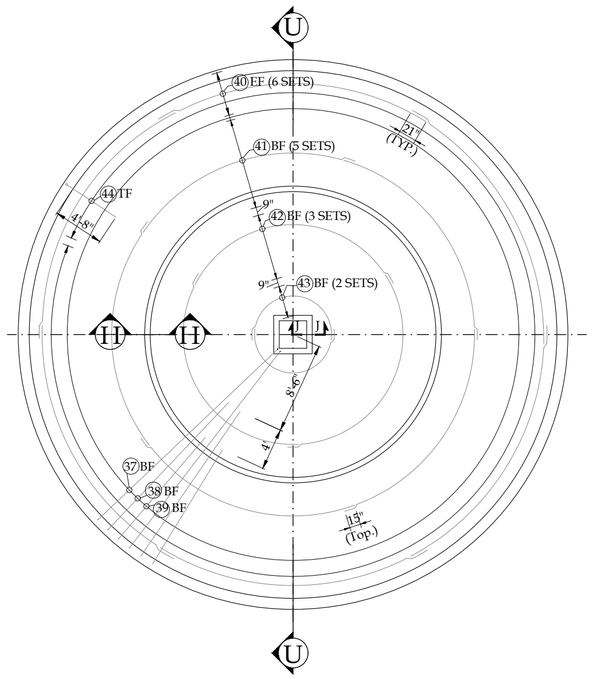
DETAIL 'Y'

SCALE:- 1/2" = 1'



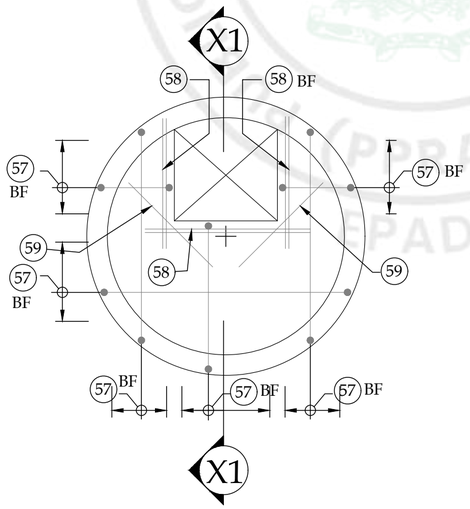
DETAIL 'X'

SCALE:- 1/2" = 1'



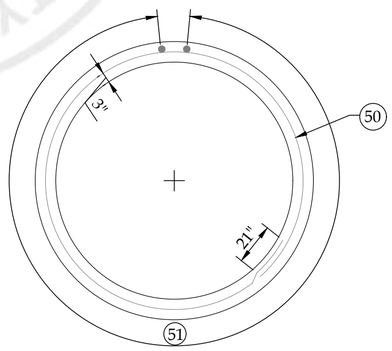
SEC.PLAN W-W

SCALE:- 1/10" = 1'-0"



PLAN X-X

SCALE:- 1/2" = 1'- 0"



SECTION Y-Y

SCALE:- 1/2" = 1'- 0"

REINFORCEMENT TABLE

BAR MARK	BAR SIZE	SPACING
1	#8	6"
2	#8	6"
3	#8	6"
4	#8	6"
5	#8	6"
6	#8	6"
7	#8	6"
8	#8	6"
9	#8	6"
10	#6	
11	#8	15"
12	#6	15"
13	#6	15"
14	#6	15"
15	#8	±
16	#6	
17	#6	
18	#6	
19	#4	6"
20	#4	6"
21	#4	6"
22	#6	6"
23	#6	6"
24	#6	
25	#6	
26	#6	6"
27	#6	
28	#6	
29	#5	
30	#6	6"
31	#6	6"
32	#6	6"
33	#6	6"
34	#6	
35	#5	6"
36	#6	6"
37	#3	
38	#3	
39	#3	
40	#4	6"
41	#3	9"
42	#3	9"
43	#3	9"
44	#3	
45	#3	10"
46	#4	
47	#3	
48	#4	
49	#3	9"
50	#4	8"
51	#4	9"
52	#6	
53	#6	
54	#4	6"
55	#4	6"
56	#3	6"
57	#3	9"
58	#3	
59	#3	
60		

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

WATER SUPPLY SYSTEM
OVER HEAD WATER TANK
REINFORCEMENT DETAILS-IV

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	---

DATE	D E S C R I P T I O N	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	FIDA	ENGR. UMAIR	ENGR. YASIR

DRAWING Nº: NFIP-WS-OHR-08

SHEET ---

REV 00

CLIENT:

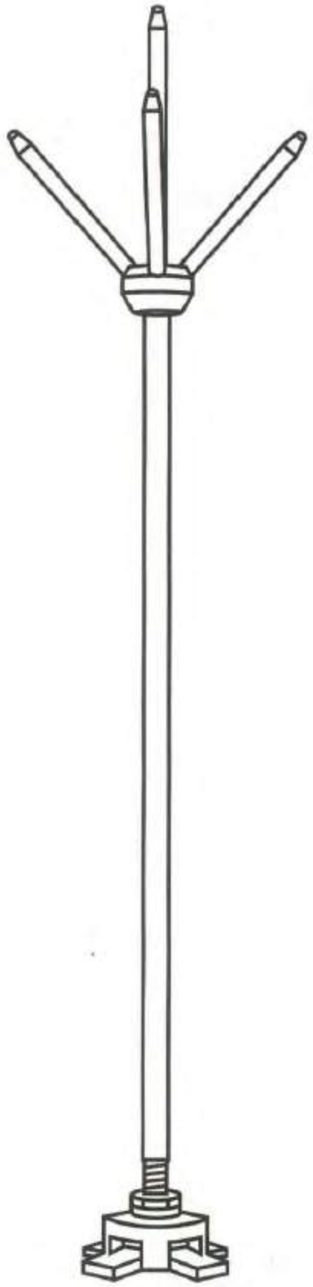
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-WS-OHR-08

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



AIR TERMINAL

5-POINTS AIR TERMINAL ALONGWITH
BASE, ROD & MULTIPLE POINTS



COPPER STRIP

25mm x 3mm



ROD

15mm DIA
1 METER HIGH



D.C TAPE CLIP

FOR 25mm x 3mm CONDUCTOR



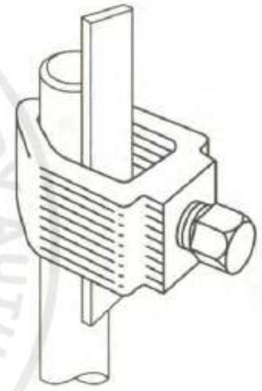
TEST CLAMP

FOR 25mm x 3mm CONDUCTOR



EARTH CONNECTING CLAMP

FOR 20mm DIA COPPER EARTH ROD
& 20mm x 3mm COPPER STRIP



EARTH CONNECTING CLAMP

FOR 20mm DIA COPPER EARTH ROD
& 20mm x 3mm COPPER STRIP



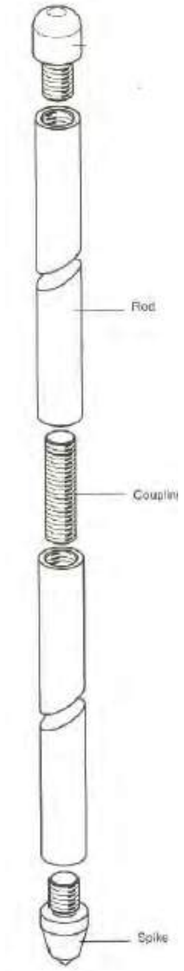
BLUNT AIR RODS

100mm DIA COPPER BALL
CONTAINING 5-NR



AIR TERMINAL BASE

HOLE FOR 15mm DIA ROD
APPROX. WEIGHT IS 0.47KG



EARTH ROD

20mm DIA, 3 METER LONG
SINGLE LENGTH OR IN
PIECES WITH COUPLER
BOTTOM SPIKE & DRIVING STUD

APPROVED MANUFACTURERS

FURSE-UK, ERICO-USA OR APPROVED EQUIVALENT

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
WATER SUPPLY SYSTEM
OVER HEAD WATER TANK
LIGHTENING ARRESTOR DETAILS

ORIGINAL :	DATE :	SCALE :
A2	JULY, 2021	---

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	FIDA	ENGR. UMAIR	ENGR. YASIR

DRAWING N°: NFIP-WS-OHR-09
SHEET: ---
REV: 00

CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-WS-OHR-09

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

GENERAL NOTES

GENERAL

1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH EACH OTHER INCLUDING PLANS, SECTIONS, ELEVATIONS, AND OTHER DRAWINGS AND WHERE THERE IS ANY DIFFERENCE IN DIMENSION OR OTHERWISE, IT SHOULD BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR RESOLUTION.
2. ANY MISSING DETAIL IN DRAWINGS IS TO BE BROUGHT TO THE NOTICE OF ENGINEER, WELL IN TIME, FOR PROVIDING THE SAME, SO AS TO AVOID ANY LIKELY DELAY.
3. ALL DIMENSIONS SHOWN ARE IN FEET AND INCHES UNLESS OTHERWISE MENTIONED.
4. NO DIMENSION IS TO BE SCALED OUT FROM THE DRAWINGS.
5. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO CONTRACT SPECIFICATIONS. IN THE ABSENCE OF ANY SPECIFICATION, THE MATERIALS AND WORKMANSHIP SHALL CONFORM TO RELEVANT ACI CODES, ASTM/BRITISH/PAKISTAN STANDARDS AND SHALL SUBJECT TO APPROVAL OF THE ENGINEER.
6. ALL METAL WORKS SHALL BE PAINTED OR GALVANIZED AS PER SPECIFICATIONS. THE COLOUR OF PAINT SHALL BE AS APPROVED BY THE ENGINEER.
7. THE SHOP DRAWINGS FOR THE INSTALLATION OF ELECTRICAL AND MECHANICAL WORKS SHALL BE PREPARED BY THE CONTRACTOR FOR THE APPROVAL OF THE ENGINEER BEFORE ACTUAL FABRICATION AND INSTALLATION AT THE SITE OF WORKS.
8. THE CONTRACTOR IS ADVISED TO FOLLOW OCCUPATIONAL SAFETY AND HEALTH STANDARDS DURING THE DURATION OF THE PROJECT TO AVOID ANY MISHAP.
9. ANY DISCREPANCY, ERROR OR OMISSION, IF FOUND SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR CORRECTION AND APPROVAL.

EXCAVATION

1. BEFORE START OF THE WORK, THE CONTRACTOR SHALL SUBMIT HIS METHOD STATEMENT OF CONSTRUCTION, FOR APPROVAL OF ENGINEER.
2. EXCAVATION SHALL BE MADE TO THE LINES AND LEVELS SHOWN ON THE DRAWING OR AS DIRECTED BY ENGINEER, IN WRITING.
3. THE CONTRACTOR MAY USE STABLE SLOPES OTHER THAN THOSE SHOWN ON THE DRAWING WITH THE PRIOR APPROVAL OF THE ENGINEER, IN WRITING.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF THE EXCAVATED AREA AND SHALL KEEP THE AREA IN A SOUND AND DRY CONDITION.
5. ALL OVER EXCAVATED AREAS OR DOUBTFUL PATCHES SHALL BE FILLED WITH APPROVED SELECT MATERIAL OR AS DIRECTED BY THE ENGINEER AND AT THE COST OF THE CONTRACTOR.
6. ALL EXCAVATED AREA SHALL BE WELL COMPACTED TO ACHIEVE DENSITY NOT LESS THAN 95% OF THE MAX. DENSITY AS ACHIEVED BY AASHTO T-180 (MODIFIED PROCTOR) BEFORE BLINDING/LEAN CONCRETE POURING.
7. FOUNDATIONS SHOULD BE BACKFILLED BY APPROVED MATERIAL AND COMPACTED IN LAYERS OF MAXIMUM 6-INCH COMPACTED THICKNESS WITH DENSITY AS ABOVE.
8. FOUNDATION DESIGN ETC. SHALL REQUIRE REVIEW, ONCE THE BEARING CAPACITY OF EXACT SITES ARE DETERMINED BY THE EMPLOYER.

MATERIAL REQUIREMENTS

1. UNLESS OTHERWISE NOTED, MINIMUM CONCRETE CYLINDER STRENGTH AT 28-DAYS (DESIGN CONCRETE STRENGTH), SHALL BE AS FOLLOWS:
   - ALL STRUCTURES IN CONTACT WITH WATER 4,000 PSI
   - ALL OTHER STRUCTURES THAN ABOVE 3,000 PSI
   - LEAN OR BLINDING CONCRETE 1,500 PSI
2. REINFORCEMENT STEEL SHALL BE DEFORMED GRADE-60 BARS CONFORMING TO ASTM A-615 WITH MINIMUM YIELD STRENGTH OF 60,000 PSI.
3. SULPHATE RESISTANT CEMENT (TYPE-II) SHALL BE USED FOR CONCRETE IN CONTACT WITH SOIL AS PER ASTM C-150 AND ASTM C-1157.
4. ORDINARY PORTLAND CEMENT (TYPE-I) SHALL BE USED FOR ALL SUPER STRUCTURES NOT IN CONTACT WITH SOIL OR ANY LIQUID AS PER ASTM C-150 AND ASTM C-1157.
5. BRICKS MASONRY SHALL BE PERFORMED IN 1:5 CEMENT SAND MORTAR AS PER SPECIFICATIONS.
6. THE COARSE AND FINE AGGREGATES SHALL CONFORM TO ASTM C-33 AND MAXIMUM SIZE OF COARSE AGGREGATE FOR CONCRETE SHALL BE 3/4-INCH.
7. HORIZONTAL DAMP PROOF COURSE (DPC) SHALL CONSIST OF 2-INCH THICK PCC (1:2:4) ALONG WITH TWO COATS OF HOT BITUMEN 10/20 @ 20 LBS/100 SFT (EACH COAT) AND SINGLE LAYER OF POLYTHENE SHEET, GAUGE 500.
8. VERTICAL DPC SHALL CONSIST OF 3/4"-INCH THICK 1:3 CEMENT SAND MORTAR WITH SINGLE COAT OF HOT BITUMEN 10/20 @ 20 LBS/100 SFT AND SINGLE LAYER OF POLYTHENE SHEET, GAUGE 500
9. THE ADMIXTURES IN CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-494.
10. THE READY MIX CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-94.
11. NO WELDING FOR STEEL REINFORCEMENT IS ALLOWED.
12. WATER REQUIRED FOR CONCRETE SHALL BE FREE FROM DIRT, ORGANIC MATTER, SUSPENDED SOLIDS AND MEET THE PRESCRIBED QUALITY REQUIREMENTS.
13. MILD STEEL (M.S) PIPE SHALL CONFORM TO ASTM A53, SCHEDULE 40.

CONCRETE CONSTRUCTION

1. ALL CONCRETE CONSTRUCTION AND REINFORCING BAR DETAILS SHALL CONFORM TO ACI 315 AND ACI 318.
2. ALL CONCRETE SURFACES IN CONTACT WITH SOIL SHALL BE COATED WITH TWO COATS OF HOT BITUMEN, GRADE 10/20. THE COVERAGE OF EACH COAT IS 10 LBS PER 100 SFT, MINIMUM.
3. ALL EXPOSED CONCRETE SURFACES SHALL HAVE FAIR FACED.
4. ALL CORNERS AND EDGES OF EXPOSED CONCRETE, WHERE REQUIRED, SHALL BE CHAMFERED TO 3/4", UNLESS OTHERWISE MENTIONED.
5. THE CLEAR COVER TO CONCRETE REINFORCEMENT SHALL BE AS UNDER:
   a) CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:
      - ALL MEMBERS 3.00 INCH
   b) CONCRETE EXPOSED TO EARTH, LIQUID, WEATHER OR CAST AGAINST A CONCRETE WORK MAT:
      - SLABS & JOISTS 2.00 INCH
      - BEAMS AND COLUMNS:
        PRIMARY REINFORCEMENT 2.50 INCH
        STIRRUPS, SPIRAL & TIES 2.00 INCH
      - WALLS 2.00 INCH
      - FOOTINGS & BASE SLABS 2.00 INCH
      - SHELLS, FOLDED PLATE MEMBERS 1.50 INCH
   c) CONDITIONS NOT COVERED IN (a) & (b), ABOVE:
      - SLABS & JOISTS 0.75 INCH
      - BEAMS & COLUMNS
        PRIMARY REINFORCEMENT 2.00 INCH
        STIRRUPS, SPIRAL & TIES 1.50 INCH
      - WALLS 0.75 INCH
      - SHELLS, FOLDED PLATE MEMBERS
        #5 BARS & SMALLER 0.50 INCH
        #6 BARS & LARGER 0.75 INCH
6. THE MAXIMUM TEMPERATURE OF CONCRETE AT NO TIME DURING ITS PRODUCTION, TRANSPORTATION OR PLACEMENT SHALL EXCEED 32°C.
7. THE CONTRACTOR SHALL SUBMIT CONCRETE POURING SCHEDULE ON WEEKLY BASIS FOR ENGINEER'S APPROVAL. NO CONCRETE SHALL BE PLACED UNTIL WRITTEN PERMISSION IS GIVEN BY THE ENGINEER.
8. THE CONTRACTOR IS REQUIRED TO SUBMIT THE BAR BENDING SCHEDULE FOR THE APPROVAL OF THE ENGINEER BEFORE ACTUAL CONSTRUCTION.
9. CONCRETING SHALL NOT BE DONE IN STANDING WATER AND BLINDING CONCRETE MUST BE PLACED ON UNDISTURBED AND FIRM SOIL.
10. IN CASE OF EXISTENCE OF GROUND WATER, DEWATERING SHALL BE DONE BEFORE THE CONSTRUCTION OF FOUNDATION, AT NO ADDITIONAL COST.
11. THE USE OF CONSTRUCTION JOINTS, NOT INDICATED ON THE DRAWINGS, SHALL BE APPROVED BY THE DESIGNER BEFORE ACTUAL CONSTRUCTION AT THE SITE OF WORKS.
12. ALL OPENINGS IN CONCRETE FOR THE REQUIREMENTS OF EQUIPMENT ARE TO BE CO-ORDINATED WITH THE DIMENSIONS OF THE ACTUAL PROCURED OR TO BE PROCURED EQUIPMENT AND ADJUSTMENTS IN OPENINGS ARE TO BE MADE ACCORDINGLY.
13. ALL CONCRETE SHALL BE PLACED SO AS TO MINIMIZE THE EFFECT OF SHRINKAGE. ADJACENT SECTIONS SHALL NOT BE PLACED UNTIL THE EARLIER CONCRETE HAS CURED FOR 72-HOURS.
14. THE FORM WORK SHALL COMPLY WITH, BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH ACI 347.
15. THE MIX DESIGN OF CONCRETE SHALL BE SUBMITTED TO THE ENGINEER, BEFORE ACTUAL CONCRETE CONSTRUCTION AT THE SITE OF WORKS.
16. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36 HAVING MINIMUM YIELD STRENGTH OF 36,000 PSI.
17. DEVELOPMENT AND SPLICES OF REINFORCEMENTS SHALL BE AS PER ACI 350.

CONCRETE TESTING

1. CONCRETE CYLINDERS (6 INCH X 12 INCH) SHALL BE CASTED AND TESTED FOR COMPRESSIVE STRENGTH IN ACCORDANCE WITH THE PROVISIONS OF CONTRACT. THE CYLINDERS BE PREPARED BY METHODS COMPARABLE TO THOSE USED TO CONSOLIDATE THE CONCRETE IN THE ACTUAL CONSTRUCTION. SIMILARLY, CYLINDERS SHALL BE EXPOSED TO THE SAME CURING CONDITIONS AS USED IN THE ACTUAL CONSTRUCTION.
2. PREPARE NOT LESS THAN SIX TEST CONCRETE CYLINDERS FOR EACH BATCH OF CONCRETE (THREE TO BE TESTED AT 7-DAYS AND REMAINING THREE AT 28-DAYS). IN NO CASE LESS THAN SIX CONCRETE CYLINDERS BE CASTED ON ANY DAY'S PRODUCTION.
3. IF NONE OF THE THREE CYLINDERS, WHEN TESTED AT 28-DAYS, HAVE A COMPRESSIVE STRENGTH LESS THAN DESIGN CONCRETE STRENGTH OR WHEN THE AVERAGE COMPRESSIVE STRENGTH OF ALL THREE CYLINDERS TESTED AT 28 DAYS IS EQUAL TO OR GREATER THAN THE DESIGN CONCRETE STRENGTH AND THE DIFFERENCE BETWEEN THE GREATEST AND LEAST STRENGTH IS NOT MORE THAN 20% OF THE AVERAGE, THAT DAY'S CONCRETE PRODUCTION MAY BE ACCEPTED.

REINFORCEMENT BARS TESTING

1. EVERY REINFORCEMENT STEEL BARS DELIVERY TO THE SITE OF WORKS IS TO BE TESTED BY THE 3RD PARTY LABORATORY FOR UNIT WEIGHT, YIELD / ULTIMATE STRENGTH, ELONGATION AND BEND TEST.

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
WATER SUPPLY SYSTEM
TUBE WELL GENERAL NOTES

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:
NFIP-WS-TW-01

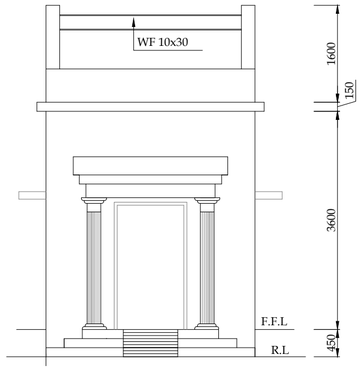
SHEET --

REV 00

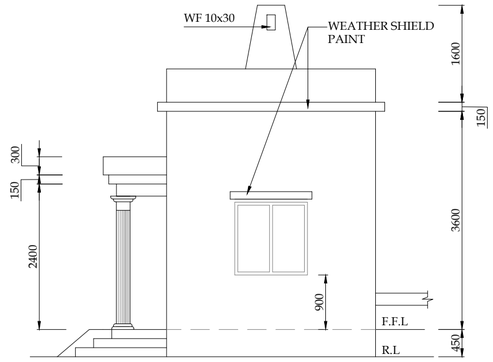
CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

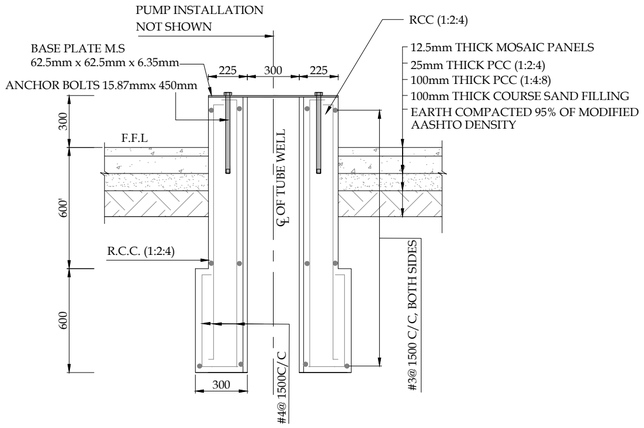
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



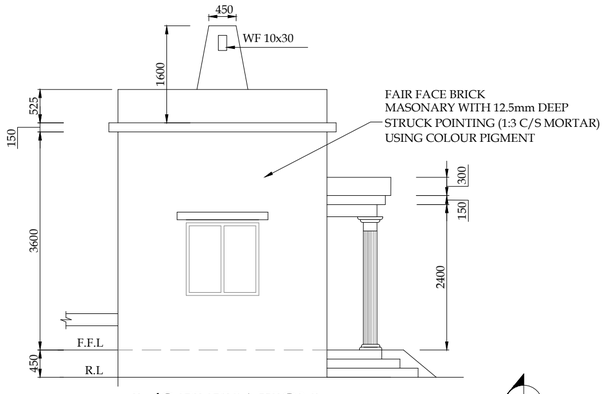
FRONT ELEVATION



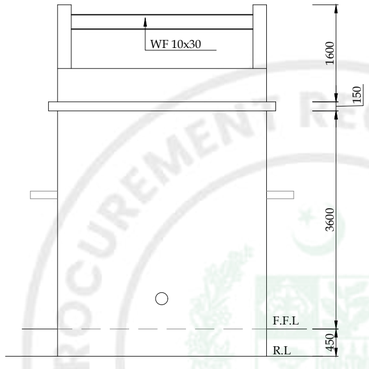
R/S ELEVATION



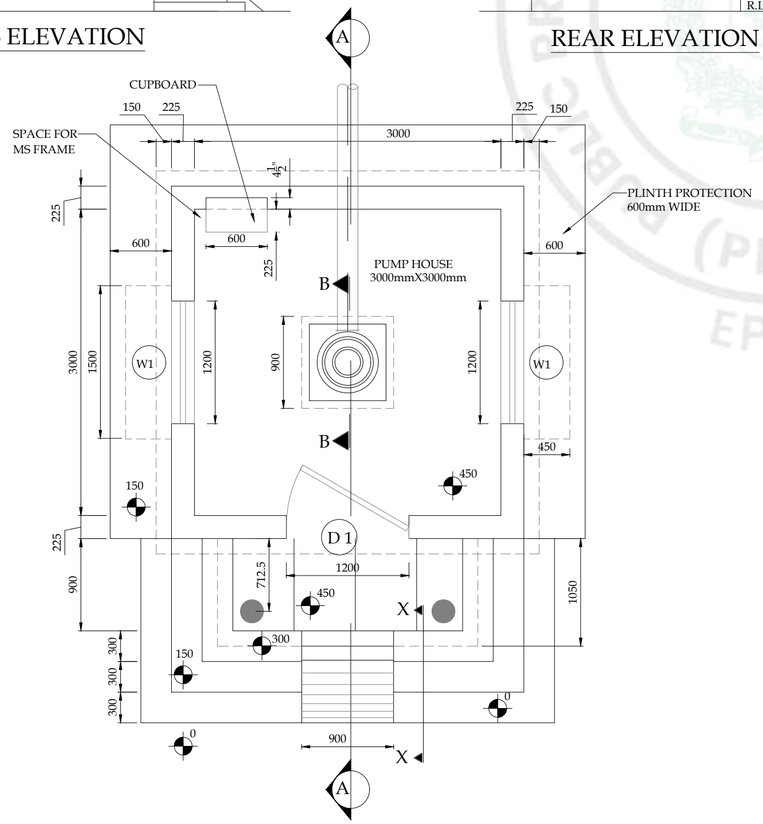
SECTION B-B



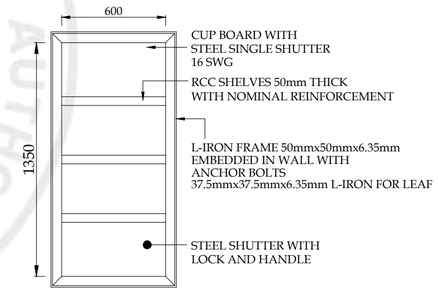
L/S ELEVATION



REAR ELEVATION



PLAN



CUP BOARD DETAIL

SCHEDULE OF PUMPS

S.No.	DESCRIPTION	SPECIFICATIONS
1	NO. OF PUMPS	ONE
2	TYPE	DEEP WELL TURBINE
3	PUMP MANUFACTURER	K.S.B or E.Q. APPROVED
4	CAPACITY	250 m^3/hr
5	PUMPING HEAD	45m
6	MOTOR MANUFACTURER	SIEMENS or E.Q. APPROVED
7	MOTOR H.P	120 OR AS PER PUMP MANUFACTURER
8	SPEED	1450 RPM
9	SETTING DEPTH	30m

NOTE:

1. TUBE WELL DESIGN IS TENTATIVE. ACTUAL CONSTRUCTION/INSTALLATION SHALL CONFORM TO SITE SITUATION AND AS PER INSTRUCTIONS OF THE ENGINEER INCHARGE.
2. PLINTH OF CHAMBER TO BE DECIDED IN CONSULTATION WITH THE ENGINEER INCHARGE.

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

WATER SUPPLY SYSTEM
TUBE WELL PLAN & ELEVATION

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:

NFIP-WS-TW-02

SHEET --

REV 00

CLIENT:

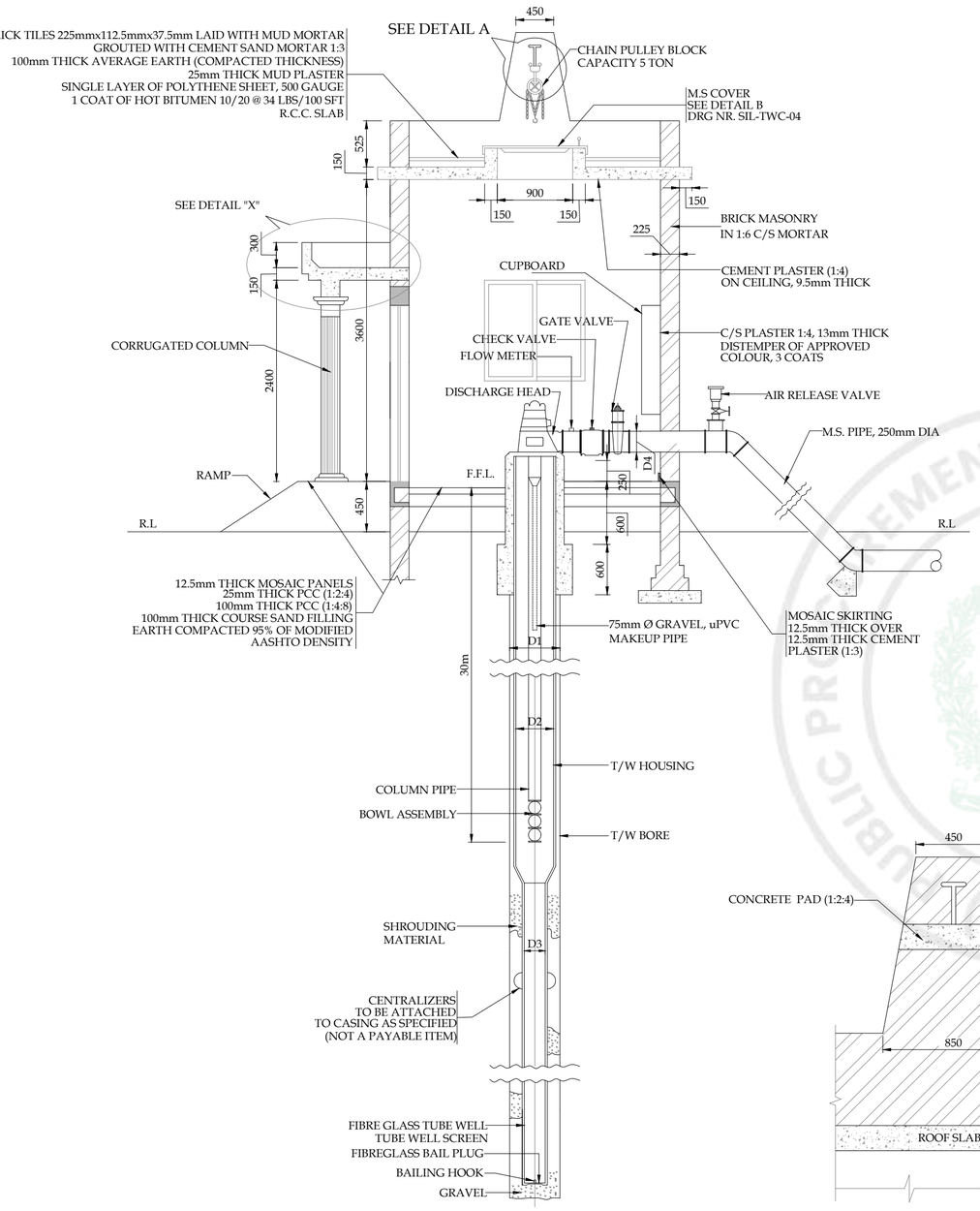
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

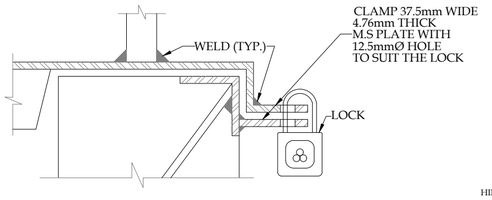
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE. PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-WS-TW-02

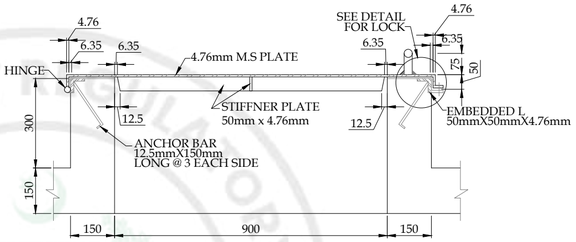
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



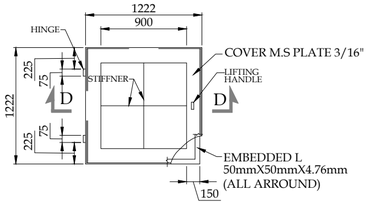
SECTION A-A



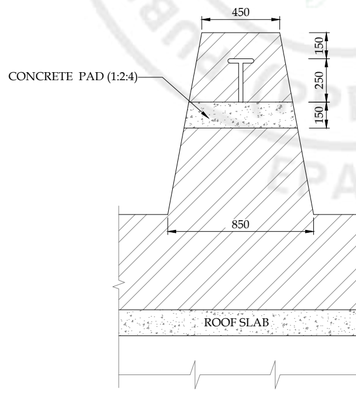
DETAIL FOR LOCK



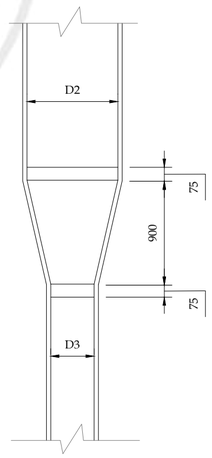
SECTION D-D



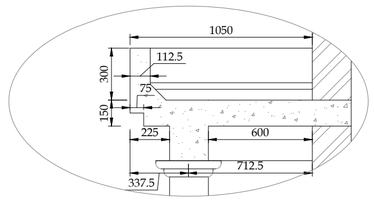
DETAIL "B"



SIDE ELEVATION OF GIRDER LIFT WALL
DETAIL A



REDUCER DETAIL



DETAIL "X"

SCHEDULE OF TUBE WELL

DESCRIPTION	SIZE
D1	600mm
D2	450mm
D3	250mm
D4	250mm
STRAINER LENGTH	60m
BAIL PLUG	3000mm
SETTING DEPTH	30m
BORE HOLE DEPTH	125m

NOTE:

1. TOTAL LENGTH OF STRAINER AS PER DESIGN WILL BE PLACED AT DEPTHS OF APPROPRIATE STRATA PHYSICALLY TAPPED AND ASCERTAINED DURING BORING AND TO BE CONFIRMED BY LOGGING OF BOREHOLE AND VERIFIED BY THE ENGINEER-IN-CHARGE.
2. THE DEPTH OF BORING AS PER DESIGN IS GIVEN IN THE DRAWINGS BUT FURTHER BORING BELOW THE PROPOSED LENGTH OF PUMP HOUSING PIPE WILL BE STOPPED WHEN COMMUTATION DEPTH OF PROSPECTIVE STRATA AT DIFFERENT DEPTH IS MET TO ACCOMMODATE THE DESIGN LENGTH OF STRAINER AND THE CONTRACTOR WILL BE PAID ACCORDINGLY.
3. THE CONTRACTOR WILL PROVIDED THE FOLLOWING DATA / REPORT AFTER DEVELOPMENT AND TESTING OF THE TUBE WELL DULY SIGNED BY HIM.
   (i) DEPTH OF STATIC GROUND WATER TABLE.
   (ii) SAFE RECOMMENDED YIELD OF THE TUBE WELL.
   (iii) DRAW DOWN AT THE RECOMMENDED SAFE YIELD.
   (iv) TEST REPORT OF WATER OF TUBE WELL FOR CHEMICAL PARAMETERS.

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

WATER SUPPLY SYSTEM
TUBE WELL SECTION & TUBE
WELL DETAIL

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	---

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:

NFIP-WS-TW-03

SHEET --

REV 00

CLIENT:

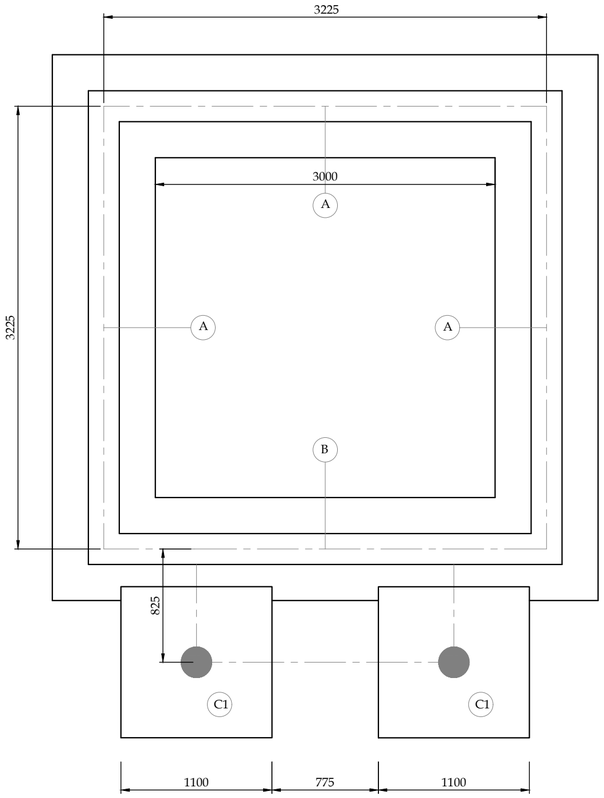
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN
PHONE: 021-3568-5041-9

CONSULTANT:

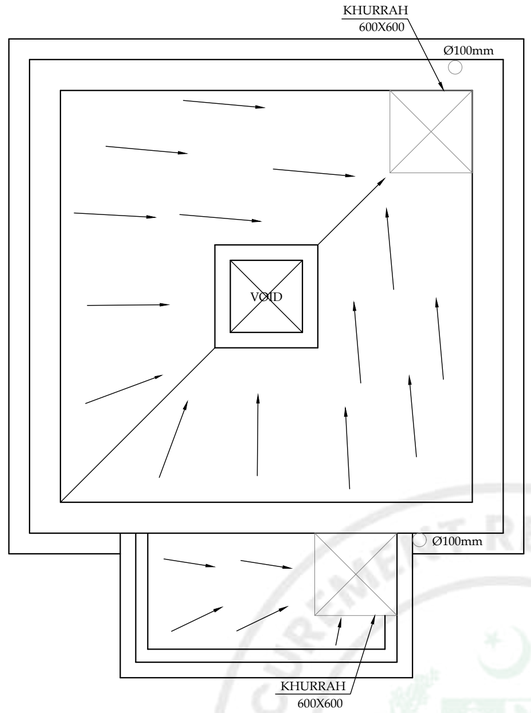
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-WS-TW-03

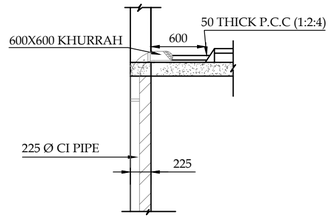
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



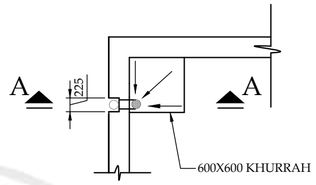
EXCAVATION PLAN



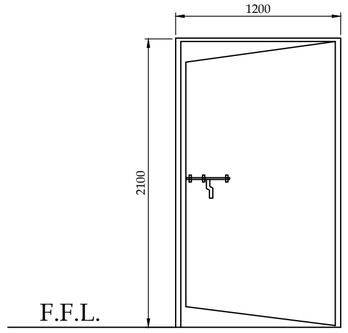
ROOF DRAINAGE PLAN



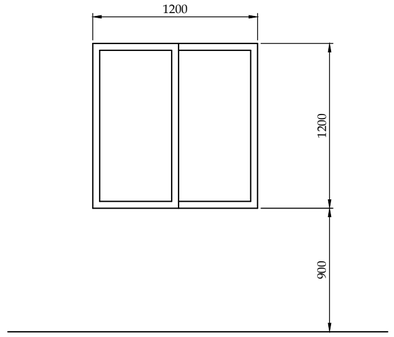
SECTION AA



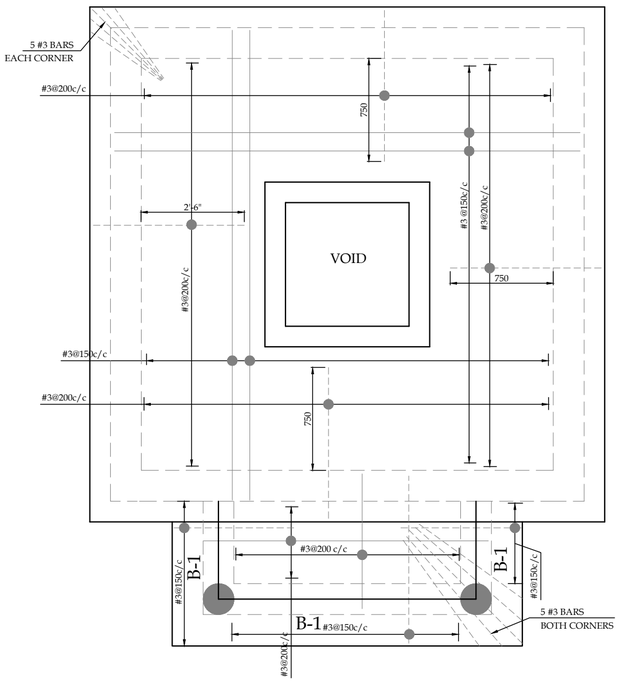
ROOF KHURRAH PLAN



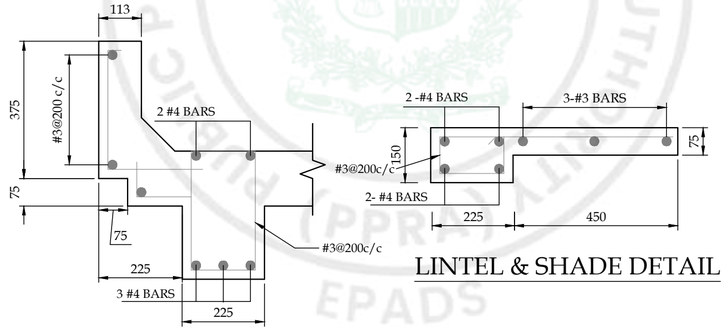
D-1
M.S. SHEET DOOR



W-1
M.S WINDOW

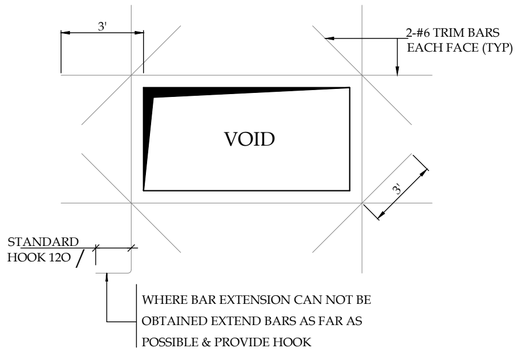


REINFORCEMENT PLAN
(SLAB THICKNESS = 150mm)



BEAM B-1

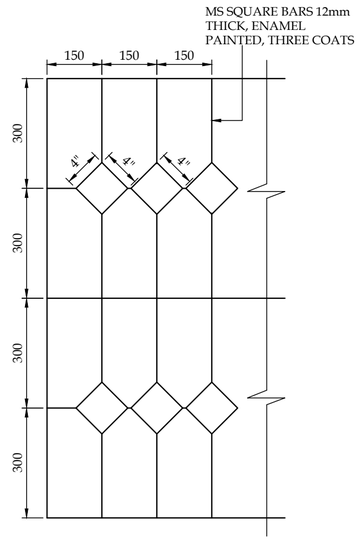
LINTEL & SHADE DETAIL



TYPICAL DETAIL
FOR VOIDS

NOTES

1. USE PORTLAND CEMENT WITH 28 DAYS CUBE STRENGTH OF 3,000 PSI.
2. USE DEFORMED STEEL REINFORCEMENTS BARS WITH MAXIMUM YIELD STRENGTH OF 40,000 PSI AS PER ASTM SPECIFICATIONS.
3. CLEAR COVER TO REINFORCING BARS
   SLAB = 20mm
   BEAM = 40mm
   COLUMN = 40mm
   FOUNDATION = 75mm



MS GRILL
(FOR WINDOWS)

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE
ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
WATER SUPPLY SYSTEM
TUBE WELL DOORS,
WINDOWS,EXCAVATION, ROOF DRAINAGE & REINFORCEMENT DETAILS

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:
NFIP-WS-TW-04

SHEET ---

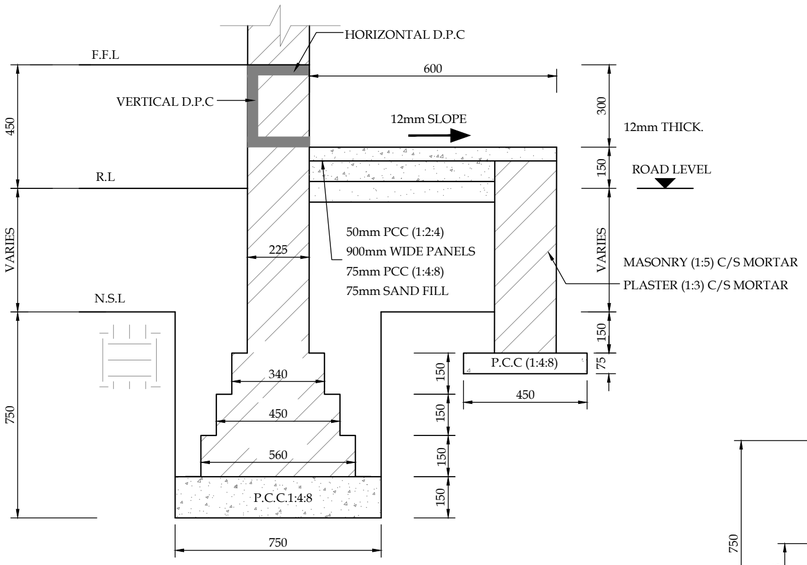
REV 00

CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

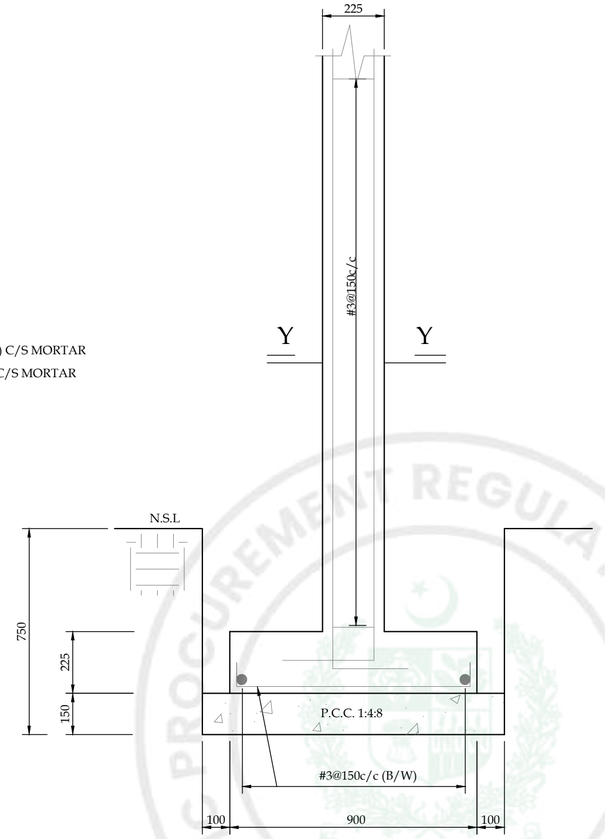
CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-WS-TW-04

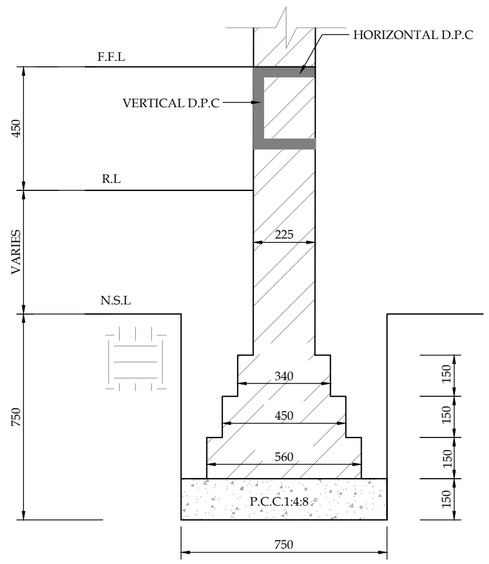
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



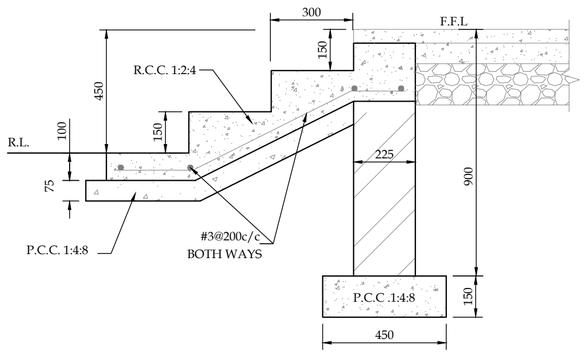
TYPE A



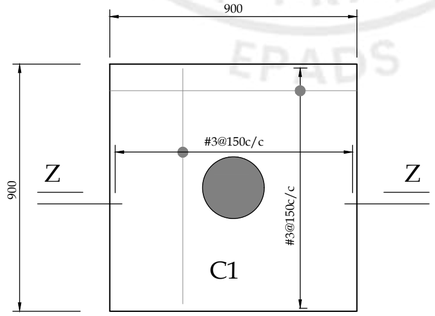
SECTION Z-Z



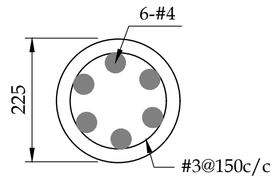
TYPE B



SECTION X-X



FOOTING PLAN
COLUMN C-1



COLUMN
SECTION Y-Y

NOTES:

1. BRICK MASONRY
   i. SUB STRUCTURE 1:6 CEMENT SAND MORTAR
   ii. SUPER STRUCTURE 1:5 CEMENT SAND MORTAR
2. HORIZONTAL D.P.C.
   i. 50mm P.C.C. (1:2:4)
   ii. HOT BITUMEN 1 COATS 10/20 @ 20 Lbs/100 Sft & ONE LAYER OF POLYTHENE SHEET, GAUGE 500
3. VERTICAL D.P.C.
   i. 20mm THICK VERTICAL D.P.C. 1:3 CEMENT SAND MORTAR WITH HOT BITUMEN 1 COAT 10/20 @ 20 Lbs/100 Sft & ONE LAYER OF POLYTHENE SHEET, GAUGE 500

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
WATER SUPPLY SYSTEM
FOUNDATION DETAIL

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:
NFIP-WS-TW-05

SHEET

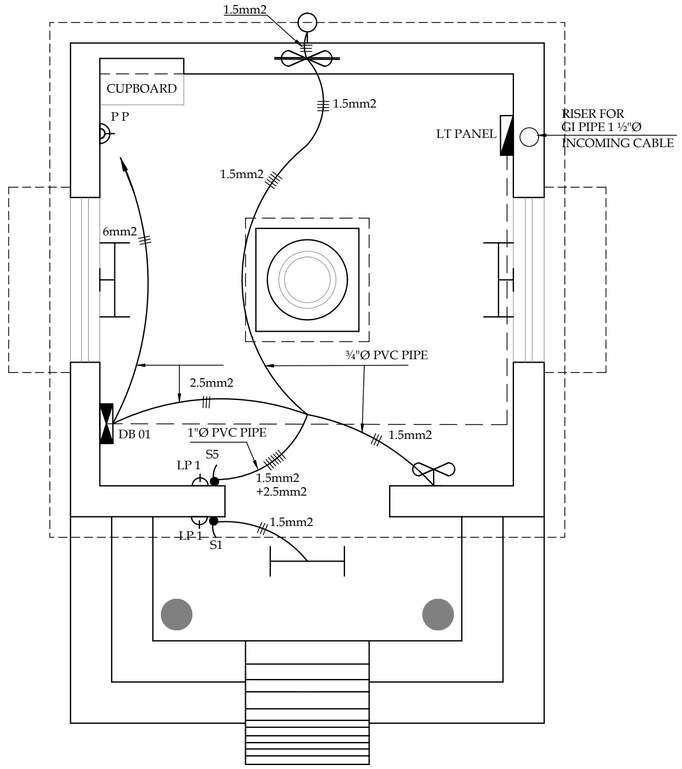
REV
00

CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

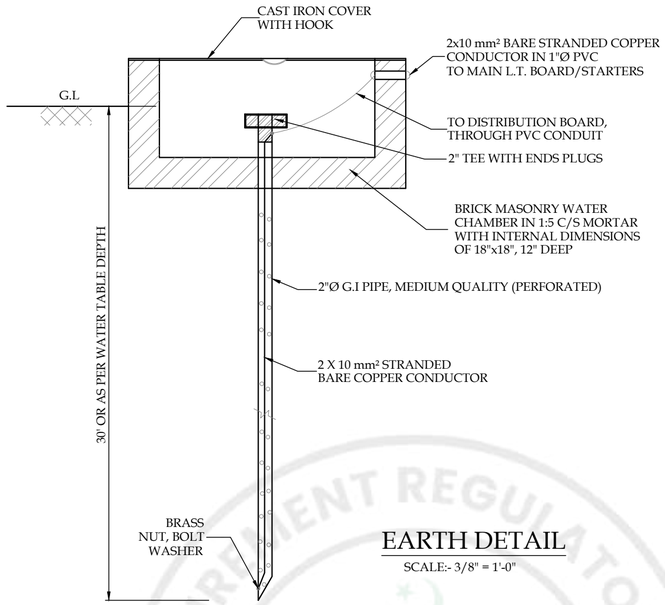
NFIP-WS-TW-05

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



ELECTRICAL PLAN

SCALE:- 3/8" = 1'-0"



EARTH DETAIL

SCALE:- 3/8" = 1'-0"

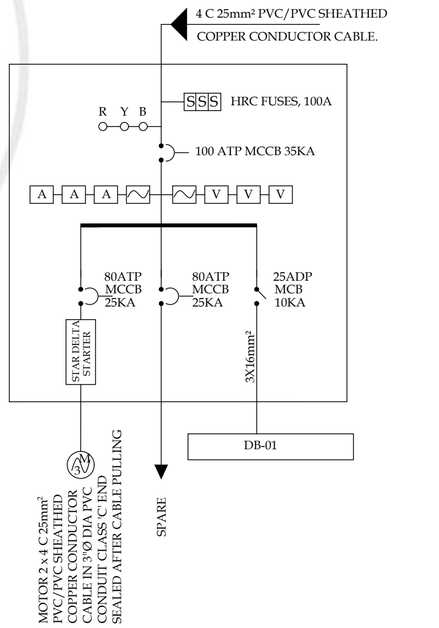
LEGEND

	LT PANEL
	DISTRIBUTION BOARD
	TMS - 140 / 136 WITH COLOUR 84 LAMP, OVER WINDOWS
	XGC - 532 WITH 18W SOX LAMP
	WALL BRACKET FAN 18" SWEEP WITH REGULATOR
	EXAUST FAN
	5 AMP: SINGLE POLE FLUSH TYPE SWITCH (SWITCH BOARD)
	3-PIN 5AMP. WALL SOCKET PLUG POINT
	3-PIN 15AMP. WALL SOCKET POWER PLUG POINT

DB 01

SCALE:- 1/8" = 1'-0"

INCOMING CABLE FROM LOW VOLTAGE SOURCE
MOULDED CASE CIRCUIT BREAKERS
COPPER BUS BAR TPN & E (Tinned)
MOULDED CASE CIRCUIT BREAKERS AND MINIATURE CIRCUIT BREAKERS
STAR DELTA STARTERS COMPLETE WITH ACCESSORIES
PVC/PVC SHEATHED COPPER CONDUCTOR CABLE
THREE PHASE MOTOR / DB-01
CIRCUIT DESCRIPTION
MOTOR CAPACITY (HP)
CONNECTED LOAD ON EACH CIRCUIT (kW)
TOTAL CONNECTED LOAD (kW)



MOTOR PUMP NO. 1	SPARE	POWER SOCKET	LIGHTS/ FAN	SPARE	SPARE
20	-			-	-
14.92	-	1.00	0.36	-	-
16.28					

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

WATER SUPPLY SYSTEM
ELECTRIFICATION PLAN

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	M DEEN	ENGR. UMAIR KHALID	ENGR. RAZA HAMID

DRAWING Nº:

NFIP-WS-TW-06

SHEET ---

REV 00

CLIENT:

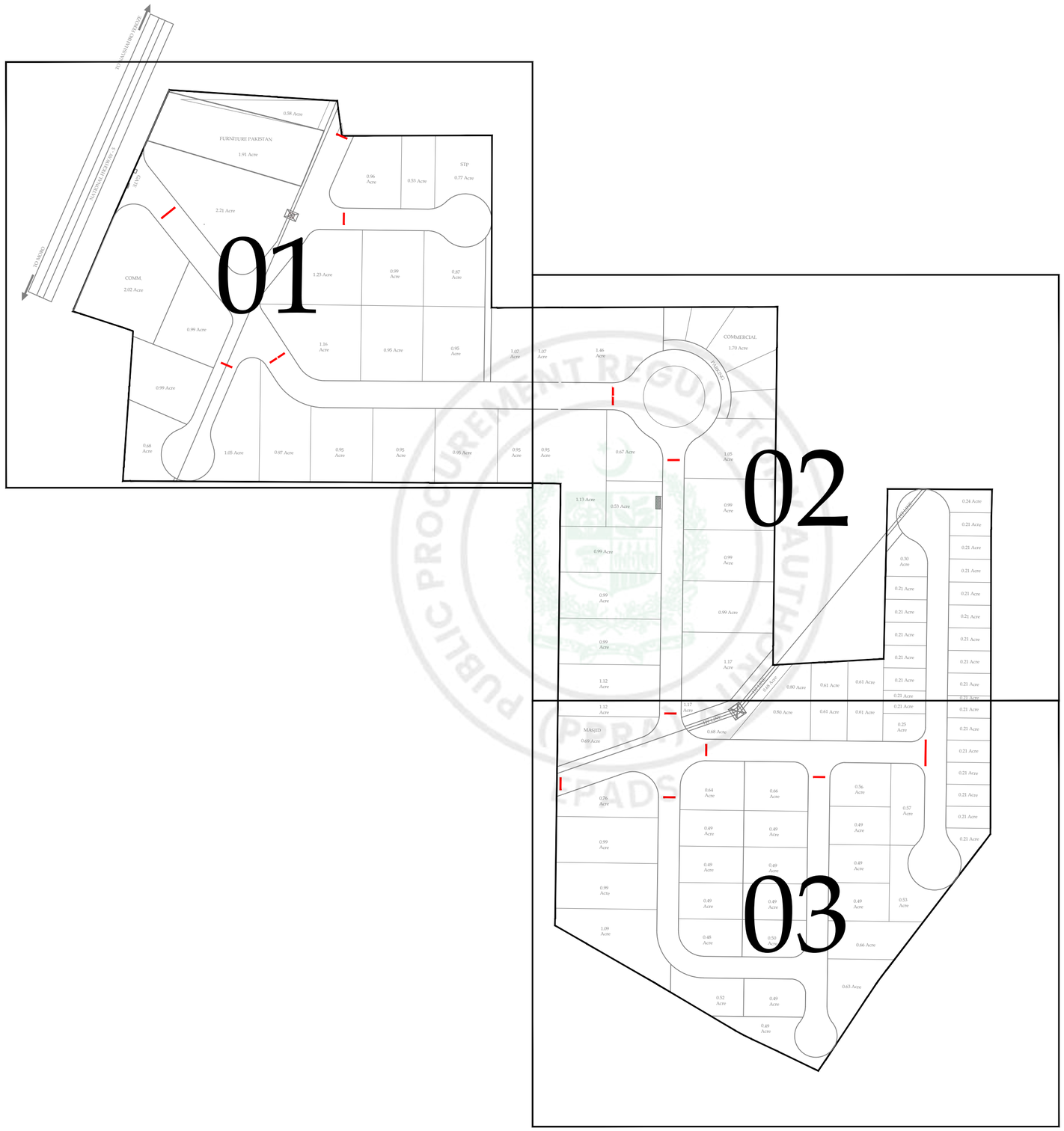
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

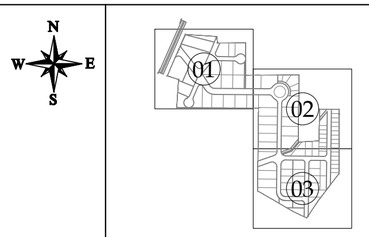
CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAX: +92 42 35450916 WEB: www.asiancon.com

NFIP-WS-TW-06

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026





KEY PLAN

NOTES:-

1. ANY CHANGE IN ROAD LAYOUT/ALIGNMENT, OR IN MASTER WILL RENDER THE PROVIDED COORDINATES INVALID AND MUST BE ADJUSTED AS PER MODIFICATION IN ROAD/MASTER PLAN LAYOUT.
2. THE CENTER LINE OF THE ROAD IS THE DATUM FOR LAYING OF WATER SUPPLY LINES.
3. SUBJECT VERIFICATION BEFORE EXECUTION AT SITE.
4. FOR TRENCH DETAIL & DIAMETER OF PIPE SLEEVE REFER DWG. # NFIP-WS-TD-06.

LEGEND

PIPE SLEEVE

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

WATER SUPPLY SYSTEM
KEY PLAN

ORIGNAL :		DATE :		SCALE :
A2		JULY, 2021		
DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:

NFIP-WS-PS-KP-00

SHEET 01 OF 01

REV 00

CLIENT:

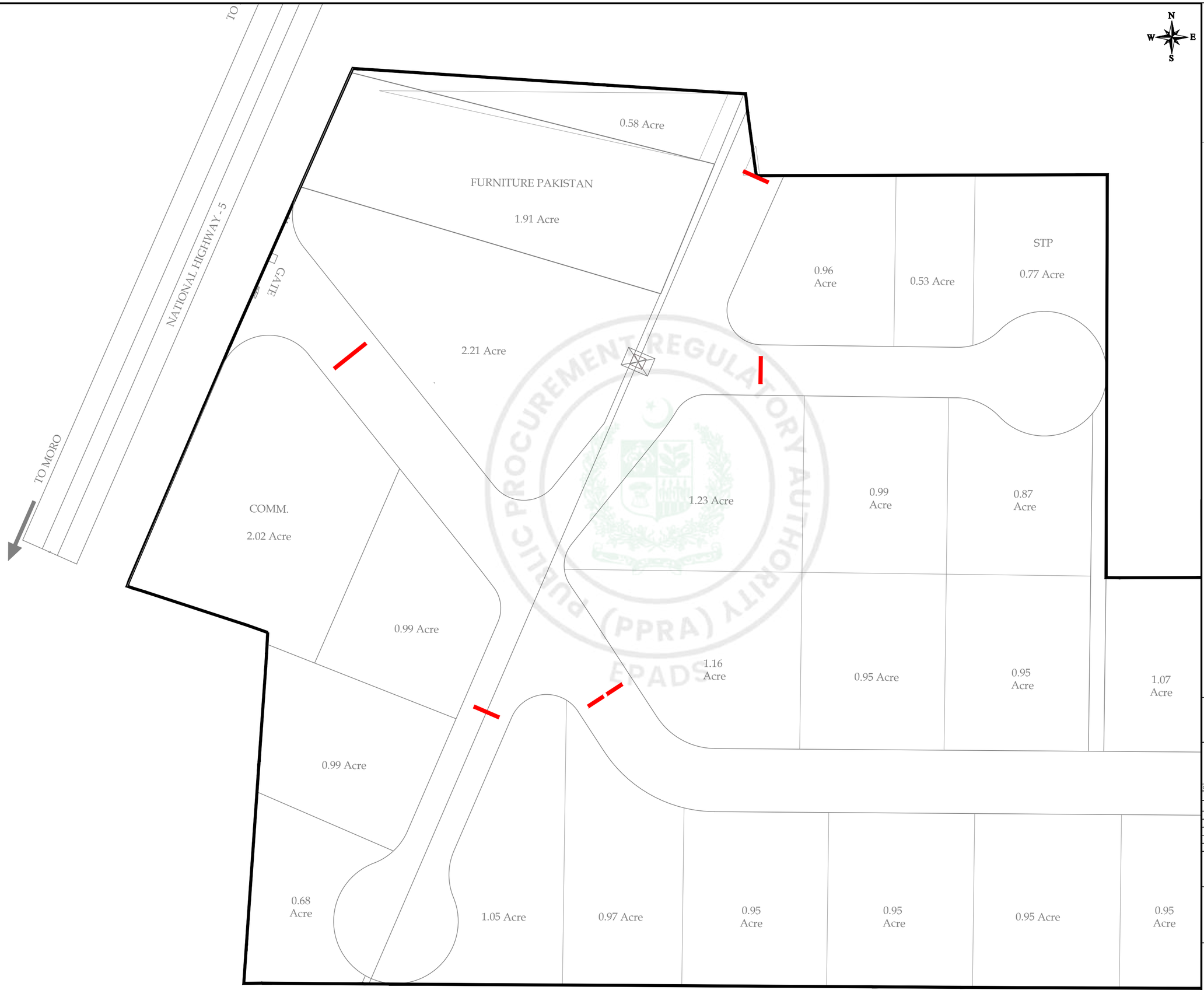
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

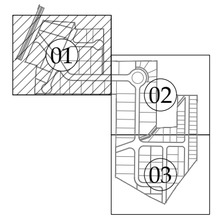
CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-WS-PS-KP-00

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026





KEY PLAN

NOTES:-

1. ANY CHANGE IN ROAD LAYOUT/ALIGNMENT, OR IN MASTER WILL RENDER THE PROVIDED COORDINATES INVALID AND MUST BE ADJUSTED AS PER MODIFICATION IN ROAD/MASTER PLAN LAYOUT.
2. THE CENTER LINE OF THE ROAD IS THE DATUM FOR LAYING OF WATER SUPPLY LINES.
3. SUBJECT VERIFICATION BEFORE EXECUTION AT SITE.
4. FOR TRENCH DETAIL & DIAMETER OF PIPE SLEEVE REFER DWG. # NFIP-WS-TD-06.

LEGEND

PIPE SLEEVE

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

WATER SUPPLY SYSTEM
LAYOUT PLAN-01

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING N°:

NFIP-WS-PS-LP-01

SHEET 01 OF 03

REV 00

CLIENT:

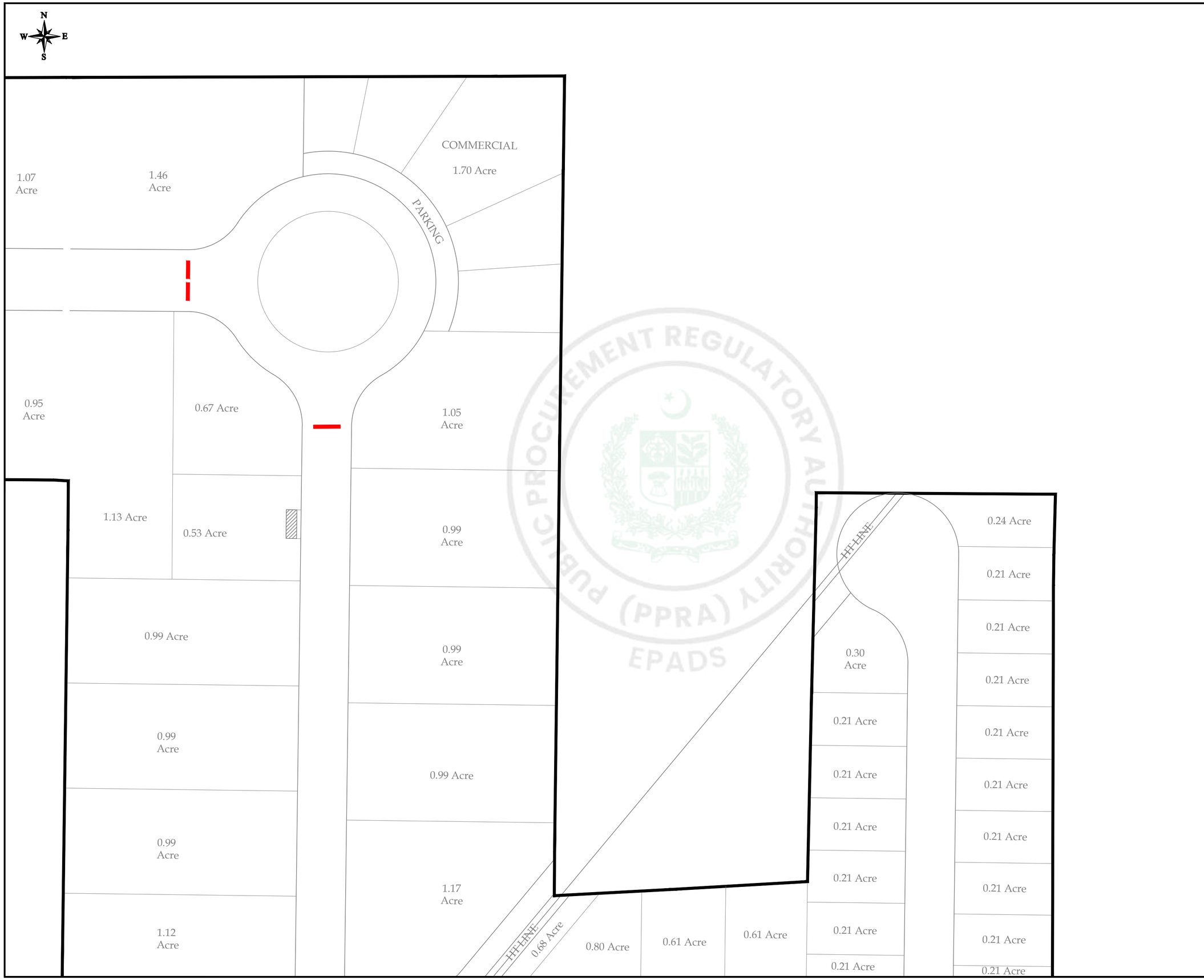
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

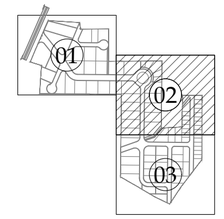
NFIP-WS-PS-LP-01

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

NFIP-WS-PS-LP-02



KEY PLAN

NOTES:-

1. ANY CHANGE IN ROAD LAYOUT/ALIGNMENT, OR IN MASTER WILL RENDER THE PROVIDED COORDINATES INVALID AND MUST BE ADJUSTED AS PER MODIFICATION IN ROAD/MASTER PLAN LAYOUT.
2. THE CENTER LINE OF THE ROAD IS THE DATUM FOR LAYING OF WATER SUPPLY LINES.
3. SUBJECT VERIFICATION BEFORE EXECUTION AT SITE.
4. FOR TRENCH DETAIL & DIAMETER OF PIPE SLEEVE REFER DWG. # NFIP-WS-TD-06.

LEGEND

PIPE SLEEVE

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

WATER SUPPLY SYSTEM LAYOUT PLAN-02

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº: NFIP-WS-PS-LP-02

SHEET 02 OF 03

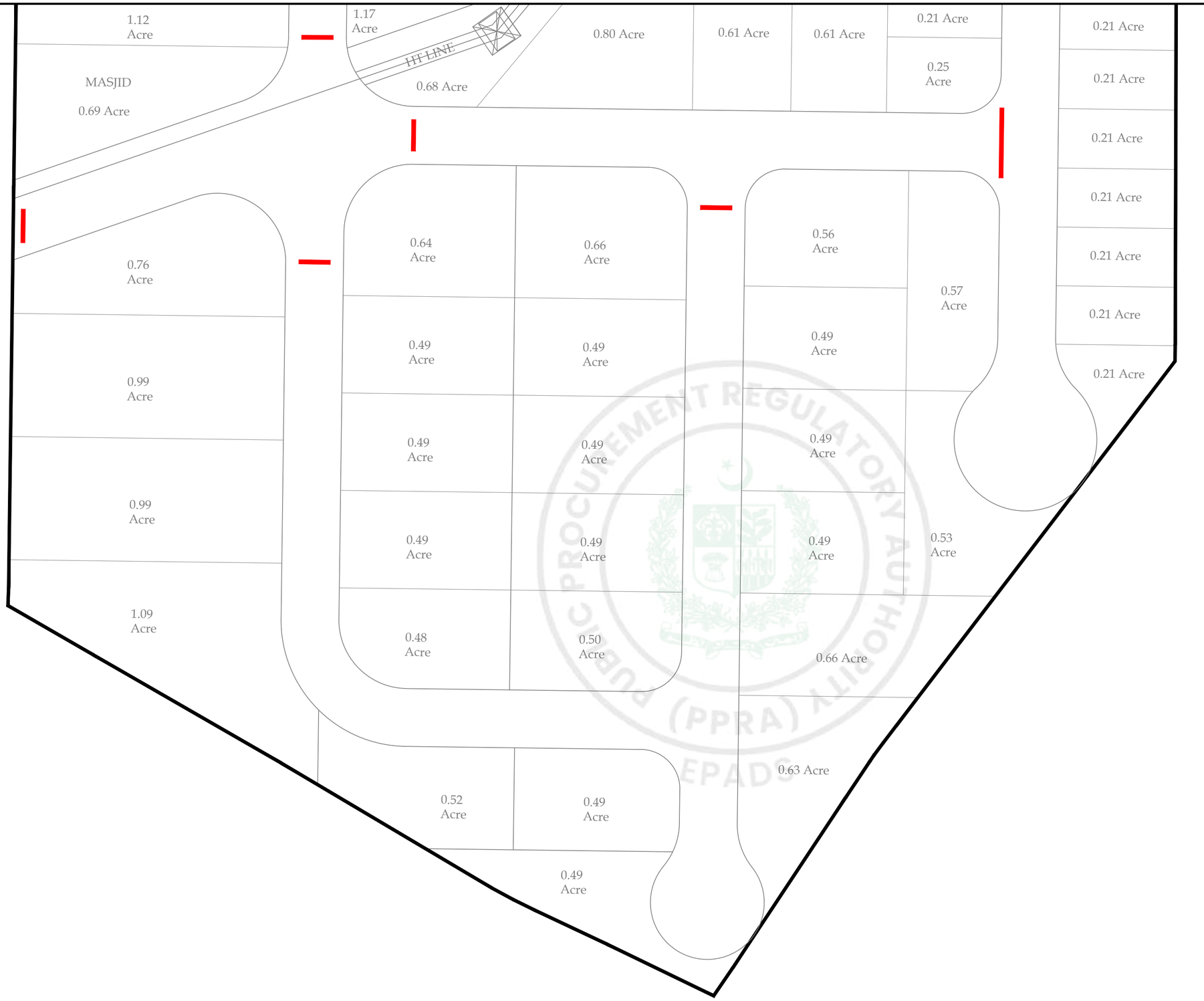
REV 00

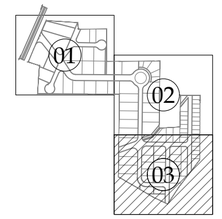
CLIENT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com





KEY PLAN

NOTES:-

1. ANY CHANGE IN ROAD LAYOUT/ALIGNMENT, OR IN MASTER WILL RENDER THE PROVIDED COORDINATES INVALID AND MUST BE ADJUSTED AS PER MODIFICATION IN ROAD/MASTER PLAN LAYOUT.
2. THE CENTER LINE OF THE ROAD IS THE DATUM FOR LAYING OF WATER SUPPLY LINES.
3. SUBJECT VERIFICATION BEFORE EXECUTION AT SITE.
4. FOR TRENCH DETAIL & DIAMETER OF PIPE SLEEVE REFER DWG. # NFIP-WS-TD-06.

LEGEND

PIPE SLEEVE

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

WATER SUPPLY SYSTEM LAYOUT PLAN-03

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:

NFIP-WS-PS-LP-03

SHEET 03 OF 03

REV 00

CLIENT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-WS-PS-LP-03

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

SEWERAGE SYSTEM

PROCUREMENT REGULATORY AUTHORITY
PUBLIC (PPRA)
EPADS

LIST OF DRAWINGS
SEWERAGE SYSTEM

Serial Nr.	Description	Drg.Nr.	Serial Nr.	Description	Drg.Nr.
	LAYOUT PLANS		11	Sectional Detail-01	NFIP-SW-DS-C-02
1	Key Plan	NFIP-SW-KP-8000	12	Sectional Detail-02	NFIP-SW-DS-C-03
2	Sewerage System Layout Plan-01	NFIP-SW-LP-8001	13	Elevations	NFIP-SW-DS-C-04
3	Sewerage System Layout Plan-02	NFIP-SW-LP-8002		**STRUCTURE**	
4	Sewerage System Layout Plan-03	NFIP-SW-LP-8003	14	Foundation Layout Plan	NFIP-SW-DS-S-01
5	Forcemain Layout Plan	NFIP-SW-FM-8004	15	Foundation Sectional Reinforcement Details-I	NFIP-SW-DS-S-02
	TYPICAL DETAILS		16	Foundation Sectional Reinforcement Details-II	NFIP-SW-DS-S-03
6	Typical Manhole Details	NFIP-SW-TD-01	17	Pump Room Slab and Beams Reinforcement Details	NFIP-SW-DS-S-04
7	Typical Details Pipe Jointing	NFIP-SW-TD-02		**ELECTRICAL**	
8	Typical Trench Details	NFIP-SW-TD-03	18	Electrical Layout Plan	NFIP-SW-DS-E-01
9	Typical Connction Chamber Details	NFIP-SW-TD-04	19	Lighting Layout Plan & Elevations	NFIP-SW-DS-E-02
	DISPOSAL STATION		20	Single Line Diagram of Distribution Board	NFIP-SW-DS-E-03
	CIVIL				
10	Layout Plan	NFIP-SW-DS-C-01			

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

SEWERAGE SYSTEM
LIST OF DRAWINGS

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	KASHIF	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:

NFIP-SW-LOD

SHEET
-

REV
00

CLIENT:

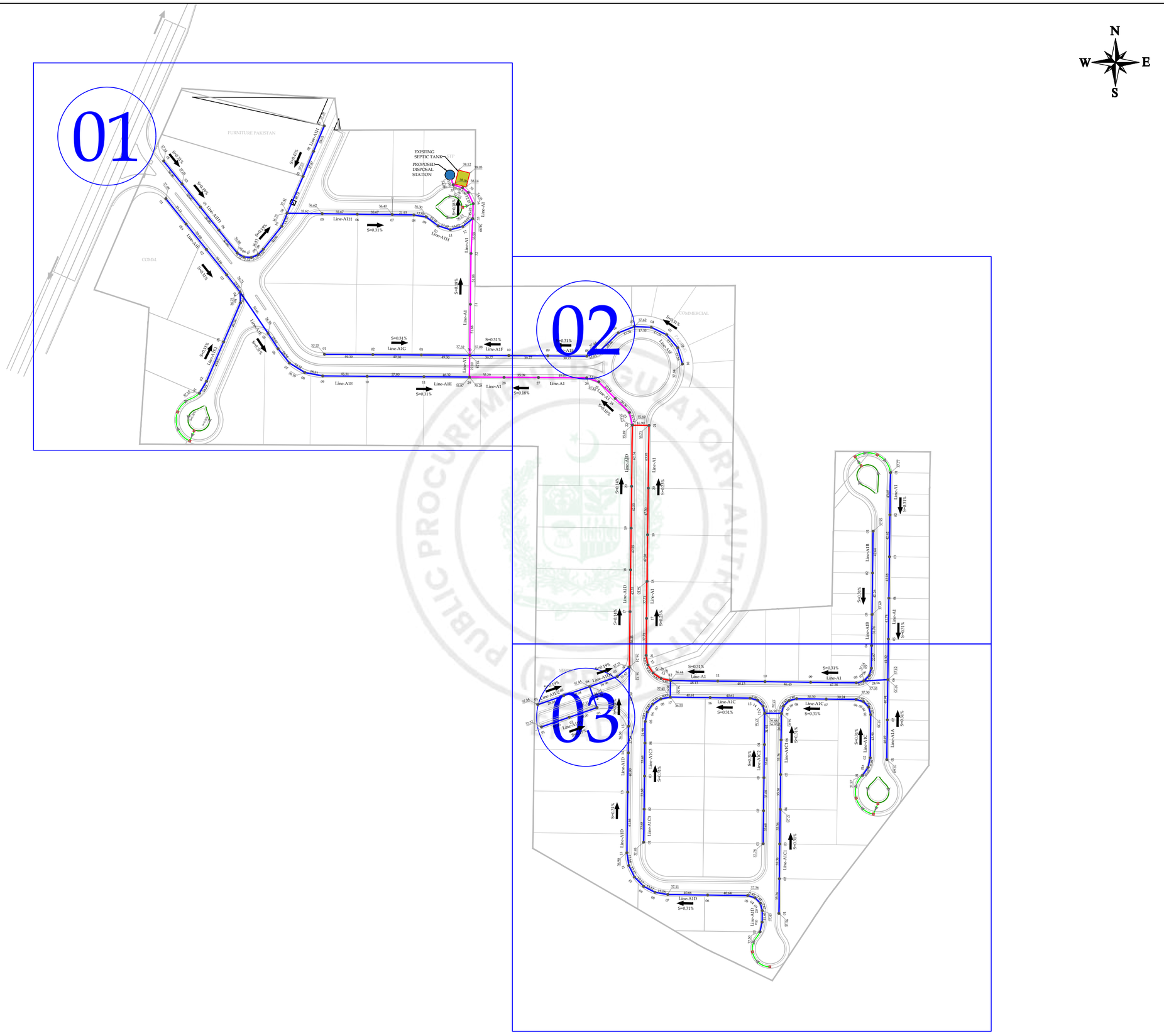
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT (LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SW-LOD

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



NOTES:

1. ALL DIMENSIONS SHOWN ARE IN METERS UNLESS OTHERWISE MENTIONED.
2. RCC PIPE, SHALL CONFORM TO ASTM C76, CLASS III, WALL B.
3. THE MINIMUM CLEAR COVER TO RCC PIPES SHALL BE 0.9 METER.
4. IF PIPES REQUIRE SOME ADJUSTMENTS, AS PER SITE, THEN INVERT SLOPES AS MENTIONED IN LAYOUT PLANS SHALL BE FOLLOWED WITH CLEAR COVER TO PIPES AS MENTIONED ABOVE.
5. 0.2% SLOPE SHALL BE MAINTAIN IN CUNETTE.

LEGEND

300mmØ RCC PIPE	
375mmØ RCC PIPE	
450mmØ RCC PIPE	
150mmØ uPVC PIPE	
CUNETTE	
STORMWATER COLLECTION CHAMBER	
PROPOSED MANHOLE	
LENGTH, C/C	60 METER
MANHOLE NUMBER	10
FLOW DIRECTION	
INVERT LEVEL	25.30

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

SEWERAGE SYSTEM KEY PLAN

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	KASHIF	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:

NFIP-SW-KP-8000

SHEET 01 OF 1

REV 00

CLIENT:

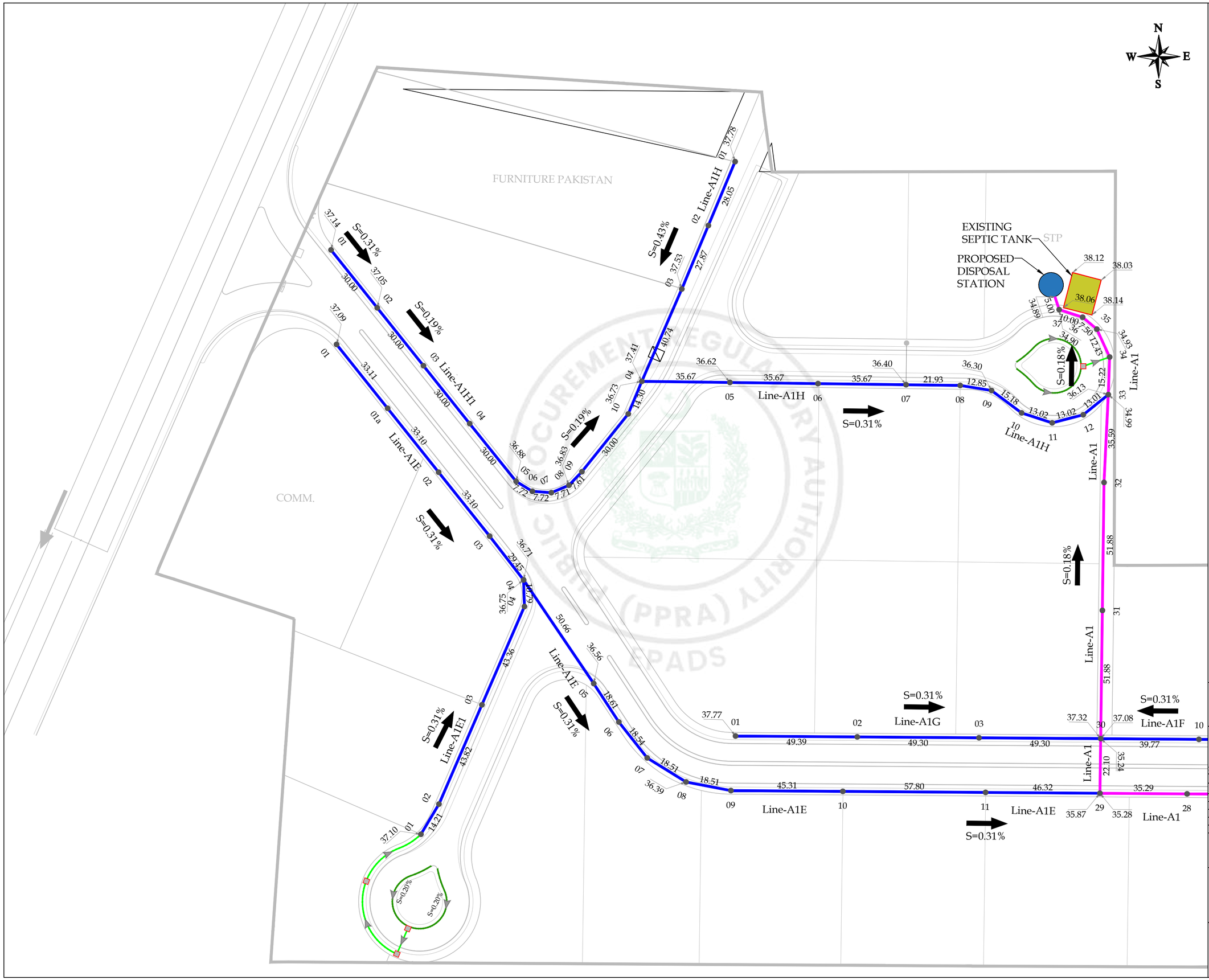
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

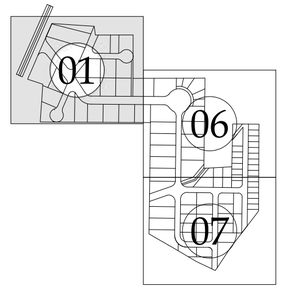
CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SW-LP

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026





NOTES:

1. ALL DIMENSIONS SHOWN ARE IN METERS UNLESS OTHERWISE MENTIONED.
2. RCC PIPE, SHALL CONFORM TO ASTM C76, CLASS III, WALL B.
3. THE MINIMUM CLEAR COVER TO RCC PIPES SHALL BE 0.9 METER.
4. IF PIPES REQUIRE SOME ADJUSTMENTS, AS PER SITE, THEN INVERT SLOPES AS MENTIONED IN LAYOUT PLANS SHALL BE FOLLOWED WITH CLEAR COVER TO PIPES AS MENTIONED ABOVE.
5. 0.2% SLOPE SHALL BE MAINTAIN IN CUNETTE.

LEGEND

300mmØ RCC PIPE	
375mmØ RCC PIPE	
450mmØ RCC PIPE	
150mmØ uPVC PIPE	
CUNETTE	
STORMWATER COLLECTION CHAMBER	
PROPOSED MANHOLE	
LENGTH, C/C	60 METER
MANHOLE NUMBER	10
FLOW DIRECTION	
INVERT LEVEL	25.30

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

SEWERAGE SYSTEM LAYOUT PLAN

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	KASHIF	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº: NFIP-SW-LP-8001

SHEET 01 OF 03

REV 00

CLIENT:

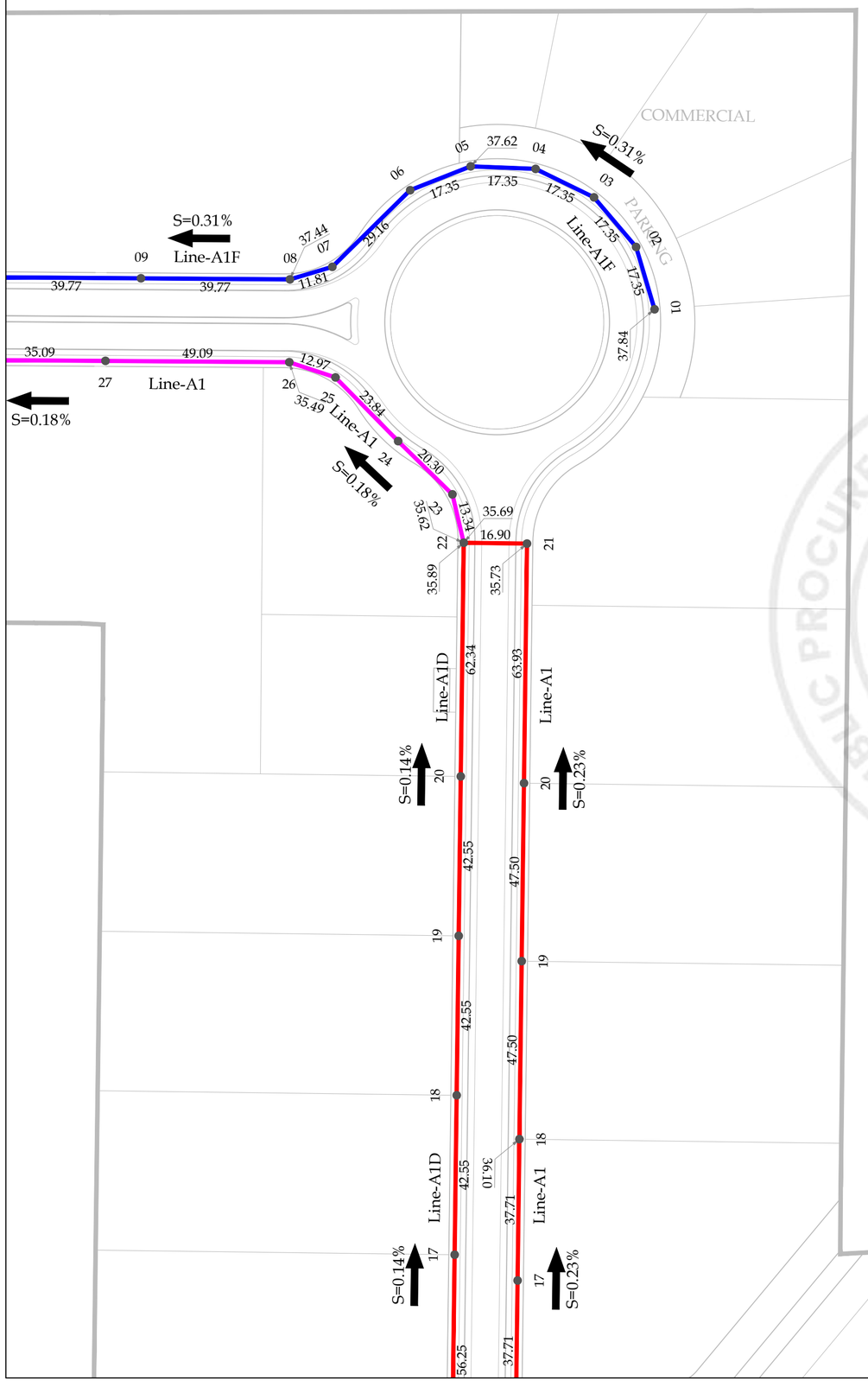
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

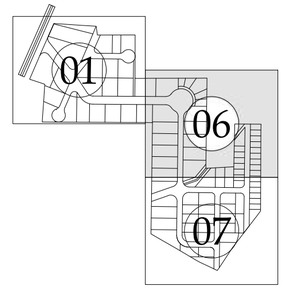
CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SW-LP

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026





NOTES:

1. ALL DIMENSIONS SHOWN ARE IN METERS UNLESS OTHERWISE MENTIONED.
2. RCC PIPE, SHALL CONFORM TO ASTM C76, CLASS III, WALL B.
3. THE MINIMUM CLEAR COVER TO RCC PIPES SHALL BE 0.9 METER.
4. IF PIPES REQUIRE SOME ADJUSTMENTS, AS PER SITE, THEN INVERT SLOPES AS MENTIONED IN LAYOUT PLANS SHALL BE FOLLOWED WITH CLEAR COVER TO PIPES AS MENTIONED ABOVE.
5. 0.2% SLOPE SHALL BE MAINTAIN IN CUNETTE.

LEGEND

300mmØ RCC PIPE	
375mmØ RCC PIPE	
450mmØ RCC PIPE	
150mmØ uPVC PIPE	
CUNETTE	
STORMWATER COLLECTION CHAMBER	
PROPOSED MANHOLE	
LENGTH, C/C	60 METER
MANHOLE NUMBER	10
FLOW DIRECTION	
INVERT LEVEL	25.30

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

SEWERAGE SYSTEM
LAYOUT PLAN

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	KASHIF	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:

NFIP-SW-LP-8002

SHEET 02 OF 03

REV 00

CLIENT:

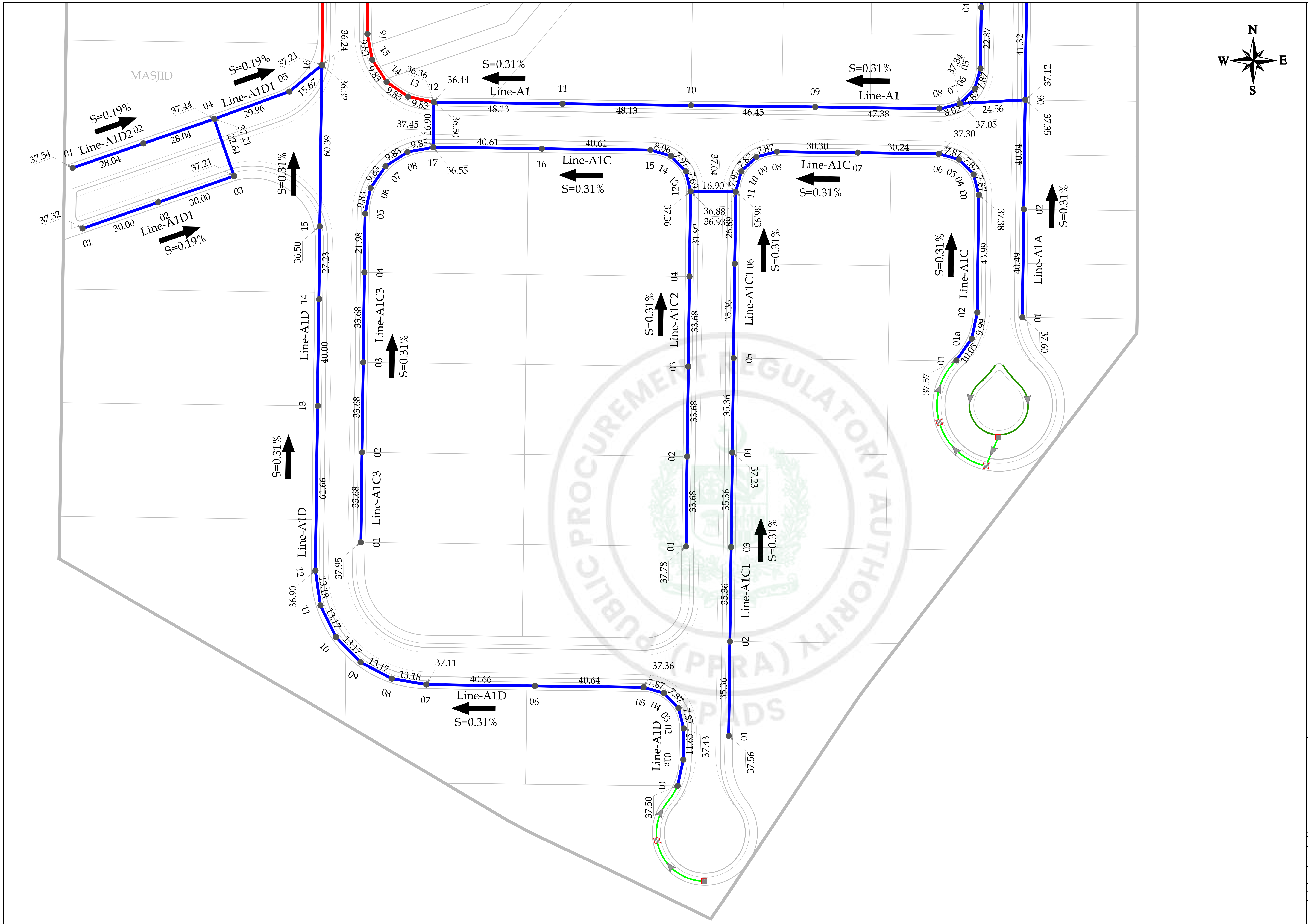
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

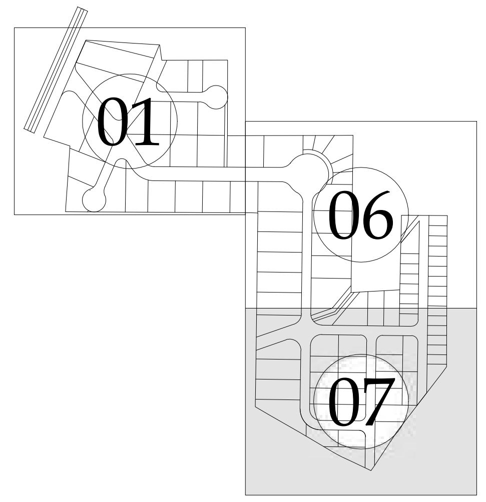
CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SW-LP

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS





NOTES:

1. ALL DIMENSIONS SHOWN ARE IN METERS UNLESS OTHERWISE MENTIONED.
2. RCC PIPE, SHALL CONFORM TO ASTM C76, CLASS III, WALL B.
3. THE MINIMUM CLEAR COVER TO RCC PIPES SHALL BE 0.9 METER.
4. IF PIPES REQUIRE SOME ADJUSTMENTS, AS PER SITE, THEN INVERT SLOPES AS MENTIONED IN LAYOUT PLANS SHALL BE FOLLOWED WITH CLEAR COVER TO PIPES AS MENTIONED ABOVE.
5. 0.2% SLOPE SHALL BE MAINTAIN IN CUNETTE.

LEGEND

300mmØ RCC PIPE	—
375mmØ RCC PIPE	—
450mmØ RCC PIPE	—
150mmØ uPVC PIPE	—
CUNETTE	—
STORMWATER COLLECTION CHAMBER	▨
PROPOSED MANHOLE	●
LENGTH, C/C	60 METER
MANHOLE NUMBER	10
FLOW DIRECTION	→
INVERT LEVEL	25.30

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT
NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE
ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY &
SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

SEWERAGE SYSTEM
LAYOUT PLAN

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	KASHIF	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:	SHEET	REV
NFIP-SW-LP-8003	03 OF 03	00

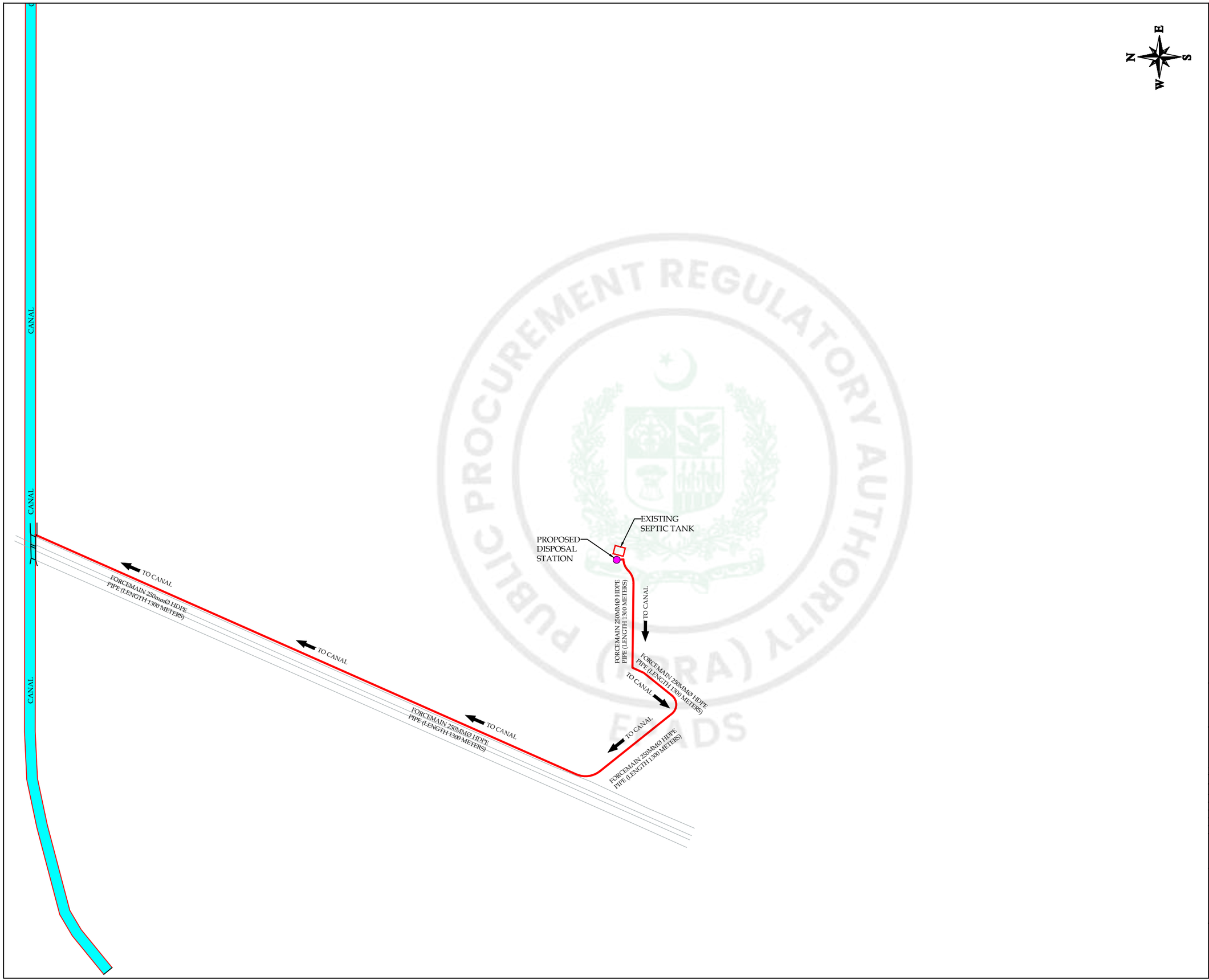
CLIENT:

PAKISTAN INDUSTRIAL DEVELOPMENT
CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI,
PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS



NOTE:-

1. FORCEMAIN SHOULD HAVE A MINIMUM CLEAR COVER OF 3'(900mm) AS FAR AS POSSIBLE.
2. FORCEMAIN SHALL BE LAID ON A SMOOTH GRADIENT AVOIDING CREST AND TROUGH.
3. FORCEMAIN SHALL BE OF HDPE PN-10.

LEGEND

FORCEMAIN

CANAL

PROPOSED DISPOSAL STATION

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

SEWERAGE SYSTEM
FORCEMAIN LAYOUT PLAN

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	KASHIF	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:

NFIP-SW-FM-8004

SHEET -

REV 00

CLIENT:

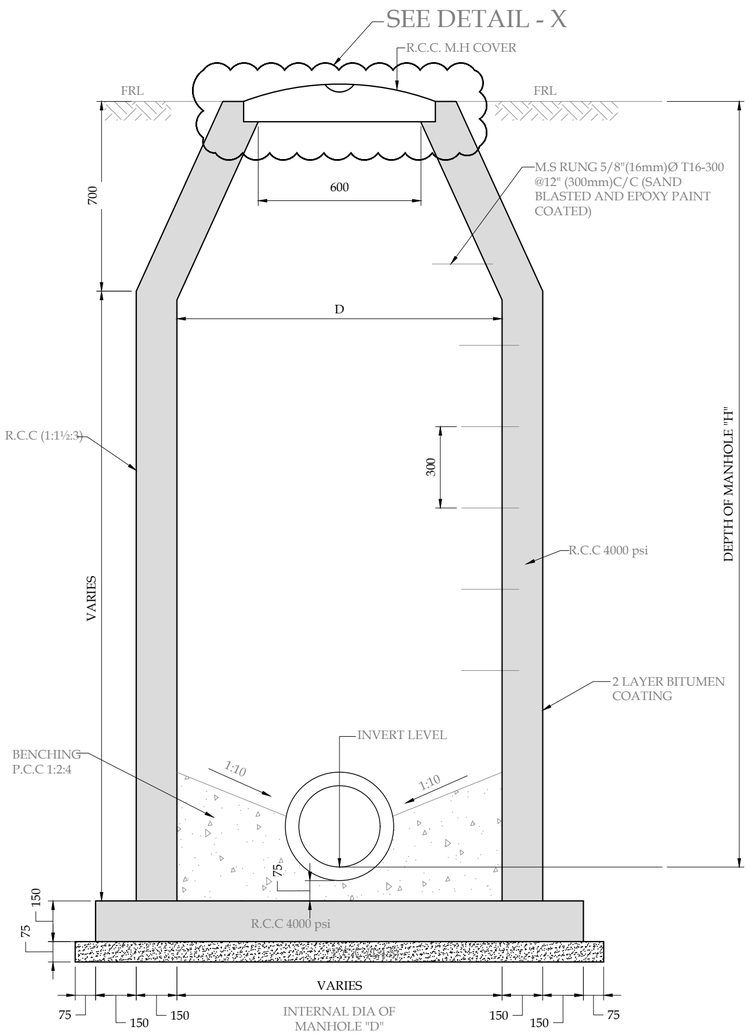
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

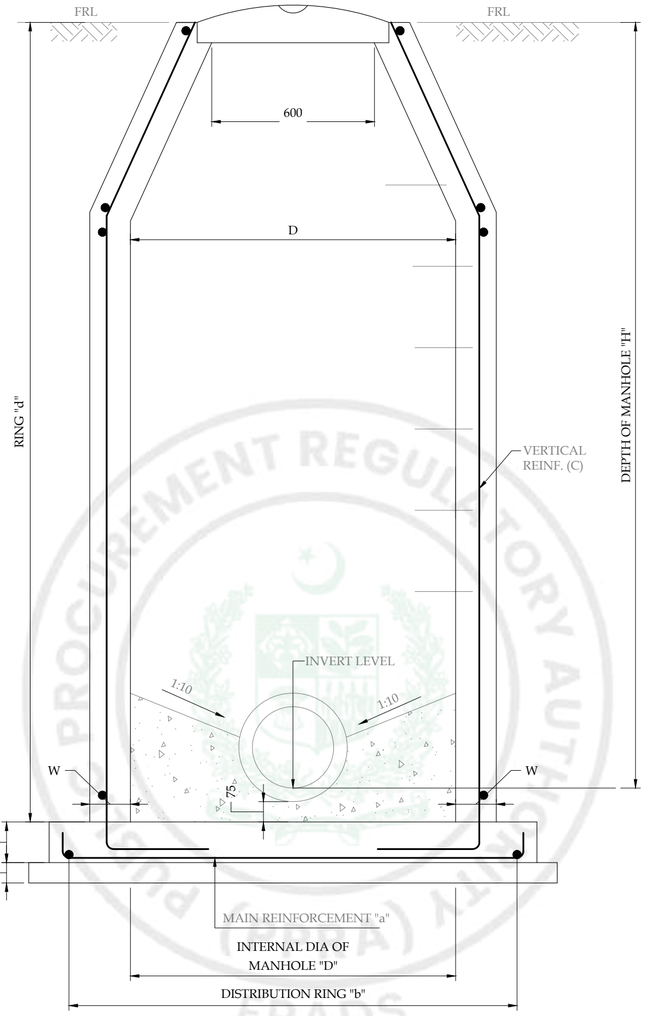
ASIAN CONSULTING ENGINEERS PVT (LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SW-FORCEMAIN

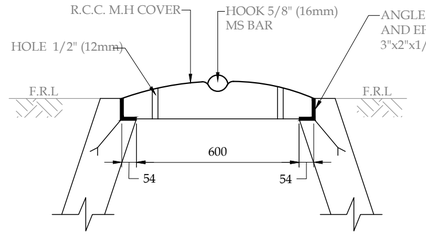
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



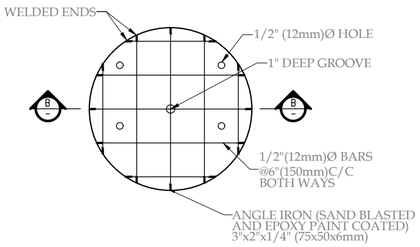
(A) SECTION



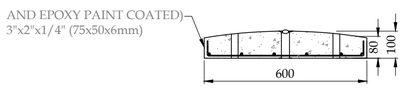
(A) SECTION



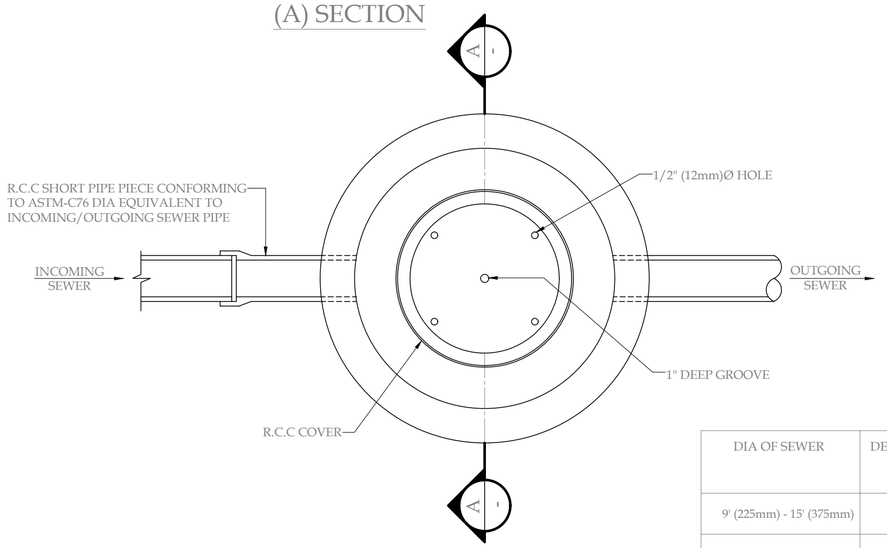
DETAIL-X
R.C.C M.H COVER AND FRAME



DETAIL OF MANHOLE COVER



(B) SECTION



NOTES

1. ALL DIMENSIONS ARE IN MM, EXCEPT WHERE OTHERWISE MENTIONED.
2. EXCEPT WHERE OTHERWISE SPECIFIED, ALL REINFORCED CEMENT CONCRETE IN WASTEWATER RETAINING STRUCTURES, SHALL BE CLASS B, USING SULFATE RESISTANT PORTLAND CEMENT (ASTM: C150 - TYPE V).
3. ALL STEEL REINFORCEMENT (#3 & ABOVE), EXCEPT FOR SHEAR STIRRUPS AND COLUMN TIES, SHALL CONFORM TO ASTM A-615 (GRADE 60).

Concrete Class	Minimum 28-day Cylinder Strength kg/cm^2(psi)	Minimum Cement Contents kg/m^3 (lb/ft^3)	Mix Ratio by Volume
Class B	281 (4000)	396 (24.7)	-

4. CONCRETE COVER
   - FOUNDATION
     BOTTOM = 2" TOP = 2"
     SIDES = 3"
   - SLAB = 1"
   - R.C.C WALL = 2"

SCHEDULE OF MANHOLE

DIA OF SEWER	DEPTH OF MANHOLE FT. "H"	INTERNAL DIA OF MANHOLE FT "D"	THICKNESS OF WALL "W" INCHES	BASE SLAB "B" INCHES	WALL REINFORCEMENT		BASE SLAB REINFORCEMENT	
					VERTICAL REINF."C"	RING REINF. "d"	MAIN REINFORCEMENT "a"	DISTRIBUTION RING "b"
9' (225mm) - 15' (375mm)	ABOVE 8' (2400mm) UPTO 14' (4200mm)	4'-0" (1200mm)	6" (150mm)	6" (150mm)	3/8" (10mm) @5" (125mm) C/C	3/8" (10mm) @5" (125mm) C/C	3/8" (10mm) @5" (125mm) C/C	3/8" (10mm) @5" (125mm) C/C
18' (450mm) - 36' (900mm)	ABOVE 8' (2400mm) UPTO 14' (4200mm)	5'-0" (1500mm)	6" (150mm)	6" (150mm)	3/8" (10mm) @5" (125mm) C/C	3/8" (10mm) @5" (125mm) C/C	3/8" (10mm) @5" (125mm) C/C	3/8" (10mm) @5" (125mm) C/C

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
SEWERAGE SYSTEM
TYPICAL MANHOLE
DETAILS

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	---

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:
NFIP-SW-TD-01

SHEET --

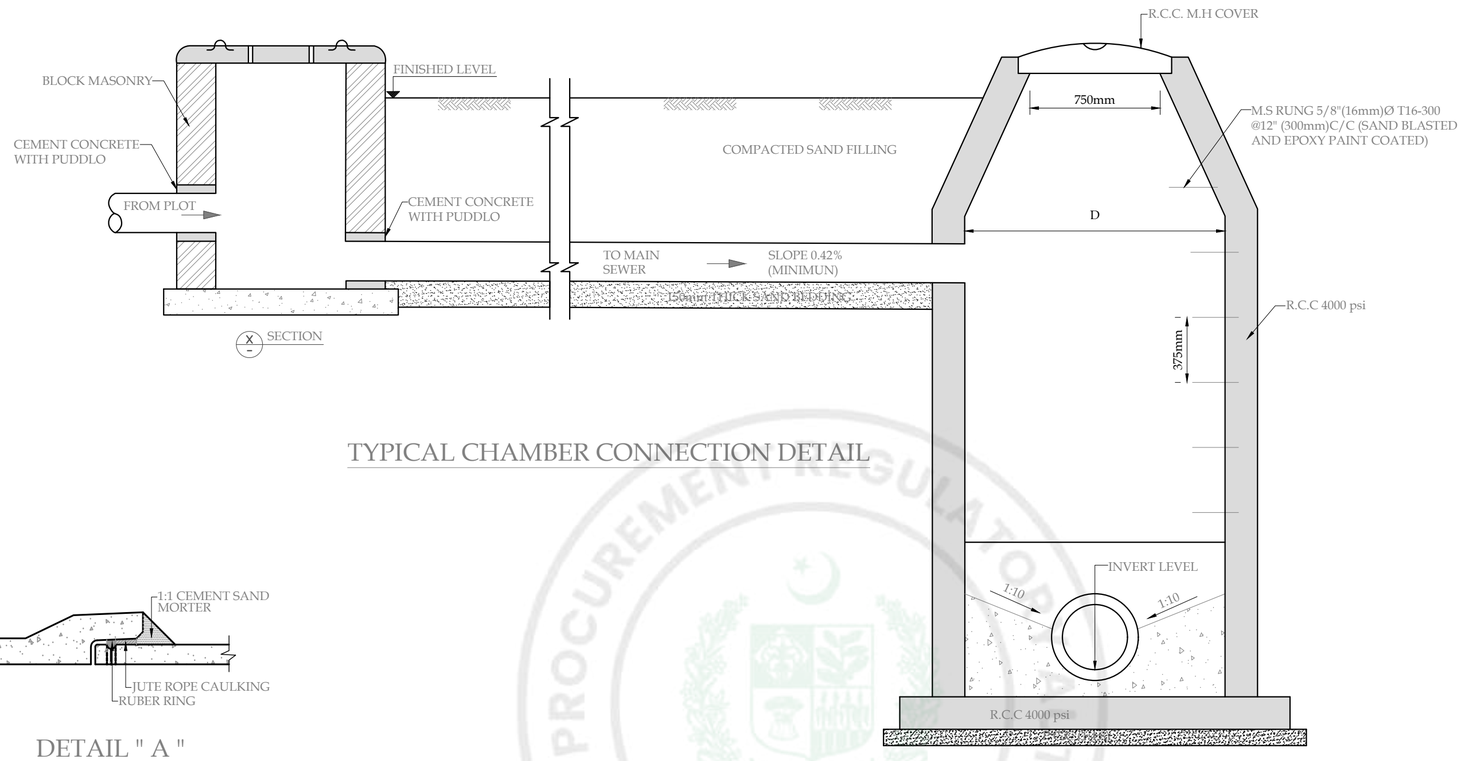
REV 00

CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

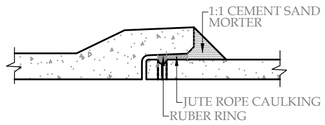
CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SW-TD-01

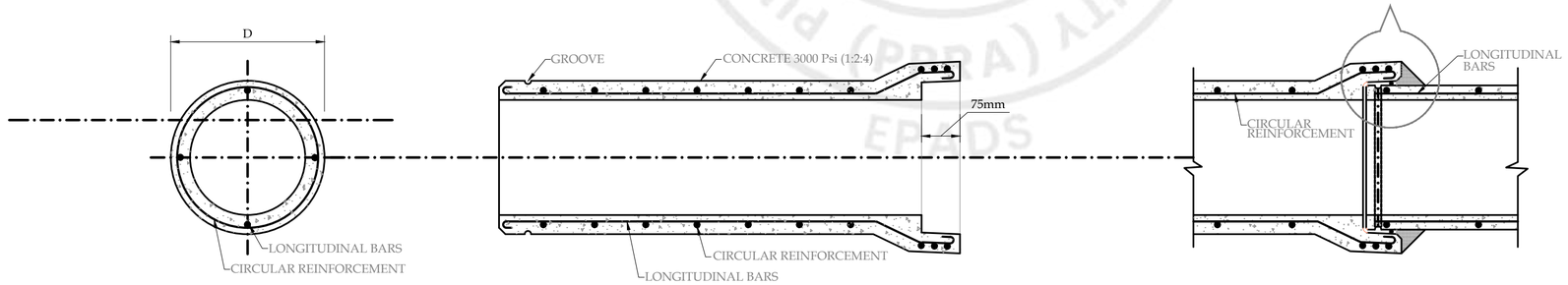
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



TYPICAL CHAMBER CONNECTION DETAIL



DETAIL " A "



PIPE REINFORCEMENT DETAIL

NOTE:-

1. THE CONNECTING CHAMBER WILL BE CONSTRUCTED IN SIDE OF PLOT BOUNDARY.
2. THE CHAMBER WILL BE CONNECTED TO NEAR BY MANHOLE.
3. FOR DIMENSIONS OF WALL THICKNESS OF PIPE REFER TABLE:1

TABLE :1

RECOMMENDED R.C.C PIPES OF 8Ft. BARREL LENGTH WALL THICKNESS DETAILS (CLASS III WALL 'B')

SR. NO.	PIPE INNER DIA.	WALL THICKNESS
1	150mm	25mm
2	225mm	25mm
3	300mm	50mm
4	375mm	56.25mm
5	450mm	62.50mm
6	525mm	68.75mm
7	600mm	75mm
8	675mm	81.25mm
9	750mm	87.50mm
10	900mm	100mm

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

SEWERAGE SYSTEM
TYPICAL DETAILS OF
PIPE JOINTING

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:

NFIP-SW-TD-02

SHEET

REV 00

CLIENT:

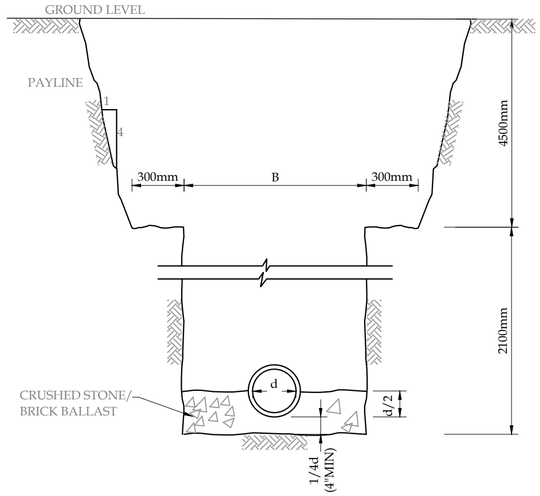
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

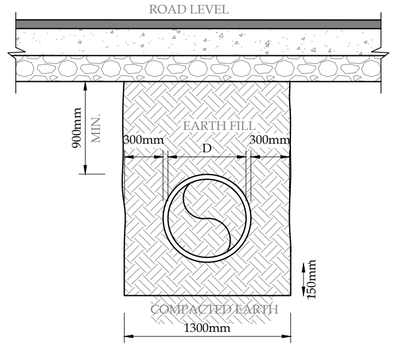
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SW-TD-02

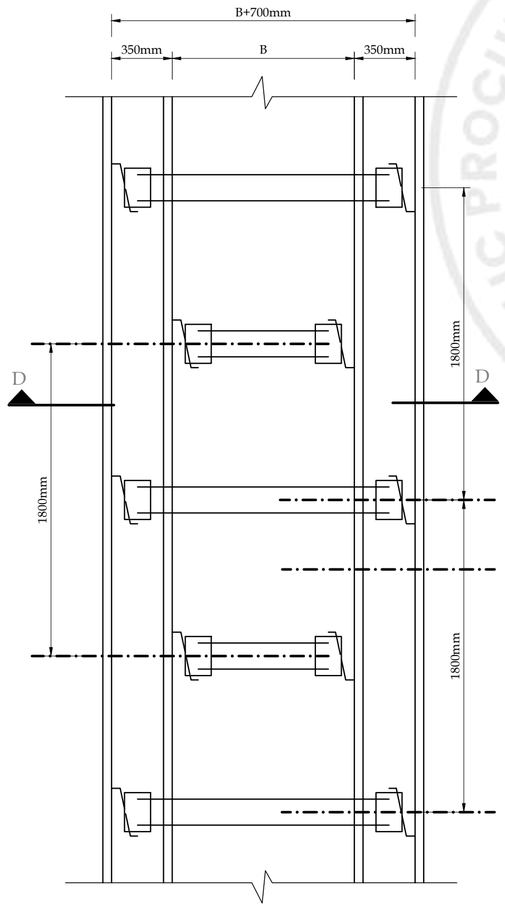
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



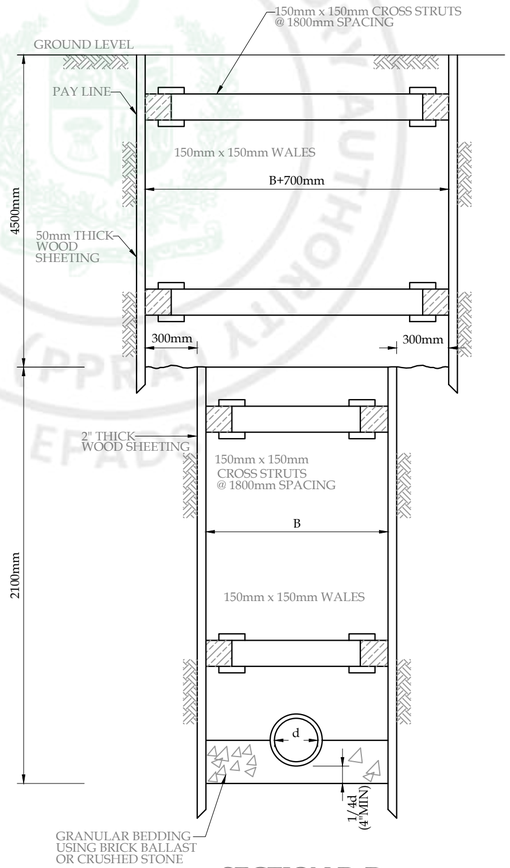
SECTION OF TRENCH WITHOUT TIMBERING AND BRACING



DETAIL OF ROAD CROSSING FOR RCC PIPE



PLAN
TRENCH WITH TIMBERING AND BRACING



SECTION D-D

SCHEDULE OF TRENCH

SR. NO.	PIPE INSIDE DIA. ("d")	TRENCH Ⓑ WITH TIMBERING	WIDTH Ⓑ WITHOUT TIMBERING
1	225mm	675mm	900mm
2	300mm	800mm	900mm
3	375mm	900mm	1,050mm
4	450mm	975mm	1,150mm
5	525mm	1,075mm	1,250mm
6	600mm	1,150mm	1,350mm
7	750mm	1,325mm	1,550mm
8	900mm	1,700mm	1,675mm

PROJECT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:
SEWERAGE SYSTEM
TYPICAL TRENCH DETAILS

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HAREEB	ENGR. ARSLAN

DRAWING Nº:
NFIP-SW-TD-03

SHEET

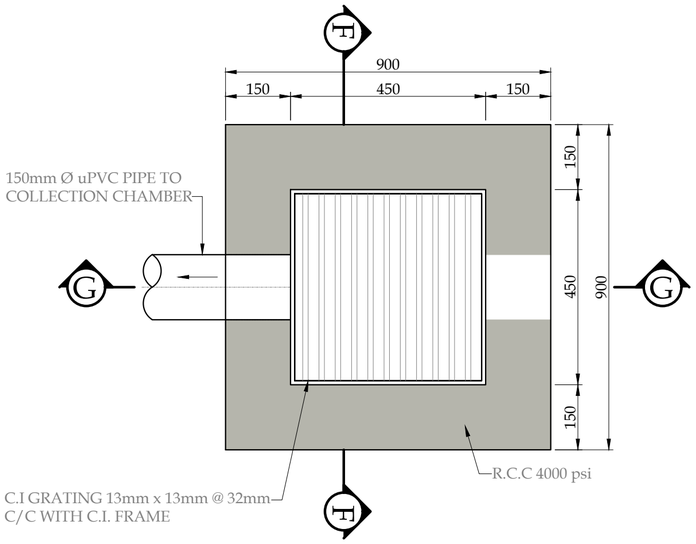
REV
00

CLIENT:
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

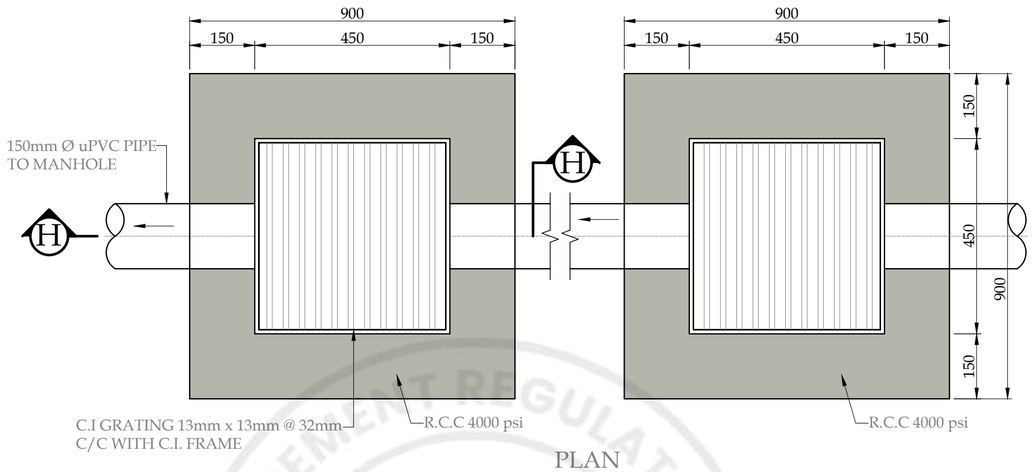
CONSULTANT:
ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SW-TD-03

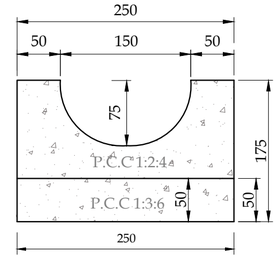
e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026



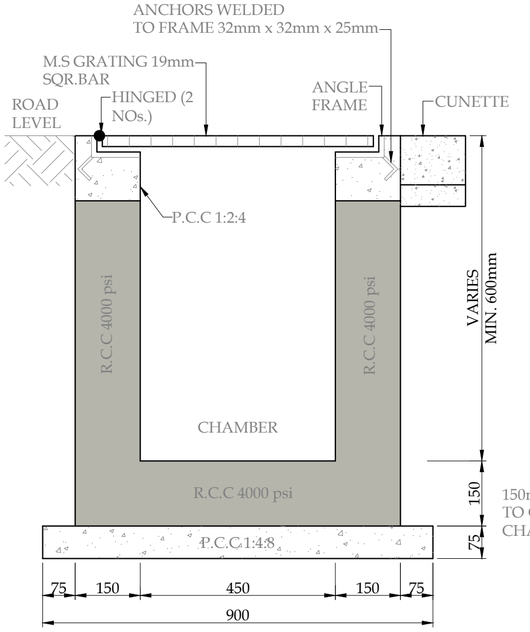
STORMWATER COLLECTION CHAMBER PLAN



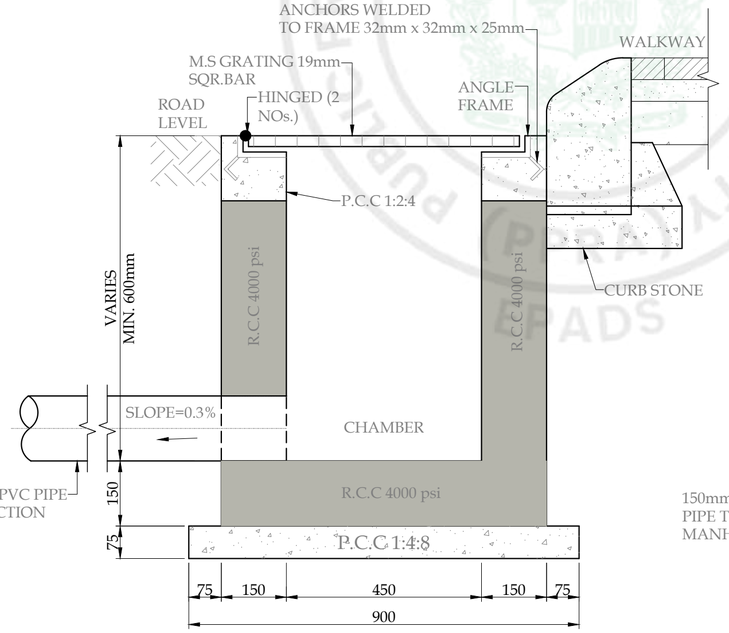
PLAN
CHAMBER TO CHAMBER



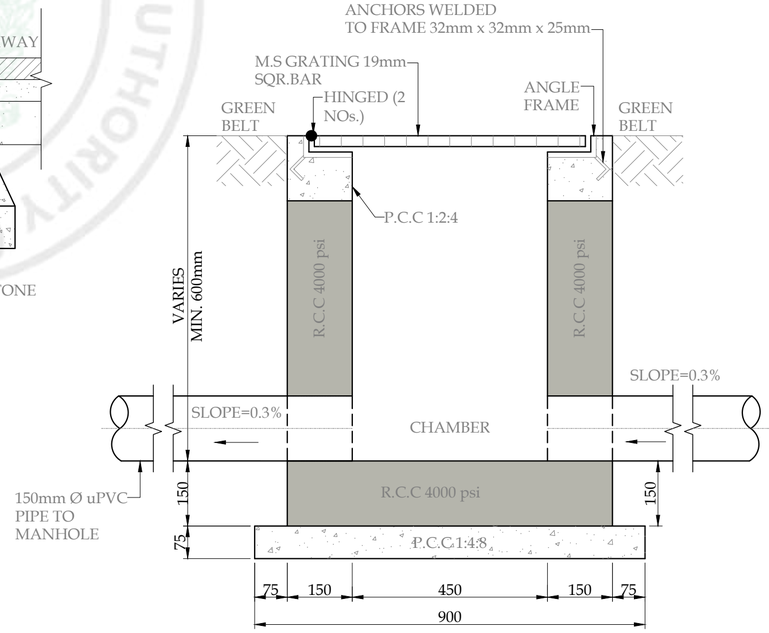
CUNETTE DETAIL
(ALONG CUL-DE-SAC)



SECTION F-F



SECTION G-G



SECTION H-H
(CHAMBER TO CHAMBER)

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

SEWERAGE SYSTEM
TYPICAL STORMWATER COLLECTION CHAMBER DETAILS

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	--

DATE	DESCRIPTION	DRAWN	DESIGNED	APPROVED
22-12-2021	TENDER DRAWINGS	USMAN	ENGR. HASEEB	ENGR. ARSLAN

DRAWING Nº:

NFIP-SW-TD-04

SHEET --

REV 00

CLIENT:

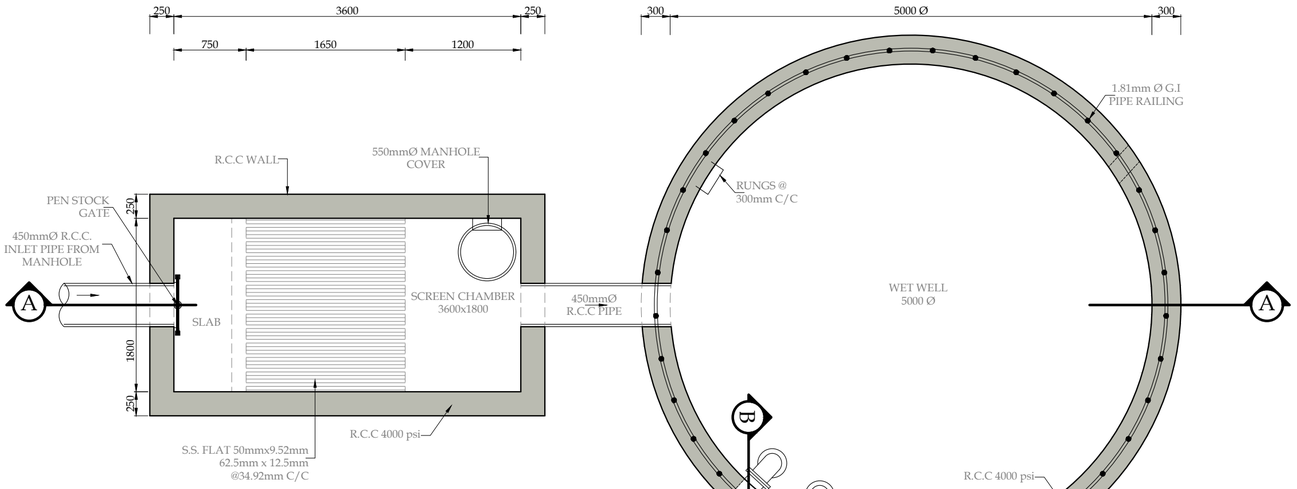
PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT.(LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SW-TD-04

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

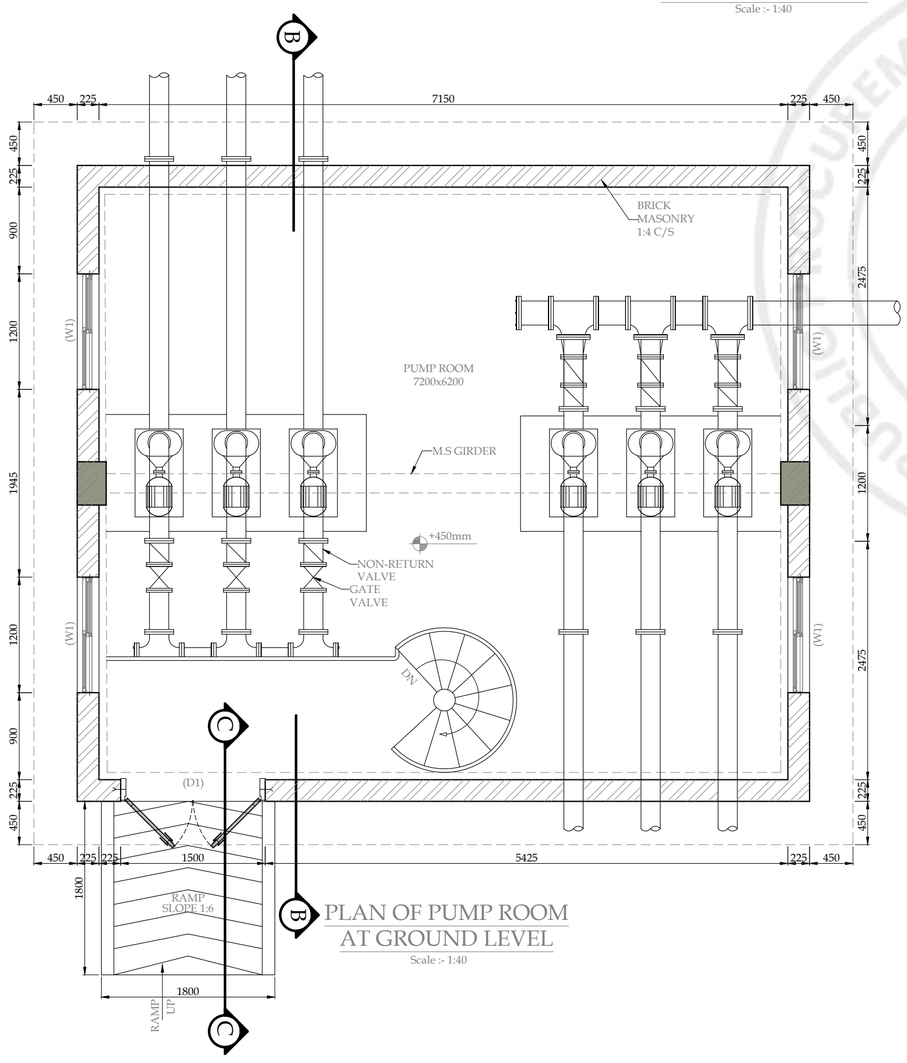


SCREEN CHAMBER

Scale :- 1:40

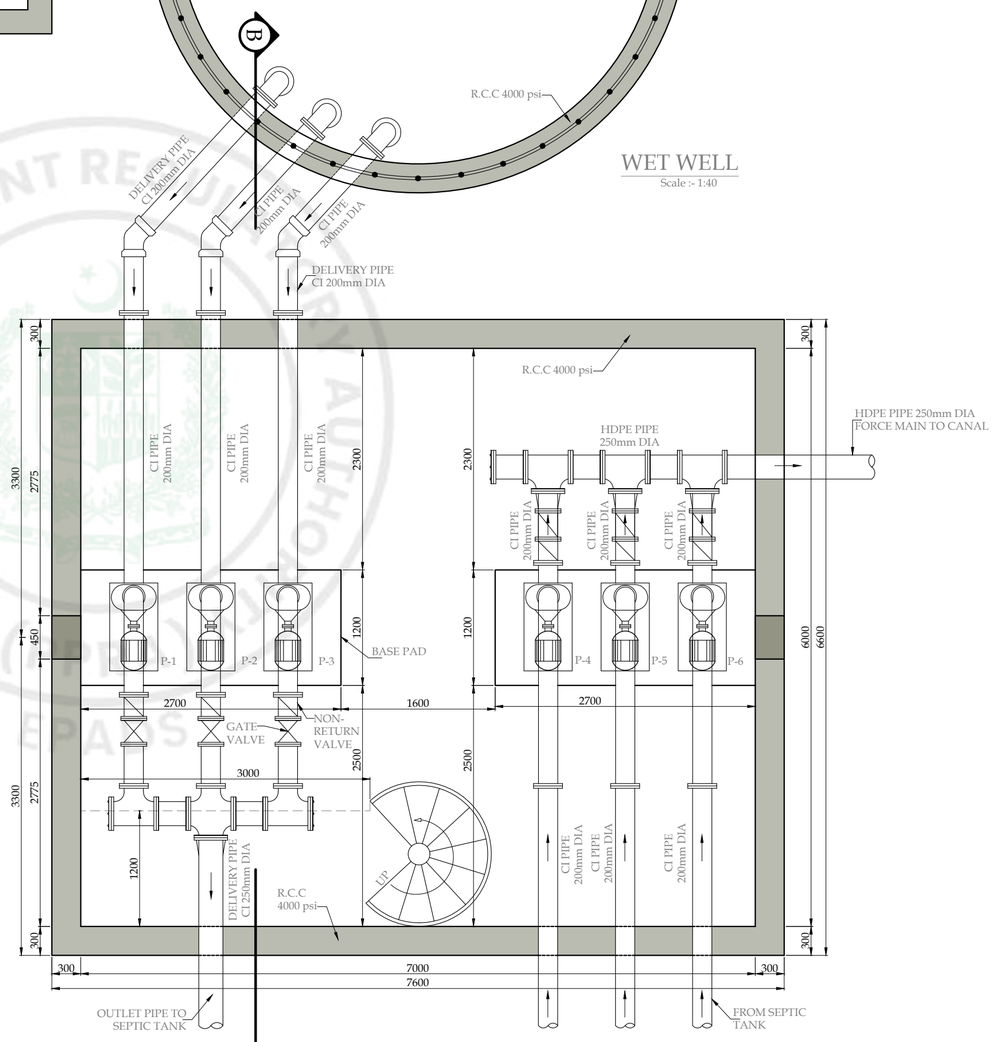
WET WELL

Scale :- 1:40



PLAN OF PUMP ROOM AT GROUND LEVEL

Scale :- 1:40



PLAN OF PUMP ROOM AT BASEMENT LEVEL

Scale :- 1:40

PROJECT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC) INFRASTRUCTURE DEVELOPMENT & ALLIED WORKS AT NAUSHAHRO FEROZE INDUSTRIAL PARK, NAUSHAHRO FEROZE ROAD NETWORK, BOUNDARY WALL & GATE, WATER SUPPLY & SEWERAGE NETWORK AND ELECTRICAL INFRASTRUCTURE

DRAWING TITLE:

DISPOSAL STATION LAYOUT PLAN

ORIGNAL :	DATE :	SCALE :
A2	JULY, 2021	

DATE	DESCRIPTION	DRAWN	APPROVED ENGR.	P.MANAGER ENGR.
22-12-2021	TENDER DRAWINGS	USMAN	HASEEB	ARSLAN

DRAWING Nº:

NFIP-SW-DS-C-01

SHEET

REV 00

CLIENT:

PAKISTAN INDUSTRIAL DEVELOPMENT CORPORATION (PIDC)
2nd FLOOR, PIDC HOUSE DR. ZIAUDDIN ROAD, KARACHI, PAKISTAN.
PHONE: 021-3568-5041-9

CONSULTANT:

ASIAN CONSULTING ENGINEERS PVT (LTD)
C-3 JHELUM BLOCK, GREEN FORT-II, LAHORE, PAKISTAN
TELEPHONE: +92 42 35450914-5 +92 32-142-71101
FAx: +92 42 35450916 WEB: www.asiancon.com

NFIP-SW-DS-C-01

e-Pak Acquisition and Disposal System (EPADS) generated document | © 2026

CONSTRUCTION EXPERIENCE

Form EXP - 4.1
General Construction Experience

Bidder's Name: _____
Date: _____
JV Member's Name_____
Bid Reference No. (if any) and title: _____
Page _____of _____pages

Starting Year	Ending Year	Contract Identification	Role of Bidder
		Contract name: _____ Brief Description of the Works performed by the Bidder: _____ Amount of contract: _____ Name of EMPLOYER: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Bidder: _____ Amount of contract: _____ Name of EMPLOYER: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Bidder: _____ Amount of contract: _____ Name of EMPLOYER: _____ Address: _____	

Form EXP - 4.2(a)

Specific Construction and Contract Management Experience

Bidder's Name: _____
Date: _____
JV Member's Name_____
Bid Reference No. (if any) and title: _____
Page _____of _____pages

Similar Contract No.	**Information**			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor ☐	Member in JV ☐	Management Contractor ☐	Sub-contractor ☐
Total Contract Amount			PKR equivalent	
If member in a JV or sub-contractor, specify participation in total Contract amount				
EMPLOYER's Name:				
Address: Telephone/fax number E-mail:				

Form EXP - 4.2(a) (cont.)
Specific Construction and Contract Management Experience (cont.)

Similar Contract No.	**Information**
Description of the similarity in accordance with Sub-Factor 4.2(a) of Section III:	
1. Amount	
2. Physical size of required works items	
3. Complexity	
4. Methods/Technology	
5. Construction rate for key activities	
6. Other Characteristics	

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Form EXP - 4.2(b)
Construction Experience in Key Activities

Bidder's Name: _____
Date: _____
Bidder's JV Member Name: _____
Sub-contractor's Name (if any): _____
Bid Reference No. (if any) and title: _____

Page _____of _____pages

All Sub-contractors for key activities must complete the information and Qualification Criteria and Requirements, Sub-Factor 4.2.

1. Key Activity No One: _____

	Information			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor ☐	Member in JV ☐	Management Contractor ☐	Sub-contractor ☐
Total Contract Amount			PKR equivalent	
Quantity (Volume, number or rate of production, as applicable) performed under the contract per year or part of the year	Total quantity in the contract (i)	Percentage participation (ii)		Actual Quantity Performed (i) x (ii)
Year 1				
Year 2				
Year 3				
Year 4				
EMPLOYER's Name:				
Address: Telephone/fax number				

	Information
E-mail:	

2. Activity No. Two

3. ……

	Information
Description of the key activities in accordance with Section III:	

Form EXP - 4.2 (c)
Specific Experience in Managing ES aspects

[The following table shall be filled in for contracts performed by the Bidder, and each member of a Joint Venture]

Bidder's Name: *[insert full name]*
Date: *[insert day, month, year]*
Joint Venture Member Name: *[insertfull name]*
Bid Reference No. (if any) and title: *[insert ICB/NCB number and title]*
Page *[insert page number]* of *[insert total number]* pages

1. Key Requirement no 1 in accordance with 4.2 (c): _____

Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor ☐	Member in JV ☐	Management Contractor ☐	Subcontractor ☐
Total Contract Amount			PKR	
Details of relevant experience				

2. Key Requirement no 2 in accordance with 4.2 (c): _____

3. Key Requirement no 3 in accordance with 4.2 (c): _____

4. [PA define key requirements]

Contractor's Representative and Key Personnel Schedule

Bidders should provide the names and details of the suitably qualified Contractor's Representative and Key Personnel to perform the Contract. The data on their experience should be supplied using the Form PER-2 below for each candidate.

Contractor' Representative and Key Personnel

1.	**Title of position:**	
	Name of candidate:	
	Duration of appointment:	[*insert the whole period (start and end dates) for which this position will be engaged*]
	Time commitment: for this position:	[*insert the number of days/week/months/ that has been scheduled for this position*]
	Expected time schedule for this position:	[*insert the expected time schedule for this position (e.g. attach high level Gantt chart*]
2.	**Title of position:**	
	Name of candidate:	
	Duration of appointment:	[*insert the whole period (start and end dates) for which this position will be engaged*]
	Time commitment: for this position:	[*insert the number of days/week/months/ that has been scheduled for this position*]
	Expected time schedule for this position:	[*insert the expected time schedule for this position (e.g. attach high level Gantt chart*]
3.	**Title of position:**	
	Name of candidate:	
	Duration of appointment:	[*insert the whole period (start and end dates) for which this position will be engaged*]
	Time commitment: for this position:	[*insert the number of days/week/months/ that has been scheduled for this position*]
	Expected time schedule for this position:	[*insert the expected time schedule for this position (e.g. attach high level Gantt chart*]
4.	**Title of position:**	
	Name of candidate:	
	Duration of appointment:	[*insert the whole period (start and end dates) for which this position will be engaged*]

	Time commitment: for this position:	[*insert the number of days/week/months/ that has been scheduled for this position*]
	Expected time schedule for this position:	[*insert the expected time schedule for this position (e.g. attach high level Gantt chart*]
5.	**Title of position:**	
	Name of candidate	
	Duration of appointment:	[*insert the whole period (start and end dates) for which this position will be engaged*]
	Time commitment: for this position:	[*insert the number of days/week/months/ that has been scheduled for this position*]
	Expected time schedule for this position:	[*insert the expected time schedule for this position (e.g. attach high level Gantt chart*]
6.	**Title of position:** *[insert title]*	
	Name of candidate	
	Duration of appointment:	[*insert the whole period (start and end dates) for which this position will be engaged*]
	Time commitment: for this position:	[*insert the number of days/week/months/ that has been scheduled for this position*]
	Expected time schedule for this position:	[*insert the expected time schedule for this position (e.g. attach high level Gantt chart*]

Form PER-2:
Resume and Declaration
Contractor's Representative and Key Personnel

Name of Bidder

Position [*#1*]: [*title of position from Form PER-1*]		
Personnel information	**Name:**	**Date of birth:**
	Address:	**E-mail:**
	Professional qualifications:	
	Academic qualifications:	
	Language proficiency: *[language and levels of speaking, reading and writing skills]*	
details		
	Address of Employer:	
	Telephone:	**Contact (manager / personnel officer):**
	Fax:	
	Job title:	**Years with present Employer:**

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

Project	**Role**	**Duration of involvement**	**Relevant experience**
[main project details]	*[role and responsibilities on the project]*	*[time in role]*	*[describe the experience relevant to this position]*

Declaration

I, the undersigned *[insert either "Contractor's Representative" or "Key Personnel" as applicable]* , certify that to the best of my knowledge and belief, the information contained in this Form PER-2 correctly describes myself, my qualifications and my experience.

I confirm that I am available as certified in the following table and throughout the expected time schedule for this position as provided in the Bid:

Commitment	**Details**
Commitment to duration of contract:	*[insert period (start and end dates) for which this Contractor's Representative orKey Personnel is available to work on this contract]*
Time commitment:	*[insert period (start and end dates) for which this Contractor's Representative orKey Personnel is available to work on this contract]*

I understand that any misrepresentation or omission in this Form may:

(a) be taken into consideration during Bid evaluation;

(b) result in my disqualification from participating in the Bid;

(c) result in my dismissal from the contract.

Name of Contractor's Representative or **Key Personnel: [*insert name*]**

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Bidder:

Signature: _____

Date: (day/month/year): _____

Past Experience / Contracts

Contracts over *[insert amount]* during the last three years:				
Procuring Agency	Value	Year	Goods/Services Supplied	Country of Destination

PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA) EPADS

Current Contract Commitments / Works in Progress

Bidders and each member to a JV should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

Current Contract Commitments					
No.	Name of Contract	**Employer's Contact Address, Tel, Fax**	**Value of Outstanding Work [Current Eq. PKR]**	**Estimated Completion Date**	**Average Monthly Invoicing Over Last Six Months [Eq. PKR/month)]**
1					
2					
3					
4					
5					

Financial Situation and Performance

[The following table shall be filled in for the Applicant and for each member of a Joint Venture]

Applicant's Name: *[insert full name]*
Date: *[insert day, month, year]*
Joint Venture Member Name: *[insert full name]*
IFP No. and title: *[insert IFP number and title]*
Page *[insert page number]* of *[insert total number]* pages

1. Financial data

Type of Financial information in (currency)	**Historic information for previous _[insert number] years, [insert in words] (amount in currency, currency, exchange rate*, PKR equivalent)**				
	Year 1	Year 2	Year 3		
Statement of Financial Position (Information from Balance Sheet)					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity/Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
Working Capital (WC)					
Information from Income Statement					
Total Revenue (TR)					
Profits Before Taxes (PBT)					
Cash Flow Information					
Cash Flow from Operating Activities					

* Refer ITA 14 for the exchange rate

3. Financial documents

The Applicant and in case of JV, members of JV shall provide copies of financial statements for *[number]* years pursuant Section III, Qualifications Criteria and Requirements. The financial statements shall:

(a) reflect the financial situation of the Applicant or in case of JV member, and not an affiliated entity (such as parent company or group member).

(b) be independently audited or certified in accordance with local legislation.

(c) be complete, including all notes to the financial statements.

(d) correspond to accounting periods already completed and audited.

☐ Attached are copies of financial statements[1] for the *[number]* years required above; and complying with the requirements.

[1] If the most recent set of financial statements is for a period earlier than 12 months from the date of Application, the reason for this should be justified.

Average Annual Turnover (Annual Sales Value)

[The following table shall be filled in for the Applicant and for each member of a Joint Venture]

Applicant's Name: *[insert full name]*
Date: *[insert day, month, year]*
Joint Venture Member Name: *[insert full name]*
IFP No. and title: *[insert IFP number and title]*
Page *[insert page number]* of *[insert total number]* pages

Annual Turnover Data			
Year	**Amount** **Currency**	**Exchange rate*** **(If applicable)**	**PKR equivalent**
[indicate calendar year]	*[insert amount and indicate currency]*		
		Average Annual Turnover **	

* Refer ITA for date and source of exchange rate.

** Total PKR equivalent for all years divided by the total number of years. See Section III, Qualification Criteria and Requirements, ITA.