

1ST PRE-TENDER MEETING

LAHORE WASTEWATER AND DRAINAGE MANAGEMENT PROJECT (LWDMP) – SEWERAGE SYSTEM FROM LARECH COLONY TO GULSHAN-E-RAVI LAHORE

(30TH OCTOBER 2025)

Implementing Agency:



Water and Sanitation Agency, Lahore

Donor:



**ASIAN INFRASTRUCTURE
INVESTMENT BANK**

Project Management Consultants:



A Joint Venture



Government of Punjab



INTRODUCTION OF PARTICIPANTS

Please Send following Details in Meeting Chat Box.

1. Name & Designation
2. Company Name
3. Contact Number/ Whatsapp Number
4. Email

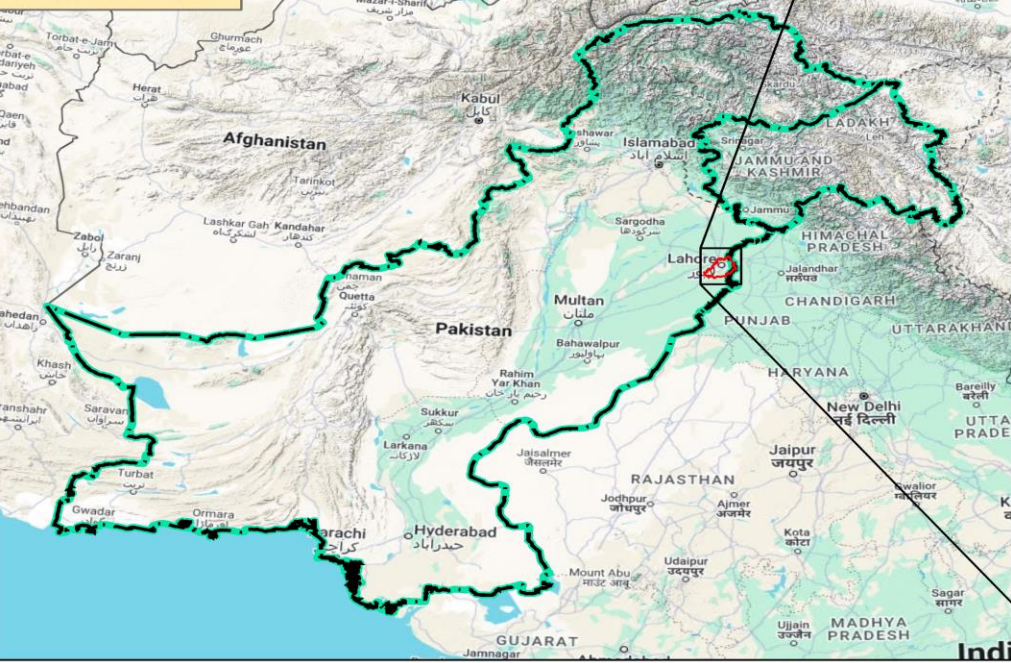
In addition, please fill the form given under:

https://forms.office.com/Pages/ResponsePage.aspx?id=IbPrA-hSH0SEOTr62aas8uxA-7_fd39AoBYItZDitF5UQ00wOVhKN1hMWEE4Sk1FRTVTTTg0TjQ4Ni4u

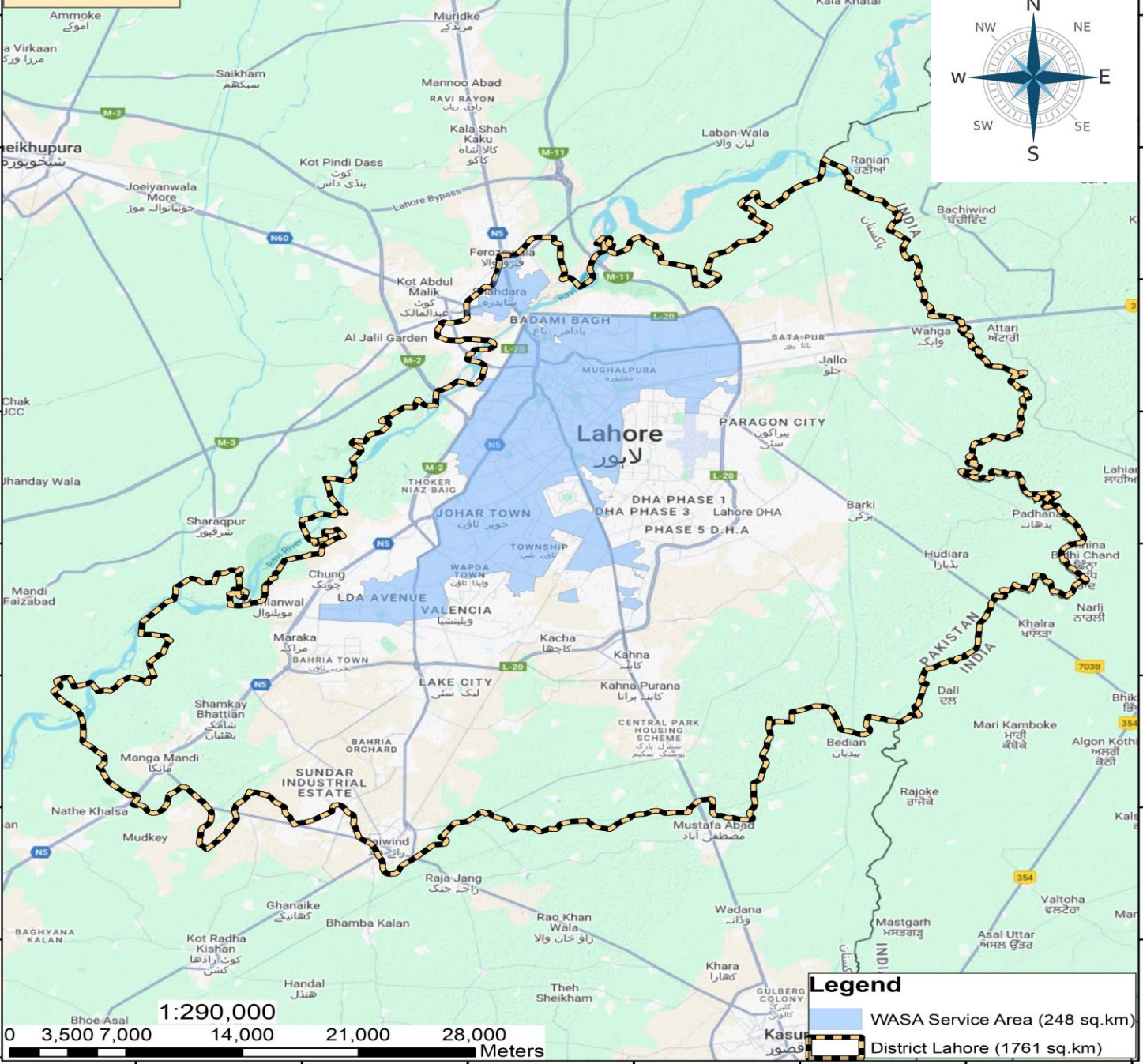
WORLD MAP



PAKISTAN MAP



LAHORE MAP



Legend

- WASA Service Area (248 sq. km)
- District Lahore (1761 sq. km)



Water and Sanitation Agency, Lahore



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“LAHORE WATER & WASTEWATER MANAGEMENT PROJECT (LWWMP)”

Phase I: Lahore Wastewater and Drainage Management Project (LWDMP) - Sewerage System from LARECHS Colony to Gulshan-e-Ravi Lahore (through trenchless technology)

Phase II: Lahore Water Supply Project (LWSP) - Construction of Surface Water Treatment Plant at BRBD Canal Lahore (54MGD)



Water and Sanitation Agency, Lahore



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Lahore Wastewater and Drainage Management Project (LWDMP)
Sewerage System from LARECHS Colony to Gulshan-e-Ravi
Lahore (through trenchless technology)

PROJECT BACKGROUND (LWDMP)

- The concept paper approved on 25.10.2019 by CCC.
- Original PC-I approved on 25.06.2020 by ECNEC.
- Project Management Consultants (PMC) hired on 25.04.2022:
 - i) M/s EBA Engineering Inc. USA &*
 - ii) M/s Engineering Consultancy Services Punjab (ECSP) (Pvt.) Ltd. &*
 - iii) M/s EEC Global (Pvt.) Ltd. Lahore, Pakistan &*
 - iv) M/s Technical Engineering and Management (TEAM) (Pvt.) Ltd.*
- PMC engaged on 30.04.2024 to prepare updated Feasibility Study & Revised PC-I after obtaining NOC from AIIB.
- CDWP approved the Revised PC-I on 24.04.2025. ECNEC approved on 07.08.2025.
- E&S documents have been disclosed on WASA website on 15.09.2025.
- AIIB Board Approved the Loan on 09.10.2025 (100% financing of the works)
- Specific Procurement Notice (SPN) published on 14.10.2025 with Bid Submission Date of 11.12.2025.
- 2nd Pre-Bid Meeting Scheduled on 20.11.2025.



SUMMARY OF PROJECT SCOPE

LWDMP

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graph TD; LWDMP[LWDMP] --- C1[1. Collection System]; LWDMP --- C2[2. Conveyance System]; LWDMP --- C3[3. Disposal System]; LWDMP --- C4[4. Buildings and Offices];
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1. Collection System

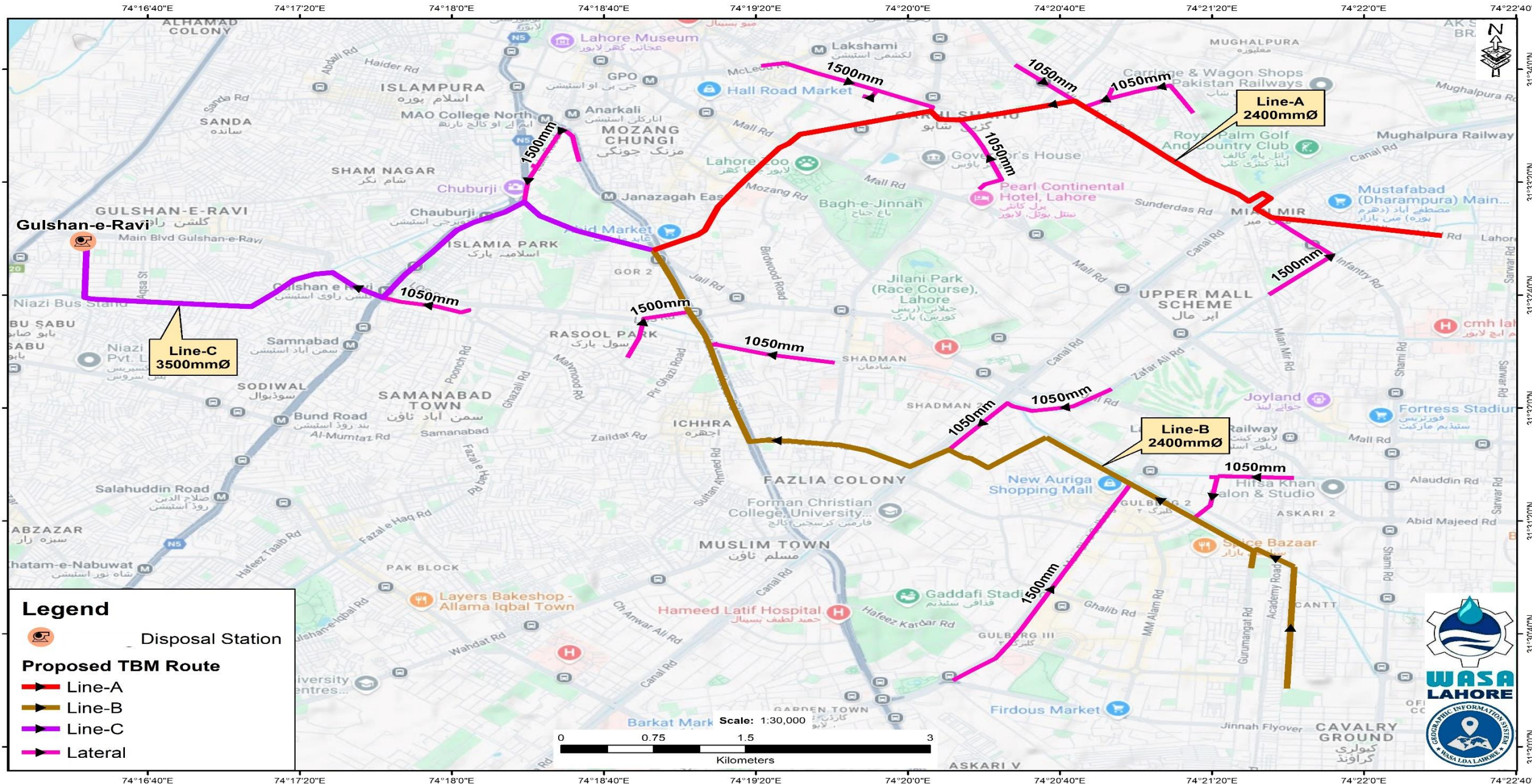
2. Conveyance System

3. Disposal System

4. Buildings and Offices

FINAL ALIGNMENT OF THE PROJECT

SEWERAGE SYSTEM FROM LARECHS COLONY TO GULSHAN-E-RAVI LAHORE (THROUGH TRENCHLESS TECHNOLOGY)



Legend

- Disposal Station

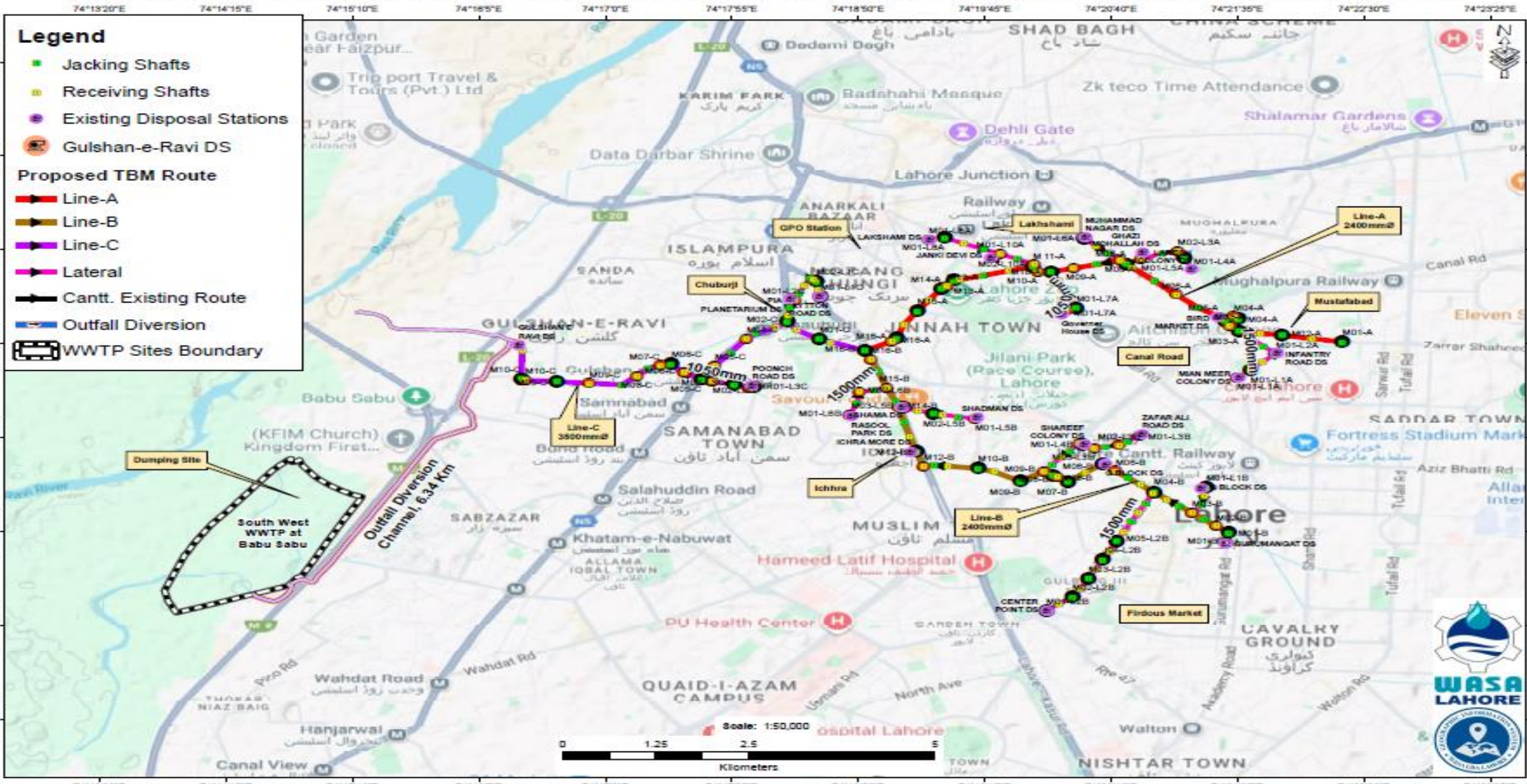
Proposed TBM Route

- Line-A
- Line-B
- Line-C
- Lateral



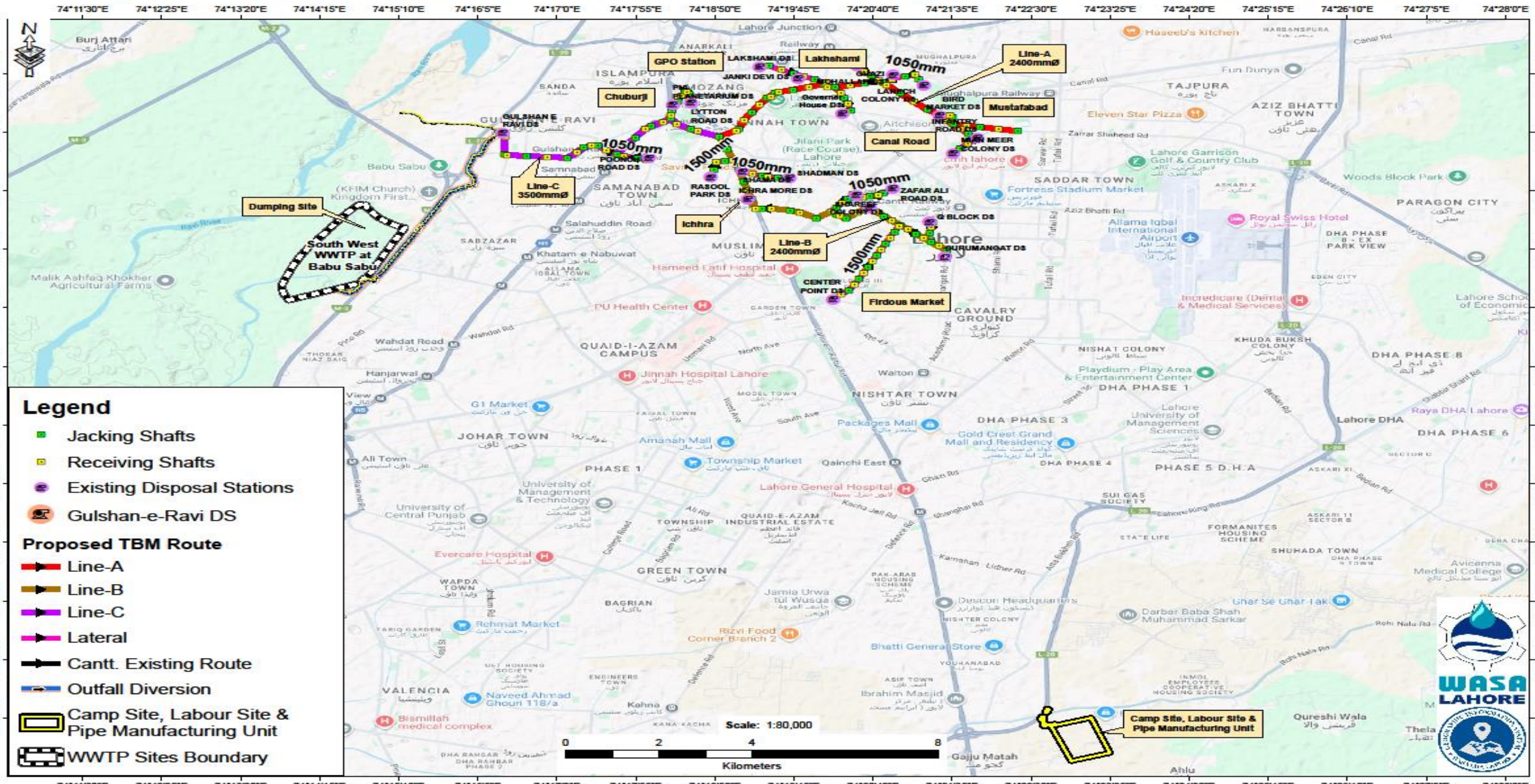
ALIGNMENT OF THE PROJECT WITH STRUCTURES

SEWERAGE SYSTEM FROM LARECHS COLONY TO GULSHAN-E-RAVI LAHORE (THROUGH TRENCHLESS TECHNOLOGY)



ALIGNMENT OF THE PROJECT WITH SITE CAMPS

SEWERAGE SYSTEM FROM LARECHS COLONY TO GULSHAN-E-RAVI LAHORE (THROUGH TRENCHLESS TECHNOLOGY)



EXISTING SYSTEM



EXISTING SYSTEM



EXISTING SYSTEM



1. COLLECTION SYSTEM

- The sewerage collection system will consist of intake structures at twenty-three (23) lift stations.
- Nine (9) intake structures dedicated to stormwater management to alleviate inundation in affected areas.
- The intake structures at the lift stations will include an inlet chamber, screen chamber, outlet chamber, drop structure (16 numbers), de-aeration chamber, adit, and an odor control system (16 numbers), with the odor control equipment housed in a specially constructed room near the drop structure.

2. CONVEYANCE SYSTEM

The sewerage conveyance system consists of Trunk Sewer Lines A, B, and C, along with their corresponding lateral sewers.

- a. **Line A:** LARECHs Colony to Qartaba Chowk, Lahore (incl. pipe dia of 1050, 1500 & 2400mm). Length = 12.14 km (approx.)
 - b. **Line B:** Gurumangat to Qartaba Chowk, Lahore (incl. pipe dia of 1050, 1500, 2400mm). Length = 12.82 km (approx.)
 - c. **Line C:** Qartaba Chowk to Gulshan-e-Ravi, Lahore (incl. pipe dia of 1050, 1500 & 3500 mm). Length = 7.25 km (approx.)
 - d. Laterals through Open Cut: 0.159 km (approx.)
- Total Route Length = 32.3 km (approx.)
 - Laying of Rider Sewers (8.48 kms)
 - Rehabilitation of existing drains (7 kms) approx.

2. CONVEYANCE SYSTEM

Shafts:

- Jacking Shafts: 82
- Receiving Shafts: 83
- Depth: 8 m to 20 m
- Shape: Circular / Rectangular
- Methodology: Proposed to be constructed with the installation of steel sheet piles

Manholes:

Out of these 165 shafts, some shafts will be converted into manholes at specified locations.

- Manhole Number: 91
- Shape: Circular
- Methodology: On-site or Precast
- Purpose: Manholes are provided for inspection and maintenance by men and machinery.

Other Structures:

- Drop structures: 2
- Odor Control System: 15
- Ventilation system: 15

MTBM: 6 No. (New) as per requirements given ER Sub-Clause 5.1

3. DISPOSAL SYSTEM

- The sewerage disposal system incorporates a disposal station having capacity (848 cusecs min.) that consists of an intake, a screen chamber, a wet well, a dry well, distribution chamber, outfall conduit, head regulators for diversion channel and outfall channel and allied works.
- Cardan shaft Pumps will be installed (number and capacity to be designed by the tenderer) as per Employer's Requirement Sub-Clause 5.1.
- 450 kW Solar system
- A comprehensive SCADA system will be established for data acquisition, processing, and monitoring of all components, with discharge and gas measurements monitored throughout the collection, conveyance, and disposal system.
- Complete Design and Hydraulic modeling of Outfall channel (1.55Km) from Bund Road to River Ravi.

4. BUILDINGS AND OFFICES

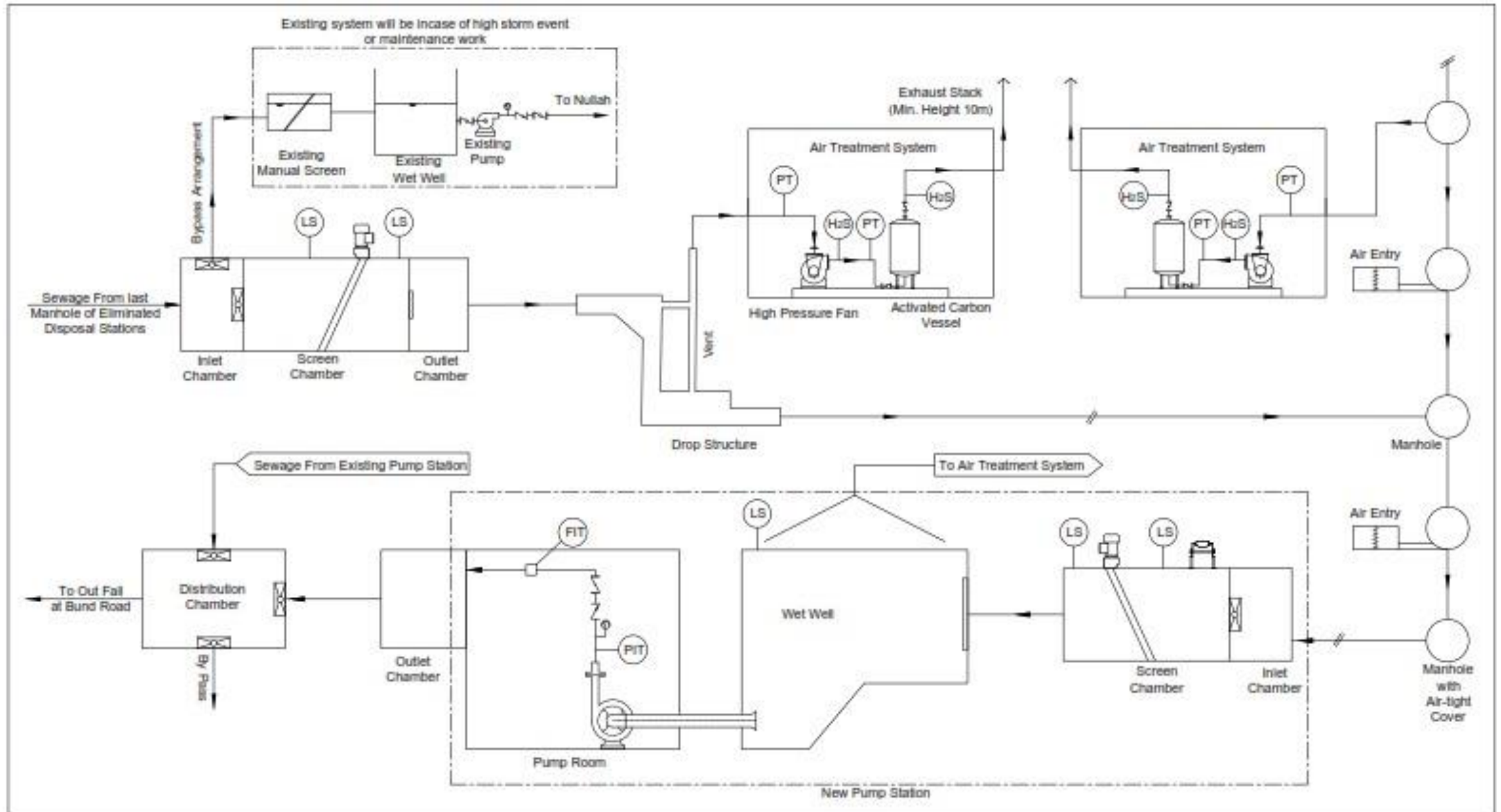
Construction of fully furnished three story Office Building in frame structure:

- Construction of SCADA Control Room with SMD Multimedia wall
- Construction of Administrative offices for Disposal Station Staff
- Solar Room (Air-Conditioned)
- State-of-the-art MTBM Project Demonstration Hall with purpose built Micro-tunnelling theme
- Meeting Room for 40-50 persons

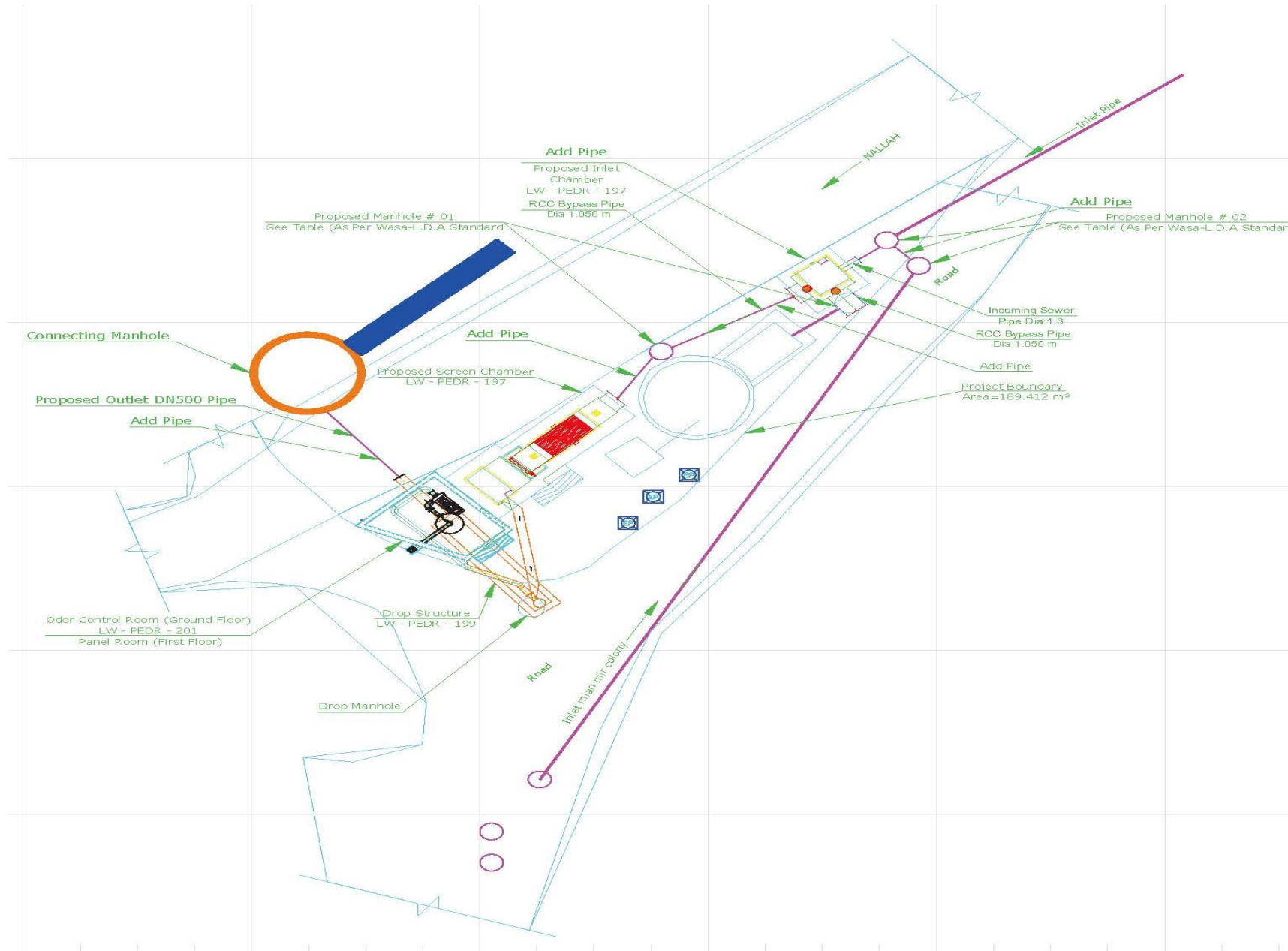
Construction of Administrative offices for staff of dismantled buildings at Disposal Station

Construction of PMU Office for Employer

SCHEMATIC DIAGRAM OF PROPOSED SYSTEM

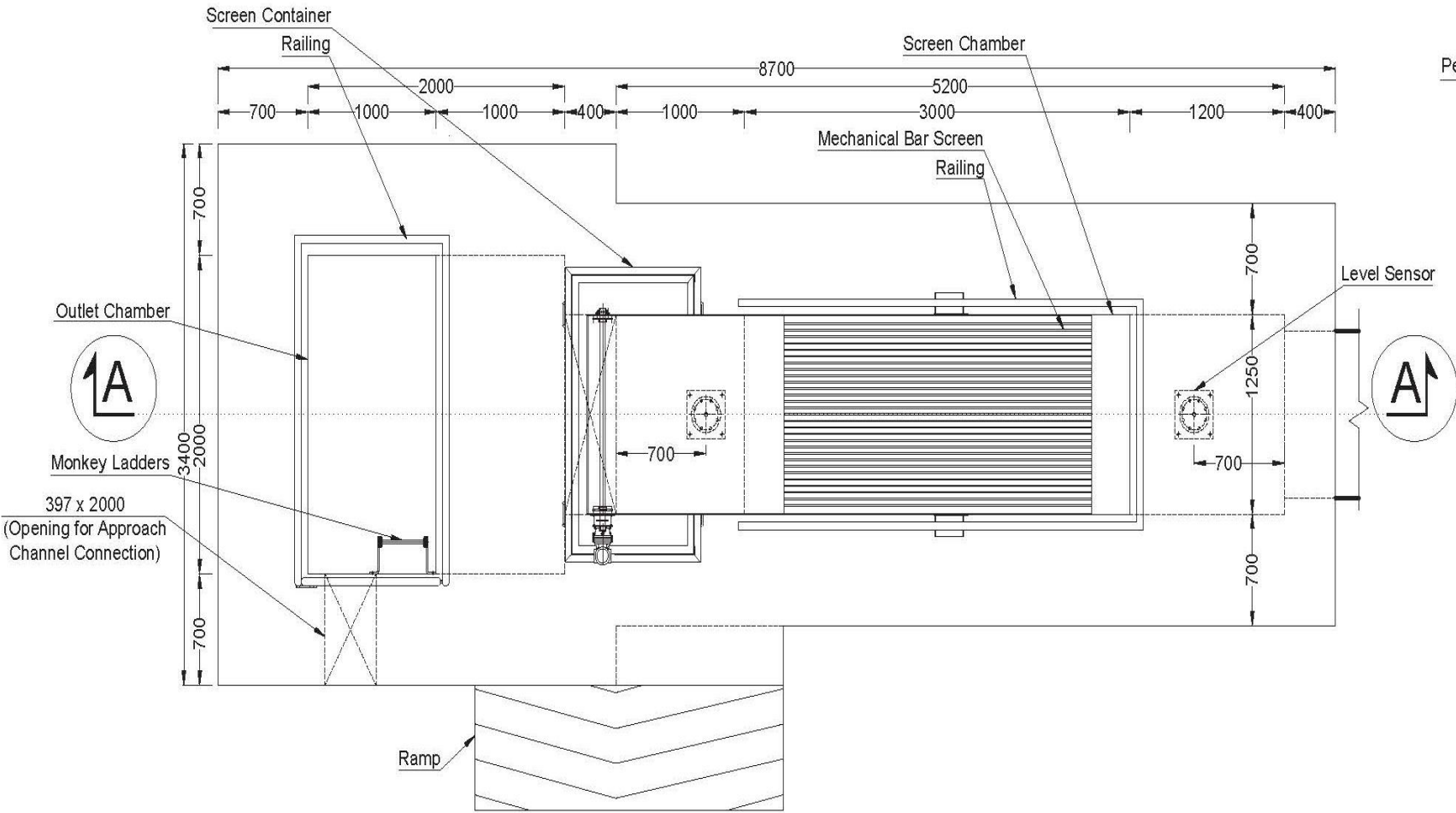


INTAKE STRUCTURE

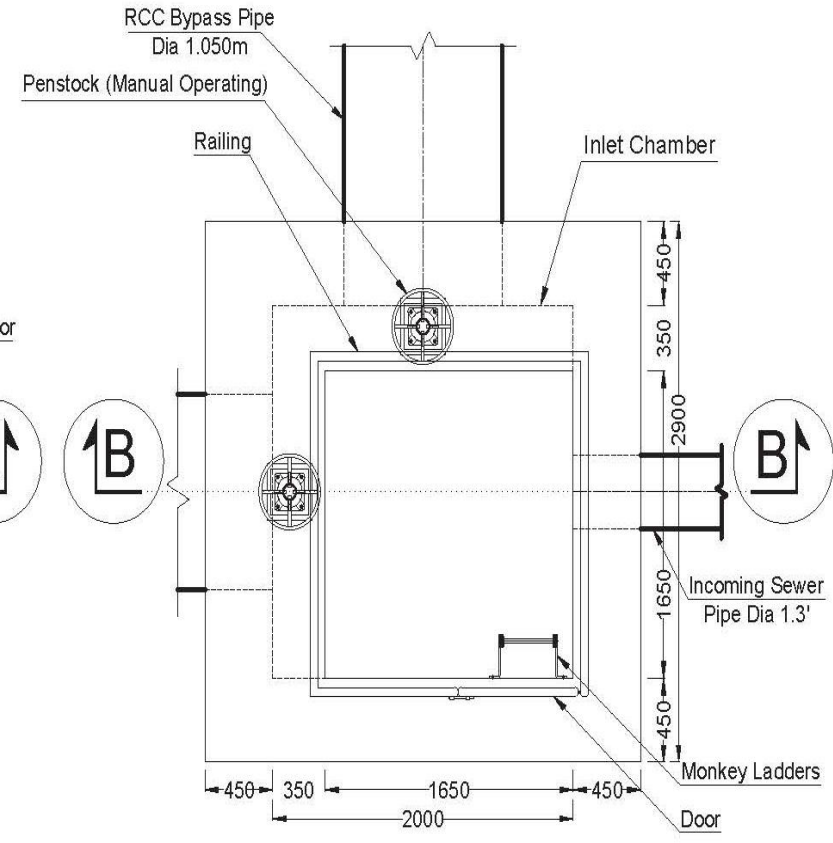


SCREEN CHAMBER PLAN

1



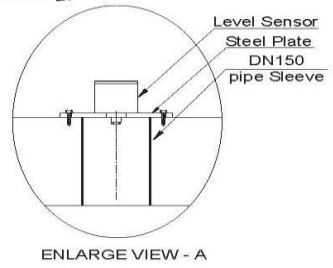
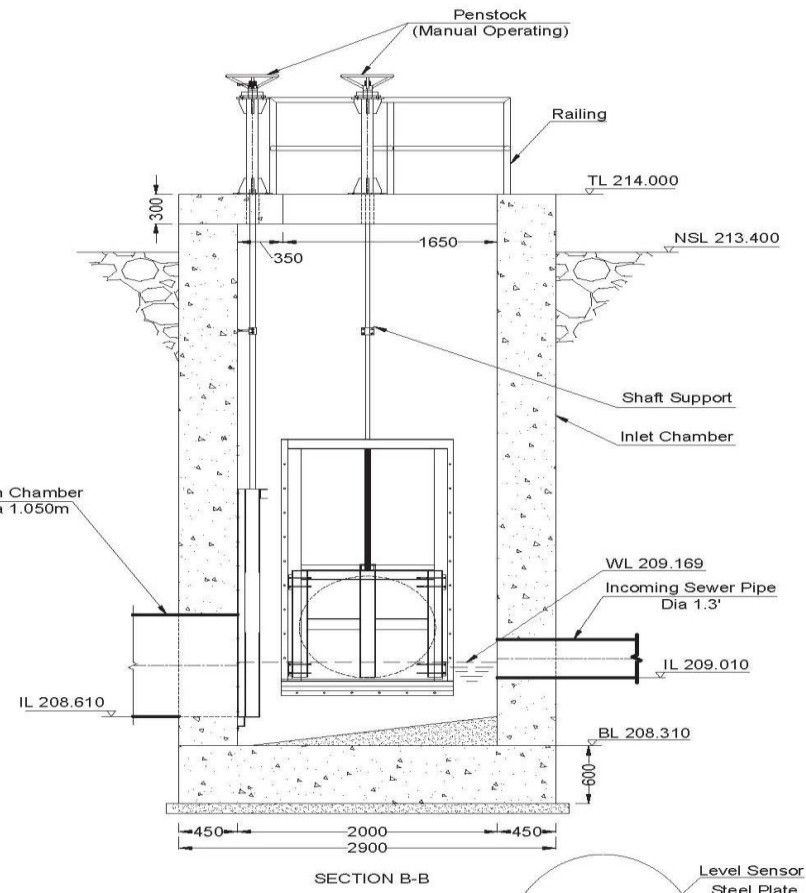
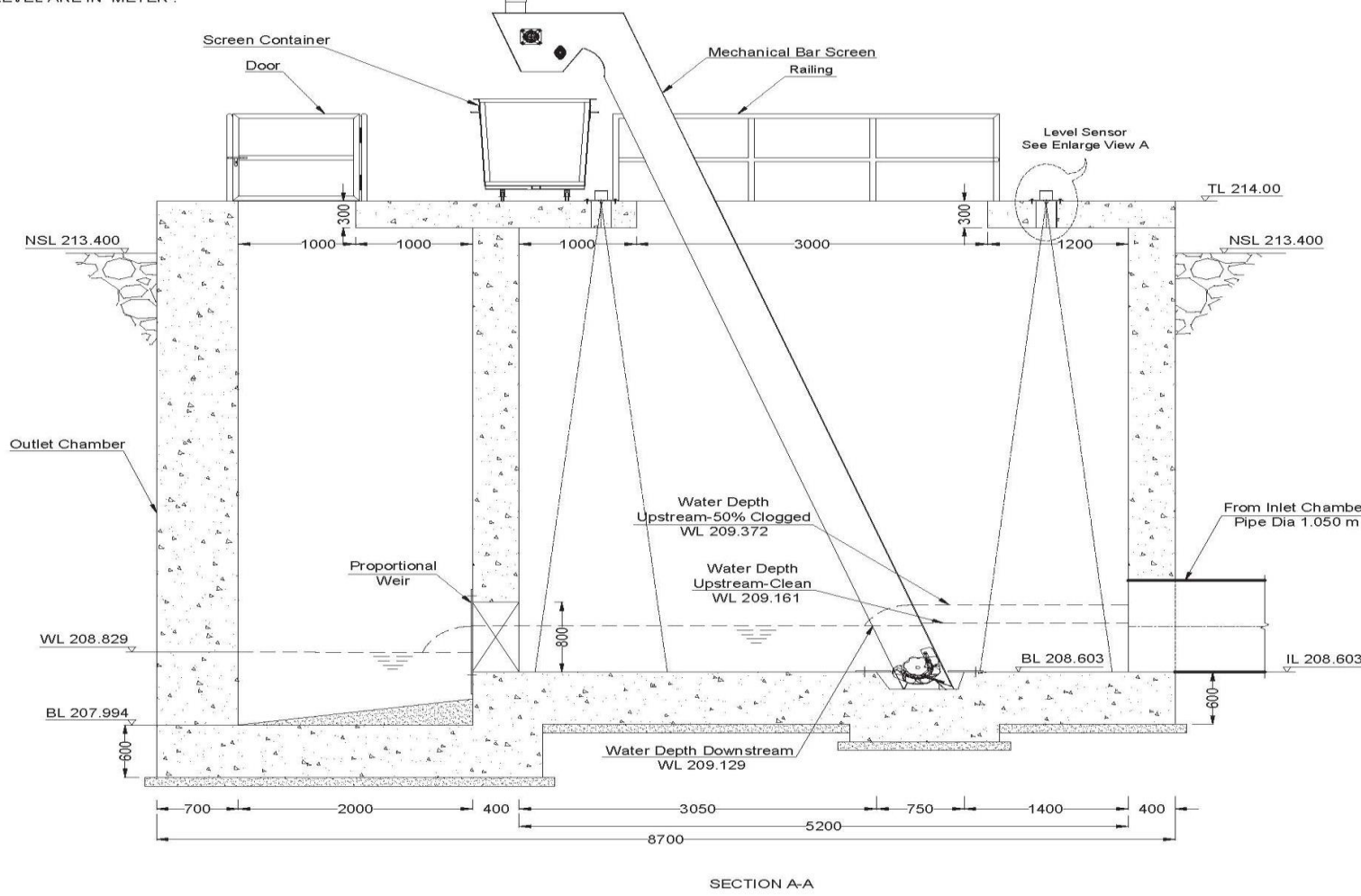
PLAN



PLAN

SCREEN CHAMBER CROSS SECTION

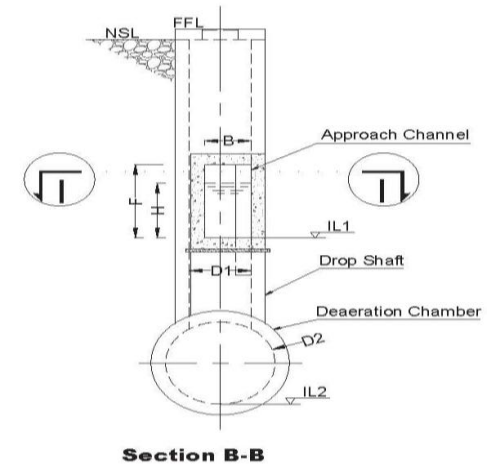
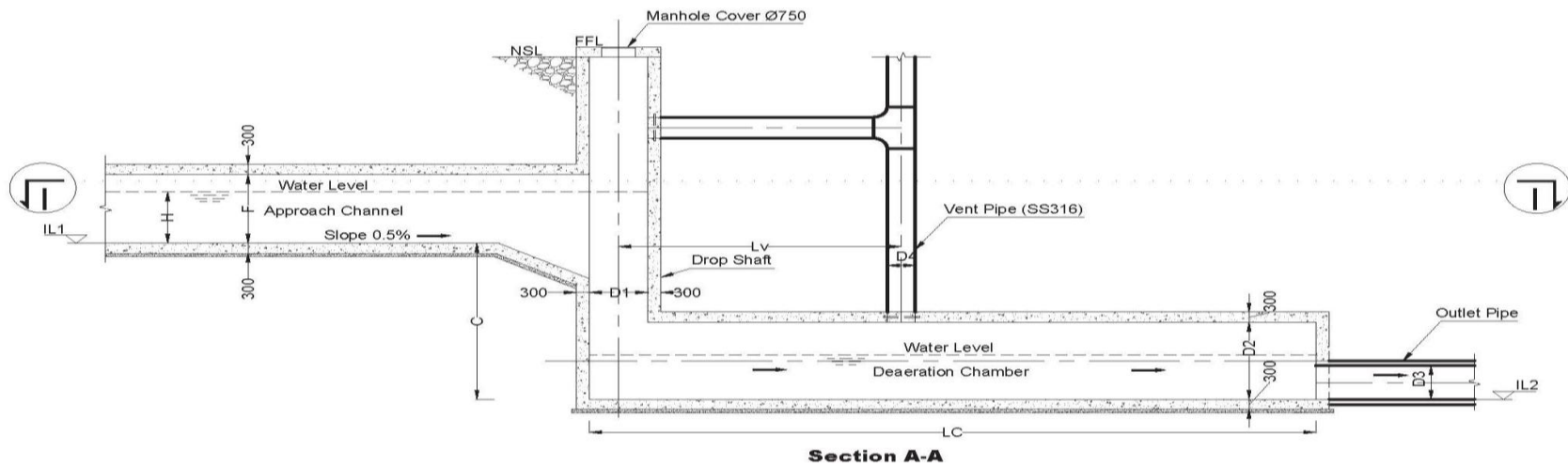
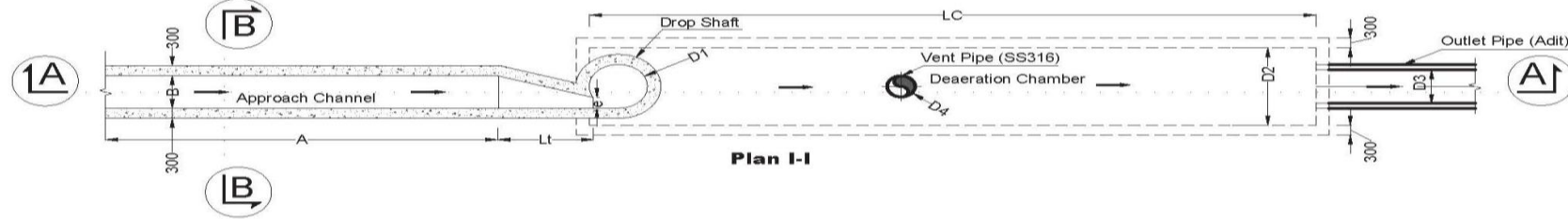
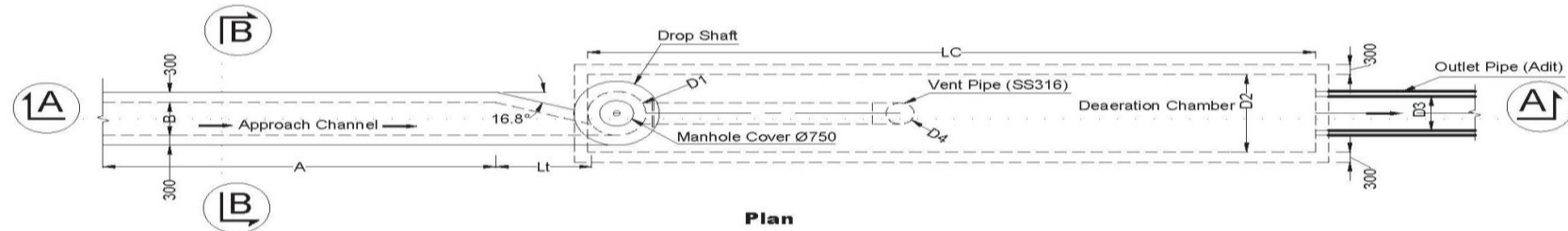
- Note.
1. ALL DIMENSION AREA IN MILLIMETER UNLESS OTHERWISE MENTIONED.
 2. ALL LEVEL ARE IN METER .



NOT FOR CONSTRUCTION

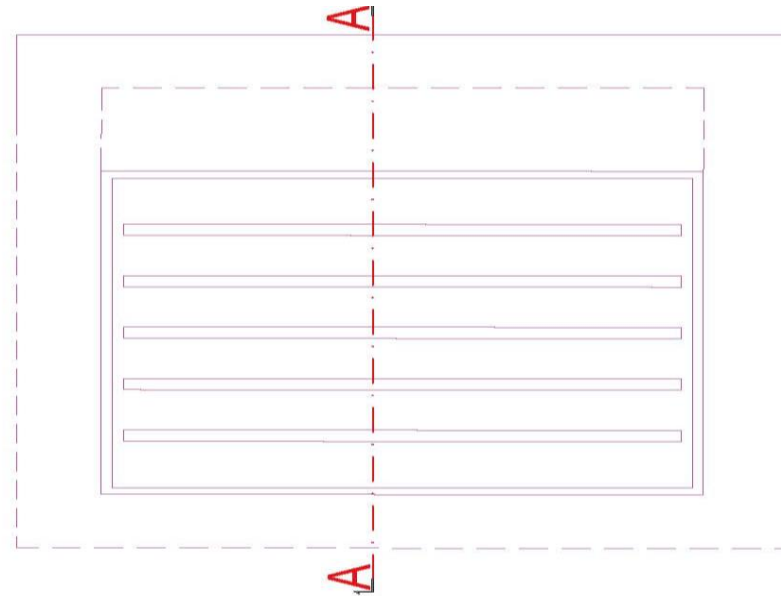
DROP STRUCTURE

- Note.
1. ALL DIMENSION AREA IN MILLIMETER UNLESS OTHERWISE MENTIONED.
 2. ALL LEVEL ARE IN METER.

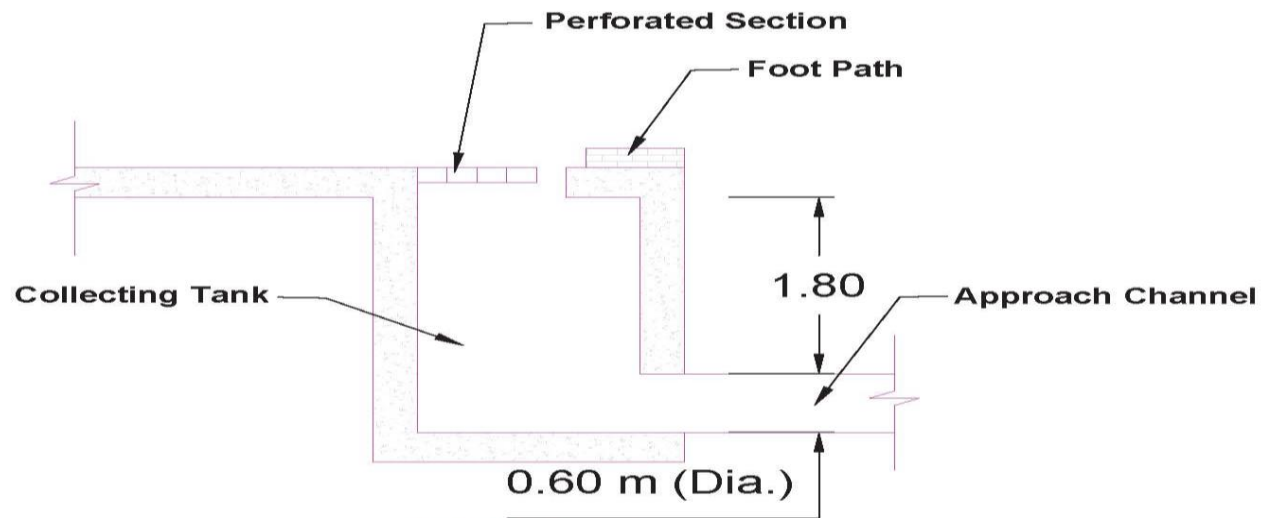


NOT FOR CONSTRUCTION

INTAKE STRUCTURE FOR STORMWATER



PLAN



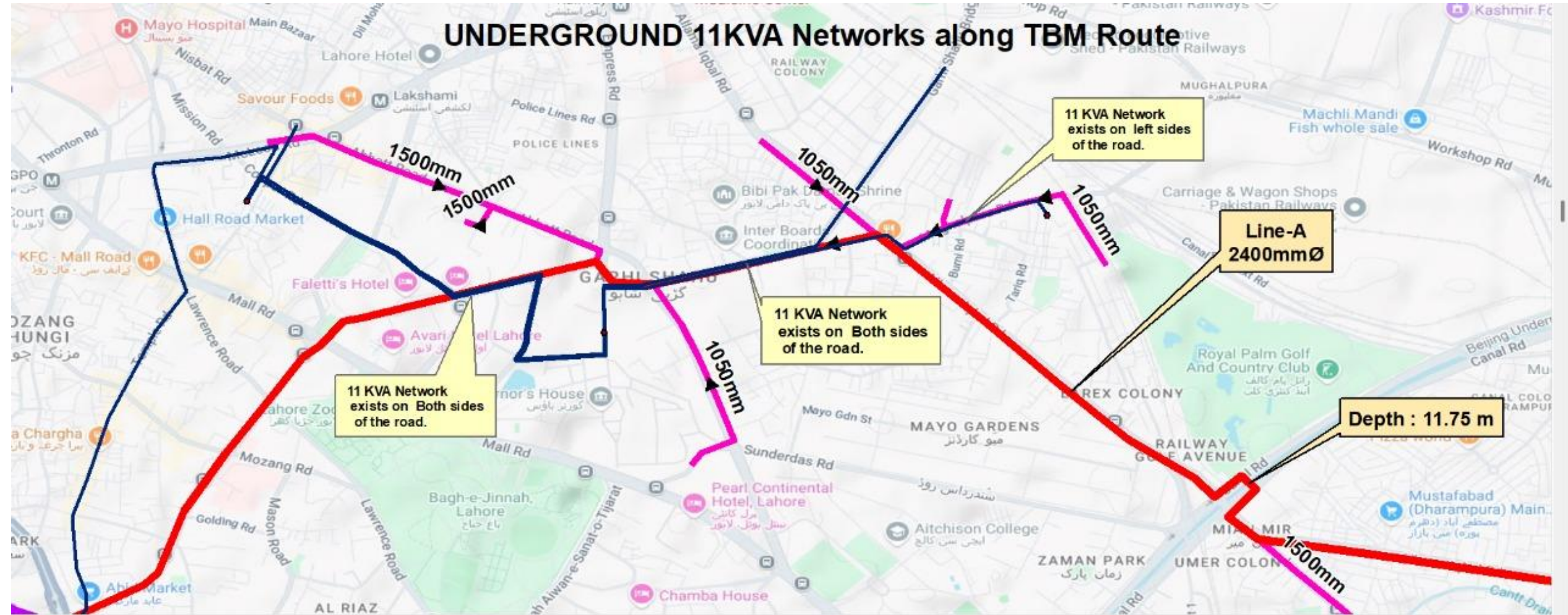
SECTION A-A

UNDER GROUND UTILITIES

- Underground utilities such as sewer systems, electrical lines, water supply, telecommunications, and gas pipelines have been initially identified and mapped after site visits with respective departments (WASA, LESCO, PSCA, SNGPL, PTCL etc.)
- To validate these utilities, the EPC contractor is required to conduct a Ground Penetrating Radar (GPR) survey.
- The Contractor shall be responsible for temporary shifting and restoration of utilities, where applicable.
- In case of permanent shifting of utilities, the Contractor shall facilitate the Employer as described in Employer's Requirement.

UNDER GROUND UTILITIES (EXAMPLE)

UNDERGROUND 11KVA Networks along TBM Route



IMMUTABLE DATA

Following data and information are immutable.

- i. Discharge calculated of proposed system shall not be changed by the EPC Contractor.
- ii. Route Alignment of Trunk sewer line and its laterals shall not be changed.
- iii. Size of pipes worked and mentioned shall also be not changed.
- iv. The minimum number of Manholes to be constructed along the Trunk Sewer Lines and Laterals are Ninety-One (91) ((1050 mm - (27 No.), 1500 mm (16 No.), 2400 (34 No.), 3500 (14 No.)).
- v. EPC advised to keep all intake structure in the already existed land for disposal stations.
- vi. The Sewer used for MTBM Jacking Operation shall be of Reinforced Cement Concrete with HDPE lining having compressive strength of at least 6000 psi or above.
- vii. The location of the ultimate disposal station proposed by the Employer in the drawings (Drawing No. LW-TD-401 through Drawing No. LW-TD-403) of the disposal system.
- viii. The Contractor shall install dry pit Vertical non-clogging Cardan Shaft Pumps (for accumulative ultimate discharge capacity 848 cusecs) at Gulshan e Ravi Disposal Station.



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LWDM PROJECT Overview

- Project Name:** Lahore Wastewater and Drainage Management Project (LWDMP) - Sewerage System from LARECHS Colony to Gulshan-e-Ravi Lahore (through trenchless technology)
- Project Number:** P000074
- Project Funding:** Asian Infrastructure Investment Bank (AIIB)
- Project Scope:**
- (i) Laying of Trunk Sewer line from Larech Colony & Gurumangat Road to Gulshan-e-Ravi (Through Trenchless Technology) (approx. 32.3 km comprising 1050-, 1500-, 2400- & 3500-mm), and
 - (ii) Construction of Ultimate Disposal Station at Gulshan-e-Ravi with capacity of 24 cumecs (848 cusecs) including Allied Works
- Procurement Type:** EPC/Turnkey Basis
- Procurement Method:** International Open Competitive Tendering (IOCT)
- Single Stage – Two Envelope Tendering Procedure
- AIIB's Directive on Procurement Instructions for Recipients (PIR) (July 26, 2024, updated from time to time) and FIDIC Contract Forms



Water and Sanitation Agency, Lahore

PARTS OF TENDER DOCUMENTS

PART I – TENDER PROCEDURES

Section 1 - Instructions to Tenderers (ITT)

Section 2 - Tender Data Sheet (TDS)

Section 3 - Evaluation and Qualification Criteria

Section 4 - Tender Forms

Section 5 - Eligible Countries

PART II – EMPLOYER REQUIREMENTS

Section 6 – Employer’s Requirements

PART III – CONDITIONS OF CONTRACT AND CONTRACT FORMS

Section 7 - General Conditions of Contract

Section 8 - Particular Conditions of Contract

Section 9 - Contract Forms



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Section I and Section II

	A. General
ITT 1.1	<p>The name of the international open competitive Tender (IOCT) is: Laying of Sewer line from Karachi Phattak & Gurumangat Road to Gulshan-e-Ravi (Through Trenchless Technology) and Construction of Ultimate Disposal Station at Gulshan-e-Ravi including Allied Works</p> <p>The identification number of the IOCT is: [0074-PAK-01]</p> <p>The number of lots (contracts) comprising this IOCT is: One (01)</p>
ITT 2.1	<p>The name of the Project is: Lahore Wastewater and Drainage Management Project (LWDMP) – Sewerage System from Larechs Colony to Gulshan-e-Ravi Lahore (Through Trenchless Technology).</p> <p>This project is Phase-I of the Lahore Water and Wastewater Management Project (LWWMP).</p>
ITT 4.1	<p>A Tenderer may be a firm that is a private entity, or government owned enterprise subject to ITT 4.5 - or any combination of them with a formal intent to enter into an agreement or under an existing agreement in the form of a Joint Venture.</p>
ITT 4.1 b	<p>The maximum number of Joint Venture partners shall be limited to Four (04). The share of the Lead Partner of Joint Venture must be greater than other partner(s) of the Joint Venture. Furthermore, minimum share of each partner(s) of Joint Venture must be at least twenty (20%), except for the Design firm, if forming part of Joint Venture.</p>
ITT 4.5	<p>Government-owned enterprises in the Borrower's country shall be eligible only if they can establish that they (i) are legally and financially autonomous, (ii) operate under commercial law, and (iii) are not dependent agencies of the Employer.</p>



Section I and Section II

B. Contents of Tender Documents

ITT 7.1	The Employer will respond to any request for clarification, provided that such request is received no later than 14 days prior to the deadline for submission of Tenders.
ITT 7.4	<p>Two Pre-Tender meetings shall take place. The venue, date and time are as follows: Venue: Committee Room, WASA Head Office, 31-B Zahoor Elahi Road, Block B, Gulberg 2, Lahore, Pakistan</p> <p>1st Pre-Tender Meeting Date: 30th October 2025 (Thursday) Time: 15:00 hours (Pakistan Standard Time)</p> <p>2nd Pre-Tender Meeting Date: 20th November 2025 (Thursday) Time: 15:00 hours (Pakistan Standard Time)</p>

C. Preparation of Tenders

ITT 10.1	<p>The language of the Tender is: English</p> <p>Supporting documents and printed literature that are part of the Tender may be in another language provided they are accompanied by an accurate & authorized translation of the relevant passages into the English language.</p>
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Section I and Section II



C. Preparation of Tenders

ITT 11.1

The Tender shall comprise two envelopes submitted simultaneously, one containing the Technical Tender and the other the Price Tender, both envelopes enclosed together in outer single envelope.

ITT 11.2 (k)

The Tenderer shall submit with its Technical Tender the following additional documents:

- i. Manufacturer's Authorization for MTBM
- ii. Tender Design covering basic feature of Civil Works and E & M works including Tender Drawings;
- iii. Technical specifications and Data Sheets from the Original Equipment Manufacturers (OEMs) for all equipment's
- iv. Complete list of any Technical or Commercial Deviations
- v. Quality Management and Quality Verification Manual of all members of the JV and subcontractors.
- vi. Health and Safety Manual
- vii. Code of Conduct for Contractor's Personnel
- viii. Management Strategies and Implementation Plans (MSIP) to manage the ESHS risks
- ix. Labor Management Plan
- x. Evidence of valid registration of local firms with Pakistan Engineering Council.
- xi. Evidence of active registration of local firms with tax authorities in Pakistan.
- xii. Evidence of the active registration of the firms under the applicable law of the country of origin.



Section I and Section II

C. Preparation of Tenders

ITT 11.2 (I)

The tenderer shall submit with its Tender:

- i. Verified copies & translations of all documents comprising the tender, submitted by the foreign firm with the tender, by foreign firm's country of origin "Chamber of Commerce". The authenticity of Chamber of Commerce verification will be done by Pakistani Embassy/ Consulate in foreign firm's country of origin.
- ii. Notarized copies & translations of all documents comprising the tender, submitted by the local firms with the tender.

In case if the verified and notarized copies & translations, are not available at the time of submission owing to delay in processing, the Tenderer is required to provide a list of such documents in form of application (which is to be submitted with the Technical Tender), along with proof of their processing for verification & notarization from the relevant body. The Tenderer should also include a formal request for these documents to be considered once received after the due process.

ITT 11.3 (d)

The Tenderer shall submit with its Price Tender the following additional documents:

Unit rates of the major construction items that the Tenderer used to establish his Tender price as per the "form for unit rates of Works" provided as Day Work Schedule (Schedule 9) in the Section 4 - Tender Forms.



Section I and Section II

C. Preparation of Tenders

ITT 18.4	The prices quoted by the Tenderer shall be adjustable. Whereas, Price adjustments, shall only be applicable during the Construction Phase of the Project.
ITT 19.1	The prices shall be quoted by the Tenderer in the following currencies: i. for those inputs to the Works that the Tenderer expects to supply from within the Employer's country, in Pakistani Rupee, and further referred to as "the local currency"; which must not be less than 50 % (fifty percent) of the total Tender price and ii. for those inputs to the Works that the Tenderer expects to supply from outside the Employer's country (referred to as "the foreign currency"), shall be limited to no more than three foreign currencies.
ITT 20.1	The Tender validity period shall be 180 days.
ITT 21.1	The Tenderer shall furnish a Tender Security in the amount of: \$ US 1.5 Million (or equivalent Pak Rupees or Euros or RMBs at the exchange rate published by State Bank of Pakistan prevailing on 28th day prior to the deadline for the submission of tenders) and as specified in Tender Documents.
ITT 28.2	Any attempt by a Tenderer to influence the Employer in the evaluation of the Tenders or Contract award decisions may result in the rejection of its Tender and forfeiture of his Tender Security.

Section I and Section II

E. Evaluation and Comparison of Tenders

ITT 34.1

Tenders not previously rejected as being substantially nonresponsive (including compliance with the eligibility and qualification criteria stated under heading 2 [Qualification] of Section 3 “Evaluation and Qualification Criteria”) shall only be evaluated as under:

1. Technical Categories	Max. Score	Min. Req. Score
Tenderer’s Profile	50	40
Number of Similar Contracts under 3.1.1.i of Section 3	10	8
Number of Similar Contracts under 3.1.1.ii of Section 3	10	8
Number of Similar Contracts under 3.1.1.B of Section 3	10	8
Number of Similar Contracts under 3.1.2.A of Section 3	10	8
Number of Similar Contracts under 3.1.2.B of Section 3	10	8
2. Tenderer’s Financial Resources	10	5
3. Approach and Methodology	40	20
i) Design Methodology	5	2.5
ii) Construction and/or Erection Management Strategy	10	5
iii) Method Statement for Key Construction Activities	5	2.5
iv) Work Programme	10	5
v) Risk Assessment	5	2.5
vi) Code of Conduct for ESHS and MSIP	5	2.5

The Tenders to be technically responsive must score at least 65 marks overall and minimum required score in each category above.



Section I and Section II



C. Preparation of Tenders

ITT 35.2

The qualifications of other firms such as the Tenderer's subsidiaries, parent entities, affiliates, Subcontractors (except Specialist Subcontractors) shall not be permitted.

ITT 37.1

The currency that shall be used for Tender evaluation and comparison purposes to convert all Tender prices expressed in various currencies into a single currency is: United States Dollar (USD)
The source of the selling exchange rate shall be: State Bank of Pakistan

ITT 42.1

Standstill provisions shall apply. The duration of standstill period will be 10 days from the date of notification of intention to award the contract.



Section III - Evaluation and Qualification Criteria

Qualification Criteria

2.1 Eligibility

2.1.1 Nationality

2.1.2 Conflict of Interest

2.1.3 AIIB Eligibility

2.1.4 Government Owned Enterprise

2.1.5 United Nations Eligibility

2.1.6 Registration with Pakistan Engineer Council

2.1.7 Registration with Tax Authorities in Pakistan

2.1.8 Registration with relevant body in the Country of Origin

2.1.9 Registration with Tax Authorities in the Country of Origin



Section III - Evaluation and Qualification Criteria

Qualification Criteria

2.2 Historical Contract Nonperformance

2.2.1 History of Nonperforming Contracts

2.2.2 Suspension Based on Execution of Tender-Securing Declaration

2.2.3 Pending Litigation and Arbitration

2.2.4 ESHS Performance Declaration



Section III - Evaluation and Qualification Criteria

2.3 Financial Situation

2.3.1 Historical Financial Performance:

2.3.2 Average Annual Construction Turnover:

i) AACT: US\$ 90 million

2.3.3 Financial Resources

i) Financial Resources: US\$ 20 million



Section III - Evaluation and Qualification Criteria

2.4 Tenderer's Experience

2.4.1 A – Contracts of Similar Size and Nature:

2.4.1.i. (Construction of tunnel/sewer/stormwater pipeline & O&M)

2.4.1.ii (Operation & Maintenance of MTBM)

2.4.1 B-Contracts of Similar Size and Nature (Construction of Disposal Station)

2.4.2 A-Experience in Key Activities

2.4.2.i. Design of Micro-tunnelling Contracts

2.4.2 B Design of Disposal Station Contracts

2.4.3 General Construction Experience

2.4.4. ESHS Requirements

2.5 Subcontractors and Manufacturers

2.5.1 Evaluation criteria for the capability of the Subcontractor for operational and maintenance of MTBM



Section VI – Employer Requirements

KEY RESPONSIBILITIES OF EPC CONTRACTOR:

The Contractor will be responsible for:

Engineering Design: Detailed design of all project components.

Procurement and Supply: Equipment, machinery, and materials in all respects.

Civil and E&M Infrastructure Works: Construction, erection, and commissioning of all structures and equipment complete in all respect.

Defects Notification Period (DNP): One (1) year for all works.

The EPC Contractor will carry out the following works including Design, Procurement, Construction and testing & commissioning complete in all respects.

Section VI – Employer Requirements

PHASES OF THE PROJECT:

Detailed Design Phase	Inception, Design Review, Field Investigations, Stage 1 Detailed Design, Stage-2 Detailed Design, Work Plan, QMS, Site Specific -ESMP
Construction Phase	Execution of Work at site for all activities and plans prepared during detailed design phase or as per site requirement including testing and commissioning complete in all respects. Design related activities such as construction drawings, Site Specific Detailed design, O&M Manual, As-Built Drawings
Defects Notification Period (DNP)	Rectify defects; Training of WASA staff on O&M

Section VI – Employer Requirements

COMPLETION TIME OF PROJECT:

Sr. No.	Activity	Maximum Allowable Time (Cumulative) from Commencement of Works
1	Inception Report	0.5 months
2	Design Review Report	1 months
3	Field Investigation Report	2.5 months
4	Stage 1 Detailed Design Report	3.5 months
5	ESHS Reports	5.5 months
6	Stage 2 Detailed Design Report	6 months
7	Work Plan	6 months
8	Execution of Works complete in all respects	30 months
9	DNP (1-year)	42 months



Section VII – Contract Documents

General Conditions of Contract:

The Conditions of Contract are the “General Conditions” which form part of the “Conditions of Contract for EPC/Turnkey Projects (“Silver book”) Second edition 2017, reprinted 2022 with amendments” published by the Federation Internationale Des Ingenieurs – Conseils (FIDIC).

Eligible Countries:

Firms, goods and services from the following countries are excluded from Tendering process

- i. *Countries that are subject to: an embargo / an exclusion decision / financial sanction by the United Nations Security Council*
- ii. Countries with whom Government of Pakistan impose any such restrictions. Information regarding such restrictions are available at Ministry of Commerce website: <https://www.commerce.gov.pk/> (Import Policy Order 2022)

E&S COMPLIANCE BY EPC CONTRACTOR

- The following Draft Documents have been disclosed at the WASA website (<https://wasa.punjab.gov.pk/node/52>), which contains a detailed course of action to comply with E&S safeguards requirements as per E&S policy:
 1. Environmental and Social Impact Assessment (ESIA) including Environment and Social Management Plan
 2. Livelihood Restoration Plan (LRP) for Trunk Sewer Lines
 3. Gender Action Plan (GAP)
 4. Stakeholder Engagement Plan (SEP)
 5. Environment and Social Due Diligence Report (ESDDR) for Babu Sabo Wastewater Treatment Plant as an associated facility.

GENERAL INFORMATION

- Reinforced Cement Concrete (RCC) pipes will be precast at the manufacturing unit established by the EPC contractor. These pipes will have a strength of **6000 PSI** and will necessitate the establishment of a fabrication workshop, along with batching, curing, and testing facilities.
- **No Land Acquisition** is required.
- Updating the already disclosed E&S documents (if required) & Environmental and social management plans, including Health & Safety plans, will be implemented.
- **115 No of Boreholes** already done during the design phase by PMC as a part of the Geotechnical Investigation Report. Geotechnical investigations revealed the following soil stratigraphy: Lean Clay (CL-ML), Silty (ML), Silty with sand (ML), poorly graded sand (SP-SM), and silty sand (SM).
- The entire project is projected to be completed within **2.5 years**, employing **6 New Slurry-Type Micro-Tunnelling Boring Machines (MTBM)**.

THANK YOU