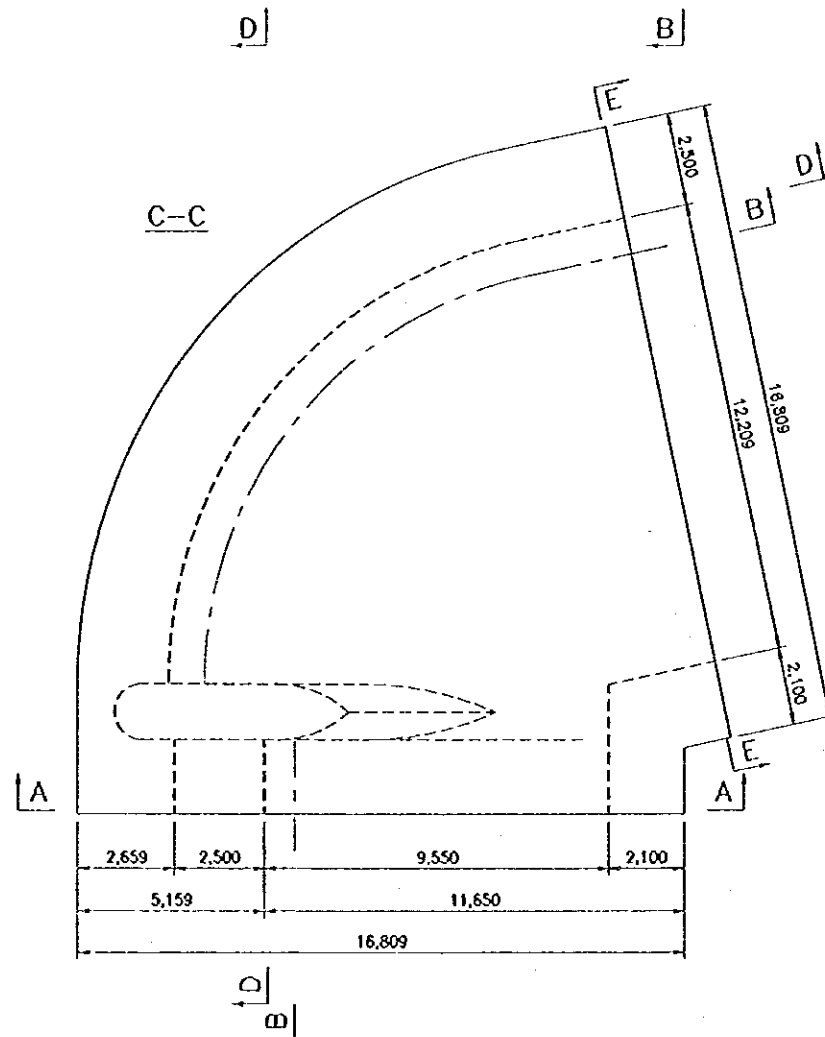
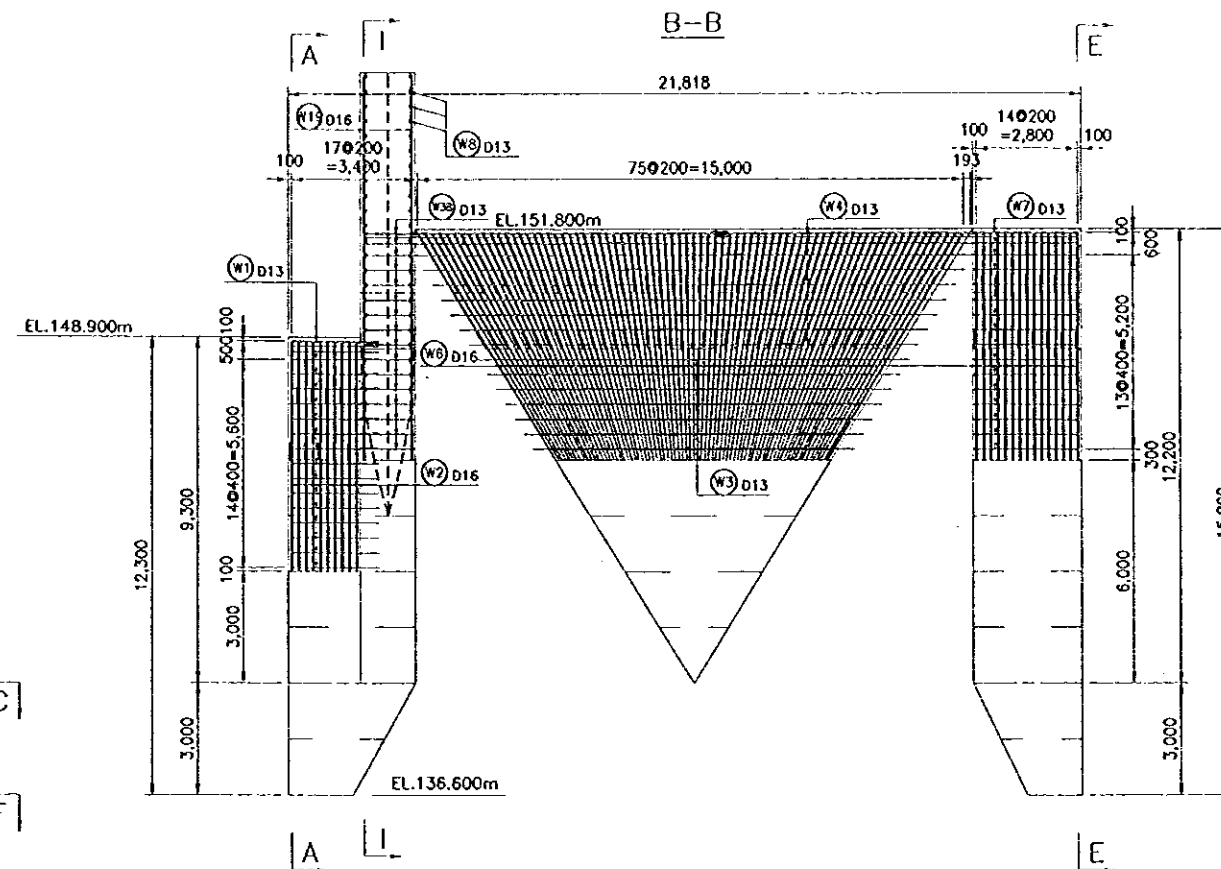
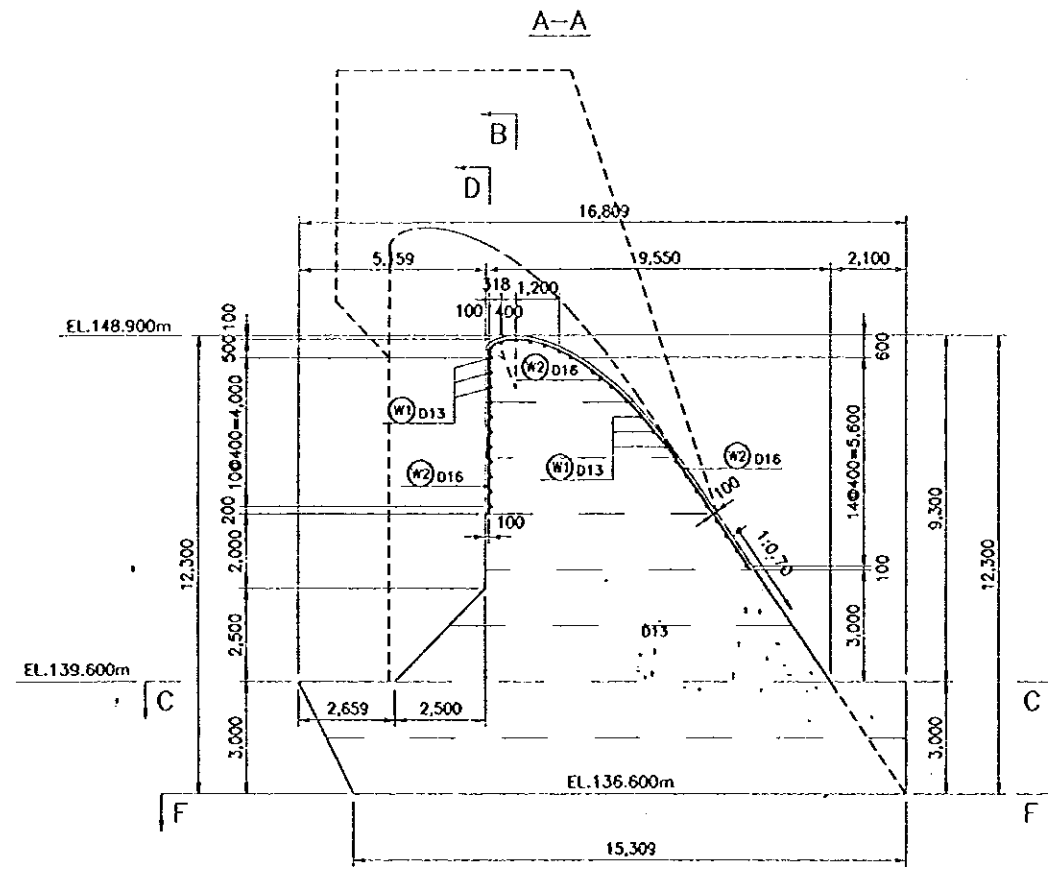
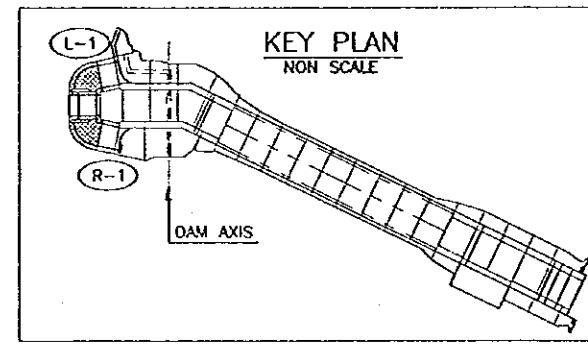


L-1, R-1 (1/3)



NOTE
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

- REFERENCE DRAWINGS**
- JD-P1-SP-Re-2 REINFORCEMENT DETAILS-BLOCK L-1,R-1 (2/3)
 - JD-P1-SP-Re-3 REINFORCEMENT DETAILS-BLOCK L-1,R-1 (3/3)

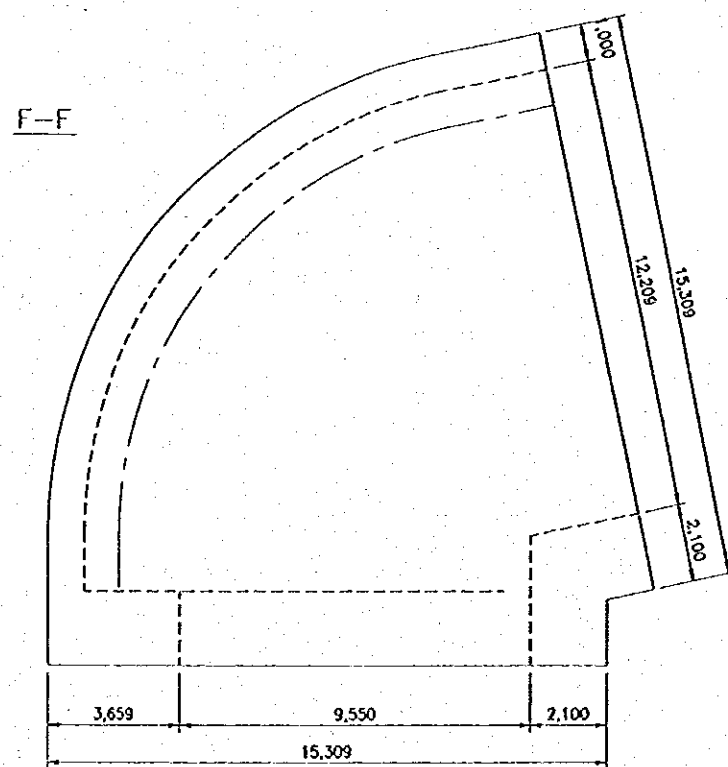
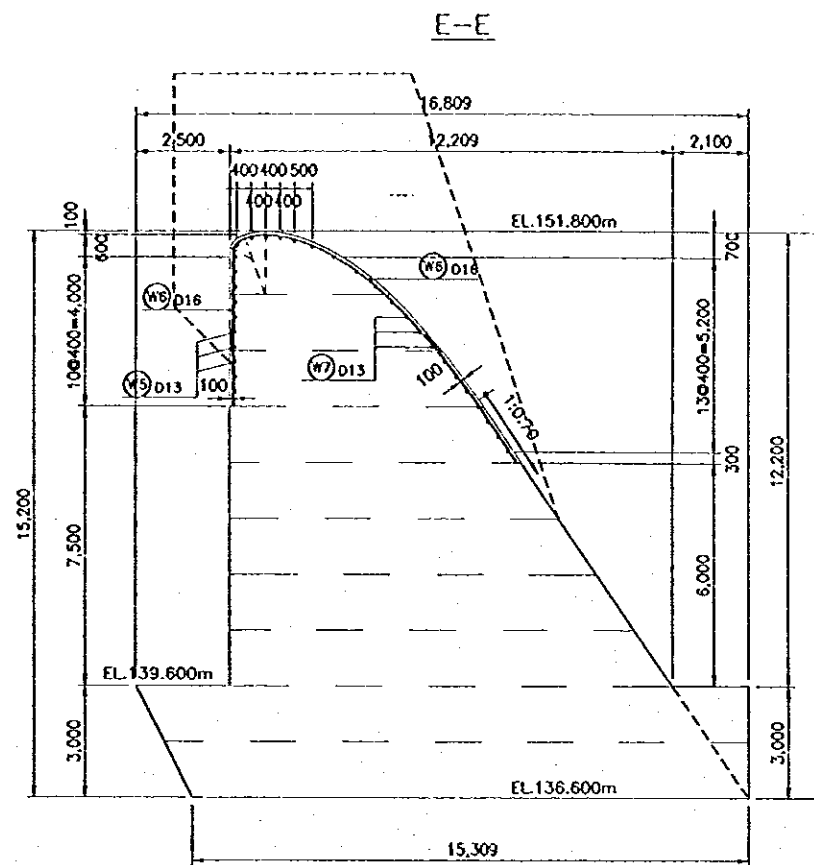
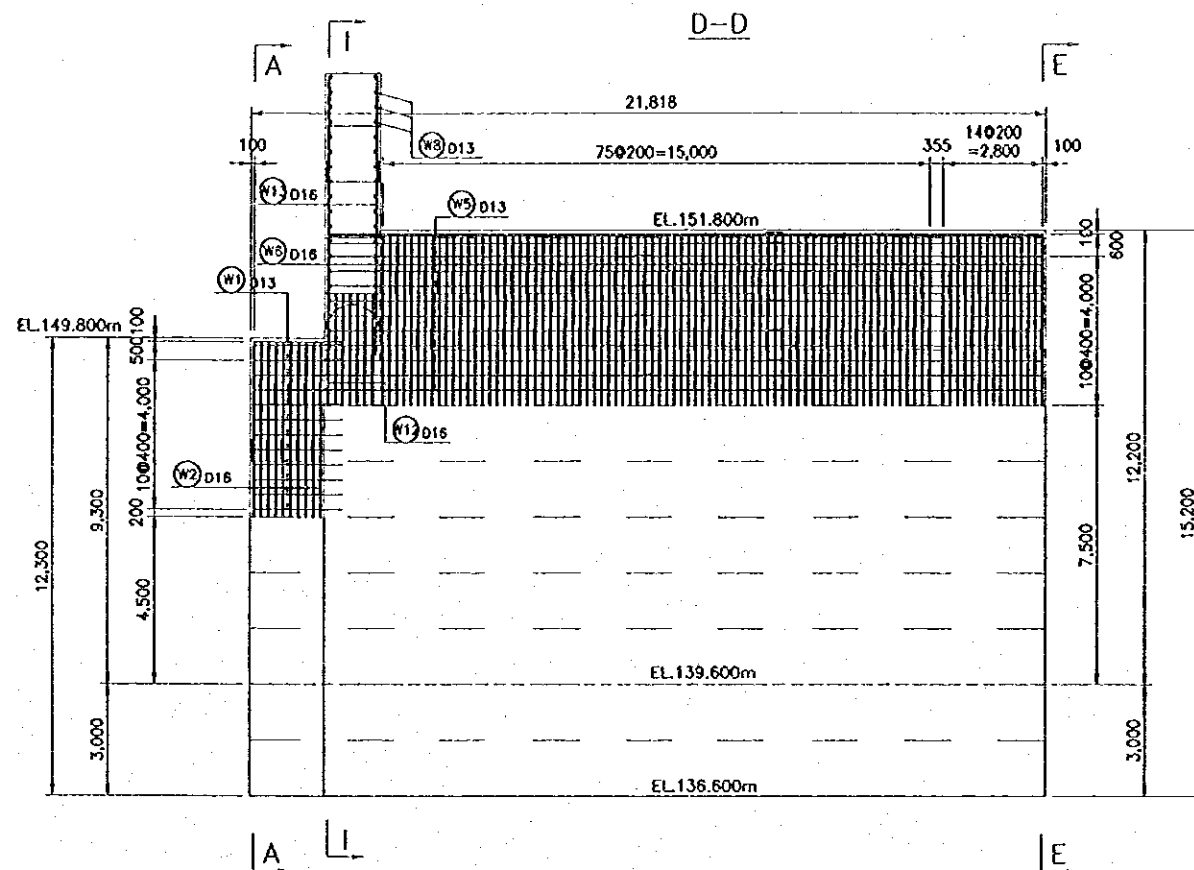


SCALE 0 5 10m

NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAWA	
BRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : JATIRARANO DAM CONSTRUCTION SPILLWAY REINFORCEMENT DETAILS BLOCK L-1,R-1 (1/3)		PROJECT NAME FLOOD CONTROL, CREAM DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA	
SUPAN INTERNATIONAL COOPERATION AGENCY CIU INCORPORATED CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL PAKED INTERNATIONAL INC.		DISTRICT SEMARANG CITY	
DESIGNED CHECKED IN CHARGE OF PLANNING AND DESIGN		DRAWING NO. JD-P1-SP-Re-1 SHEET NO. 107 DATE CONTRACT NO.	
APPROVED PROJECT MANAGER		PROJECT MANAGER	

L-1, R-1 (2/3)

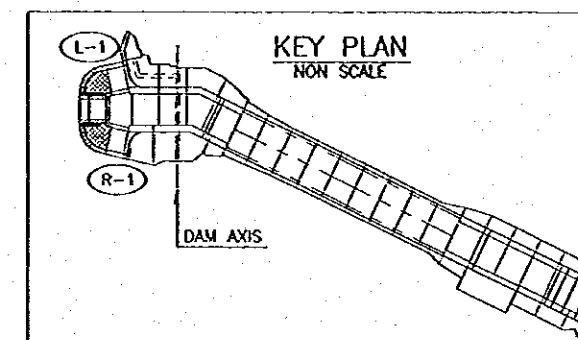


NOTE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

REFERENCE DRAWINGS

1. JD-P1-SP-Re-1 REINFORCEMENT DETAILS-BLOCK L-1,R-1 (1/3)
2. JD-P1-SP-Re-3 REINFORCEMENT DETAILS-BLOCK L-1,R-1 (3/3)

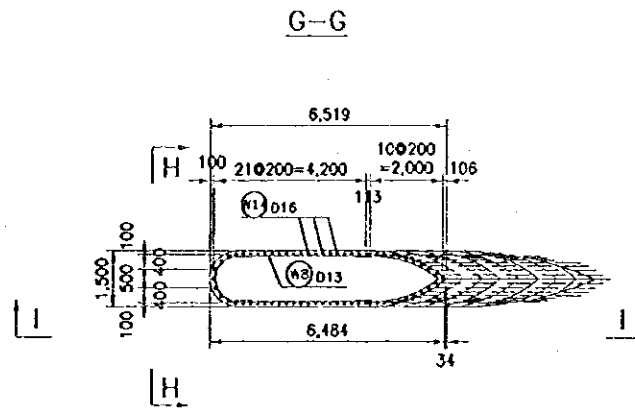


SCALE 0 5 10m

NO.	DATE	REVISIONS	DESIGNED	CHECKED	APPROVED

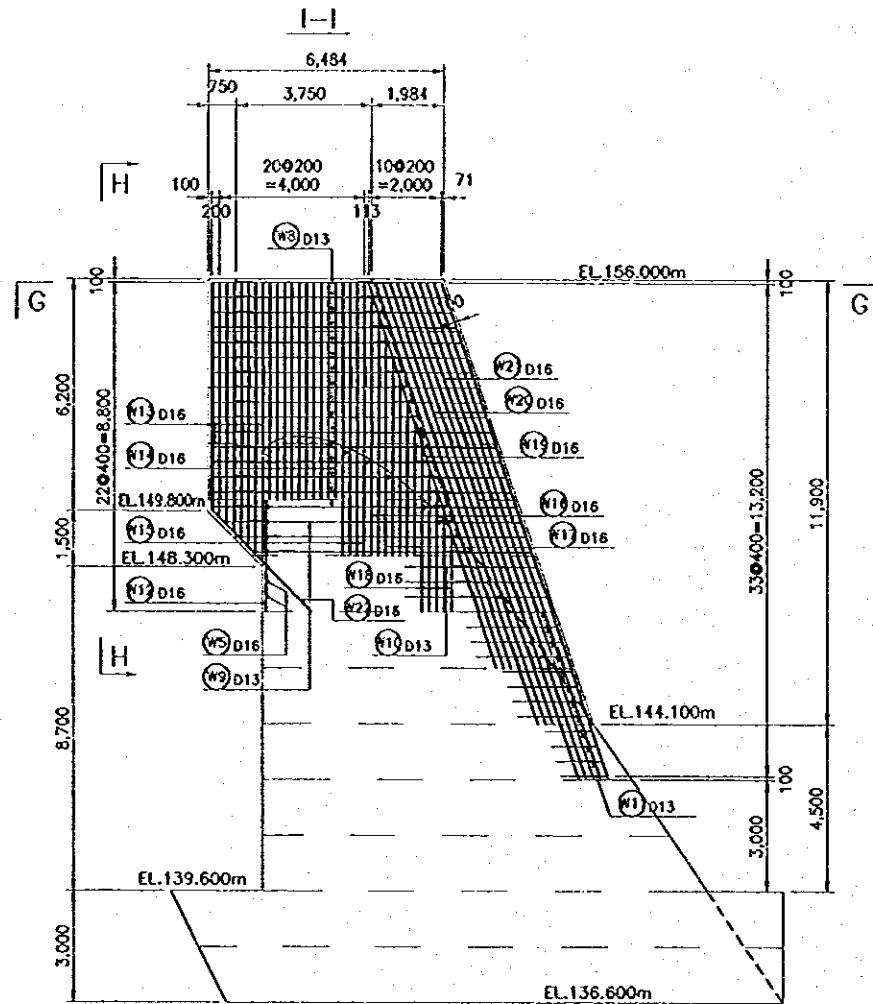
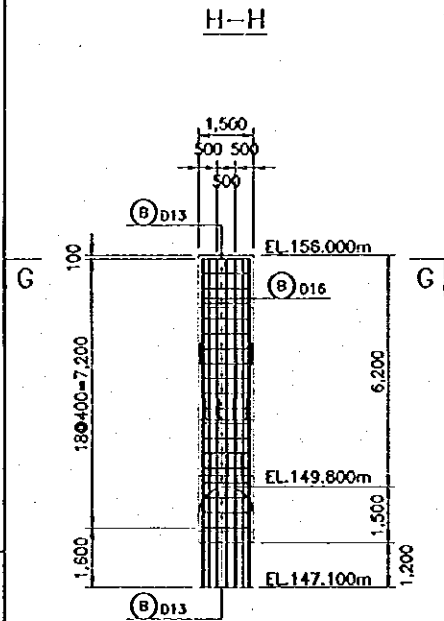
THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAWA
DRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION SPILLWAY REINFORCEMENT DETAILS BLOCK L-1,R-1 (2/3)		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
JAPAN INTERNATIONAL COOPERATION AGENCY JICA INTERNATIONAL CO. LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL PACO INTERNATIONAL INC.		DISTRICT SEMARANG CITY
CRISP OF PLANNING AND DESIGN PROJECT MANAGER		DRAWING NO. JD-P1-SP-Re-2 SHEET NO. 108 DATE CONTRACT NO.

L-1, R-1 (3/3)



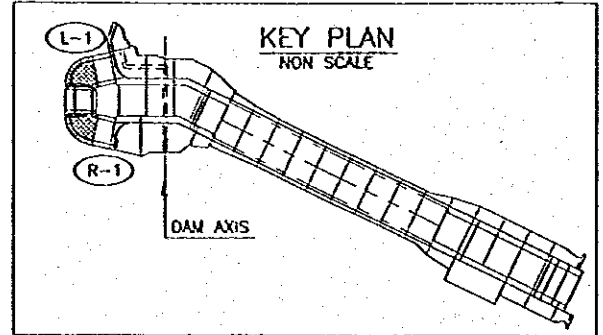
BAR WEIGHT

TYPE	DIA (mm)	NUMBER	LENGTH (mm)					WEIGHT PER 'm' (kg/m)	WEIGHT PER 'BAR' (kg)	WEIGHT (kg)	SHAPE
			TOTAL	L1	L2	L3	L4				
W1	13	31	2,400	2,400				1.04	2.50	77	1
W2	16	10	15,620	14,494	560	560		1.58	24.68	247	4
W3A	13	7	10,340	10,337				1.04	10.75	75	5
W3B	13	17	1,400	1,400				1.04	1.46	25	1
W4	13	10	14,690	14,230	460			1.04	15.28	153	6
W5	13	13	20,080	19,618	460			1.04	20.88	271	6
W6	16	91	15,880	14,754	560	560		1.58	25.09	2,283	4
W7	13	17	2,900	2,900				1.04	3.02	51	1
W8	13	16	17,390	15,549	460	460	460	1.04	18.09	289	7
W9	13	3	19,150	17,302	460	460		1.04	19.92	60	8
W10	13	3	8,380	7,451	460	460		1.04	8.72	26	9
W11A	13	4	5,690	5,221	460			1.04	5.92	24	10
W11B	13	4	4,490	4,021	460			1.04	4.67	19	10
W11C	13	4	3,280	2,814	460			1.04	3.41	14	10
W12	16	9	3,000	3,000				1.58	4.74	43	1
W13	16	18	7,320	6,759	560			1.58	11.57	208	2
W14	16	20	5,800	5,800				1.58	9.16	183	1
W15	16	12	7,860	7,300	560			1.58	12.42	149	2
W16	16	4	7,320	6,753	560			1.58	11.57	46	2
W17	16	10	4,710	4,709				1.58	7.44	74	1
W18	16	10	3,290	3,289				1.58	5.20	52	1
W19	16	6	12,010	10,887	560	560		1.58	18.98	114	3
W20	16	6	13,600	12,473	560	560		1.58	21.49	129	3
W21	16	10	15,180	14,058	560	560		1.58	23.98	240	3
W22	16	9	3,880	3,877				1.58	6.13	55	1
TOTAL =									4.907		

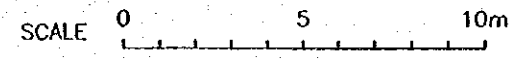
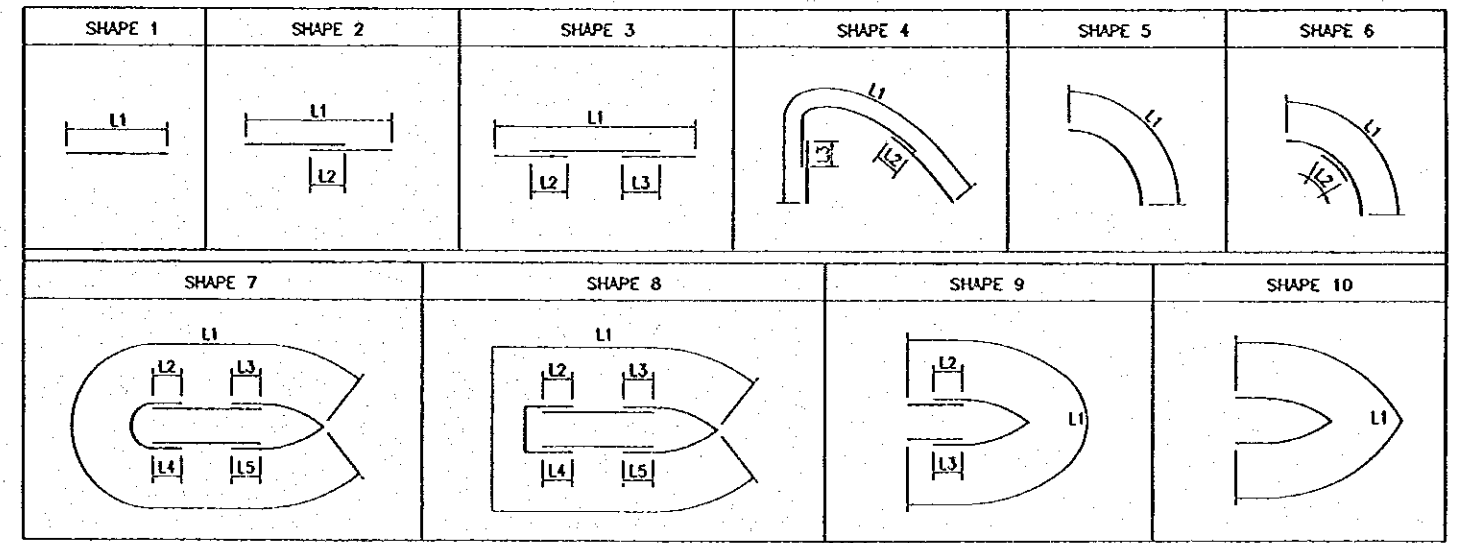


NOTE
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

- REFERENCE DRAWINGS
- JD-P1-SP-Re-1 REINFORCEMENT DETAILS-BLOCK L-1,R-1 (1/3)
 - JD-P1-SP-Re-2 REINFORCEMENT DETAILS-BLOCK L-1,R-1 (2/3)



BAR BENDING SCHEDULE



NO.	DATE	KEYWORDS	ORIGINATED	DESIGNED	APPROVED	APPROVED

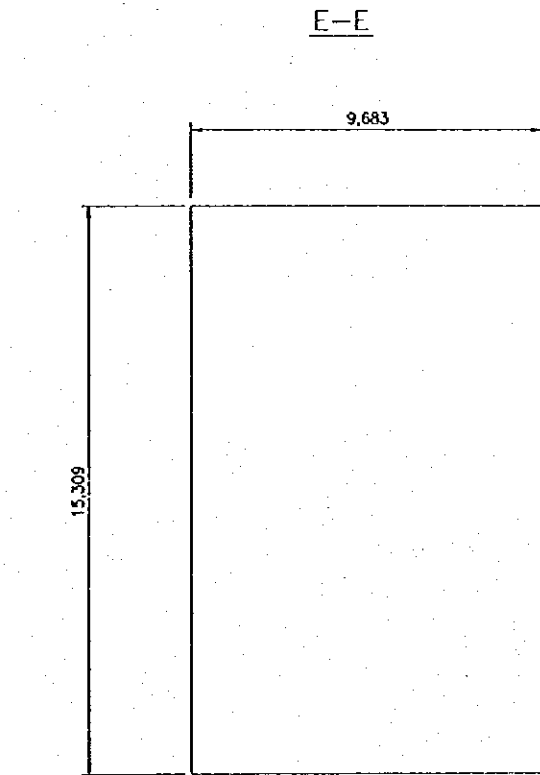
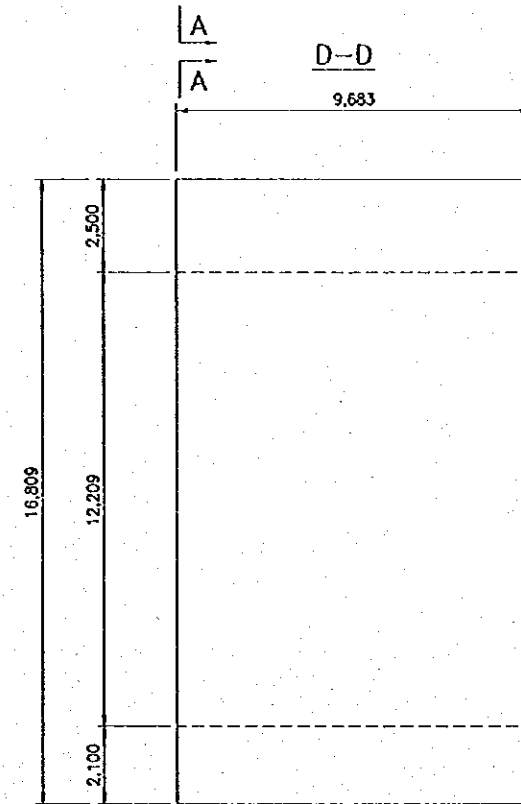
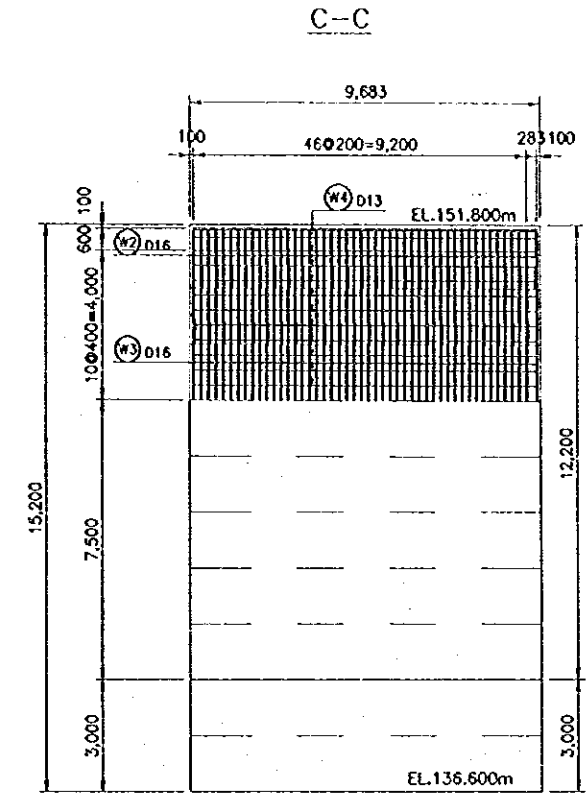
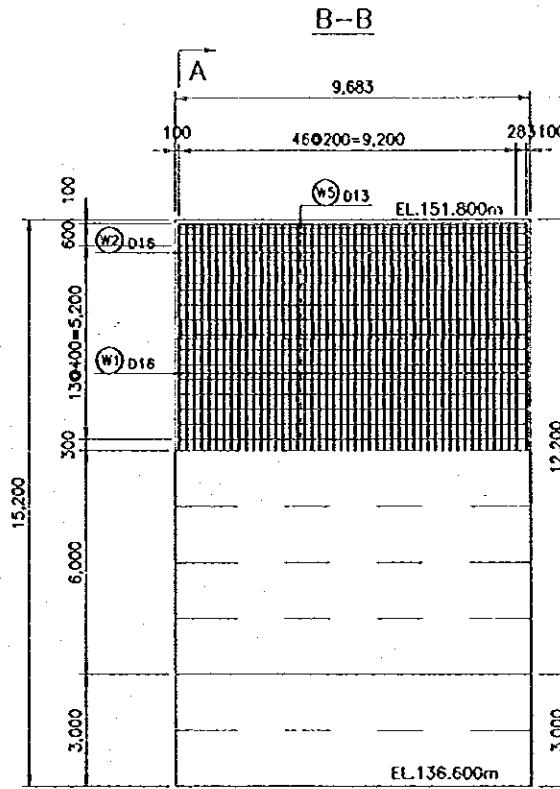
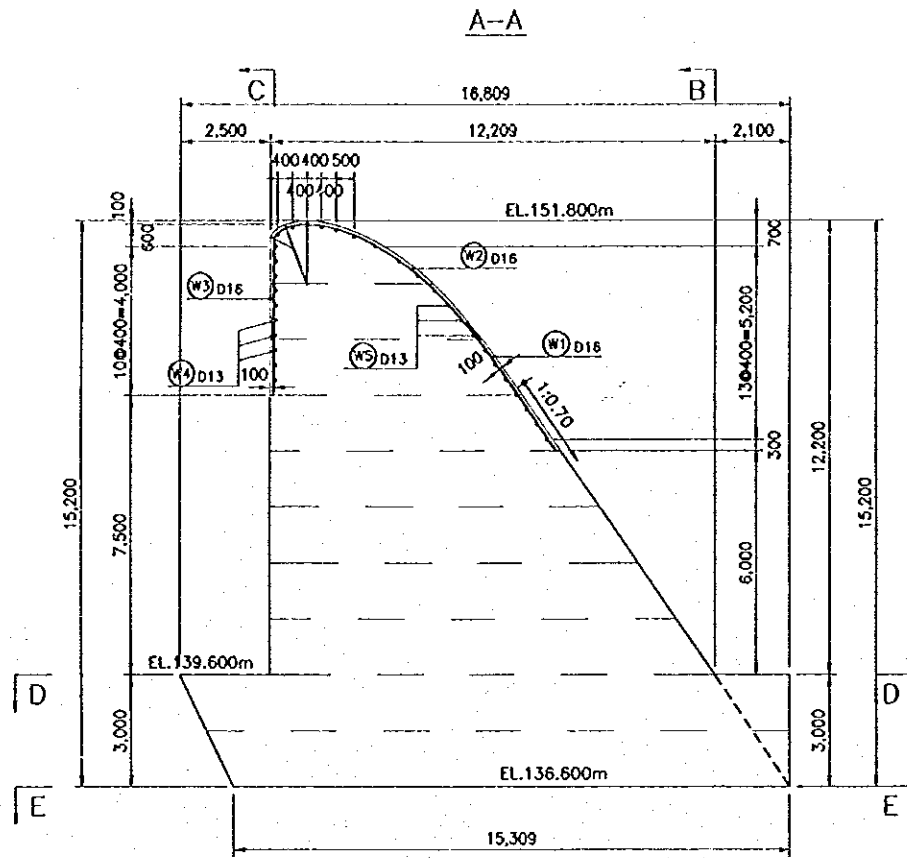
THE REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT
JATUNSELUNA FLOOD CONTROL PROJECT
COMPONENT: JATUNSELUNA DAM CONSTRUCTION
SPILLWAY
REINFORCEMENT DETAILS
BLOCK L-1,R-1 (3/3)

PROJECT: CENTRAL JAWA
PROJECT NAME: FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCE DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
DISTRICT: SEMARANG CITY
DRAWING NO. JD-P1-SP-Re-3
SHEET NO. 109
DATE: CONTRACT NO.:

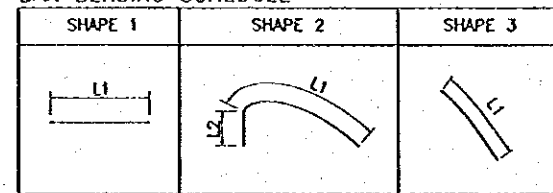
FOR INTERNATIONAL COOPERATION AGENCY
C/O INDIAN CO. LTD. IN ASSOCIATION WITH
PACIFIC CONSULTANTS INTERNATIONAL
JALAN SUDIRMAN NO. 100
CENTRE OF PLANNING AND DESIGN
PROJECT MANAGER

DESIGNED: CHECKED: APPROVED: PROJECT MANAGER

L-2, R-2

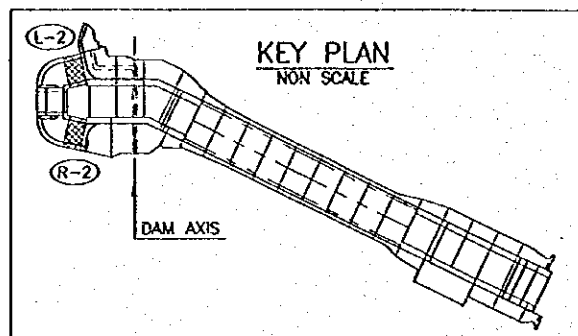


BAR BENDING SCHEDULE



BAR WEIGHT

TYPE	Dia (mm)	NUMBER	LENGTH (mm)		WEIGHT PER 1m ³ (kg)	WEIGHT PER BAR (kg)	WEIGHT (kg)	SHAPE
			TOTAL	L1				
W1	D16	24	4280	4274	1.58	6.76	162	3
		24	6450	6442	1.58	10.19	245	3
W2	D16	24	5980	4737	1.58	9.45	227	2
		24	9550	6807	2734	1.58	15.09	362
W3	D16	24	2060	2060	1.58	3.25	78	1
		24	3660	3660	1.58	5.62	135	1
W4	D13	13	9430	9483	1.04	9.87	128	1
W5	D13	18	9430	9483	1.04	9.87	178	1
TOTAL =							1515	

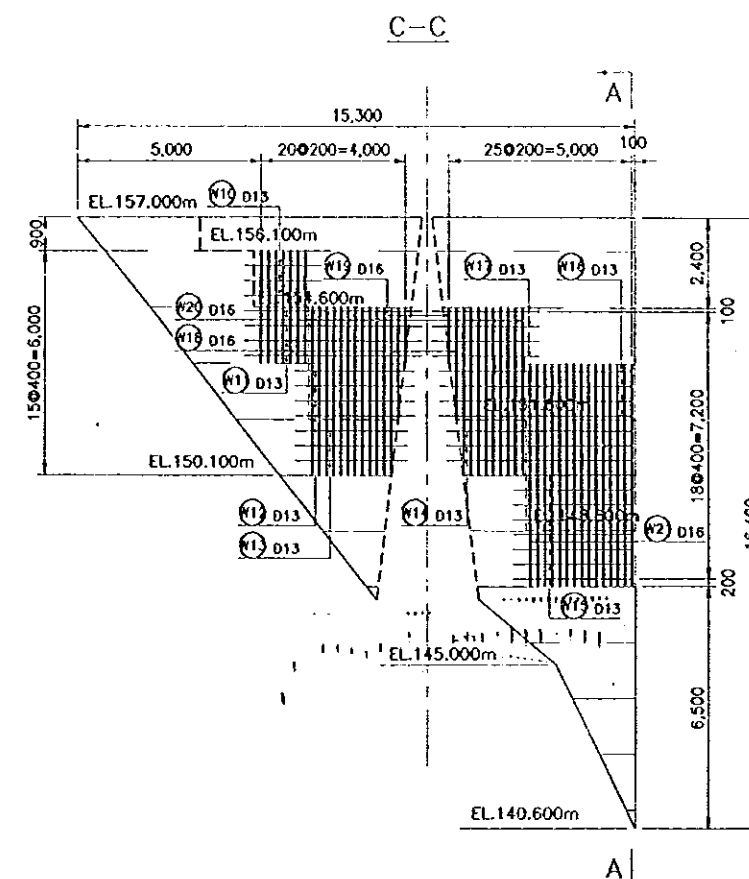
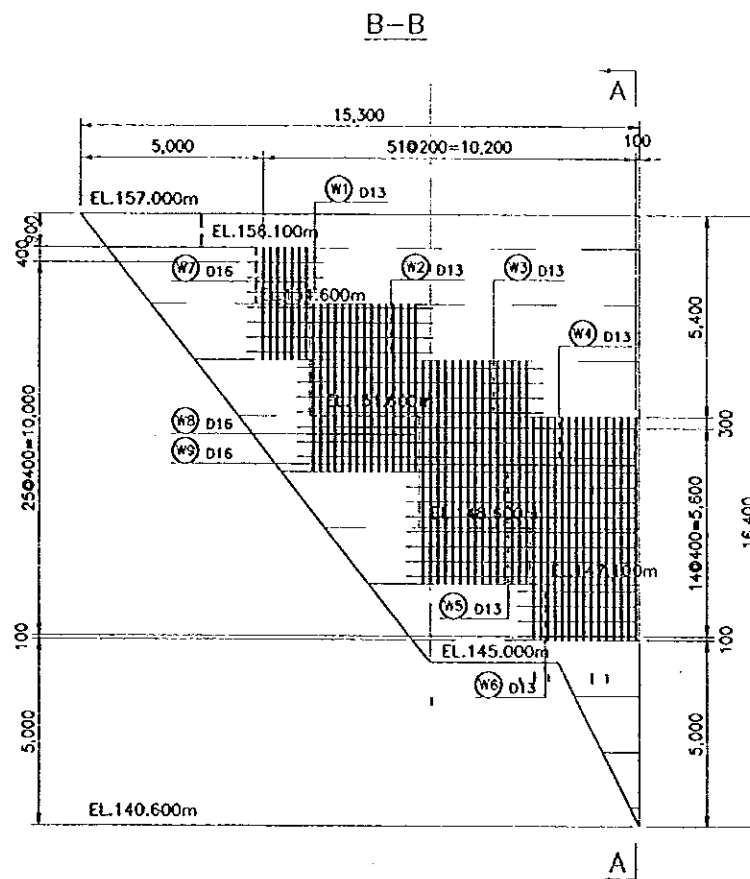
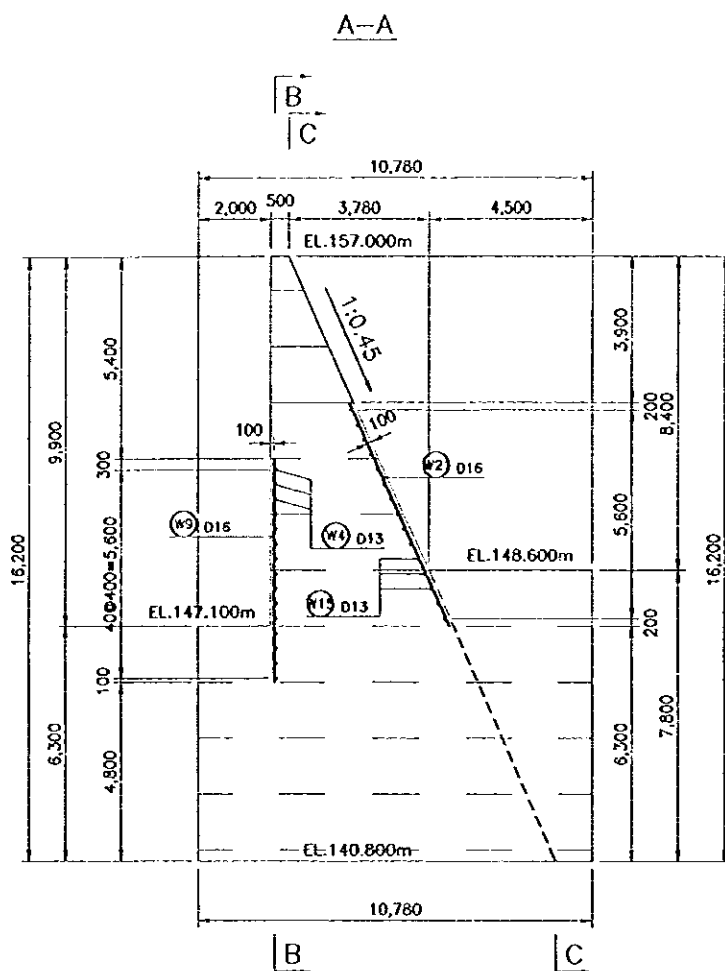


NOTE
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.



NO.	DATE	REVISIONS	ORGANIZED	DESIGNED	APPROVED

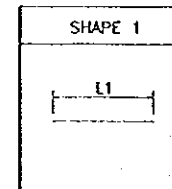
	THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAVA
	TRATUNSELUMA FLOOD CONTROL PROJECT COMPONENT: IATIBARANG DAM CONSTRUCTION		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
	SPILLWAY REINFORCEMENT DETAILS BLOCK L-2,R-2		DISTRICT SEMARANG CITY
SAFARI INTERNATIONAL COOPERATION AGENCY CIL (INDONESIA) CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL PARTNER INTERNATIONAL, INC.			DRAWING NO. JD-P1-SP-Rg-4 SHEET NO. 110
DESIGNED CHECKED CRISP OF PLANNING AND DESIGN PROJECT MANAGER			DATE CONTRACT NO.



BAR WEIGHT

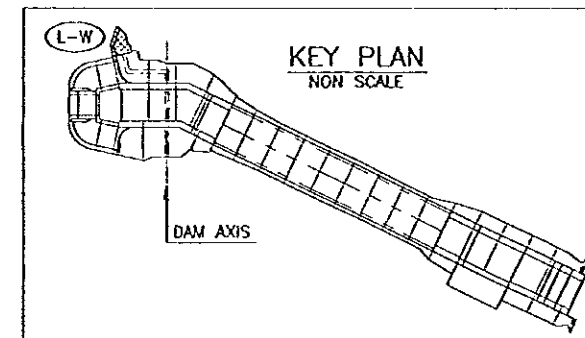
TYPE	DIA (mm)	NUMBER	LENGTH (mm)			WEIGHT PER 'm' (kg/m)	WEIGHT PER 'BAR' (kg)	WEIGHT (kg)	SHAPE	
			TOTAL	L1	L2					
W1	13	3	2,120	2,120		1.04	2.20	7	1	
W2	13	4	5,120	5,120		1.04	5.32	21	1	
W3	13	4	6,720	6,720		1.04	6.99	28	1	
W4	13	4	9,260	9,260		1.04	9.63	39	1	
W5	13	7	6,260	6,260		1.04	6.51	46	1	
W6	13	4	3,260	3,260		1.04	3.39	14	1	
W7	16	7	3,000	3,000		1.58	4.74	33	1	
W8	16	15	4,500	4,500		1.58	7.11	107	1	
W9	16	30	6,000	6,000		1.58	9.48	284	1	
W10	13	3	2,120	2,120		1.04	2.20	7	1	
W11	13	4	4,920	4,920		1.04	5.12	20	1	
W12	13	4	3,320	3,320		1.04	3.45	14	1	
W13	13	3	3,120	3,120		1.04	3.24	10	1	
W14	13	3	5,060	5,060		1.04	5.26	16	1	
W15	13	8	3,260	3,260		1.04	3.39	27	1	
W16	13	4	5,260	5,260		1.04	5.47	22	1	
W17	13	4	2,920	2,920		1.04	3.04	12	1	
W18	16	9	3,290	3,290		1.58	5.20	47	1	
W19	16	2	1,650	1,645		1.58	2.61	5	1	
W20	16	21	4,940	4,935		1.58	7.81	164	1	
W21	16	15	6,580	6,580		1.58	10.40	156	1	
TOTAL =								1,079		

BAR BENDING SCHEDULE



NOTE
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

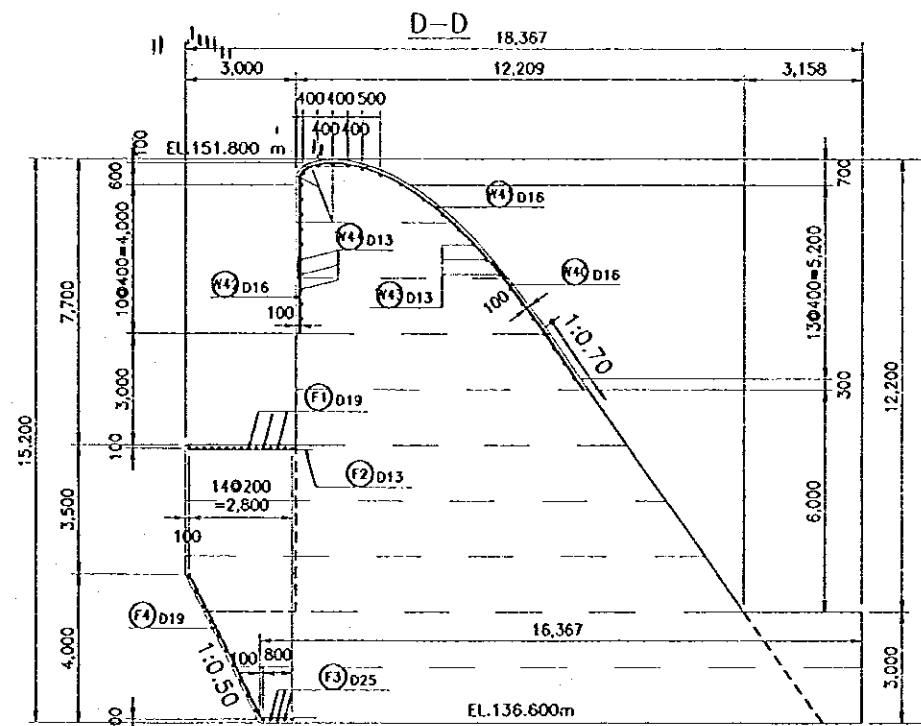
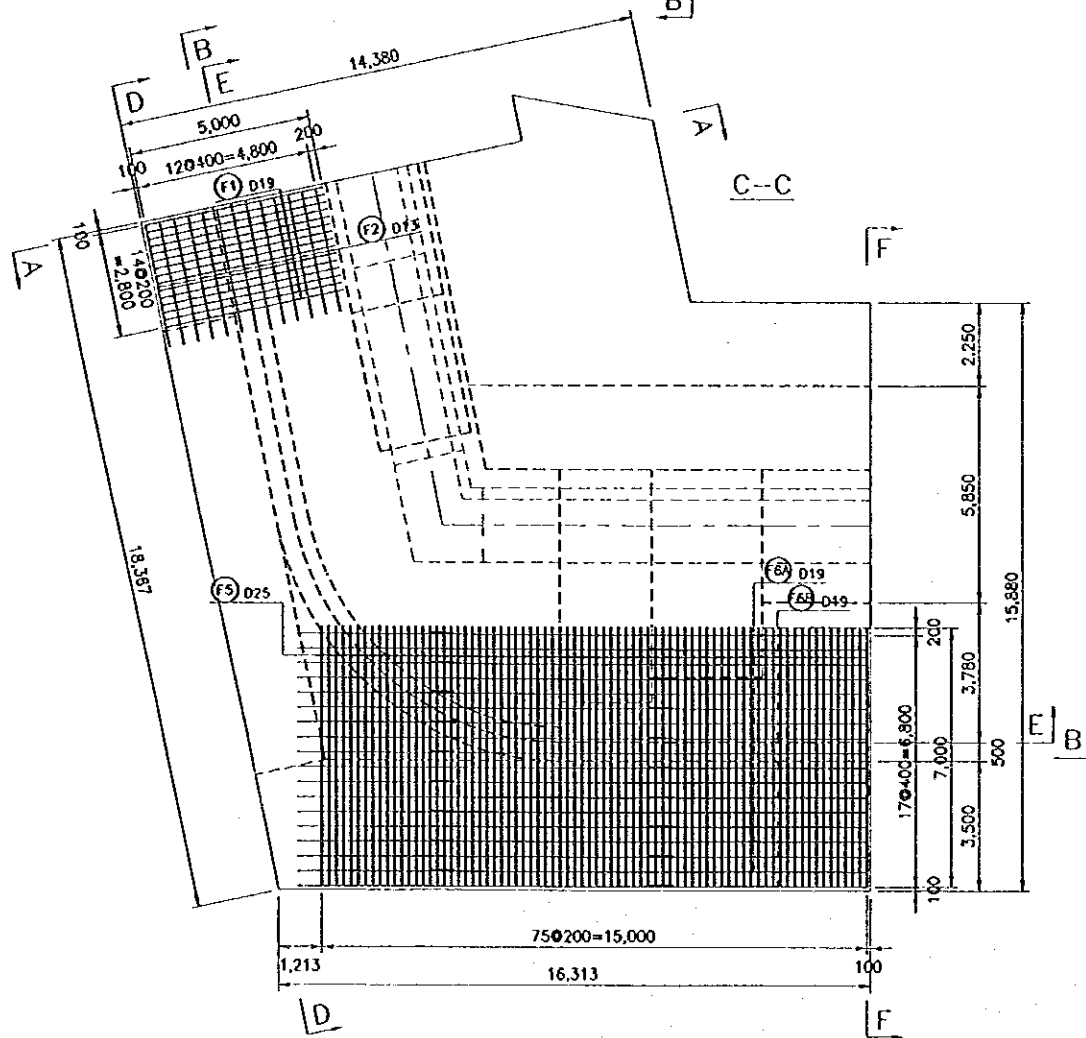
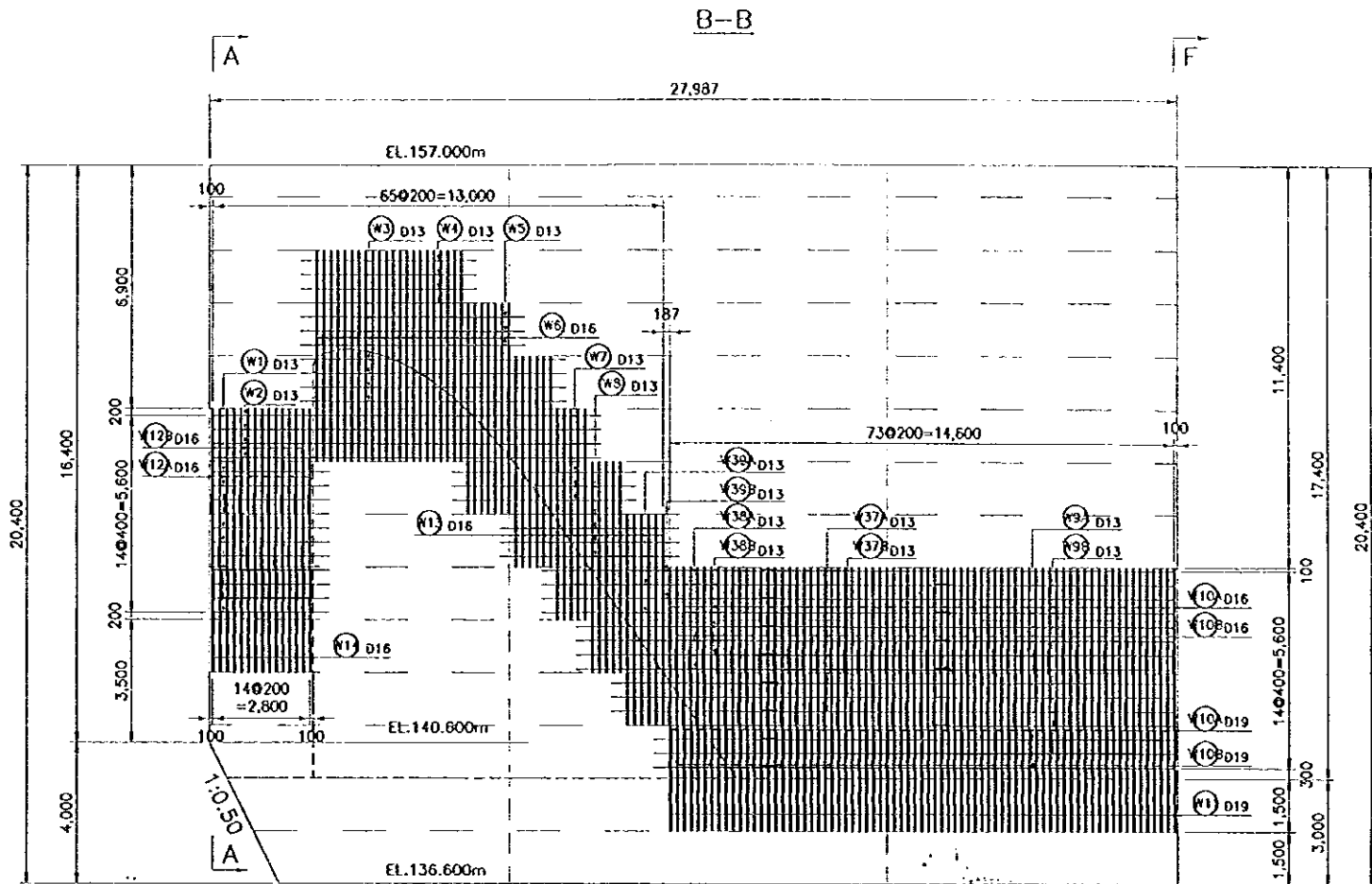
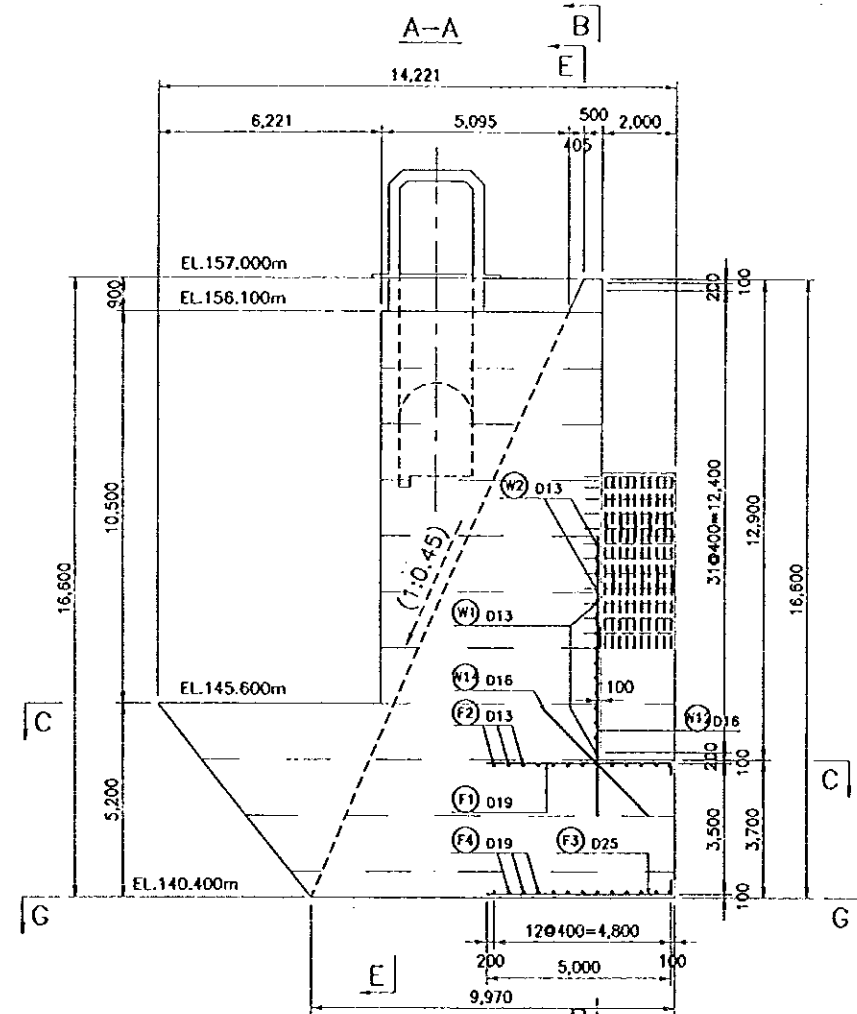
SCALE 0 5 10m



NO.	DATE	REVISION	ORIGINATED	DESIGNED	APPROVED

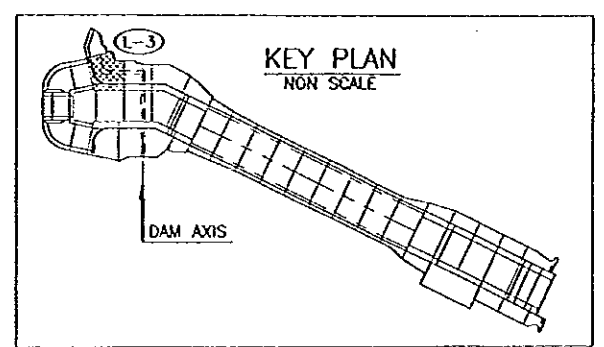
	THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT	PROVINCE CENTRAL JAWA
	IRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION SPILLWAY REINFORCEMENT DETAILS BLOCK L-W	PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY
JAPAN INTERNATIONAL COOPERATION AGENCY CITI ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL PACIFIC INTERNATIONAL, INC.	DESIGNED CHECKED CHIEF OF PLANNING AND DESIGN PROJECT MANAGER	DRAWING NO. JD-PI-SP-Re-5 SHEET NO. 111 DATE CONTRACT NO.

L-3 (1/3)



NOTE
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

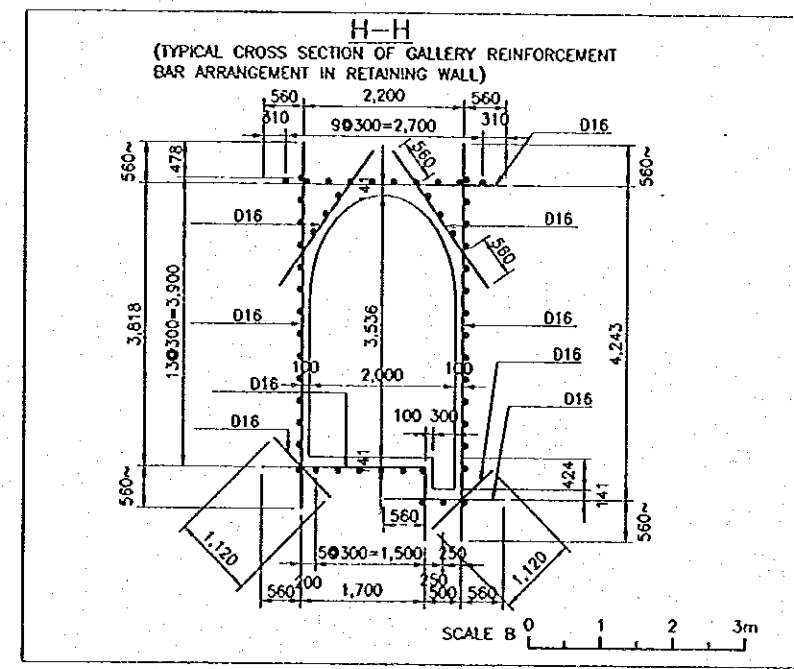
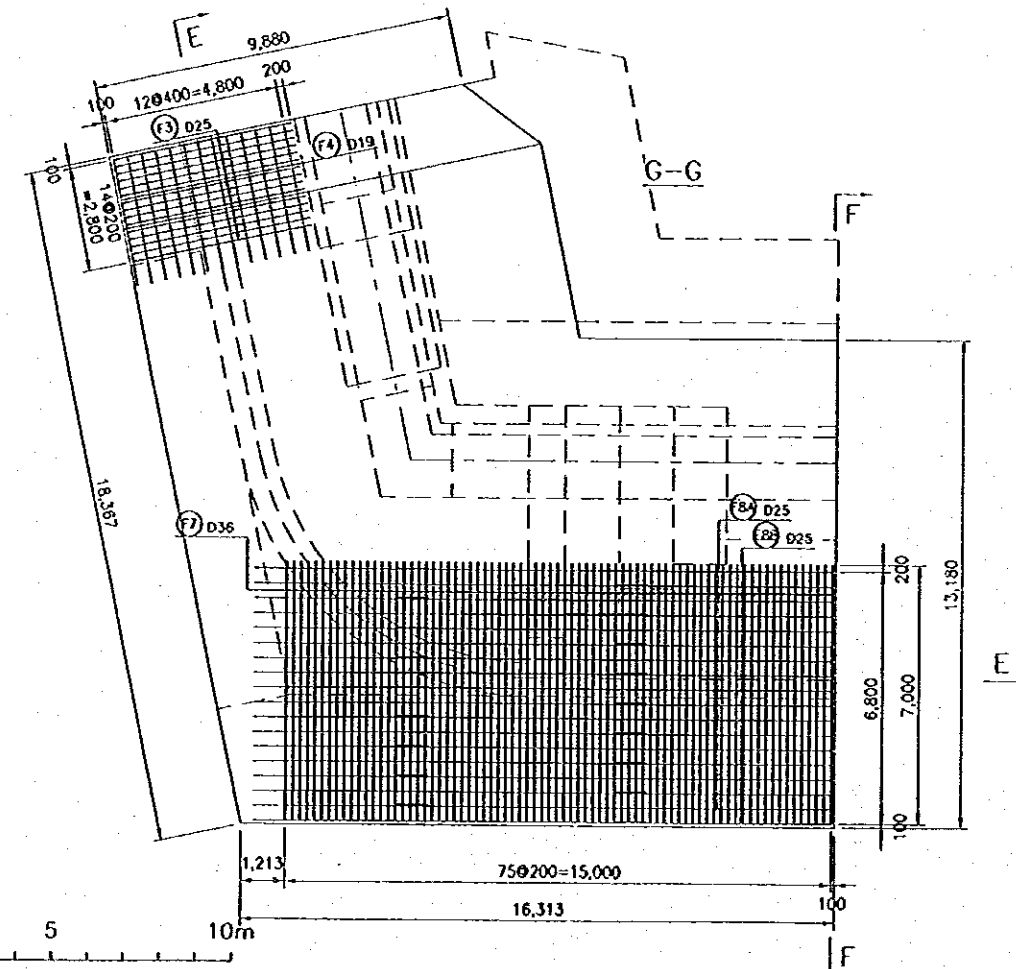
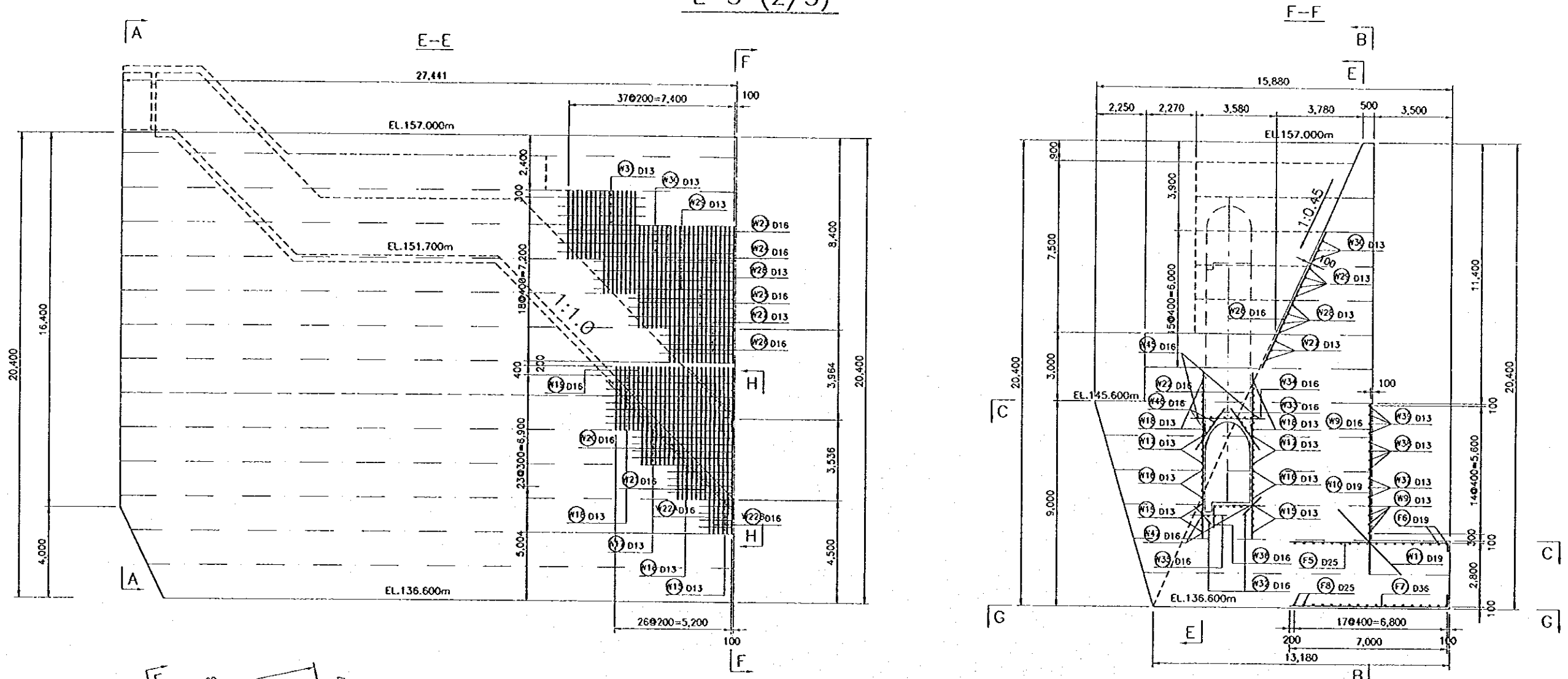
- REFERENCE DRAWINGS
1. JD-P1-SP-Re-7 REINFORCEMENT DETAILS-BLOCK L-3 (2/3)
 2. JD-P1-SP-Re-8 REINFORCEMENT DETAILS-BLOCK L-3 (3/3)



SCALE 0 5 10m

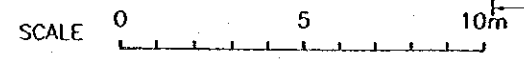
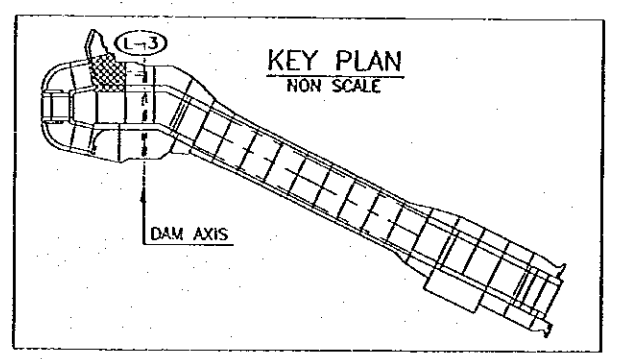
NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAVA
FRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
REINFORCEMENT DETAILS BLOCK L-3 (1/3)		DISTRICT SEMARANG CITY
PT. INDOREKREASIONAL ENGINEERING AND CONSULTING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL PARTNERSHIP INTERNATIONAL, INC.		DRAWING NO. JD-P1-SP-Re-6 SHEET NO. 112
APPROVED _____ CHIEF OF PLANNING AND DESIGN	DESIGNED _____ CHECKED _____ PROJECT MANAGER	DATE _____ CONTRACT NO.



NOTE
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

- REFERENCE DRAWINGS**
1. JD-P1-SP-Re-6 REINFORCEMENT DETAILS-BLOCK L-3 (1/3)
 2. JD-P1-SP-Re-8 REINFORCEMENT DETAILS-BLOCK L-3 (3/3)



NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

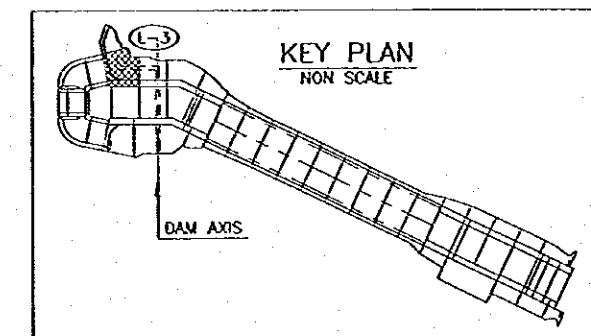
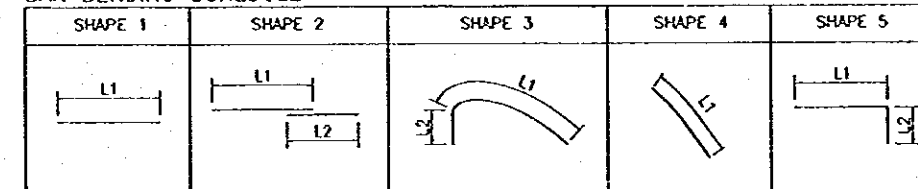
THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAWA
BRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : JATIDARANG DAM CONSTRUCTION		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
REINFORCEMENT DETAILS BLOCK L-3 (2/3)		PROJECT SEMARANG CITY
JAPAN INTERNATIONAL COOPERATION AGENCY CTE ENGINEERING CO. LTD. (CONSULTANT) PACIFIC CONSULTANTS INTERNATIONAL PACIFIC INTERNATIONAL INC.		DRAWING NO. JD-P1-SP-Re-7 SHEET NO. 113
DESIGNED CHECKED	DATE	CONTRACT NO.
CURF OF PLANNING AND DESIGN PROJECT MANAGER		

BAR WEIGHT

TYPE	DIA (mm)	NUMBER	LENGTH (mm)			WEIGHT PER 'm' (kg)	WEIGHT PER 'BAR' (kg)	WEIGHT (kg)	SHAPE
			TOTAL	L1	L2				
W1	13	11	3,360	3,360		1.04	3.49	38	1
W2	13	4	11,260	11,260		1.04	11.71	47	1
W3	13	4	7,720	7,720		1.04	8.03	32	1
W4	13	4	5,120	5,120		1.04	5.32	21	1
W5	13	3	6,520	6,520		1.04	6.78	20	1
W6	16	29	6,000	6,000		1.58	9.48	275	1
W7	13	3	5,320	5,320		1.04	5.53	17	1
W8	13	4	5,120	5,120		1.04	5.32	21	1
W9A	13	2	15,520	12,000	3,520	1.04	16.14	32	2
W9B	13	2	15,520	8,520	7,000	1.04	16.14	32	2
W10A	16	37	7,500	3,000		1.58	4.74	175	2
	19	37		5,170		2.23	11.53	427	
W10B	16	37	7,500	4,500		1.58	7.11	263	2
	19	37		3,670		2.23	8.15	303	
W11	19	74	4,000	4,000		2.23	8.92	660	1
W12A	16	8	8,060	5,060	3,000	1.58	12.73	102	2
W12B	16	7	8,060	4,500	3,560	1.58	12.73	89	2
W13	16	22	6,000	6,000		1.58	9.48	209	1
W14	16	15	4,000	4,000		1.58	6.32	95	1
W15	13	5	1,460	1,460		1.04	1.52	8	1
W16	13	5	2,860	2,860		1.04	2.97	15	1
W17	13	5	4,460	4,460		1.04	4.64	23	1
W18	13	8	5,660	5,660		1.04	5.89	47	1
W19	16	6	2,800	2,800		1.58	4.42	27	1
W20	16	8	4,300	4,300		1.58	6.79	54	1
W21	16	7	5,800	5,800		1.58	9.16	64	1
W22A	16	3	7,860	4,300	3,560	1.58	12.42	37	2
W22B	16	3	7,860	5,060	2,800	1.58	12.42	37	2
W23	16	8	3,290	3,290		1.58	5.20	42	1
W24	16	8	4,940	4,935		1.58	7.81	62	1
W25	16	7	4,940	4,935		1.58	7.81	55	1
W26	16	15	6,580	6,580		1.58	10.40	156	1
W27	13	3	3,260	3,260		1.04	3.39	10	1
W28	13	4	4,660	4,660		1.04	4.85	19	1
W29	13	4	6,260	6,260		1.04	6.51	26	1
W30	13	3	7,860	7,860		1.04	8.17	25	1
W31	13	4	3,920	3,920		1.04	4.08	16	1
W32	16	54	1,120	1,120		1.58	1.77	96	1
W33	16	16	2,240	2,236		1.58	3.54	57	1
W34	16	8	3,320	3,320		1.58	5.25	42	1
W35	16	27	1,620	1,620		1.58	2.56	69	1
W36	16	27	3,250	2,260	985	1.58	5.14	139	5
W37A	13	2	16,710	12,000	4,708	1.04	17.38	35	2
W37B	13	1	16,710	9,708	7,000	1.04	17.38	17	2
W38A	13	2	17,710	10,708	7,000	1.04	18.42	37	2
W38B	13	2	17,710	12,000	5,708	1.04	18.42	37	2
W39A	13	2	18,710	11,708	7,000	1.04	19.46	39	2
W39B	13	2	18,710	12,000	6,708	1.04	19.46	39	2

TYPE	DIA (mm)	NUMBER	LENGTH (mm)			WEIGHT PER 'm' (kg)	WEIGHT PER 'BAR' (kg)	WEIGHT (kg)	SHAPE	
			TOTAL	L1	L2					
W40A	16	5	3,670	3,670		1.58	5.80	29	4	
W40B	16	5	6,110	6,102		1.58	9.65	48	4	
W41A	16	5	5,980	4,737	1,234	1.58	9.45	47	3	
W41B	16	5	9,550	6,807	2,734	1.58	15.09	75	3	
W42A	16	5	2,060	2,060		1.58	3.25	16	1	
W42B	16	5	3,560	3,560		1.58	5.62	28	1	
W43	13	12	2,360	2,360		1.04	2.45	29	1	
W44	13	18	2,360	2,360		1.04	2.45	44	1	
W45	16	10	2,870	2,861		1.58	4.53	45	1	
W46	16	6	2,220	2,212		1.58	3.51	21	1	
W47	16	9	8,010	8,004		1.58	12.66	114	1	
F1	19	15	5,290	5,000	290	2.23	11.80	177	5	
F2	13	13	3,260	3,260		1.04	3.39	44	1	
F3	25	15	5,380	5,000	380	3.85	20.71	311	5	
F4	19	13	5,870	4,338	1,530	2.23	13.09	170	1	
F5	25	76	7,380	7,000	380	3.85	28.41	2,159	5	
F6A	19	9	16,340	12,000	4,340	2.23	36.44	328	2	
F6B	19	9	16,340	10,340	6,000	2.23	36.44	328	2	
F7	36	76	7,540	7,000	540	7.99	60.24	4,579	5	
F8A	25	9	16,760	12,000	4,760	3.85	64.53	581	2	
F8B	25	9	16,760	10,760	6,000	3.85	64.53	581	2	
TOTAL =								13,942		

BAR BENDING SCHEDULE



NOTE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

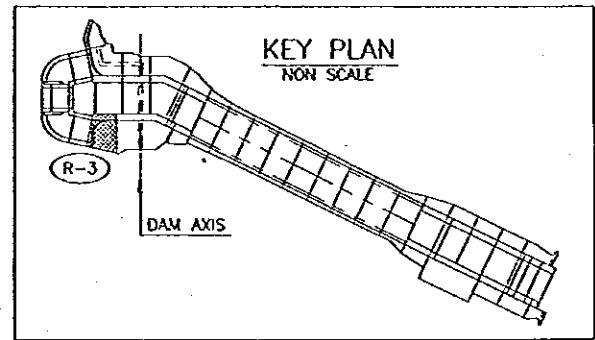
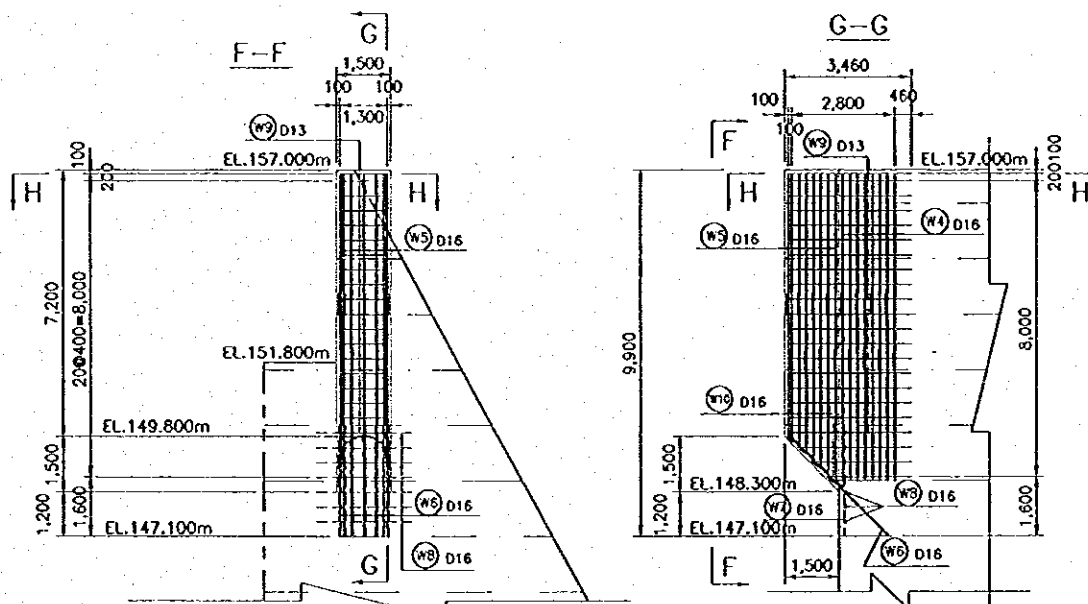
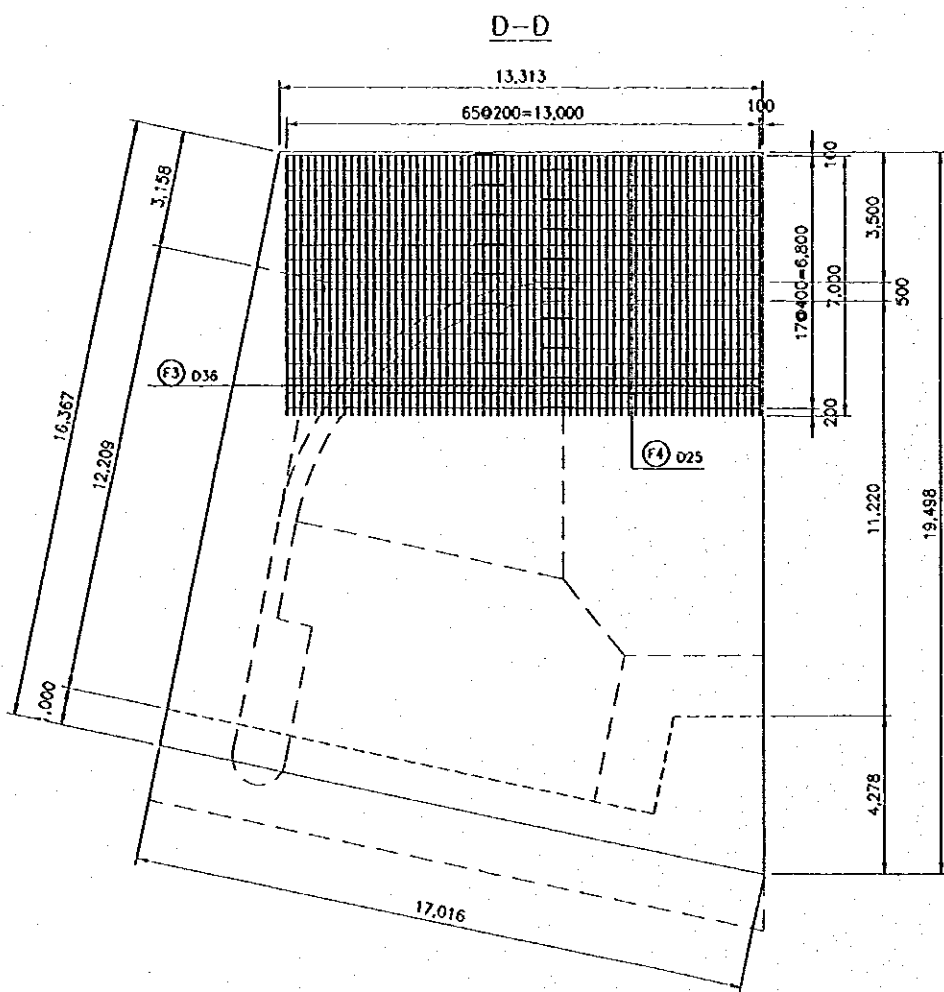
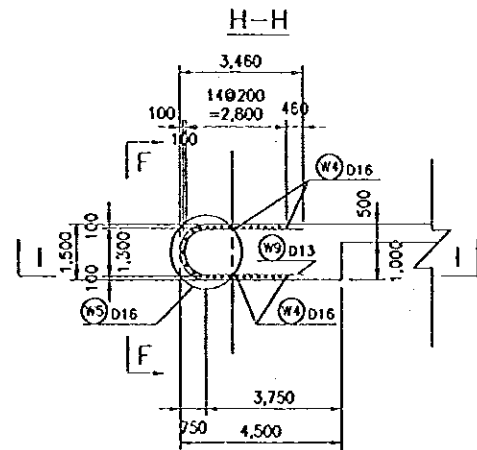
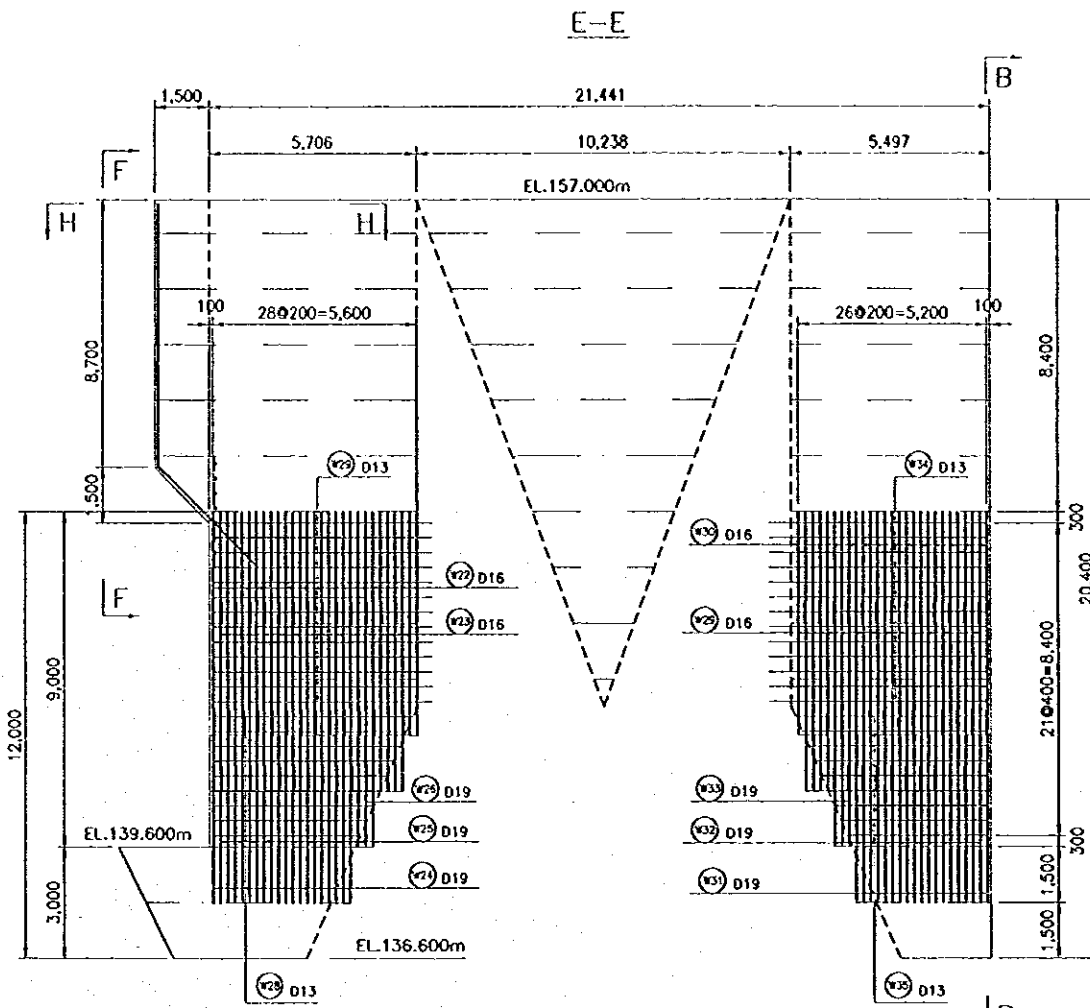
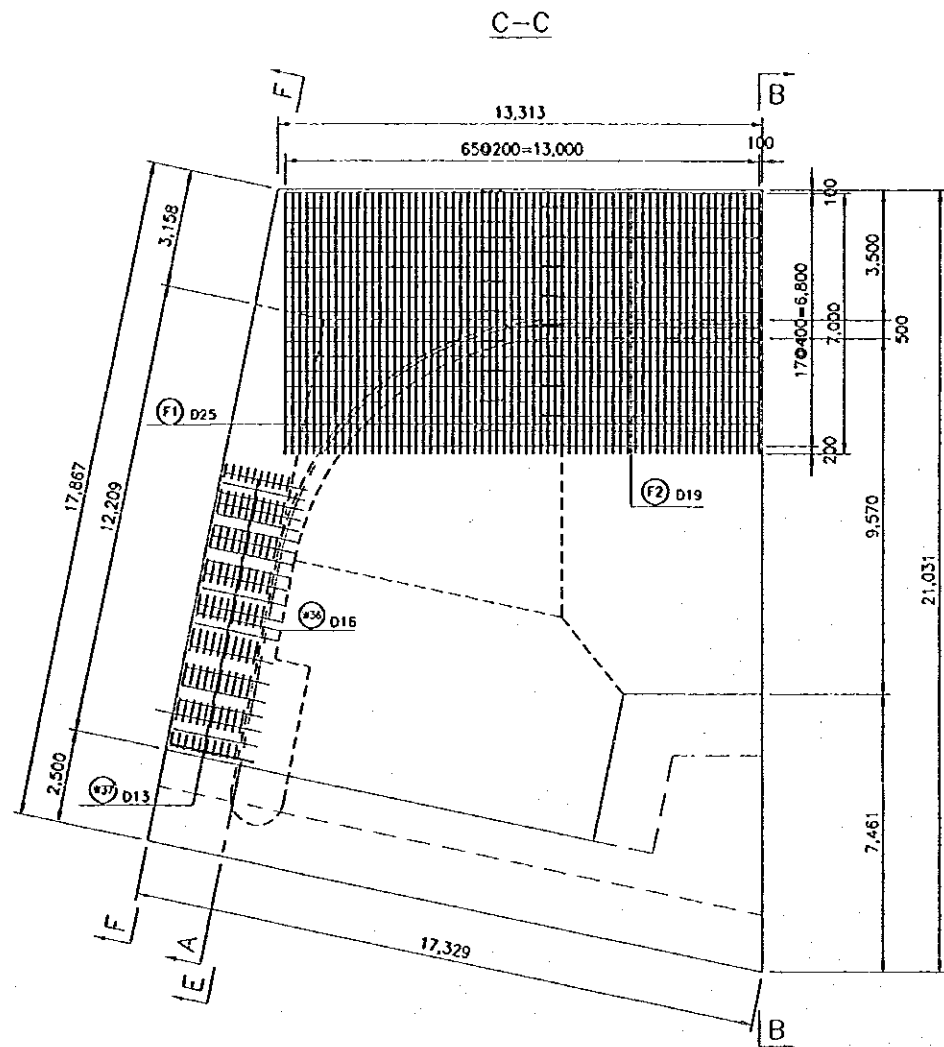
REFERENCE DRAWINGS

1. JD-P1-SP-Re-6 REINFORCEMENT DETAILS-BLOCK L-3 (1/3)
2. JD-P1-SP-Re-7 REINFORCEMENT DETAILS-BLOCK L-3 (2/3)

NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED	APPROVED

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT JATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION		PROVINCE CENTRAL JAVA
JAPAN INTERNATIONAL COOPERATION AGENCY CIVIL ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL JAKARTABENGLURU, INDONESIA		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
REINFORCEMENT DETAILS BLOCK L-3 (3/3)		DISTRICT SEMARANG CITY
CHIEF OF PLANNING AND DESIGN PROJECT MANAGER		DRAWING NO. JD-P1-SP-Re-8
DESIGNED CHECKED DATE		SHEET NO. 114
APPROVED		CONTRACT NO.

R-3 (2/3)



NOTE
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

- REFERENCE DRAWINGS
1. JD-P1-SP-Re-9 REINFORCEMENT DETAILS-BLOCK R-3 (1/3)
 2. JD-P1-SP-Re-11 REINFORCEMENT DETAILS-BLOCK R-3 (3/3)

SCALE 0 5 10m

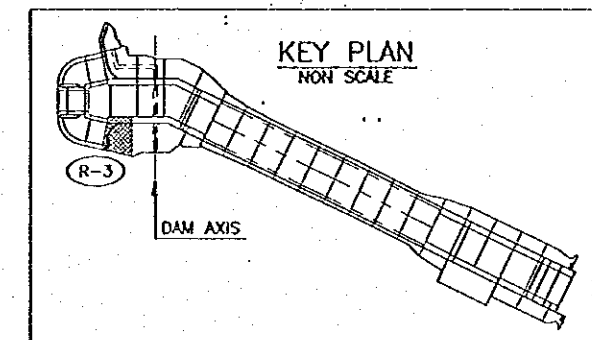
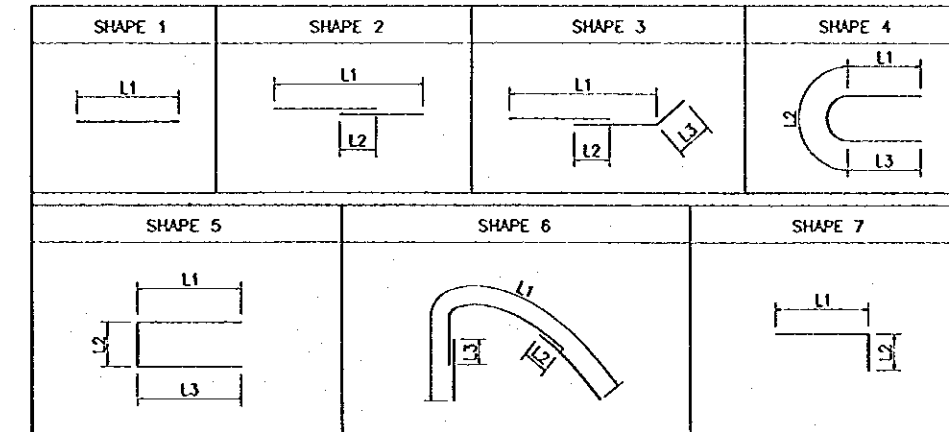
NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT JATUNUSSELUNA FLOOD CONTROL PROJECT COMPONENT: JATIBARANG DAM CONSTRUCTION SPILLWAY REINFORCEMENT DETAILS BLOCK R-3 (2/3)		PROVINCE CENTRAL JAWA PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY DRAWING NO. JD-P1-SP-Re-10 SHEET NO. 116
LIAISON INTERNATIONAL COOPERATION AGENCY CITY ENGINEERING CO. LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL JAWA REINFORCEMENT DES	DESIGNED CHECKED CHIEF OF PLANNING AND DESIGN PROJECT MANAGER	DATE CONTRACT NO.

BAR WEIGHT

TYPE	DIA (mm)	NUMBER	LENGTH (mm)			WEIGHT PER "m" (kg)	WEIGHT PER "BAR" (kg)	WEIGHT (kg)	SHAPE	
			TOTAL	L1	L2					L3
W1	16	51	6,000	6,000		1.58	9.48	483	1	
W2A	16	30	3,000	3,000		1.58	4.74	142	1	
W2B	16	29	4,500	4,500		1.58	7.11	206	1	
W3A	19	30	5,170	5,170		2.23	11.53	346	1	
W3B	19	29	3,670	3,670		2.23	8.18	237	1	
W4	16	16	8,860	8,300	560	1.58	14.00	224	2	
W5	16	15	8,510	7,709	560	1.58	13.45	202	3	
W6	16	7	3,530	3,524		1.58	5.58	39	1	
W7	16	7	3,000	3,000		1.58	4.74	33	1	
W8	16	7	2,620	2,620		1.58	4.14	29	1	
W9	13	19	7,470	2,710	2,042	1.04	7.77	148	4	
W10	13	3	6,540	2,619	1,300	1.04	6.80	20	5	
W11	13	4	3,260	3,260		1.04	3.39	14	1	
W12	13	3	4,660	4,660		1.04	4.85	15	1	
W13	13	4	5,860	5,860		1.04	6.09	24	1	
W14	13	4	6,860	6,860		1.04	7.13	29	1	
W15	13	3	5,320	5,320		1.04	5.53	17	1	
W16	13	4	5,120	5,120		1.04	5.32	21	1	
W17	13	4	15,710	15,247	460	1.04	16.34	65	2	
W18	13	4	14,710	14,247	460	1.04	15.30	61	2	
W19	13	3	13,710	13,247	460	1.04	14.26	43	2	
W20	13	4	12,000	12,000		1.04	12.48	50	1	
W21	19	59	4,000	4,000		2.23	8.92	526	1	
W22	16	15	9,120	8,560	560	1.58	14.41	216	2	
W23	16	14	6,850	6,848		1.58	10.82	152	1	
W24	19	10	5,810	5,806		2.23	12.96	130	1	
W25	19	12	4,100	4,094		2.23	9.14	110	1	
W26	19	1	2,390	2,382		2.23	5.33	5	1	
W27	13	13	6,000	6,000		1.04	6.24	81	1	
W28	13	9	4,780	4,774		1.04	4.97	45	1	
W29	16	15	9,120	8,560	560	1.58	14.41	216	2	
W30	16	12	6,850	6,848		1.58	10.82	130	1	
W31	19	10	5,810	5,806		2.23	12.96	130	1	
W32	19	10	4,100	4,094		2.23	9.14	91	1	
W33	19	2	2,390	2,382		2.23	5.33	11	1	
W34	13	13	6,000	6,000		1.04	6.24	81	1	
W35	13	9	4,570	4,565		1.04	4.75	43	1	
W36	16	10	15,320	14,755	560	1.58	24.21	242	6	
W37	13	30	2,360	2,360		1.04	2.45	74	1	
F1	25	66	7,380	7,000	380	3.85	28.41	1,875	7	
F2	19	18	13,670	13,000	670	2.23	30.48	549	2	
F3	36	66	7,540	7,000	540	7.99	60.24	3,976	7	
F4	25	18	13,880	13,000	880	3.85	53.44	962	2	
							TOTAL =	12,093		

BAR BENDING SCHEDULE



NOTE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

REFERENCE DRAWINGS

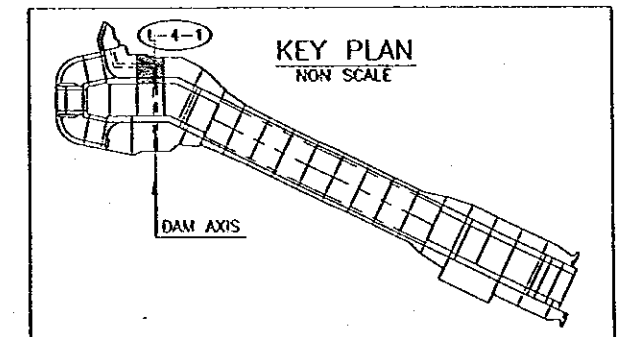
1. JD-P1-SP-Re-9 REINFORCEMENT DETAILS-BLOCK R-3 (1/3)
2. JD-P1-SP-Re-10 REINFORCEMENT DETAILS-BLOCK R-3 (2/3)

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVIDER CENTRAL JAVA	
JATUNNELUNA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION SPILLWAY REINFORCEMENT DETAILS BLOCK R-3 (3/3)		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN INDONESIA IN THE REPUBLIC OF INDONESIA	
JAPAN INTERNATIONAL COOPERATION AGENCY OIL ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL FIELD INTERNATIONAL INC.		DISTRICT SEMARANG CITY	
CHIEF OF PLANNING AND DESIGN		DRAWING NO. JD-P1-SP-R6-11	
PROJECT MANAGER		SHEET NO. 117	
DATE		CONTRACT NO.	

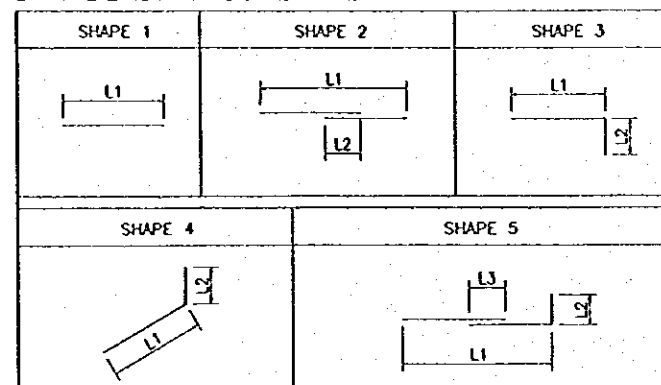
NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED	APPROVED

BAR WEIGHT

DIA (mm)	NUMBER	LENGTH (mm)			WEIGHT PER "m" (kg/m)	WEIGHT PER "BAR" (kg)	WEIGHT (kg)	SHAPE	TYPE	DIA (mm)	NUMBER	LENGTH (mm)			WEIGHT PER "m" (kg/m)	WEIGHT PER "BAR" (kg)	WEIGHT (kg)	SHAPE	
		TOTAL	L1	L2								L3	TOTAL	L1					L2
16	30	4,940	4,935		1.58	7.81	234	1	G16	16	112	1,120	1,120		1.58	1.77	198	1	
16	30	8,790	8,224	560	1.58	13.89	417	2	G17	16	56	3,250	2,260	985	1.58	5.14	288	3	
16	15	6,580	6,580		1.58	10.40	156	1	G18	16	56	1,620	1,620		1.58	2.56	143	1	
19	30	4,790	4,783		2.23	10.68	320	1	G19	16	56	3,320	3,320		1.58	5.25	294	1	
13	8	3,260	3,260		1.04	3.39	27	1	G20	16	10	13,260	12,695	560	1.58	20.95	210	2	
13	3	15,260	14,800	460	1.04	15.87	48	2	G21	16	6	13,260	12,695	560	1.58	20.95	126	2	
13	8	12,000	12,000		1.04	12.48	100	1	G22	16	6	11,320	11,314		1.58	17.89	107	1	
13	7	9,260	9,260		1.04	9.63	67	1	G23	16	3	10,940	10,938		1.58	17.29	52	1	
13	4	6,260	6,260		1.04	6.51	26	1	G24	16	40	3,320	3,320		1.58	5.25	210	1	
13	11	7,920	7,920		1.04	8.24	91	1	G25	16	40	2,980	2,373	600	1.58	4.71	188	3	
19	36	4,940	4,935		2.23	11.02	397	1	G26	16	40	1,660	1,653		1.58	2.62	105	1	
13	13	7,920	7,920		1.04	8.24	107	1	G27A	22	27	3,070	3,065		2.98	9.15	247	1	
19	36	5,590	5,300	290	2.23	12.47	449	3	G27B	22	39	3,070	3,065		2.98	9.15	357	1	
13	15	15,260	14,800	460	1.04	15.87	238	2	G28A	16	67	3,840	3,834		1.58	6.07	407	1	
16	75	3,750	3,750		1.58	5.93	444	1	G28B	16	36	3,840	3,834		1.58	6.07	218	1	
19	75	4,420	4,420		2.23	9.86	739	1	G28C	16	42	2,200	2,197		1.58	3.48	146	1	
19	75	4,000	4,000		2.23	8.92	669	1	G29A	22	67	2,400	2,063	330	2.98	7.15	479	4	
19	28	2,290	2,000	290	2.23	5.11	143	3	G29B	22	36	2,400	2,063	330	2.98	7.15	257	4	
19	28	3,120	2,828	290	2.23	6.96	195	4	G29C	22	42	1,750	1,417	330	2.98	5.22	219	4	
13	11	5,400	5,400		1.04	5.62	62	1	G30	16	67	4,900	4,100	240	1.58	7.74	519	5	
									G31	16	67	4,070	4,063		1.58	6.43	431	1	
13	8	1,460	1,460		1.04	1.52	12	1	G32	16	27	2,820	2,817		1.58	4.46	120	1	
13	8	3,060	3,060		1.04	3.18	25	1	G33	16	40	1,970	1,969		1.58	3.11	125	1	
13	32	5,350	5,347		1.04	5.56	178	1	G34	16	60	8,060	8,059		1.58	12.73	764	1	
13	6	7,920	7,920		1.04	8.24	49	1	G35	16	25	5,530	5,525		1.58	8.74	218	1	
16	4	6,210	6,204		1.58	9.81	39	1	G36	16	12	3,830	3,822		1.58	6.05	73	1	
16	13	6,050	6,046		1.58	9.56	124	1	G37	16	12	7,060	6,500	560	1.58	11.15	134	4	
16	13	3,290	3,286		1.58	5.20	68	1	G38A	16	14	6,050	6,046		1.58	9.56	134	1	
16	4	5,700	5,700		1.58	9.01	36	1	G38B	16	14	3,290	3,286		1.58	5.20	73	1	
16	8	7,760	7,200	560	1.58	12.26	98	2											
16	6	6,560	6,000	560	1.58	10.36	62	2	F1	25	75	7,380	7,000	380	3.85	28.41	2,131	3	
16	10	7,960	7,400	560	1.58	12.58	126	2	F2	19	18	15,470	14,800	670	2.23	34.50	621	2	
16	6	5,900	5,900		1.58	9.32	56	1	F3	36	75	7,540	7,000	540	6.31	47.58	3,568	3	
16	44	5,230	5,227		1.58	8.26	364	1	F4	25	18	15,680	14,800	880	3.85	60.37	1,087	2	
16	12	5,100	5,100		1.58	8.06	97	1											
16	22	4,100	4,100		1.58	6.48	143	1											
16	112	2,240	2,236		1.58	3.54	396	1											
																TOTAL =	21,051		



BAR BENDING SCHEDULE



NOTES

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

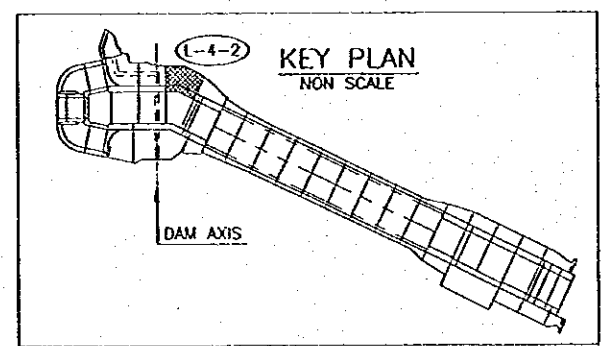
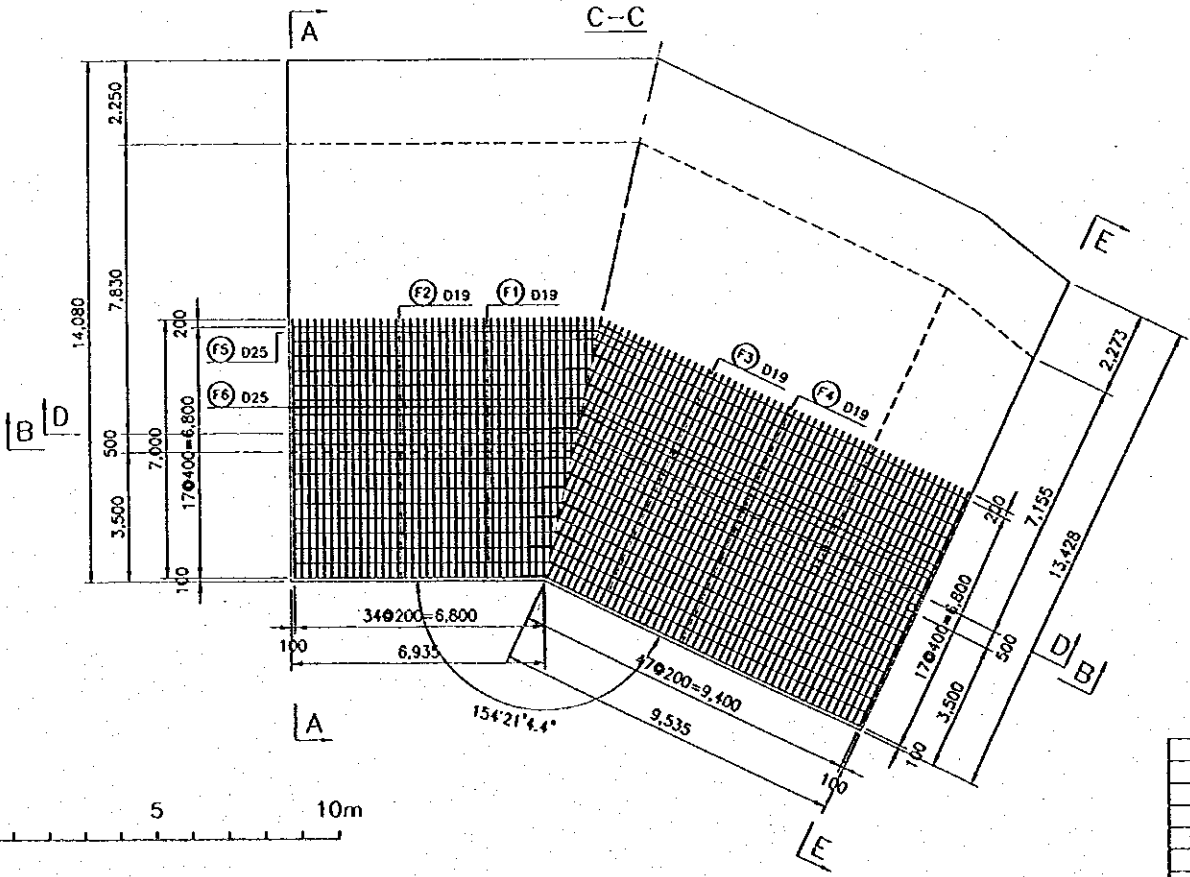
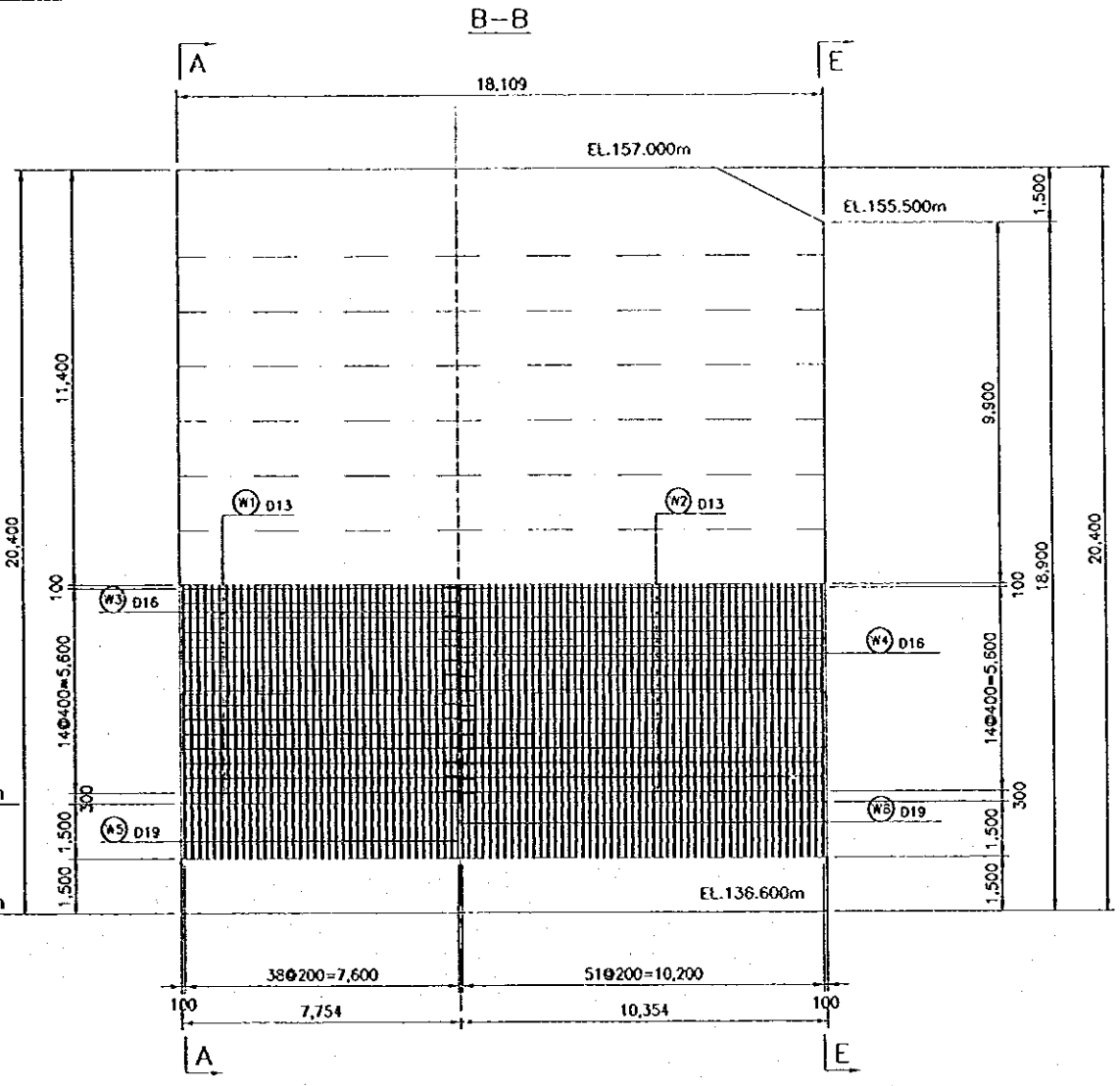
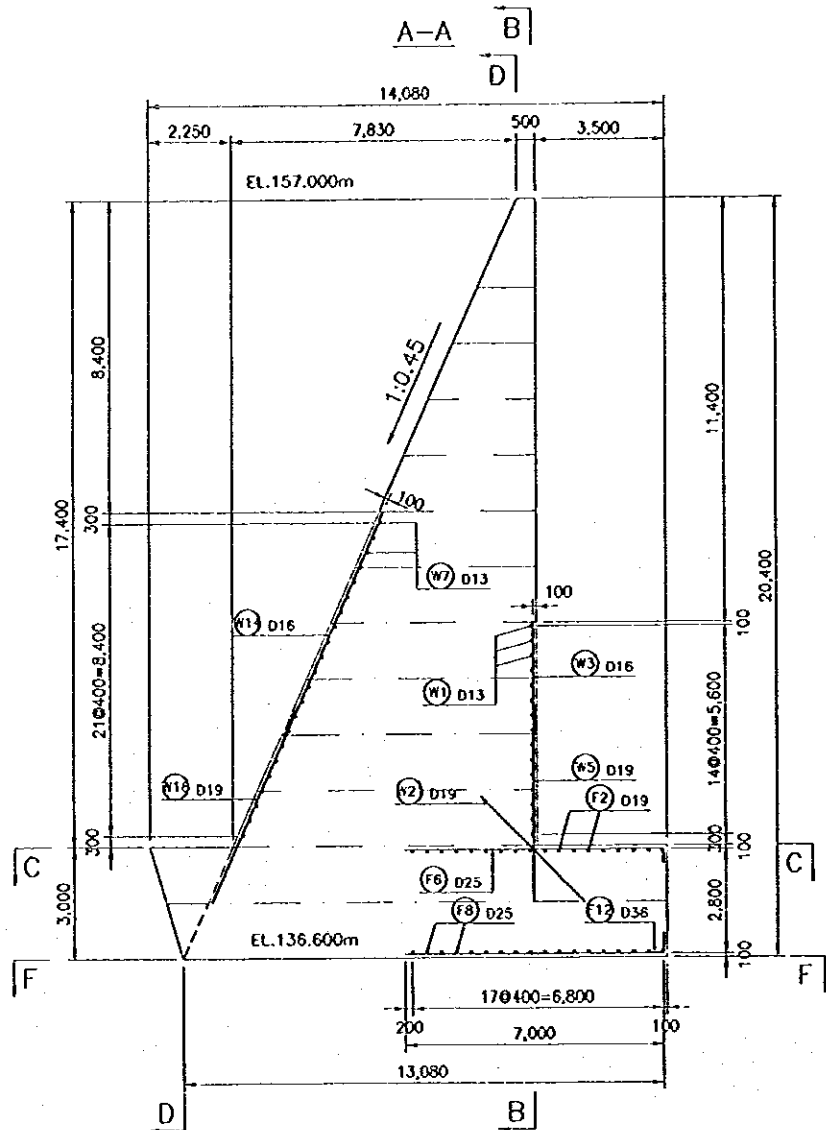
REFERENCE DRAWINGS

- JD-P1-SP-Re-12 REINFORCEMENT DETAILS-BLOCK L-4-1 (1/3)
- JD-P1-SP-Re-13 REINFORCEMENT DETAILS-BLOCK L-4-1 (2/3)

NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

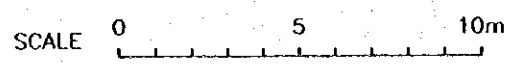
THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT JATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION SPILLWAY REINFORCEMENT DETAILS BLOCK L-4-1 (3/3)		PROJECT CENTRAL JAVA PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY DRAWING NO. JD-P1-SP-Re-14 SHEET NO. 120 DATE CONTRACT NO.
LUTAN INTERNATIONAL CORPORATION CIVIL ENGINEERING CO., LTD. PACIFIC COMMERCIAL BANK BUILDING JATUNSELUNA, SEMARANG	DESIGNED CHECKED GISEP OF PLANNING AND DESIGN PROJECT MANAGER	APPROVED

L-4-2 (1/3)



NOTE
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

- REFERENCE DRAWINGS**
1. JD-P1-SP-Re-16 REINFORCEMENT DETAILS-BLOCK L-4-2 (2/3)
 2. JD-P1-SP-Re-17 REINFORCEMENT DETAILS-BLOCK L-4-2 (3/3)



NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

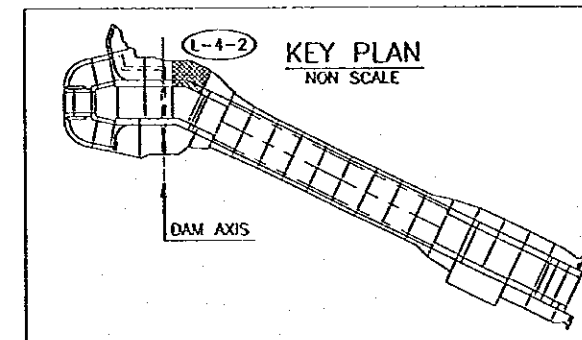
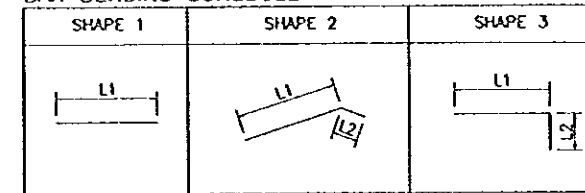
THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT BRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION SPILLWAY REINFORCEMENT DETAILS BLOCK L-4-2 (1/3)		PROVIDER CENTRAL JAVA PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY DRAWING NO. JD-P1-SP-Re-15 SHEET NO. 121
TAPAN INTERNATIONAL COOPERATION AGENCY CIL ENGINEERING CO. LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL PAKSI INTERNATIONAL PSE	DESIGNED CHECKED CHIEF OF PLANNING AND DESIGN PROJECT MANAGER	DATE CONTRACT NO.

L-4-2 (3/3)

BAR WEIGHT

TYPE	DIA (mm)	NUMBER	LENGTH (mm)			WEIGHT PER "m" (kg/m)	WEIGHT PER "BAR" (kg)	WEIGHT (kg)	SHAPE	
			TOTAL	L1	L2					
W1	13	15	8,120	8,115		1.04	8.44	127	1	
W2	13	15	10,720	10,715		1.04	11.15	167	1	
W3	16	39	3,740	3,731		1.58	5.91	230	1	
W4	16	52	3,750	3,750		1.58	5.93	308	1	
W5	19	39	4,440	4,439		2.23	9.90	386	1	
W6	19	52	4,420	4,420		2.23	9.86	513	1	
W7	13	11	9,510	9,047	460	1.04	9.89	109	2	
W8	13	11	9,090	9,088		1.04	9.45	104	1	
W9	13	10	11,610	11,606		1.04	12.07	121	1	
W10	13	9	12,070	11,606	460	1.04	12.55	113	2	
W11	13	2	12,460	12,000	460	1.04	12.96	26	2	
W12	13	1	12,000	12,000		1.04	12.48	12	1	
W13	13	22	3,290	3,290		1.04	3.42	75	1	
W14A	16	22	6,580	6,580		1.58	10.40	229	1	
W14B	16	22	5,500	5,495		1.58	8.69	191	1	
W15	16	4	3,880	3,880		1.58	6.13	25	1	
W16	16	46	4,790	4,782		1.58	7.57	348	1	
W17	16	28	3,290	3,290		1.58	5.20	146	1	
W18A	16	29	6,580	6,580		1.58	10.40	301	1	
W18B	16	28	5,500	5,495		1.58	8.69	243	1	
W19	19	59	480	476		2.23	1.07	63	1	
W20	19	4	3,730	3,726		2.23	8.32	33	1	
W21	19	91	4,000	4,000		2.23	8.92	812	1	
F1	19	9	8,350	7,678	670	2.23	18.62	168	2	
F2	19	9	7,590	7,586		2.23	16.93	152	1	
F3	19	9	10,280	10,278		2.23	22.92	206	1	
F4	19	9	10,860	10,187	670	2.23	24.22	218	2	
F5	25	14	3,740	3,740		3.85	14.40	202	1	
F6	25	83	7,380	7,000	380	3.85	28.41	2,358	3	
F7	25	9	8,560	7,678	880	3.85	32.96	297	2	
F8	25	9	7,590	7,586		3.85	29.22	263	1	
F9	25	9	10,280	10,278		3.85	39.58	356	1	
F10	25	9	11,070	10,187	880	3.85	42.62	384	2	
F11	36	14	3,740	3,740		6.31	23.60	330	1	
F12	36	83	7,540	7,000	540	6.31	47.58	3,949	3	
TOTAL =							13,565			

BAR BENDING SCHEDULE



NOTE

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

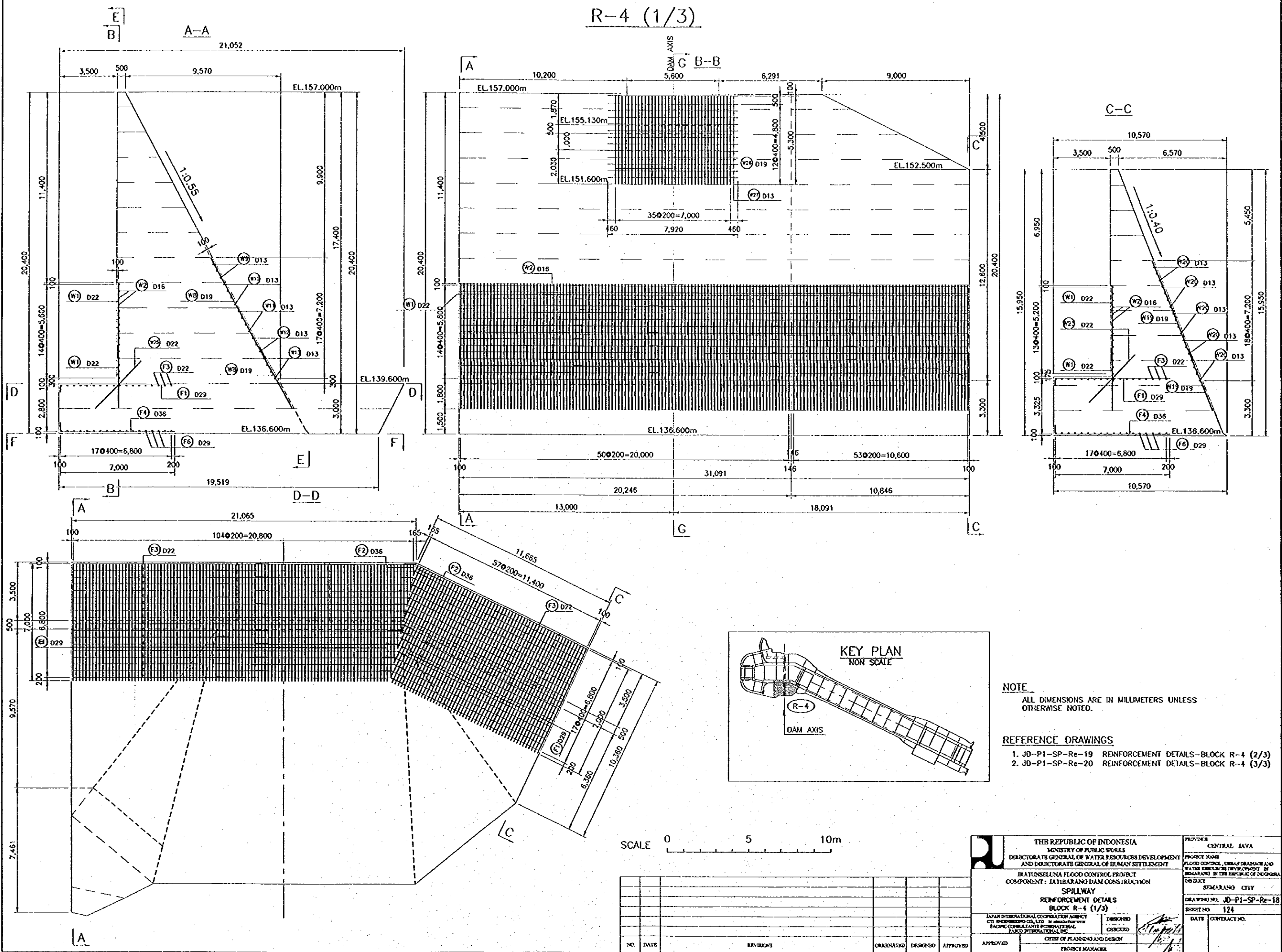
REFERENCE DRAWINGS

1. JD-P1-SP-Re-15 REINFORCEMENT DETAILS-BLOCK L-4-2 (1/3)
2. JD-P1-SP-Re-16 REINFORCEMENT DETAILS-BLOCK L-4-2 (2/3)

NO.	DATE	REVISIONS	ORIGINATED	DESIGNED	APPROVED

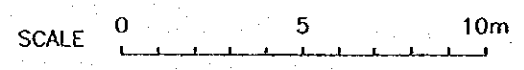
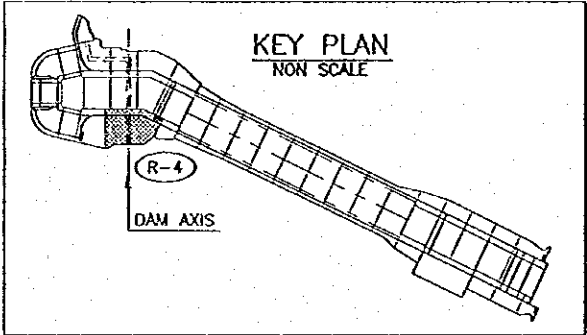
THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT		PROVINCE CENTRAL JAWA
JRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT: JATIBARANG DAM CONSTRUCTION SPILLWAY REINFORCEMENT DETAILS BLOCK L-4-2 (3/3)		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA
JAPAN INTERNATIONAL COOPERATION AGENCY CITY ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL TOKYO INTERNATIONAL INC.		DISTRICT SEMARANG CITY
DESIGNED CHECKED CIEF OF PLANNING AND DESIGN	DATE CONTRACT NO.	DRAWING NO. JD-P1-SP-Re-17 SHEET NO. 123
APPROVED PROJECT MANAGER	[Signature]	[Signature]

R-4 (1/3)



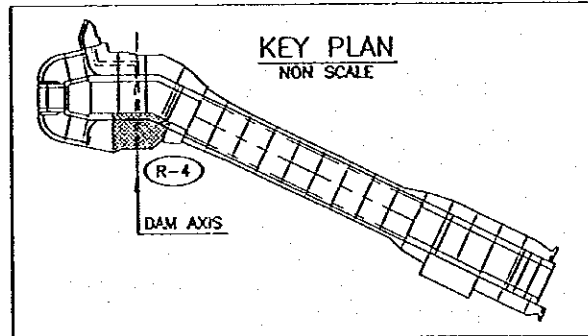
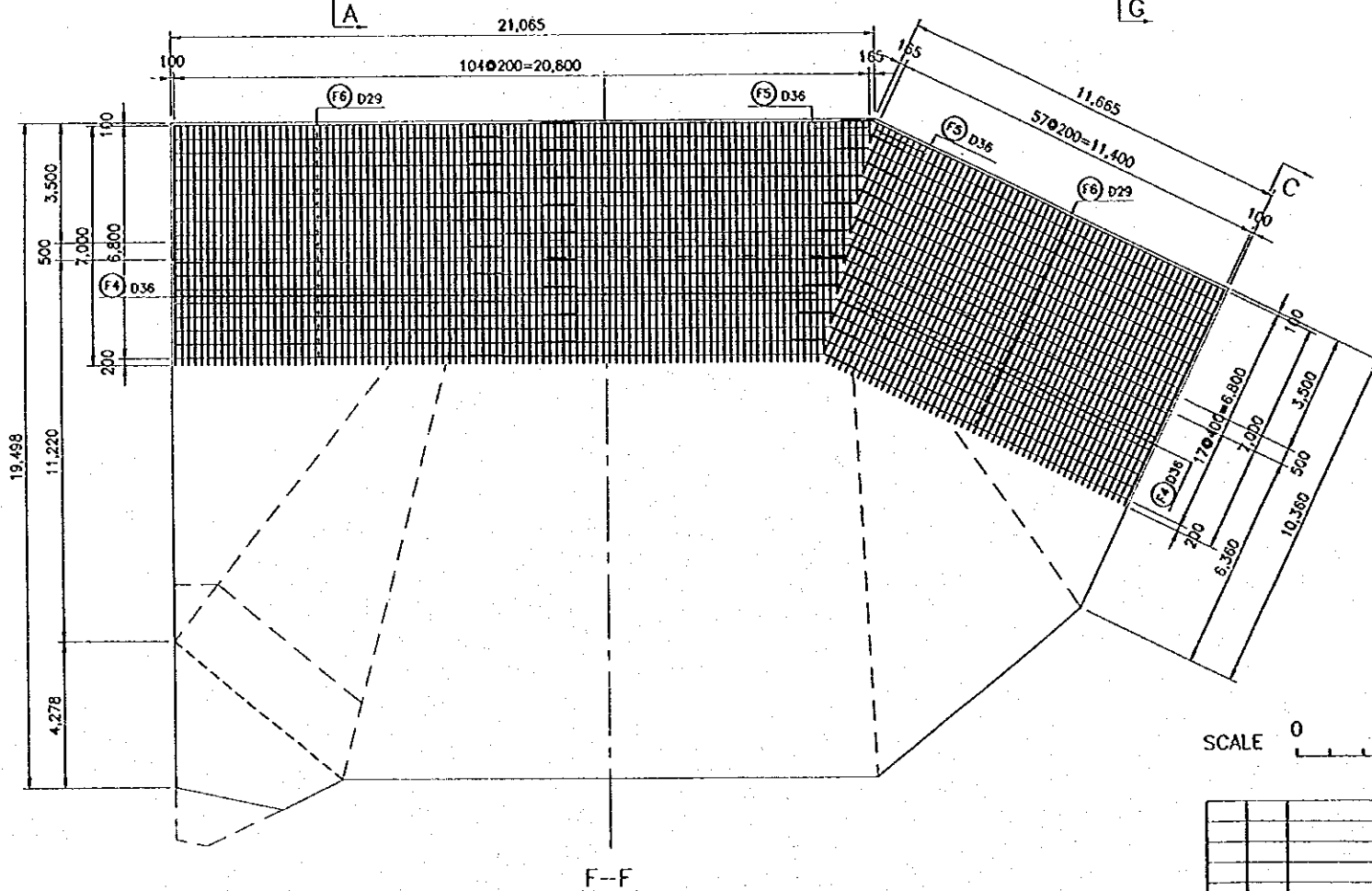
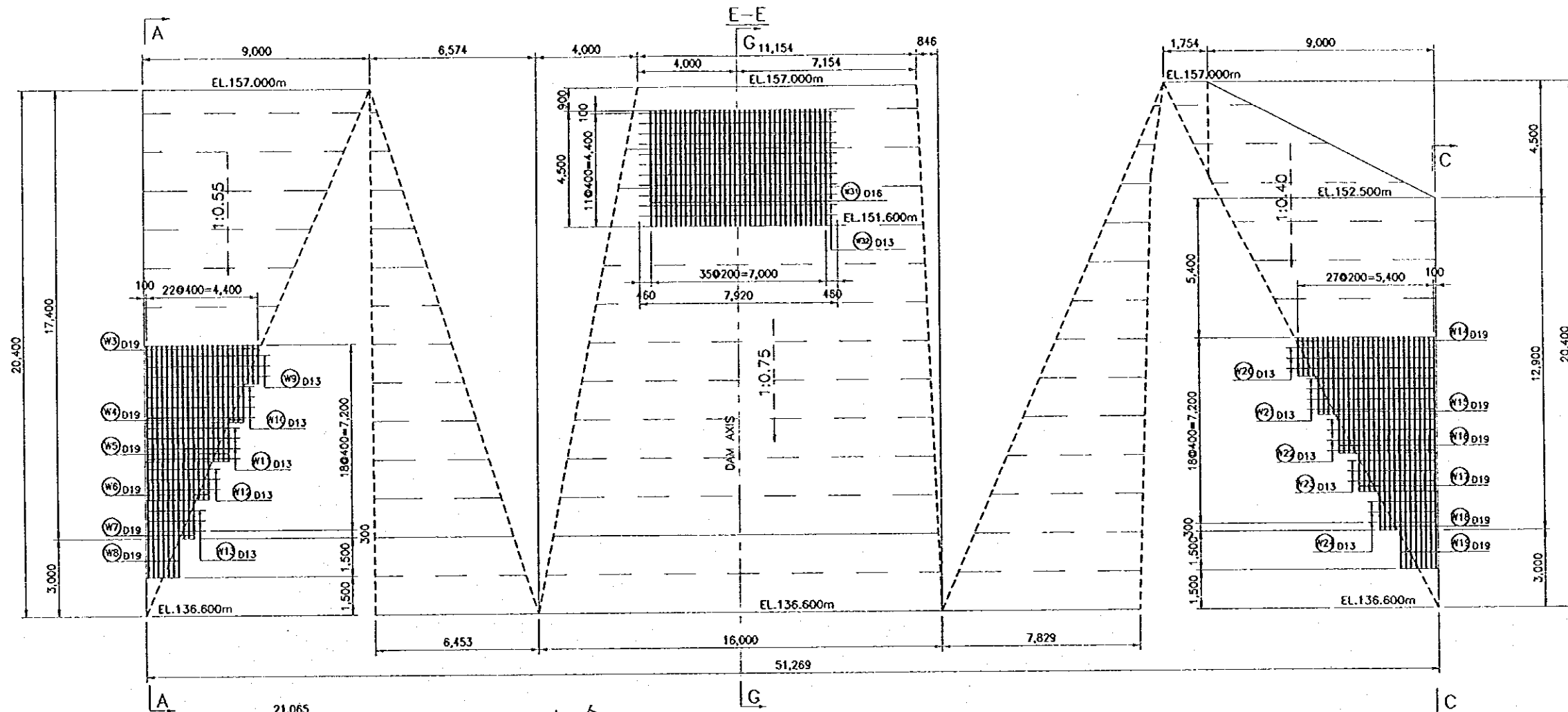
NOTE
 ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

REFERENCE DRAWINGS
 1. JD-P1-SP-Re-19 REINFORCEMENT DETAILS-BLOCK R-4 (2/3)
 2. JD-P1-SP-Re-20 REINFORCEMENT DETAILS-BLOCK R-4 (3/3)



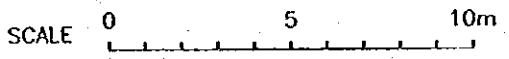
THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT IRATUNSELUNA FLOOD CONTROL PROJECT COMPONENT : IATIBARANG DAM CONSTRUCTION SPILLWAY REINFORCEMENT DETAILS BLOCK R-4 (1/3)		PROVINCE CENTRAL JAVA PROJECT NAME FLOOD CONTROL, SEDIMENTATION AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY DRAWING NO. JD-P1-SP-Re-18 SHEET NO. 124 DATE CONTRACT NO.
JAPAN INTERNATIONAL COOPERATION AGENCY JICA ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL JAPAN INTERNATIONAL S.C.		DESIGNED CHECKED APPROVED PROJECT MANAGER
NO. DATE REVISIONS ORIGINATED DESIGNED APPROVED		

R-4 (2/3)



NOTE
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

REFERENCE DRAWINGS
1. JD-P1-SP-Re-18 REINFORCEMENT DETAILS-BLOCK R-4 (1/3)
2. JD-P1-SP-Re-20 REINFORCEMENT DETAILS-BLOCK R-4 (3/3)



NO.	DATE	REVISIONS	OPERATED	DESIGNED	APPROVED	APPROVED

THE REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT AND DIRECTORATE GENERAL OF HUMAN SETTLEMENT PIAUTUNSELUNA FLOOD CONTROL PROJECT COMPONENT : JATIBARANG DAM CONSTRUCTION SPILLWAY REINFORCEMENT DETAILS BLOCK R-4 (2/3)		PROVINCE CENTRAL JAVA
LAYAN INTERNATIONAL COOPERATION AGENCY CIL ENGINEERING CO., LTD. IN ASSOCIATION WITH PACIFIC CONSULTANTS INTERNATIONAL PACIFIC INTERNATIONAL, INC.		PROJECT NAME FLOOD CONTROL, URBAN DRAINAGE AND WATER RESOURCES DEVELOPMENT IN SEMARANG IN THE REPUBLIC OF INDONESIA DISTRICT SEMARANG CITY
DESIGNED CHECKED DATE		DRAWING NO. JD-P1-SP-Re-19 SHEET NO. 125
CHIEF OF PLANNING AND DESIGN PROJECT MANAGER		CONTRACT NO.