



**Health, Safety, Security and Environment  
 Violation Slip**

Name of Violator: \_\_\_\_\_  
 Company: \_\_\_\_\_

Date & Time: \_\_\_\_\_  
 Location: \_\_\_\_\_

<input type="checkbox"/> Incident resulted in death.	<input type="checkbox"/> Incident resulted in serious injury or serious illness.	<input type="checkbox"/> Causing great pollution to the environment.
<input type="checkbox"/> Incident resulted in damage to property of the company (regardless of the vehicle & personnel).	<input type="checkbox"/> Failure to register/declare including misdeclaration of incoming or stored hazardous materials (Note: MSDS should be provided).	<input type="checkbox"/> Theft or stealing of ESB properties including devices that belong to employees, contractors, or visitors.
<input type="checkbox"/> Poor housekeeping in rented or working areas (with notification received from ESB management).	<input type="checkbox"/> Bringing/using prohibited drugs, firearms, explosives, and deadly weapons (note: work-related devices must be declared at the main gate security guard for approval by ESB management before entry).	<input type="checkbox"/> Working under influence of alcohol/drugs.
<input type="checkbox"/> Concealing diseases that may endanger other employees.	<input type="checkbox"/> Bringing of alcoholic beverages without approval from ESB management (e.g. related to chandling).	<input type="checkbox"/> Taking part in any form of gambling.
<input type="checkbox"/> Burning of wastes or leaving a trace of burnt wastes.	<input type="checkbox"/> Not securing permits before special operations (e.g. hot works, confined space, working at heights, isolations, excavation, Road Obstruction, and other high-risk work).	<input type="checkbox"/> Crane lifting more than the Safe Working Limit (SWL) of capacity.
<input type="checkbox"/> Building/using a temporary shelter without authorization/approval from the Management.	<input type="checkbox"/> Working at heights without fall arrest system/fall protection.	<input type="checkbox"/> Smoking not in the designated Smoking Area.
<input type="checkbox"/> Cooking within ESB premises without authorization from ESB Management.	<input type="checkbox"/> Operating heavy equipment with other worker riding such equipment during or while in operation (Note: All are accountable).	<input type="checkbox"/> Not using of required PPE at working/operational area (note: wearing of shorts, slippers, sleeveless clothing except in the areas/activity allowed by PNOC ESB Management is prohibited).
<input type="checkbox"/> Unauthorized entry in restricted areas (Pier, Genset building, substation).	<input type="checkbox"/> Urinating/defecating not in the toilet facility.	<input type="checkbox"/> Driving a motorcycle without a proper helmet.
<input type="checkbox"/> Not wearing seatbelt while driving a vehicle (Note: Driver should advise all passengers to wear a seatbelt).	<input type="checkbox"/> Illegal parking at No Parking Zone.	<input type="checkbox"/> Loitering outside the designated work station.
<input type="checkbox"/> Employing verbal abuse, verbal harassment, intimidation, or coercion on any person.	<input type="checkbox"/> Operating heavy equipment without certification (NCII) or equivalent.	<input type="checkbox"/> Workers swimming and fishing in ESB foreshore leased area without authorization from ESB Management.
<input type="checkbox"/> Leaving the vehicle without chock or its engine is not shut off (continuous idling)	<input type="checkbox"/> Littering & Unauthorized dumping of wastes (e.g. human waste, leftover food, clothes, tires, styro, disposable cups, cigarette butts, sacks, candy/ junk food wrappers, plastics, bottled water, cans, etc.)	
***The above-mentioned violation has equivalent penalties/charges in accordance with the policy of PNOC-ESB related to "Prohibited Acts and Penalties/Charges for Violations on Health, Safety, Security and Environment"***		

Reported by:

Verified by:

Noted by:

Employee

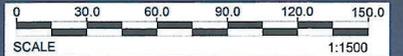
Shift Engineer/HSS Officer

Department Manager





**1** GENERAL DRAINAGE SYSTEM PLAN  
 SCALE 1:1500



CONSULTANT: 		DESIGNED BY:  ENGR. JULIUS RODNI F. AHORRO <small>REGISTERED ENGINEER</small>	PREPARED BY:  MA. LOURDES M. MANATAD <small>PROJECT LEADER</small>	SUBMITTED BY:  ENGR. CARLITO B. PENA <small>REGISTERED ENGINEER</small>	OWNER: 	PROJECT NAME AND LOCATION: CONSULTANCY SERVICE FOR THE PREPARATION OF FEASIBILITY STUDY AND DETAILED ENGINEERING DESIGN ON THE PROPOSED DEVELOPMENT OF PNOC ENERGY SUPPLY BASE LOCATED AT MABINI, BATANGAS PROPOSED PORT DEVELOPMENT (PACKAGE CONTRACT II)	SHEET CONTENTS: GENERAL DRAINAGE SYSTEM PLAN	SHEET NO. 
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# GENERAL NOTES FOR STRUCTURE

## GENERAL

- UNLESS INDICATED OTHERWISE, ALL DIMENSIONS, DISTANCES AND SIZES (MEMBERS AND REINFORCING STEEL) ARE IN MILLIMETERS EXCEPT STATIONING WHICH ARE IN KILOMETERS + METERS AND ELEVATIONS WHICH ARE IN METERS.
- INDICATED DIMENSIONS SHALL GOVERN OVER SCALED DIMENSIONS. SCALED DIMENSIONS SHALL NOT BE USED FOR CONSTRUCTION PURPOSES.
- ALL DIMENSIONS OF EXISTING STRUCTURE SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION STARTS.

## DESIGN SPECIFICATION

### LOADING

- NATIONAL STRUCTURAL CODE OF THE PHILIPPINES 2015 EDITION
- ACI CODE-318-14: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY

1. DEAD LOAD :	CONCRETE	2400 kg/m <sup>3</sup>
	: STEEL	7850 kg/m <sup>3</sup>
2. LIVELOAD :	MS-18 TRUCK LOAD	144 KN

## MATERIALS

### 1. CONCRETE

ALL STRUCTURAL CONCRETE COMPONENTS SHALL DEVELOP A MIN. COMPRESSIVE STRENGTH AT THE END OF 28 DAYS AT 21 MPa (3000psi) WITH MAXIMUM SIZE AGGREGATE AND SLIPMS AS FOLLOWS.

AGGREGATE SIZE : 20 mm.  
MAX SLUMP : 100 mm.

### 2. REINFORCING STEEL

- REINFORCING STEEL BARS SHALL BE GRADE 40 STEEL BARS WITH  $f_y=275$  MPa (40,000 psi).
- REINFORCING STEEL SHALL BE FREE OF EXCESSIVE RUST, OIL OR ANY SUBSTANCES WHICH WILL WEAKEN THE BOND WITH CONCRETE.

### 3. STRUCTURAL STEEL, BOLTS AND WELDS

TYPE	SPECIFICATION
ROLLED SHAPES	AASHTO M183 (ASTM A36)
WELDS	AWS D1.1 & AWS D1.4, E60XX ELECTRODE

## CONSTRUCTION

### 1. CONSTRUCTION SPECIFICATIONS

- ALL CONSTRUCTION SHALL CONFORM TO:
- CONDITIONS OF CONTRACT
  - THE SPECIAL PROVISIONS

### 2. SETTING OUT

THE SETTING OUT AND THE ELEVATIONS OF THE DIFFERENT COMPONENTS OF THE STRUCTURE SHALL BE APPROVED BY THE ENGINEER PRIOR TO THE START OF ANY CONSTRUCTION WORK.

### 3. CONSTRUCTION LIMITS

THE CONTRACTOR SHALL VERIFY AND WORK WITHIN THE CONSTRUCTION LIMITS OR EASEMENTS OF THE PROPOSED STRUCTURE. HE SHALL HOWEVER PROVIDE FOR AREAS HE MAY REQUIRE FOR HIS OWN USE. IT IS THE INTENT OF THE PLANS TO LEAVE UNDISTURBED EVERYTHING WHICH DOES NOT ADVERSELY AFFECT THE FINISHED WORK. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED

## 4. SITE PREPARATION

ALL EXISTING PERMANENT WORKS (SUCH AS PAVEMENT, CURBS, GUTTERS, RIPRAP, SLOPE PROTECTION WORKS, AND ALL OTHER SIMILAR WORKS) WHICH WILL INTERFERE WITH THE WORK SHALL BE COMPLETELY REMOVED AND DISPOSED OFF THE SITE BY THE CONTRACTOR. ALL SALVAGEABLE MATERIALS SHALL BE PROPERLY AND CAREFULLY DISMANTLED AND DEPOSITED ON A CONVENIENT SITE AS INSTRUCTED BY THE ENGINEER. HOWEVER, IF SUCH PERMANENT WORKS ARE DESIGNATED TO REMAIN BUT WILL BE DEMOLISHED BY THE CONTRACTOR FOR THE NECESSARY PROSECUTION OF THE WORKS, THESE DEMOLISHED PERMANENT WORKS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION.

## 5. RECONSTRUCTION

IF EXISTING PERMANENT WORKS OR PORTIONS THEREOF ARE DESIGNATED TO REMAIN, THE CONTRACTOR SHALL TAKE PRECAUTION NOT TO DAMAGE OR INJURE THESE WORKS. DAMAGE OR INJURY TO THESE WORKS CAUSED BY THE CONTRACTOR SHALL BE REPAIRED AT HIS OWN EXPENSE.

## 6. TRAFFIC MANAGEMENT

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING AND MAINTAINING AN EFFECTIVE TRAFFIC CONTROL PLAN IN ACCORDANCE WITH THE SPECIAL PROVISIONS SUBJECT TO THE APPROVAL OF THE ENGINEER AND THE CORRESPONDING LOCAL AUTHORITIES.

## 7. MATERIAL SOURCES

WHERE COMMON BORROW IS REQUIRED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING HIS OWN SOURCES OF COMMON BORROW AS OUTLINED IN THE SPECIFICATIONS.

## 8. EXCAVATION

EXCAVATION FOR STRUCTURES SHALL BE NEAT LINES AS SHOWN ON THE PLANS AND THE SOIL UNDERNEATH STRUCTURE FOUNDATIONS SHALL NOT BE DISTURBED.

## 9. BACKFILLING

BACKFILLING FOR STRUCTURES SHALL BE DONE WITH GRANULAR MATERIALS COMPACTED ACCORDING TO SPECIFICATIONS.

## 10. REINFORCED CONCRETE

### a. CONCRETE MIX AND PLACING

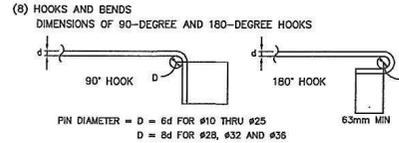
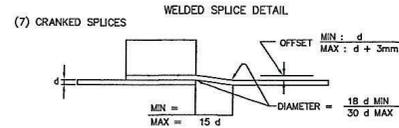
- DESIGN OF CONCRETE MIX SHALL MEET THE DESIGN CONCRETE STRENGTH GIVEN UNDER ITEM 1 OF MATERIALS.
- CONCRETE SHALL BE DEPOSITED, VIBRATED AND CURED IN ACCORDANCE WITH THE SPECIFICATIONS.
- FOR CONCRETE DEPOSITED AGAINST THE GROUND, LEAN CONCRETE WITH A MINIMUM THICKNESS OF 50mm SHALL BE LAID FIRST BEFORE INSTALLING THE REINFORCEMENT. THE LEAN CONCRETE SHALL NOT BE CONSIDERED IN MEASURING THE STRUCTURAL DEPTH OF CONCRETE SECTION.

(4) THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL THE PLACING SEQUENCES FOR ALL CONCRETING WORKS.

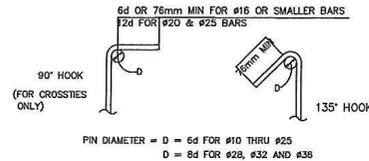
### b. BAR BENDING, SPLICING AND PLACING

- THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL, SHOP DRAWINGS INDICATING THE BENDING, CUTTING, SPLICING AND INSTALLATION OF ALL REINFORCING BARS.
- BARS SHALL BE BENT COLD. BARS PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT UNLESS PERMITTED BY THE ENGINEER.
- BAR SPLICING NOT INDICATED ON DRAWINGS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
- WELDED SPLICES, IF APPROVED BY THE ENGINEER, SHALL DEVELOP IN TENSION AT LEAST 125% OF THE SPECIFIED YIELD STRENGTH OF THE BARS. SPIRAL REINFORCEMENT ARE LAP-WELD CONNECTED (FLARED-V-GROOVE TYPE). WELDING SHOULD CONFORM TO AWS (D1.4) STRUCTURAL WELDING CODE REINFORCING STEEL. CARE SHOULD BE TAKEN NOT TO DAMAGE THE COLUMN MAIN BARS DURING WELDING.
- NOT MORE THAN 50% OF THE BARS AT ANY ONE SECTION SHALL BE SPLICED, UNLESS SPECIFICALLY INDICATED.

- (6) UNLESS OTHERWISE SHOWN ON DRAWINGS, THE CLEAR DISTANCE BETWEEN PARALLEL BARS IN A LAYER SHALL NOT BE LESS THAN 1.5 TIMES THE NOMINAL DIAMETER OF THE BAR NOR LESS THAN 1.5 TIMES THE MAXIMUM SIZE OF COARSE AGGREGATE. THE CLEAR DISTANCE BETWEEN LAYERS SHALL NOT BE LESS THAN 25mm NOR ONE BAR DIAMETER. THE BARS IN THE UPPER LAYER SHALL BE PLACED DIRECTLY ABOVE THOSE IN THE BOTTOM LAYER.



### DIMENSIONS FOR STIRRUPS AND CROSSIE HOOKS



### c. CONCRETE COVER TO REINFORCEMENT

CONCRETE COVER TO REINFORCEMENT SHALL BE 40mm UNLESS SHOWN OTHERWISE ON DRAWINGS.

### d. CONSTRUCTION JOINT

- THE POSITION AND FORM OF ANY CONSTRUCTION JOINT SHALL BE AS SHOWN ON DRAWINGS OR AS AGREED WITH THE ENGINEER.
- THE INTERFACE BETWEEN THE FIRST- AND SECOND-POUR CONCRETES AND BETWEEN EXISTING AND NEW CONCRETE SHALL BE ROUGHENED WITH AN AMPLITUDE OF 6mm MINIMUM.

### e. FALSEWORK

ALL FALSEWORK SHALL BE DESIGNED BY THE CONTRACTOR SUBJECT TO THE APPROVAL BY THE ENGINEER.

CONSULTANT:



DESIGNED BY:

ENGR. JUAN S. RODRIGUEZ AHORRO  
PROJECT ENGINEER

PRG: 016013A DATE: 02/22/2022  
PRJ: 2016096 PLACE: QUEZON CITY

PREPARED BY:

MR. LUIS M. MANATAD  
PROJECT ENGINEER

SUBMITTED BY:

MR. JERRY M. MEDINA  
PROJECT MANAGER

OWNER:



PHILIPPINE NATIONAL OIL COMPANY

ENGR. CARLITO B. PENA  
DEPARTMENT MANAGER

ATTY. GRACIELA M. BARLETA  
ENERGY VALUE PRESIDENT  
ENERGY BUSINESS

PROJECT NAME AND LOCATION:

CONSULTANCY SERVICE FOR THE PREPARATION OF FEASIBILITY STUDY AND DETAILED ENGINEERING DESIGN ON THE PROPOSED DEVELOPMENT OF PNOC ENERGY SUPPLY BASE LOCATED AT MABINI, BATANGAS

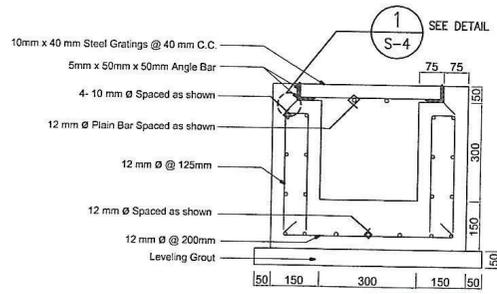
PROPOSED FORT DEVELOPMENT (PACKAGE CONTRACT II)

SHEET CONTENTS:

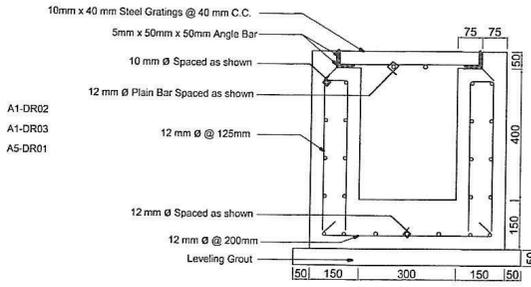
GENERAL NOTES

SHEET NO.

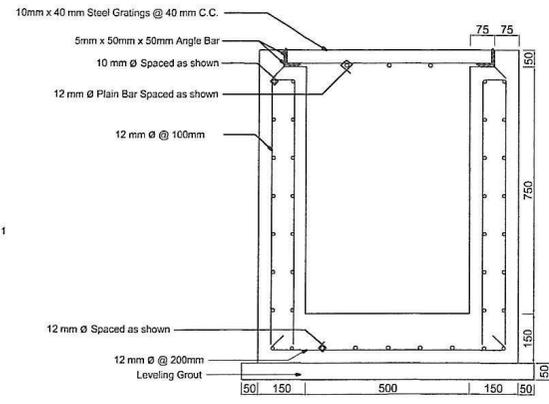
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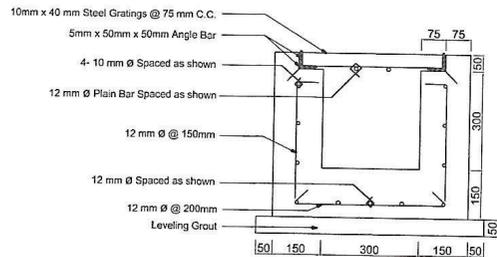
**1 SECTION**  
S-3 SCALE 1:16



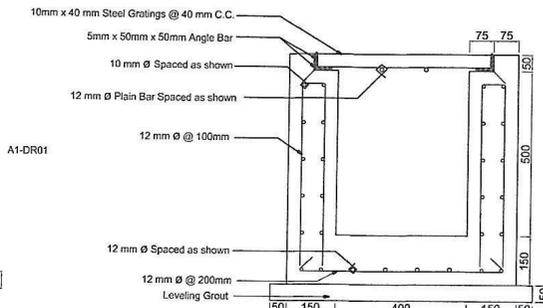
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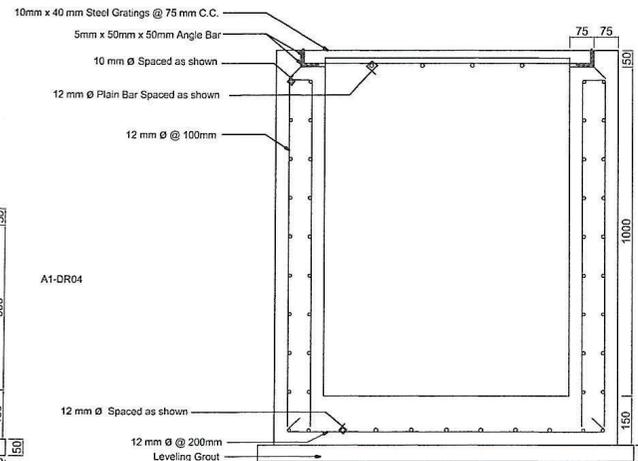
**5 SECTION**  
S-3 SCALE 1:16



**2 SECTION**  
S-3 SCALE 1:16

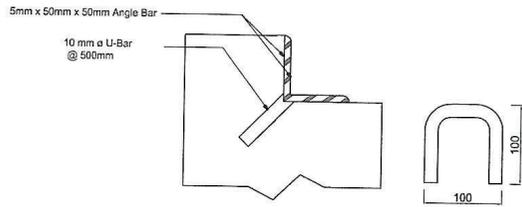


**4 SECTION**  
S-3 SCALE 1:16

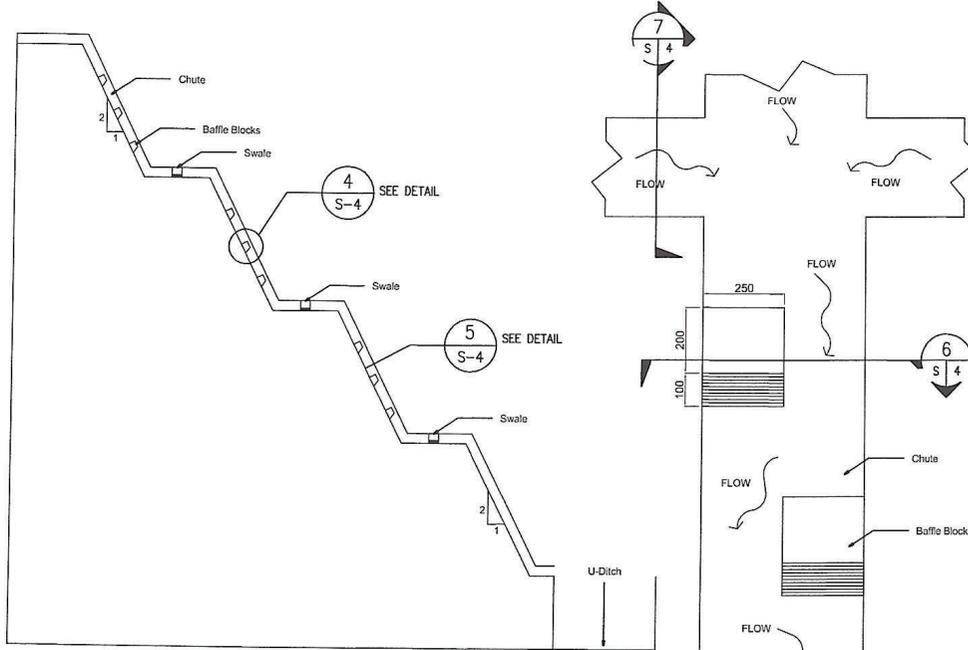


**6 SECTION**  
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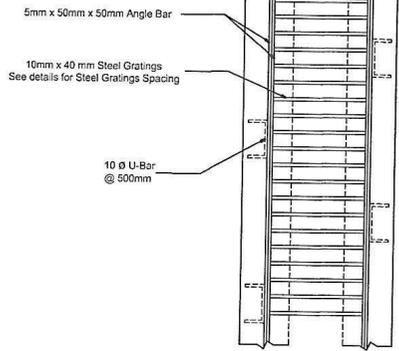
CONSULTANT:		DESIGNED BY:		PREPARED BY:		SUBMITTED BY:		OWNER:		PROJECT NAME AND LOCATION:		SHEET CONTENTS:		SHEET NO.			
										ENGR. CARLITO B. PENA DEPARTMENT MANAGER		ATTY. GRACIELA M. BARLETA DEPT. VICE PRESIDENT ENERGY BRANCH		PROPOSED PORT DEVELOPMENT (PACKAGE CONTRACT II)		DRAINAGE CROSS SECTIONS 	
WOODFIELDS CONSULTANTS, INC. A Navigated Engineering Consulting Firm		ENGR. JULIUS BONIFACIO AHORRO SPECIFIC ENGINEER PRC: 018103 DATE: 02/22/2022 PIR: 211605 OFFICE: QUEZON CITY		ENGR. LOURDES M. MANATAD PROJECT MANAGER		ENGR. HARRY M. MEDINA PROJECT MANAGER		PHILIPPINE NATIONAL OIL COMPANY		PROPOSED PORT DEVELOPMENT (PACKAGE CONTRACT II)		CONSULTANCY SERVICE FOR THE PREPARATION OF FEASIBILITY STUDY AND DETAILED ENGINEERING DESIGN ON THE PROPOSED DEVELOPMENT OF PNOC ENERGY SUPPLY BASE LOCATED AT MABINI, BATANGAS		S 3/7			



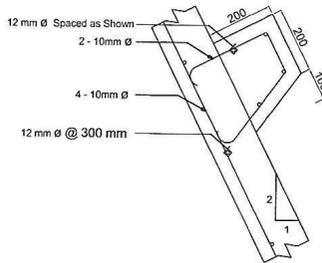
**1 SECTION OF U-BAR**  
S-4 SCALE 1:16



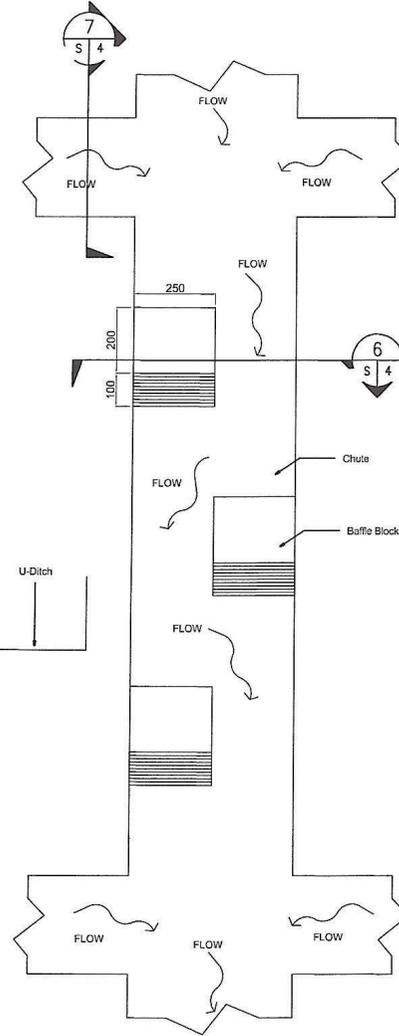
**3 SECTION**  
S-4 SCALE 1:16



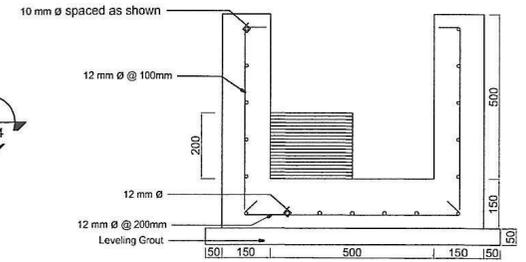
**2 STEEL GRATING DETAILS**  
S-4 SCALE 1:16



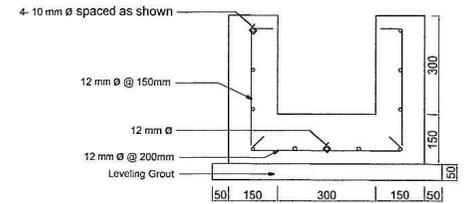
**4 SPOT DETAIL**  
S-4 SCALE 1:16



**5 BAFFLE BLOCK ELEVATION**  
S-4 SCALE 1:16



**6 CHUTE CROSS SECTION**  
S-4 SCALE 1:16



**7 SWALE CROSS SECTION**  
S-4 SCALE 1:16

CONSULTANT:		DESIGNED BY:			PREPARED BY:		SUBMITTED BY:		OWNER:		PROJECT NAME AND LOCATION:		SHEET CONTENTS:		SHEET NO.			
		 ENGR. W. S. RONDONI F. AHORRO <small>REGISTERED PROFESSIONAL ENGINEER</small>			 MA. LOURDES M. MANATAD <small>PROJECT SUPERVISOR</small>		 RESY M. MEDINA <small>PROJECT MANAGER</small>		 PHILIPPINE NATIONAL OIL COMPANY ENGR. CARLITO B. FENA <small>DEPARTMENT MANAGER</small>		ATTY. GRACIELA M. BARLETA <small>ATTORNEY AT LAW</small> ENEROY BUSINESS		CONSULTANCY SERVICE FOR THE PREPARATION OF FEASIBILITY STUDY AND DETAILED ENGINEERING DESIGN ON THE PROPOSED DEVELOPMENT OF PNOC ENERGY SUPPLY BASE LOCATED AT MABINI, BATANGAS		U-BAR DETAILED SECTION CHUTE AND SWALES CROSS SECTION BAFFLE BLOCK SECTION			
PRC: 0180137 PIR: 2516096		DATE: 02/22/2022 PLACE: QUEZON CITY									PROPOSED PORT DEVELOPMENT (PACKAGE CONTRACT II)							