

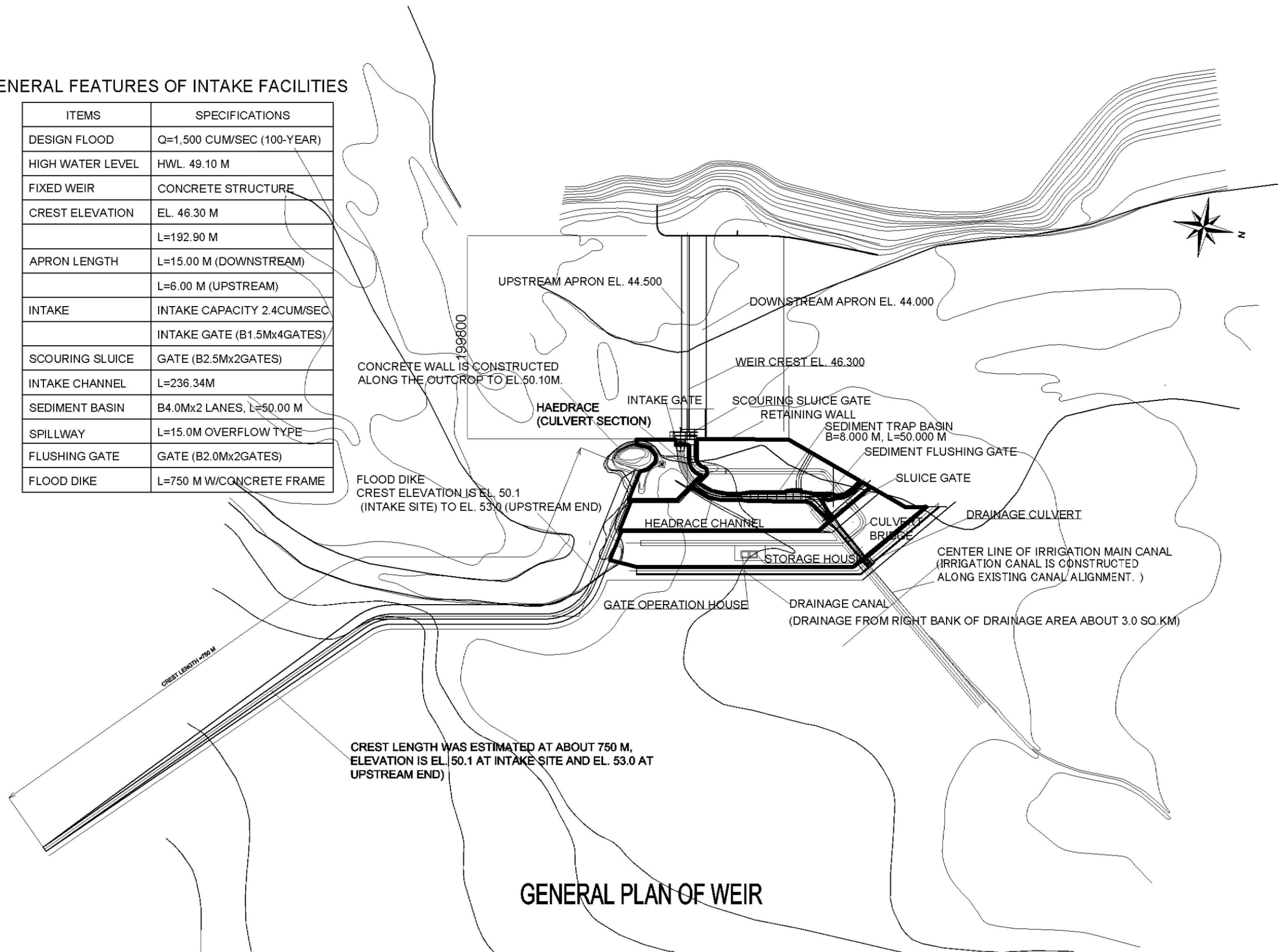
## 2-2-3 Outline of Design Drawings

Table 2-34 Drawings

CONSTRUCTION MATTER	NAME OF DESIGN	SHEETS
<b>INTAKE WORK</b>		
	GENERAL PLAN OF INTAKE	1
	PLAN OF INTAKE	1
	PLAN OF WEIR	1
	CROSS SECTION OF WEIR	1
	PLAN OF GUIDE WALL ON LEFT BANK	1
	CROSS SECTION OF GUIDE WALL ON LEFT BANK	2
	PLAN OF GUIDE WALL ON RIGHT BANK WALL	1
	CROSS SECTION OF GUIDE WALL ON RIGHT BANK	1
	PLAN OF SCOURING	1
	PLAN OF SCOURING SLUICE GATE	1
	GENERAL PLAN OF INTAKE CANAL	1
	PLAN OF HEADRACE CANAL	1
	CROSS SECTION OF HEADRACE CANAL	1
	PLAN OF INTAKE GATE	1
	PLAN OF SEDIMENT TRAP, IRRIGATION CANAL	1
	CROSS SECTION OF SEDIMENT TRAP	1
	CROSS SECTION OF IRRIGATION CANAL	1
	PLAN OF IRRIGATION CANAL GATE	1
	PLAN OF SEDIMENT TRAP	1
	CROSS SECTION OF SEDIMENT TRAP	1
	PLAN OF FLASH GATE	1
	PLAN OF PROTECTION DIKE	1
	PLAN OF GATE OPERATING HOUSE	1
<b>IRRIGATION CANAL WORK</b>		
	GENERAL MAP OF BULUTO IRRIGATION SYSTEM	1
	TYPICAL CROSS SECTION OF MAIN CANAL, SECONDARY CANAL	1
	PLAN OF DROP STRUCTURE 1.0 M TYPE, 0.5M TYPE	2
	OFFTAKE STRUCTURE CHECK GATE STRUCTURE	1
	BRIDGE CROSSING NATIONAL ROAD	1
	BRIDGE CROSSING IRRIGATION CANAL	1
	PLAN OF DRAIN BOX CULVERT	3
	PLAN OF DRAIN PIPE CULVERT	1
	PLAN OF DRAIN BRIDGE	1
	PLAN OF SPILL WAY	1
	PLAN OF EMERGENCY OUTLET STRUCTURE	1
<b>DRAINAGE CANAL WORK</b>		
	DRAINAGE CANAL NO.1 PLAN LONGITUDINAL SECTION	2
	DRAINAGE CANAL NO.2 PLAN LONGITUDINAL SECTION	2
<b>VEMASSE RIVER PROTECTION WORK</b>		
	VEMASSE RIVER BANK PROTECTION	1
<b>BUILDING WORK</b>		
	WUA MEETING FACILITIES	2
Total		44

**GENERAL FEATURES OF INTAKE FACILITIES**

ITEMS	SPECIFICATIONS
DESIGN FLOOD	Q=1,500 CUM/SEC (100-YEAR)
HIGH WATER LEVEL	HWL. 49.10 M
FIXED WEIR	CONCRETE STRUCTURE
CREST ELEVATION	EL. 46.30 M
	L=192.90 M
APRON LENGTH	L=15.00 M (DOWNSTREAM)
	L=6.00 M (UPSTREAM)
INTAKE	INTAKE CAPACITY 2.4CUM/SEC
	INTAKE GATE (B1.5Mx4GATES)
SCOURING SLUICE	GATE (B2.5Mx2GATES)
INTAKE CHANNEL	L=236.34M
SEDIMENT BASIN	B4.0Mx2 LANES, L=50.00 M
SPILLWAY	L=15.0M OVERFLOW TYPE
FLUSHING GATE	GATE (B2.0Mx2GATES)
FLOOD DIKE	L=750 M W/CONCRETE FRAME



CONCRETE WALL IS CONSTRUCTED ALONG THE OUTCROP TO EL.50.10M.

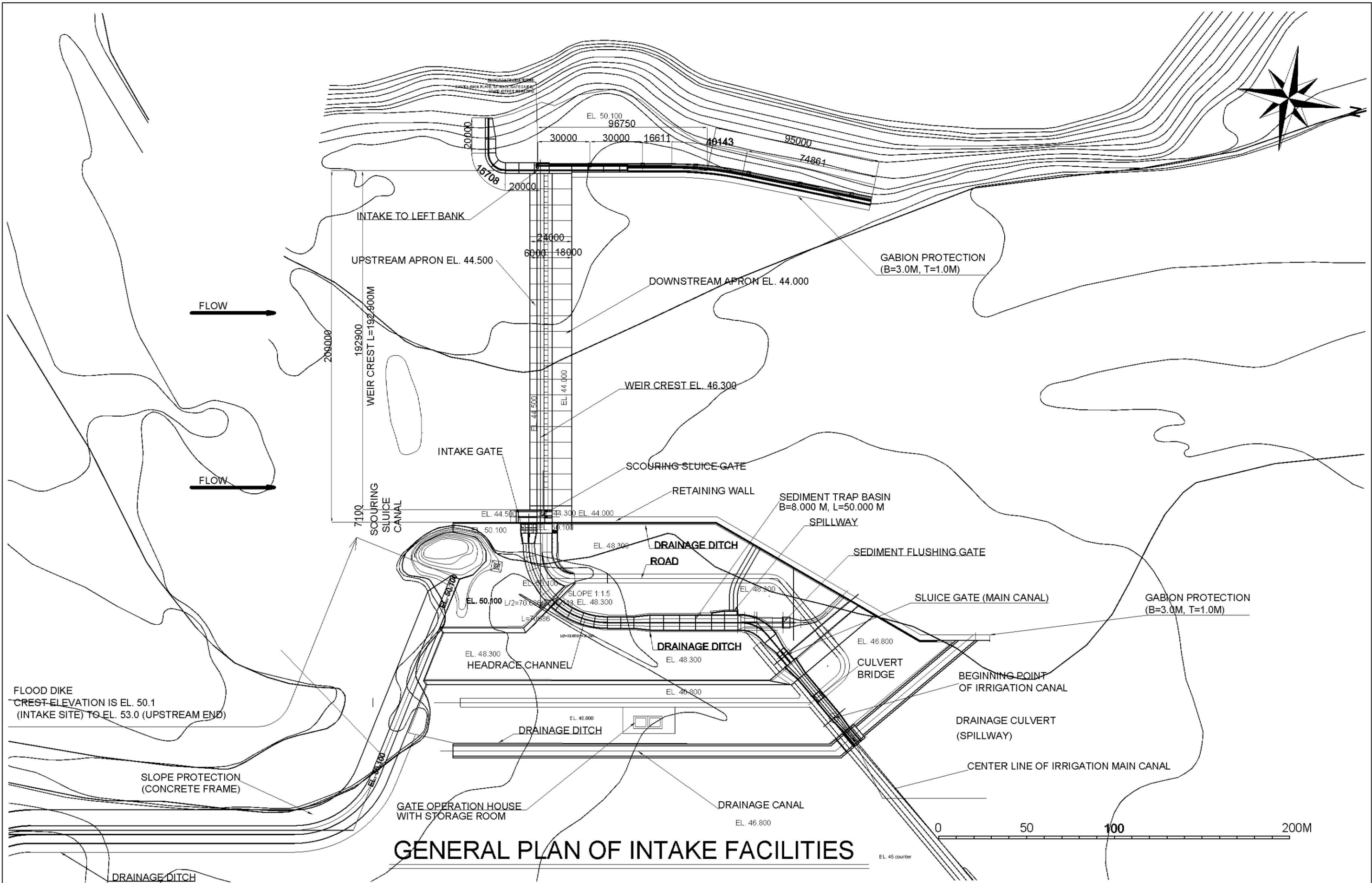
FLOOD DIKE CREST ELEVATION IS EL. 50.1 (INTAKE SITE) TO EL. 53.0 (UPSTREAM END)

CREST LENGTH WAS ESTIMATED AT ABOUT 750 M, ELEVATION IS EL. 50.1 AT INTAKE SITE AND EL. 53.0 AT UPSTREAM END)

**GENERAL PLAN OF WEIR**

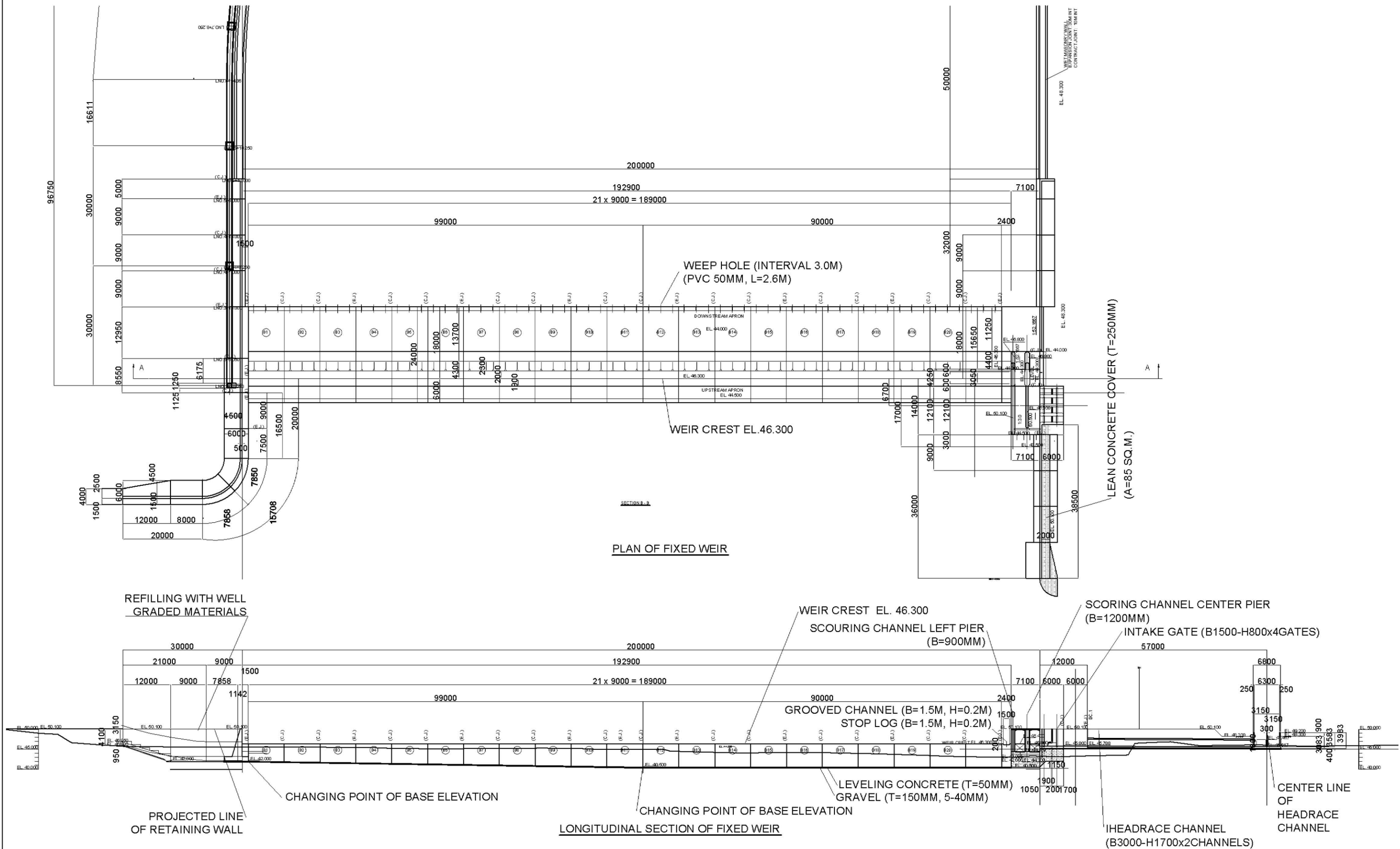
2 - 74


	<b>NTC INTERNATIONAL CO., LTD.</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
			<b>THE PROJECT FOR REHABILITATION AND IMPROVEMENT OF BULUTO IRRIGATION SCHEME</b>			PHW.01
			DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
			<b>INTAKE PLAN GENERAL PLAN OF INTAKE</b>	1 : 4000		

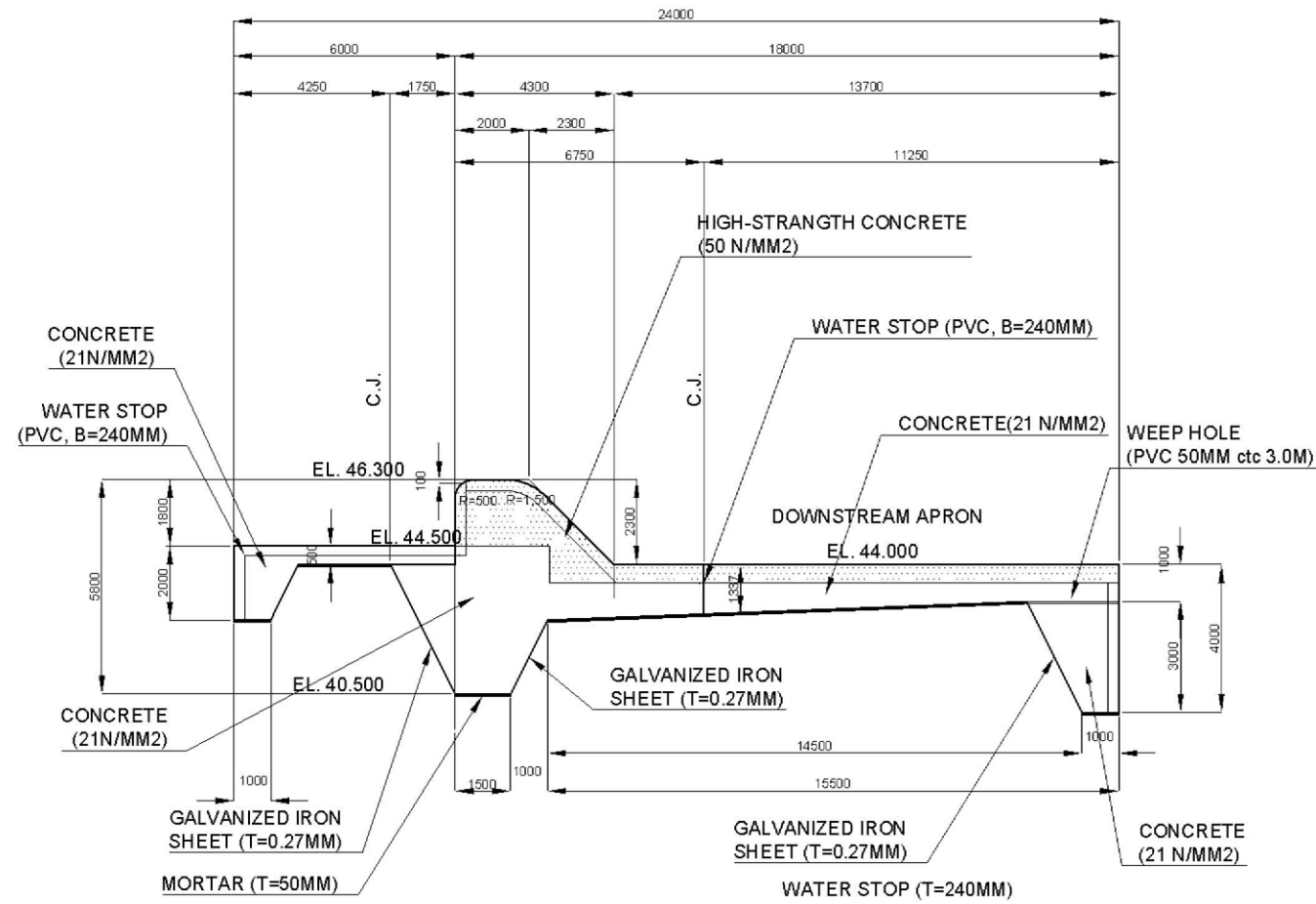


### GENERAL PLAN OF INTAKE FACILITIES

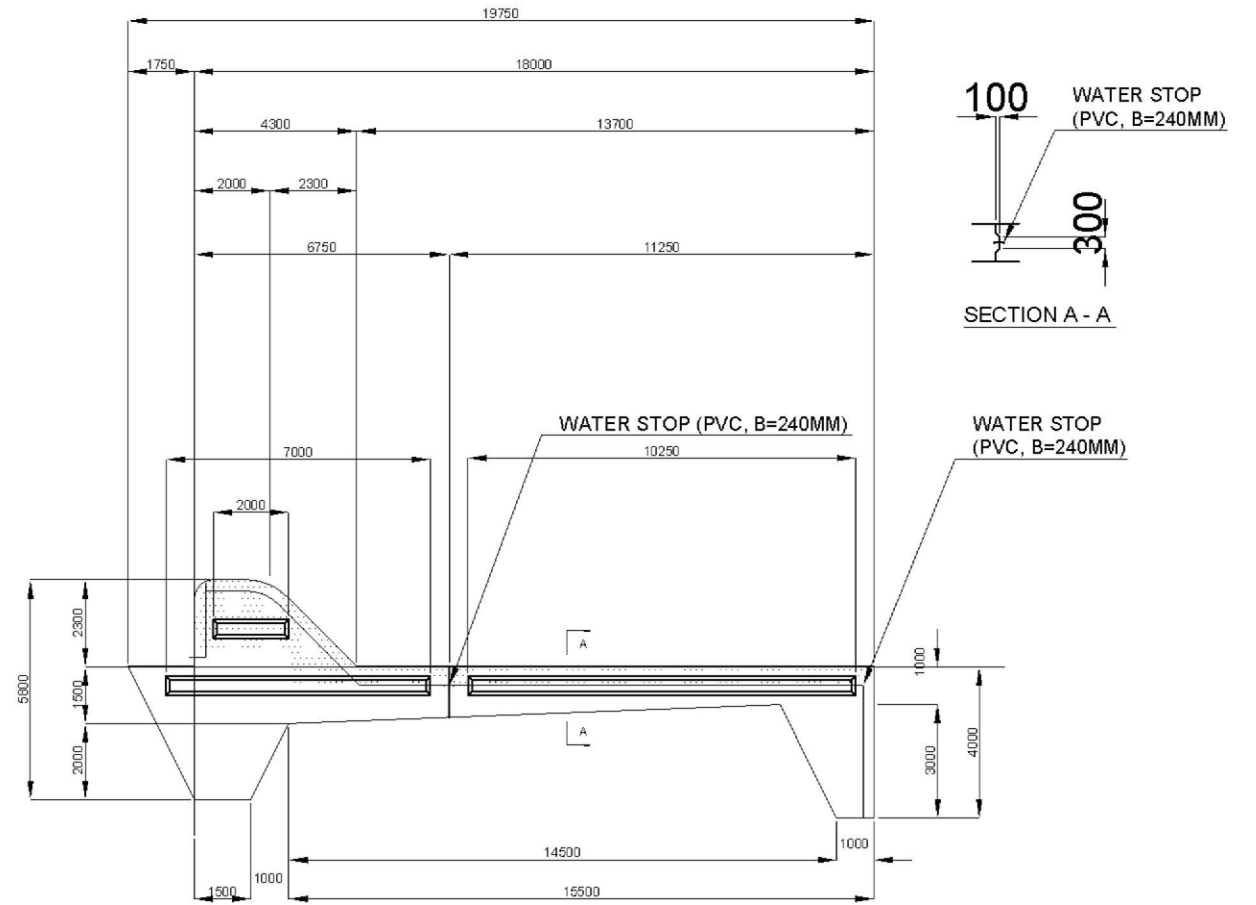
	<b>NTC INTERNATIONAL CO., LTD.</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
			THE PROJECT FOR REHABILITATION AND IMPROVEMENT OF BULUTO IRRIGATION SCHEME INTAKE PLAN PLAN OF INTAKE		APPROVED BY	PHW.02 SERIAL NO.
			DWG. TITLE	SCALE		
				1 : 2000		




 <b>NTC INTERNATIONAL CO., LTD.</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
		THE PROJECT FOR REHABILITATION AND IMPROVEMENT OF BULUTO IRRIGATION SCHEME			PW.01
		DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
		INTAKE PLAN PLAN OF WEIR	1 : 900		

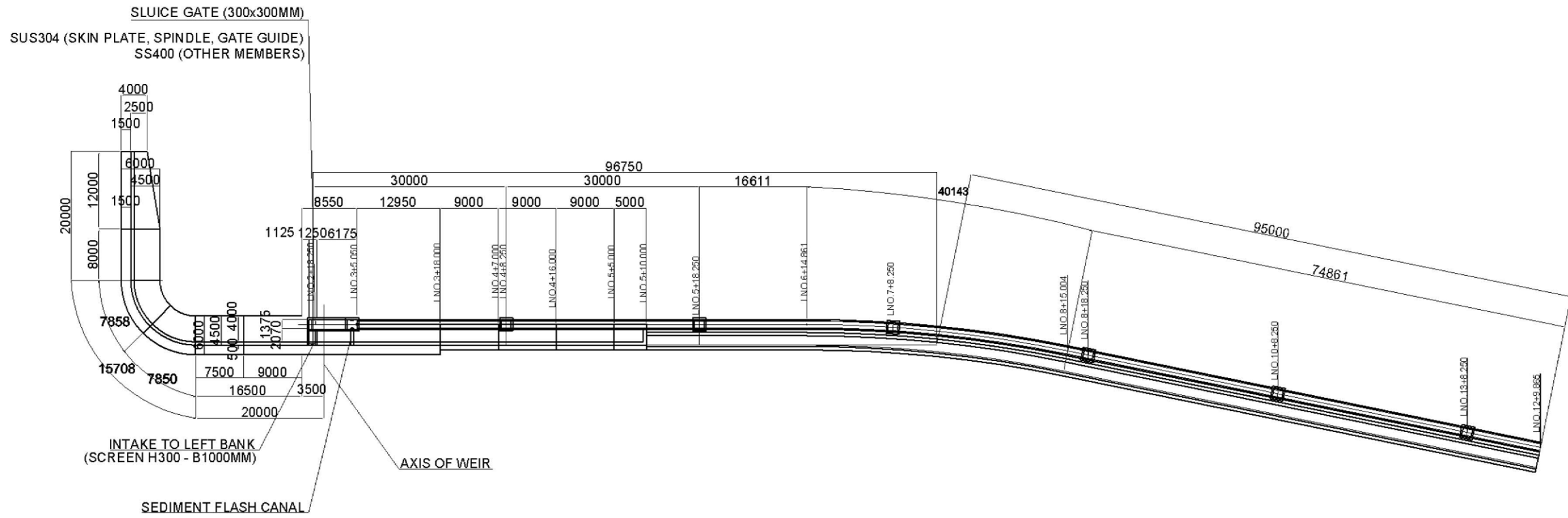


PLAN OF FIXED WEIR

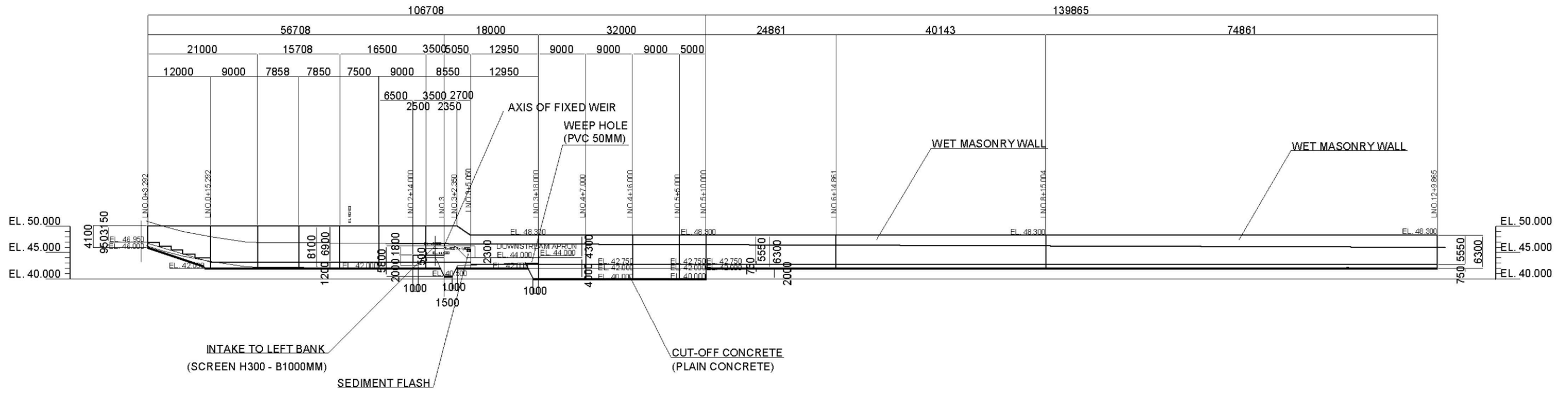


PLAN OF WATER STOP


 <b>NTC</b>	<b>NTC INTERNATIONAL CO., LTD.</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
			<b>THE PROJECT FOR REHABILITATION AND IMPROVEMENT OF BULUTO IRRIGATION SCHEME</b>		NTC INTERNATIONAL Co., Ltd.	PW.02
			DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
			<b>INTAKE PLAN CROSS SECTION OF WEIR</b>	1 : 400		

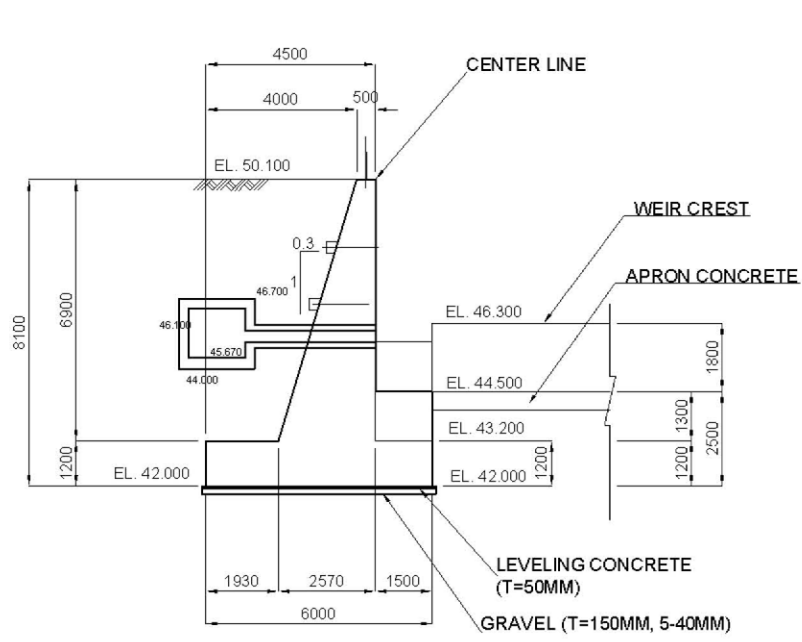


PLAN OF LEFT RETAINING WALL

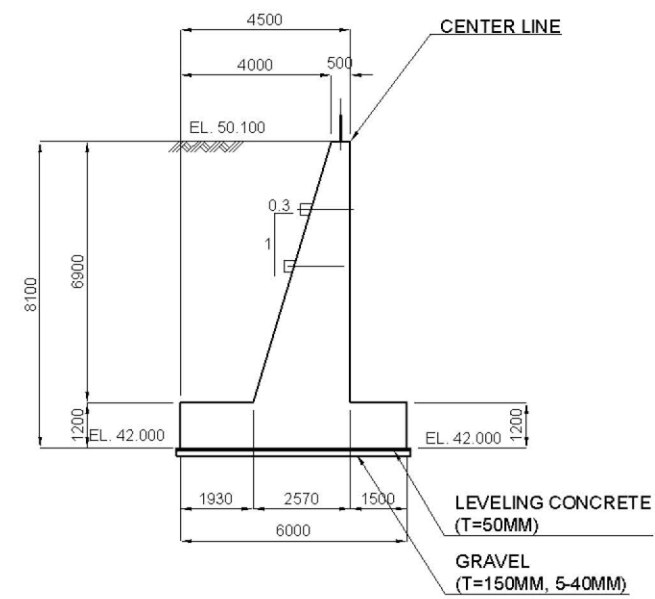


LONGITUDINAL SECTION OF LEFT BANK RETAINING WALL

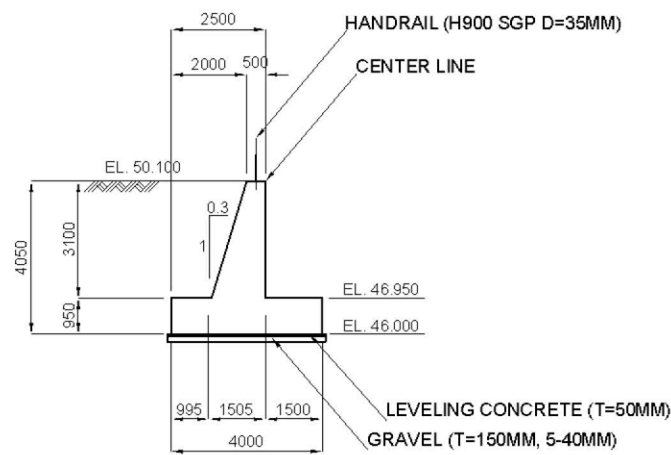
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		THE PROJECT FOR REHABILITATION AND IMPROVEMENT OF BULUTO IRRIGATION SCHEME		NTC INTERNATIONAL Co., Ltd.	LGW.01
		DWG TITLE	SCALE	APPROVED BY	SERIAL NO.
		INTAKE PLAN PLAN OF GUIDE WALL ON LEFT BANK	1 : 800		



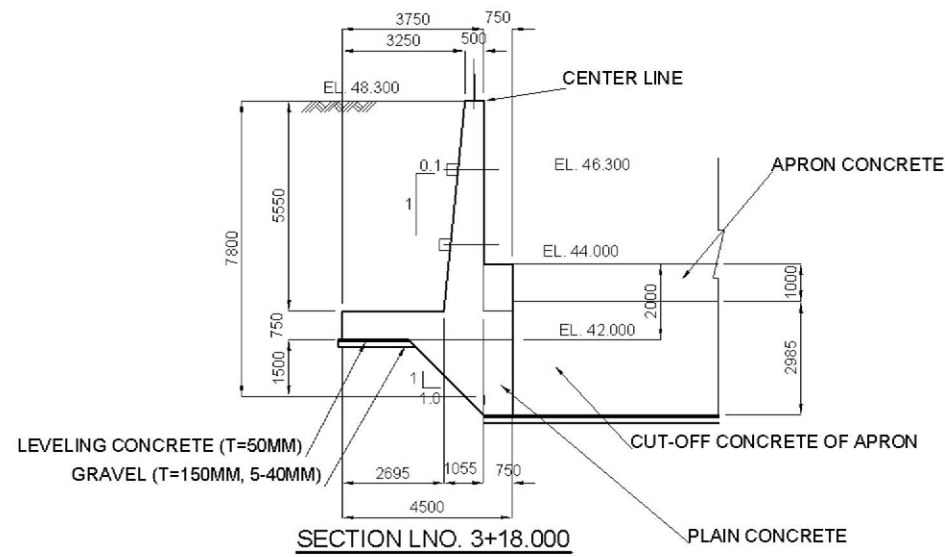
SECTION LNO. 2+14.000 (+)



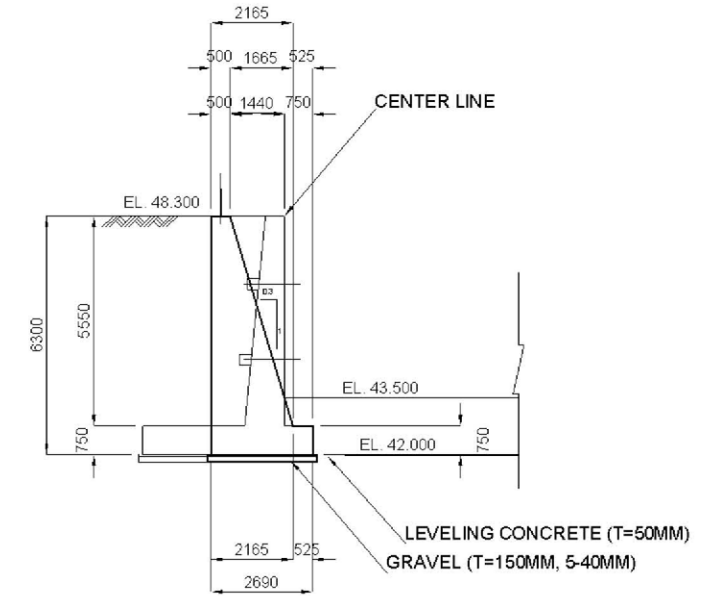
SECTION LNO. 0+15.292 - LNO. 2+14.000



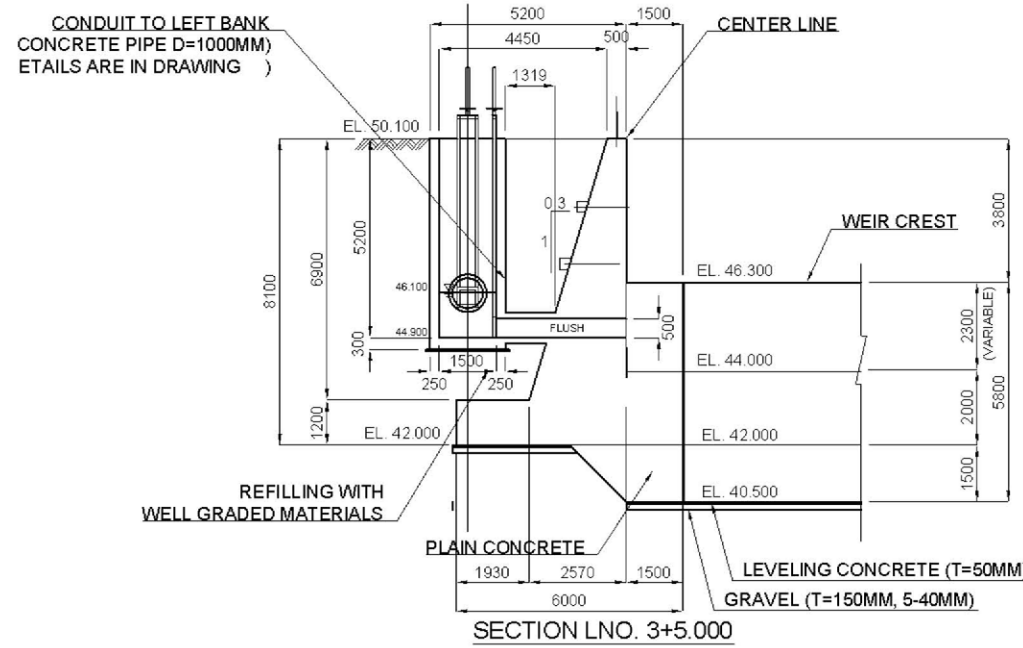
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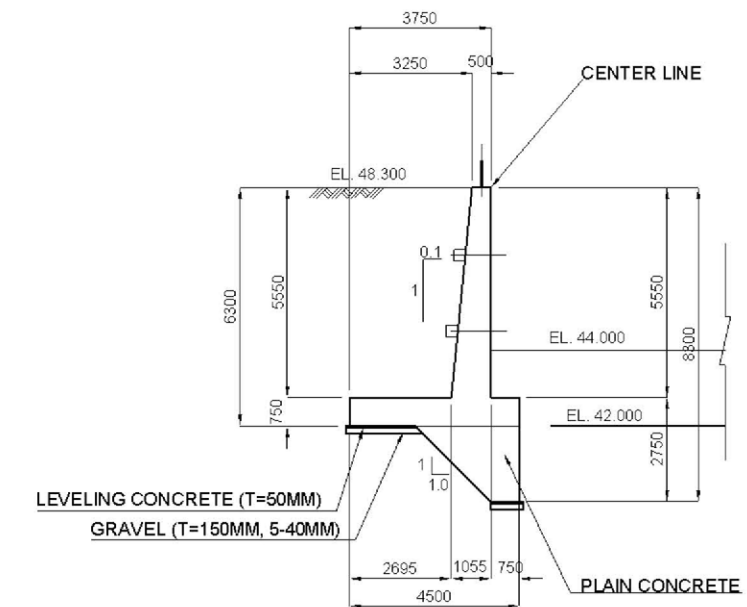
SECTION LNO. 3+18.000



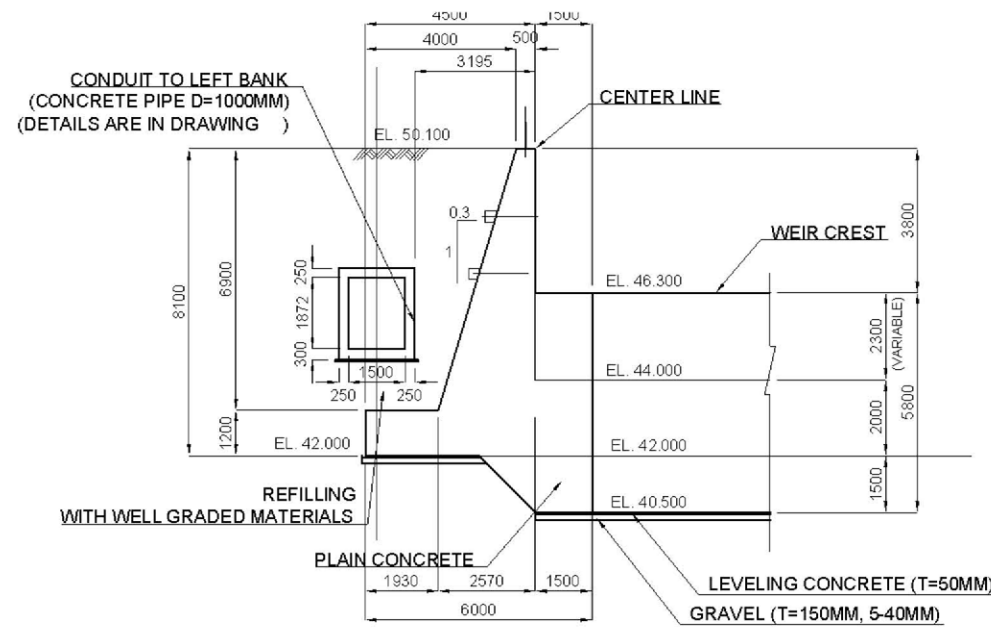
SECTION LNO. 5+1000 - LNO. 12+9.865



SECTION LNO. 3+5.000

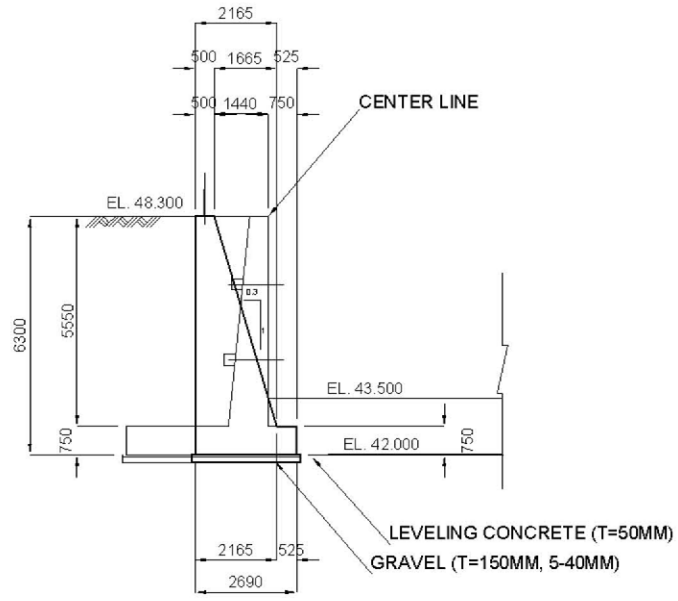
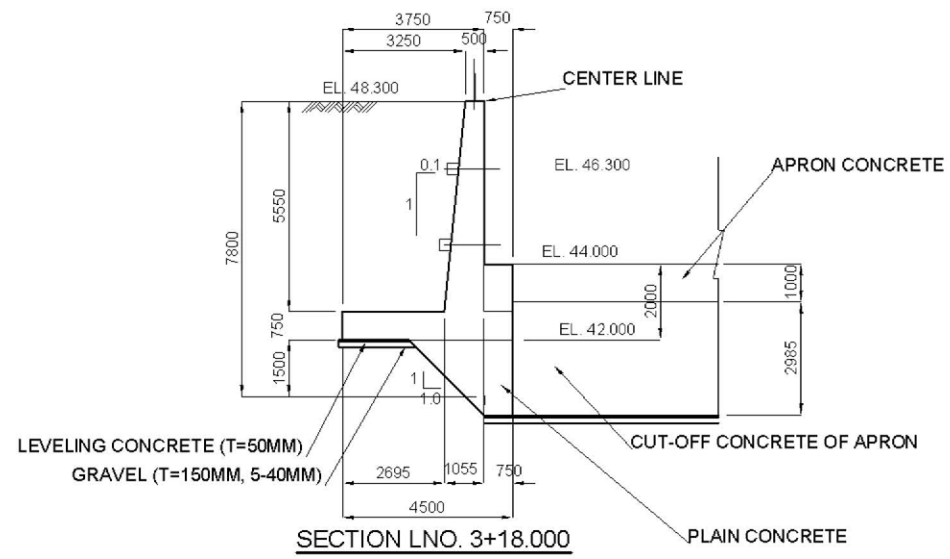


SECTION LNO. 3+18.000 - LNO. 5+10.000

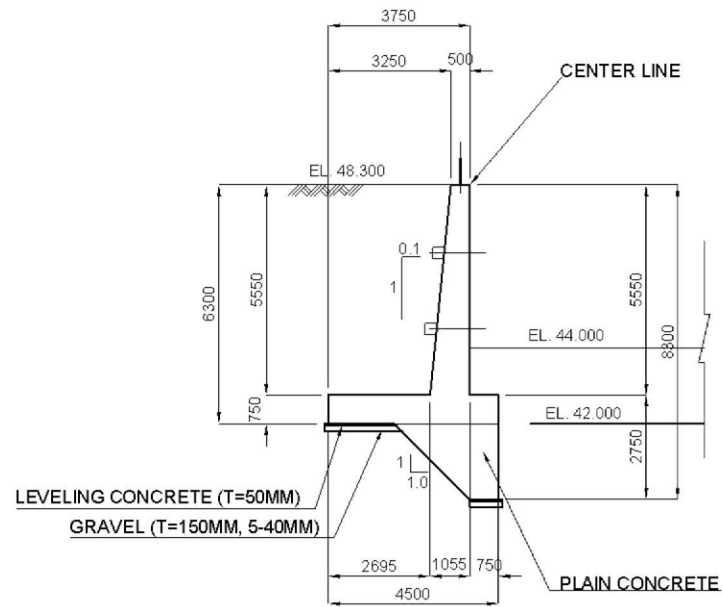


SECTION LNO. 3+0.000 (+)


	<b>NTC INTERNATIONAL CO., LTD.</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
			<b>THE PROJECT FOR REHABILITATION AND IMPROVEMENT OF BULUTO IRRIGATION SCHEME</b>		NTC INTERNATIONAL Co., Ltd.	LGW.02
			DWG TITLE	SCALE	APPROVED BY	SERIAL NO.
			<b>CROSS SECTION OF GUIDE WALL ON LEFT BANK 1/2</b>	1 : 200		



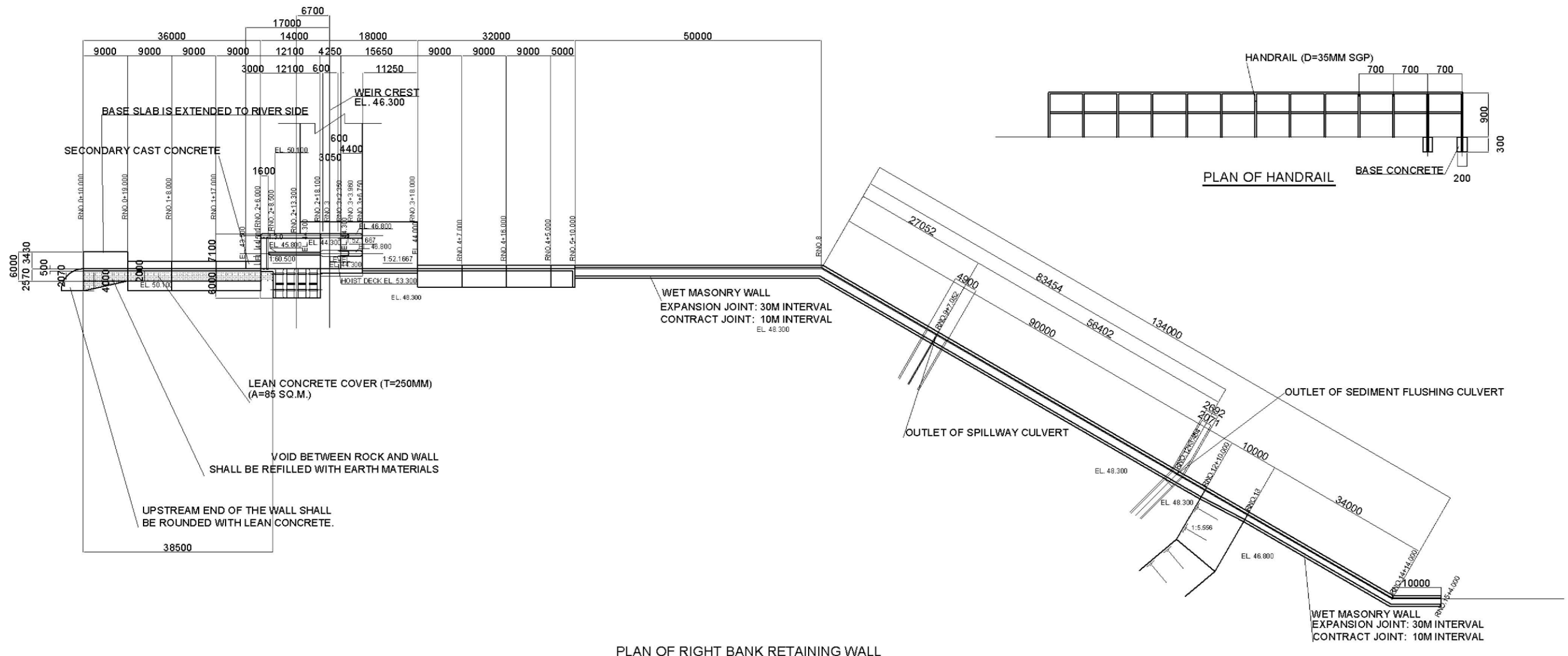
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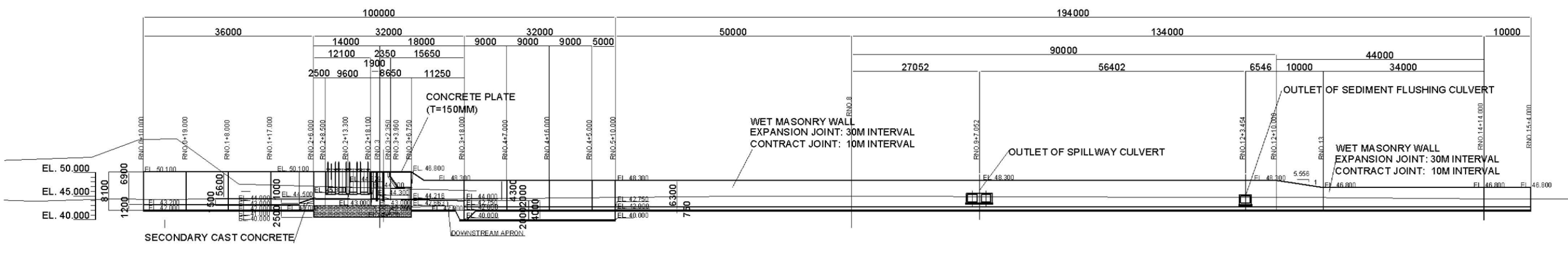
SECTION LNO. 3+18.000 - LNO. 5+10.000

 <b>NTC</b>	<b>NTC INTERNATIONAL CO., LTD.</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
			<b>THE PROJECT FOR REHABILITATION AND IMPROVEMENT OF BULUTO IRRIGATION SCHEME</b>		NTC INTERNATIONAL Co., Ltd.	LGW.03
			DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
			<b>INTAKE PLAN CROSS SECTION OF GUIDE WALL ON LEFT BANK 2/2</b>	1 : 200		



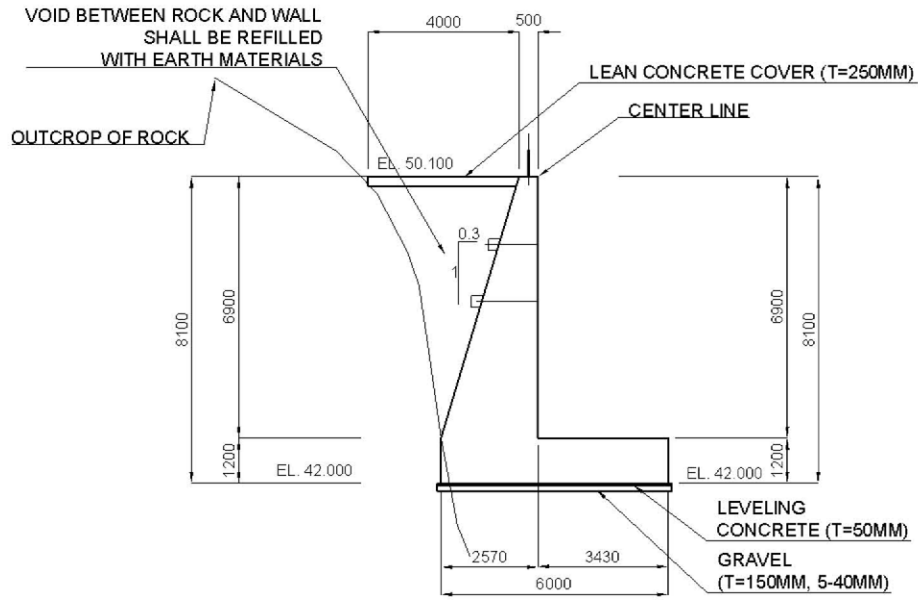


PLAN OF RIGHT BANK RETAINING WALL



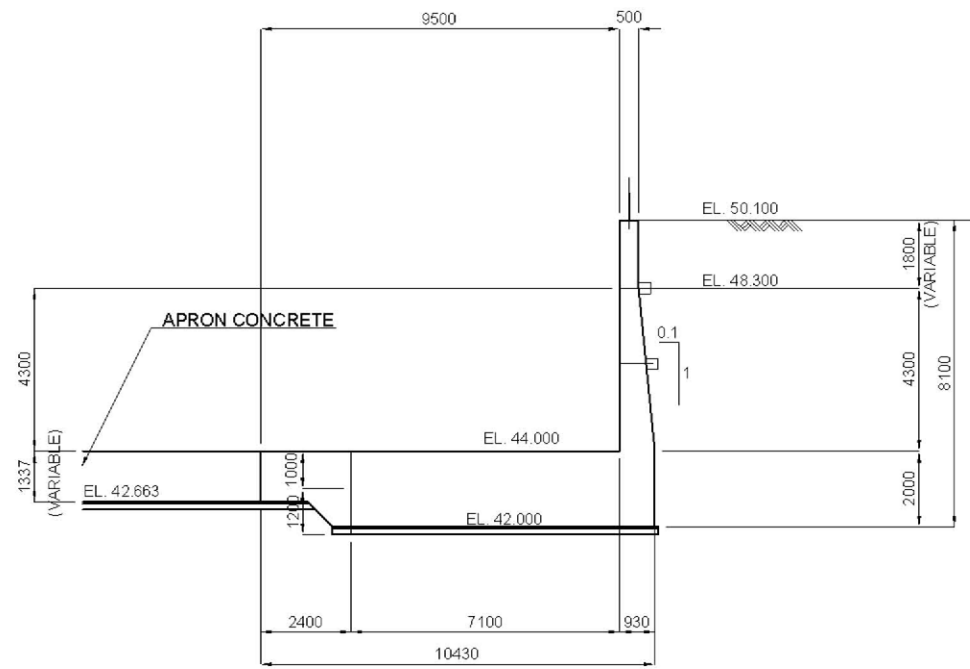
LONGITUDINAL SECTION OF RIGHT BANK RETAINING WALL

<p><b>NTC</b> NTC INTERNATIONAL CO., LTD.</p>	<table border="1"> <tr> <th>REVISION</th> <th>PROJECT TITLE</th> <th>DATE</th> <th>DESIGNED BY</th> <th>DWG NO.</th> </tr> <tr> <td> </td> <td>THE PROJECT FOR REHABILITATION AND IMPROVEMENT OF BULUTO IRRIGATION SCHEME</td> <td> </td> <td>NTC INTERNATIONAL Co., Ltd.</td> <td>RGW.01</td> </tr> </table>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.		THE PROJECT FOR REHABILITATION AND IMPROVEMENT OF BULUTO IRRIGATION SCHEME		NTC INTERNATIONAL Co., Ltd.	RGW.01	<table border="1"> <tr> <th>DWG. TITLE</th> <th>SCALE</th> <th>APPROVED BY</th> <th>SERIAL NO.</th> </tr> <tr> <td>INTAKE PLAN PLAN OF GUIDE WALL ON RIGHT BANK</td> <td>1 : 900</td> <td> </td> <td> </td> </tr> </table>	DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.	INTAKE PLAN PLAN OF GUIDE WALL ON RIGHT BANK	1 : 900		
	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.															
	THE PROJECT FOR REHABILITATION AND IMPROVEMENT OF BULUTO IRRIGATION SCHEME		NTC INTERNATIONAL Co., Ltd.	RGW.01																
DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.																	
INTAKE PLAN PLAN OF GUIDE WALL ON RIGHT BANK	1 : 900																			

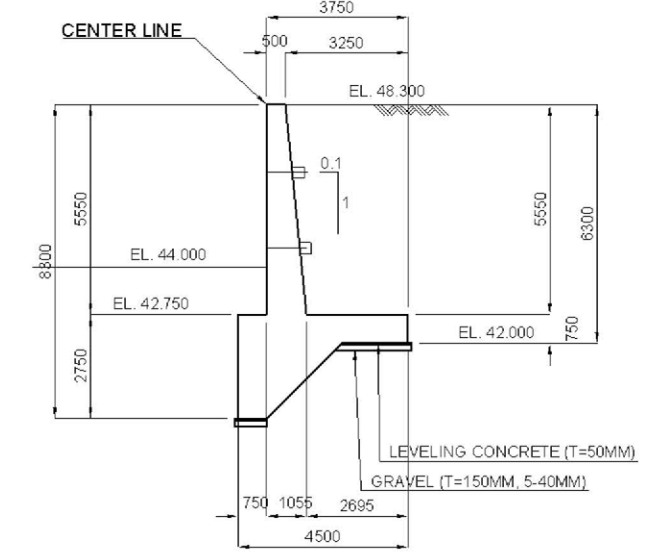


SECTION RNO. 0+10.000 - RNO.0+19.000

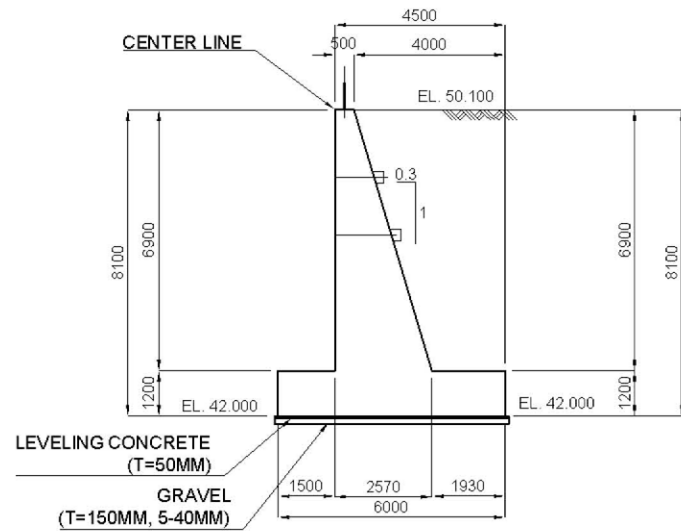
NOTE: MOST UPSTREAM OF THE WALL SHALL BE ROUNDED WITH LEAN CONCRETE.



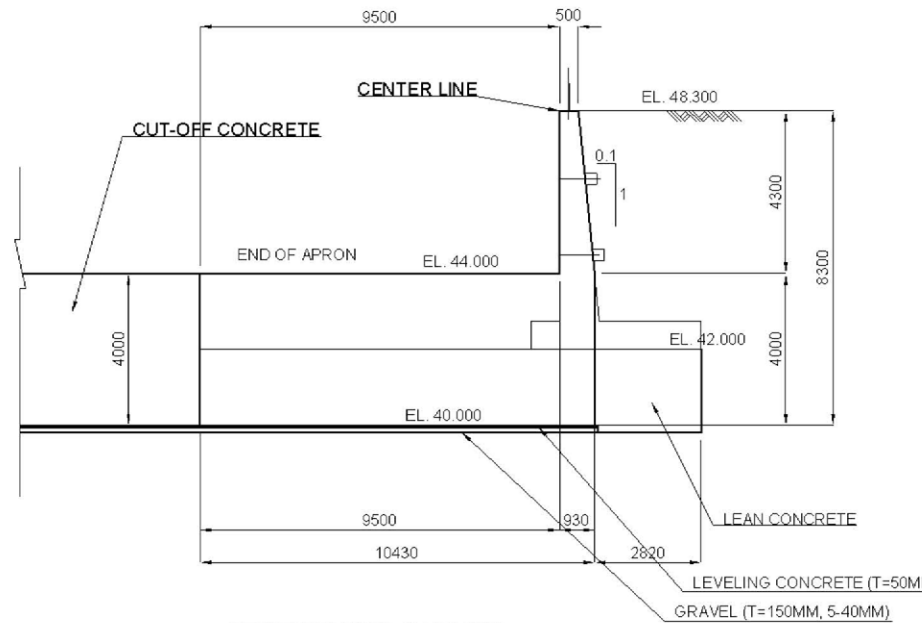
SECTION RNO. 3+6.750



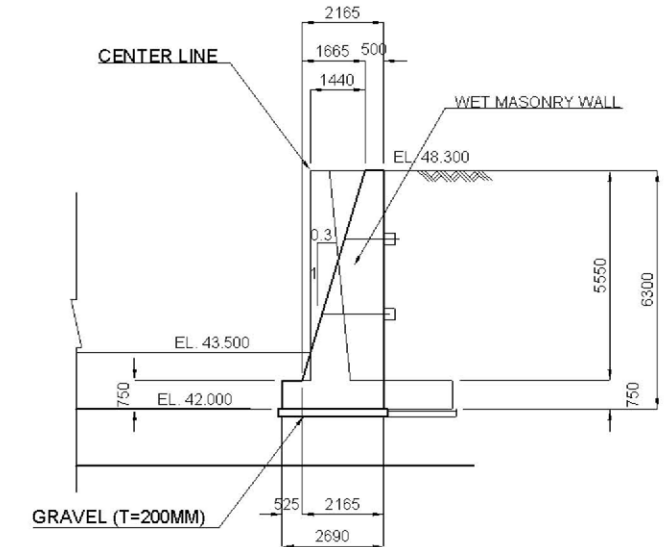
SECTION RNO. 3+18.000-RNO.5+10.000



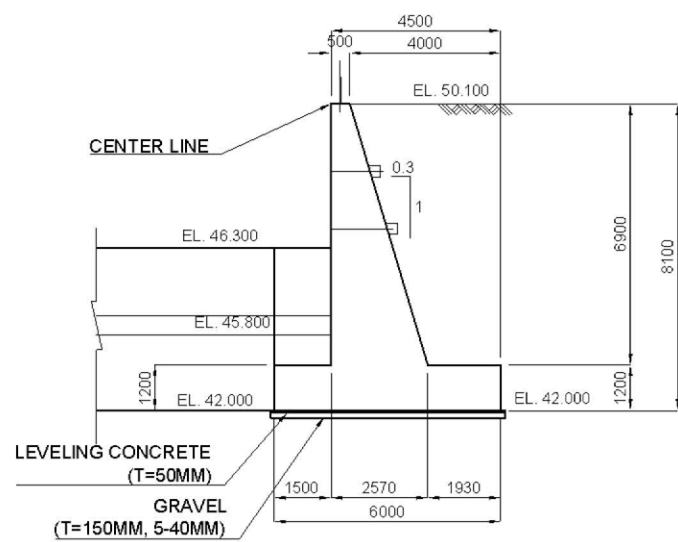
SECTION RNO. 0+19.000 - RNO.2+6.000



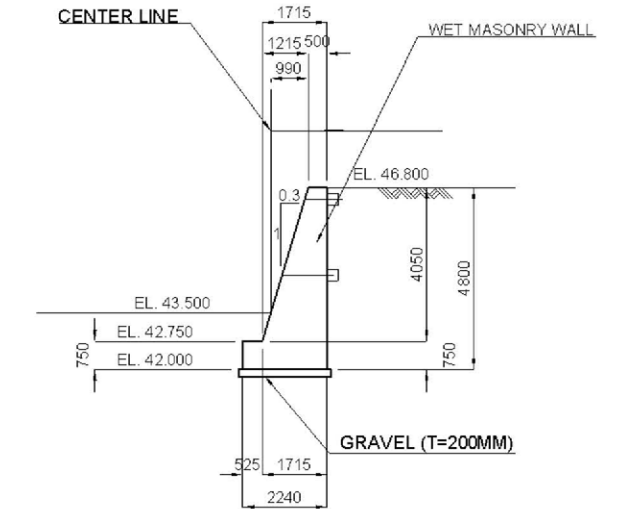
SECTION RNO. 3+18.000



SECTION RNO. 5+10.000 - RNO.12+10.000

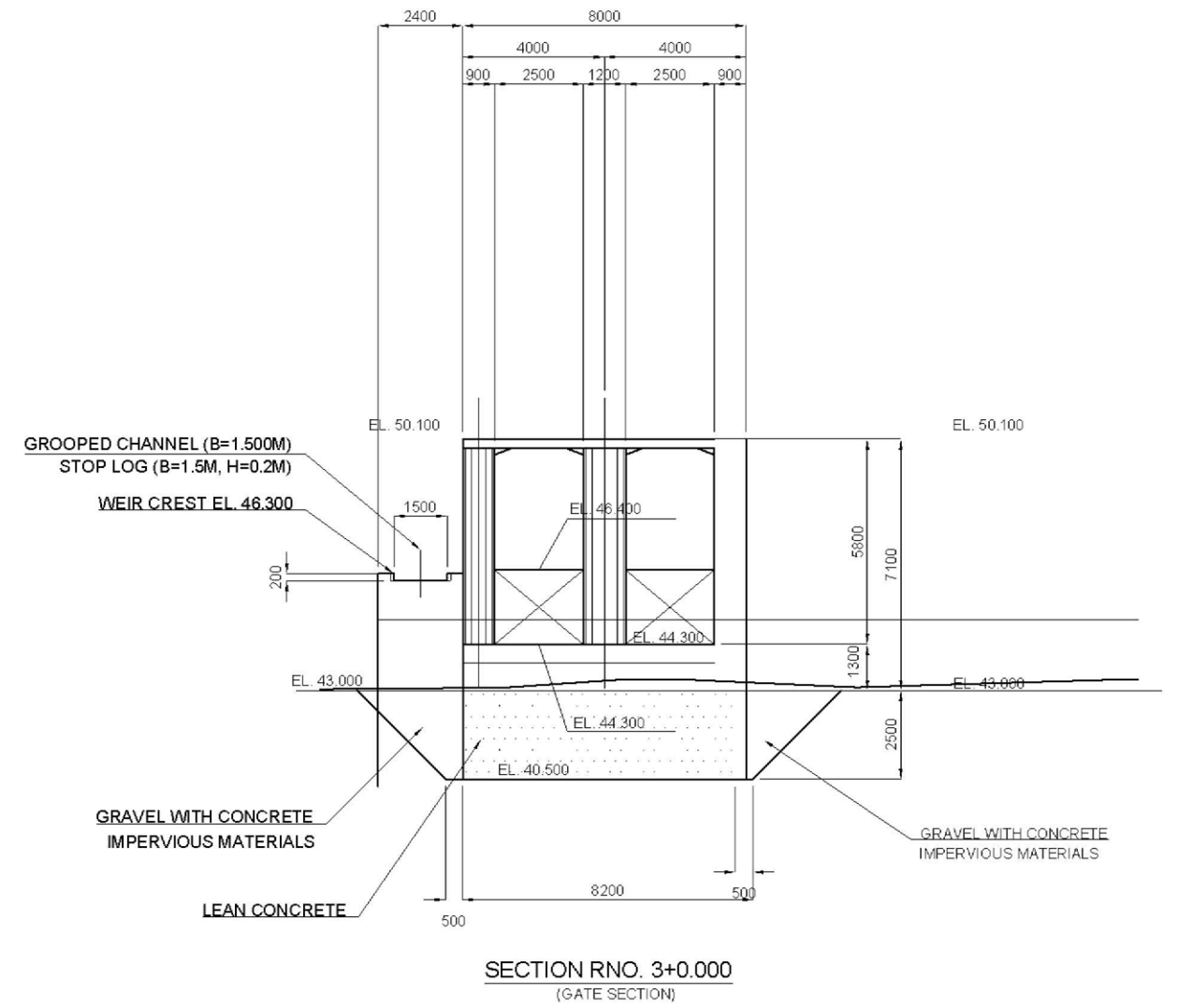
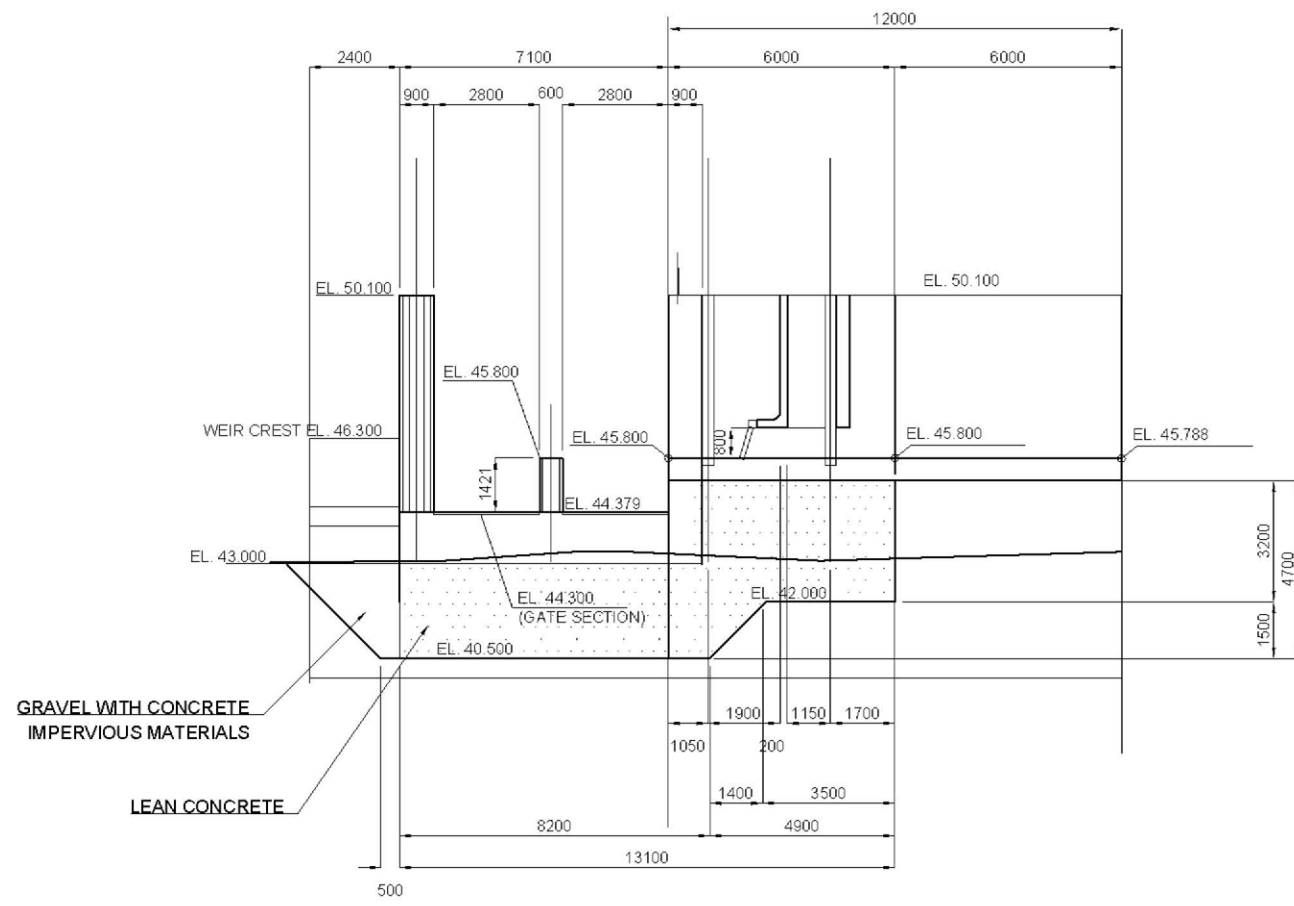



SECTION RNO. 2+8.500

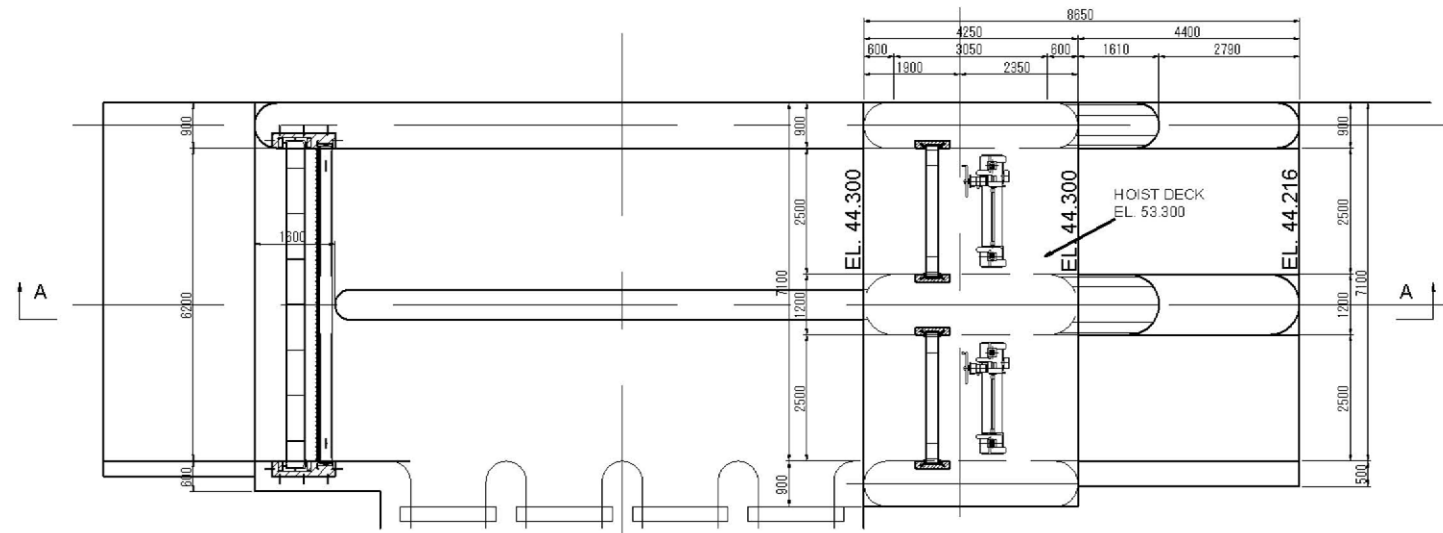


SECTION RNO. 12+10.000 - RNO. 15+4.000

	<b>NTC INTERNATIONAL CO., LTD.</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
			<b>THE PROJECT FOR REHABILITATION AND IMPROVEMENT OF BULUTO IRRIGATION SCHEME</b>			RGW.02
			DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
			<b>CROSS SECTION OF GUIDE WALL ON RIGHT BANK</b>	<b>1 : 200</b>		

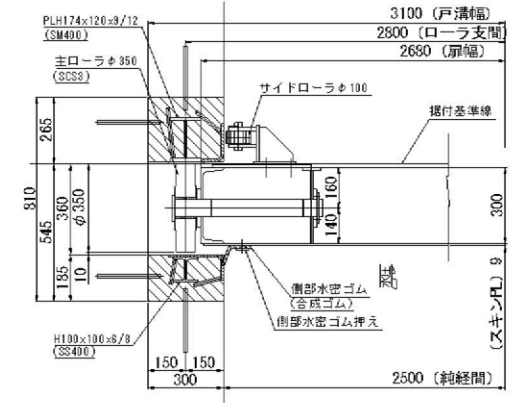


 <b>NTC</b>	<b>NTC INTERNATIONAL CO., LTD.</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
			<b>THE PROJECT FOR REHABILITATION AND IMPROVEMENT OF BULUTO IRRIGATION SCHEME</b>		NTC INTERNATIONAL Co., Ltd.	PSG.01
			DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
			<b>INTAKE PLAN PLAN OF SCOURING</b>	1 : 200		

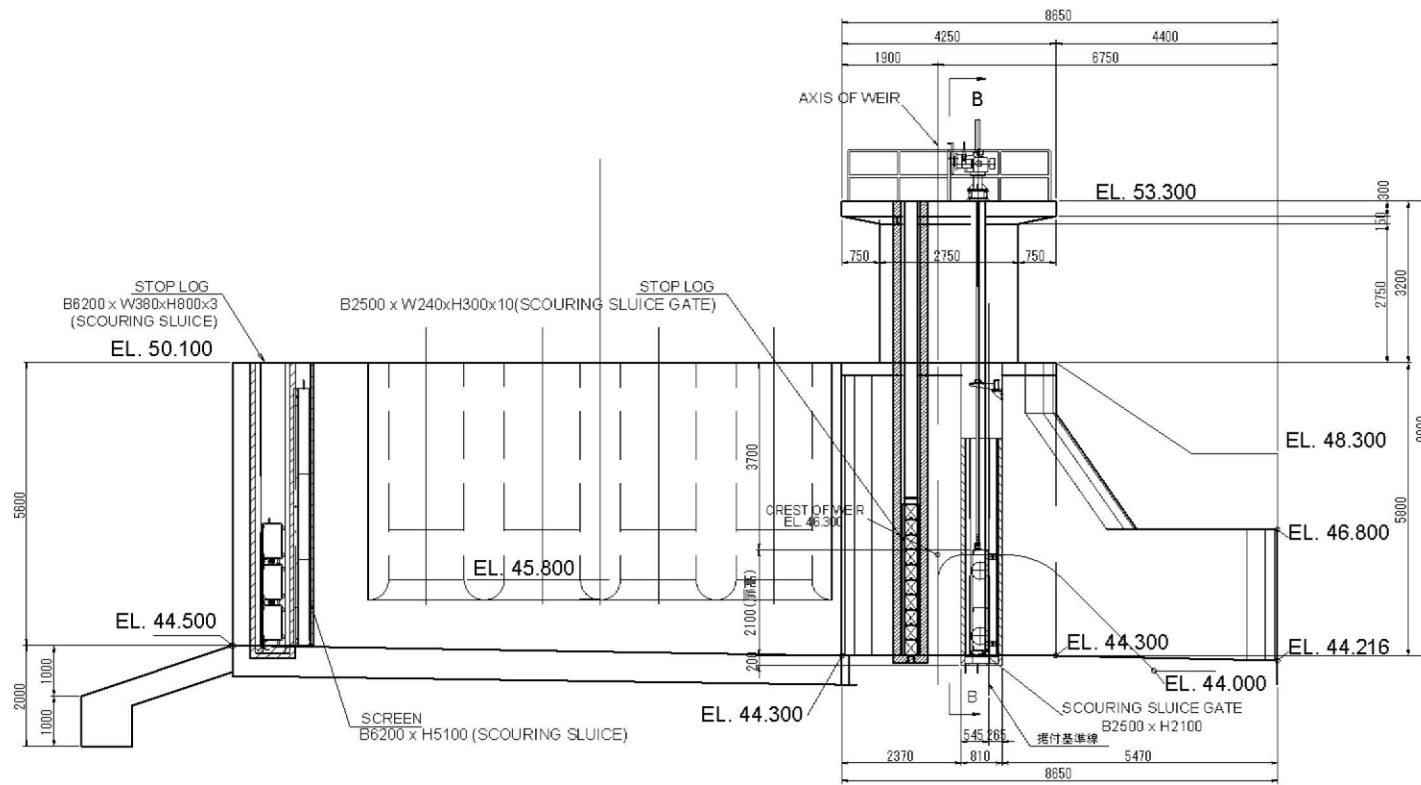


PLAN OF SCOURING SLUICE GATE

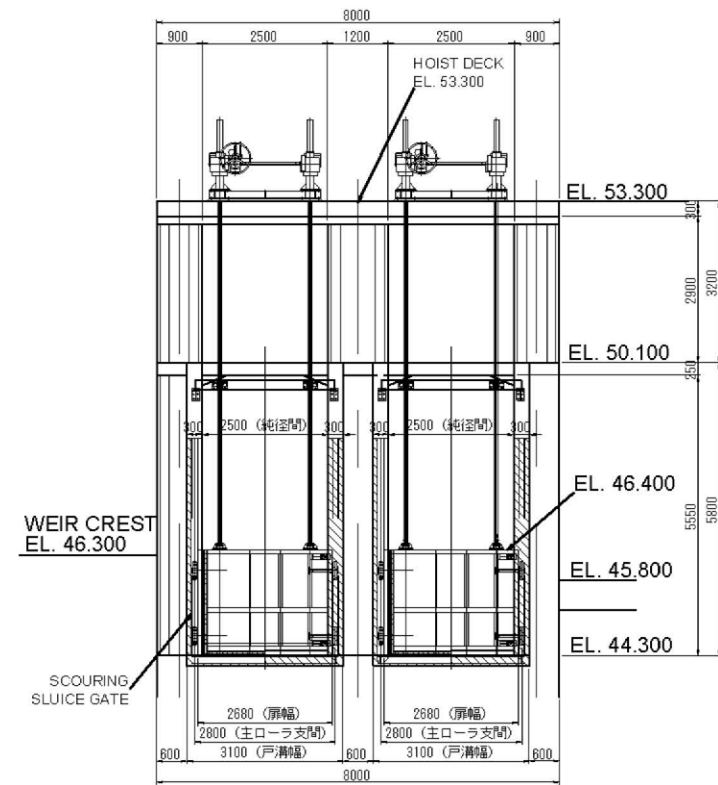
設計条件	
型式	鋼製ローラゲート
設置数	2門
純経間	2.500 m
有効高	2.100 m
設計水深	(前面) 4.800 m (後面) 0 m
操作水深	閉鎖時 (前面) 4.800 m (後面) 0 m 開鎖時 (前面) 4.800 m (後面) 0 m
水密方式	前面4方ゴム水密
閉鎖方式	手動ロック式 (2本用)
閉鎖速度	0.077 m/min
揚程	2.200 m
操作方式	手動操作



DETAIL OF WATERTIGHT CONSTRUCTION (SIDE SURFACE)



SECTION A - A



SECTION B - B

	<b>NTC INTERNATIONAL CO., LTD.</b>	REVISION	PROJECT TITLE	DATE	DESIGNED BY	DWG NO.
			<b>THE PROJECT FOR REHABILITATION AND IMPROVEMENT OF BULUTO IRRIGATION SCHEME</b>		NTC INTERNATIONAL Co., Ltd.	PSG.02
			DWG. TITLE	SCALE	APPROVED BY	SERIAL NO.
			<b>INTAKE PLAN PLAN OF SCOURING SLUICE GATE</b>	1 : 30 1 : 150		