

**Rehabilitation of Damaged Water Supply and  
Drainage Schemes of District Qambar  
Shahdadkot, Sindh**



**ENVIRONMENTAL  
AND SOCIAL  
SCREENING REPORT**



**SINDH FLOOD EMERGENCY REHABILITATION PROJECT  
(SFERP)**

**PLANNING & DEVELOPMENT DEPARTMENT (P&DD) COMPONENT  
GOVERNMENT OF SINDH**



---

## **ENVIRONMENTAL AND SOCIAL SCREENING REPORT (ESSR)**

---

### **Rehabilitation of Damaged Water Supply and Drainage Schemes of District Qambar Shahdadkot, Sindh**

**Final Report**

**May, 2024**

### **SINDH FLOOD EMERGENCY REHABILITATION PROJECT (SFERP)**



**PLANNING & DEVELOPMENT DEPARTMENT (P&DD) COMPONENT,  
GOVERNMENT OF SINDH**

## DOCUMENT ISSUE AND REVISION RECORD

This document and its contents have been prepared and intended solely for the information and use of the Government of Sindh, Project Implementation Unit (PIU) concerning the **SINDH FLOOD EMERGENCY REHABILITATION PROJECT (SFERP)**

### Document Information

<b>Project</b>	<b>Sindh Flood Emergency Rehabilitation Project (SFERP)</b>
<b>Proponent</b>	<b>Project Implementation Unit (PIU), Government of Sindh</b>
<b>Consultant</b>	<b>Cameos Consultant</b>
<b>Document Ref</b>	<b>SFERP – ESSR/WS&amp;DS/8</b>
<b>Document Title</b>	<b>ENVIRONMENTAL &amp; SOCIAL SCREENING REPORT (ESSR) for Rehabilitation of Damaged Water Supply and Drainage Schemes of District Qambar Shahdadkot, Sindh</b>

### Revision History:

<b>Description</b>	<b>Issue</b>	<b>Revision</b>	<b>Date</b>	<b>Originated</b>	<b>Reviewed</b>	<b>Approved</b>
ESSR for Rehabilitation of Damaged Water Supply and Drainage Schemes of District Qambar Shahdadkot	01	-	15-05-2024	-	-	-

**Note:** The template of ESSR & E&S Checklist for one District i.e., Larkana is approved by the World Bank. As per the directions of WB on dated 12<sup>th</sup> April, 2023, the document is reviewed by the E&S team of PIU and submitted to WB team for record and post review purpose.

---

## Table of Contents

<b>1</b>	<b>PROJECT BACKGROUND .....</b>	<b>1</b>
1.1	Project Components.....	1
<b>1.2</b>	<b>The Proposed Sub-Project .....</b>	<b>1</b>
1.1	Sub-Project Description.....	1
1.2	Scheme Wise E&S Setting .....	5
1.3	Sub-Projects Information.....	31
1.3.1	Brief introduction to the sub-project, its geographical location, components, and benefits.....	31
1.3.2	Details about existing conditions of the area/facility and proposed scope of rehabilitation works.....	31
1.3.3	Socio-Economic Condition of the Sub-Project Area .....	33
1.3.4	Explain, whether this is purely rehabilitation of existing facilities or will involve any new works.....	33
1.3.5	Are consultations with stakeholders conducted?.....	34
1.3.6	Will this sub-project involve any ancillary impact/ activity away from the work site? .....	34
1.3.7	Timeframe for starting and completion of sub-project .....	34
1.3.8	Drainage and Water Supply Schemes Design and Demand details .....	34
1.3.9	Would rehabilitation works done by considering the climate resilient factor? .....	54
1.3.10	Scenario if there are any alternative designs options of sub-project .....	54
<b>2</b>	<b>ENVIRONMENTAL AND SOCIAL SCREENING TOOLS .....</b>	<b>56</b>
2.1	Environmental and Social Management Screening.....	56
<b>3</b>	<b>STAKEHOLDER CONSULTATION .....</b>	<b>70</b>
3.1	Community Concerns.....	72
3.2	Institutional Consultation .....	74
<b>4</b>	<b>ENVIRONMENTAL AND SOCIAL MANAGEMENT &amp; MONITORING PLAN</b>	<b>77</b>
<b>5</b>	<b>PICTORIAL PROFILE OF PROJECT SITES .....</b>	<b>86</b>
5.1	Water Supply Scheme -Taluka Qambar, District Qambar Shahdadkot.....	86
5.2	Water Supply Scheme- Taluka Naseerabad, District Qambar Shahdadkot.....	86
5.3	Water Supply Scheme –Taluka Miro Khan, District Qambar Shahdadkot .....	86
5.4	Water Supply Scheme –Taluka Warah, District Qambar Shahdadkot .....	87
5.5	Water Supply Scheme –Taluka Sijawal Junejo, District Qambar Shahdadkot .....	87
5.6	Water Supply Scheme –Taluka Qubo Saeed Khan, District Qambar Shahdadkot.....	87
5.7	Water Supply Scheme –Taluka Shahdadkot, District Qambar Shahdadkot.....	87
<b>6</b>	<b>ENVIRONMENTAL AND SOCIAL IMPLEMENTATION BUDGET.....</b>	<b>88</b>
<b>7</b>	<b>OPERATION AND MAINTENANCE (O&amp;M).....</b>	<b>91</b>
7.1	Key aspects of O&M for WSS and Drainage systems: .....	91
7.1.1	Operation: .....	91
7.1.2	Maintenance.....	91

---



7.1.3	Emergency Response .....	92
7.1.4	Water Conservation .....	92
7.1.5	Data Management .....	92
7.1.6	Documentation and Handover.....	92
7.1.7	Facilities Management .....	92
7.1.8	Staffing and Training .....	93
7.1.9	Preventive Maintenance .....	93
7.1.10	Repairs and Corrective Maintenance .....	93
7.1.11	Safety and Compliance .....	93
7.1.12	Energy Efficiency and Sustainability .....	93
7.1.13	Asset Management.....	93
7.1.14	Stakeholder Communication.....	93
7.1.15	Continuous Improvement.....	94
7.1.16	Cleaning and maintenance of solar system .....	94
7.1.17	Regular maintenance and monitoring of Hypo-chlorinator.....	94
7.1.18	PHED Responsibility .....	95
7.2	Key benefits of effective O&M of WSS and Drainage Systems .....	95

## **List of Tables**

<b>Table 1: Details of Equipment/Machineries and Manpower for Rehabilitation Works .....</b>	<b>35</b>
<b>Table 2: Population Size and Wastewater Generation of District Qambar Shahdadkot Drainage Schemes.....</b>	<b>36</b>
<b>Table 3: Population Size and Water Supply Demand of District Qambar Shahdadkot .....</b>	<b>39</b>
<b>Table 4: Environmental and Social Screening Checklist .....</b>	<b>56</b>
<b>Table 5: List of Stakeholders Consulted for Water Supply and Drainage Schemes of Qambar Shahdadkot.....</b>	<b>70</b>
<b>Table 6: Summary of Concerns Raised by Institutional Stakeholders .....</b>	<b>75</b>
<b>Table 7: Environmental and Social Management and Monitoring Plan (ESMMP).....</b>	<b>78</b>
<b>Table 8: Environmental Compliance Cost.....</b>	<b>89</b>

## **List of Figures**

<b>Figure 1: Study Area Map of District Qambar Shahdadkot Water Supply Schemes .....</b>	<b>4</b>
<b>Figure 2: Study Area Map of District Qambar Shahdadkot Drainage Schemes .....</b>	<b>4</b>
<b>Figure 3: Stakeholders Consultation.....</b>	<b>74</b>
<b>Figure 4: Institutional Consultation.....</b>	<b>76</b>

## **List of Annexures**

<b>Annexure 1: Environmental &amp; Social Screening Checklist of Heetam Sohoo- Drainage Scheme- Taluka Naseerabad, District Qambar Shahdadkot .....</b>	<b>97</b>
<b>Annexure 2: Design Drawings of Water Supply Schemes &amp; Drainage.....</b>	<b>152</b>
<b>Annexure 3: Attendance Sheets During Consultation .....</b>	<b>177</b>

# 1 PROJECT BACKGROUND

The Federal Government of Pakistan requested the global community and development partners for assistance to respond to the flood disaster following the Flood 2022 emergency. Subsequently, the World Bank (WB) task team visited the province and had a series of meetings with the provincial Govt. During the discussions held with the WB Mission, a two-pronged strategy was agreed i.e.,

- Restoration/Rehabilitation of Rural (Farm to Market) Roads in affected districts, talukas and UCs.
- Restoration of water supply, drainage and sanitation schemes in affected districts, Talukas and Union Councils.
- Provision of immediate financial assistance, cash for work is proposed to rehabilitate small community structures like rural roads, watersheds, watercourse (s) to carry irrigation water to Farm(s), Rehabilitation of village streets and restoration of village sanitation work including removal of stagnant water in villages. The exact number to be arrived at after assessment.
- Expansion of the Emergency Rescue Service (Sindh Emergency Rescue Services-1122) to 13 districts i.e., Jamshoro, Dadu, Sajawal, Badin, Qambar Shehdadkot, Shikarpur, Jacobabad, Thatta, Ghotki, Naushehro Feroz/Matiari, Umerkot, Sanghar and Shikarpur. Establishment of Satellite Rescue Station at Motorway and National Highways (N-5 & N-55) The Provincial Government has already launched Sindh Emergency Rescue 1122 in Six Districts HQs – Karachi, Hyderabad, Jacobabad, Shaheed Benazirabad, Sukkur, and Larkana.

## 1.1 Project Components

The proposed Sindh Flood Emergency Rehabilitation Project – SFERP falls into four main components.

- Component--1 Infrastructure Rehabilitation:
- Component--2 Livelihoods Restoration
- Component--3 Institutional Strengthening for Resilience and Technical Assistance
- Component--4 Project Management and Operational Cost

## 1.2 The Proposed Sub-Project

The proposed project under Flood 2022 Emergency Response is a sub-component that will support the rehabilitation and reconstruction of the flood-affected water supply and drainage schemes to improve health & hygiene of local communities by providing safe drinking water with uninterrupted supply. The location map of subproject is given in **Figure 1** and **Figure 2** and the details of the subproject sites are given below;

### 1.1 Sub-Project Description

In District Qambar Shahdadkot, there are a total of 105 schemes, comprising 23 drainage schemes and 82 water supply schemes.

**Project description** The sub-component “rehabilitation of water supply and drainage schemes” will rehabilitate the selected and prioritized water supply infrastructure that has been destroyed or damaged by the floods. The primary objective of this project is to evaluate the condition of water

supply and drainage schemes, which includes assessing filtration techniques, piping, water quality, efficiency and adequacy of equipment, population coverage, and technology employed. This assessment will encompass a comprehensive study of network elements such as pumps, tanks, pipe materials, as well as parameters like diameters, flow rates, and the overall functionality of water supply and drainage systems constructed.

The subproject schemes are located in Qambar Shahdadkot, District of Sindh, Pakistan. The main aim of the said project is to rehabilitate existing sources of water supply and drainage facilities for the flood effected people in District Qambar Shahdadkot.

### **Environmental and Social Settings**

The subproject land is owned by the Government. The proposed activities are the rehabilitation and restoration of damage water supply schemes and drainage facilities. These schemes are the properties of the Government body. There are no major environmental and social impacts of the project activities to the vicinity of the subproject areas. There are no water bodies within the sub-project sites. The subproject rehabilitation activities will not affect any flora, fauna and natural habitat of the area. There are few trees in the vicinity of the proposed subproject areas which will not be disturbed during the rehabilitation works. The environmental and social impacts will be kept at minimum by ensuring the mitigation measures and continuous monitoring. All measures will be planned, organized and implemented which are vital for health and safety of the workers. Instrumental Environmental Testing will be conducted on key parameters like air quality, water quality and noise level determination. Local flora is important to provide shelters for the birds, offer fruits and/or timber/fire wood, protect soil erosion and overall keep the environment very friendly to human living. As such cutting/chopping of flora will not be anticipated. Plantation has been proposed after the completion of the proposed subproject to enhance the aesthetic beauty of the project vicinity. No sub-projects related socioeconomic issues have been recorded during the baseline surveys of the sub-projects. Community and project beneficiaries are very much enthusiastic about the early rehabilitation and completion of the sub-projects. Settlements, including built-up areas such as homes, shops, mosques, graveyards, healthcare facilities and schools are located around sub-project schemes. Community is settled in villages which are actual project beneficiaries. No natural water spring is found in the proposed sub-project area. The site wise detailed of environmental and social setting of the proposed area are presented in the section 1.1.2.

**Project Activities/  
Scope of Work** Proposed Rehabilitation of Damaged Infrastructures of Water Supply Schemes (WSS)

- Rehabilitation of Tube wells
- Rehabilitation of Pumping Machinery i.e., Submersible Pumps, Centrifugal Pumps,
- Rehabilitation of Solar System
- Rehabilitation of Storage Tanks
- Rehabilitation of Low Surface Reservoirs (LSRs)
- Rehabilitation of Distribution Network i.e., Pipe network
- Rehabilitation of Pumping Stations/Buildings
- Rehabilitation and improvement of Electric and mechanical works transmission
- provision and installation of disinfection system i.e., hypo-chlorinator equipment

Rehabilitation of Damaged Infrastructures of Drainage Schemes

- Rehabilitation of Street drains
- Rehabilitation of Pumping Machinery i.e., sludge Pumps, Motors
- Installation of Solar System for alternative power supply
- Rehabilitation of Screening Chambers
- Rehabilitation of Collecting Tanks
- Rehabilitation of Drainage Pumping Station Building
- Rehabilitation and enhancement of existing Electric system with automation Work

Rehabilitation of Rising Main network to dispose of the drainage

**Proposed Date of Commencement of Work:** The Rehabilitation of water supplies and drainage activities will be started in June 2024 after completion of pre-requisite requirements.





## 1.2 Scheme Wise E&S Setting

No.	Schemes	Coordinates	Source & Status	Site Description
<b>A</b>	<b>WATER SUPPLY SCHEMES TALUKA - QAMBAR</b>			
1	Bhada & Sodhar Water Supply Scheme-WSS	397045.51 mE 3050372.39 mN	Tube Well ERS	The proposed site is located in Qambar Shahdadt, it can be easily accessible by National Highways N55 and N455 on the left side via Kamber to Berthori Road when moving towards Qambar Shahdadt. The number of household and population is 146 & 1020 respectively. The area is surrounded by the agricultural land. There are two community villages near to the water supply scheme at the distance of 190-200 meters, there is a canal located at the south around 460 meter distance from proposed site.
2	Gogharo Water Supply Scheme-WSS	401780.00 mE 3039295.00 mN	Tube Well ERS	The proposed site is located in District Qambar Shahdadt it can be easily accessible by National Highway N55 and N255 ring road when moving towards Larkana. The number of household and population is 615 & 4000 respectively. The area is surrounded by the human settlement with commercial activities and some agricultural areas. There is a Shrine/Dargha named "Goghar-e-Jo Muqbaro" at the distance of 408m in the direction of north. There are some educational facilities i.e., GBH school at a distance of 478m in the direction of north. There is a Basic Health Unit –BHU Gogharo at a distance of 234m and a medical store in the distance of around 153m. there is a canal in east side with the distance of 143m from proposed project site .
3	Hamayoon Mugheri Water Supply Scheme	399896.00 mE 3047039.00 mN	Tube Well ERS	The proposed site is located in District Qambar Shahdadt around the distance of 5km away from Qambar City, it can be easily accessible by Indus Highway N55 on the south side proposed site via Qambar road when moving towards Gatahar link road. The number of household and population is 174 & 1130 respectively. The area is surrounded by the human settlement and some agricultural areas. There is an educational facility i.e., GGHS at a distance of 668m in the direction of westward from proposed project site.
4	Khahi Meenho Water Supply Scheme	385864.00 mE 3051242.00 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Gaibi Road on the East side of the proposed site it is located at the distance of 16Km from Qambar city. The number of household and population is 492 & 3440 respectively. The area is surrounded



No.	Schemes	Coordinates	Source & Status	Site Description
				by the human settlement and agricultural areas. There are no social sensitive receptors around proposed project site. A canal is flowing on western side at a distance of 11 m from proposed site. There is an educational facility i.e. GBPS at the distance of 277m in the eastern side of the proposed site.
5	Sobedar Ahmed Khan Awan- Water Supply Scheme-WSS	397517.01 mE 3050947.93 mN	Tube Well ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible via link road Kambar Ber Thori Road on the East side of the proposed site. It is located at the distance of 4.18Km from Qambar city. The number of household and population is 100 & 700 respectively. The area is surrounded by the agricultural areas. There are no social sensitive receptors around proposed project site.
6	Wali Dad Mugheri- Water Supply Scheme-WSS	397509.00 mE 3054830.00 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible via link road on the west side of the Qambar City at the distance of 4Km far. The number of household and population is 371 & 2600 respectively. The area is surrounded by the agricultural areas. There are no social sensitive receptors around proposed project site.
7	Khairpur Juso – Water Supply Scheme-WSS	402608.00 mE 3042960.00 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt around the distance of 5km away from Qambar City, it can be easily accessible by National Highway N55 when moving toward Nasir Abad/ Wagan on the south side proposed site via Pakho jo Kambar link road. The number of household and population is 378 & 2650 respectively. The area is surrounded by the human settlement and some agricultural areas. There is an educational facility i.e., GGHS at a distance of 128m in the direction of Eastward from the proposed project site.
8	Burhan Khan Chandio- Water Supply Scheme-WSS	389450.00 mE 3059769.00 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National Highway N455 on the left side via Qambar to shahdadt road and it can also be accessed with link road on West north side of Qambar city. The number of household and population is 58 & 400 respectively. The area is surrounded by the agricultural areas. There are no social sensitive receptors around proposed subproject site. A canal is flowing on eastern side at 28m distance from proposed project site.

No.	Schemes	Coordinates	Source & Status	Site Description
9	Daffar Water Supply Scheme-WSS	391144.00 mE 3052173.00 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Gaibi Dero link road on the left/ north when moving towards Qambar city. The number of household and population is 286 & 2000 respectively. The area is surrounded by the agricultural areas. There is a government dispensary located at the distance of 1.22km on north side of the proposed project site.
10	Jam Khan Chandio Water Supply Scheme-WSS	397412.00 mE 3054840.00 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible via link road on the west side of the Qambar at the distance of 4.60Km far. The number of household and population is 286 & 2000 respectively. The area is surrounded by the agricultural areas. There are no social sensitive receptors around proposed project site.
11	Karohar- Water Supply Scheme WSS	372699.67 mE 3044117.62 mN	Tube Well ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Gaibi Road on the East side of the proposed site it is located at the distance of 29Km from Qambar city. There is Hamal Lake on the western side of proposed site, at the distance of 4.88km far from the site. The number of household and population is 429 & 3000 respectively. The area is surrounded by the agricultural areas.
12	Meena Water Supply Scheme-WSS	407346 mE 3060863 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Mero khan road on the north side when moving from Qambar city to Rato Dero. The number of household and population is 857 & 6000 respectively. The area is surrounded by the human settlement and agricultural areas. There some educational facilities around proposed subproject site i.e., Government High School at a distance of 39m, and there are two also health facilities i.e Government Health Dispensary at the distance of and 67m Government hospital at the distance of 1142m from proposed site. There is a canal on north side at the distance of 123.3m from the proposed site.
13	Noor Muhammad Shaikh Water Supply Scheme-WSS	385907 mE 3051286 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Gaibi Road on the East side of the proposed site it is located at the distance of 16Km from Qambar city. The number of household and population is 929 & 6500 respectively. The area is surrounded by the agricultural areas. There are no social sensitive receptors around proposed project site. A canal is flowing on western side at a distance of 54 m from proposed site.

No.	Schemes	Coordinates	Source & Status	Site Description
14	Sher Muhammad Buledi- Water Supply Scheme-WSS	388487 mE 3057560 mN	Tube Well ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by National Highway N455 on the left side via Qambar to shahdadkot road and it can also be accessed with link road on West north side of Qamabar city. The number of household and population is 172 & 1200 respectively. The area is surrounded by the agricultural areas. There are no social sensitive receptors around proposed site. There is a canal on the eastern side flowing at the distance of 352m.
15	Yaqoob Chandio & Allied Villages- Water Supply Scheme-WSS	375589.85 mE 3065195.41 mN	Tube Well ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by canal road via link road "Gaibi Road" moving from the eastern side of the Qamabr city. The number of household and population is 285 & 2000 respectively. The area is surrounded by the agricultural areas. There is no social sensitive receptor. A canal is flowing on westward at a distance of 52 m.
16	Garhi Khair Muhammad Kartio- Water Supply Scheme-WSS	385624 mE 3047805 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by Gaibi Road on the North side connecting with Wadhu wah and Sanehro wah Canals. The number of household and population is 428 & 3000 respectively. The area is surrounded by the human settlement and agricultural areas. There is no social sensitive receptor except Ghari Police Choki at a distance of 11.9 m. there is a canal warah branchflowing at a distance of 8m.
17	Dost Ali Magsi - Water Supply Scheme-WSS	396117 mE 3052058 mN	Tube Well ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by Gaibi Road on the West side of Qambar City. The number of household and population is 285 & 2000 respectively. The area is surrounded by the human settlement and agricultural areas. There is an educational facility around proposed subproject site like Govt. Baloch School, at a distance of 694m respectively.
<b>B</b>	<b>WATER SUPPLY SCHEMES TALUKA NASEERABAD</b>			
18	Naseerabad Water Supply Scheme-WSS	402973 mE 3022390 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by National Highway N55 on the left side and N155 on the right side via link road with Badah Moen-jo- Daro Road when moving forward from Naseerabad. The number of household and population is 4286 & 30000 respectively. The area is surrounded by the human settlement and agricultural areas. There are a canal flowing at a distance of 31m respectively



No.	Schemes	Coordinates	Source & Status	Site Description
19	Aayo Phulpoto Water Supply Scheme- WSS	385882.00 mE 3032918.00 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National Highway N55 on the right side via Naseerabad Warah Road. The number of household and population is 1,286 & 9000 respectively. The area is surrounded by the human settlement and agricultural areas. There are no sensitive receptors found around proposed project area, there is a canal floating at a distance of 21. m .
20	Mustafa Abad Water Supply Scheme- WSS	399806.00 mE 3025635.00 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National Highway N55 on the left side via Naseerabad Badah Road. The number of household and population is 682 & 4330 respectively. The area is surrounded by the agricultural areas. There are no sensitive near the site area except a Health dispensary located at a distance of 272m. A canal is flowing adjacent to proposed subproject site at a distance of 21 m.
21	Nabi Bux Kandhro Water Supply Scheme-WSS	390667.95 mE 3021842.86 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National Highway N55 on the right side via canal road when moving forward from Naseerabad. The number of household and population is 928 & 6500 respectively. The area is surrounded by the agricultural areas. Here are no social sensitive receptors. A canal is flowing at a distance of 352m from proposed subproject area.
22	Saeed Khan Panhwar Water Supply Scheme- WSS	391095.79 mE 3029824.86 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Naseerabad warah road when moving from Naseerabad city. The number of household and population is 500 & 3500 respectively. The area is surrounded by the agricultural areas. There are no any social sensitive receptors, A canal is flowing in west at a distance of 583m away from proposed subproject area.
23	Hamzo Bhatti Water Supply Scheme	396893 mE 3030215 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National Highway N55 on the right side when moving forward from Larkana to Naseerabad. The number of household and population is 1072 & 7500 respectively. The area is surrounded by the agricultural areas. There is a canal flowing at a distance of 29.4m on west side of the proposed site.
24	Sawali Wahoocha Water Supply Scheme	388194.11 mE 3031848.11 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National Highway N55 on the right side via Naseerabad Warah Road. The number of

No.	Schemes	Coordinates	Source & Status	Site Description
				household and population is 691 & 4340 respectively. The area is surrounded by the human settlement and agricultural areas. There are some educational and religious facilities around proposed project area like Govt. Primary School Seed khan Phulphoto, GBH School Mondar Lakha at a distance of 672 m and 997m, a masjid and a temple/ Dargah "Sufi Faqeer" at a distance of 733 m and 551m from the proposed site area.
<b>C</b>	<b>WATER SUPPLY SCHEME – TALUKA MIRO KHAN</b>			
25	Behram Machhi Water Supply Scheme	399709 mE 3062667 mN	Tube Well ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National Highway N455 on west side via Tando road when moving forward from Qambar to Shahdadt. The number of household and population is 1215 & 8500 respectively. The area is surrounded by the human settlement and agricultural areas. There is health, educational and religious facilities around proposed project area like G.G.High School at a distance of 589 m, G.B.Campus School at a distance of 599m, a Health center- Sirai Behram at a distance of 643m, a canal is flowing on east side at a distance of 474m from the proposed site.
26	Ali Sher Gopang Water Supply Scheme	412242.00 mE 3069539.00 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National Highway N455 on the right side via Meero Khan road when moving forward from Qambar- Rato Dero. The number of household and population is 71 & 500 respectively. The area is surrounded by the human settlement and agricultural areas. There is educational facility around proposed project area like Govt: Primary School at a distance of 164m and a canal is flowing at a distance of 32m
27	Dino Kotho Water Supply Scheme	397182.11 mE 3063622.69 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National Highway N455 on East side via Canal road when moving forward from Qambar to Shahdadt. The number of household and population is 326 & 2280 respectively. The area is surrounded by the human settlement, orchards and agricultural areas. There are religious, health and educational facilities around proposed project area like Masjid Madni Masjid and Jama Masjid at a distance of 151 m, and 395m. a medical store at a distance of 301 m. A canal flowing on Southeast side at a distance of 37m from proposed site.

No.	Schemes	Coordinates	Source & Status	Site Description
28	Karrira Water Supply Scheme	394352 mE 3075819 mN	Tube Well ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by National Highway N455 on left side when moving forward from Qambar to Shahdadkot. The number of household and population is 257 & 1800 respectively. The area is surrounded by the human settlement and agricultural areas. There is karrira Village graveyard on north side a distance of 207 m. A masjid at distance of 247m and UC karrira office at a distance of 516m on south side from proposed site.
29	Khabbar Water Supply Scheme	384506 mE 3066935 mN	Tube Well ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by National Highway N455 on left side via Sikander Ali road when moving forward from Qambar to Shahdadkot. The number of household and population is 228 & 1600 respectively. The area is surrounded by the human settlement and agricultural areas. There is an educational facility around proposed project area i.e., Govt. Primary School Khabbar at a distance of 105 m. Noorani masjid and Hussaini Masjid at a distance of 163m and A canal "Thali Canal" is flowing at a distance of 11 m.
30	Khairo Gadhi Bodewal Water Supply Scheme	381570 mE 3064177 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by canal road via link road "Gaibi Road" moving from the eastern side of the Qamabr city. The number of household and population is 114 & 800 respectively. The area is surrounded by the agricultural areas. There are no sensitive receptors around the proposed site.
31	Purano Tharo Water Supply Scheme	407447 mE 3072287 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by via Mero Khan Road on left side, when moving forward from Qambar to Rato Dero. The number of household and population is 169 & 1180 respectively. The area is surrounded by the human settlement and agricultural fields. There are no social sensitive receptors around proposed area.
32	Ali Ji Wandh Water Supply Scheme	402060.00 mE 3068195.00 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shadadkot, it can be easily accessible by National Highway N455 on the right side via Canal road when moving from Qambar to Shahdadkot. The number of household and population is 295 & 2070 respectively. The area is surrounded by the human settlement and agricultural fields. There are educational and religious facilities around proposed subproject like GBP School and G.Boys Middle School at a distance of 330m and 295m. a masjid at a

No.	Schemes	Coordinates	Source & Status	Site Description
				distance of 373m. a canal is flowing on right side at a distance of 18m from the proposed site.
33	Fida Hussain Brohi Water Supply Scheme	395164 mE 3066032 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shadadkot, it can be easily accessible by National Highway N455 on the right side via Canal road when moving from Qambar to Shahdadkot The number of household and population is 257 & 1800 respectively. The area is surrounded by the human settlement and agricultural fields There are educational and religious facilities around proposed subproject like Badalabad School, Govt: Girls' School and Sadaqat Coaching center at a distance of 292m, 284m and 194m. there is a canal flowing on right side as a distance of 21m from proposed site.
34	Ghulam Ali Magsi Water Supply Scheme	397688 mE 3067460 mN	Tube Well ERS	The proposed site is located in District Qambar Shadadkot, it can be easily accessible by National Highway N455 on the right side via Canal road when moving from Larkana-Qambar – Shahdadkot. The number of household and population is 71 & 500 respectively. The area is surrounded by the human settlement, Commercial area and agricultural fields area. There are educational, industries and religious facilities around proposed subproject like Jam Khan Brohi wheat and rice trade at a distance of 71m on east side, Al Hakim Flour mill at a distance of 155m, New Saif Sanity Gas Shop at a distance of 170m on south side of the proposed subproject site.
35	Meeran Machi Water Supply Scheme	381543 mE 3064164 mN	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by canal road via link road “Gaibi Road” moving from the eastern side of the Qamabr city. The number of household and population is 157 & 1100 respectively. The area is surrounded by the human settlement and agricultural fields. There are no social sensitive receptors around subproject site.
<b>D</b>	<b>WATER SUPPLY SCHEME –TALUKA WARAH</b>			
36	Warah Water Supply Scheme	382227 mN 3037670 mE	Tube Well Non ERS	The proposed site is located in District Qambar Shadadkot, it can be easily accessible by National Highway N55 on the right side via Larkana road and Kandoo Road when moving from Naseerabad-Larkana-Qambar road. The number of household and population is 4285 & 300000 respectively. The area is surrounded by the human settlement, Commercial area and agricultural fields area. There are educational, industries , health and religious facilities around proposed subproject like Taluka Hospital-THQ

No.	Schemes	Coordinates	Source & Status	Site Description
				warah at a distance of 1.82km, City Press Club at a distance of 1.41 km. Govt: GHSS at a distance of 171km. there is a canal flowing on left side at a distance of 41m from proposed sub project site.
37	Gaji Khuhawar Water Supply Scheme	381803 mN 3021051 mE	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National Highway N550 on the right side via Canal Road. road when moving towards larkna to qambar road/. The number of household and population is 1000 & 7000 respectively. There is no and social respecer around the s subproject site. A canal is flowing at a distance of 18m.
38	Wagan Water Supply Scheme	398728 mN 3044650 mE	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National Highway N55 on the west side via a Qambar road. When moving from moving towards larkana to Wagan. The number of household and population is 1714 & 12000 respectively. The area is surrounded by the human settlement and agricultural fields. There are no social sensitive receptors around proposed subproject site , A canal “Nasir Branch “is flowing at a distance of 13m from the subproject site.
39	Ali Ashabo Water Supply Scheme	391641 mN 3037053 mE	Tube Well ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National Highway N55 and N455 on the west side via a Canal road. When moving from moving towards Larkana to Naseerabad. The number of household and population is 714 & 5000 respectively. The area is surrounded by the human settlement and agricultural fields. There are no social sensitive receptors around proposed subproject site. A canal is flowing on the right side at a distance of 234m.
40	Anwer Abad Water Supply Scheme	380906 mN 3043275 mE	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National Highway N255 via larkana road when moving towards Naseerabad and connecting with link road Kando Road on east side. The number of household and population is 100 & 700 respectively. The area is surrounded by the human settlement with human settlements and agricultural fields. There are educational facilities around proposed subproject like Govt: Girls’primary School at a distance of 1.09km .A canal is flowing from the proposed site 8m.



No.	Schemes	Coordinates	Source & Status	Site Description
41	Badar-ud-Din Abro Water Supply Scheme	380764 mN 3043257 mE	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by National Highway N255 via larkana road when moving towards Naseerabad and connecting with link road Kando Road on east side. The number of household and population is 286 & 2000 respectively. The area is surrounded by the human settlement with human settlements and agricultural fields. There are no any sensitive receptors around proposed site, A canal is flowing on right side at a distance of 41m from the subproject proposed site.
42	Faiz Muhammad Sodhar Water Supply Scheme	382309 mN 3032020 mE	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by National Highway N55 on the right side via Naseerabad to Warah Road. The number of household and population is 1142 & 8000 respectively. The area is surrounded by the human settlement with commercial activities and agricultural fields. There are educational facilities around proposed subproject like Government Boys Primary School/ Madarsa Noor-ul-Islam Tahira and GBPS Ghazi Khan Markhan at a distance of 98m and 373m. A Flour mill/ Rizwan Ata Chakki is at a distance of 377m respectively. There is a canal flowing at a distance of 9m from proposed subproject site.
43	Gaji Bux/Mirza Pur Water Supply Scheme	356681 mN 3030234 mE	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by Gaibi Road on the East side of the proposed site it is located at the backward of the Hamal Lack at a distance of 7.55km. The number of household and population is 714 & 5000 respectively. The area is surrounded by the agricultural fields. There are no social sensitive receptors around.
44	Jani band Water Supply Scheme	393416 mN 3034243 mE	Tube Well ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by National Highway N55 on the left side when moving towards Naseerabad to Qambar City. The number of household and population is 857 and 6000. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational facilities around proposed subproject like GBP School at a distance of 568m and a Dargah/ Tample "Aliya Sain Azam Shah Bukahri" at a distance of 879m from the proposed subproject site. A canal is flowing on western side at a distance of 949m from the respective site.
45	Khandu Water Supply Scheme	380755 mN 3043196 mE	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by National Highway N255 via larkana road when

No.	Schemes	Coordinates	Source & Status	Site Description
				moving towards Naseerabad and connecting with link road Kando Road on east side. The number of household and population is 1142 & 8000 respectively. The area is surrounded by the human settlement with human settlements and agricultural fields. There are Sensitive receptors around the proposed subproject. A canal is flowing from the proposed site 5m.
46	Mahi Darwan Water Supply Scheme	393249 mN 3036668 mE	Tube Well Non ERS	Qambar Shahdadkot, it can be easily accessible by National Highway N55 on the left side when moving towards Naseerabad to Qambar City. The number of household and population is 214 and 1500. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational and health facilities around proposed subproject like GBH School Datu Teewno at a distance of 268m and a Basic Health Unit BHU Datu Teewno at a distance of 371m from the proposed subproject site. A canal is flowing on right side western side at a distance of 12m from the respective site.
47	Maid Shaheed Water Supply Scheme	380704 mN 3043128 mE	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by national hight way N255 Via Warah Naseerabad road on the West side of the proposed site it is located at the distance of 23Km on Southwest side from Qambar city. The number of household and population is 642 and 4500. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational facilities around proposed subproject like GGP School Maid Shaheed on south side at a distance of 85m and Village Eid Gah area at a distance of 784m from the proposed subproject site. A canal is flowing on right side western side at a distance of 25m from the respective site.
48	Markhand Water Supply Scheme	3822778mN 30328283mE	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by national hight way N255 Via Gaji Kuhawar Road, Warah road on right side of the proposed subproject site area. The number of household and population is 1000 and 7000. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational facilities around proposed subproject like GGM School and GBP School at a distance of 545m and 265m from the proposed sub project site. A canal is flowing on the south and west side at a distance of 165m and 2Km from site area.

No.	Schemes	Coordinates	Source & Status	Site Description
49	Thariri Hajran Water Supply Scheme	384754mN 3035223mE	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by national hight way N255 Via Naseerabad road when moving towards Warah -Naseerabad on left side. The number of household and population is 1000 and 7000. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational facilities around proposed subproject like Govt: Primary School Thariri Hajran at a distance of 903m. A Masjid and Eid Gah at a distance of 1.32km on west side of proposed subproject site.
50	Karamullah Chandio Water Supply Scheme		Tube Well Non ERS	
51	Dholio Buriro Water Supply Scheme	380757mN 3043189 mE	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by national hight way N255 Via Khandu Road when moving towards Warah, Naseerabad. The number of household and population is 214 and 1500. The area is surrounded by the agricultural fields. There are no Social Sensitive receptors arroud the subproject site area. A canal is flowing on at a distance of 10m from the respective site.
52	Kot Sarwar/ Gul Buriro Water Supply Scheme	376445 mN 3040072 mE	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by national hight way N255 Via Gaaji khan Road when moving from towards Warah on Western side. The number of household and population is 857 and 6000. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational facilities around proposed subproject site like GBPS Kot Sarwar and GBS Gul Burira at a distance of 251m and 840m. A canal is flowing on at a distance of 34m from the respective site.
53	Lashkar Khan Lashari Water Supply Scheme	3021838.10 m N 372539.87 m E	Tube Well ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by national hight way N55 Via Canal Road on left side when moving from Naseerabad on Western side. The number of household and population is 642 and 4500. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational facilities around proposed subproject site like GBPS Lashkar Khan at a distance of 299m. There are two canals flowing on north and south side at a distance of 997m and 868m from the respective site.

No.	Schemes	Coordinates	Source & Status	Site Description
54	Sawai Chandio (Dera) Water Supply Scheme	3020984.79 m N 370913.08 m E	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by national hight way N55 Via Canal Road on left side when moving from Naseerabad on Western side. The number of household and population is 642 and 4500. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational facilities around proposed subproject site like GBPS Sawai Khan Chandio at a distance of 421m. There is two canals flowing on south side at a distance of 43m from the respective site.
55	Junani Shareef Water Supply Scheme	377787.00 m E 3034395.00 m N	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National High way N255 Via Warah road on right side of the proposed subproject site area. The number of household and population is 1142 and 8000. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational facilities around proposed subproject like Government Village School at a distance of 848m, A Government Health Dispensary at a distance of 895m from the proposed sub project site. A canal is flowing on the south and west side at a distance of 1.35kms and 2Km from site area.
<b>E</b>	<b>WATER SUPPLY SCHEME –TALUKA SIJAWAL</b>			
56	Bahadur Bhand_ Water Supply Scheme-	3081407.53 m N 412799.83 m E	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Motor Way M-8 Via Larkana Garhi Khairo Road on right side when moving from Rato Dero, Shadadt on south side. The number of household and population is 110 & 770 respectively. The area is surrounded by the human settlement and agricultural fields There are educational and religious facilities around proposed subproject like Foundation Assisted Islamia Secondary School and Makhtab Taleem –ul-Quran Goth at a distance of 1.45 Km from the sub project site area. A canal is flowing on south side at a distance of 643m.
57	Garhi Faiz Muhammad Water Supply Scheme	3063556.00 m N 417655.00 m E	Tube Well ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National High Way-N455 and N55 Via Band Road right Notheast side when moving from Qambar, Larkana to Rato Dero. The number of household and population is 57 & 400 respectively. The area is surrounded by the agricultural fields There are no Social sensitive receptors around the sub project proposed area.

No.	Schemes	Coordinates	Source & Status	Site Description
58	Hakim Ali Shah Water Supply Scheme	3054158.00 m N 408835.00 m E	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by National High Way-N455 via Band Road on left side when moving towards Qambar, Larkana. The number of household and population is 71 & 500 respectively. The area is surrounded by the agricultural fields, There is a canal flowing at a distance of 47m on south side from proposed subproject site.
59	Kot Lal Buksh Mahesar Water Supply Scheme	3085109.34 m N 413268.01 m E	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by Motor Way M-8 Via Larkana Garhi Khairo Road on right side when moving from Rato Dero, Shadadkot on south side. The number of household and population is 581 & 4070 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational and religious facilities around proposed subproject like GBPS School, GHS School, and Iqra Public School at a distance of 278m, 372m and 270m from proposed site. There is a Mahesar Rice Mill at a distance of 83m, A Government Sindh Dispensary on west south side of the proposed subproject site at a distance of 604m. There is a canal flowing at a distance of 2.28km on south side from proposed subproject site.
60	Hassan Bhatti Water Supply Scheme		Tube Well Non ERS	
61	Mitho Karrio Khan & Arzi Gaibano Water Supply Scheme	3078611.50 m N 416841.99 m E	Tube Well ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by Motor Way M-8 Via Rato Dero, Gawadar Motor way when moving from Rato Dero, West side. The number of household and population is 86 & 700 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational and religious facilities around proposed subproject like GBHS School and GBP School at a distance of 669m and 720m from proposed site. There are health facilities like BU Arzi and Dispensary Arzi at a distance of 400m and 580m. There are two canals flowing on left and right side at a distance of 1.15Km and 790m from proposed subproject site.
62	Mitho Khan Mastoi Water Supply Scheme	3079794.00 m N 400987.00 m E	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by National Highway- N.445 and Motor Way M-8 Via Rato Dero, Gawadar Motor way when moving from Rato Dero, Shadadkot on North side. The number of household and population is



No.	Schemes	Coordinates	Source & Status	Site Description
				145 & 1020 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational and religious facilities around proposed subproject like GBPS School at a distance of 1.7km from proposed site. There is a canal flowing on left and right side at a distance of 97m and 344m from proposed subproject site.
63	Mathyon Tar Water Supply Scheme	3073836.09 m N 408390.34 m E	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National Highway- N.445 Via Miro Khan Road when moving from Qambar, Shadadt, Rato Dero on Northeast side. The number of household and population is 107 & 750 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational and religious facilities around proposed subproject like GBPS School at a distance of 1.47km from proposed site. There is a canal flowing on North side at a distance of 380m from proposed subproject site.
64	Terhan Pur Water Supply Scheme	3075442.81 m N 414369.54 m E	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Motorway- M-8 Via Larkana Garhi Khairo Road when moving from Sijawal Junejo, Rato Dero on South side. The number of household and population is 107 & 750 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational and religious facilities around proposed subproject like Primary School Terhan Pur and GBPS School at a distance of 25m and 114m from proposed site. MK Agriculture Farm at a distance of 225m. There is a canal flowing on North side at a distance of 46m from proposed subproject site.
<b>F</b>	<b>WATER SUPPLY SCHEME –TALUKA QUBO SAEED KHAN</b>			
65	Ali Hassan Brohi Water Supply Scheme	371663.80 m E 3081177.24 m N	Surface Water Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Motorway- M-8 Via Rato Dero Gawdar Motor way on south side when moving from Qubo Saeed. The number of household and population is 285 & 2000 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational facilities around proposed subproject like GBLSS School at a distance of 321m. and a Foot Ball Play Club at a distance of 248m on Eastern side. There is canal flowing on

No.	Schemes	Coordinates	Source & Status	Site Description
				left side at a distance of 43m from proposed subproject site.
66	Ahmed Nawaz Magsi Water Supply Scheme	372783.81 m E 3081603.00 m N	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Motorway- M-8 Via Rato Dero Gawdar when moving from Qubo Saeed. The number of household and population is 125 & 875 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There is a canal flowing on at a distance of 35m on left/ Est side of the proposed subproject site.
67	Bukshal Khan Magsi Water Supply Scheme	371271.00 m E 3080450.00 m N	Surface Water Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Motorway- M-8 Via Rato Dero Gawdar when moving from Qubo Saeed. The number of household and population is 70 & 490 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There is a canal flowing on at a distance of 30m on left/ Est side of the proposed subproject site.
68	Mirpur Burriro Water Supply Scheme	366777.00 m E 3072787.00 m N	Surface Water Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Motorway- M-8 Via Rato Dero Gawdar linked with Canal road on south side when moving from Qubo Saeed. The number of household and population is 217 & 1525 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are two canals flowing on eastern side and western side at a distance of 52m and 2Kms from proposed subproject site.
<b>G</b>	<b>WATER SUPPLY SCHEME –TALUKA SHAHDADKOT</b>			
69	Chakyani Water Supply Scheme	399435.00 m E 3079797.00 m N	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Motorway- M-8 Via Rato Dero Gawdar linked with Canal road on south side when moving from Shahdadt to Rato Dero. The number of household and population is 571 & 4000 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational facilities around proposed subproject like GGLSS school and GBH School Chakyani at a distance of 273m and 549m There is a canal flowing on Western side at a distance of 15m. There is a fish pond on south side at a distance of 124m from proposed site.

No.	Schemes	Coordinates	Source & Status	Site Description
70	Hashim Bhatti Water Supply Scheme	389585.00 m E 3092897.00 m N	Surface Water Non ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by Motorway- M-8 Via Garhi Khairo road on North side when moving from Shahdadkot. The number of household and population is 114 & 800 respectively. The area is surrounded by the agricultural fields. There are no Social Sensitive receptors found around the site area. There is a canal flowing on Western side at a distance of 28m. from proposed site.
71	Jari & Khauda Buksh Jamali Water Supply Scheme	388427.00 m E 3091444.00 m N	Surface Water Non ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by Motorway- M-8 Via Garhi Khairo road on North side when moving from Shahdadkot. The number of household and population is 71 & 500 respectively. The area is surrounded by the Human Settlements with commercial activities and agricultural fields. There is a canal flowing on West side at a distance of 48m. from proposed site.
72	Muhalla Ameer Abad Aitbar Khan Chandio Water Supply Scheme	398630.00 m E 3083328.00 m N	Tube Well ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by Motorway- M-8 Via Rais Aitbar Khan Chandio Road connecting with Bridge road Aitbar Khan Chandio when moving from Shahdadkot to Rato Dero. The number of household and population is 500 & 3500 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational facilities around proposed subproject like GLSS school and GHSS School Aitabar Khan Chandio at a distance of 1.10KMs and 1.71Kms. There is a canal flowing on Western side at a distance of 15m from proposed site.
73	Darya Khan Mastoi Water Supply Scheme	397318.00 m E 3081746.00 m N	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by Motorway- M-8 Via Rais Aitbar Khan Chandio Road connecting with Shahdadkot Branch when moving from Shahdadkot to Rato Dero. The number of household and population is 107 & 750 respectively. The area is surrounded by the agricultural fields. There are educational facilities around proposed subproject like GGPS school at a distance of 732m. There is a canal flowing on Western side at a distance of 13m from proposed site.
74	Sobdar Mastoi Water Supply Scheme	399003.00 m E 3079599.00 m N	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadkot, it can be easily accessible by Motorway- M-8 Via Rato Dero Gawdar linked with Canal road on south side when moving from Shahdadkot to Rato Dero. The number of

No.	Schemes	Coordinates	Source & Status	Site Description
				household and population is 128 & 9000 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational facilities around proposed subproject like GPS School at a distance of 547m. There is a canal flowing on Western side at a distance of 15m from proposed site.
75	Dingh Shareef Water Supply Scheme	402547.00 m E 3081930.00 m N	Surface Water Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Motorway- M-8 Via Rato Dero, Gawadar Road, connecting with Shahdadt Branch when moving from Shahdadt to Rato Dero. The number of household and population is 228 & 1600 respectively. The area is surrounded by the agricultural fields. There are educational facilities around proposed subproject like GBPS school at a distance of 1.5Km. There is a canal flowing on Western side at a distance of 50m from proposed site.
76	Gul Muhammad Jarwar		Surface Water Non ERS	
77	Jeeand Jarwar Water Supply Scheme	398813.44 m E 3088570.82 m N	Surface Water Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Motorway- M-8 Via GARhi Katrio Road when moving from Shahdadt to Rato Dero. The number of household and population is 142 & 1000 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational facilities around proposed subproject like GPS School at a distance of 1.43kms. There is a canal flowing on right and left side at a distance of 35m and 43m from proposed site.
78	Meenho Leghari Water Supply Scheme	401610.00 m E 3091132.00 m N	Surface Water Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Motorway- M-8 Via Garhi Katrio Road when moving from Shahdadt to Rato Dero. The number of household and population is 107 & 750 respectively. The area is surrounded by the agricultural fields. There is a canal flowing on left side at a distance of 43m from proposed site.
79	Mir Ji Nari Water Supply Scheme	391719.00 m E 3078107.00 m N	Surface Water Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National Highway N-455 Via Kambar Road when moving from Kambar to Shahdadt. The number of household and population is 214 & 1500 respectively. The area is surrounded by the agricultural fields. There is a canal flowing on North side at a distance of 45m from proposed site.

No.	Schemes	Coordinates	Source & Status	Site Description
80	Shahpur Jamali Water Supply Scheme	395435.00 m E 3086151.00 m N	Surface Water	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Motorway- M-8 Via Garhi Katrio Road when moving from Shahdadt to Rato Dero. The number of household and population is 142 & 1000 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational facilities around proposed subproject like GMS School at a distance of 285m. There is a canal flowing on left and right side at a distance of 35m and 2043m from proposed site.
81	Umeed Ali Junejo Water Supply Scheme	398300.00 m E 3095920.00 m N	Tube Well ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Motorway- M-8 Via Garhi Katrio Road when moving from Shahdadt. The number of household and population is 118 & 830 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational facilities around proposed subproject like GGMS School at a distance of 341m. There is a Village Graveyard Umeed Ali Junejo at a distance of 261m. There is a canal flowing on south side at a distance of 72m from proposed site.
82	Yar Muhammad Leghari Water Supply Scheme	407693.00 m E 3089179.00 m N	Tube Well Non ERS	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Motor Way M-8 Via Larkana Garhi Khairo Road on right side and canal road when moving from Rato Dero, Shadadt on East side. The number of household and population is 214 & 1500 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are no any sensitive receptors. A canal flowing at a distance of 10m from proposed subproject site.
<b>SEWERAGE/DRAINAGE SCHEMES TALUKA - QAMBAR</b>				
83	Allah Rakhio Jonejo Drainage Scheme	396875.00 m E 3059588.00 m N	-	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National Highway N-455 Via Larkana – Qambar-Shahdadt Road on north side and connecting with a link canal road when moving from Qambar, Shadadt on left side. The number of household and population is 714 & 5000 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational and Health facilities around proposed subproject like. GBLLS School and GBLP School at a distance of 323m and 347m. there is a

No.	Schemes	Coordinates	Source & Status	Site Description
				community hall Allah Rakhiyo Junejo at a distance of 286m and a Health unit Dr. Ghulam Hussain Kalhor at a distance of 348m. A canal flowing at a distance of 245m from proposed subproject site.
84	Chajjra Drainage Scheme	402235.00 m E 3055064.00 m N	-	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National Highway N-455 Via Miro Khan Road on left side when moving from Qambar, Miro Khan on North side. The number of household and population is 1142 & 8000 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational, religious mosque and Health facilities around proposed subproject like. Govt. Campus High School, Aska Middle School at a distance of 563m, 237m. There is a Health unit PPHI at a distance of 292m. Masjids at a distance of 237m, 215m and 256m. A canal flowing at a distance of 387m from proposed subproject site.
85	Deedar Virk Ghoghari Drainage Scheme	404648.00 m E 3040443.00 m N	-	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National Highway N-455 and N-55 Via Larkana NH-55 Road on left side when moving from Qambar, Miro Khan. The number of household and population is 857 & 6000 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational, religious mosque and Health facilities around proposed subproject like. Two Govt. Primary Schools at a distance of 313m and 495m. There is a Health unit Shah Muhammad Deedar Hospital at a distance of 341m. Masjid Saleh Jamali Wari at a distance of 271m. A fish pond Sirai Allahdad Deedar Farm at a distance of 368m on East side. A canal flowing at a distance of 387m on South from proposed subproject site.
86	Dital Abro Drainage Scheme	410492.00 m E 3053528.00 m N	-	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National Highway N-455 Via Larkana NH-55 Road on northeast side when moving from Larkana, Qambar. The number of household and population is 857 & 6000 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational and religious mosque facilities around proposed subproject like. GBP Schools at a distance of 21m. There is a Health unit Shah Muhammad Deedar Hospital at a distance of 341m. Masjid Qubai and Jamia



No.	Schemes	Coordinates	Source & Status	Site Description
				Masjid at a distance of 212m and 232m. A Dargah Sufi Waryal Faqeer Abro at a distance of 189m. A canal flowing at a distance of 387m and a Eid Gaah at a distance of 88m from proposed subproject site.
87	Ghogharo Drainage Scheme	401780.00 m E 3039295.00 m N	-	The proposed site is located in District Qambar Shahdadt it can be easily accessible by National Highway N55 and N255 ring road when moving towards Larkana. The number of household and population is 615 & 4000 respectively. The area is surrounded by the human settlement with commercial activities and some agricultural areas. There is a Shrine/Dargah named "Goghar-e-Jo Muqbaro" at the distance of 408m in the direction of north. There are some educational facilities i.e., GBH school at a distance of 478m in the direction of north. There is a Basic Health Unit –BHU Gogharo at a distance of 234m and a medical store in the distance of around 153m. there is a canal in east side with the distance of 143m from proposed project site .
<b>SEWERAGE/DRAINAGE SCHEMES TALUKA - NASEERABAD</b>				
88	Heetam Sohoo Drainage Scheme	391869.08 m E 3033729.16 m N	-	The proposed site is located in District Qambar Shahdadt it can be easily accessible by National Highway N55 when moving towards Nasirabad to Wagan on left side. The number of household and population is 571 & 4000 respectively. The area is surrounded by the human settlement with commercial activities and some agricultural areas. There are some educational facilities i.e., GGM school Heetam Sohoo at a distance of 515m on right. There is a Govt: Health Dispensary at a distance of 616m. There is a canal in West side at a distance of 211m from proposed project site.



No.	Schemes	Coordinates	Source & Status	Site Description
89	Bazari Kandhro Drainage Scheme	388748.00 m E 3028460.00 m N	-	The proposed site is located in District Qambar Shahdadkot it can be easily accessible by Gaji Khohawar road when moving towards Nasirabad to Gaji Khohawar on left side. The number of household and population is 928 & 6500 respectively. The area is surrounded by the human settlement with commercial activities and some agricultural areas. There are some educational facilities i.e., GBP School at a distance of 190m on left side. A Jamia Masjid at a distance of 340m on right. There is a canal in East side at a distance of 796m from proposed project site .
90	Noorani Muhallah – Drainage Scheme(Urban)	393601.00 m E 3028774.00 m N	-	The proposed site is located in District Qambar Shahdadkot it can be easily accessible by National Highway N-55 and N255 via Nasirabad Badah Road when moving towards Nasirabad-Larakana-Qamabar. It is located in nasirabad town as urban scheme. The number of household and population is about 1428 & 10000 respectively. The area is surrounded by the human settlement with commercial activities and some agricultural areas. There are some educational facilities i.e., Roshni Public School at a distance of 173m. EFU Life insurance branch on left side at a distance of 83m. Nasirabad Gird Station is located at a distance of 309m on east side. There is a canal in East side at a distance of 7m from proposed project site .
<b>SEWERAGE/DRAINAGE SCHEMES TALUKA – MIRO KHAN</b>				
91	Behram Drainage Scheme(Urban)	399642.04 m E 3062469.11 m N	-	The proposed site is located in District Qambar Shahdadkot it can be easily accessible by National Highway N455 when moving towards Qambar-Shahdadkot. There proposed site area is located in Urban area. The number of household and population is about 1214 & 8500 respectively. The area is surrounded by the human settlement with commercial activities and some agricultural areas. There are some educational facilities i.e., GGH School, GB Campus High School at a distance of 496m, 461m. There is a canal in East side at a distance of 60m from proposed project site .
92	Ghulam Ali Magsi Khan Drainage Scheme	396894.00 m E 3067331.00 m N	-	The proposed site is located in District Qambar Shahdadkot it can be easily accessible by National Highway N455 via Canal Road when moving towards Qambar –Shahdadkot. The

No.	Schemes	Coordinates	Source & Status	Site Description
				number of household and population is about 71 & 500 respectively. The area is surrounded by the human settlement with commercial activities and some agricultural areas. There are some educational facilities i.e., GPS at a distance of 302m. There is a health unit BHU Ghulam Ali Magsi at a distance of 216m There is a canal in East side at a distance of 201m from proposed project site .
93	Gul Muhammad Chacho Drainage Scheme	395567.00 m E 3061397.00 m N	-	The proposed site is located in District Qambar Shahdadt it can be easily accessible by National Highway N455 via Canal Road when moving towards Qambar –Shahdadt. The number of household and population is about 71 & 500 respectively. The area is surrounded by the human settlement with commercial activities and some agricultural areas. There are some educational facilities i.e., GBLSS at a distance of 267m. There is a Masjid Nimrah at a distance of 157m There is a canal in East side at a distance of 1.45kms from proposed project site .
<b>SEWERAGE/DRAINAGE SCHEMES TALUKA – WARAH</b>				
94	Gaji Khuhawar Drainage Scheme(Urban)	382345.39 m E 3027113.10 m N	-	The proposed site is located in District Qambar Shahdadt it can be easily accessible by Gaji Khohawar road when moving towards Nasirabad to Gaji Khohawar on left side. The number of household and population is 2124 & 15000 respectively. The area is surrounded by the human settlement with commercial activities and some agricultural areas. There are some educational facilities i.e., GBP School at a distance of 349m on left side. 2 Rice mills on right side Nad e Ali Rice Mill and Muhammad Rice Mill at a distance of 500m and 469m. A Shrine/Dargah Mast Shah Bukhari at a distance of 50m. A Mosque Syed Habibullah at a distance of 73m on right. There is a canal in East side at a distance of 732m from proposed project site
95	Wagan Drainage Scheme (Urban)	397797.00 m E 3041984.00 m N	-	The proposed site is located in District Qambar Shahdadt it can be easily accessible by National Highway-N55 via Qambar road when moving towards Nasirabad to Wagan on north side. The number of household and population is 1714 & 12000 respectively. The area is located in urban side and surrounded by the human settlement with commercial activities and some agricultural areas. There are some educational facilities i.e. Iqra School, GG Community Model School and GGLS School at a distance of 145m, 165m and 127m. 1 Flour Mill –Ahmed Ali Flour mill is on left side at a distance of 80m. There is

No.	Schemes	Coordinates	Source & Status	Site Description
				a canal in East side at a distance of 158m from proposed project site.
96	Lalu Raunk Drainage Scheme(Urban)	391733.00 m E 3042219.00 m N	-	The proposed site is located in District Qambar Shahdadt it can be easily accessible by National Highway-N455 via Lalu Warah Road on left side when moving towards Lalu Raunk to Wagan. The number of household and population is 2285 & 16000 respectively. The proposed site area is located in urban side and surrounded by the human settlement with commercial activities and some agricultural areas. There are some educational facilities i.e. GHS School at a distance of 165m. Jamia Umar Farooq Masjid at a distance of 93m. There is a canal in West side at a distance of 1Km from proposed project site.
97	Pechooha Drainage Scheme	393144.00 m E 3042639.00 m N	-	The proposed site is located in District Qambar Shahdadt it can be easily accessible by National Highway-N455 via Lalu Warah Road on South side when moving towards Lalu Raunk to Wagan. The number of household and population is 542 & 3800 respectively. The proposed site area is located in urban side and surrounded by the human settlement with commercial activities and some agricultural areas. There are some educational facilities i.e. GGPS School at a distance of 527m. There is a Fish pond at a distance of 13m. There is a canal in West side at a distance of 119m from proposed project site.
<b>SEWERAGE/DRAINAGE SCHEMES TALUKA – SUJAWAL JUNEJO</b>				
98	Sijawal Junejo Drainage Scheme		-	The proposed site is located in District Qambar Shahdadt it can be easily accessible by Motor way- M-8 via Ratodero- Gwadar MWY left side when moving from Sijawal Junejo. The number of household and population is 229 & 1600 respectively. The proposed site area is located in urban side and surrounded by the human settlement with commercial activities and some agricultural areas. There are some educational facilities i.e. GGPS School at a distance of 527m. There is a Fish pond at a distance of 13m. There is a canal in West side at a distance of 119m from proposed project site.
99	Arzi Bhutto Drainage Scheme	416520.00 m E 3078895.00 m N	-	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Motor Way M-8 Via Rato Dero, Gawadar Motor way when moving from Rato Dero, West side. The number of household and population is 502 & 3520 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational and

No.	Schemes	Coordinates	Source & Status	Site Description
				religious facilities around proposed subproject like GBHS School and GBP School at a distance of 337m and 393m from proposed site. There are health facilities like BHU Arzi at a distance of 51m. There is a Canal flowing on south side at a distance of 242m from proposed subproject site.
100	Kot Lal Buksh Mahesar Drainage Scheme	412764.33 m E 3085093.11 m N	-	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Motor Way M-8 Via Larkana Garhi Khairo Road on right side when moving from Rato Dero, Shadadt on south side. The number of household and population is 581 & 4070 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational and religious facilities around proposed subproject like GBPS School, GHS School, and Iqra Public School at a distance of 232m, 202m and 249m from proposed site. There is a Mahesar Rice Mill at a distance of 70m, A Government Sindh Dispensary on west south side of the proposed subproject site at a distance of 178m. There is a canal flowing at a distance of 315m on south side from proposed subproject site.
101	Saindad Leghari Drainage Scheme	414983.00 m E 3066163.00 m N	-	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Motor Way M-8 Via Miro Khan-Larkana Road on left side when moving towards mirokhan to thooft ghousal. The number of household and population is 102 & 720 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational and religious facilities around proposed subproject like GBL School at a distance of 213m. from proposed site. There is a Village Masjid at a distance of 178m, A Government Sindh Dispensary on west south side of the proposed subproject site at a distance of 178m. There is a canal flowing at a distance of 325m on south side from proposed subproject site.
102	Tar Mathyon Drainage Scheme	409243.00 m E 3074860.00 m N	-	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by National Highway- N.445 Via Miro Khan Road when moving from Qambar, Shadadt, Rato Dero on Northeast side. The number of household and population is 107 & 750 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational and religious facilities around proposed subproject

No.	Schemes	Coordinates	Source & Status	Site Description
				like GBPS School at a distance of 232m. from proposed site. There is a canal flowing on south side at a distance of 623m from proposed subproject site.
<b>SEWERAGE/DRAINAGE SCHEMES TALUKA – QUBO SAEED</b>				
103	Ahmed Nawaz Magsi Drainage Scheme	370485.00 m E 3081951.00 m N	-	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Motorway- M-8 Via Rato Dero Gawdar when moving from Qubo Saeed. The number of household and population is 125 & 875 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are two canals flowing on south and north at a distance of 198m on and 131m from the proposed subproject site.
<b>SEWERAGE/DRAINAGE SCHEMES TALUKA – SHAHDADKOT</b>				
104	Aitbar Khan Chandio Drainage Scheme	397021.00 m E 3083235.00 m N	-	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Motorway- M-8 Via Rais Aitbar Khan Chandio Road connecting with Bridge road Aitbar Khan Chandio when moving from Shahdadt to Rato Dero. The number of household and population is 500 & 3500 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational facilities around proposed subproject like GHSS School Aitabar Khan Chandio at a distance of 117m. There is a Masjid Hazrat Ali Murtaza Masjid at a distance of 24m. There is Government health dispensary and BHU Ahmed Khan Chandio at a distance of 114m and 84m. There is a canal flowing on Western side at a distance of 15m from proposed site.
105	Jeand Jarwar Drainage Scheme	397259.00 m E 3088921.00 m N	-	The proposed site is located in District Qambar Shahdadt, it can be easily accessible by Motorway- M-8 Via Garhi Katrio Road when moving from Shahdadt to Rato Dero. The number of household and population is 142 & 1000 respectively. The area is surrounded by the human settlements with commercial activities and agricultural fields. There are educational facilities around proposed subproject like GPS School at a distance of 51m. There is a canal flowing on south side at a distance of 51m from proposed site.

### 1.3 Sub-Projects Information

#### 1.3.1 Brief introduction to the sub-project, its geographical location, components, and benefits.

The subproject sites are situated in District Qambar Shahdadkot, Sindh, within the Government territory, specifically under the jurisdiction of the Public Health Engineering Department (PHED). The district has Seven Talukas; 1. Qamabr Taluka, 2. Naseerabad Taluka, 3. Meero Khan Taluka, 4. Warah Taluka, 5. Sijawal Junejo Taluka, 6. Qubo Saeed Khan Taluka, 7. Shahdadkot Taluka, the aim is to rehabilitate and restore the water supply and drainage systems that were damaged or destroyed by the floods in 2022. These efforts will prioritize the selected water supply infrastructure, ensuring its recovery. Currently, the community in District Qambar Shahdakot has been suffering from a lack of safe drinking water due to high salinity as well as water contaminations and living in unhygienic conditions due to inadequate collection and treatment of storm water, which has led to the complete destruction of the drainage system.

The proposed subproject intends to address these issues by rehabilitating the water supply and drainage schemes to a resilient level. This will guarantee a continuous provision of safe drinking water to the community, while also ensuring the proper collection, treatment, and disposal of storm water in an environmentally friendly manner. The primary source of drinking water in the district is underground and surface water both. The water is extracted from underground or nearby canals using pumps and stored in Low Surface Reservoirs (LSRs) before being distributed to the community.

The aforementioned district lacks the presence of nearby main canals, sub-canals, or main distributary channels, resulting in the installation of bore water wells. To identify areas with access to abundant and good-quality water, there arises a requirement for conducting an Electric Resistivity Survey (ERS). In close alignment with the ERS findings and community water demands, the design phase ensued. New water sources, typically adjacent canals or watercourses, were identified and integrated into existing infrastructure. In cases where existing distribution networks were damaged, new pumping stations and distribution networks will be established.

The drinking water will undergo analysis in a recommended laboratory, and precautionary measures will be taken based on the results. surface water in the form of canals are available in some areas/schemes covered by the subproject. Overall, the proposed project aims to create a healthier environment in the area and uplift the socioeconomic conditions of the residents by providing them with safe water and employment opportunities for the locals.

#### 1.3.2 Details about existing conditions of the area/facility and proposed scope of rehabilitation works.

The water supply and drainage schemes were not up to mark as almost all structures have been damaged by flood, 2022. The tube wells, pumping stations, distribution network and LSRs have been badly affected. As a result of which, the people of District Qamabr Shahdakot are facing scarcity of safe drinking water. Comprehensive surveys have been conducted by the expert to monitor the sites and assessed the damages and restoration of infrastructures. Rehabilitation of



damaged infrastructure will provide the capacity and efficiency for uninterrupted safe drinking water supply to the community.

Currently, community of District Qambar Shahdadkot is living in unhygienic condition as drainage system has been broken-down and blocked in flood, 2022. The sewage disposal ponds (SDPs) including pumping stations and drainage network have also been affected. The damages have been assessed through proper survey and rehabilitation work is being made part of Sub-projects PC-1 of District.

The flood damaged the Water Supply and Drainage Schemes which affected the community. The community has been deprived by drinking water facility. Due to broken lines and blockages in the drainage lines wastewater stagnate in the area after rain causes disturbance to the residents. The stagnant water provides breeding grounds to mosquitoes and flies which serve as vector of many diseases in the area. At some places, water supply lines are passing beside the storm water drains which also affect the quality of drinking water. Due to unavailability or insufficient supply of water, community have to fetch water from far flung areas and from pumping stations which creates social stress. Security and privacy of the local people has been disturbed as well. There is a need to rehabilitate the existing damaged water supply and drainage schemes in order to resolve the socioeconomic issues of the sub project area. The sub-project areas are located in different areas of District Qambar Shahdadkot, the schemes and systems are operated under the Government territory. The activity involves in the subproject is restoration and rehabilitation of damaged Water Supply and Drainage Schemes of District Qambar Shahdadkot.

#### **i. Flora of Sub-Project Area**

Flora of the district Qambar Shahdadkot include mostly thorny trees usually found in arid regions, categorized as Scrub Dry Tropical Thorn Forest Zone, and typical of the natural vegetation of the Indus Basin. It has the capacity to survive and grow in areas with extremely high temperatures and low precipitation. The flora observed during survey consists of thorny and hard wooded species. Neem (*Azadirachta indica*), Sufiada (*Eucalyptus*), Date Palm (*Phoenix dactylifera*), Conocarpus (*Conocarpus erectus*), Shisham or talhee (*Dalbergia sisso*), kikar (*Acacia nilotica*), mullah or ber (*Ziziphus numularia*), frash (*Tamarix aphylla*) and mulberry (*Morus alba*) are the common trees found along canal banks, and irrigated lands.







Rice, Sugarcane, Jowar, Wheat, Barely, Gram rapeseed, Mustard, Masoor, Pulses, Guava, Mangos, Citrus and Dates and all seasonal vegetables are the main crops of the district<sup>1</sup>.

#### ii. Fauna of the Sub-Project Area

The animal species has been disturbed due to increase in population of the subproject areas except domestic animals no other specie has been found during surveys.

Avifauna include Babblers, crows, doves, egrets, larks, mynas, sparrows, lapwings, plovers, lesser pied kingfishers, black-capped kingfishers, white-breasted kingfishers, warblers, little green bee-eaters, and the bulbul are common birds found during survey.

#### 1.3.3 Socio-Economic Condition of the Sub-Project Area

The total population of the district Qambar Shahdadkot is 1,341,000 persons with 39% literacy rate<sup>2</sup>. Majority of the population of the district is Muslim. The culture life of the Muslims is greatly influenced by the Islamic way of life. After Muslims, Hindus also hold great confidence in the district. The languages mostly spoken in District are Sindhi, Balochi, Punjabi, Pashto and Urdu. However, Urdu is understood amongst all the population of district. The economy of Qambar Shahdadkot is mainly based on Agriculture, Livestock breeding, Fishing & Hunting (65%), Elementary Occupations and Professionals (21.3%), Service Workers & Shop & Market sales workers (21%) and others ((9.1%). Major industries in the district Qambar Shahdakot are Rice husking mills, as well as small industries including textiles, electronic goods, manufacturing includes agricultural tools, iron and steel, tractor trolleys, bullock and donkey carts.

#### 1.3.4 Explain, whether this is purely rehabilitation of existing facilities or will involve any new works

The subproject involves rehabilitation of damaged Drainage and Water Supply Schemes of the existing utilities which are being operated by the PHED. No new work is involved under sub-project scope.

### 1.3.5 Are consultations with stakeholders conducted?

The social and environmental specialist of construction supervisory consultation-CSC held series of consultation meetings with the local community and relevant stakeholders, residents of the sub-project areas in August and September 2023. The field team visited the nearby communities briefed salient features of the sub-projects to get the views of the communities who could be affected and beneficiaries. Social Sensitive Receptors like religious structures (mosques, shrines and graveyards), basic/rural health units (BHU/RHU), hospitals, schools, cultural and archeological etc. were observed during the survey and consultation in the sub-project areas. The indirect impacts on the receptors have been evaluated at 200 meters' buffer zone of the proposed sub-project sites. Most of the social receptors are located in an urban settlement and far away from proposed sub-project sites hence would not be affected by project activities. The community was very blissful by the rehabilitation work carried out by the involvement of the Govt. of Sindh. They appreciated for taking up the initiative of rehabilitation and restoration of damaged water supply and drainage schemes. The team assured that all the concerns raised by them would be addressed. Mitigation measures will be proposed to minimize the impacts during rehabilitation activities. According to the community, the rehabilitation works would provide them safe and sufficient drinking water and ensure safe disposal of wastewater. The detailed concerns of community are described in the section 3 of this ESSR.

The damaged utilities are owned by the PHED of District Qambar Shahdadkot. Consultation with Line Department have also been completed. The subprojects were installed in Government owned land and no additional land will be acquired for rehabilitating the sub-projects.

### 1.3.6 Will this sub-project involve any ancillary impact/ activity away from the work site?

There is no secondary impact in the sub-project areas. All the impacts are minor, temporary and site specific during the rehabilitation/restoration phase. The project falls under the category C which creates minor or low environmental impacts limited to rehabilitation/restoration phase.

### 1.3.7 Timeframe for starting and completion of sub-project

The subproject will be started in June, 2024 and will be completed in June, 2025.

### 1.3.8 Drainage and Water Supply Schemes Design and Demand details

The main rehabilitation or restoration components of water supply schemes are transmission main, low surface reservoir tanks (LSR), existing water storage reservoirs, pump house, staff quarters, water filtration tanks, alternate energy source i.e. (solar system) and compounds walls. The drainage schemes include the rehabilitation of collection drains, screening chambers, collecting tanks, pumping machinery, and drainage disposal pipes.

The capacities of these structures have been designed with respect to population sizes including future growth pattern and water demand & supply of proposed subproject areas. The drawings and typical cross sections of components are provided in **Annexure-2**. However, the current and future drainage generation capacities and water supply demand are given in **Table-2** and **Table-3**.

The tentative details of major equipment, machineries and manpower that will be utilized for upgrading existing structures during rehabilitation works are given below (**Table-1**) However, exact number and quantities will be finalized at the stage of engaging contractors for bids based on the volume of work.

**Table 1: Details of Equipment/Machineries and Manpower for Rehabilitation Works**

<b>Equipment/Machineries</b>	<b>Quantity</b>	<b>Manpower</b>
Small Concrete Mixers	02	<b>Skilled:</b>
Generators	01	Mason, Steel Fixer, Plumber, Electrician,
Dewatering Pumps	02	Carpenter, Machine Operators etc.
Excavators	01	<b>Unskilled:</b>
Dumpers	02	Labors, Security Guards etc.
Tractor Trolley	02	
Bowser	01	

**Table 2: Population Size and Wastewater Generation of District Qambar Shahdadkot Drainage Schemes**

Description	Total Population	Per Capita Sanitation Generation	Sanitation Generation	Total Population	Per Capita Sanitation Generation	Sanitation Generation	Total Population	Per Capita Sanitation Generation	Sanitation Generation
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	GPCD	GPD	Person	GPCD	GPD	Person	GPCD	GPD
<b>H. Taluka Qambar- Drainage Schemes</b>									
Allah Rakhio Jonejo Drainage Scheme	5,000	8.8	44000.0	5,177	8.8	45553.5	7,987	8.8	70288.1
Chajjra Drainage Scheme	8,000	8.8	70400.0	8,282	8.8	72885.6	12,780	8.8	112461.0
Dedar Virk Ghoghari Drainage Scheme	6,000	8.8	52800.0	6,212	8.8	54664.2	9,585	8.8	84345.8
Dital Abro Drainage Scheme	2,500	8.8	22000.0	2,588	8.8	22776.7	3,994	8.8	35144.1
Ghogharo Drainage Scheme	8,000	8.8	70400.0	8,282	8.8	72885.6	12,780	8.8	112461.0
<b>I. Taluka Naseerabad- Drainage Schemes</b>									
Hatim Sohu Drainage Scheme	4,000	8.8	35200.0	4,141	8.8	36442.8	6,390	8.8	56230.5
Bazari Kandhro Drainage Scheme	6,500	8.8	57200.0	6,729	8.8	59219.5	10,383	8.8	91374.6
Norani Mohalla	5,500	8.8	48400.0	5,694	8.8	50108.8	8,786	8.8	77316.9
<b>J. Taluka Miro Khan- Drainage Schemes</b>									

Description	Total Population	Per Capita Sanitation Generation	Sanitation Generation	Total Population	Per Capita Sanitation Generation	Sanitation Generation	Total Population	Per Capita Sanitation Generation	Sanitation Generation
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	GPCD	GPD	Person	GPCD	GPD	Person	GPCD	GPD
Behram urban drainage scheme	8,500	8.8	8,500	8,800	8.8	77440.9	13,578	8.8	119489.8
Ghulam Ali magsi khan drainage scheme	500	8.8	500	518	8.8	4555.3	799	8.8	7028.8
Gul Muhammad chacho drainage scheme	2,830	8.8	2,830	2,930	8.8	25783.3	4,521	8.8	39783.1
<b>K. Taluka Warah- Drainage Schemes</b>									
Gaji Khuhawar Drainage Scheme	15,000	8.8	132000.0	15,530	8.8	136660.4	23,962	8.8	210864.4
Waggan Drainage Scheme	12,000	8.8	105600.0	12,424	8.8	109328.3	19,169	8.8	168691.5
Lalu Rawank Drainage Scheme	16,000	8.8	140800.0	16,565	8.8	145771.1	25,559	8.8	224922.0
Pechooha Drainage Scheme	3,800	8.8	33440.0	3,934	8.8	34620.6	6,070	8.8	53419.0
Junani shareef Water Supply Scheme	8,000	8.8	70400.0	8,282	8.8	72885.6	12,780	8.8	112461.0
<b>L. Taluka Sijawal Junejo- Drainage Schemes</b>									

Description	Total Population	Per Capita Sanitation Generation	Sanitation Generation	Total Population	Per Capita Sanitation Generation	Sanitation Generation	Total Population	Per Capita Sanitation Generation	Sanitation Generation
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	GPCD	GPD	Person	GPCD	GPD	Person	GPCD	GPD
Sijawal Junejo Drainage Scheme	1,600	8.8	14080.0	1,628	8.8	14326.4	2,556	8.8	22492.2
Arzi Bhutto Drainage Scheme	3,520	8.8	30976.0	3,582	8.8	31518.1	5,623	8.8	49482.8
Kot Lal Bux Mahesar Drainage Scheme	4,070	8.8	35816.0	4,141	8.8	36442.8	6,502	8.8	57214.5
Saindad Leghari Drainage Scheme	720	8.8	6336.0	733	8.8	6446.9	1,150	8.8	10121.5
Tar Mathyon Drainage Scheme	750	8.8	6600.0	763	8.8	6715.5	1,198	8.8	10543.2
<b>M. Taluka Qubo Saeed - Drainage Schemes</b>									
Ahmed Nawaz Magsi Drainage Scheme	875	8.8	7700.0	906	8.8	7971.9	1,398	8.8	12300.4
<b>N. Taluka Shahdadkot - Drainage Schemes</b>									
Aitbar Khan Chandio Drainage Scheme	3,500	8.8	30800.0	3,561	8.8	31339.0	5,591	8.8	49201.7
Jiand Jarwar Drainage Scheme	1,000	8.8	8800.0	1,018	8.8	8954.0	1,597	8.8	14057.6



**Table 3: Population Size and Water Supply Demand of District Qambar Shahdadkot**

Description	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	UK GPCD	GPD	Person	UK GPCD	GPD	Person	UK GPCD	GPD
<b>Improvement &amp; Extension for Water Supply Schemes at Various Taluka's of District Qambar Shahdadkot</b>									
<b>A. Taluka Qambar- Water Supply Schemes</b>									
Khahi meenhoo water supply scheme	3,440	11	37840.0	3,561	11	39176.0	5,495	11	60447.8
Wali Dad mugheri water supply scheme	2,600	11	28600.0	2,692	11	29609.8	4,153	11	45687.3
Khairpur juso water supply scheme	2,650	11	29150.0	2,744	11	30179.2	4,233	11	46565.9
Burhan Khan chandio water supply scheme	400	11	4400.0	414	11	4555.3	639	11	7028.8
Jam Khan Chandio Water Supply Scheme	2,000	11	22000.0	2,071	11	22776.7	3,195	11	35144.1

Description	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	UK GPCD	GPD	Person	UK GPCD	GPD	Person	UK GPCD	GPD
<b>Improvement &amp; Extension for Water Supply Schemes at Various Taluka's of District Qambar Shahdadkot</b>									
Mena Water Supply Scheme	6,000	11	66000.0	6,212	11	68330.2	9,585	11	105432.2
Noor Muhammad Shaikh Water Supply Scheme	6,500	11	71500.0	6,729	11	74024.4	10,383	11	114218.2
Yaqoob Chandio & allied villages Water Supply Scheme	2,000	11	22000.0	2,071	11	22776.7	3,195	11	35144.1
Garhi Khair Muhammad Kartio Water Supply Scheme	3,000	11	33000.0	3,106	11	34165.1	4,792	11	52716.1
Bhada & Sodhar _water supply scheme	1,020	11	11220.0	1,056	11	11616.1	1,629	11	17923.5
Ghogharo water supply scheme	4,000	11	44000.0	4,141	11	45553.5	6,390	11	70288.1

Description	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	UK GPCD	GPD	Person	UK GPCD	GPD	Person	UK GPCD	GPD
<b>Improvement &amp; Extension for Water Supply Schemes at Various Taluka's of District Qambar Shahdadkot</b>									
Hamyoon mugheri water supply scheme	1,130	11	12430.0	1,170	11	12868.9	1,805	11	19856.4
Sobedar Ahmed Khan awan water supply scheme	700	11	7700.0	725	11	7971.9	1,118	11	12300.4
Daffar Water Supply Scheme	2,000	11	22000.0	2,071	11	22776.7	3,195	11	35144.1
Karohar Water Supply Scheme	3,000	11	33000.0	3,106	11	34165.1	4,792	11	52716.1
Sher Muhammad Buledi Water Supply Scheme	1,200	11	13200.0	1,242	11	13666.0	1,917	11	21086.4
Dost Ali Magsi Water Supply Scheme	2,000	11	22000.0	2,071	11	22776.7	3,195	11	35144.1
<b>B. Taluka Naseerabad- Water Supply Schemes</b>									

Description	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	UK GPCD	GPD	Person	UK GPCD	GPD	Person	UK GPCD	GPD
<b>Improvement &amp; Extension for Water Supply Schemes at Various Taluka's of District Qambar Shahdadkot</b>									
Nasirabad Water Supply Schemes	3,000	11	33000.0	3,106	11	34165.1	4,792	11	52716.1
Aayo Phulpoto Water Supply Schemes	9,000	11	99000.0	9,318	11	102495.3	14,377	11	158148.3
Mustafa Abad Water Supply Schemes	4,330	11	47630.0	4,483	11	49311.6	6,917	11	76086.9
Nabi Bux Kandhro Water Supply Schemes	6,500	11	71500.0	6,729	11	74024.4	10,383	11	114218.2
Saeed Khan Panhwar Water Supply Schemes	3,500	11	38500.0	3,624	11	39859.3	5,591	11	61502.1
Hamzo Bhatti Water Supply Schemes	7,500	11	82500.0	7,765	11	85412.8	11,981	11	131790.2

Description	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	UK GPCD	GPD	Person	UK GPCD	GPD	Person	UK GPCD	GPD
<b>Improvement &amp; Extension for Water Supply Schemes at Various Taluka's of District Qambar Shahdadkot</b>									
Sawali Wahoocha Water Supply Schemes	4,840	11	53240.0	5,011	11	55119.7	7,732	11	85048.6
<b>C. Taluka Miro Khan - Water Supply Schemes</b>									
Ali Sher Gopang Water Supply Scheme	500	11	5500.0	518	11	5694.2		11	8786.0
Dino Kotho Water Supply Scheme	2,280	11	25080.0	2,360	11	25965.5		11	40064.2
Khairo Gadhi Water Supply Scheme	800	11	8800.0	828	11	9110.7		11	14057.6
Purano Tharo Water Supply Scheme	1,180	11	12980.0	1,222	11	13438.3		11	20735.0
Ali Ji Wandh Water Supply Scheme	2,070	11	22770.0	2,143	11	23573.9	799	11	36374.1

Description	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	UK GPCD	GPD	Person	UK GPCD	GPD	Person	UK GPCD	GPD
<b>Improvement &amp; Extension for Water Supply Schemes at Various Taluka's of District Qambar Shahdadkot</b>									
Fida Hussain Brohi Water Supply Scheme	1,800	11	19800.0	1,864	11	20499.1	3,642	11	31629.7
Meeran Machhi Water Supply Scheme	1,100	11	12100.0	1,139	11	12527.2	1,278	11	19329.2
Behram Machhi Water Supply Scheme	8,500	11	93500.0	8,800	11	96801.1	1,885	11	149362.3
Karrira Water Supply Scheme	1,800	11	19800.0	1,864	11	20499.1	3,307	11	31629.7
Khabbar Water Supply Scheme	1,600	11	17600.0	1,656	11	18221.4	2,875	11	28115.3
Ghulam Ali Magsi Water Supply Scheme	500	11	5500.0	518	11	5694.2	1,757	11	8786.0
<b>D. Taluka Miro Khan - Water Supply Schemes</b>									



Description	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	UK GPCD	GPD	Person	UK GPCD	GPD	Person	UK GPCD	GPD
<b>Improvement &amp; Extension for Water Supply Schemes at Various Taluka's of District Qambar Shahdadkot</b>									
Warah Water Supply Scheme	30,000	11	330000.0	31,059	11	341651.1	47,924	11	527160.9
Gaji Khuahwar Water Supply Scheme	7,000	11	77000.0	7,247	11	79718.6	11,182	11	123004.2
Waggan Water Supply Scheme	12,000	11	132000.0	12,424	11	136660.4	19,169	11	210864.4
Anwar abad Water Supply Scheme	700	11	7700.0	725	11	7971.9	1,118	11	12300.4
Badaruddin abro Water Supply Scheme	2,000	11	22000.0	2,071	11	22776.7	3,195	11	35144.1
Faiz Muhammad sodhar Water Supply Scheme	8,000	11	88000.0	8,282	11	91107.0	12,780	11	140576.3

Description	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	UK GPCD	GPD	Person	UK GPCD	GPD	Person	UK GPCD	GPD
<b>Improvement &amp; Extension for Water Supply Schemes at Various Taluka's of District Qambar Shahdadkot</b>									
Gaji Bux/Mirza pur Water Supply Scheme	5,000	11	55000.0	5,177	11	56941.8	7,987	11	87860.2
Khandu Water Supply Scheme	8,000	11	88000.0	8,282	11	91107.0	12,780	11	140576.3
Mahi darwan Water Supply Scheme	1,500	11	16500.0	1,553	11	17082.6	2,396	11	26358.0
Maid shaheed Water Supply Scheme	4,500	11	49500.0	4,659	11	51247.7	7,189	11	79074.1
Markhand Water Supply Scheme	7,000	11	77000.0	7,247	11	79718.6	11,182	11	123004.2
Thariri hajran Water Supply Scheme	7,000	11	77000.0	7,247	11	79718.6	11,182	11	123004.2

Description	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	UK GPCD	GPD	Person	UK GPCD	GPD	Person	UK GPCD	GPD
<b>Improvement &amp; Extension for Water Supply Schemes at Various Taluka's of District Qambar Shahdadt</b>									
Karamullah Chandio Water Supply Scheme	2,000	11	22000.0	2,071	11	22776.7	3,195	11	35144.1
Dholio Buriro Water Supply Scheme	1,500	11	16500.0	1,553	11	17082.6	2,396	11	26358.0
Kot sarwar/gul buriro Water Supply Scheme	6,000	11	66000.0	6,212	11	68330.2	9,585	11	105432.2
Sawai Chandio (dera) Water Supply Scheme	4,500	11	49500.0	4,659	11	51247.7	7,189	11	79074.1
Ali ashabo Water Supply Scheme	5,000	11	55000.0	5,177	11	56941.8	7,987	11	87860.2
Jani band Water Supply Scheme	6,000	11	66000.0	6,212	11	68330.2	9,585	11	105432.2

Description	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	UK GPCD	GPD	Person	UK GPCD	GPD	Person	UK GPCD	GPD
<b>Improvement &amp; Extension for Water Supply Schemes at Various Taluka's of District Qambar Shahdadt</b>									
Lashkar khan Lashari Water Supply Scheme	4,500	11	49500.0	4,659	11	51247.7	7,189	11	79074.1
<b>E. Taluka Sijawal Junejo - Water Supply Schemes</b>									
Bahadur Bhand_ Water Supply Scheme	770	11	8470.0	797	11	8769.0	1,230	11	13530.5
Hakim Ali Shah Water Supply Scheme	500	11	5500.0	518	11	5694.2	799	11	8786.0
Kot Lal Bux Mahesar Water Supply Scheme	4,070	11	44770.0	4,214	11	46350.7	6,502	11	71518.2
Hassan Bhatti Water Supply Scheme	420	11	4620.0	435	11	4783.1	671	11	7380.3

Description	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	UK GPCD	GPD	Person	UK GPCD	GPD	Person	UK GPCD	GPD
<b>Improvement &amp; Extension for Water Supply Schemes at Various Taluka's of District Qambar Shahdadkot</b>									
Mitho Khan Mstoi Water Supply Scheme	1,025	11	11275.0	1,061	11	11673.1	1,637	11	18011.3
Tar Mathyon Water Supply Scheme	750	11	8250.0	776	11	8541.3	1,198	11	13179.0
Terhan Pur Water Supply Scheme	500	11	5500.0	518	11	5694.2	799	11	8786.0
Garhi Faiz Muhammad Water Supply Scheme	400	11	4400.0	414	11	4555.3	639	11	7028.8
Mitho Karriro & Arzi Gaibano Water Supply Scheme	600	11	6600.0	621	11	6833.0	958	11	10543.2

Description	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	UK GPCD	GPD	Person	UK GPCD	GPD	Person	UK GPCD	GPD
<b>Improvement &amp; Extension for Water Supply Schemes at Various Taluka's of District Qambar Shahdadkot</b>									
<b>F. Taluka Qubo Saeed - Water Supply Schemes</b>									
Ali Hassan Brohi Water Supply Scheme	2,000	11	22000.0	2,071	11	22776.7	3,195	11	35144.1
Ahmed Nawaz Magsi Water Supply Scheme	875	11	9625.0	906	11	9964.8	1,398	11	15375.5
Bakhshal Khan Magsi Water Supply Scheme	490	11	5390.0	507	11	5580.3	783	11	8610.3
Mirpur Burriro Water Supply Scheme	1,525	11	16775.0	1,579	11	17367.3	2,436	11	26797.3
<b>G. Taluka Shahdadkot - Water Supply Schemes</b>									
Chakyani Water Supply Scheme	4,000	11	44000.0	4,141	11	45553.5	6,390	11	70288.1



Description	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	UK GPCD	GPD	Person	UK GPCD	GPD	Person	UK GPCD	GPD
<b>Improvement &amp; Extension for Water Supply Schemes at Various Taluka's of District Qambar Shahdadkot</b>									
Hashim Bhatti Water Supply Scheme	800	11	8800.0	828	11	9110.7	1,278	11	14057.6
Jari & Khauda Bux Jamali Water Supply Scheme	500	11	5500.0	518	11	5694.2	799	11	8786.0
Sobdar & Darya Khan Mastoi Water Supply Scheme	750	11	8250.0	776	11	8541.3	1,198	11	13179.0
Sobdar Mastoi Water Supply Scheme	900	11	9900.0	932	11	10249.5	1,438	11	15814.8
Dhing Water Supply Scheme	1,600	11	17600.0	1,656	11	18221.4	2,556	11	28115.3
Gul Muhammad Jarwar Water	1,000	11	11000.0	1,035	11	11388.4	1,597	11	17572.0

Description	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	UK GPCD	GPD	Person	UK GPCD	GPD	Person	UK GPCD	GPD
<b>Improvement &amp; Extension for Water Supply Schemes at Various Taluka's of District Qambar Shahdadkot</b>									
Jiand Jarwar Water Supply Scheme	1,000	11	11000.0	1,035	11	11388.4	1,597	11	17572.0
Meenho Leghari Water Supply Scheme	750	11	8250.0	776	11	8541.3	1,198	11	13179.0
Mir Ji Nari Water Supply Scheme	1,500	11	16500.0	1,553	11	17082.6	2,396	11	26358.0
Shahpur Jamali Water Supply Scheme	800	11	8800.0	828	11	9110.7	1,278	11	14057.6
Yar Muhammad Leghari Water Supply Scheme	1,500	11	16500.0	1,553	11	17082.6	2,396	11	26358.0
Muhalla Ameer Abad Aitebar Khan Chandio Water Supply Scheme	3,500	11	38500.0	3,624	11	39859.3	5,591	11	61502.1

Description	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand	Total Population	Per Capita Water Demand	Water Supply Demand
	2023			2025 (First Operational Year)			2050 (Last Operational Year)		
	Person	UK GPCD	GPD	Person	UK GPCD	GPD	Person	UK GPCD	GPD
<b>Improvement &amp; Extension for Water Supply Schemes at Various Taluka's of District Qambar Shahdadkot</b>									
Umed Ali Junejo Water Supply Scheme	830	11	9130.0	859	11	9452.3	1,326	11	14584.8

### 1.3.9 Would rehabilitation works done by considering the climate resilient factor?

The restoration and rehabilitation efforts prioritize climate resilience to enhance structural durability. To ensure this, civil works have been designed based on engineering design standards and ACI codes. The main goal of the subproject is to enhance resilience through a "build back better" approach. Key elements, like the pump house and compound walls, are designed with free board to withstand floods by raising them above flood levels. To address electricity shortages in remote Sindh areas, a resilient solar power system will be mounted on elevated structures to protect against flood damage. Additionally, the use of HDPE material for the rising main ensures long-term viability.

### 1.3.10 Scenario if there are any alternative designs options of sub-project

Here are some alternative approaches considered earlier for water supply and drainage systems but not opted for because the scope of proposed project which is to rehabilitate the existing water supply and drainage network infrastructure. On the other hand, these options require high maintenance, less cost effective and not feasible in the current scenario.

**Rainwater Harvesting:** Implementing rainwater harvesting techniques can help collect and store rainwater for later use. This alternative reduces the reliance on underground sources and provides a sustainable water supply.

**Grey water Recycling:** Instead of disposing of grey water from sinks, showers, and washing machines, it can be treated and reused for non-potable purposes such as toilet flushing or irrigation. This approach reduces the strain on freshwater resources and promotes water conservation.

**Decentralized Water Treatment Systems:** Instead of relying on a centralized water treatment plant, decentralized systems can be established at the community level. These systems utilize small-scale treatment methods such as filtration, disinfection, and purification to provide safe drinking water to local residents.

**Sustainable Drainage Systems (SDS):** SDS employ environmentally friendly techniques to manage storm water runoff. This includes features like permeable pavements, green roofs, and rain gardens that help absorb and filter rainwater, reducing the burden on drainage systems and preventing flooding.

**Water Efficiency Measures:** Promoting water-efficient practices and technologies, such as low-flow fixtures, dual-flush toilets, and water-efficient appliances, can significantly reduce water consumption in households, industries, and public facilities.

**Desalination:** In areas where freshwater resources are scarce, desalination plants can be utilized to convert brackish into potable water. Although this option requires substantial investment and energy, it provides an alternative water source for regions facing severe water shortages.

**Water Reuse and Reclamation:** Implementing advanced water treatment processes can enable the reuse of treated wastewater for various non-potable applications, such as irrigation, industrial processes, and groundwater replenishment. This approach reduces the demand for freshwater resources.

**Aquifer Recharge:** Managed aquifer recharge involves intentionally infiltrating excess surface water into underground aquifers, replenishing depleted groundwater resources. This technique helps to stabilize water levels and improve the sustainability of water supply systems.

**Community-Based Water Systems:** Engaging local communities in the planning, implementation, and maintenance of water supply and drainage systems can foster a sense of ownership and ensure sustainability. This approach empowers communities to take responsibility for their water resources.

**Integrated Water Management:** Adopting a holistic approach that considers the entire water cycle, including water supply, wastewater treatment, storm-water management, and water conservation, can lead to more efficient and sustainable water management practices.

It's important to assess the specific conditions, needs, and feasibility of each alternative before implementing them in a particular project or region.

## 2 ENVIRONMENTAL AND SOCIAL SCREENING TOOLS

### 2.1 Environmental and Social Management Screening

<b>Project Area</b>	Qambar Shahdadkot, District of Sindh, Pakistan
<b>Project Title</b>	Sindh Flood Emergency Rehabilitation Program (SFERP), P&DD Component, Sindh
<b>Sub-project Title</b>	Rehabilitation of Damaged Water Supply and Drainage Schemes

**Table 4: Environmental and Social Screening Checklist**

S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
	A. Project Siting							
1.	Adjacent to or within any environmentally sensitive areas like Archeological/Cultural heritage site, Protected Forests, Wetlands, Wildlife Sanctuaries, Game Reserves etc.?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No environmental sensitive or cultural heritage site is in the vicinity of these project areas.
2.	Adjacent to or within any Buffer zone of protected area	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No buffer zone viz. a sanctuary, forest, national park in its immediate surroundings. A few wild vegetation and trees were found outside of the proposed boundaries which will not be disturbed during the project activities.
3.	Are there any potential pollution sources in water supply network?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes, there are few potential pollution sources in the water supply network due to poor maintenance and flood affects like damages to the existing infrastructure as the structures are old and material of existing



S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
								structure could not stand with flood. The construction work will solely focus on rehabilitation and improvement of the existing system.
4.	Are there any potential sources that can damage drainage network? Or Is it affected by flood?	√	<input type="checkbox"/>	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	Natural disasters like flood and intensification in the urban population are the main factors for the destruction of existing drainage network. The scope of the proposed schemes is to rehabilitate the existing drainage network to resist with floods and cater the demands properly.
5.	Is there a possibility that the project will adversely affect the local landscape?	<input type="checkbox"/>	√	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Local landscape will not be affected by the subproject activities because it doesn't involve any work outside the boundary and establishment of new infrastructure.
6.	Is the project site or discharge area located in protected areas designated by the country's laws or international treaties and conventions?	<input type="checkbox"/>	√	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The project sites or discharge areas are not located in protected areas designated by the country's laws or any international treaties and conventions.
	<b>B. Potential Impacts at Construction Phase</b>							
7.	Will construction camp site cause land clearing and tree be cutting?	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No construction camp will be constructed; existing built-in structures will be utilized as camp site. Also, it will not cause any land clearing and tree cutting activity as the subproject activities will involve upgrading existing structures.
8.	Will construction works create any disturbance/ hindrance/obstruction for public movement/access?	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No such issue of mobility/accessibility issues will be caused during the sub-project development. Few vehicles on specific timings will be used during construction work which will not obstruct access routes on road.

S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
								<b>Mitigation Measures:</b> <ul style="list-style-type: none"> <li>• Reduce traffic speeds on all unpaved surfaces to 15 km/ hour or less.</li> <li>• Contractor will strictly implement speed limits and defensive driving policies.</li> <li>• Traffic control will be maintained work sites.</li> <li>• Contractor machinery and equipment will not hamper the traffic at main road and sites.</li> <li>• Necessary training, information will be provided to the workers regarding traffic rules.</li> </ul>
9.	Is there any sensitive receptor (school, mosque, health unit, community very close to the scheme) that will be impacted due to construction activities?	√	□	□	√	□	□	<p>Some social sensitive receptors might be affected indirectly due to dust, noise or construction vehicles movements but suggested mitigations will reduce it effects.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>• GRM must be communicated to the internal staff and the general public. Community grievances will be recorded and responded to on an urgent basis.</li> <li>• Provision of proper safety and diversion signage, particularly at socially sensitive receptors areas;</li> <li>• Ensure the placement of a proper sign board that the site is restricted from the entry of irrelevant people particularly children;</li> <li>• Timely public notification on planned construction works should be communicated to the communities;</li> </ul>

S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
								<ul style="list-style-type: none"> <li>Setting up speed limits in close consultation with the traffic police with luminescence sign boards.</li> </ul>
10.	Will construction activities require tree cutting?	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No such activity will be done and if needed then for every tree that needs to be cut down, five saplings of approved tree species will be planted, emphasizing reforestation and the replenishment of tree cover.
11.	Will construction activities result in damaging existing local roads, bridges or other infrastructure?	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The Sub-project activities do not involve damage to any nearby and existing road, bridge and any other infrastructure. The rehabilitation activities are limited to the demarcated boundary of existing facilities of WS & DS.
12.	Will construction activities generate noise?	√	<input type="checkbox"/>	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<p>Yes, noise will be generated from various sources such as plumbing, drilling, generators, rehabilitation activities and vehicular movement that will be limited to the proposed boundary of the sub-project and nearby community will not be affected.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>The contractors would ensure keeping noise levels from construction vehicles and machinery to be within safe limits.</li> <li>Construction activities will not be allowed at nighttime.</li> <li>Noisy machines and vehicles will not be allowed to be used at the sub project sites (noise level will not be more than 85 dBA at 7.5 m distance), properly tuned machinery and vehicles will be allowed only.</li> </ul>

S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
								<ul style="list-style-type: none"> <li>Workers will use noise protection equipment when working in a noisy area.</li> <li>Notifying and coordinating with locals adjacent to project area prior to construction to inform them of the possibility of temporary noise disruption, and how to report noise complaints in accordance with the proposed GRM.</li> </ul> <p>The contractor will adhere to the requirements of the mitigation plan contained in the contract documents with true spirit and regular monitored as per SEQs.</p>
13.	Will construction activities generate dust?	√	□	□	√	□	□	<p>There will be construction vehicles and machines which may generate dust emissions. The machinery used in rehabilitation work will be tractors and trolleys for fetching material.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>Regular water sprinkling will be the responsibility of the contractor at the dust generation points during construction activities. Water will also be sprinkled at vehicular and machinery movement routes and sensitive receptor's location to avoid dust spreading to the nearby community.</li> <li>Necessary PPE i.e., face mask will be provided to workers.</li> <li>Contractor will ensure that dust emissions due to vehicular traffic are minimized by reducing the speed.</li> <li>Well maintained and tuned vehicles will be used for the transportation and disposal of material.</li> </ul>

S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
14.	Will construction activities cause air pollution due to stack emissions from generators, construction machines and vehicles?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>The activities include rehabilitation of damaged water and drainage schemes in which air pollution at minor extent during the rehabilitation work will be caused.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>The emissions from generators, (if used) and vehicular/machinery movement at the site can affect the ambient air quality at sub project sites. It will be the responsibility of the contractor to use well maintained generators and vehicles/machines to keep ambient air quality within the desired level. The contractor will be obliged to provide fitness certificate/maintenance records of the generators, vehicles and machines before deploying them at the construction sites.</li> </ul>
15.	Will construction activities cause soil pollution?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>During construction work, various mitigation measures can be employed to address soil pollution.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>Implementing barriers and containment systems to prevent the spread of pollutants from construction sites to surrounding soil.</li> <li>Ensuring proper disposal of construction waste, including hazardous materials, to prevent soil contamination. This involves following appropriate waste management procedures and regulations.</li> <li>Implementing spill prevention measures and having protocols in place to quickly respond to any accidental spills of chemicals or pollutants that could contaminate the soil.</li> </ul>

S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
								<ul style="list-style-type: none"> <li>Contaminated soil management: If contaminated soil is encountered during construction, proper management procedures would be followed, including containment, removal, and disposal in accordance with local regulations.</li> <li>Regular monitoring: Conducting regular soil quality monitoring throughout the construction process to detect any signs of pollution and take corrective actions promptly.</li> <li>Providing training to construction personnel regarding the importance of soil protection and pollution prevention measures to ensure their active participation in maintaining a pollution-free construction site.</li> </ul> <p>By implementing these mitigation measures, construction activities can minimize soil pollution and contribute to environmental sustainability.</p>
16.	Will construction activities generate construction debris?	√	<input type="checkbox"/>	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<p>Yes, as the sub-project will involve civil works for the development of Water Supply and Drainage Schemes, which may generate a very small quantity of construction debris.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>The debris (rejected material) and WS&amp;DS broken materials produced during construction would be disposed-off in Government approved/allocated disposal sites by engaging third party which is certified from SEPA. Leftover material would not be dumped into storm water drains or watercourses, because such practices can clog these man-made and natural drainage systems and cause many other problems for the residents/Local Commuters.</li> </ul>



S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
17.	Will construction activities generate hazardous solid waste?	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No hazardous waste will be generated during construction phase of the project.
18.	Will construction take place near to water bodies? Or cause contamination of the surface water resources	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Yes, there are a few water supply schemes that are near to surface water bodies like canals. The potential impacts of water pollution during the construction can be minimized, helping to protect water resources and aquatic ecosystems in the surrounding area.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>Contractor must provide the following facilities at each campsite: Latrines; lined washing areas; septic tanks, and soaking pits for toilet waste.</li> <li>Soak pits will be built in absorbent soil and located 250 m away from a surface water source or groundwater well.</li> <li>Diesel, oil, and lubricants should be properly stored following petroleum regulations. This will be the responsibility of the contractor.</li> <li>Avoid stockpiling of earth fill especially during the monsoon season unless covered by tarpaulins or plastic sheets;</li> <li>Conduct surface water quality inspection according to the Environmental and Social Management and Monitoring Plan while adhering to SEQS 2016 and WHO standards.</li> </ul>

S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
19.	Will construction activities take place near wastewater/ storm water drains and how quality of wastewater will be ensured?	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No, construction work will be performed near wastewater or storm water drains as it will only be limited to pumping station boundary. To ensure the quality of wastewater before disposing is not in the scope of work. Wastewater quality analysis will be performed complaint to SEQS 2016 so that characteristics of wastewater could be recorded.
20.	Will construction activities result in damaging or relocating the utilities at site like electricity, gas, telecommunication etc.?	<input type="checkbox"/>	√	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Neither relocation nor destruction of utilities will be involved in the construction scope. However, the sub-project scope is already restoration and rehabilitation of WS&DS of the proposed subproject area.
21.	Will construction activities involve excavation?	√	<input type="checkbox"/>	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<p>The excavation will be done for the foundation works of pump house, disposal stations/drainage works, boundary walls, collecting tanks and screening chambers.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>• The excavation will be done carefully to avoid the damages.</li> <li>• Excavation area will be barricaded.</li> <li>• Contractor will use safety signs to warn and aware the local people during construction activities.</li> <li>• Contractor will be ensured availability of adequate Personal Protective Equipment (PPE) at the sub-project sites.</li> <li>• Risk assessment will be carried out by contractor before initiation of excavation work.</li> </ul>

S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
								<ul style="list-style-type: none"> <li>The contractor will ensure that all workers on site will be properly trained and certified to handle an excavation machine.</li> </ul>
22.	Will construction involve heavy machinery?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No, despite few machines like excavators will be used for the civil works on need basis; however, the contractor will ensure safety precautions during construction phase of the sub-projects.
23.	Will construction activities/machines be the safety hazards for the workers or any anticipated OHS impacts?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Yes, Occupational Health &amp; Safety issues are anticipated from the proposed rehabilitation work and mitigation measures have been proposed below. Risk can occur from machinery usage, vehicles, and civil work activities.</p> <p>General occupational hazards that may be encountered (e.g., moving machinery and motorized equipment, working at heights, repetitive motions, falling of objects, injuries etc.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>Ensure and strictly implement the SOPs regarding communicable diseases including daily body temperature check, PPEs, emergency response, and drills.</li> <li>Unauthorized personnel will not be allowed to enter project site without permission and safety permits.</li> <li>Assess the hazards associated with the required works and prepare and follow the safety procedures required for the specific works such as electrical works and works at height.</li> <li>Provision of first aid facilities for workers at site for meeting the emergency needs of workers, and providing basic medical training to</li> </ul>

S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
								<p>specified work staff and basic medical service and supplies to workers.</p> <ul style="list-style-type: none"> <li>• Observe and maintain standards of Health and Safety towards all employees in line with WB EHS Guidelines along with Sindh Occupational Health and Safety Law.</li> <li>• Contractor will install safety signs and markings to demarcate the construction zone.</li> <li>• Contractor will ensure provision of controlled access points for the prevention of an unauthorized access to the site.</li> </ul> <p>The Contractor will maintain a record of the persons who enter or exit from the sub-project site.</p>
	<b>C. Potential Social Impacts During Design and Construction</b>							
24.	Will involuntary resettlement cause by project implementation? If involuntary resettlement is caused, are efforts made to minimize the impacts caused by the resettlement?	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	There will be no involuntary resettlement because sub-project sites are located in Government own land.
25.	Will there a possibility that the project adversely affects the living conditions of inhabitants?	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The proposed subproject will positively impact inhabitants and improve their social wellbeing. There is no possibility that the project will adversely affect the living conditions of inhabitants.

S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
26.	Will the construction cause any labor issues such as labor living and working conditions?	√	<input type="checkbox"/>	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<p>Labor condition or rights related issues will be complied such as working hours, leaves, benefits, wages, and other related facilities like provision of foods, clean water, transportation etc. However, no labor camps are anticipated as it involves small scale activities which doesn't involve any living conditions.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>The Workers' Grievance Redress Mechanism (GRM) will be developed and communicated among workers to lodge complains.</li> <li>Workers should be provided with clean drinking water for free.</li> </ul>
27.	Will construction activities cause community Health and Safety issues? Or any other such impacts.	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>No such impacts are anticipated, though following will be applicable to the project activities.</p> <p><b>Mitigation Measures:</b></p> <ul style="list-style-type: none"> <li>GRM must be communicated to the general public.</li> <li>Close consultation with local communities to identify optimal solutions where needed. Community grievances will be recorded and responded to on an urgent basis.</li> <li>Contractor shall give preference to local community members in subproject areas, to the extent feasible, with respect to the employment of unskilled labor.</li> <li>No Hazardous and non-hazardous waste will be dumped outside any community.</li> </ul>

S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
								<ul style="list-style-type: none"> <li>There should be sufficient signage to warn of dangers and hazards on a construction or worksite. Signs should be clear and accompanied by ropes, cones, and other equipment to cordon off dangerous areas.</li> <li>Conduct worksite inspections daily to identify any potential dangers or hazards. Dangers and hazards should be cordoned off immediately.</li> </ul>
28.	Have contents of the project and the potential impacts been adequately explained to the Local stakeholders based on appropriate procedures, including information disclosure?	√	<input type="checkbox"/>	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	Local Stakeholders have been consulted and their comments mentioned in stakeholders' consultation have been noted which will be addressed with true spirit during construction phase.
29.	Will the construction activities cause the socio- cultural issues or conflicts among workers and communities?	√	<input type="checkbox"/>	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Contractor should take proper measures and raise awareness among the communities and workers to address and resolve issues relating to harassment, intimidation (particularly those related to issues of labor influx), and exploitation, especially against women.</li> <li>Measures to prevent Gender based violence (GBV), Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH) the Contractor must include relevant clauses in the workers' code of conduct.</li> <li>Workers should not be allowed to crowd in the residential communities nearby the site.</li> </ul>
30.	Are appropriate measures taken to	√	<input type="checkbox"/>	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	Yes, as the security guards will be deployed at subproject sites and they



S. No	SCREENING QUESTIONS	Yes	No	Impact Severity Ranking				Remarks/Mitigation Measures
				NR	1	2	3	
	ensure that security guards involved in the project not to violate safety of other individuals involved, or local residents?							are not allowed to move outside or provide entrance to anybody without permission of the site engineer.
	NR: Not Relevant 1. No or Minor Impact 2. Moderate, Short Term, Reversible Impact 3. Severe, Long Term, Irreversible Impact							
	<b>Category</b>					A	B	C
	<b>Environmental Management Required</b>					N/A	N/A	√
	<b>Type of Environmental Management Tool to be Used</b>					<b>Social and Environmental Screening Checklist</b>		

### 3 STAKEHOLDER CONSULTATION

Stakeholder consultation during a construction project is crucial for ensuring transparency, addressing concerns, and promoting collaborative decision-making.

**Table 5: List of Stakeholders Consulted for Water Supply and Drainage Schemes of Qambar Shahdadkot**

No.	Schemes	Coordinates	Name of the Goth/Community	Date of Consultation
<b>A</b>	<b>Water Supply Schemes Taluka Qambar</b>			
1	Bhada & Sodhar Water Supply Scheme-WSS	397045.51 mE 3050372.39 mN	Gul Muhammad Mugheri	30/8/2023
2	Gogharo Water Supply Scheme-WSS	401780.00 mE 3039295.00 mN	Gogharo Shareef	30/8/2023
3	Hamyon Mugheri Water Supply Scheme	399896.00 mE 3047039.00 mN	Mevo Mugheri Village	30/8/2023
4	Khahi Meenho Water Supply Scheme	385864.00 mE 3051242.00 mN	Sain Ayaz Hussaini Pahore	30/8/2023
5	Wali Dad Mugheri-Water Supply Scheme-WSS	397509.00 mE 3054830.00 mN	Wali Dad Mugheri	30/8/2023
6	Khairpur Juso –Water Supply Scheme-WSS	402608.00 mE 3042960.00 mN	Pakho Village	30/8/2023
7	Burhan Khan Chandio-Water Supply Scheme-WSS	389450.00 mE 3059769.00 mN	Dost Ali Joyo	30/8/2023
8	Daffar Water Supply Scheme-WSS	391144.00 mE 3052173.00 mN	Daffar	30/8/2023
<b>B</b>	<b>Water Supply Schemes Taluka Naseerabad</b>			
9	Aayo Phulpoto Water Supply Scheme- WSS	385882.00 mE 3032918.00 mN	Aayo Phulphoto	1/9/2023
10	Nabi Buksh Kandhro Water Supply Scheme-WSS	390667.95 mE 3021842.86 mN	Nadi Buksh Kandhro	1/9/2023
11	Hamzo Bhatti Water Supply Scheme	396893 mE 3030215 mN	Hamzo Khan Bahtti	1/9/2023
12	Sawali Wahoocha Water Supply Scheme	388194.11 mE 3031848.11 mN	Sawai Khan Chandio	1/9/2023
<b>C</b>	<b>Water Supply Schemes Taluka Miro Khan</b>			
13	Behram Machhi Water Supply Scheme	399709 mE 3062667 mN	Behram Village	1/9/2023
14	Ali Sher Gopang Water Supply Scheme	412242.00 mE 3069539.00 mN	Ali Sher Gopand	1/9/2023
15	Dino Kotho Water Supply Scheme	397182.11 mE 3063622.69 mN	Dino Kotho	1/9/2023
16	Karrira Water Supply Scheme	394352 mE 3075819 mN	Karrira	1/9/2023
17	Khabbar Water Supply Scheme	384506 mE 3066935 mN	Khababr	1/9/2023

No.	Schemes	Coordinates	Name of the Goth/Community	Date of Consultation
18	Ghulam Ali Magsi Water Supply Scheme	397688 mE 3067460 mN	Ghulam Ali Magsi	1/9/2023
<b>D</b>	<b>Water Supply Schemes Taluka Warah</b>			
19	Badar-ud-Din Abro Water Supply Scheme	380764 mN 3043257 mE	Bahadur Din Abro Goth	2/9/2023
20	Khandu Water Supply Scheme	380755 mN 3043196 mE	Khandu	2/9/2023
21	Markhand Water Supply Scheme	3822778mN 30328283mE	Makrand Warah	2/9/2023
22	Thariri Hajran Water Supply Scheme	384754mN 3035223mE	Thariri Hajjan	2/9/2023
23	Kot Sarwar/ Gul Buriro Water Supply Scheme	376445 mN 3040072 mE	Kot Sarwar	2/9/2023
24	Lashkar Khan Lashari Water Supply Scheme	3021838.10 m N 372539.87 m E	Lashkar Khan Lashari	2/9/2023
25	Junani Shareef Water Supply Scheme	377787.00 m E 3034395.00 m N	Junani Sharif	2/9/2023
<b>E</b>	<b>Water Supply Schemes Taluka Sijawal</b>			
26	Bahadur Bhand_ Water Supply Scheme-	3081407.53 m N 412799.83 m E	Bahadur Bhand	3/9/2023
27	Hakim Ali Shah Water Supply Scheme	3054158.00 m N 408835.00 m E	Hakim Ali Shah	3/9/2023
28	Kot Lal Buksh Mahesar Water Supply Scheme	3085109.34 m N 413268.01 m E	Kot Lal Buskh MAhesar	3/9/2023
29	Mitho Khan Mastoi Water Supply Scheme	3079794.00 m N 400987.00 m E	Mitho Mastoi	3/9/2023
30	Mathyon Tar Water Supply Scheme	3073836.09 m N 408390.34 m E	Tar Mathiyo	3/9/2023
<b>F</b>	<b>Water Supply Schemes Taluka Qubo Saeed Khan</b>			
31	Ali Hassan Brohi Water Supply Scheme	371663.80 m E 3081177.24 m N	Ali Hassan Brohi	31/9/2023
32	Bukshal Khan Magsi Water Supply Scheme	371271.00 m E 3080450.00 m N	Bukshal Khan Magsi	31/9/2023
33	Mirpur Burriro Water Supply Scheme	366777.00 m E 3072787.00 m N	Mirpur Buriro	31/9/2023
<b>G</b>	<b>Water Supply Schemes Taluka Shahdadkot</b>			
34	Jari & Khauda Buksh Jamali Water Supply Scheme	388427.00 m E 3091444.00 m N	Khuda Buksh Jamali	4/9/2023
35	Jeeand Jarwar Water Supply Scheme	398813.44 m E 3088570.82 m N	Jiand Sharif	4/9/2023
36	Umeed Ali Junejo Water Supply Scheme	398300.00 m E 3095920.00 m N	Umeed Ali Junejo	4/9/2023
	<b>Drainage Schemes Taluka Qambar</b>			
37	Allah Rakhio Junejo Drainage Scheme	396875.00 m E 3059588.00 m N	Allah Rakhio Junejo	30/8/2023

No.	Schemes	Coordinates	Name of the Goth/Community	Date of Consultation
38	Chajjra Drainage Scheme	402235.00 m E 3055064.00 m N	Chajjira	30/8/2023
39	Deedar Virk Ghoghari Drainage Scheme	404648.00 m E 3040443.00 m N	Deedar	30/8/2023
40	Ghogharo Drainage Scheme	401780.00 m E 3039295.00 m N	Ghogharo Shareef	30/8/2023
<b>Drainage Schemes Taluka Naseerabad</b>				
41	Heetam Sohoo Drainage Scheme	391869.08 m E 3033729.16 m N	Heetam Sohoo	31/9/2023
42	Bazari Kandhro Drainage Scheme	388748.00 m E 3028460.00 m N	Bazari Kandhro	31/9/2023
<b>Drainage Schemes Taluka Miro Khan</b>				
43	Behram Drainage Scheme(Urban)	399642.04 m E 3062469.11 m N	Behram	2/9/2023
<b>Drainage Schemes Taluka Warah</b>				
44	Pechooha Drainage Scheme	393144.00 m E 3042639.00 m N	Pechooha	2/9/2023
<b>Drainage Schemes Taluka Sijawal Junejo</b>				
45	Arzi Bhutto Drainage Scheme	416520.00 m E 3078895.00 m N	Arzi Bhutto	3/9/2023
46	Saindad Leghari Drainage Scheme	414983.00 m E 3066163.00 m N	Sain Dad Leghari	3/9/2023
47	Tar Mathyon Drainage Scheme	409243.00 m E 3074860.00 m N	Tar Mathiyo	3/9/2023
<b>Drainage Schemes Taluka Qubo Khan Saeed</b>				
48	Ahmed Nawaz Magsi Drainage Scheme	370485.00 m E 3081951.00 m N	Ahmed Nawaz Magsi	4/9/2023
<b>Drainage Schemes Taluka Shahdadkot</b>				
49	Jeand Jarwar Drainage Scheme	397259.00 m E 3088921.00 m N	Jeand Jarwar	4/9/2023

### 3.1 Community Concerns

Comments /Observations	Action /Response
Discussion regarding the importance and usefulness of rehabilitation of water supplies and drainage schemes was held.	The proposed water supply and drainage schemes will improve the socioeconomic status of the districts and offer clean drinking water, according to the briefing given to the attendees.
Concerns over the overall effects of drainage and water supply plans on public health and sanitation were expressed by community members.	The community was informed of the advantages to their health that come with having better access to clean water, and efficient drainage systems. The community's specific health problems will be handled appropriately by installation of Hypo-chlorinator, and steps taken to guarantee public safety will be outlined.

Comments /Observations	Action /Response
Questions regarding concerns and issues encountered during the monsoon season or following floods were asked by the community members.	They notified the team that the area is experiencing severe load shedding, which is a primary factor in the present water supply and drainage system's collapse. During the monsoon, the water turns quite murky and might induce stomach problems. There are rising mains concerns that need to be fixed, pumps that are broken or not functioning properly, and regular drain cleaning. Although solar panels are erected, a lack of upkeep has left the majority of them malfunctioning.
Stakeholders/ Local Community members asked about the operations and maintenance of Water Supply & Drainage Schemes.	The team responded that safe drinking water will be provided to the community without any interruption and Public health Engineering Department (PHED) will be responsible for operations and maintenance.
Local Community inquired about the project execution and its completion.	In response, the technical team stated that the project will start in June 2024 and be finished in June 2025. The proposed project area's current facilities will be the only ones undergoing repair, and it will be finished in a year.
The community urged to provide of semi-skilled and unskilled jobs for local labor.	Locals will be given preference for unskilled works during construction.
Typically, women in the sub-project area retrieve water from pumping stations. Some residents expressed concern that the privacy of the surrounding communities might not be violated, particularly in cases when the villages are close to or adjacent to pumping stations.	It was clarified that local labor would be employed to complete the project, and all staff members would be subject to limitations in order to protect people's privacy and local customs. There would be no labor interaction with women or children. And if community continue to have problems, they can contact SFERP GRC via email or at the toll-free number.
Concerns were expressed by the community regarding the sustainability and long-term upkeep of the drainage and water delivery systems.	The community was informed that the Department will guarantee operation and maintenance plans, that PHED is in charge of the project, and that any steps made to guarantee the infrastructure's long-term survival will be reported. Operational staff recruited by the GoS is present in every scheme undergoing rehabilitation.
Concerns from the community were also expressed over the possibility of noise, dust, traffic jams, and brief service outages resulting from construction projects related to drainage and water supply.	Community was assured that these disruptions will be minimized to the extent possible, provide a clear timeline of the construction activities, and communicate any alternative arrangements made to mitigate inconveniences.
Community had reservations about the proper maintenance of rehabilitated system and no availability of resources.	Community was informed that after rehabilitation works the system will be handed over to PHED



Comments /Observations	Action /Response
	who do proper maintenance and resource utilization.
<p>The community asked for a comprehensive needs assessment to be conducted in order to pinpoint the shortcomings and challenges in drainage and water supply plans, as well as to address other concerns including the availability of health and education facilities, simple access to water supplies, and, if feasible, metaled access routes.</p>	<p>The community was informed that the proposed subproject will be carried out following a thorough needs assessment and an evaluation of the flood damage. Additionally, it was disclosed that budget will be available for the restoration of drainage and water infrastructure, but the construction contractor would be urged to take appropriate steps to fulfill their corporate social duty.</p>
 <p>Community consultation meeting at Village Muradi-Taluka Naseerabad</p>	 <p>Community consultation meeting at Village Ahmed Nawaz Magsi-Taluka Qubo Saeed</p>
 <p>Community consultation meeting at Village Abad-Taluka Qambar</p>	 <p>Community consultation meeting at Village Qadir Khan Shaikh-Taluka Qambar</p>

Figure 3: Stakeholders Consultation

### 3.2 Institutional Consultation

The Environment and Social team conducted consultations with concerned Government Department in August, 2023. The team briefed the officers of Government Departments regarding the salient features of the proposed sub-projects. It was informed that the “Detailed Design of the Project, under PIU-SFERP-P&DD being implemented and funded by the World Bank. They were informed that the project intends to rehabilitate the damaged Water Supply and Drainage Schemes destroyed in flood 2022. The primary goal of the project is to meet the

present and future requirements regarding provision of safe drinking water and drainage system. It was also briefed that the project will bring positive impacts on the lives of the local population. According to the officials, the rehabilitation/restoration of the proposed Schemes will be beneficial for the residents of the project regions. The officials expressed their support for the planned project during the meeting and assured their full cooperation as a Line Department.

Sr. No	Department
1.	XEN PHED Department
2.	Deputy Director SEPA
3.	Representative of Municipal Administrator

**Table 6: Summary of Concerns Raised by Institutional Stakeholders**

Comments/Observations	Actions/ Responses
The majority of the participants involved had favorable opinions on the restoration of drainage and water supply systems.	The participants were largely in support of the project and agreed that it is desperately needed given the situation of the water supply and drainage schemes after the devastating floods of 2022.
Detailed discussions were held regarding the environmental and social issues of the area due to proposed rehabilitation activity.	The inhabitants, local flora, and fauna won't be negatively impacted by the project. The project is located on land owned by the government, and during the project's constructing phase, no significant social or environmental problems are anticipated. To counteract environmental deterioration, mitigating strategies will be suggested.
According to the stakeholders, if the proposed project is executed appropriately and with an effective team, it will improve the socioeconomic status of the community in the project areas.	The team acknowledged and responded that the proposed Water Supply and Drainage Schemes will be beneficial for community residing in the area. The living standard of the community would be elevated after rehabilitation of the schemes.
The stakeholders suggested that care must be given to protect biodiversity of the area during the construction phase and construction waste should not be disposed-off in nearby surroundings.	The plantation would be undertaken with the preference of local species; no exotic species will be promoted. No cutting of trees will be involved during the execution of the project activities. Plantation activity will be done around the boundary wall to enhance aesthetic beauty of the project area. It will be monitored to cut minimum number of trees. At few sites, trees will be cut or chopped and 1:10 trees will be planted in compensation and the Line Department would be responsible for caring the newly planted trees after construction phase.







Comments/Observations	Actions/ Responses
	CSC team ensured that Construction debris would be disposed only at TMA lands and other materials will be handed over to SEPA certified waste contractors.
The Stakeholder shows their concern regarding the impacts during the construction stage on waste management and land acquisition	CSC team briefed that all type of waste would be handled properly as stated by SEPA through TMA approved lands and certified waste contractors. There are no issues regarding land acquisition, the land is vacant and owned by the Government. If the issues occur, then these matters will be dealt with Revenue Department.
The stakeholders suggested to engage local people during project activities and take care of local customs and traditions during construction.	The teams responded that locals will be considered during construction activities while during operation priority will be given to the locals if not available then will be sourced from other regions. Privacies would be ensured. It was also assured that norms, ethics and traditions of community will not be disturbed.
	
	

Figure 4: Institutional Consultation

## **4 ENVIRONMENTAL AND SOCIAL MANAGEMENT & MONITORING PLAN**

The purpose of the ESMMP for the rehabilitation works is to ensure that all necessary identified measures should be adopted during construction and operation phase for all schemes to protect the environment and social situations and to comply with the country's environmental and social legislation and applicable World Bank standards. After the preparation of ESMF, PIU has outlined site-specific EMP for the Contractors and executing agency.

**Table 7: Environmental and Social Management and Monitoring Plan (ESMMP)**

<b>Sr. No.</b>	<b>Activity</b>	<b>Potential Impacts</b>	<b>Mitigation Measures</b>	<b>Monitoring &amp; Reporting Frequency</b>	<b>Responsibility</b>
1.	<b>Land Use</b>	<b>Construction Phase</b> Civil Works  <b>Operation Phase</b> None	<ul style="list-style-type: none"> <li>- The work will be carried out in the land of PHED which comprised of rehabilitation work only.</li> <li>- No need to clear land or cutting of trees is envisaged.</li> </ul>	NA	None
2.	<b>Dust Emission</b>	<b>Construction Phase</b> Movement of construction vehicles.  <b>Operation Phase</b> None	<ul style="list-style-type: none"> <li>- Water will be sprinkled daily or when as required to avoid the dust emission near proposed project vicinity.</li> <li>- For dust control, cordon off the construction area through dust control net.</li> </ul>	Daily during Construction Phase	<b>Construction phase</b> Contractor
3.	<b>Noise Emission</b>	<b>Construction Phase</b> Construction Equipment, Generator, Vehicle Movement  <b>Operation Phase</b> None	<ul style="list-style-type: none"> <li>- Proper design, maintenance and repair of construction machinery and equipment will be ensured.</li> </ul>	Twice a month during Construction Phase	<b>Construction phase</b> Contractor

Sr. No.	Activity	Potential Impacts	Mitigation Measures	Monitoring & Reporting Frequency	Responsibility
4.	<b>Water Management</b>	<p><b>Construction Phase</b></p> <p>Construction activities</p> <p>Water sprinkling for dust minimization</p> <p><b>Operation Phase</b></p> <p>Supply of water and maintaining its quality will be managed by the PHED</p>	<ul style="list-style-type: none"> <li>- Contractor will handle and manage waste generated from the construction activities without contamination to natural environment/water bodies and it will reduce risk to general public who stay close to sites.</li> <li>- Water contamination during construction will be avoided through proper disinfection.</li> <li>- Excess use of water will be avoided and monitored in routine basis.</li> <li>- Water Tankers/water bowzers and bore water will be proposed for the utilization of water during project activities.</li> <li>- Clean and safe drinking water will be provided to the workers during working hours.</li> </ul>	<ul style="list-style-type: none"> <li>- Daily during Construction Phase</li> <li>- Water quality analysis at the beginning and end of construction phase</li> </ul>	<p><b>Construction phase</b></p> <p>Contractor</p> <p><b>Operational phase</b></p> <p>PHED</p>
5.	<b>Ecological Impact</b>	<p><b>Construction Phase</b></p> <p>Construction activities</p> <p>Clearance of top Soil</p> <p>No habitat loss</p> <p>No tree cutting at site</p>	<ul style="list-style-type: none"> <li>- As the subproject develops, plantation is grown in and around the subproject vicinity as a CSR.</li> </ul>	None	None

Sr. No.	Activity	Potential Impacts	Mitigation Measures	Monitoring & Reporting Frequency	Responsibility
		<b>Operation Phase</b> None			
6.	<b>Solid Waste Management</b>	<b>Construction Phase</b> In construction phase, cement bags, woods remain, debris will be generated.  <b>Operation Phase</b> Food Waste and Recyclables Material like; paper, plastic etc.	<ul style="list-style-type: none"> <li>- Waste reduction methodologies will be implemented.</li> <li>- On spot segregation will be ensured.</li> <li>- Covered bins shall be ensured.</li> <li>- Separate Bins for recyclable material and other type of solid waste shall be ensured.</li> <li>- Ensure the disposal of waste properly from the site on daily basis to avoid odor and maintained the site esthetics.</li> <li>- Food waste will be disposed of separately.</li> <li>- Waste inventory of hazardous and non-hazardous waste generated will be prepared and periodically updated.</li> <li>- Scrap metal waste generated from designing and construction activities will be collected and stored separately in a waste yard and sold to local recyclers for reuse purposes.</li> <li>- Solid waste generated during construction and operation activities will be segregated</li> </ul>	Daily during Construction Phase	<b>Construction phase</b> Contractor  <b>Operational phase</b> PHED

Sr. No.	Activity	Potential Impacts	Mitigation Measures	Monitoring & Reporting Frequency	Responsibility
			<p>disposed of appropriately.</p> <ul style="list-style-type: none"> <li>- Waste will be disposed of properly at designated disposal area.</li> <li>- Food waste and recyclables viz. paper, plastic, glass etc. will be stored in designated waste bins /containers. The recyclables will be periodically sold to local recyclers while food waste will be disposed through proper waste handling mechanism.</li> <li>- Separate bins with symbols shall be placed at construction area.</li> <li>- Secondary containment shall be ensured to avoid the leakages and seepages.</li> <li>- Waste disposal will not be allowed in agriculture lands.</li> </ul>		

Sr. No.	Activity	Potential Impacts	Mitigation Measures	Monitoring & Reporting Frequency	Responsibility
7.	<b>Soil and Land Contamination</b>	<p><b>Construction Phase</b></p> <p>No any chemical or hazardous substance is used in the construction phase therefore there is no chance of soil or land contamination</p> <p><b>Operation Phase</b></p> <p>None</p>	<ul style="list-style-type: none"> <li>- Debris, Waste generated from construction material will be properly covered and stored and disposed-off periodically during the construction phase. No leftover construction waste will be left on the site. Maintenance of machinery will only be carried out at designated places to avoid any fuel spill if require.</li> <li>- Reinstate and protect cleared areas as soon as possible.</li> <li>- Cover unused area of disturbed or exposed surfaces immediately with mulch/grass turnings/tree plantations.</li> <li>- Locate stockpiles away from drainage lines.</li> <li>- Remove debris from drainage paths and sediment control structures.</li> <li>- Keep the final or finished surface of all the raised lands free from any kind of depression that causes water logging.</li> <li>- Reinstate the natural landscape of the ancillary construction sites after completion of works.</li> </ul>	Weekly during Construction Phase	<p><b>Construction phase</b></p> <p>Contractor</p>     <p><b>Operational phase</b></p> <p>PHED</p>



Sr. No.	Activity	Potential Impacts	Mitigation Measures	Monitoring & Reporting Frequency	Responsibility
8.	<b>Waste Water</b>	<p><b>Construction Phase</b></p> <p>Water used in the construction material during preparing bed and lean activity, construction of pump house, septic tanks, LSRs and other works</p> <p><b>Operation Phase</b></p> <p>Sanitary waste water from the office</p>	<ul style="list-style-type: none"> <li>- Conduct daily inspections at the site to ensure removal of construction debris.</li> <li>- Store construction material containing fine particles in an enclosure so that sediment laden water does not drain into nearby water drains.</li> <li>- Sanitary waste will be drained to the drainage system properly.</li> </ul>	<ul style="list-style-type: none"> <li>- Visual inspection on daily basis during Construction Phase</li> <li>- Wastewater quality analysis at the beginning and end of construction phase</li> </ul>	<p><b>Construction phase</b></p> <p>Contractor</p>
9.	<b>Safety Hazards</b>	<p><b>Construction Phase</b></p> <p>Project related vehicular traffic</p> <p>Driving</p> <p>Injuries related with civil works and electrical works</p> <p>Heat Waves</p> <p>Cold Waves</p> <p>Communicable Diseases</p> <p><b>Operation Phase</b></p>	<ul style="list-style-type: none"> <li>- Ensure the World Bank EHS guideline will be followed.</li> <li>- Personal Protective Equipment will be provided during construction to the workers.</li> <li>- First Aid kits will be provided at sites.</li> <li>- Strict code of conduct will be followed.</li> <li>- Make safety precautions and display on the notice board of entry gate in both national and local language.</li> <li>- During heat wave, working hours will be revised to make sure that labor work force work only in early hours or late evening</li> </ul>	<p>Daily during Construction and operation phase</p>	<p><b>Construction phase</b></p> <p>Contractor</p> <p><b>Operational phase</b></p> <p>PHED</p>

Sr. No.	Activity	Potential Impacts	Mitigation Measures	Monitoring & Reporting Frequency	Responsibility
		Injuries during Operational phase	<p>hours.</p> <ul style="list-style-type: none"> <li>- Monitoring weather forecasts for outdoor work to provide advance warning of extreme weather and scheduling work accordingly.</li> <li>- Adjustment of work and rest periods according to temperature stress management procedures such as providing easy access to adequate hydration such as drinking water or electrolyte drinks depending on the temperature and workloads.</li> <li>- Providing temporary shelters to protect against the elements during working activities or for use as rest areas.</li> <li>- Implementation of health and hygiene practices to mitigate the communicable diseases.</li> </ul>		

Sr. No.	Activity	Potential Impacts	Mitigation Measures	Monitoring & Reporting Frequency	Responsibility
10.	<b>Socio-Economic Environment</b>	<p><b>Construction Phase</b></p> <p>Traffic and vehicle movement</p> <p>Noise generated from subproject activities</p> <p>Labor requirement from the nearby area</p> <p>Occupational health &amp; safety issue of working labor</p> <p><b>Operation Phase</b></p> <p>Employment opportunities</p> <p>Awareness to local people to emergency situation</p> <p>Gender Issues, Gender inclusion</p> <p>GBS and VAC related impacts</p>	<ul style="list-style-type: none"> <li>- Plan temporary traffic arrangements during construction within the construction area. Review the plan periodically with respect to site conditions.</li> <li>- Give special consideration to local traffic management.</li> <li>- Take adequate precautions to prevent danger from electrical equipment (switches and wiring).</li> <li>- Provide a readily available first aid unit including an adequate supply of sterilized dressing material and appliances.</li> <li>- GRM shall be developed and ensure the accessibility to the local community and labor.</li> </ul>	<p><b>Construction Phase</b></p> <p>GRM for labor and community</p>	<p><b>Construction phase</b></p> <p>Contractor</p> <p><b>Operational phase</b></p> <p>PHED</p>

## 5 PICTORIAL PROFILE OF PROJECT SITES

### 5.1 Water Supply Scheme -Taluka Qambar, District Qambar Shahdadkot



### 5.2 Water Supply Scheme- Taluka Naseerabad, District Qambar Shahdadkot



### 5.3 Water Supply Scheme –Taluka Miro Khan, District Qambar Shahdadkot





**5.4 Water Supply Scheme –Taluka Warah, District Qambar Shahdadkot****5.5 Water Supply Scheme –Taluka Sijawal Junejo, District Qambar Shahdadkot****5.6 Water Supply Scheme –Taluka Qubo Saeed Khan, District Qambar Shahdadkot****5.7 Water Supply Scheme –Taluka Shahdadkot, District Qambar Shahdadkot**

## **6 ENVIRONMENTAL AND SOCIAL IMPLEMENTATION BUDGET**

There are total 105 schemes in District Qambar Shahdadkot in which 23 are Drainage Schemes and 82 are water supply schemes. Environmental Quality Analysis for Air Quality Monitoring, Testing of Water and Wastewater Quality and Noise Level monitoring will be conducted at each sub-project site during the start and at completion of the sub-projects. The detail of cost has been given in table below. It is worthy to mention here that sub-projects are located in Government owned land and there will be no resettlement or land acquisition issues during the rehabilitation work.

**Table 8: Environmental Compliance Cost**

105 Water Supply and Drainage Scheme of Qambar Shahdadkot District								
Item No.	Item	Rational	Frequency	Average Rate (Rs.)/unit*	Site-wise Quantity	No of units/sites	Total Quantity	Estimated Amount (Rs.)
A. Environmental Analysis at Start of Civil Works								
1	Wastewater	1 Sample from Each Drainage Scheme	Once at the Start of Construction	17,000	1	23	23	391,000
2	Drinking Water	One Sample from each water supply scheme		15,000	1	82	82	1,230,000
3	Ambient Air	1 Sample from each subproject scheme		15,000	1	105	105	1,575,000
4	Ambient Noise	1 Sample from each subproject scheme		1,000	1	105	105	105,000
Sub Total - A								3,301,000
B. Environmental Analysis Cost at Completion Phase (12 months)								
1	Drinking Water	One from camp area at each water supply scheme site	Once at the End of Construction	15,000	1	82	82	1,230,000
2	Wastewater	1 Sample from Each Drainage Scheme		17,000	1	23	23	391,000
3	Generators/Stack Emission (If available)	One Sample from construction site		10,000	1	105	105	1,050,000
4	Ambient Air	One from the camp area		15,000	1	105	105	1,575,000
5	Ambient Noise	One from the camp area		1,000	1	105	105	105,000
6	Mobilization Charges	At each water supply and drainage scheme		10,000	1	105	105	1,050,000

<b>Sub Total - B</b>							<b>5,401,000</b>
<b>C. EHS Management</b>							
<b>1</b>	Personal Protective Equipment	Bi annual	6,000	1	25	25	150,000
<b>2</b>	Waste Disposal from Construction Sites					Lump sum	100,000
<b>3</b>	Project dissemination materials such as banners, flayers, notice board etc.		10000	1	105	105	1,050,000
<b>Sub Total - C</b>							<b>1,300,000</b>
<b>D. EHS Administrative Cost</b>							
<b>1</b>	Training/Capacity Building (Environmnet, Social, Gender, & OHS)	50 persons	20,000	1	105	105	2,100,000
<b>2</b>	Social Expert (for social compliance & GRM implementation) Salary		120,000	12	1	12	1,440,000
<b>3</b>	GRM running & General Community support needs (if any)					Lump sum	500,000
<b>4</b>	Environmental & OHS Officer Salaries (120 thousand for each person)		120,000	12	1	12	1,440,000
<b>Sub Total - D</b>							<b>5,480,000</b>
<b>TOTAL OF (A TO D)</b>							<b>15,482,000</b>

**\* Schemes wise testing will be performed at start of civil works**



## **7 OPERATION AND MAINTENANCE (O&M)**

Operation and maintenance (O&M) of Water Supply (WS) and Drainage Systems is a critical task that ensures the continued provision of safe and reliable water and drainage services to communities. O&M activities can be divided into two main categories: preventive maintenance and corrective maintenance.

Preventive maintenance is carried out on a regular basis to prevent problems from occurring. This includes activities such as cleaning and inspecting pipes, valves, and other equipment; lubricating the moving machines etc. Corrective maintenance is carried out to address problems that have already occurred. This includes activities such as repairing broken pipes, replacing damaged equipment, and clearing blockages in drainage systems. In addition, the PHED should also ensure timely procurement of disinfectant chemicals for disinfection of the water and keep a sufficient stock of such chemicals so that there is no interruption in making the water safe for human consumption.

O&M of WS and Drainage Systems is a complex and challenging task. It requires a skilled workforce, a well-maintained inventory of spare parts, and a comprehensive set of procedures and documentation. However, the benefits of effective O&M are significant. By preventing problems from occurring and addressing problems quickly, O&M can help to ensure the continued provision of safe and reliable water services to communities. After completion of rehabilitation work, the project will be handed over to the PHED who will operate and maintain the project. PHED department has technical staff for operation and maintenance of proposed rehabilitation schemes. Moreover, GoS yearly allocates substantial budget for operation and maintenance of these schemes. After rehabilitation these schemes will be operationalized under PHED through its O&M section which is adequately staffed with required skills and expertise. Training of these staff would be required to operate new machinery installed during rehabilitation.

### **7.1 Key aspects of O&M for WSS and Drainage systems:**

#### **7.1.1 Operation:**

- i. Regular monitoring of water sources, such as reservoirs, wells, or treatment plants, to ensure a consistent water supply.
- ii. Operation of pumps, valves, and control systems to regulate the flow of water through the distribution network.
- iii. Monitoring and maintaining water pressure levels within acceptable limits.
- iv. Disinfecting the water all the times prior to supplying to the consumers.
- v. Managing water quality, including regular testing and treatment to ensure compliance with health and safety standards.
- vi. Coordinating with the local community and consumers to address their water supply needs and concerns.

#### **7.1.2 Maintenance**

- i. Routine inspection of pipelines, valves, and fittings to identify and repair leaks, cracks, or any other damages.

- ii. Clearing blockages in pipelines, channels, and drains to maintain an unobstructed flow of water.
- iii. Cleaning and desilting of reservoirs, tanks, and drainage channels to prevent sedimentation and maintain capacity. After every cleanup operation, the tanks, reservoirs and / or pipelines must be disinfected prior to putting them back to use.
- iv. Repair and maintenance of water treatment plants, pumping stations, and other infrastructure components.
- v. Regular calibration and maintenance of measuring instruments and control systems.
- vi. Periodic maintenance of equipment such as pumps, motors, and generators.

#### **7.1.3 Emergency Response**

- i. Developing contingency plans and emergency response protocols to address unexpected events such as equipment failures, natural disasters, or water contamination incidents.
- ii. Establishing a communication system to notify the public and relevant authorities in case of emergencies.
- iii. Rapid response and repair of damages during emergencies to restore the system's functionality as quickly as possible.

#### **7.1.4 Water Conservation**

- i. Implementing water conservation measures, such as promoting public awareness campaigns, encouraging responsible water usage, and identifying and repairing water wastage points.
- ii. Monitoring and managing water losses and leakages in the distribution network.
- iii. Regular assessment and optimization of the system to reduce energy consumption and improve overall efficiency.

#### **7.1.5 Data Management**

- i. Maintaining comprehensive records of system performance, maintenance activities, and water quality data.
- ii. Utilizing data analysis and predictive modeling to optimize the operation and maintenance activities.
- iii. Incorporating modern technologies, such as remote sensing, real-time monitoring systems, and data analytics, to improve decision-making and efficiency.

#### **7.1.6 Documentation and Handover**

- i. Compile project documentation (operation and maintenance manuals, as-built drawings, warranties).
- ii. Hand over documentation to the PHED for future reference.

#### **7.1.7 Facilities Management**

- i. Establish a comprehensive facilities management plan.

- ii. Outline responsibilities, protocols, and schedules for maintenance, inspections, repairs, and upgrades.

#### **7.1.8 Staffing and Training**

- i. Increase adequate staffing.
- ii. Provide necessary training for personnel deputed for O&M.
- iii. Increase maintenance technicians, engineers, custodial staff, security personnel, and administrative support.

#### **7.1.9 Preventive Maintenance**

- i. Implement a preventive maintenance program.
- ii. Conduct regular inspections, cleaning, lubrication, adjustments, and equipment testing.

#### **7.1.10 Repairs and Corrective Maintenance**

- i. Respond promptly to issues and conduct repairs.
- ii. Establish an inventory of spare parts.
- iii. Maintain relationships with reliable contractors or suppliers.

#### **7.1.11 Safety and Compliance**

- i. Enforce safety protocols.
- ii. Conduct regular inspections and provide safety training.
- iii. Ensure compliance with relevant codes and regulations.

#### **7.1.12 Energy Efficiency and Sustainability**

- i. Promote energy efficiency and sustainable practices.
- ii. Implement energy management systems.
- iii. Optimize equipment performance.
- iv. Utilize renewable energy sources and green building practices.

#### **7.1.13 Asset Management**

- i. Track and monitor equipment and systems.
- ii. Maintain an asset inventory.
- iii. Conduct periodic assessments and plan for replacements or upgrades.

#### **7.1.14 Stakeholder Communication**

- i. Establish clear communication channels.
- ii. Receive and address maintenance requests.
- iii. Maintain effective communication with stakeholders.

**7.1.15 Continuous Improvement**

- i. Regularly evaluate and seek feedback.
- ii. Analyze maintenance records.
- iii. Conduct user surveys.
- iv. Involve the maintenance team in identifying areas for improvement.

**7.1.16 Cleaning and maintenance of solar system**

- i. Regularly clean solar panels to remove dust, debris, and dirt.
- ii. Inspect for any damage or wear and tear on the panels.
- iii. Check the wiring and connections for any loose or damaged parts.
- iv. Monitor the performance of the solar system to ensure it is generating the expected amount of energy.
- v. Conduct preventive maintenance such as tightening bolts and screws, and replacing faulty components.
- vi. Schedule professional inspections and maintenance by qualified solar technicians.
- vii. Keep records of cleaning and maintenance activities for future reference.
- viii. Follow manufacturer's guidelines and recommendations for cleaning and maintenance.
- ix. Consider scheduling cleaning during periods of low sunlight or in cooler temperatures for safety reasons.
- x. Ensure the safety of personnel when performing maintenance tasks on the solar system.

**7.1.17 Regular maintenance and monitoring of Hypo-chlorinator**

- i. Routine inspections: Conduct regular inspections of the hypo-chlorinator system to identify any visible signs of damage, leaks, or malfunctions. Inspect all components, including injection systems, pipes, valves, and storage tanks.
- ii. Calibration of equipment: Calibrate the hypo-chlorinator equipment periodically to ensure accurate dosing or injection of chlorine. Follow the manufacturer's guidelines for calibration procedures and frequency.
- iii. Replacement of parts: Replace worn-out or damaged parts of the hypo-chlorinator system as needed. This may include valves, seals, gaskets, tubing, or other components. Use genuine manufacturer-approved parts for replacements.
- iv. Monitoring chlorine levels: Regularly monitor chlorine levels in the water supply to ensure that the desired disinfection levels are being maintained. This can be done through manual sampling and testing or by using automated monitoring systems. Adjust the hypo-chlorinator settings if necessary to achieve the desired chlorine concentration.
- v. System optimization: Continuously assess the performance of the hypo-chlorinator system and optimize its operation for efficiency and effectiveness. This may involve adjusting dosing rates, ensuring proper mixing of chlorine, optimizing contact time, and considering factors such as water temperature and flow rate.

- vi. **Documentation:** Maintain detailed records of maintenance activities, inspections, calibrations, and chlorine monitoring results. This documentation serves as a reference for future maintenance, helps track system performance, and aids in regulatory compliance.
- vii. **Training and awareness:** Regularly train and update the personnel responsible for operating and maintaining the hypo-chlorinator system. Ensure they are aware of proper maintenance procedures, safety protocols, emergency response measures, and any updates or changes in regulations.

#### 7.1.18 PHED Responsibility

- i. PHED solely responsible for operation and maintenance.
- ii. Customize O&M plans for long-term success.

Overall, O&M of WSS and Drainage System requires a combination of technical expertise, regular monitoring, preventive maintenance, and prompt response to ensure the uninterrupted supply of clean water and effective wastewater management. The Public Health Engineering Division (PHED) would typically be responsible for the operation and maintenance of public infrastructure projects related to Water Supply and Drainage System. They would be the primary entity overseeing the operation and maintenance activities to ensure the functionality and sustainability of the constructed assets. By considering these aspects and implementing effective O&M practices, the project can function optimally and provide long-term benefits to its users and stakeholders.

### 7.2 Key benefits of effective O&M of WSS and Drainage Systems

- i. **Improved water quality:** O&M activities can help to prevent the contamination of water supplies, which can lead to waterborne diseases.
- ii. **Increased water availability:** O&M activities can help to reduce leakages and improve the efficiency of water distribution systems, which can lead to increased water availability for communities.
- iii. **Reduced flooding:** O&M activities can help to prevent flooding by clearing blockages in drainage systems and improving the capacity of storm water management systems.
- iv. **Improved public health:** O&M activities can help to prevent the spread of waterborne diseases by improving the quality of water supplies and reducing the risk of flooding.
- v. **Increased property values:** Communities with well-maintained WSS and drainage systems typically have higher property values.

The cost of O&M can be significant, but the benefits far outweigh the costs. By investing in effective O&M, communities can ensure the continued provision of safe and reliable water services to their residents.

## **ANNEXURE 1:**

### **Environmental & Social Screening Checklist of All Schemes of District Qambar Shahdadkot**

## Annexure 1: Environmental & Social Screening Checklist of Heetam Sohoo- Drainage Scheme- Taluka Naseerabad, District Qambar Shahdadkot

5/15/24, 4:04 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

### SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

#### Project General/ Basic Information of Subproject

Name of consultant who is performing this screening

- ☒ Cameos Consultant  
☐ PEAS Consultant

Sub Project Name

- ☒ Rehabilitation of Water Supply and Drainage Schemes  
☐ Rehabilitation of Road Infrastructure  
☐ Establishment of District Level Rescue Station 1122

Sector:

- ☒ Public Health & Engineering Department  
☐ Work & Services

[https://ee.kobotoolbox.org/edit/0Q1oGwEb?instance\\_id=f40bbc80-f7fe-42d6-86db-24e3cc98a55a&return\\_url=false](https://ee.kobotoolbox.org/edit/0Q1oGwEb?instance_id=f40bbc80-f7fe-42d6-86db-24e3cc98a55a&return_url=false)

1/9

5/15/24, 4:04 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Sub Project Location**

- ☐ District Badin
- ☐ District Dadu
- ☐ District Thatta
- ☐ District Sujawal
- ☐ District Sanghar
- ☐ District Umerkot
- ☐ District Tharparkar
- ☐ District Mipurkhas
- ☐ District Jamshoro
- ☐ District Matiari
- ☐ District Larkana
- ☐ District Shikarpur
- ☐ District Ghotki
- ☒ District Qambar Shahdadkot
- ☐ District Jacobabad
- ☐ District Larkana
- ☐ District Khairpur Mirs'
- ☐ District Noshero Feroz
- ☐ District Tando Allahyar
- ☐ District Tando Muhammad Khan
- ☐ District Sukkur
- ☐ District Shaheed Benazirabad
- ☐ District Kashmore
- ☐ District Karachi Central
- ☐ District Karachi East
- ☐ District Karachi West
- ☐ District Karachi South
- ☐ District Korangi
- ☐ District Malir
- ☐ District Keamari

[https://ee.kobotoolbox.org/edit/0Q1oGwEb?instance\\_id=f40bbc80-f7fe-42d6-86db-24e3cc98a55a&return\\_url=false](https://ee.kobotoolbox.org/edit/0Q1oGwEb?instance_id=f40bbc80-f7fe-42d6-86db-24e3cc98a55a&return_url=false)

2/9



5/15/24, 4:04 PM

SFERP- ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Sub Project Site Screening Details****Scheme Location(Name of Village/Site)**

Heetam Sohoo

**Scheme Location/ Coordinates**

27.422691 67.906055 0 0

latitude (x,y °)

27.422691

longitude (x,y °)

67.906055

altitude (m)

accuracy (m)

**Date:**

2024-05-08

2024-05-08

**Screening Questions - PHYSICAL ENVIRONMENT**

Will the proposed subproject activities pose the risk of clearance of vegetation that may result in an increase in the level of suspended solids washing into nearby water bodies?

☐ Yes

☒ No
**Remarks**

Will the proposed subproject activities pose a risk of contaminating drinking water sources due to construction activities?

☐ Yes

☒ No

[https://ee.kobotoolbox.org/edit/0Q1oGwEb?instance\\_id=f40bbc80-f7fe-42d6-86db-24e3cc98a55a&return\\_url=false](https://ee.kobotoolbox.org/edit/0Q1oGwEb?instance_id=f40bbc80-f7fe-42d6-86db-24e3cc98a55a&return_url=false)

3/9

5/15/24, 4:04 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Remarks**  

---

**Is there any potential pollution source in water supply network?**

- ☐ Yes  
☒ No

**Remarks**  

---

**Is there any potential source that can damage drainage network? Or Is it affected by flood?**

- ☒ Yes  
☐ No

**Remarks**  

---

**Will the proposed subproject interventions deplete groundwater because of the water used during rehabilitation activities?**

- ☐ Yes  
☒ No

**Remarks**  

---

**Will the proposed subproject interventions result in an increase in ambient air pollution, including chemical and particulate matter due to the construction and operation of related machinery?**

- ☒ Yes  
☐ No

**Remarks**  

---

**Will the proposed subproject interventions result in an increase in ambient noise levels and vibrations due to the operation of construction machinery/vehicles?**

- ☒ Yes  
☐ No

**Remarks**  

---

[https://ee.kobotoolbox.org/edit/0Q1oGwEb?instance\\_id=f40bbc80-f7fe-42d6-86db-24e3cc98a55a&return\\_url=false](https://ee.kobotoolbox.org/edit/0Q1oGwEb?instance_id=f40bbc80-f7fe-42d6-86db-24e3cc98a55a&return_url=false)

4/9

5/15/24, 4:04 PM

SFERP- ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Will these ambient noise levels be beyond the specifications in the SEQS?**

- ☐ Yes
- ☒ No

**Remarks****Will the proposed subproject activities lead to increased soil erosion?**

- ☐ Yes
- ☒ No

**Remarks****Will the proposed subproject interventions result in the generation of hazardous and/or non-hazardous waste?**

- ☐ Yes
- ☒ No

**Remarks****Will the proposed subproject interventions result in potentially increased health risks for subproject workers and communities (e.g., communicable diseases)?**

- ☐ Yes
- ☒ No

**Remarks****Are the proposed subproject interventions being implemented in an area with high natural hazard risk? (e.g., floods, earthquakes, droughts, etc.)**

- ☐ Yes
- ☒ No

**Remarks**

## Screening Questions- ECOLOGICAL ENVIRONMENT

**Will the proposed subproject interventions potentially cause any adverse impacts on habitats, ecosystems, and/or ecosystem services?**

- ☐ Yes
- ☒ No

[https://ee.kobotoolbox.org/edit/0Q1oGwEb?instance\\_id=f40bbc80-f7fe-42d6-86db-24e3cc98a55a&return\\_url=false](https://ee.kobotoolbox.org/edit/0Q1oGwEb?instance_id=f40bbc80-f7fe-42d6-86db-24e3cc98a55a&return_url=false)

5/9

5/15/24, 4:04 PM

SFERP- ENVIROMENTALAND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Remarks**

---

**Will any rehabilitation work be located in areas that would promote the conversion of natural habitats?**☐ Yes☒ No**Remarks**

---

**Will any proposed subproject interventions be located on or near sensitive environmental areas, including national parks and protected areas?**☐ Yes☒ No**Remarks**

---

**Are the proposed subproject interventions activities likely to pose risks to any endangered species?**☐ Yes☒ No**Remarks**

---

**Screening Questions- SOCIAL ENVIRONMENT****Will the proposed subproject activities involve land acquisition?**☐ Yes☒ No**Remarks**

---

**Are there any forced labor or child labor risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?**☐ Yes☒ No**Remarks**

---

[https://ee.kobotoolbox.org/edit/0Q1oGwEb?instance\\_id=f40bbc80-f7fe-42d6-86db-24e3cc98a55a&return\\_url=false](https://ee.kobotoolbox.org/edit/0Q1oGwEb?instance_id=f40bbc80-f7fe-42d6-86db-24e3cc98a55a&return_url=false)

6/9

5/15/24, 4:04 PM

SFERP- ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

Is labor influx (outside labor force) expected during the construction of the proposed subproject?

- ☐ Yes  
☒ No

Remarks

---

Will local labor be used for the proposed subproject construction activities?

- ☒ Yes  
☐ No

Remarks

---

Will there be any temporary or permanent displacement as a result of the proposed subproject construction or operation activities?

- ☐ Yes  
☒ No

Remarks

---

Are there expected to be any traffic-related issues as a result of the proposed subproject intervention activities, particularly during the construction phase?

- ☒ Yes  
☐ No

Remarks

---

Are the proposed subproject activities likely to have impacts on important religious/cultural heritage sites?

- ☐ Yes  
☒ No

Remarks

---

Have there been any past security-related issues at the proposed subproject sites?

- ☐ Yes  
☒ No

Remarks

---

[https://ee.kobotoolbox.org/edit/0Q1oGwEb?instance\\_id=f40bbc80-f7fe-42d6-86db-24e3cc98a55a&return\\_url=false](https://ee.kobotoolbox.org/edit/0Q1oGwEb?instance_id=f40bbc80-f7fe-42d6-86db-24e3cc98a55a&return_url=false)

7/9

5/15/24, 4:04 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Has stakeholder engagement taken place in the proposed subproject areas?**☒ Yes☐ No**Remarks****Were vulnerable groups involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)**☒ Yes☐ No**Remarks**

Yes. They were concerned about health and hygiene issues due to unavailability or improper drainage system

**Site Photo**

1-17\_3\_40.jpeg

[https://ee.kobotoolbox.org/edit/0Q1oGwEb?instance\\_id=f40bbc80-f7fe-42d6-86db-24e3cc98a55a&return\\_url=false](https://ee.kobotoolbox.org/edit/0Q1oGwEb?instance_id=f40bbc80-f7fe-42d6-86db-24e3cc98a55a&return_url=false)

8/9

5/15/24, 4:04 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

Signature

Data Filled By

b7113abe-9871-4789-865d-4d62d6fccf7d (1)-17\_3\_53.jpeg





## Environmental & Social Screening Checklist of Garhi Khair Muhammad Kartio- Water Supply Scheme -Taluka Qambar, District Qambar Shahdadkot

5/15/24, 3:51 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

### SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

#### Project General/ Basic Information of Subproject

Name of consultant who is performing this screening

- ☒ Cameos Consultant  
☐ PEAS Consultant

Sub Project Name

- ☒ Rehabilitation of Water Supply and Drainage Schemes  
☐ Rehabilitation of Road Infrastructure  
☐ Establishment of District Level Rescue Station 1122

Sector:

- ☒ Public Health & Engineering Department  
☐ Work & Services

[https://ee.kobotoolbox.org/edit/epvZYwdh?instance\\_id=58dd0d07-7735-472d-b8e7-eded9da79d6e&return\\_url=false](https://ee.kobotoolbox.org/edit/epvZYwdh?instance_id=58dd0d07-7735-472d-b8e7-eded9da79d6e&return_url=false)

1/9

5/15/24, 3:51 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Sub Project Location**

- ☐ District Badin
- ☐ District Dadu
- ☐ District Thatta
- ☐ District Sujawal
- ☐ District Sanghar
- ☐ District Umerkot
- ☐ District Tharparkar
- ☐ District Mipurkhas
- ☐ District Jamshoro
- ☐ District Matiari
- ☐ District Larkana
- ☐ District Shikarpur
- ☐ District Ghotki
- ☒ District Qambar Shahdadkot
- ☐ District Jacobabad
- ☐ District Larkana
- ☐ District Khairpur Mirs'
- ☐ District Noshero Feroz
- ☐ District Tando Allahyar
- ☐ District Tando Muhammad Khan
- ☐ District Sukkur
- ☐ District Shaheed Benazirabad
- ☐ District Kashmore
- ☐ District Karachi Central
- ☐ District Karachi East
- ☐ District Karachi West
- ☐ District Karachi South
- ☐ District Korangi
- ☐ District Malir
- ☐ District Keamari

[https://ee.kobotoolbox.org/edit/epvZYwdh?instance\\_id=58dd0d07-7735-472d-b8e7-eded9da79d6e&return\\_url=false](https://ee.kobotoolbox.org/edit/epvZYwdh?instance_id=58dd0d07-7735-472d-b8e7-eded9da79d6e&return_url=false)

2/9

5/15/24, 3:51 PM

SFERP- ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

## Sub Project Site Screening Details

### Scheme Location(Name of Village/Site)

Garhi Khair Muhammad Kartio Water Supply Scheme

### Scheme Location/ Coordinates

27.573319 67.956998 0 0

latitude (x,y °)

27.573319

longitude (x,y °)

67.956998

altitude (m)

accuracy (m)



Date:

2024-05-08

2024-05-08

## Screening Questions - PHYSICAL ENVIRONMENT

Will the proposed subproject activities pose the risk of clearance of vegetation that may result in an increase in the level of suspended solids washing into nearby water bodies?

☐ Yes

☒ No

Remarks

Will the proposed subproject activities pose a risk of contaminating drinking water sources due to construction activities?

☐ Yes

☒ No

[https://ee.kobotoolbox.org/edit/epvZYwdh?instance\\_id=58dd0d07-7735-472d-b8e7-eded9da79d6e&return\\_url=false](https://ee.kobotoolbox.org/edit/epvZYwdh?instance_id=58dd0d07-7735-472d-b8e7-eded9da79d6e&return_url=false)

3/9

5/15/24, 3:51 PM

SFERP- ENVIROMENTALAND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Remarks**  

---

**Is there any potential pollution source in water supply network?**

- ☐ Yes  
☒ No

**Remarks**  

---

**Is there any potential source that can damage drainage network? Or Is it affected by flood?**

- ☒ Yes  
☐ No

**Remarks**  

---

**Will the proposed subproject interventions deplete groundwater because of the water used during rehabilitation activities?**

- ☐ Yes  
☒ No

**Remarks**  

---

**Will the proposed subproject interventions result in an increase in ambient air pollution, including chemical and particulate matter due to the construction and operation of related machinery?**

- ☒ Yes  
☐ No

**Remarks**  

---

**Will the proposed subproject interventions result in an increase in ambient noise levels and vibrations due to the operation of construction machinery/vehicles?**

- ☒ Yes  
☐ No

**Remarks**  

---

[https://ee.kobotoolbox.org/edit/epvZYwdh?instance\\_id=58dd0d07-7735-472d-b8e7-eded9da79d6e&return\\_url=false](https://ee.kobotoolbox.org/edit/epvZYwdh?instance_id=58dd0d07-7735-472d-b8e7-eded9da79d6e&return_url=false)

4/9

5/15/24, 3:51 PM

SFERP- ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Will these ambient noise levels be beyond the specifications in the SEQs?**☐ Yes☒ No**Remarks**  

---

**Will the proposed subproject activities lead to increased soil erosion?**☐ Yes☒ No**Remarks**  

---

**Will the proposed subproject interventions result in the generation of hazardous and/or non-hazardous waste?**☒ Yes☐ No**Remarks**  

---

**Will the proposed subproject interventions result in potentially increased health risks for subproject workers and communities (e.g., communicable diseases)?**☐ Yes☒ No**Remarks**  

---

**Are the proposed subproject interventions being implemented in an area with high natural hazard risk? (e.g., floods, earthquakes, droughts, etc.)**☐ Yes☒ No**Remarks**  

---

## Screening Questions- ECOLOGICAL ENVIRONMENT

**Will the proposed subproject interventions potentially cause any adverse impacts on habitats, ecosystems, and/or ecosystem services?**☐ Yes☒ No[https://ee.kobotoolbox.org/edit/epvZYwdh?instance\\_id=58dd0d07-7735-472d-b8e7-eded9da79d6e&return\\_url=false](https://ee.kobotoolbox.org/edit/epvZYwdh?instance_id=58dd0d07-7735-472d-b8e7-eded9da79d6e&return_url=false)

5/9

5/15/24, 3:51 PM

SFERP- ENVIROMENTALAND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Remarks**

---

**Will any rehabilitation work be located in areas that would promote the conversion of natural habitats?**☐ Yes☒ No**Remarks**

---

**Will any proposed subproject interventions be located on or near sensitive environmental areas, including national parks and protected areas?**☐ Yes☒ No**Remarks**

---

**Are the proposed subproject interventions activities likely to pose risks to any endangered species?**☐ Yes☒ No**Remarks**

---

**Screening Questions- SOCIAL ENVIRONMENT****Will the proposed subproject activities involve land acquisition?**☐ Yes☒ No**Remarks**

---

**Are there any forced labor or child labor risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?**☐ Yes☒ No**Remarks**

---

[https://ee.kobotoolbox.org/edit/epvZYwdh?instance\\_id=58dd0d07-7735-472d-b8e7-eded9da79d6e&return\\_url=false](https://ee.kobotoolbox.org/edit/epvZYwdh?instance_id=58dd0d07-7735-472d-b8e7-eded9da79d6e&return_url=false)

6/9

5/15/24, 3:51 PM

SFERP- ENVIROMENTALAND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

Is labor influx (outside labor force) expected during the construction of the proposed subproject?

☐ Yes☒ No

Remarks

---

Will local labor be used for the proposed subproject construction activities?

☒ Yes☐ No

Remarks

---

Will there be any temporary or permanent displacement as a result of the proposed subproject construction or operation activities?

☐ Yes☒ No

Remarks

---

Are there expected to be any traffic-related issues as a result of the proposed subproject intervention activities, particularly during the construction phase?

☒ Yes☐ No

Remarks

---

Are the proposed subproject activities likely to have impacts on important religious/cultural heritage sites?

☐ Yes☒ No

Remarks

---

Have there been any past security-related issues at the proposed subproject sites?

☐ Yes☒ No

Remarks

---

[https://ee.kobotoolbox.org/edit/epvZYwdh?instance\\_id=58dd0d07-7735-472d-b8e7-eded9da79d6e&return\\_url=false](https://ee.kobotoolbox.org/edit/epvZYwdh?instance_id=58dd0d07-7735-472d-b8e7-eded9da79d6e&return_url=false)

7/9



5/15/24, 3:51 PM

SFERP- ENVIROMENTALAND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Has stakeholder engagement taken place in the proposed subproject areas?**☒ Yes☐ No**Remarks**

Yes, community requested to resolve the specific health and hygiene challenge in the community due to stagnant water

**Were vulnerable groups involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)**☒ Yes☐ No**Remarks**

Yes, some female members share hygiene issues due to unavailability of drainage system especially on monsoon and after it

**Site Photo**

3-16\_27\_19.jpg





5/15/24, 3:51 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

Signature

Data Filled By

b7113abe-9871-4789-865d-4d62d6fccf7d (1)-16\_26\_57.jpeg



## Environmental & Social Screening Checklist of -Makrand- Water Supply Scheme- Taluka Qambar, District Qambar Shahdadkot

5/15/24, 3:49 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

### SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

#### Project General/ Basic Information of Subproject

Name of consultant who is performing this screening

- ☒ Cameos Consultant  
☐ PEAS Consultant

Sub Project Name

- ☒ Rehabilitation of Water Supply and Drainage Schemes  
☐ Rehabilitation of Road Infrastructure  
☐ Establishment of District Level Rescue Station 1122

Sector:

- ☒ Public Health & Engineering Department  
☐ Work & Services

[https://ee.kobotoolbox.org/edit/lfmZNGJD?instance\\_id=bd75bf23-db01-4a4e-9293-296c818107b0&return\\_url=false](https://ee.kobotoolbox.org/edit/lfmZNGJD?instance_id=bd75bf23-db01-4a4e-9293-296c818107b0&return_url=false)

1/9

5/15/24, 3:49 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Sub Project Location**

- ☐ District Badin
- ☐ District Dadu
- ☐ District Thatta
- ☐ District Sujawal
- ☐ District Sanghar
- ☐ District Umerkot
- ☐ District Tharparkar
- ☐ District Mipurkhas
- ☐ District Jamshoro
- ☐ District Matiari
- ☐ District Larkana
- ☐ District Shikarpur
- ☐ District Ghotki
- ☒ District Qambar Shahdadkot
- ☐ District Jacobabad
- ☐ District Larkana
- ☐ District Khairpur Mirs'
- ☐ District Noshero Feroz
- ☐ District Tando Allahyar
- ☐ District Tando Muhammad Khan
- ☐ District Sukkur
- ☐ District Shaheed Benazirabad
- ☐ District Kashmore
- ☐ District Karachi Central
- ☐ District Karachi East
- ☐ District Karachi West
- ☐ District Karachi South
- ☐ District Korangi
- ☐ District Malir
- ☐ District Keamari

[https://ee.kobotoolbox.org/edit/lfmZNGJD?instance\\_id=bd75bf23-db01-4a4e-9293-296c818107b0&return\\_url=false](https://ee.kobotoolbox.org/edit/lfmZNGJD?instance_id=bd75bf23-db01-4a4e-9293-296c818107b0&return_url=false)

2/9

5/15/24, 3:49 PM

SFERP- ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

## Sub Project Site Screening Details

**Scheme Location(Name of Village/Site)**

Markhand Water Supply Scheme

**Scheme Location/ Coordinates**

27.407387 67.805535 0 0

latitude (x.y °)

27.407387

longitude (x.y °)

67.805535

altitude (m)

accuracy (m)

**Date:**

2024-05-09

2024-05-09

## Screening Questions - PHYSICAL ENVIRONMENT

Will the proposed subproject activities pose the risk of clearance of vegetation that may result in an increase in the level of suspended solids washing into nearby water bodies?

☐ Yes☒ No**Remarks**

Will the proposed subproject activities pose a risk of contaminating drinking water sources due to construction activities?

☐ Yes☒ No

[https://ee.kobotoolbox.org/edit/1fmZNGJD?instance\\_id=bd75bf23-db01-4a4e-9293-296c818107b0&return\\_url=false](https://ee.kobotoolbox.org/edit/1fmZNGJD?instance_id=bd75bf23-db01-4a4e-9293-296c818107b0&return_url=false)

3/9

5/15/24, 3:49 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Remarks**

---

**Is there any potential pollution source in water supply network?**

- ☐ Yes  
☒ No

**Remarks**

---

**Is there any potential source that can damage drainage network? Or Is it affected by flood?**

- ☒ Yes  
☐ No

**Remarks**

---

**Will the proposed subproject interventions deplete groundwater because of the water used during rehabilitation activities?**

- ☐ Yes  
☒ No

**Remarks**

---

**Will the proposed subproject interventions result in an increase in ambient air pollution, including chemical and particulate matter due to the construction and operation of related machinery?**

- ☒ Yes  
☐ No

**Remarks**

---

**Will the proposed subproject interventions result in an increase in ambient noise levels and vibrations due to the operation of construction machinery/vehicles?**

- ☒ Yes  
☐ No

**Remarks**

---

[https://ee.kobotoolbox.org/edit/1fmZNGJD?instance\\_id=bd75bf23-db01-4a4e-9293-296c818107b0&return\\_url=false](https://ee.kobotoolbox.org/edit/1fmZNGJD?instance_id=bd75bf23-db01-4a4e-9293-296c818107b0&return_url=false)

4/9

5/15/24, 3:49 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Will these ambient noise levels be beyond the specifications in the SEQs?**

- ☐ Yes
- ☒ No

**Remarks**  

---

**Will the proposed subproject activities lead to increased soil erosion?**

- ☐ Yes
- ☒ No

**Remarks**  

---

**Will the proposed subproject interventions result in the generation of hazardous and/or non-hazardous waste?**

- ☒ Yes
- ☐ No

**Remarks**  

---

**Will the proposed subproject interventions result in potentially increased health risks for subproject workers and communities (e.g., communicable diseases)?**

- ☐ Yes
- ☒ No

**Remarks**  

---

**Are the proposed subproject interventions being implemented in an area with high natural hazard risk? (e.g., floods, earthquakes, droughts, etc.)**

- ☐ Yes
- ☒ No

**Remarks**  

---

## Screening Questions- ECOLOGICAL ENVIRONMENT

**Will the proposed subproject interventions potentially cause any adverse impacts on habitats, ecosystems, and/or ecosystem services?**

- ☐ Yes
- ☒ No

[https://ee.kobotoolbox.org/edit/1fmZ1NGJD?instance\\_id=bd75bf23-db01-4a4e-9293-296c818107b0&return\\_url=false](https://ee.kobotoolbox.org/edit/1fmZ1NGJD?instance_id=bd75bf23-db01-4a4e-9293-296c818107b0&return_url=false)

5/9

5/15/24, 3:49 PM

SFERP- ENVIROMENTALAND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Remarks**

---

**Will any rehabilitation work be located in areas that would promote the conversion of natural habitats?**☐ Yes☒ No**Remarks**

---

**Will any proposed subproject interventions be located on or near sensitive environmental areas, including national parks and protected areas?**☐ Yes☒ No**Remarks**

---

**Are the proposed subproject interventions activities likely to pose risks to any endangered species?**☐ Yes☒ No**Remarks**

---

**Screening Questions- SOCIAL ENVIRONMENT****Will the proposed subproject activities involve land acquisition?**☐ Yes☒ No**Remarks**

---

**Are there any forced labor or child labor risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?**☐ Yes☒ No**Remarks**

---

[https://ee.kobotoolbox.org/edit/lfmZNGJD?instance\\_id=bd75bf23-db01-4a4e-9293-296c818107b0&return\\_url=false](https://ee.kobotoolbox.org/edit/lfmZNGJD?instance_id=bd75bf23-db01-4a4e-9293-296c818107b0&return_url=false)

6/9



5/15/24, 3:49 PM

SFERP- ENVIROMENTALAND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Is labor influx (outside labor force) expected during the construction of the proposed subproject?**☐ Yes☒ No**Remarks**  

---

**Will local labor be used for the proposed subproject construction activities?**☒ Yes☐ No**Remarks**  

---

**Will there be any temporary or permanent displacement as a result of the proposed subproject construction or operation activities?**☐ Yes☒ No**Remarks**  

---

**Are there expected to be any traffic-related issues as a result of the proposed subproject intervention activities, particularly during the construction phase?**☒ Yes☐ No**Remarks**  

---

**Are the proposed subproject activities likely to have impacts on important religious/cultural heritage sites?**☐ Yes☒ No**Remarks**  

---

**Have there been any past security-related issues at the proposed subproject sites?**☐ Yes☒ No**Remarks**  

---

[https://ee.kobotoolbox.org/edit/lfmZNGJD?instance\\_id=bd75bf23-db01-4a4e-9293-296c818107b0&return\\_url=false](https://ee.kobotoolbox.org/edit/lfmZNGJD?instance_id=bd75bf23-db01-4a4e-9293-296c818107b0&return_url=false)

7/9

5/15/24, 3:49 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Has stakeholder engagement taken place in the proposed subproject areas?**

- ☒ Yes  
☐ No

**Remarks**

Yes, community requested to resolve the specific health and hygiene challenge in the community due to stagnant water

**Were vulnerable groups involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)**

- ☒ Yes  
☐ No

**Remarks**

Yes, some female members share hygiene issues due to unavailability of drainage system especially on monsoon and after it

**Site Photo**

3-13\_32\_57.jpeg



5/15/24, 3:49 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

Signature

Data Filled By

b7113abe-9871-4789-865d-4d62d6fccf7d (1)-13\_33\_12.jpeg



## Environmental & Social Screening Checklist of Warah- Waetr Supply Scheme- Taluka Warah, District Qambar Shahdadkot

5/15/24, 3:50 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

### SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

#### Project General/ Basic Information of Subproject

Name of consultant who is performing this screening

- ☒ Cameos Consultant  
☐ PEAS Consultant

Sub Project Name

- ☒ Rehabilitation of Water Supply and Drainage Schemes  
☐ Rehabilitation of Road Infrastructure  
☐ Establishment of District Level Rescue Station 1122

Sector:

- ☒ Public Health & Engineering Department  
☐ Work & Services

[https://ee.kobotoolbox.org/edit/6t1TYXHo?instance\\_id=b97f52d6-5de6-4ed4-9913-4f4a4a56c855&return\\_url=false](https://ee.kobotoolbox.org/edit/6t1TYXHo?instance_id=b97f52d6-5de6-4ed4-9913-4f4a4a56c855&return_url=false)

1/9

5/15/24, 3:50 PM

SFERP- ENVIROMENTALAND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Sub Project Location**

- ☐ District Badin  
☐ District Dadu  
☐ District Thatta  
☐ District Sujawal  
☐ District Sanghar  
☐ District Umerkot  
☐ District Tharparkar  
☐ District Mipurkhas  
☐ District Jamshoro  
☐ District Matiari  
☐ District Larkana  
☐ District Shikarpur  
☐ District Ghotki  
☒ District Qambar Shahdadkot  
☐ District Jacobabad  
☐ District Larkana  
☐ District Khairpur Mirs'  
☐ District Noshero Feroz  
☐ District Tando Allahyar  
☐ District Tando Muhammad Khan  
☐ District Sukkur  
☐ District Shaheed Benazirabad  
☐ District Kashmore  
☐ District Karachi Central  
☐ District Karachi East  
☐ District Karachi West  
☐ District Karachi South  
☐ District Korangi  
☐ District Malir  
☐ District Keamari

[https://ee.kobotoolbox.org/edit/6t1TYXHo?instance\\_id=b97f52d6-5de6-4ed4-9913-4f4a4a56c855&return\\_url=false](https://ee.kobotoolbox.org/edit/6t1TYXHo?instance_id=b97f52d6-5de6-4ed4-9913-4f4a4a56c855&return_url=false)

2/9

5/15/24, 3:50 PM

SFERP- ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

## Sub Project Site Screening Details

**Scheme Location(Name of Village/Site)**

Warah Water Supply Scheme

**Scheme Location/ Coordinates**

27.457463 67.808143 0 0

latitude (x.y °)

27.457463

longitude (x.y °)

67.808143

altitude (m)

accuracy (m)



**Date:**

2024-05-09

2024-05-09

## Screening Questions - PHYSICAL ENVIRONMENT

Will the proposed subproject activities pose the risk of clearance of vegetation that may result in an increase in the level of suspended solids washing into nearby water bodies?

☐ Yes

☒ No

**Remarks**

Will the proposed subproject activities pose a risk of contaminating drinking water sources due to construction activities?

☐ Yes

☒ No

[https://ee.kobotoolbox.org/edit/6t1TYXHo?instance\\_id=b97f52d6-5de6-4ed4-9913-4f4a4a56c855&return\\_url=false](https://ee.kobotoolbox.org/edit/6t1TYXHo?instance_id=b97f52d6-5de6-4ed4-9913-4f4a4a56c855&return_url=false)

3/9

5/15/24, 3:50 PM

SFERP- ENVIROMENTALAND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Remarks**

---

**Is there any potential pollution source in water supply network?**☐ Yes☒ No**Remarks**

---

**Is there any potential source that can damage drainage network? Or Is it affected by flood?**☒ Yes☐ No**Remarks**

---

**Will the proposed subproject interventions deplete groundwater because of the water used during rehabilitation activities?**☐ Yes☒ No**Remarks**

---

**Will the proposed subproject interventions result in an increase in ambient air pollution, including chemical and particulate matter due to the construction and operation of related machinery?**☒ Yes☐ No**Remarks**

---

**Will the proposed subproject interventions result in an increase in ambient noise levels and vibrations due to the operation of construction machinery/vehicles?**☒ Yes☐ No**Remarks**

---

[https://ee.kobotoolbox.org/edit/6t1TYXHo?instance\\_id=b97f52d6-5de6-4ed4-9913-4f4a4a56c855&return\\_url=false](https://ee.kobotoolbox.org/edit/6t1TYXHo?instance_id=b97f52d6-5de6-4ed4-9913-4f4a4a56c855&return_url=false)

4/9



5/15/24, 3:50 PM

SFERP- ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Will these ambient noise levels be beyond the specifications in the SEQs?**

- ☐ Yes
- ☒ No

**Remarks**  

---

**Will the proposed subproject activities lead to increased soil erosion?**

- ☐ Yes
- ☒ No

**Remarks**  

---

**Will the proposed subproject interventions result in the generation of hazardous and/or non-hazardous waste?**

- ☒ Yes
- ☐ No

**Remarks**  

---

**Will the proposed subproject interventions result in potentially increased health risks for subproject workers and communities (e.g., communicable diseases)?**

- ☐ Yes
- ☒ No

**Remarks**  

---

**Are the proposed subproject interventions being implemented in an area with high natural hazard risk? (e.g., floods, earthquakes, droughts, etc.)**

- ☐ Yes
- ☒ No

**Remarks**  

---

## Screening Questions- ECOLOGICAL ENVIRONMENT

**Will the proposed subproject interventions potentially cause any adverse impacts on habitats, ecosystems, and/or ecosystem services?**

- ☐ Yes
- ☒ No

[https://ee.kobotoolbox.org/edit/6t1TYXHo?instance\\_id=b97f52d6-5de6-4ed4-9913-4f4a4a56c855&return\\_url=false](https://ee.kobotoolbox.org/edit/6t1TYXHo?instance_id=b97f52d6-5de6-4ed4-9913-4f4a4a56c855&return_url=false)

5/9

5/15/24, 3:50 PM

SFERP- ENVIROMENTALAND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Remarks**

---

**Will any rehabilitation work be located in areas that would promote the conversion of natural habitats?**☐ Yes☒ No**Remarks**

---

**Will any proposed subproject interventions be located on or near sensitive environmental areas, including national parks and protected areas?**☐ Yes☒ No**Remarks**

---

**Are the proposed subproject interventions activities likely to pose risks to any endangered species?**☐ Yes☒ No**Remarks**

---

**Screening Questions- SOCIAL ENVIRONMENT****Will the proposed subproject activities involve land acquisition?**☐ Yes☒ No**Remarks**

---

**Are there any forced labor or child labor risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?**☐ Yes☒ No**Remarks**

---

[https://ee.kobotoolbox.org/edit/6t1TYXHo?instance\\_id=b97f52d6-5de6-4ed4-9913-4f4a4a56c855&return\\_url=false](https://ee.kobotoolbox.org/edit/6t1TYXHo?instance_id=b97f52d6-5de6-4ed4-9913-4f4a4a56c855&return_url=false)

6/9

5/15/24, 3:50 PM

SFERP- ENVIROMENTALAND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Is labor influx (outside labor force) expected during the construction of the proposed subproject?**☐ Yes☒ No**Remarks**  

---

**Will local labor be used for the proposed subproject construction activities?**☒ Yes☐ No**Remarks**  

---

**Will there be any temporary or permanent displacement as a result of the proposed subproject construction or operation activities?**☐ Yes☒ No**Remarks**  

---

**Are there expected to be any traffic-related issues as a result of the proposed subproject intervention activities, particularly during the construction phase?**☒ Yes☐ No**Remarks**  

---

**Are the proposed subproject activities likely to have impacts on important religious/cultural heritage sites?**☐ Yes☒ No**Remarks**  

---

**Have there been any past security-related issues at the proposed subproject sites?**☐ Yes☒ No**Remarks**  

---

[https://ee.kobotoolbox.org/edit/6t1TYXHo?instance\\_id=b97f52d6-5de6-4ed4-9913-4f4a4a56c855&return\\_url=false](https://ee.kobotoolbox.org/edit/6t1TYXHo?instance_id=b97f52d6-5de6-4ed4-9913-4f4a4a56c855&return_url=false)

7/9

5/15/24, 3:50 PM

SFERP- ENVIROMENTALAND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Has stakeholder engagement taken place in the proposed subproject areas?**☒ Yes☐ No**Remarks**

Yes, community requested to resolve the specific health and hygiene challenge in the community due to stagnant water

**Were vulnerable groups involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)**☒ Yes☐ No**Remarks**

Yes, some female members share hygiene issues due to unavailability of drainage system especially on monsoon and after it.

**Site Photo**

3-12\_49\_35.jpg



5/15/24, 3:50 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

Signature

Data Filled By

b7113abe-9871-4789-865d-4d62d6fccf7d (1)-12\_49\_48.jpeg



## Environmental & Social Screening Checklist of –Dino Kotho- Water Supply Scheme- Taluka Miro Khan, District Qambar Shahdadkot

5/15/24, 5:02 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

### SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

#### Project General/ Basic Information of Subproject

Name of consultant who is performing this screening

- ☒ Cameos Consultant  
☐ PEAS Consultant

Sub Project Name

- ☒ Rehabilitation of Water Supply and Drainage Schemes  
☐ Rehabilitation of Road Infrastructure  
☐ Establishment of District Level Rescue Station 1122

Sector:

- ☒ Public Health & Engineering Department  
☐ Work & Services

5/15/24, 5:02 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Sub Project Location**

- ☐ District Badin  
☐ District Dadu  
☐ District Thatta  
☐ District Sujawal  
☐ District Sanghar  
☐ District Umerkot  
☐ District Tharparkar  
☐ District Mipurkhas  
☐ District Jamshoro  
☐ District Matiari  
☐ District Larkana  
☐ District Shikarpur  
☐ District Ghotki  
☒ District Qambar Shahdadkot  
☐ District Jacobabad  
☐ District Larkana  
☐ District Khairpur Mirs'  
☐ District Noshero Feroz  
☐ District Tando Allahyar  
☐ District Tando Muhammad Khan  
☐ District Sukkur  
☐ District Shaheed Benazirabad  
☐ District Kashmore  
☐ District Karachi Central  
☐ District Karachi East  
☐ District Karachi West  
☐ District Karachi South  
☐ District Korangi  
☐ District Malir  
☐ District Keamari

[https://ee.kobotoolbox.org/edit/mf2ZiBNR?instance\\_id=031810aa-06e5-4aa2-b284-e421fff94541&return\\_url=false](https://ee.kobotoolbox.org/edit/mf2ZiBNR?instance_id=031810aa-06e5-4aa2-b284-e421fff94541&return_url=false)

2/9



5/15/24, 5:02 PM

SFERP- ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

## Sub Project Site Screening Details

### Scheme Location(Name of Village/Site)

Dino Kotho Water Supply Scheme

### Scheme Location/ Coordinates

27.692933958881948 67.95725331073686 0 0

latitude (x.y °)

27.692933958881948

longitude (x.y °)

67.95725331073686

altitude (m)

accuracy (m)



Date:

2024-05-08

2024-05-08

## Screening Questions - PHYSICAL ENVIRONMENT

Will the proposed subproject activities pose the risk of clearance of vegetation that may result in an increase in the level of suspended solids washing into nearby water bodies?

☐ Yes

☒ No

Remarks

Will the proposed subproject activities pose a risk of contaminating drinking water sources due to construction activities?

☐ Yes

☒ No

[https://ee.kobotoolbox.org/edit/mf2ZiBNR?instance\\_id=031810aa-06e5-4aa2-b284-e421fff94541&return\\_url=false](https://ee.kobotoolbox.org/edit/mf2ZiBNR?instance_id=031810aa-06e5-4aa2-b284-e421fff94541&return_url=false)

3/9

5/15/24, 5:02 PM

SFERP- ENVIROMENTALAND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Remarks**

---

**Is there any potential pollution source in water supply network?**☐ Yes☒ No**Remarks**

---

**Is there any potential source that can damage drainage network? Or Is it affected by flood?**☒ Yes☐ No**Remarks**

---

**Will the proposed subproject interventions deplete groundwater because of the water used during rehabilitation activities?**☐ Yes☒ No**Remarks**

---

**Will the proposed subproject interventions result in an increase in ambient air pollution, including chemical and particulate matter due to the construction and operation of related machinery?**☒ Yes☐ No**Remarks**

---

**Will the proposed subproject interventions result in an increase in ambient noise levels and vibrations due to the operation of construction machinery/vehicles?**☒ Yes☐ No**Remarks**

---

[https://ee.kobotoolbox.org/edit/mf2ZiBNR?instance\\_id=031810aa-06e5-4aa2-b284-e421fff94541&return\\_url=false](https://ee.kobotoolbox.org/edit/mf2ZiBNR?instance_id=031810aa-06e5-4aa2-b284-e421fff94541&return_url=false)

4/9

5/15/24, 5:02 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Will these ambient noise levels be beyond the specifications in the SEQs?**

- ☐ Yes
- ☒ No

**Remarks**  

---

**Will the proposed subproject activities lead to increased soil erosion?**

- ☐ Yes
- ☒ No

**Remarks**  

---

**Will the proposed subproject interventions result in the generation of hazardous and/or non-hazardous waste?**

- ☒ Yes
- ☐ No

**Remarks**  

---

**Will the proposed subproject interventions result in potentially increased health risks for subproject workers and communities (e.g., communicable diseases)?**

- ☐ Yes
- ☒ No

**Remarks**  

---

**Are the proposed subproject interventions being implemented in an area with high natural hazard risk? (e.g., floods, earthquakes, droughts, etc.)**

- ☐ Yes
- ☒ No

**Remarks**  

---

## Screening Questions- ECOLOGICAL ENVIRONMENT

**Will the proposed subproject interventions potentially cause any adverse impacts on habitats, ecosystems, and/or ecosystem services?**

- ☐ Yes
- ☒ No

[https://ee.kobotoolbox.org/edit/mf2ZiBNR?instance\\_id=031810aa-06e5-4aa2-b284-e421fff94541&return\\_url=false](https://ee.kobotoolbox.org/edit/mf2ZiBNR?instance_id=031810aa-06e5-4aa2-b284-e421fff94541&return_url=false)

5/9

5/15/24, 5:02 PM

SFERP- ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Remarks**

---

**Will any rehabilitation work be located in areas that would promote the conversion of natural habitats?**☐ Yes☒ No**Remarks**

---

**Will any proposed subproject interventions be located on or near sensitive environmental areas, including national parks and protected areas?**☐ Yes☒ No**Remarks**

---

**Are the proposed subproject interventions activities likely to pose risks to any endangered species?**☐ Yes☒ No**Remarks**

---

**Screening Questions- SOCIAL ENVIRONMENT****Will the proposed subproject activities involve land acquisition?**☐ Yes☒ No**Remarks**

---

**Are there any forced labor or child labor risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?**☐ Yes☒ No**Remarks**

---

[https://ee.kobotoolbox.org/edit/mf2ZiBNR?instance\\_id=031810aa-06e5-4aa2-b284-e421fff94541&return\\_url=false](https://ee.kobotoolbox.org/edit/mf2ZiBNR?instance_id=031810aa-06e5-4aa2-b284-e421fff94541&return_url=false)

6/9

5/15/24, 5:02 PM

SFERP- ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

Is labor influx (outside labor force) expected during the construction of the proposed subproject?

☐ Yes☒ No

Remarks

---

Will local labor be used for the proposed subproject construction activities?

☒ Yes☐ No

Remarks

---

Will there be any temporary or permanent displacement as a result of the proposed subproject construction or operation activities?

☐ Yes☒ No

Remarks

---

Are there expected to be any traffic-related issues as a result of the proposed subproject intervention activities, particularly during the construction phase?

☒ Yes☐ No

Remarks

---

Are the proposed subproject activities likely to have impacts on important religious/cultural heritage sites?

☐ Yes☒ No

Remarks

---

Have there been any past security-related issues at the proposed subproject sites?

☐ Yes☒ No

Remarks

---

[https://ee.kobotoolbox.org/edit/mf2ZiBNR?instance\\_id=031810aa-06e5-4aa2-b284-e421fff94541&return\\_url=false](https://ee.kobotoolbox.org/edit/mf2ZiBNR?instance_id=031810aa-06e5-4aa2-b284-e421fff94541&return_url=false)

7/9

5/15/24, 5:02 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Has stakeholder engagement taken place in the proposed subproject areas?**☒ Yes☐ No**Remarks**

Yes, community requested to resolve the specific health and hygiene challenge in the community due to stagnant water

---

**Were vulnerable groups involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)**☒ Yes☐ No**Remarks**

Yes, some female members share hygiene issues due to unavailability of drainage system especially on monsoon and after it.

---

**Site Photo**

1-12\_18\_13.jpg

[https://ee.kobotoolbox.org/edit/mf2ZiBNR?instance\\_id=031810aa-06e5-4aa2-b284-e421fff94541&return\\_url=false](https://ee.kobotoolbox.org/edit/mf2ZiBNR?instance_id=031810aa-06e5-4aa2-b284-e421fff94541&return_url=false)

8/9

5/15/24, 5:02 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Signature**

Data Filled By

b7113abe-9871-4789-865d-4d62d6fccf7d (1)-12\_18\_22.jpeg



## Environmental & Social Screening Checklist of –Bukshal Magsi- Water Supply Scheme- Taluka Qubo Saeed, District Qambar Shahdadkot

5/15/24, 5:09 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

### SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

#### Project General/ Basic Information of Subproject

Name of consultant who is performing this screening

- ☒ Cameos Consultant  
☐ PEAS Consultant

Sub Project Name

- ☒ Rehabilitation of Water Supply and Drainage Schemes  
☐ Rehabilitation of Road Infrastructure  
☐ Establishment of District Level Rescue Station 1122

Sector:

- ☒ Public Health & Engineering Department  
☐ Work & Services

[https://ee.kobotoolbox.org/edit/rg9PcnU8?instance\\_id=65e2a3ec-f1bd-4214-9e8b-263148593ccd&return\\_url=false](https://ee.kobotoolbox.org/edit/rg9PcnU8?instance_id=65e2a3ec-f1bd-4214-9e8b-263148593ccd&return_url=false)

1/9



5/15/24, 5:09 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Sub Project Location**

- ☐ District Badin
- ☐ District Dadu
- ☐ District Thatta
- ☐ District Sujawal
- ☐ District Sanghar
- ☐ District Umerkot
- ☐ District Tharparkar
- ☐ District Mipurkhas
- ☐ District Jamshoro
- ☐ District Matiari
- ☐ District Larkana
- ☐ District Shikarpur
- ☐ District Ghotki
- ☒ District Qambar Shahdadkot
- ☐ District Jacobabad
- ☐ District Larkana
- ☐ District Khairpur Mirs'
- ☐ District Noshoro Feroz
- ☐ District Tando Allahyar
- ☐ District Tando Muhammad Khan
- ☐ District Sukkur
- ☐ District Shaheed Benazirabad
- ☐ District Kashmore
- ☐ District Karachi Central
- ☐ District Karachi East
- ☐ District Karachi West
- ☐ District Karachi South
- ☐ District Korangi
- ☐ District Malir
- ☐ District Keamari

[https://ee.kobotoolbox.org/edit/rg9PcnU8?instance\\_id=65e2a3ec-f1bd-4214-9e8b-263148593ccd&return\\_url=false](https://ee.kobotoolbox.org/edit/rg9PcnU8?instance_id=65e2a3ec-f1bd-4214-9e8b-263148593ccd&return_url=false)

2/9

5/15/24, 5:09 PM

SFERP- ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

## Sub Project Site Screening Details

### Scheme Location(Name of Village/Site)

Bukshal Khan Magsi Water Supply Scheme

### Scheme Location/ Coordinates

27.84257713747556 67.6927070055573 0 0

latitude (x.y °)

27.84257713747556

longitude (x.y °)

67.6927070055573

altitude (m)

accuracy (m)



Date:

2024-05-08

2024-05-08

## Screening Questions - PHYSICAL ENVIRONMENT

Will the proposed subproject activities pose the risk of clearance of vegetation that may result in an increase in the level of suspended solids washing into nearby water bodies?

☐ Yes

☒ No

Remarks

Will the proposed subproject activities pose a risk of contaminating drinking water sources due to construction activities?

☐ Yes

☒ No

[https://ee.kobotoolbox.org/edit/rg9PcnU8?instance\\_id=65e2a3ec-f1bd-4214-9e8b-263148593ccd&return\\_url=false](https://ee.kobotoolbox.org/edit/rg9PcnU8?instance_id=65e2a3ec-f1bd-4214-9e8b-263148593ccd&return_url=false)

3/9

5/15/24, 5:09 PM

SFERP- ENVIROMENTALAND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Remarks**  

---

**Is there any potential pollution source in water supply network?**☐ Yes☒ No**Remarks**  

---

**Is there any potential source that can damage drainage network? Or Is it affected by flood?**☒ Yes☐ No**Remarks**  

---

**Will the proposed subproject interventions deplete groundwater because of the water used during rehabilitation activities?**☐ Yes☒ No**Remarks**  

---

**Will the proposed subproject interventions result in an increase in ambient air pollution, including chemical and particulate matter due to the construction and operation of related machinery?**☒ Yes☐ No**Remarks**  

---

**Will the proposed subproject interventions result in an increase in ambient noise levels and vibrations due to the operation of construction machinery/vehicles?**☒ Yes☐ No**Remarks**  

---

[https://ee.kobotoolbox.org/edit/rg9PcnU8?instance\\_id=65e2a3ec-f1bd-4214-9e8b-263148593ccd&return\\_url=false](https://ee.kobotoolbox.org/edit/rg9PcnU8?instance_id=65e2a3ec-f1bd-4214-9e8b-263148593ccd&return_url=false)

4/9

5/15/24, 5:09 PM

SFERP- ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Will these ambient noise levels be beyond the specifications in the SEQs?**

- ☐ Yes
- ☒ No

**Remarks**  

---

**Will the proposed subproject activities lead to increased soil erosion?**

- ☐ Yes
- ☒ No

**Remarks**  

---

**Will the proposed subproject interventions result in the generation of hazardous and/or non-hazardous waste?**

- ☒ Yes
- ☐ No

**Remarks**  

---

**Will the proposed subproject interventions result in potentially increased health risks for subproject workers and communities (e.g., communicable diseases)?**

- ☐ Yes
- ☒ No

**Remarks**  

---

**Are the proposed subproject interventions being implemented in an area with high natural hazard risk? (e.g., floods, earthquakes, droughts, etc.)**

- ☐ Yes
- ☒ No

**Remarks**  

---

## Screening Questions- ECOLOGICAL ENVIRONMENT

**Will the proposed subproject interventions potentially cause any adverse impacts on habitats, ecosystems, and/or ecosystem services?**

- ☐ Yes
- ☒ No

[https://ee.kobotoolbox.org/edit/rg9PcnU8?instance\\_id=65e2a3ec-f1bd-4214-9e8b-263148593ccd&return\\_url=false](https://ee.kobotoolbox.org/edit/rg9PcnU8?instance_id=65e2a3ec-f1bd-4214-9e8b-263148593ccd&return_url=false)

5/9

5/15/24, 5:09 PM

SFERP- ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Remarks**

---

**Will any rehabilitation work be located in areas that would promote the conversion of natural habitats?**☐ Yes☒ No**Remarks**

---

**Will any proposed subproject interventions be located on or near sensitive environmental areas, including national parks and protected areas?**☐ Yes☒ No**Remarks**

---

**Are the proposed subproject interventions activities likely to pose risks to any endangered species?**☐ Yes☒ No**Remarks**

---

**Screening Questions- SOCIAL ENVIRONMENT****Will the proposed subproject activities involve land acquisition?**☐ Yes☒ No**Remarks**

---

**Are there any forced labor or child labor risks associated with contractors or other third parties involved in implementing this proposed subproject intervention?**☐ Yes☒ No**Remarks**

---

[https://ee.kobotoolbox.org/edit/rg9PcnU8?instance\\_id=65e2a3ec-f1bd-4214-9e8b-263148593ccd&return\\_url=false](https://ee.kobotoolbox.org/edit/rg9PcnU8?instance_id=65e2a3ec-f1bd-4214-9e8b-263148593ccd&return_url=false)

6/9

5/15/24, 5:09 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

Is labor influx (outside labor force) expected during the construction of the proposed subproject?

☐ Yes☒ No

Remarks

---

Will local labor be used for the proposed subproject construction activities?

☒ Yes☐ No

Remarks

---

Will there be any temporary or permanent displacement as a result of the proposed subproject construction or operation activities?

☐ Yes☒ No

Remarks

---

Are there expected to be any traffic-related issues as a result of the proposed subproject intervention activities, particularly during the construction phase?

☒ Yes☐ No

Remarks

---

Are the proposed subproject activities likely to have impacts on important religious/cultural heritage sites?

☐ Yes☒ No

Remarks

---

Have there been any past security-related issues at the proposed subproject sites?

☐ Yes☒ No

Remarks

---

[https://ee.kobotoolbox.org/edit/rg9PcnU8?instance\\_id=65e2a3ec-f1bd-4214-9e8b-263148593ccd&return\\_url=false](https://ee.kobotoolbox.org/edit/rg9PcnU8?instance_id=65e2a3ec-f1bd-4214-9e8b-263148593ccd&return_url=false)

7/9

5/15/24, 5:09 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

**Has stakeholder engagement taken place in the proposed subproject areas?**

- ☒ Yes  
☐ No

**Remarks**

Yes, community requested to resolve the specific health and hygiene challenge in the community due to stagnant water

**Were vulnerable groups involved in stakeholder consultations? (e.g., women, minorities, economically disadvantaged individuals, etc.)**

- ☒ Yes  
☐ No

**Remarks**

Yes, some female members share hygiene issues due to unavailability of drainage system especially on monsoon and after it.

**Site Photo**

2-17\_42\_17.jpg

[https://ee.kobotoolbox.org/edit/rg9PcnU8?instance\\_id=65e2a3ec-f1bd-4214-9e8b-263148593ccd&return\\_url=false](https://ee.kobotoolbox.org/edit/rg9PcnU8?instance_id=65e2a3ec-f1bd-4214-9e8b-263148593ccd&return_url=false)

8/9



5/15/24, 5:09 PM

SFERP- ENVIROMENTAL AND SOCIAL SCREENING CHECKLIST FOR SUBPROJECT- WSDS

Signature

Data Filled By

b7113abe-9871-4789-865d-4d62d6fccf7d (1)-17\_42\_29.jpeg

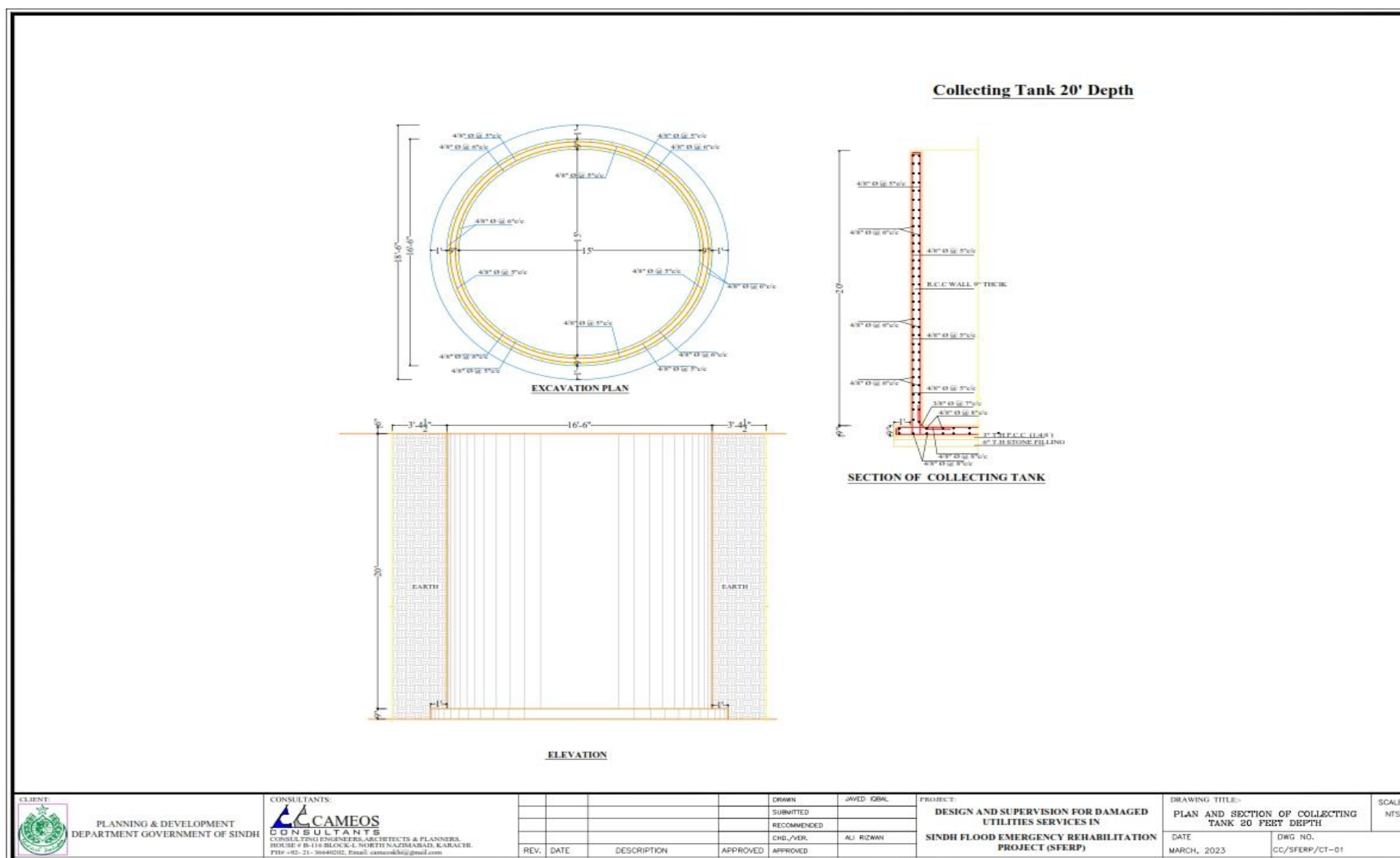


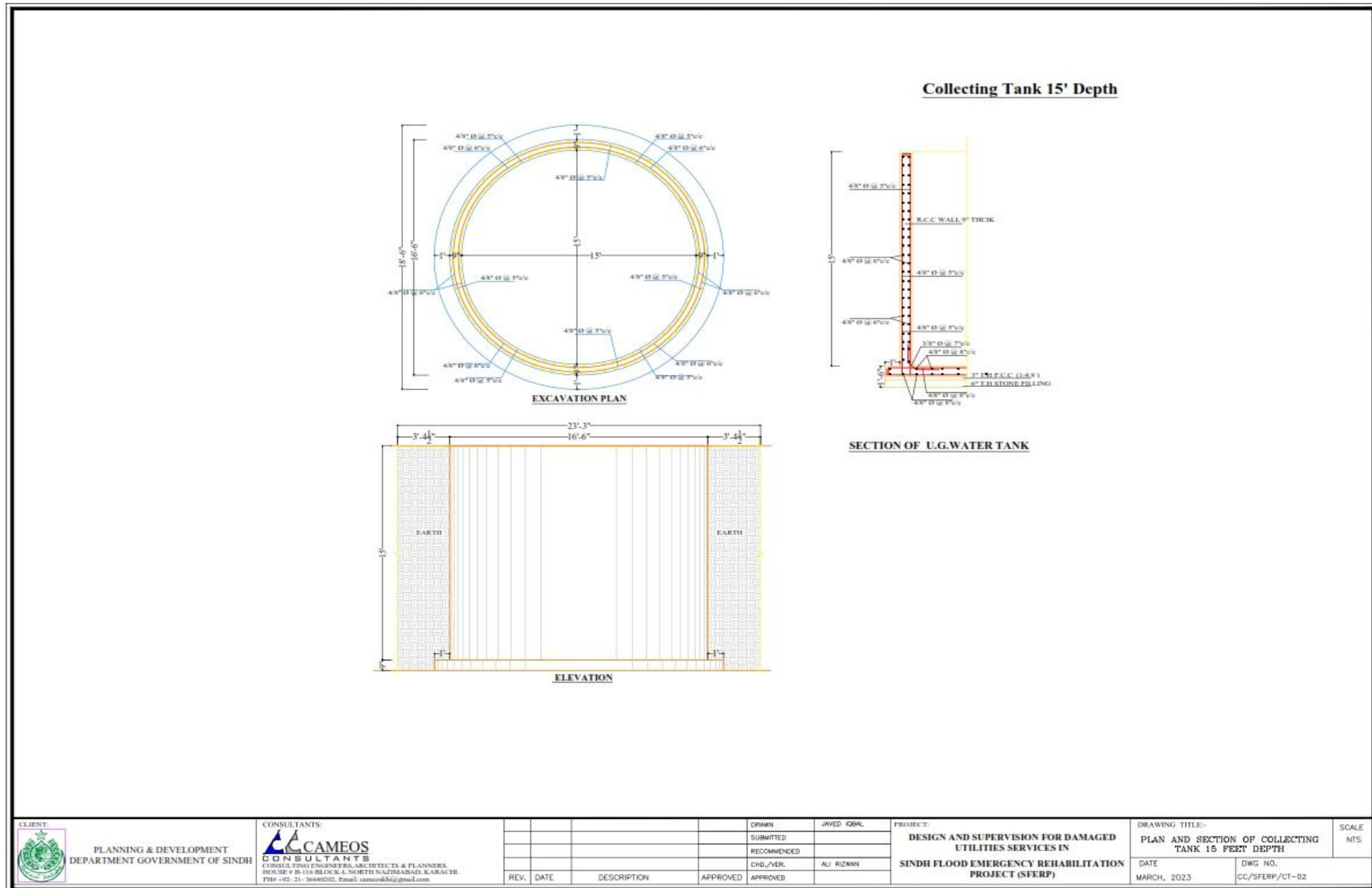


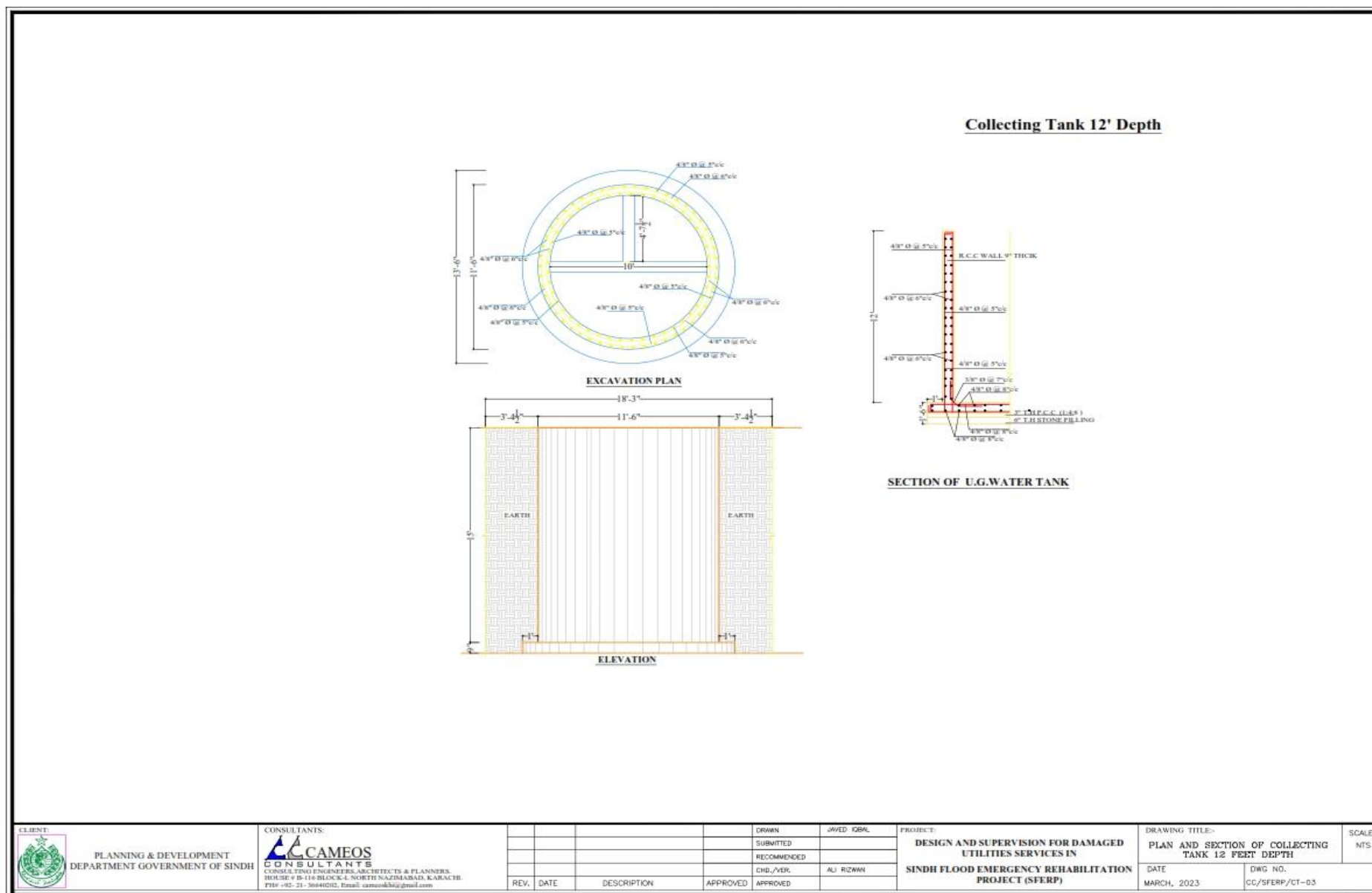
## **ANNEXURE 2:**

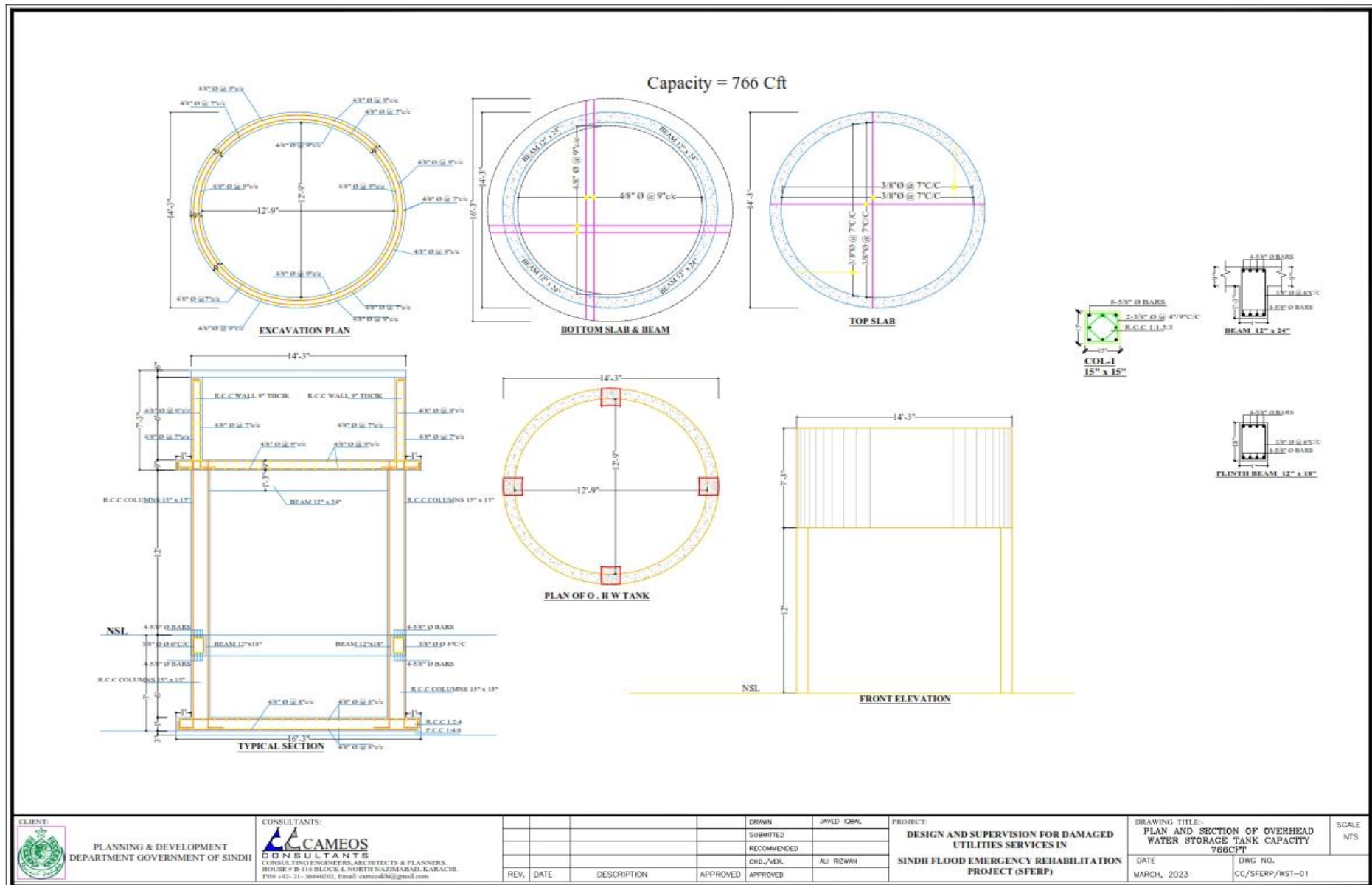
# **Design Drawings of Water Supply Schemes & Drainage**

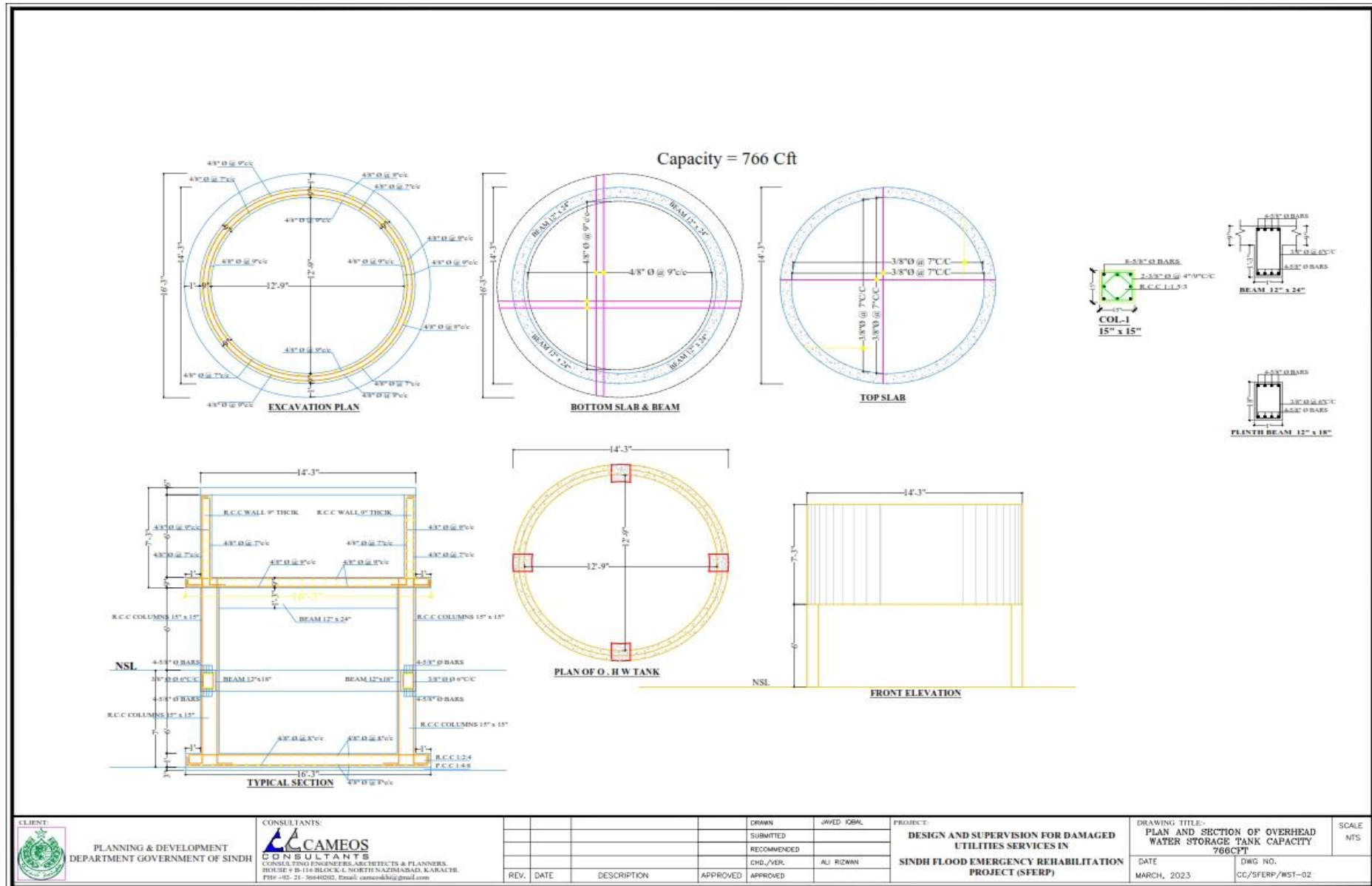
## Annexure 2: Design Drawings of Water Supply Schemes & Drainage



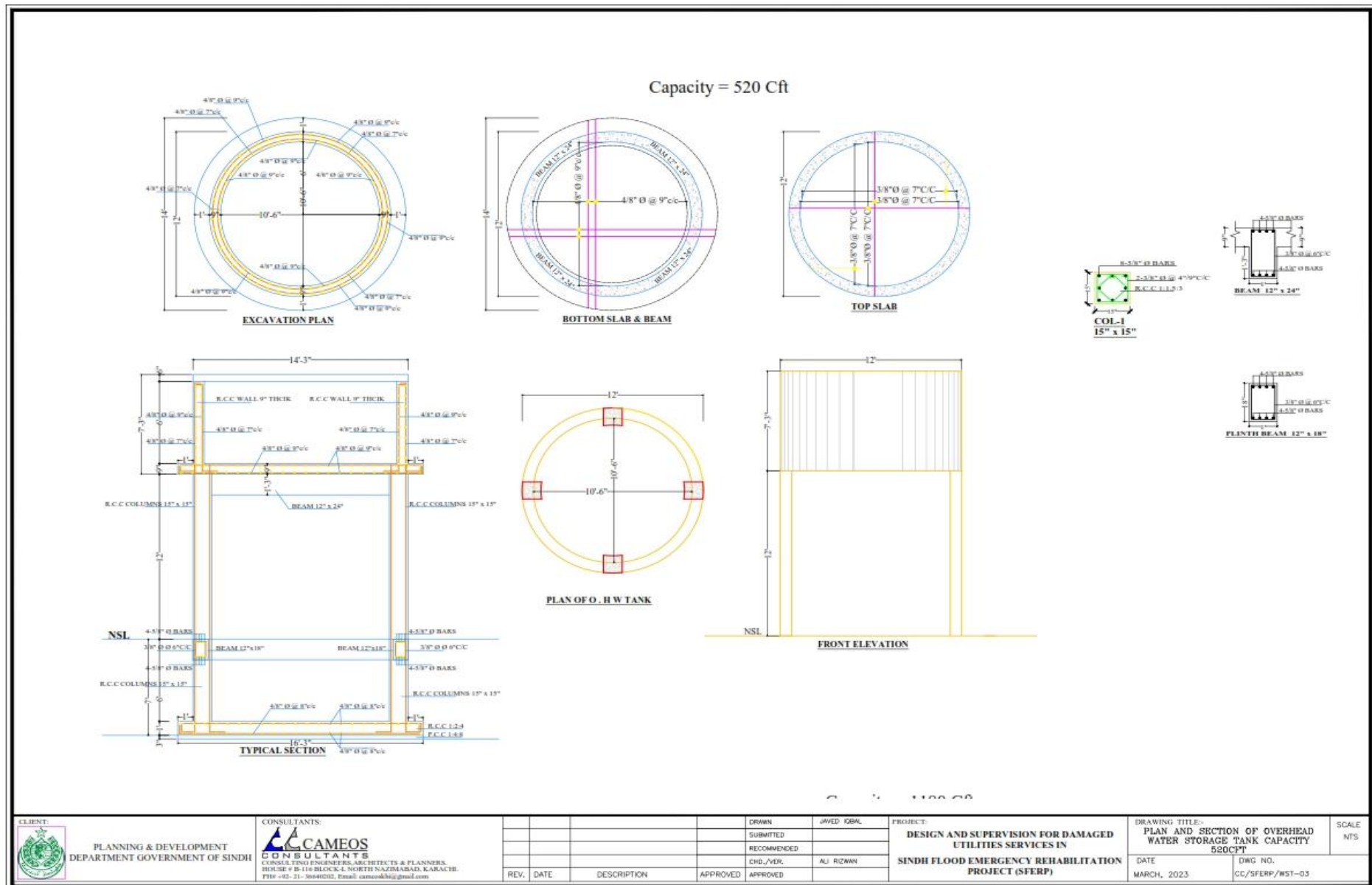


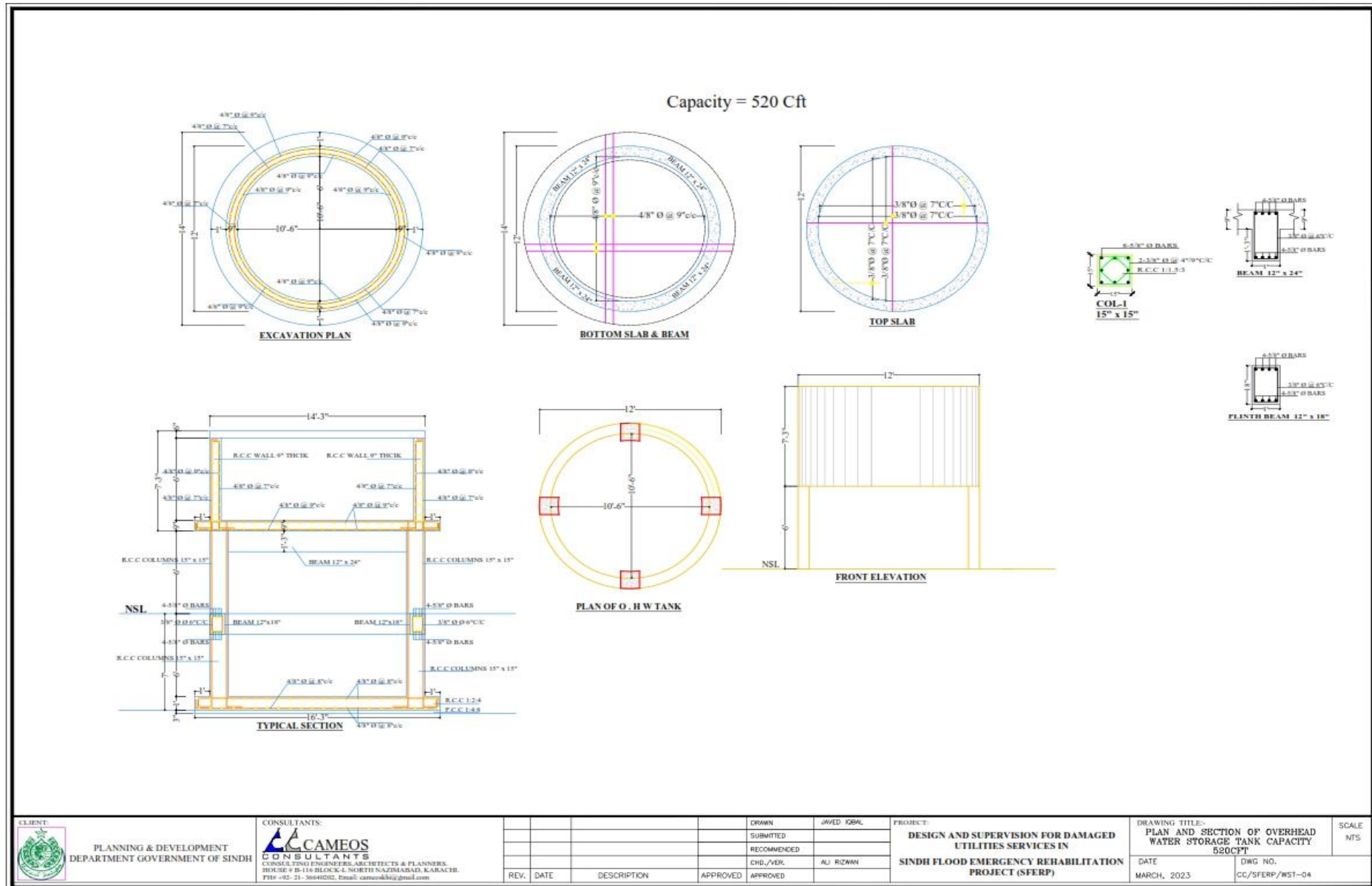




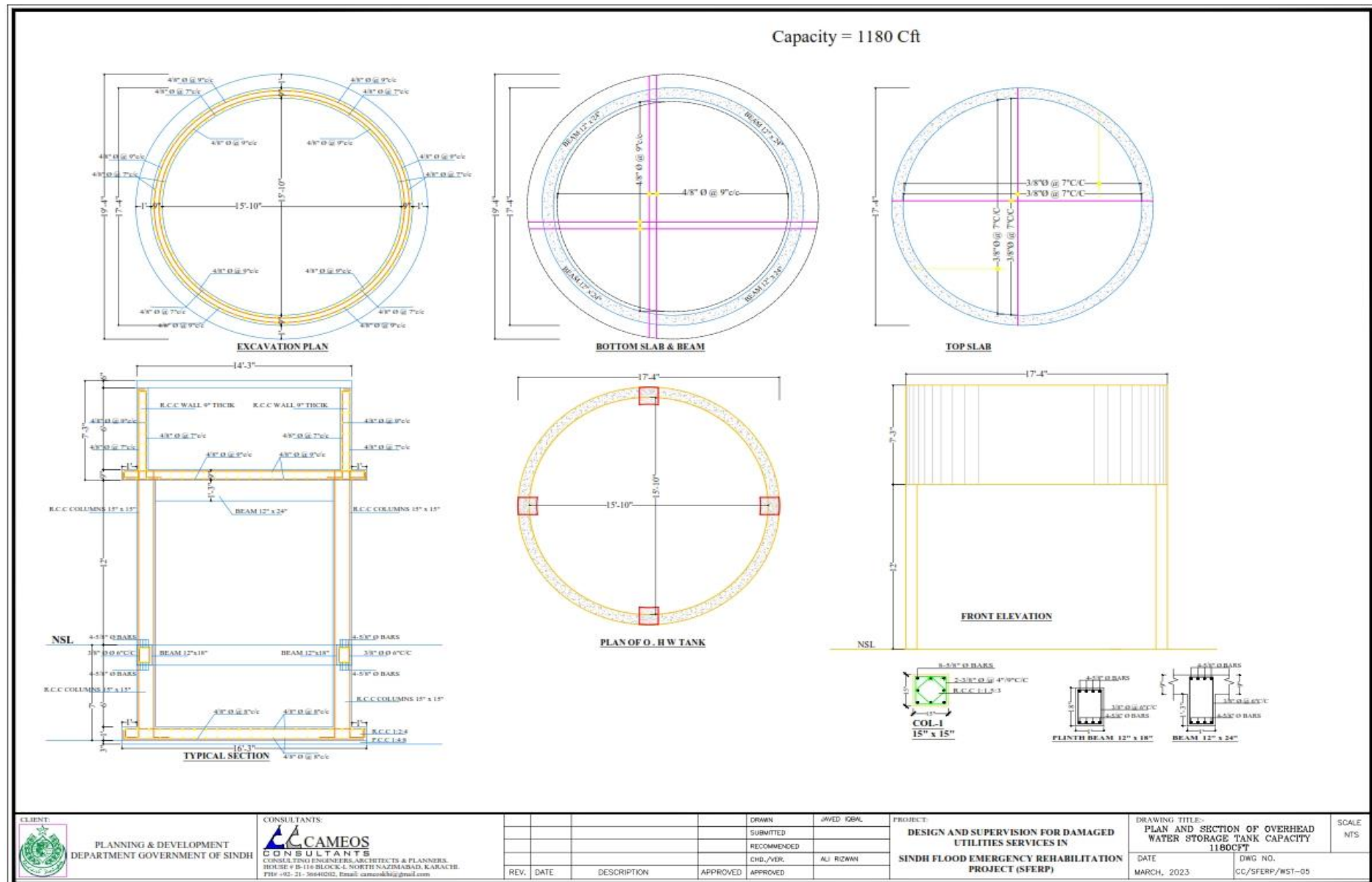


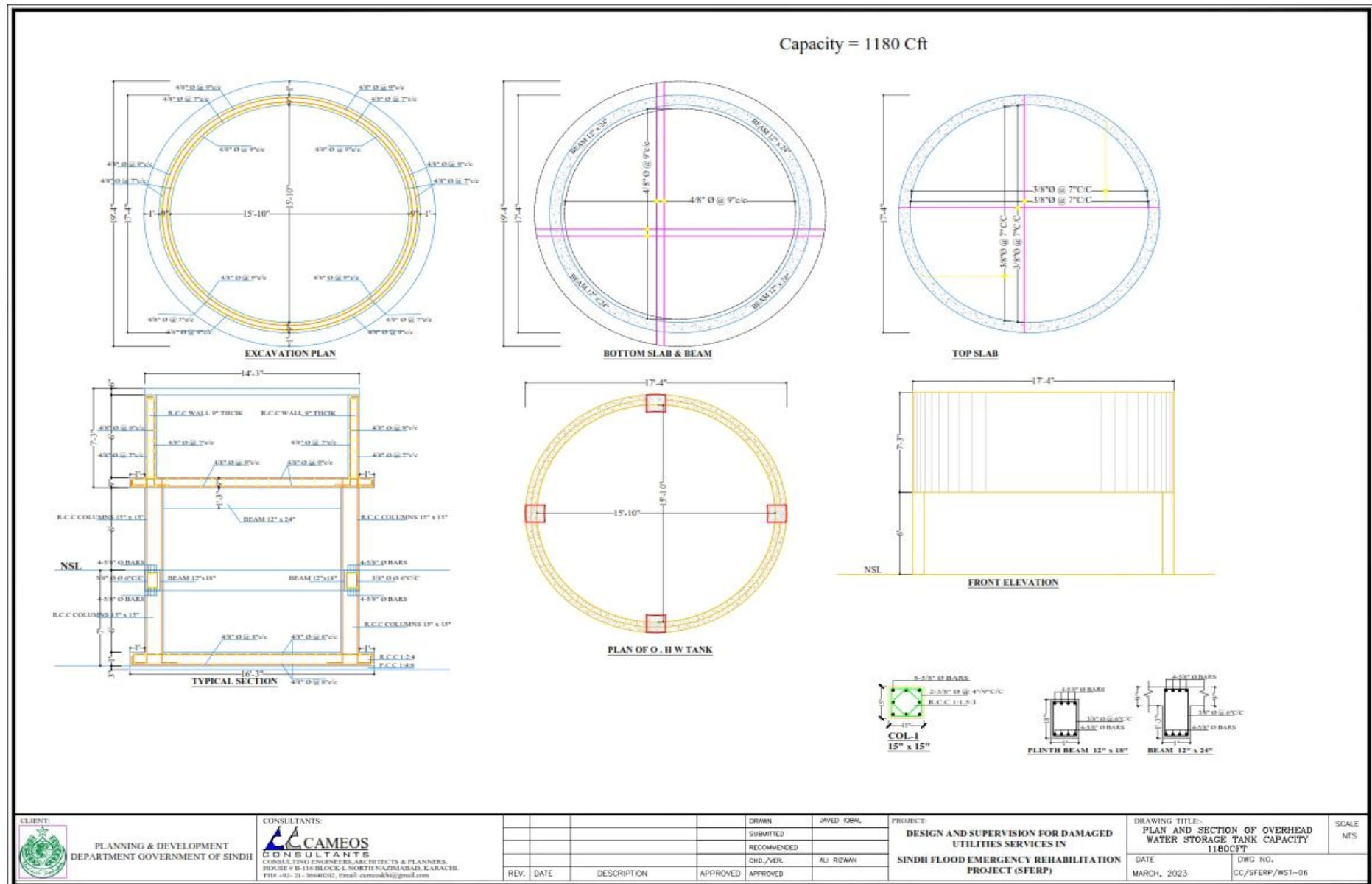


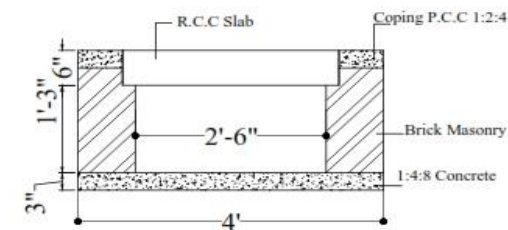
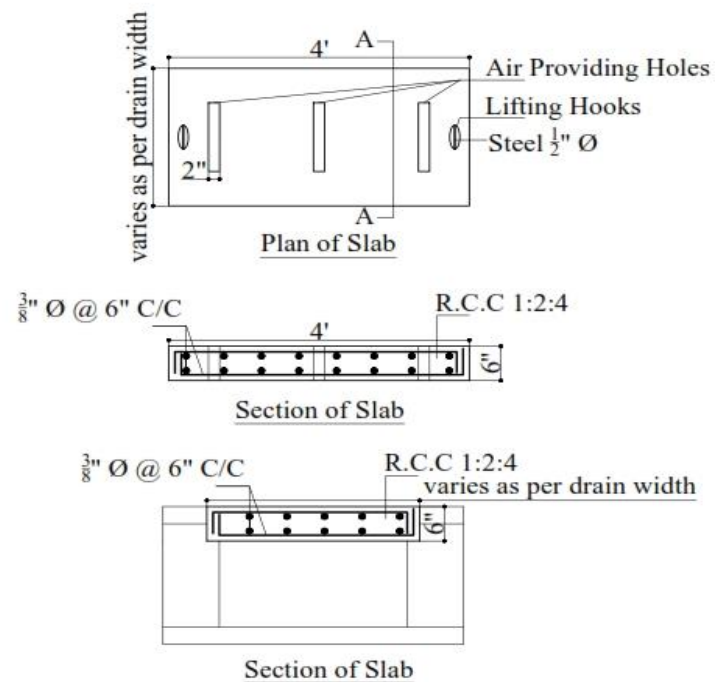




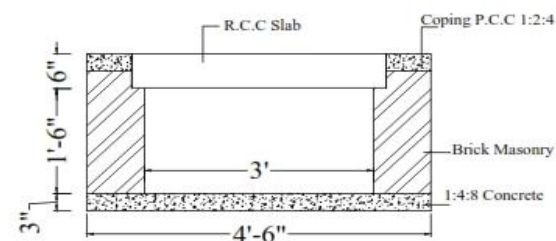




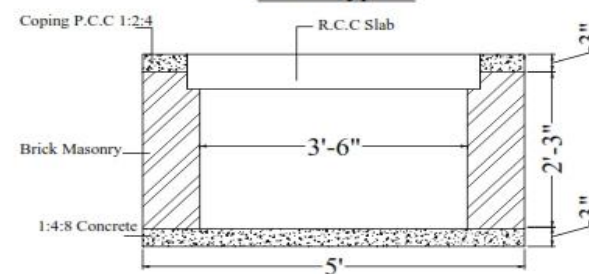




Drain Type-I



Drain Type-II



Drain Type-III



CLIENT:  
PLANNING & DEVELOPMENT  
DEPARTMENT GOVERNMENT OF SINDH



CONSULTANTS:  
**CAMEOS**  
CONSULTANTS  
CONSULTING ENGINEERS, ARCHITECTS & PLANNERS  
HOUSE # 8-116 BLOCK # NORTH NAZIMABAD, KARACHI.  
PH# +92-21-36640202; Email: cameoskhi@gmail.com

REV.	DATE	DESCRIPTION	APPROVED	DRAWN	JAVED IQBAL
				SUBMITTED	
				RECOMMENDED	
				CHD./VER.	ALI RIZWAN
				APPROVED	

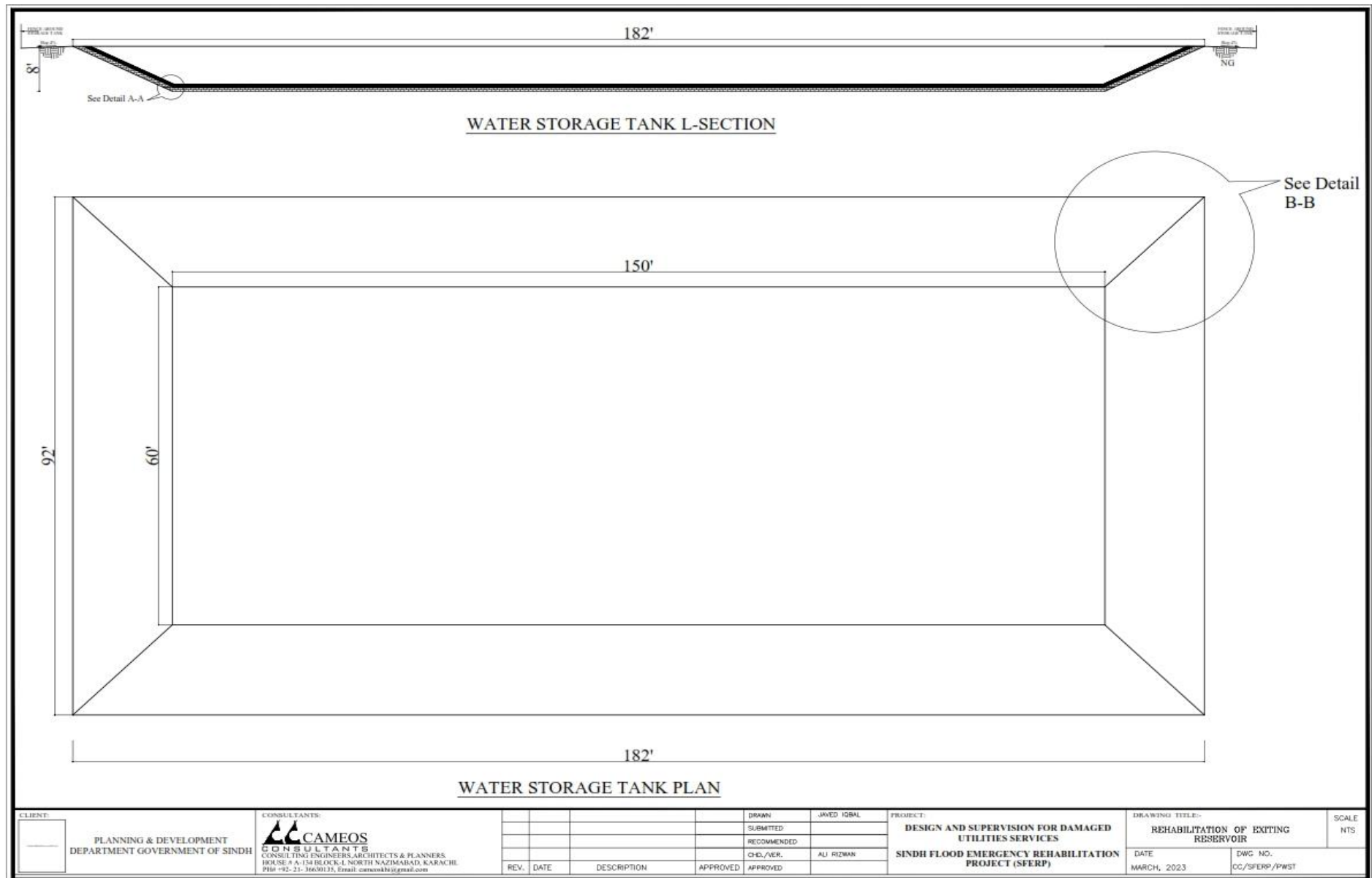
PROJECT:  
DESIGN AND SUPERVISION FOR DAMAGED  
UTILITIES SERVICES  
SINDH FLOOD EMERGENCY REHABILITATION  
PROJECT (SFERP)

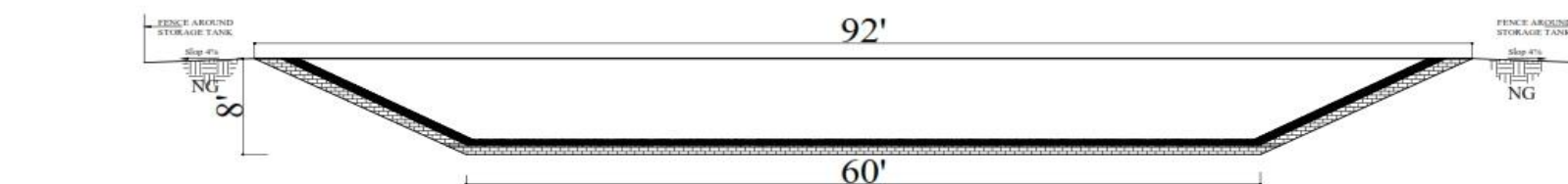
DRAWING TITLE:-  
DRAIN SECTIONS

DATE  
MARCH, 2023

DWG. NO.  
CC/SFERP/DS-01

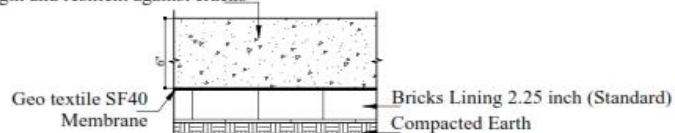
SCALE  
NTS



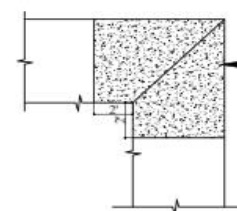


**WATER STORAGE TANK X-SECTION**


6" Poly propylene fibrillated fiber reinforced concrete for increasing strength and resilient against cracks

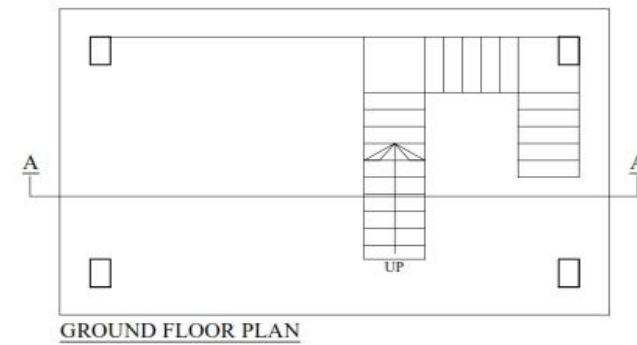
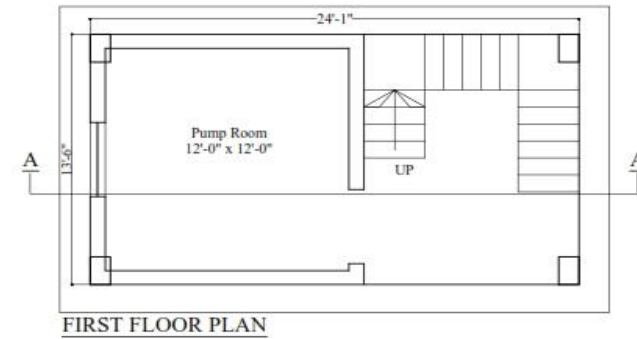
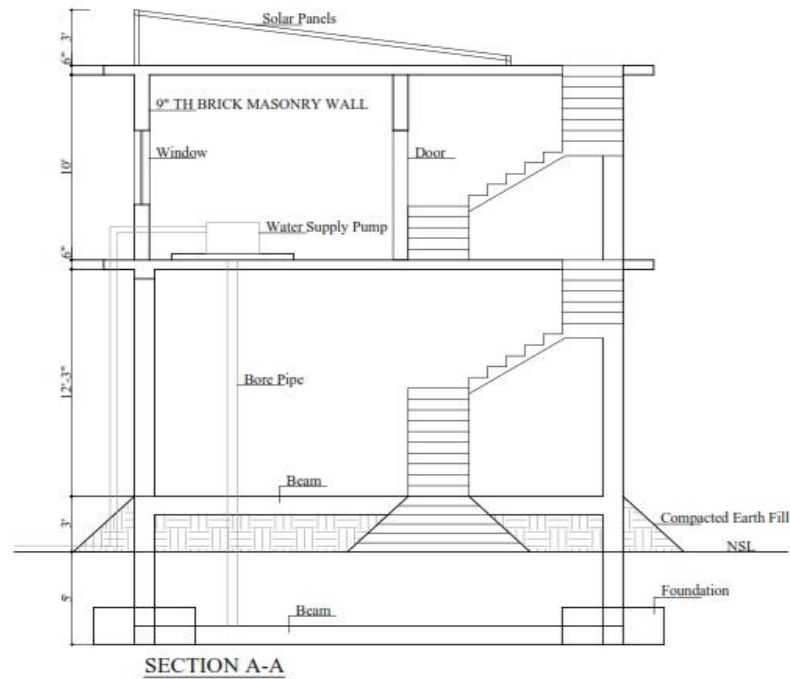




**Detail A-A**



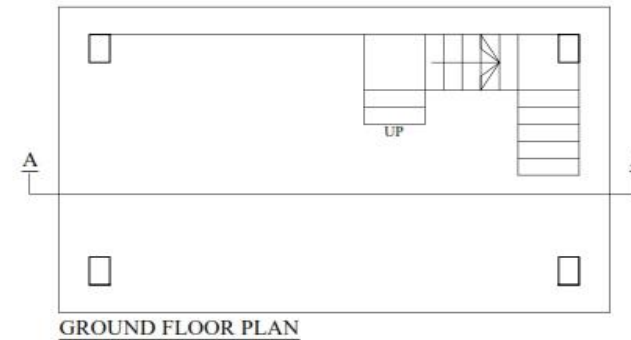
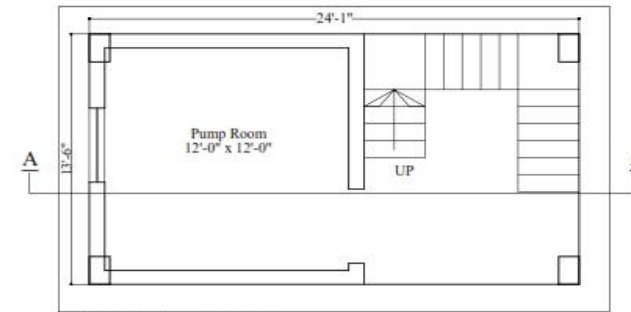
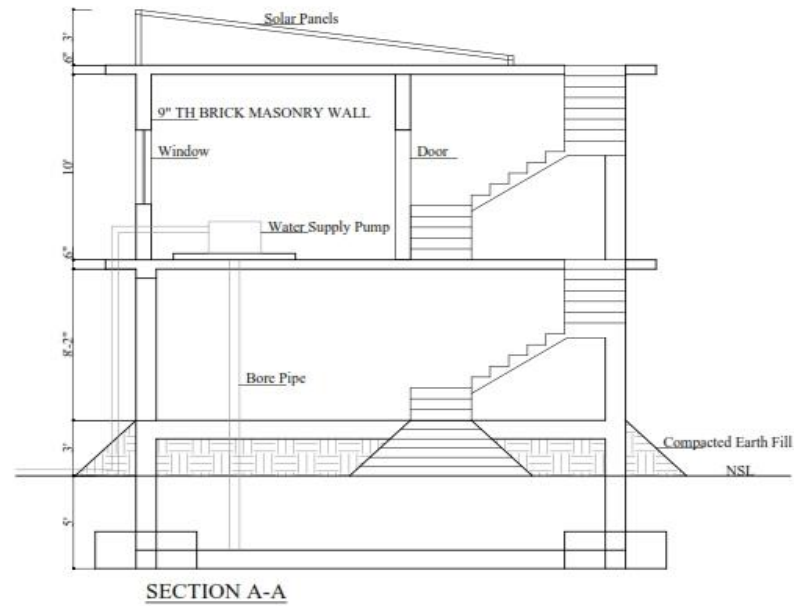
**Detail B-B**  
Joint treatment with  
Geo textile SFS6 membrane


<div>CLIENT:</div> <div>PLANNING &amp; DEVELOPMENT DEPARTMENT GOVERNMENT OF SINDH</div>	<div>CONSULTANTS:</div> <div><div>CAMEOS CONSULTANTS CONSULTING ENGINEERS, ARCHITECTS &amp; PLANNERS HOUSE # A-134 BLOCK-L NORTH NAZIMABAD, KARACHI PH# +92-21-36630135, Email: cameoskh@gmail.com</div></div>				DRAWN	JAVED IQBAL	PROJECT:  DESIGN AND SUPERVISION FOR DAMAGED UTILITIES SERVICES  SINDH FLOOD EMERGENCY REHABILITATION PROJECT (SFERP)	DRAWING TITLE:-  EXISTING RESERVOIR X-SECTION & EXPANSION JOINT DETAIL	SCALE:  NTS	
					SUBMITTED					
					RECOMMENDED					
					CHD./VER.	ALI RIZWAN				
					APPROVED					
		REV.	DATE	DESCRIPTION	APPROVED			DATE MARCH, 2023	DWG. NO. CC/SFERP/WST-01	



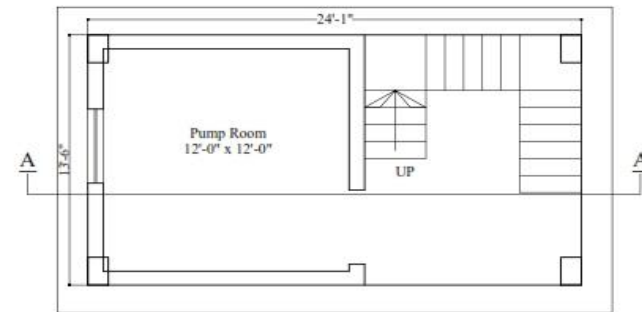
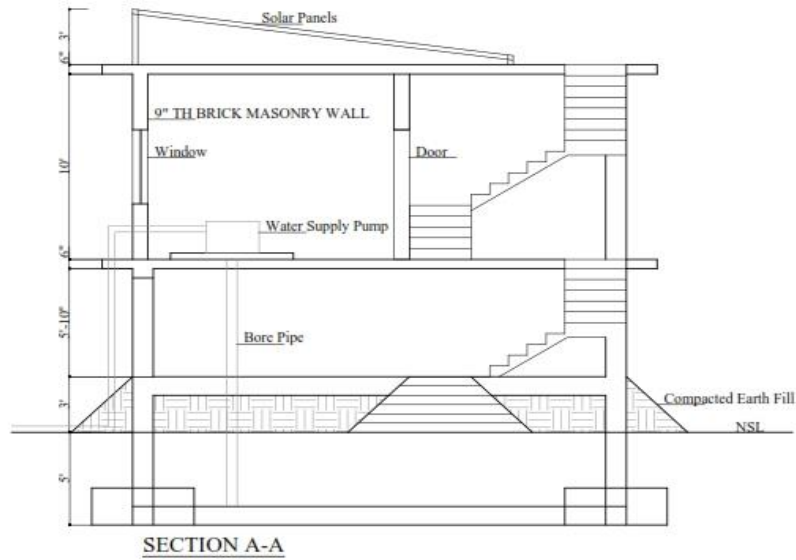
 <div>PLANNING &amp; DEVELOPMENT DEPARTMENT GOVERNMENT OF SINDH</div>	<div>CONSULTANTS:</div> <div><div>CAMEOS CONSULTANTS</div><div>CONSULTING ENGINEERS, ARCHITECTS &amp; PLANNERS, HOUSE # B-116 BLOCK-4, NORTH NAZIMAHAD, KARACHI. PH: +92-21-36640202, Email: cameoskbc@gmail.com</div></div>				DRAWN	JAVED IQBAL	PROJECT:  DESIGN AND SUPERVISION FOR DAMAGED UTILITIES SERVICES  SINDH FLOOD EMERGENCY REHABILITATION PROJECT (SFERP)	DRAWING TITLE:-  PLAN AND SECTION OF PUMP HOUSE	SCALE  NTS	
					SUBMITTED					
					RECOMMENDED					
					CHD./VER.	ALI RIZWAN				
		REV.	DATE	DESCRIPTION	APPROVED	APPROVED			DATE	DWG NO.
									MARCH, 2023	CC/SFERP/PH-01



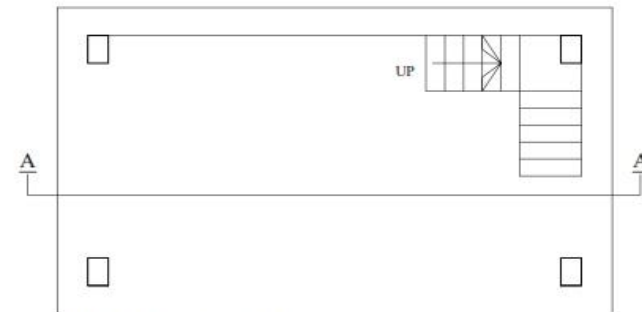


 <p>CLIENT: PLANNING &amp; DEVELOPMENT DEPARTMENT GOVERNMENT OF SINDH</p>	<p>CONSULTANTS: <b>CAMEOS</b> CONSULTANTS CONSULTING ENGINEERS, ARCHITECTS &amp; PLANNERS HOUSE # B-116 BLOCK-4, NORTH NAZIMABAD, KARACHI. PH: +92-21-36640202, Email: cameosktr@gmail.com</p>				DRAWN	JAVED IQBAL	<p>PROJECT: DESIGN AND SUPERVISION FOR DAMAGED UTILITIES SERVICES SINDH FLOOD EMERGENCY REHABILITATION PROJECT (SFERP)</p>	<p>DRAWING TITLE:- PLAN AND SECTION OF PUMP HOUSE</p>	<p>SCALE NTS</p>
					SUBMITTED				
					RECOMMENDED				
					CHD./VDR	ALI RIZWAN			
REV.	DATE	DESCRIPTION	APPROVED	APPROVED				DATE	DWG. NO.
								MARCH, 2023	CC/SFERP/PH-02





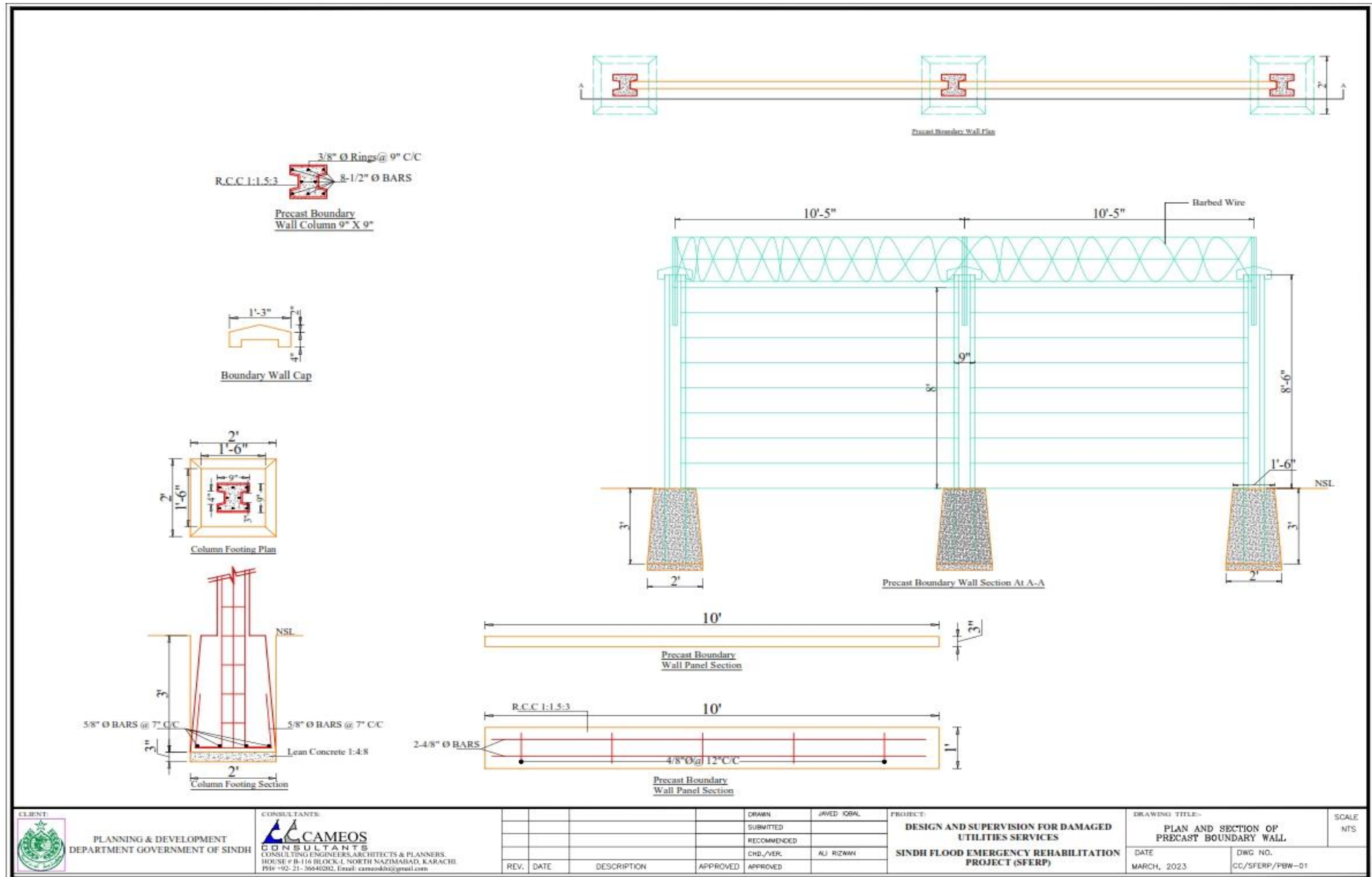


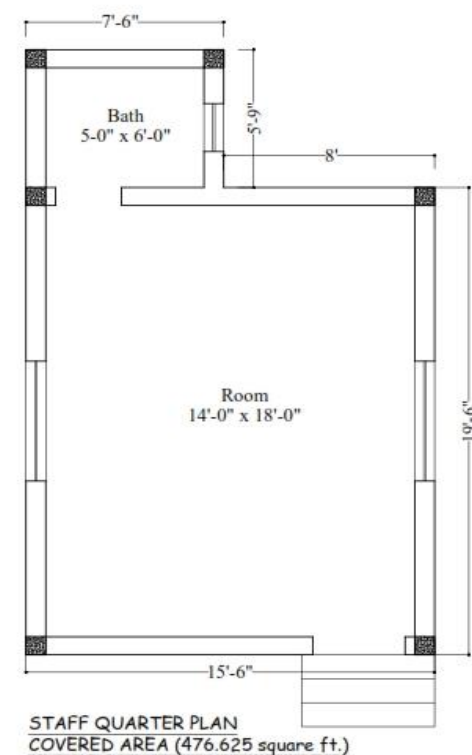
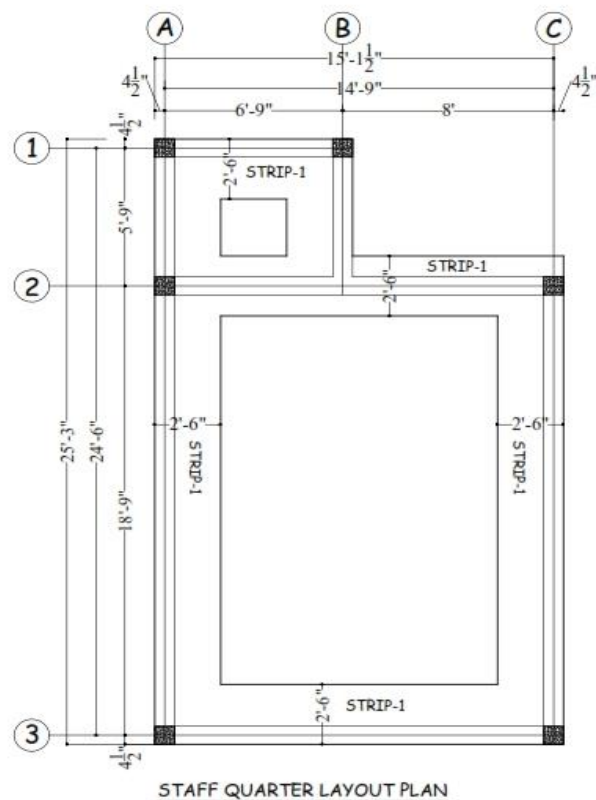
FIRST FLOOR PLAN





GROUND FLOOR PLAN

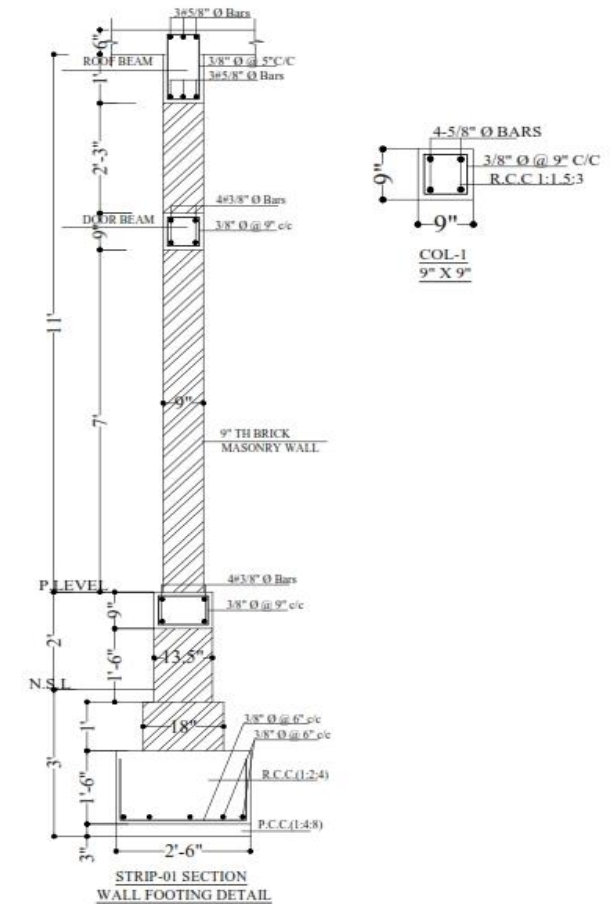
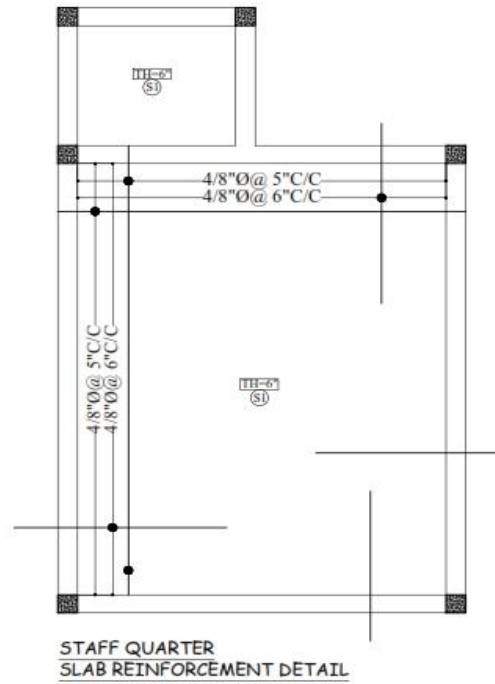
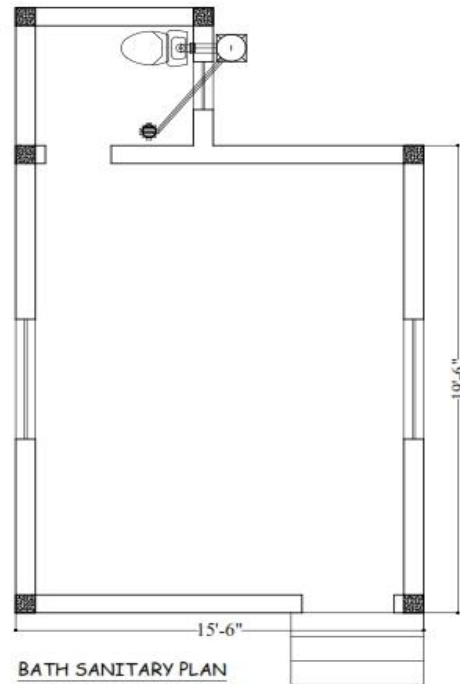
 <div>CLIENT: PLANNING &amp; DEVELOPMENT DEPARTMENT GOVERNMENT OF SINDH</div>	 <div>CONSULTANTS: <b>CAMEOS</b> CONSULTANTS CONSULTING ENGINEERS, ARCHITECTS &amp; PLANNERS HOUSE # 9-116 BLOCK-4 NORTH NAZIMABAD, KARACHI. PH: +92-21-3666012, Email: cameos@pcp.com</div>				DRAWN	JAVED IQBAL	PROJECT: <b>DESIGN AND SUPERVISION FOR DAMAGED UTILITIES SERVICES</b>  <b>SINDH FLOOD EMERGENCY REHABILITATION PROJECT (SFERP)</b>	DRAWING TITLE:- <b>PLAN AND SECTION OF PUMP HOUSE</b>	SCALE NTS
					SUBMITTED				
					RECOMMENDED				
					CHD./VER.	ALI RIZWAN			
		REV.	DATE	DESCRIPTION	APPROVED	APPROVED		DATE MARCH, 2023	DWG NO. CC/SFERP/PH-03





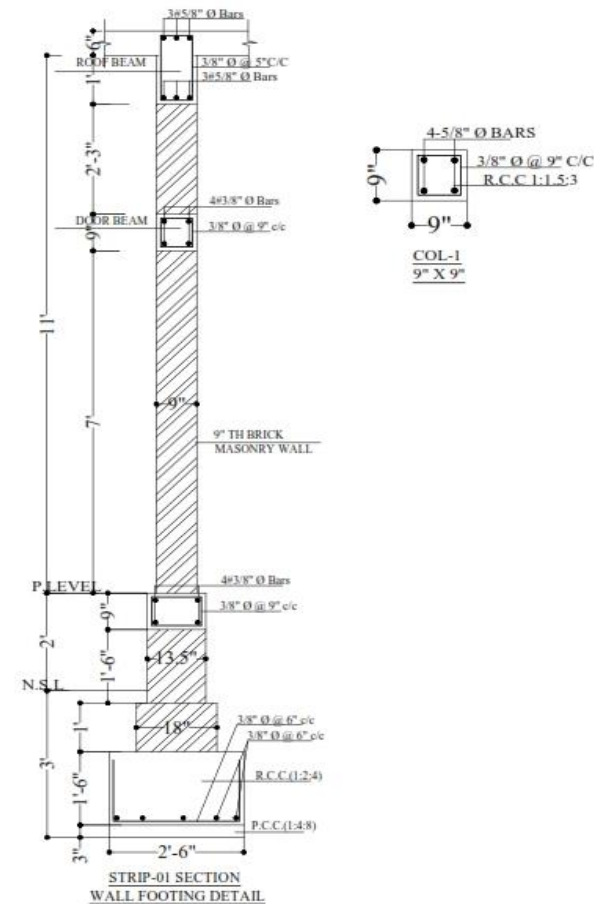
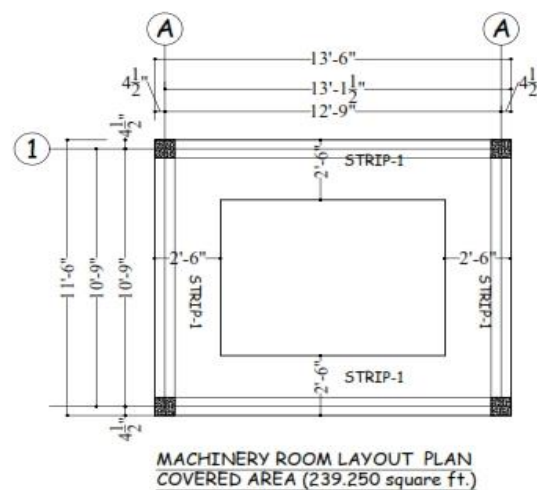
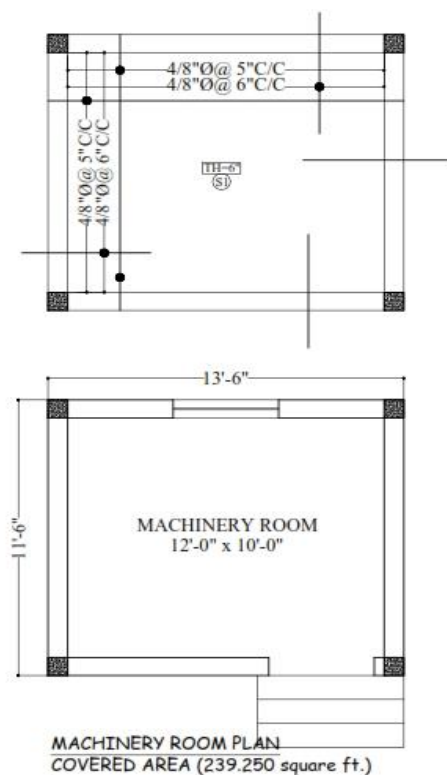




COVERED AREA (476.625 square ft.)

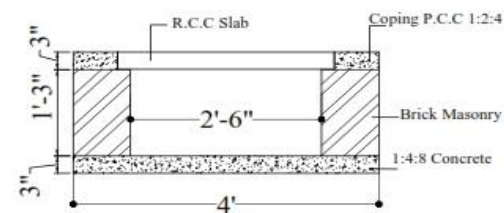
<div><div>CLIENT:</div><div>PLANNING &amp; DEVELOPMENT DEPARTMENT GOVERNMENT OF SINDH</div></div>	<div><div>CONSULTANTS:</div><div><div>CONSULTANTS</div><div>CONSULTING ENGINEERS, ARCHITECTS &amp; PLANNERS HOUSE # B-116 BLOCK-L NORTH NAZIMAHAD, KARACHI. PH: +92-21-3666202, Email: cameos@outlook.com</div></div></div>				DRAWN	JAVED IQBAL	<div><div>PROJECT:</div><div>DESIGN AND SUPERVISION FOR DAMAGED UTILITIES SERVICES</div><div>SINDH FLOOD EMERGENCY REHABILITATION PROJECT (SFERP)</div></div>	<div><div>DRAWING TITLE:-</div><div>LAYOUT PLAN OF STAFF QUARTER</div><div><div>DATE</div><div>MARCH, 2023</div><div>DWG NO.</div><div>CC/SFERP/SQ-01</div></div></div>		SCALE
					SUBMITTED					
					RECOMMENDED					
					CHECKED	ALI RIZWAN				
		REV.	DATE	DESCRIPTION	APPROVED	APPROVED				



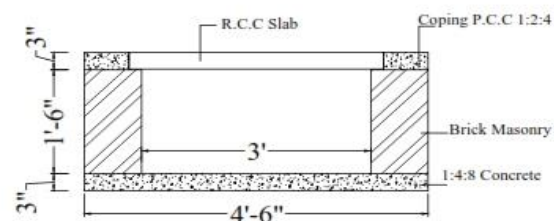
 <div>CLIENT: PLANNING &amp; DEVELOPMENT DEPARTMENT GOVERNMENT OF SINDH</div>	<div>CONSULTANTS:  CONSULTANTS CONSULTING ENGINEERS, ARCHITECTS &amp; PLANNERS HOUSE # B-116 BLOCK-4, NORTH NAZIMABAD, KARACHI. PH: +92-21-36640212, Email: cameoskbg@gmail.com</div>				DRAWN	JAVED IQBAL	PROJECT: <b>DESIGN AND SUPERVISION FOR DAMAGED UTILITIES SERVICES SINDH FLOOD EMERGENCY REHABILITATION PROJECT (SFERP)</b>	DRAWING TITLE:- <b>SANITARY PLAN AND REINFORCEMENT DETAIL OF STAFF QUARTER</b>	SCALE NTS	
						SUBMITTED				
						RECOMMENDED				
						CHD./VER.				ALI RIZWAN
		REV.	DATE	DESCRIPTION	APPROVED	APPROVED		DATE MARCH, 2023	DWG NO. CC/SFERP/SQ-02	



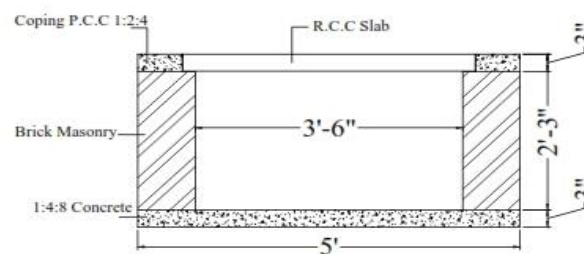
<p>CLIENT:</p>  <p>PLANNING &amp; DEVELOPMENT DEPARTMENT GOVERNMENT OF SINDH</p>	<p>CONSULTANTS:</p>  <p><b>CAMEOS</b> CONSULTANTS CONSULTING ENGINEERS, ARCHITECTS &amp; PLANNERS HOUSE # B-116 BLOCK-L NORTH NAZIMAHAD, KARACHI. PH: +92-21-3660202, Email: cameos@outlook.com</p>	<p>REV. DATE DESCRIPTION APPROVED</p>	<p>DRAWN: JAVED IQBAL SUBMITTED: RECOMMENDED: CHK./MR. ALI RIZWAN</p>	<p>PROJECT:</p> <p>DESIGN AND SUPERVISION FOR DAMAGED UTILITIES SERVICES</p> <p>SINDH FLOOD EMERGENCY REHABILITATION PROJECT (SFERP)</p>	<p>DRAWING TITLE:-</p> <p>PLAN AND REINFORCEMENT DETAIL OF MACHINERY ROOM</p> <p>DATE: MARCH, 2023</p> <p>DWG. NO. CC/SFERP/MR-01</p>	<p>SCALE: NTS</p>
---	--	---------------------------------------	---	--	---	-------------------



Drain Type-I

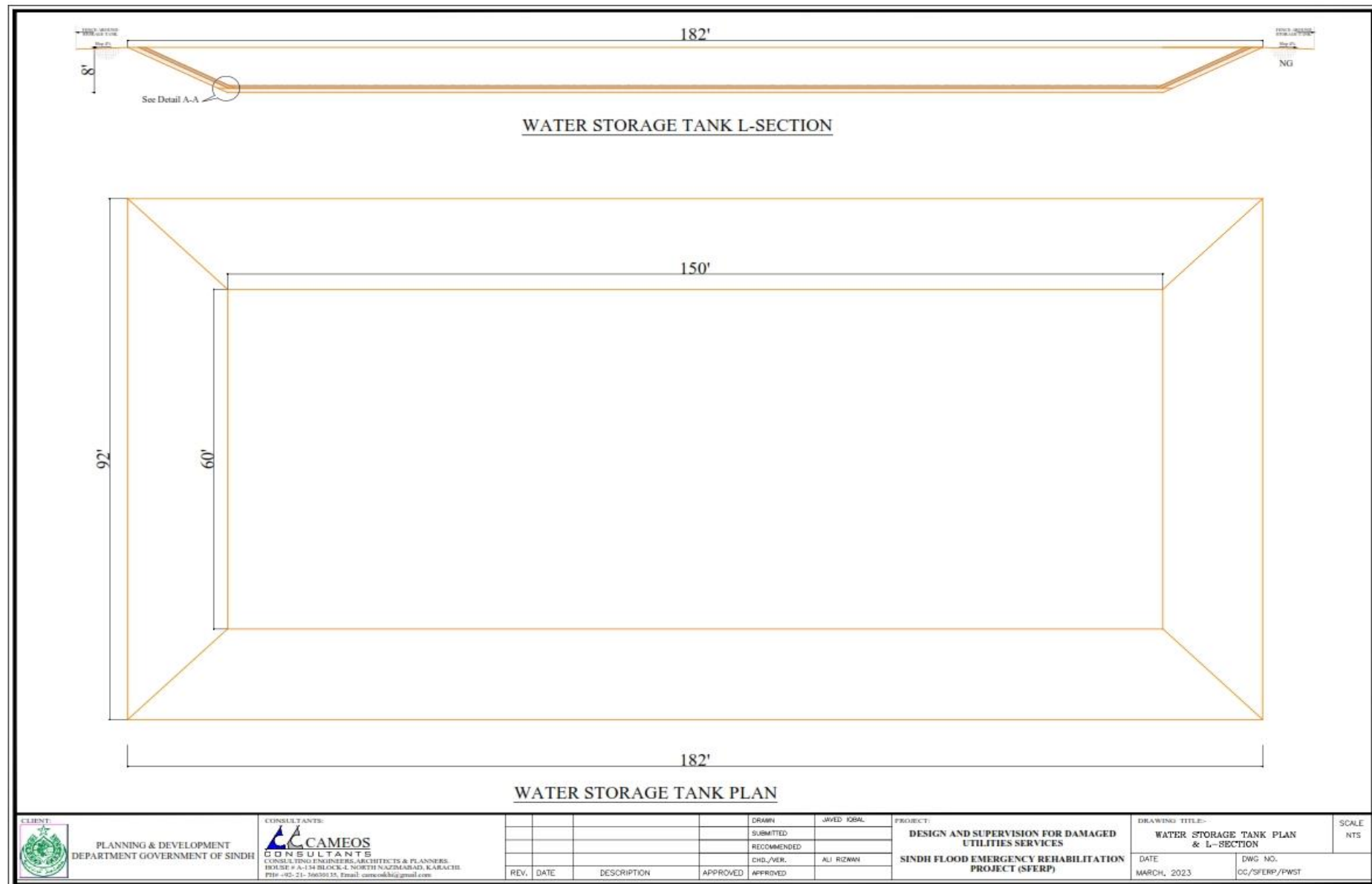


Drain Type-II

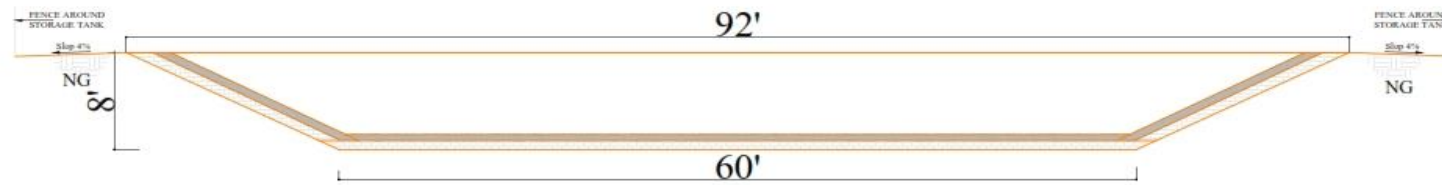


Drain Type-III

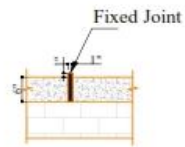
	PLANNING & DEVELOPMENT DEPARTMENT GOVERNMENT OF SINDH	CONSULTANTS <b>CAMEOS</b> CONSULTANTS CONSULTING ENGINEERS, ARCHITECTS & PLANNERS HOUSE # B-116 BLOCK-4 NORTH NAZIMABAD, KARACHI. PHONE: +92-21-36660202, Email: cameos@city.net.pk	REV. DATE DESCRIPTION	APPROVED	APPROVED	DRAWN SUBMITTED RECOMMENDED CHD./VER. ALU RIZWAN	JAVED IQBAL	PROJECT: DESIGN AND SUPERVISION FOR DAMAGED UTILITIES SERVICES SINDH FLOOD EMERGENCY REHABILITATION PROJECT (SFERP)	DRAWING TITLE:- DRAIN SECTIONS	DATE MARCH, 2023	DWG. NO. CC/SFERP/DS-01	SCALE NTS
--	--	--	-----------------------	----------	----------	--	-------------	---	-----------------------------------	---------------------	----------------------------	--------------









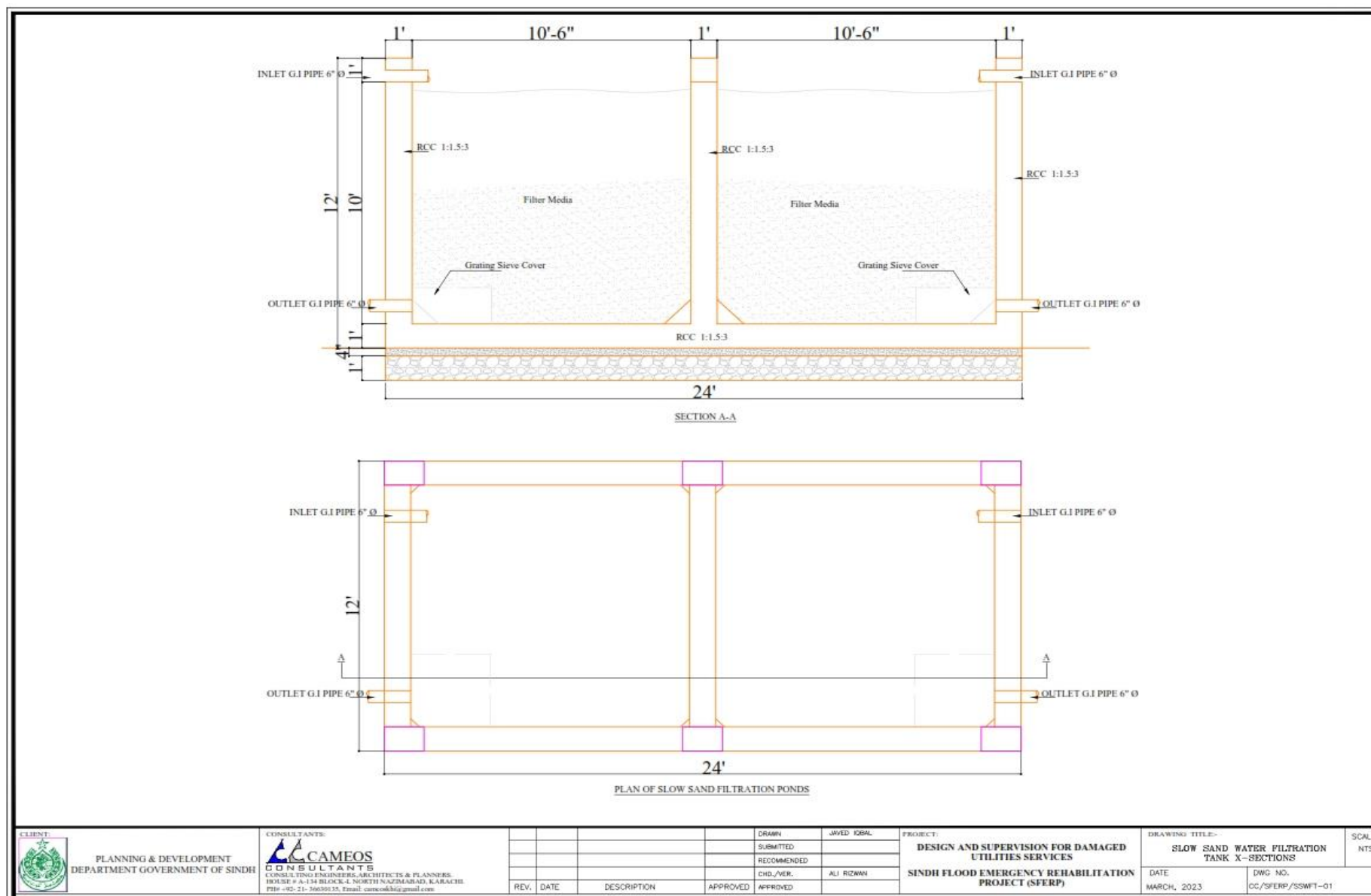
### WATER STORAGE TANK X-SECTION

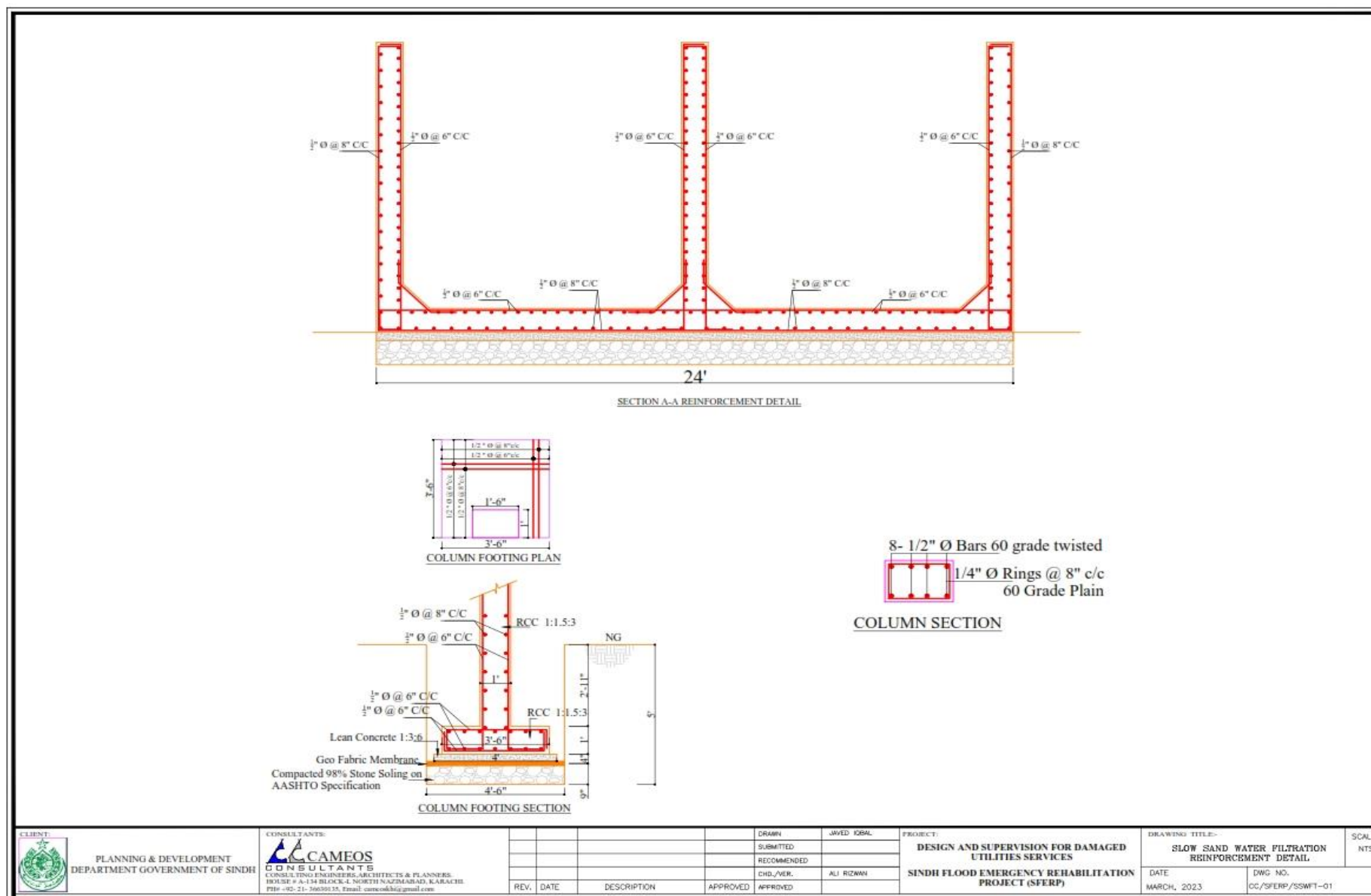


### Detail of Expansion Joint

Note: Bitumastic Rubberized or Neoprene Rubber Fixed Joint Sealant (Fix before laying of concrete)

 <p>PLANNING &amp; DEVELOPMENT DEPARTMENT GOVERNMENT OF SINDH</p>	<p>CONSULTANT:</p>  <p><b>CAMEOS</b> CONSULTANTS CONSULTING ENGINEERS, ARCHITECTS &amp; PLANNERS. HOUSE # A-134 BLOCK-4 NORTH NAZIMABAD, KARACHI. PH# +92-21-36659135, Email: cameoskh@gmail.com</p>					<p>DRAWN JAVED KOSAL</p> <p>SUBMITTED</p> <p>RECOMMENDED</p> <p>CHD./VER. ALI RIZWAN</p>	<p>PROJECT:</p> <p><b>DESIGN AND SUPERVISION FOR DAMAGED UTILITIES SERVICES</b></p> <p><b>SINDH FLOOD EMERGENCY REHABILITATION PROJECT (SFERP)</b></p>	<p>DRAWING TITLE:-</p> <p><b>WATER STORAGE TANK X-SECTION &amp; EXPANSION JOINT DETAIL</b></p>		<p>SCALE</p> <p>NTS</p>
		REV.	DATE	DESCRIPTION	APPROVED	APPROVED				DATE
							MARCH, 2023	CC/SFERP/WST-01		





## **ANNEXURE 3:**

### **Attendance Sheets During Consultation**

## Annexure 3: Attendance Sheets During Consultation



Government of Sindh



Project Implementation Unit (PIU)

**Public Consultation on**  
Environmental & Social Management Plan (ESMP) for  
**Expansion of DHQ Rescue (1122)**  
**Stations in Districts of Sindh**  
arranged by Project Implementation Unit (PIU) under Sindh  
Flood Emergency Rehabilitation Project (SFERP),  
P&DD Component, Government of Sindh

عوامي مشاورت تي  
ماحولياتي ۽ سماجي انتظام جو منصوبو (ESMP) سنڌ جي ضلعن  
۾ ٻي ايڇ ڪيو ريسڪيو (1122) اسٽيشنن جي توسيع  
سنڌ فلڊ ايمرجنسي بحالي منصوبي (SFERP) تحت پروجيڪٽ  
ايمپلیمینٽيشن يونٽ (PIU) پاران ترتيب ڏنل،  
P&DD جزو، حڪومت سنڌ

Location/جڳھ

Damber Shahdadkot

Date/تاريخ: 30 - August 2023

Subproject Name/سب پروجيڪٽ جو نالو

Signature/ Thumb Impression دستخط / انگوتي جو نشان	Address: Village Name, Taluka اٿڀريس: ڳوٺ جو نالو، تعلقو	Occupation/ Profession پيشو	CNIC No./ Mobile No. CNIC نمبر / موبائيل نمبر	Fathers Name پيءُ جو نالو	Name نالو	Sr. No. سيريئل نمبر
	House خانڊر دي	House مڙھ	43202-6080221-8	ساکھ مراد	خانڊر دي	1.
	1/	1/	43202-4080180-8	ڪفر احمد	ذڪير	2.

Page 1 of 6





Government of Sindh



Project Implementation Unit (PIU)

Signature/ Thumb Impression دستخط / انگوتی جو نشان	Address: Village Name, Taluka اٹھریس: گوت جو نالو، تعلقو	Occupation/ Profession پیشو	CNIC No./ Mobile No. CNIC نمبر / موبائل نمبر	Fathers Name پيءُ جو نالو	Name نالو	Sr. No. سیریل نمبر
30/8/23	جانیہ پیر	House wife	43202-372011-4	الکدر الی	رمنہ	.3
	"	"	43202-796014-6	کوار	قصیر	.4
	"	"	43202-861131-4	صفر	ممتاز	.5
	"	"	43202-371931-6	محمد	سکرہ	.6
	"	"	43202-8011787-2	بلال	رحمنہ	.7
	"	"	4320206-4037112-4	بلال	رضانا	.8
30/8/23	میراغا درخاج نصرت کور	"	43206-4840221-6	جاکر	حبیبہ خانم	.9
	"	"	4320613740210-4	حبیبہ	اشاد	.10
	"	"	43206-7902800-4	محمد	روشن خانم	.11




 Government of Sindh
 

 Project Implementation Unit (PIU)

Signature/ Thumb Impression دستخط / انگوٹي جو نشان	Address: Village Name, Taluka اٿڀريس: ڳوٺ جو نالو، تعلقو	Occupation/ Profession پيشو	CNIC No./ Mobile No. CNIC نمبر / موبائيل نمبر	Fathers Name پيءُ جو نالو	Name نالو	Sr. No. سيريئل نمبر
30/8/23	حيدرآباد درختان منج بندر دھولا	House ۱۲۶/۱	43206-3740138-4	محمد سھبڪا	ريماء	.12
	"	"	43206-7211342-4	رحيم خان	موسى	.13
	"	"	43206-6631331-4	گل نبي	ناعلا	.14
	"	"	43206-4037248-4	فتوحي	فوزيه	.15
31/8/23	بلو سعيدي خان	"	43406-50574024	حبیب	شيبا	.16
	"	"	43406-71603224-6	حبیب	سلمان	.17
	"	"	43064-2033168-8	صدیق	مصتا ز	.18
	"	"	43064-3430187-4	رسول محمد	زرينا	.19
	"	"	43406-5760221-4	محمد قاسم	سيما	.20

Page 3 of 6





Government of Sindh



Project Implementation Unit (PIU)

Signature/ Thumb Impression دستخط / انگوٹی جو نشان	Address: Village Name, Taluka اٹکریس: گوت جو نالو، تعلقو	Occupation/ Profession پیشو	CNIC No./ Mobile No. CNIC نمبر / موبائل نمبر	Fathers Name پيءُ جو نالو	Name نالو	Sr. No. سیریل نمبر
31/8/23	فیو مسجد خانی	House wife	43406 4037228-8	عبدالمجید	نوران	.21
	،،	،،	43406 4037557-6	پورل	امینا	.22
	،،	،،	43406 8227321-4	گفر دود	فتل	.23
1/9/23	سجاول	،،	43206 3540118-6	عفی خان	گنیراں	.24
	،،	،،	43206 7033211-4	حامی علی	سنگھاراں	.25
	،،	،،	43406 2722315-8	سنت علی	کزبانو	.26
	،،	،،	43406 4730342	اسد علی	عمرالہ	.27
	،،	،،	43406 4860118-4	مکد صفا	شیرا	.28
	،،	،،	43406 3440170-2	مکندر علی	عجیباں	.29



Government of Sindh



Project Implementation Unit (PIU)

Signature/ Thumb Impression دستخط / انگوٹی جو نشان	Address: Village Name, Taluka اٹکریس: ڳوٺ جو نالو، تعلقو	Occupation/ Profession پیشو	CNIC No./ Mobile No. CNIC نمبر / موبائل نمبر	Fathers Name پيءُ جو نالو	Name نالو	Sr. No. سیریل نمبر
1/9/23	سجاول	House wife	43206-506017-8	محمد علی	زائده	.30
2/9/23	مراد علی بھٹا	4	43206-6634181-8	صالح دین	سمتان	.31
	مراد علی	4	43206-7722411-4	محمد قادر	امین	.32
	مراد علی	4	43207-4430217-8	محمد اسد	محمد محمود	.33
	مراد علی	4	43207-5031221-6	محمد قادر	زینب	.34
	مراد علی	4	43207-6618111-4	محمد سعید	سعید	.35
	مراد علی	4	43207-8879121-4	محمد سعید	امینا	.36
	میرد خان	4	43204-2833280-6	نواب	صابر	.37
	4	4	43204-2517360-8	سمیٹو	نظیر	.38

Page 5 of 6



Government of Sindh



Project Implementation Unit (PIU)

Signature/ Thumb Impression دستخط / انگوئي جو نشان	Address: Village Name, Taluka اڏيس: ڳوٺ جو نالو، تعلقو	Occupation/ Profession پيشو	CNIC No./ Mobile No. CNIC نمبر / موبائيل نمبر	Fathers Name پيءُ جو نالو	Name نالو	Sr. No. سيريئل نمبر
2/9/23	مير وھان	گھ گھ	43 207 3680118-4	رحيم علي	وصير	.39
	،	،	43207-2025118-6	مظفر	ناصر	.40
	وارھ آباد	،	43407-4818118-4	مكيو	کوش	.41
	،	،	43407-202560118-4	علي گدھر	مظير خان	.42
	،	،	43407-4818118-8	علي الحق	علي	.43
	،	،	43407-4480188-6	محمد سومر	صنيران	.44