Data E

FACILITIES DESIGN AND COST ESTIMATE

Data E1

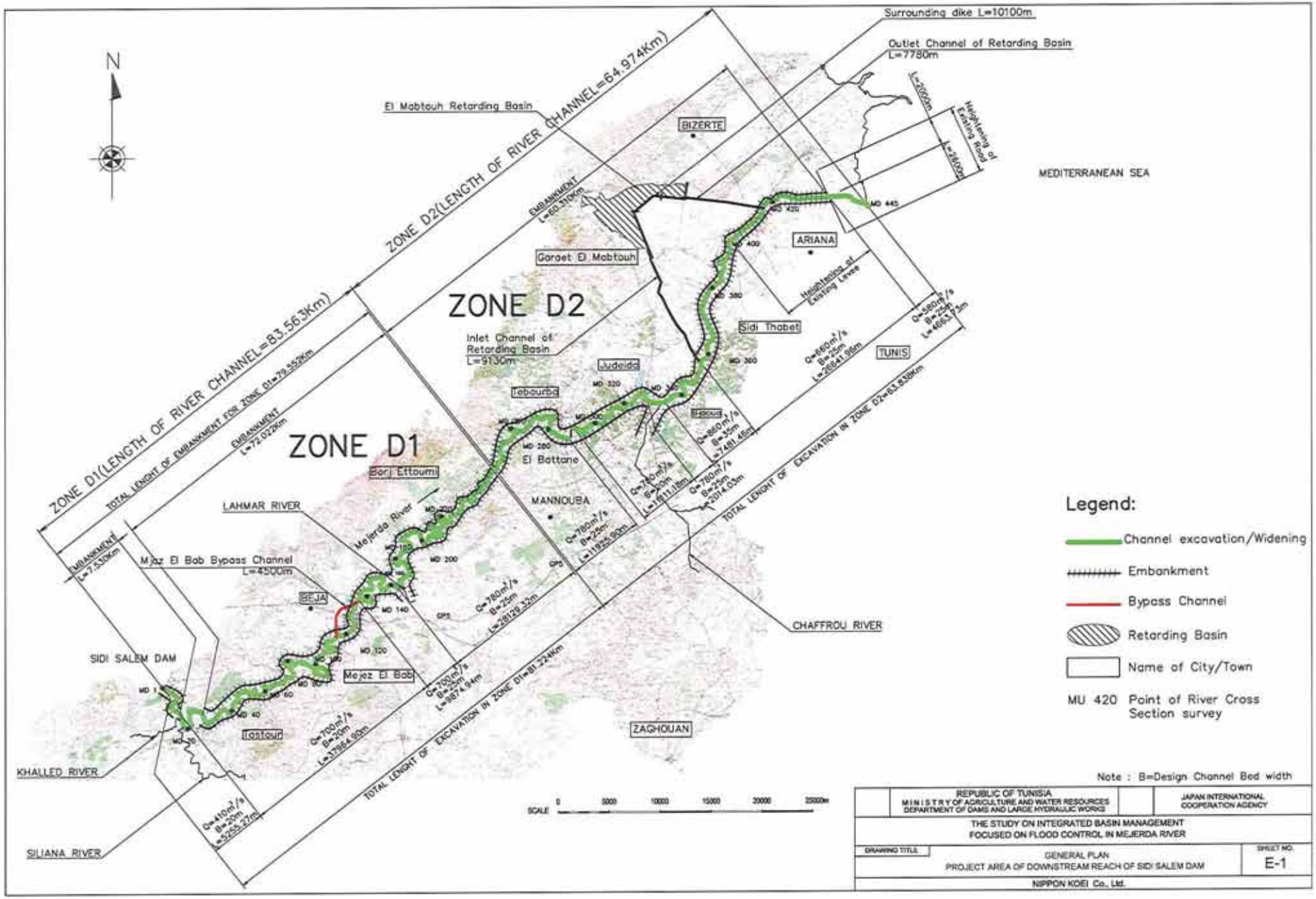
Drawings of River Facilities

List of Drawings (1/2)

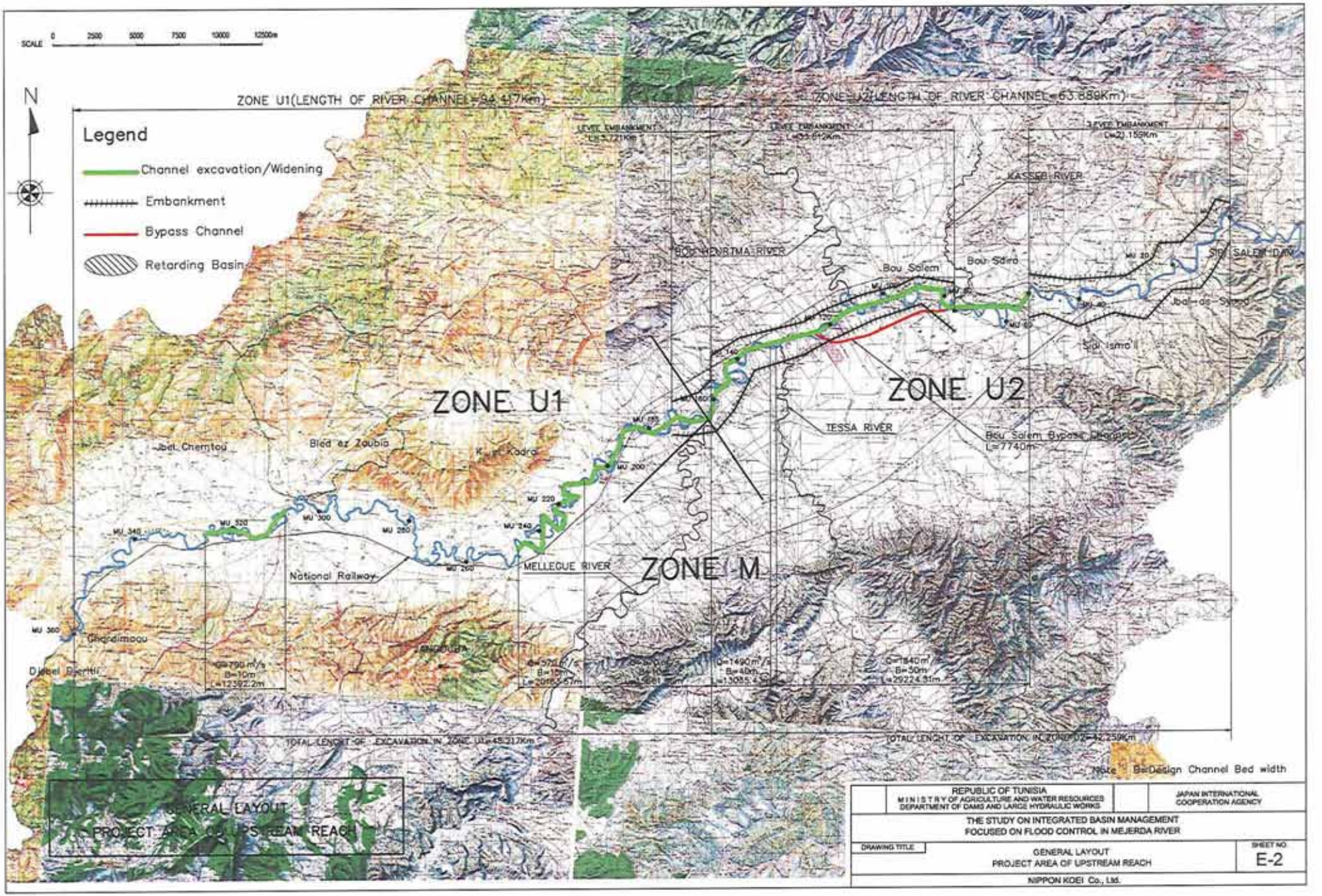
1	GENERAL LAYOUT	PROJECT AREA OF DOWNSTREAM REACH
2	GENERAL LAYOUT	PROJECT AREA OF UPSTREAM REACH
3	MEJERDA RIVER DOWNSTREAM REACH	PLAN AND PROFILE (1/5)
4	MEJERDA RIVER DOWNSTREAM REACH	PLAN AND PROFILE (2/5)
5	MEJERDA RIVER DOWNSTREAM REACH	PLAN AND PROFILE (3/5)
6	MEJERDA RIVER DOWNSTREAM REACH	PLAN AND PROFILE (4/5)
7	MEJERDA RIVER DOWNSTREAM REACH	PLAN AND PROFILE (5/5)
8	MEJERDA RIVER UPSTREAM REACH	PLAN AND PROFILE (1/6)
9	MEJERDA RIVER UPSTREAM REACH	PLAN AND PROFILE (2/6)
10	MEJERDA RIVER UPSTREAM REACH	PLAN AND PROFILE (3/6)
11	MEJERDA RIVER UPSTREAM REACH	PLAN AND PROFILE (4/6)
12	MEJERDA RIVER UPSTREAM REACH	PLAN AND PROFILE (5/6)
13	MEJERDA RIVER UPSTREAM REACH	PLAN AND PROFILE (6/6)
14	KASSEB RIVER	PLAN AND PROFILE
15	BOU HEURTMA RIVER	PLAN AND PROFILE
16	TESSA RIVER	PLAN AND PROFILE (1/2)
17	TESSA RIVER	PLAN AND PROFILE (2/2)
18	MELLEGUE RIVER	PLAN AND PROFILE (1/3)
19	MELLEGUE RIVER	PLAN AND PROFILE (2/3)
20	MELLEGUE RIVER	PLAN AND PROFILE (3/3)
21	TYPICAL SECTIONS OF MEJERDA RIVER (1/4)	
22	TYPICAL SECTIONS OF MEJERDA RIVER (2/4)	
23	TYPICAL SECTIONS OF MEJERDA RIVER (3/4)	
24	TYPICAL SECTIONS OF MEJERDA RIVER (4/4)	
25	TYPICAL SECTIONS OF MELLEGUE RIVER	
26	TYPICAL SECTION OF CHAFFROU RIVER	TYPICAL SECTION OF LAHMAR RIVER TYPICAL SECTION OF KASSEB RIVER
27	TYPICAL SECTION OF BOU HEURTMA RI	TYPICAL SECTION OF TESSA RIVER
28	EL MABTOUH RETARDING BASIN (ZONE	GENERAL LAYOUT
29	EL MABTOUH RETARDING BASIN (ZONE	PROFILE OF INLET TO OUTLET CHANNEL
30	EL MABTOUH RETARDING BASIN (ZONE	INLET STRUCTURE OF RETARDING BASIN - OVERFLOW DIKE WITH S TYPICAL SECTIONS FOR EARTH WORKS
31	EL MABTOUH RETARDING BASIN (ZONE	INLET STRUCTURE OF RETARDING BASIN - OVERFLOW DIKE WITH S PLAN
32	EL MABTOUH RETARDING BASIN (ZONE	INLET STRUCTURE OF RETARDING BASIN - OVERFLOW DIKE WITH S PROFILE
33	EL MABTOUH RETARDING BASIN (ZONE	INLET STRUCTURE OF RETARDING BASIN - OVERFLOW DIKE WITH S CROSS SECTIONS (1/2)
34	EL MABTOUH RETARDING BASIN (ZONE	INLET STRUCTURE OF RETARDING BASIN - OVERFLOW DIKE WITH S CROSS SECTIONS (2/2)
35	EL MABTOUH RETARDING BASIN (ZONE	INLET STRUCTURE OF RETARDING BASIN - OVERFLOW DIKE WITH S DETAILS OF OVERFLOW DIKE
36	MEJEZ EL BAB BYPASS CHANNEL (ZONE	PLAN
37	MEJEZ EL BAB BYPASS CHANNEL (ZONE	PROFILE
38	MEJEZ EL BAB BYPASS CHANNEL (ZONE	TYPICAL SECTION OF BYPASS CHANNEL
39	MEJEZ EL BAB BYPASS CHANNEL (ZONE	INLET STRUCTURE OF BYPASS CHANNEL
40	MEJEZ EL BAB BYPASS CHANNEL (ZONE	SECTIONS OF INLET STRUCTURES (1/2)
41	MEJEZ EL BAB BYPASS CHANNEL (ZONE	SECTIONS OF INLET STRUCTURES (2/2)
42	MEJEZ EL BAB BYPASS CHANNEL (ZONE	PLAN OF OUTLET STRUCTURE
43	MEJEZ EL BAB BYPASS CHANNEL (ZONE	SECTIONS OF OUTLET STRUCTURES (1/2)
44	MEJEZ EL BAB BYPASS CHANNEL (ZONE	SECTIONS OF OUTLET STRUCTURES (2/2)
45	MEJEZ EL BAB BYPASS CHANNEL (ZONE	TYPICAL DESIGN OF GROUND SILL
46	MEJEZ EL BAB BYPASS CHANNEL (ZONE	TYPICAL DESIGN OF BRIDGES

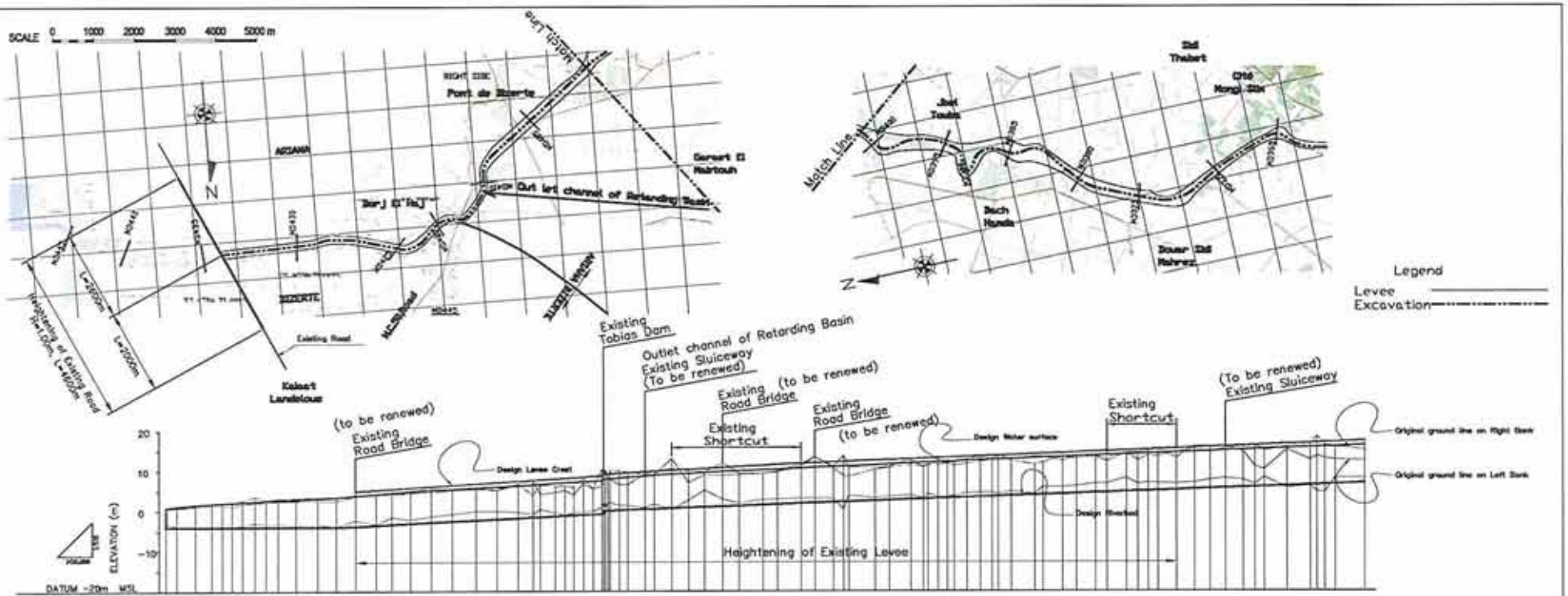
List of Drawings (2/2)

47	BOUSALEM BYPASS CHANNEL (ZONE U2	PLAN AND PROFILE
48	BOUSALEM BYPASS CHANNEL (ZONE U2	TYPICAL SECTION OF BYPASS CHANNEL
49	BOUSALEM BYPASS CHANNEL (ZONE U2	INLET STRUCTURE — PLAN
50	BOUSALEM BYPASS CHANNEL (ZONE U2	SECTIONS OF INLET STRUCTURES (1/2)
51	BOUSALEM BYPASS CHANNEL (ZONE U2	SECTIONS OF INLET STRUCTURES (2/2)
52	BOUSALEM BYPASS CHANNEL (ZONE U2	OUTLET STRUCTURE — PLAN
53	BOUSALEM BYPASS CHANNEL (ZONE U2	OUTLET STRUCTURE — CROSS SECTION (1/2)
54	BOUSALEM BYPASS CHANNEL (ZONE U2	OUTLET STRUCTURE — CROSS SECTION (2/2)
55	BOUSALEM BYPASS CHANNEL (ZONE U2	TYPICAL DESIGN OF GROUND SILL
56	BOUSALEM BYPASS CHANNEL (ZONE U2	BRIDGE
57	BOUSALEM BYPASS CHANNEL (ZONE U2	TYPICAL DESIGN OF DRAIN INLET
58	BOUSALEM BYPASS CHANNEL (ZONE U2	IRRIGATION CANAL CROSSING
59	SLOPE PROTECTION WORKS (ZONE D1)	REVETMENT FOR JEDAIDA CITY — PLAN
60	SLOPE PROTECTION WORKS (ZONE D1)	REVETMENT FOR JEDAIDA CITY — CROSS SECTION (1/3)
61	SLOPE PROTECTION WORKS (ZONE D1)	REVETMENT FOR JEDAIDA CITY — CROSS SECTION (2/3)
62	SLOPE PROTECTION WORKS (ZONE D1)	REVETMENT FOR JEDAIDA CITY — CROSS SECTION (3/3)
63	RIVER BANK PROTECTION (ZONE D1)	EL BATTANE REVETMENT
64	RIVER BANK PROTECTION (ZONE D1)	EL BATTANE REVETMENT
65	SLOPE PROTECTION WORKS (ZONE U2)	REVETMENT FOR BOU SALEM CITY — PLAN
66	SLOPE PROTECTION WORKS (ZONE U2)	TYPICAL SECTION
67	SLOPE PROTECTION WORKS (ZONE U2)	SECTIONS (1/2)
68	SLOPE PROTECTION WORKS (ZONE U2)	SECTIONS (2/2)
69	DETACHABLE LEVEE	(STOP LOG STRUCTURE) AT THE HISTORICAL BRIDGE IN MEJEZ EL BAB
70	SLOPE PROTECTION	TYPICAL DESIGN OF FASCINE MATTRESS
71	SLOPE PROTECTION	TYPICAL DESIGN OF FASCINE HURDLE STEP
72	REPLACEMENT OF EXISTING BRIDGE (ZONE D2)	ROAD BRIDGE AT MD 434
73	REPLACEMENT OF EXISTING BRIDGE (ZONE D2)	RAILWAY BRIDGE AT MD 406
74	REPLACEMENT OF EXISTING BRIDGE (ZONE D2)	ROAD BRIDGE AT MD 401
75	AQUEDUCT AND FOOT PATH BRIDGE (ZONE D1)	(improved to Road Bridge with aqueduct) — ROAD BRIDGE AT MD 134
76	REPLACEMENT OF EXISTING BRIDGE (ZONE U2)	ROAD BRIDGE AT MU 40
77	REPLACEMENT OF EXISTING BRIDGE (ZONE U2)	ROAD BRIDGE AT MU 153
78	HEIGHTENING OF EXISTING RAILWAY BRIDGE (ZONE D2)	RAILWAY BRIDGE AT MD 338
79	TYPICAL DESIGN OF SLUICEWAY	1.00 x 1.00 x 1 BARREL — PLAN AND PROFILE
80	TYPICAL DESIGN OF SLUICEWAY	1.00 x 1.00 x 1 BARREL — CROSS SECTIONS
81	TYPICAL DESIGN OF SLUICEWAY	1.50 x 1.50 x 1 BARREL — PLAN AND PROFILE
82	TYPICAL DESIGN OF SLUICEWAY	1.50 x 1.50 x 1 BARREL — CROSS SECTIONS
83	TYPICAL DESIGN OF SLUICEWAY	2.00 x 2.00 x 1 BARREL — PLAN AND PROFILE
84	TYPICAL DESIGN OF SLUICEWAY	2.00 x 2.00 x 1 BARREL — CROSS SECTIONS
85	TYPICAL DESIGN OF SLUICEWAY	2.00 x 2.00 x 2 BARRELS — PLAN AND PROFILE
86	TYPICAL DESIGN OF SLUICEWAY	2.00 x 2.00 x 2 BARRELS — CROSS SECTIONS
87	TYPICAL DESIGN OF SLUICE GATE	(ROLLER GATE TYPE) — 2.50 x 2.50 x 2 BARRELS
88	TYPICAL DESIGN OF SLUICE GATE	(ROLLER GATE TYPE) — 2.50 x 2.50 x 3 BARRELS


N
ZONE D1(LENGTH OF RIVER CHANNEL=83.563Km)
ZONE D2(LENGTH OF RIVER CHANNEL=64.974Km)
TOTAL LENGHT OF EMBANKMENT FOR ZONE 01=79.552Km
EMBANKMENT L=72.022Km
EMBANKMENT L=7.530Km
EMBANKMENT L=60.310Km
Surrounding dike L=10100m
Outlet Channel of Retarding Basin L=7780m
L=2000m
Heightening of Existing Road
L=2600m
El Mabtouh Retarding Basin
BIZERTE
MEDITERRANEAN SEA
Garaet El Mabtouh
ARIANA
Heightening of Existing Levee
ZONE D2
Inlet Channel of Retarding Basin L=9130m
Sidi Thabet
TUNIS
Judeida
Tebourba
El Battane
Bou Salem
ZONE D1
Bor Ettoumi
LAHMAR RIVER
Mejerda River
MANNOUBA
Mejaz El Bab Bypass Channel L=4500m
BEJA
CHAFFROU RIVER
SIDI SALEM DAM
Mejez El Bab
Testour
ZAGHOUAN
KHALLED RIVER
SILIANA RIVER
TOTAL LENGHT OF EXCAVATION IN ZONE D1=81.224Km
TOTAL LENGHT OF EXCAVATION IN ZONE D2=63.838Km
Q=560m³/s B=25m L=466.73m
Q=860m³/s B=25m L=26641.98m
Q=860m³/s B=35m L=7481.46m
Q=740m³/s B=30m L=1611.18m
Q=780m³/s B=25m L=2074.03m
Q=780m³/s B=25m L=11926.90m
Q=780m³/s B=25m L=28129.32m
Q=700m³/s B=25m L=9874.94m
Q=700m³/s B=20m L=37984.90m
Q=410m³/s B=20m L=5265.27m
SCALE 0 5000 10000 15000 20000 25000m
Legend:
Channel excavation/Widening
Embankment
Bypass Channel
Retarding Basin
Name of City/Town
MU 420 Point of River Cross Section survey
Note : B=Design Channel Bed width
REPUBLIC OF TUNISIA
MINISTRY OF AGRICULTURE AND WATER RESOURCES
DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS
JAPAN INTERNATIONAL COOPERATION AGENCY
THE STUDY ON INTEGRATED BASIN MANAGEMENT
FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER
DRAWING TITLE
GENERAL PLAN
PROJECT AREA OF DOWNSTREAM REACH OF SIDI SALEM DAM
SHEET NO.
E-1
NIPPON KOEI Co., Ltd.

DE1-1


SCALE 0 2500 5000 7500 10000 12500m
N
Legend
Channel excavation/Widening
Embankment
Bypass Channel
Retarding Basin
ZONE U1(LENGTH OF RIVER CHANNEL=94.417Km)
ZONE U2(LENGTH OF RIVER CHANNEL=63.689Km)
ZONE U1
ZONE U2
ZONE M
LEVEE EMBANKMENT L=3.721Km
LEVEE EMBANKMENT L=33.612Km
LEVEE EMBANKMENT (L=2).159Km
KASSEB RIVER
BOU HENRTMA RIVER
TESSA RIVER
MELLEGUE RIVER
Bou Salem
Bou Salem Bypass Channel L=7740m
Bou Salem
Sidi Ismail
Jbel Chemtou
Bled ez Zoubia
Kef el Kadra
National Railway
Ghardimaou
Djebel Bartil
MU 360
MU 340
MU 320
MU 300
MU 280
MU 260
MU 240
MU 220
MU 200
MU 180
MU 160
MU 140
MU 120
MU 100
MU 80
MU 60
MU 40
MU 20
Q=790 m³/s B=10m L=12392.2m
Q=970m³/s B=15m L=2080.57m
Q=1490m³/s B=40m L=13055.4m
Q=1540m³/s B=30m L=29224.31m
TOTAL LENGHT OF EXCAVATION IN ZONE U1=48.217Km
TOTAL LENGHT OF EXCAVATION IN ZONE U2=42.259Km
Note B=Design Channel Bed width
GENERAL LAYOUT
PROJECT AREA OF UPSTREAM REACH
REPUBLIC OF TUNISIA
MINISTRY OF AGRICULTURE AND WATER RESOURCES
DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS
JAPAN INTERNATIONAL COOPERATION AGENCY
THE STUDY ON INTEGRATED BASIN MANAGEMENT FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER
DRAWING TITLE
GENERAL LAYOUT
PROJECT AREA OF UPSTREAM REACH
SHEET NO. E-2
NIPPON KOEI Co., Ltd.



DESIGN SLOPE OF RIVERBED
DESIGN DISCHARGE
DESIGN EXCAVATION WIDTH

DESIGN RIVERBED ELEVATION

DESIGN SLOPE OF LEVEE CREST

DESIGN CREST ELEVATION

DESIGN WATER LEVEL

ORIGINAL RIVERBED ELEVATION

LEFT BANK GROUND ELEVATION

RIGHT BANK GROUND ELEVATION

ACCUMULATIVE DISTANCE

DISTANCE

STATION No.

PROFILE OF MEJERDA RIVER DOWNSTREM REACH (1/5)

SCALE
Horizontal 0 1000 2000 3000 4000 5000 m
Vertical 0 10 20 30 40 50 m

REPUBLIC OF TUNISIA
MINISTRY OF AGRICULTURE AND WATER RESOURCES
DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS

JAPAN INTERNATIONAL COOPERATION AGENCY

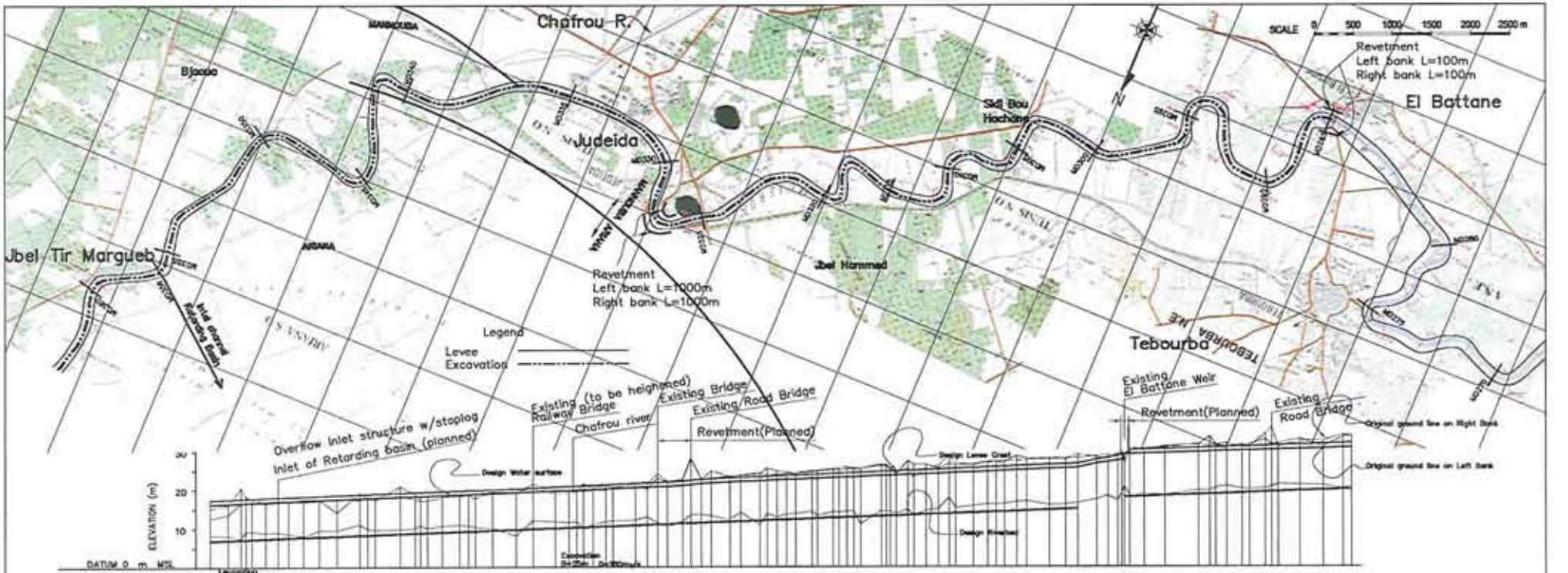
THE STUDY ON INTEGRATED BASIN MANAGEMENT
FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER

DRAWING TITLE: MEJERDA RIVER DOWNSTREAM REACH
PLAN AND PROFILE (1/5)

SHEET NO. E-3

NIPPON KOEI Co., Ltd.

DE1-3



DESIGN SLOPE OF RIVERBED DESIGN DISCHARGE DESIGN EXCAVATION WIDTH	
DESIGN RIVERBED ELEVATION	
DESIGN SLOPE OF LEVEE CREST	
DESIGN CREST ELEVATION	
DESIGN WATER LEVEL	
ORIGINAL RIVERBED ELEVATION	
LEFT BANK GROUND ELEVATION	
RIGHT BANK GROUND ELEVATION	
ACCUMULATIVE DISTANCE	
DISTANCE	
STATION No.	

PROFILE OF MEJERDA RIVER DOWNSTREAM REACH (2/5)

SCALE
Horizontal 0 1000 2000 3000 4000 5000 m
Vertical 0 10 20 30 40 50 m

REPUBLIC OF TUNISIA
MINISTRY OF AGRICULTURE AND WATER RESOURCES
DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS

JAPAN INTERNATIONAL COOPERATION AGENCY

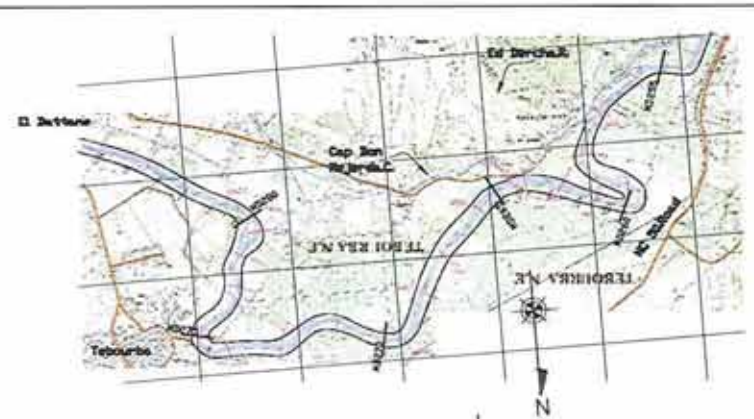
THE STUDY ON INTEGRATED BASIN MANAGEMENT
FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER

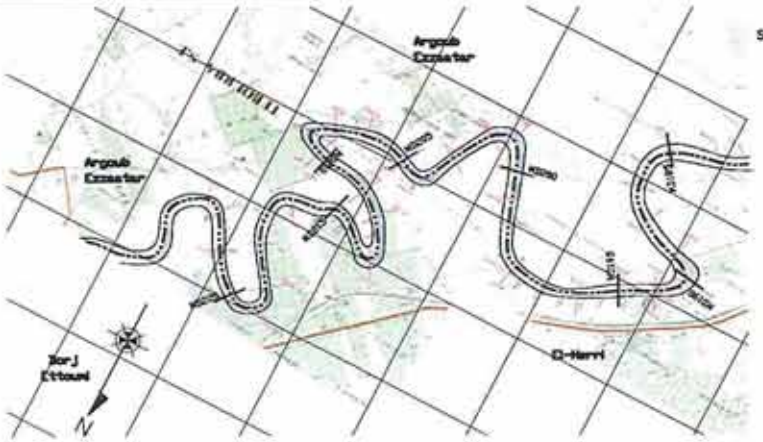
DRAWING TITLE: MEJERDA RIVER DOWNSTREAM REACH
PLAN AND PROFILE (2/5)

SHEET NO. E-4

NIPPON KOEI Co., Ltd.

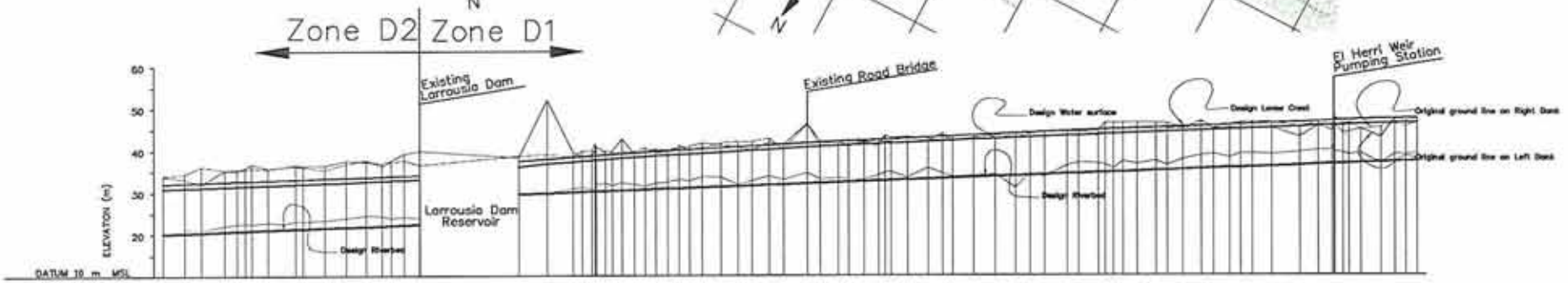
DE1-4





SCALE 0 500 1000 1500 2000 2500 m

Legend
Levee
Excavation



DESIGN SLOPE OF RIVERBED
DESIGN DISCHARGE
DESIGN EXCAVATION WIDTH

DESIGN RIVERBED ELEVATION

DESIGN SLOPE OF LEVEE CREST

DESIGN CREST ELEVATION

DESIGN WATER LEVEL

ORIGINAL RIVERBED ELEVATION

LEFT BANK GROUND ELEVATION

RIGHT BANK GROUND ELEVATION

ACCUMULATIVE DISTANCE

DISTANCE

STATION No.

PROFILE OF MEJERDA RIVER DOWNSTREAM REACH (3/5)

SCALE
Horizontal 0 1000 2000 3000 4000 5000 m
Vertical 0 10 20 30 40 50 m

REPUBLIC OF TUNISIA
MINISTRY OF AGRICULTURE AND WATER RESOURCES
DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS

JICA
JAPAN INTERNATIONAL COOPERATION AGENCY

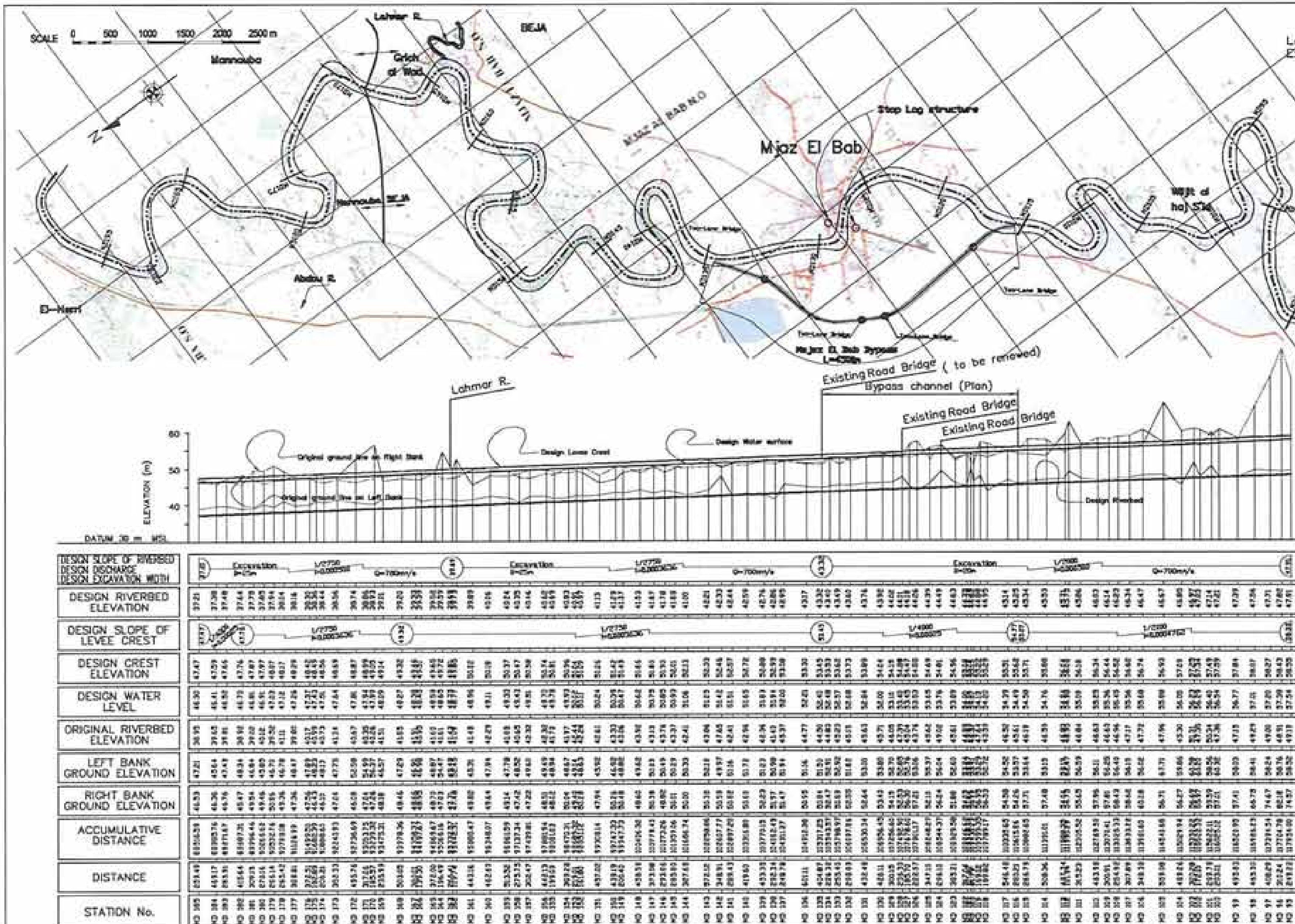
THE STUDY ON INTEGRATED BASIN MANAGEMENT
FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER

DRAWING TITLE: MEJERDA RIVER DOWNSTREAM REACH
PLAN AND PROFILE (3/5)

SHEET NO. E-5

NIPPON KOEI Co., Ltd.

DE1-5



PROFILE OF MEJERDA RIVER DOWNSTREAM REACH (4/5)

SCALE

Horizontal 0 1000 2000 3000 4000 5000 m

Vertical 0 10 20 30 40 50 m

REPUBLIC OF TUNISIA
MINISTRY OF AGRICULTURE AND WATER RESOURCES
DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS

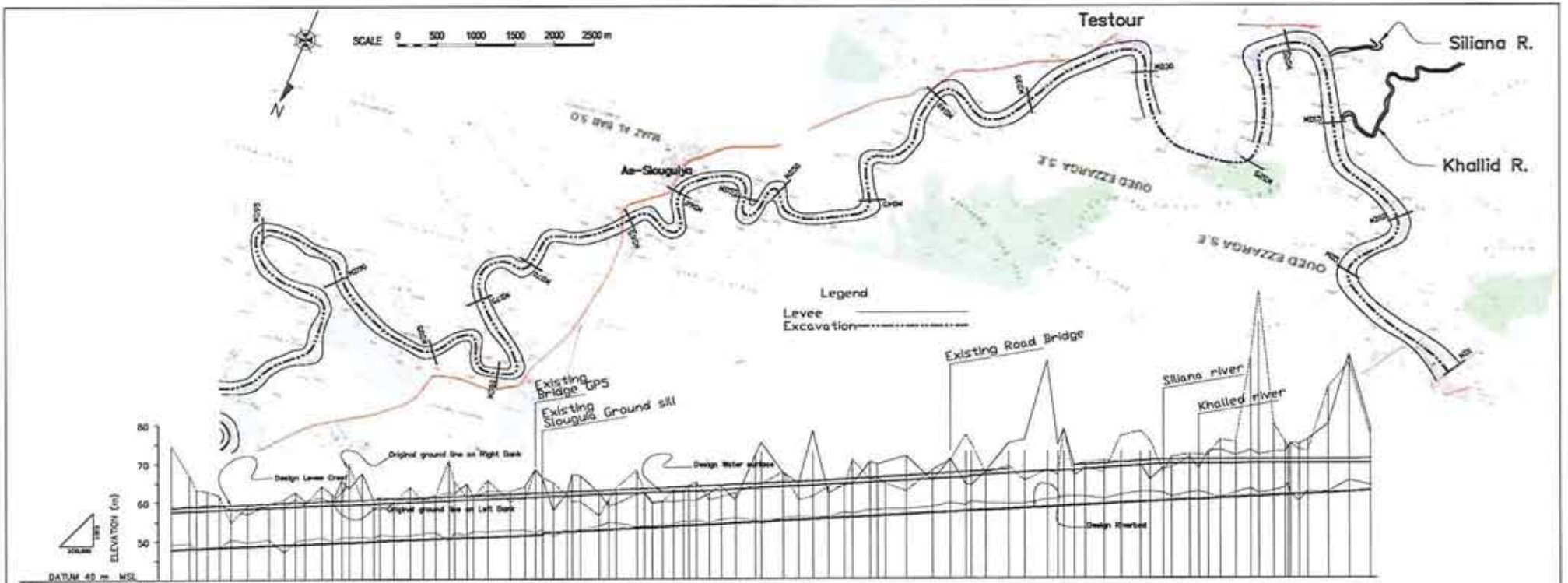
JAPAN INTERNATIONAL COOPERATION AGENCY

THE STUDY ON INTEGRATED BASIN MANAGEMENT
FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER

DRAWING TITLE: MEJERDA RIVER DOWNSTREAM REACH
PLAN AND PROFILE (4/5)

SHEET NO. E-6

NIPPON KOEI Co., Ltd.



DESIGN SLOPE OF RIVERBED
DESIGN DISCHARGE
DESIGN EXCAVATION WIDTH

DESIGN RIVERBED ELEVATION

DESIGN SLOPE OF LEVEE CREST

DESIGN CREST ELEVATION

DESIGN WATER LEVEL

ORIGINAL RIVERBED ELEVATION

LEFT BANK GROUND ELEVATION

RIGHT BANK GROUND ELEVATION

ACCUMULATIVE DISTANCE

DISTANCE

STATION No.

SCALE
Horizontal 0 1000 2000 3000 4000 5000 m
Vertical 0 10 20 30 40 50 m

PROFILE OF MEJERDA RIVER DOWNSTREAM REACH (5/5)

REPUBLIC OF TUNISIA
MINISTRY OF AGRICULTURE AND WATER RESOURCES
DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS

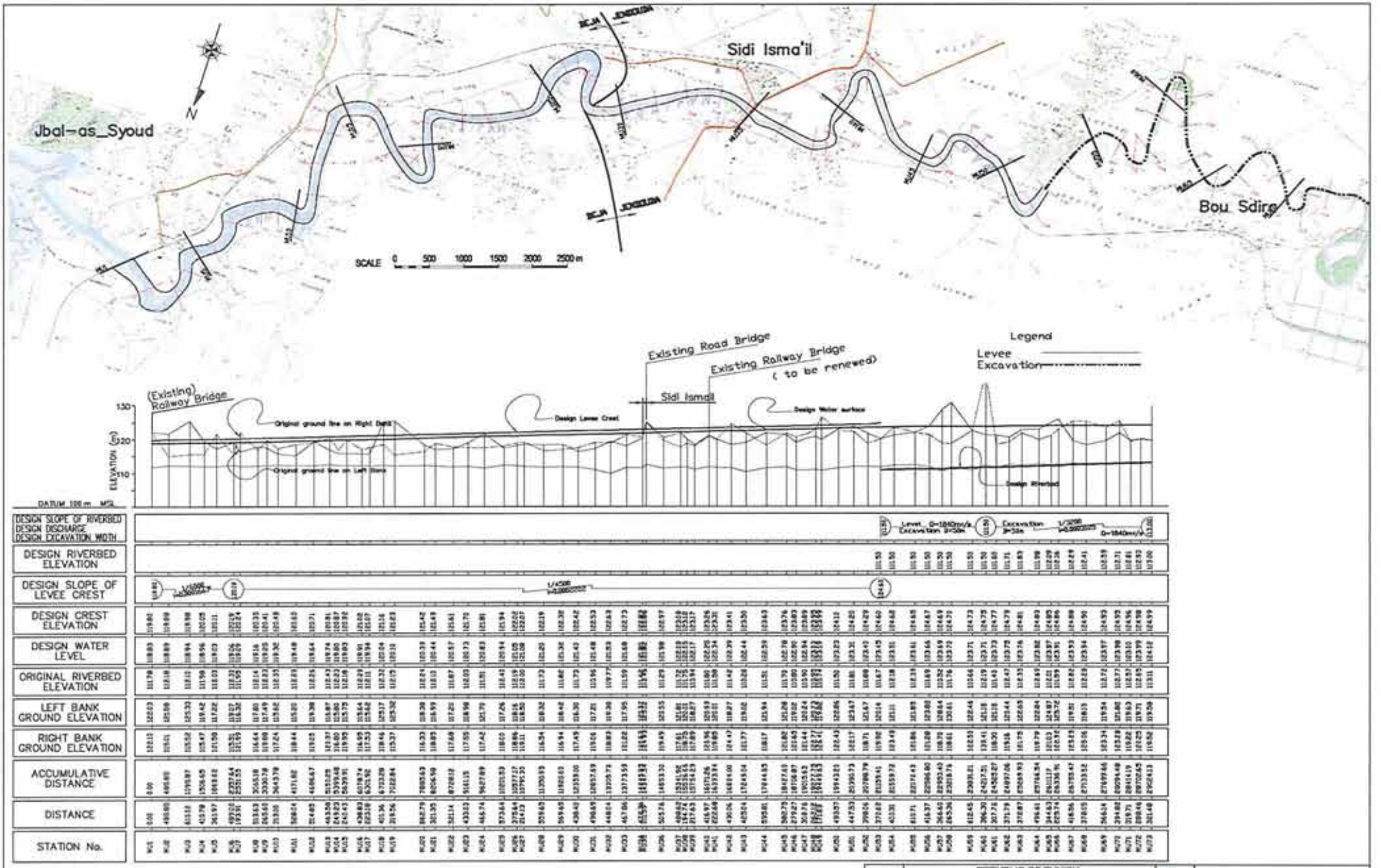
JAPAN INTERNATIONAL COOPERATION AGENCY

THE STUDY ON INTEGRATED BASIN MANAGEMENT
FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER

DRAWING TITLE: MEJERDA RIVER DOWNSTREAM REACH
PLAN AND PROFILE (5/5)

SHEET NO. E-7

NIPPON KOEI Co., Ltd.



PROFILE OF MEJERDA RIVER UPSTREAM REACH (1/6)

SCALE
Horizontal 0 1000 2000 3000 4000 5000 m
Vertical 0 10 20 30 40 50 m

REPUBLIC OF TUNISIA
MINISTRY OF AGRICULTURE AND WATER RESOURCES
DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS

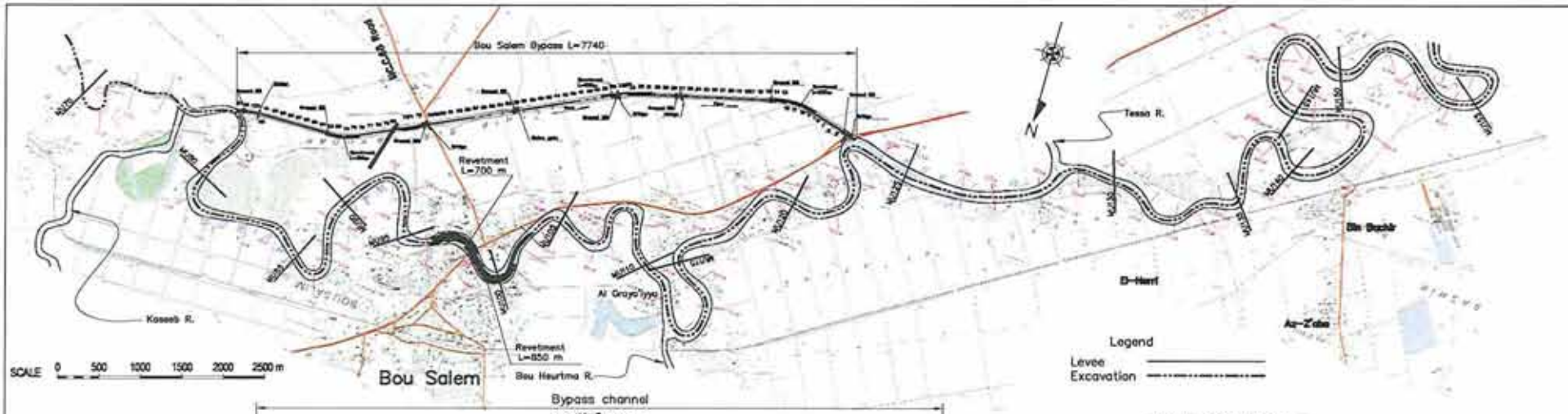
JAPAN INTERNATIONAL COOPERATION AGENCY

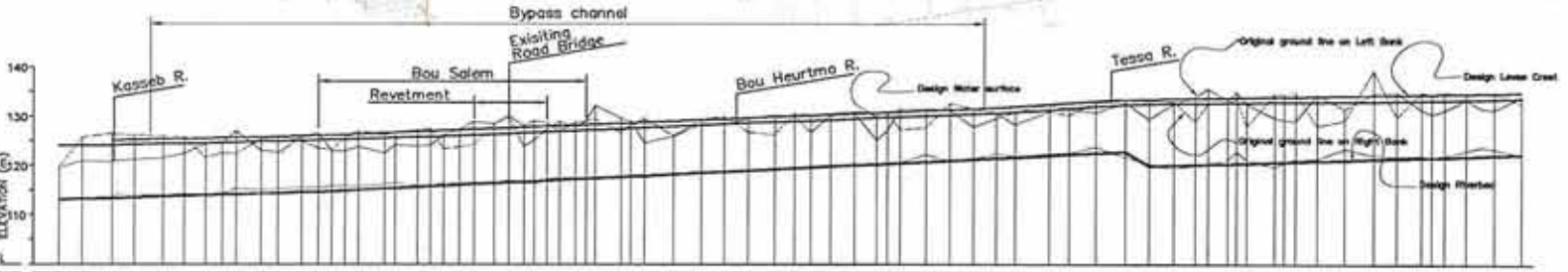
THE STUDY ON INTEGRATED BASIN MANAGEMENT
FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER

DRAWING TITLE: MEJERDA RIVER UPSTREAM REACH
PLAN AND PROFILE (1/6)

SHEET NO. E-8

NIPPON KOEI Co., Ltd.





DESIGN SLOPE OF RIVERBED DESIGN DISCHARGE DESIGN EXCAVATION WIDTH	(20y) Q=1080m³/s; 1/3200 I=0.0003125; Excavation B=50m; Q=1040m³/s (70y); 1/2000 I=0.00050; Excavation B=50m; Q=1460m³/s (70y); 1/3200 I=0.0003125; Excavation B=40m
DESIGN RIVERBED ELEVATION	
DESIGN SLOPE OF LEVEE CREST	1/4200 I=0.0002381; 1/2400 I=0.0004167; 1/2400 I=0.0004167; 1/2000 I=0.0005145; 1/3600 I=0.0002315
DESIGN CREST ELEVATION	
DESIGN WATER LEVEL	
ORIGINAL RIVERBED ELEVATION	
LEFT BANK GROUND ELEVATION	
RIGHT BANK GROUND ELEVATION	
ACCUMULATIVE DISTANCE	
DISTANCE	
STATION No.	

PROFILE OF MEJERDA RIVER UPSTREAM REACH (2/6)

REPUBLIC OF TUNISIA
MINISTRY OF AGRICULTURE AND WATER RESOURCES
DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

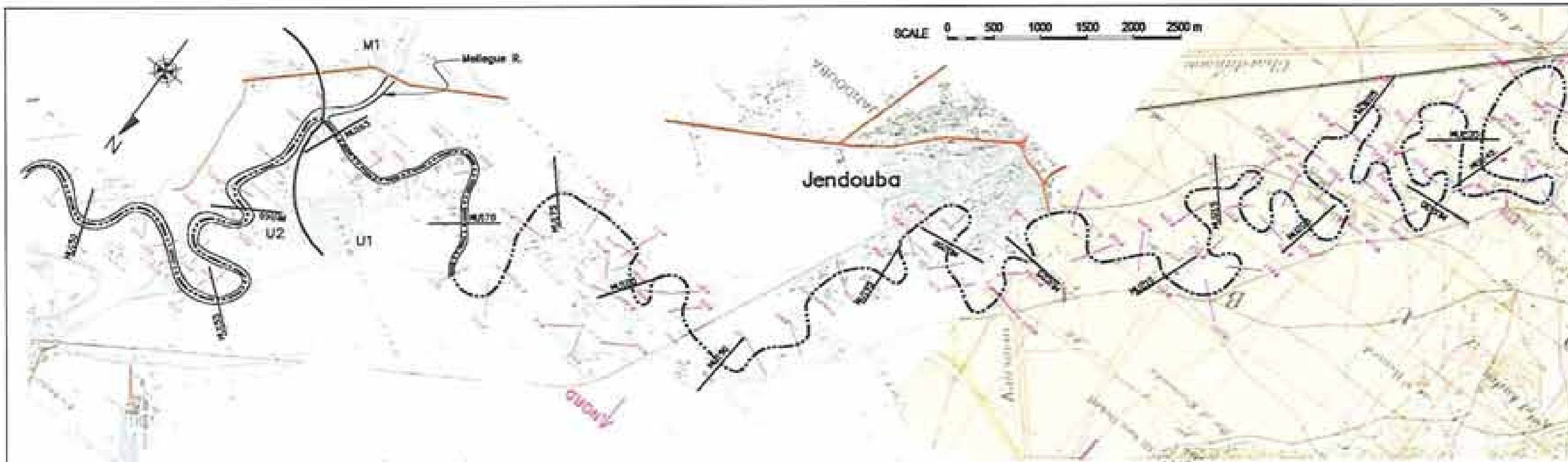
THE STUDY ON INTEGRATED BASIN MANAGEMENT
FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER

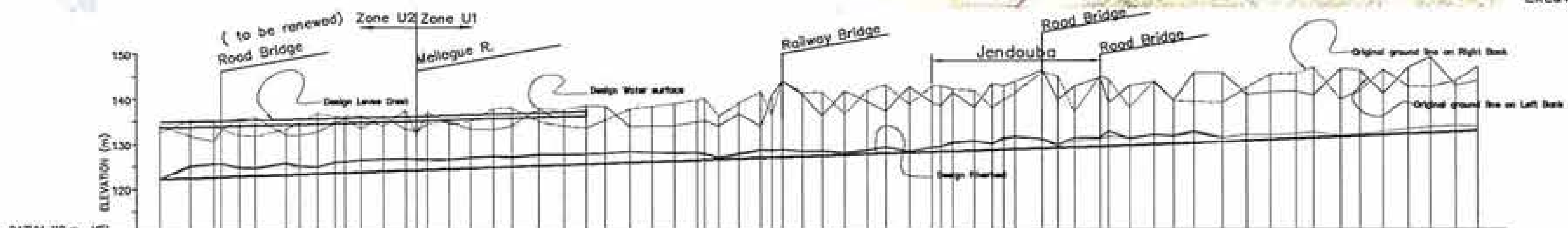
DRAWING TITLE: MEJERDA RIVER UPSTREAM REACH
PLAN AND PROFILE (2/6)

SHEET NO. E-9

NIPPON KOEI Co., Ltd.

DE1-10



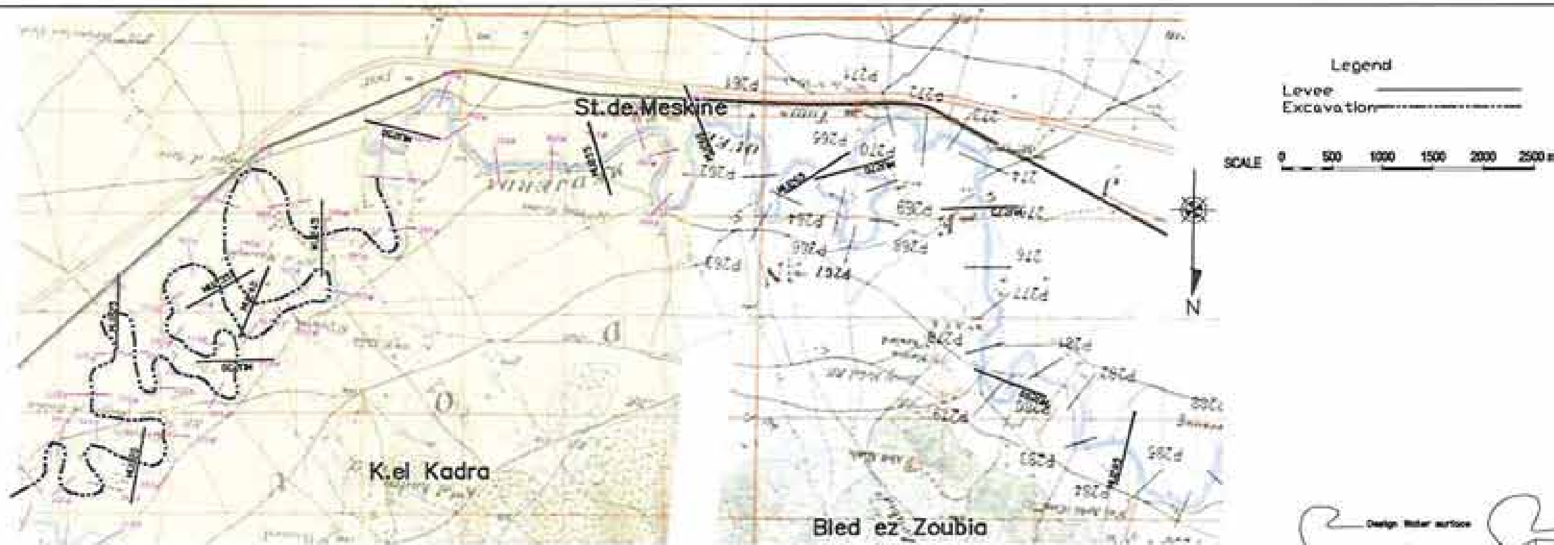


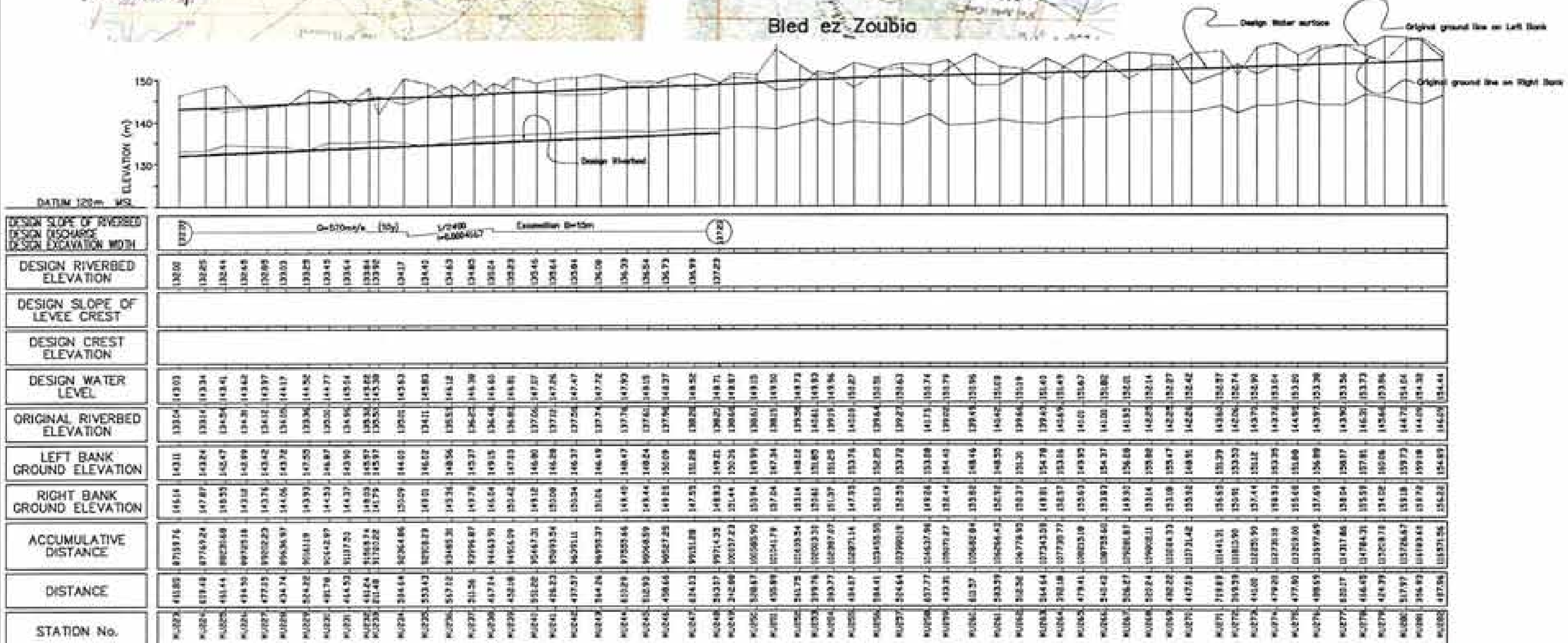
DESIGN SLOPE OF RIVERBED / DESIGN DISCHARGE / DESIGN EXCAVATION WIDTH	(30y) Q=1490m³/s; 1/3200 i=0.0003125; Excavation; Q=570m³/s (10y); 1/3200 i=0.0003125; Excavation B=10m; Q=570m³/s (10y); 1/2400 i=0.0004167; Excavation B=15m
DESIGN RIVERBED ELEVATION	[illegible]
DESIGN SLOPE OF LEVEE CREST	1/2500 i=0.0004000; 1/4000 i=0.00025
DESIGN CREST ELEVATION	[illegible]
DESIGN WATER LEVEL	[illegible]
ORIGINAL RIVERBED ELEVATION	[illegible]
LEFT BANK GROUND ELEVATION	[illegible]
RIGHT BANK GROUND ELEVATION	[illegible]
ACCUMULATIVE DISTANCE	[illegible]
DISTANCE	[illegible]
STATION No.	[illegible]

PROFILE OF MEJERDA RIVER UPSTREAM REACH (3/6)

SCALE
Horizontal 0 1000 2000 3000 4000 5000 m
Vertical 0 10 20 30 40 50 m

REPUBLIC OF TUNISIA MINISTRY OF AGRICULTURE AND WATER RESOURCES DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS	JAPAN INTERNATIONAL COOPERATION AGENCY
THE STUDY ON INTEGRATED BASIN MANAGEMENT FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER	
DRAWING TITLE: MEJERDA RIVER UPSTREAM REACH PLAN AND PROFILE (3/6)	SHEET NO. E-10
NIPPON KOEI Co., Ltd.	





PROFILE OF MEJERDA RIVER UPSTREAM REACH (4/6)

SCALE

Horizontal 0 1000 2000 3000 4000 5000 m

Vertical 0 10 20 30 40 50 m

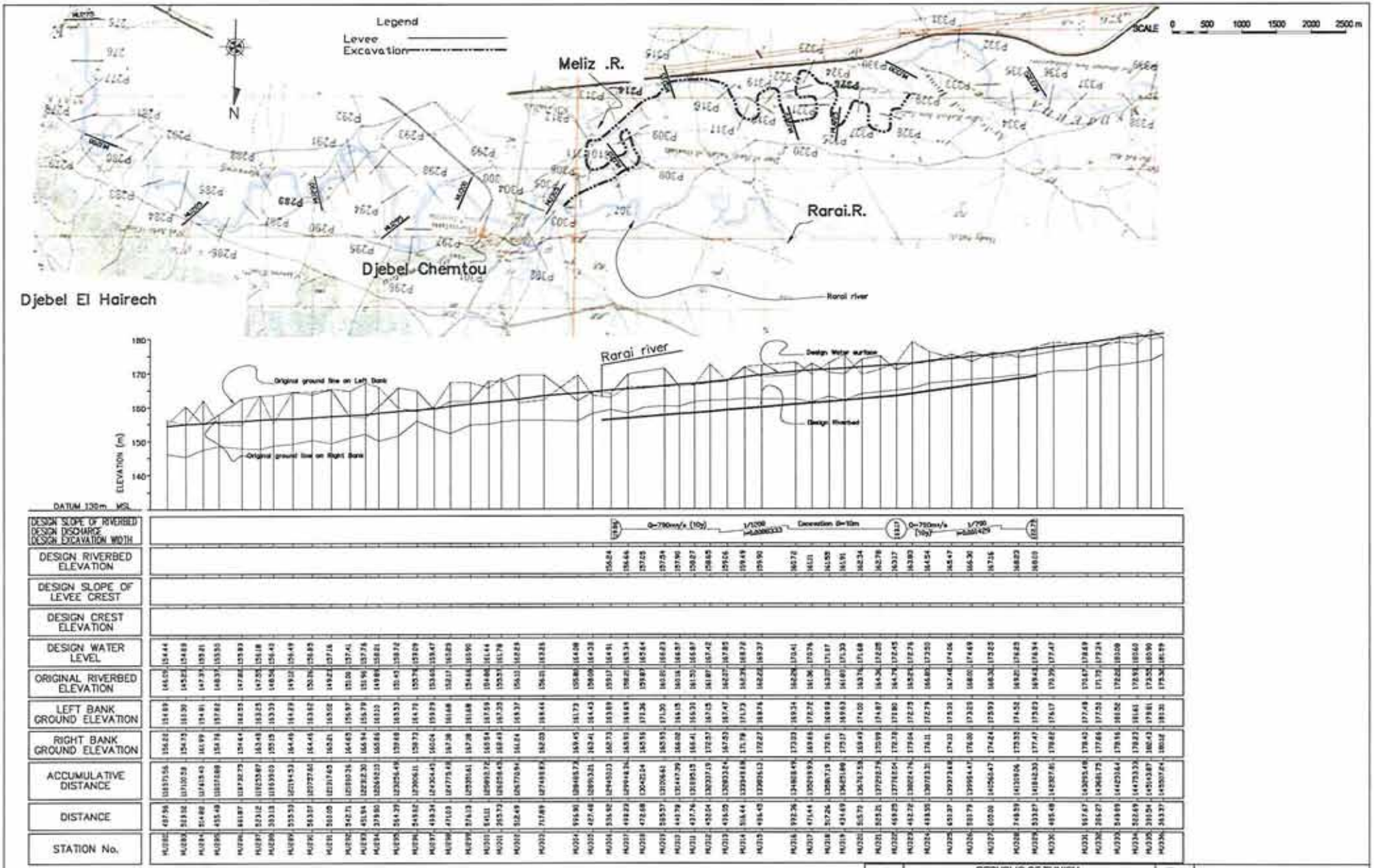
REPUBLIC OF TUNISIA
MINISTRY OF AGRICULTURE AND WATER RESOURCES
DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

THE STUDY ON INTEGRATED BASIN MANAGEMENT
FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER

DRAWING TITLE	MEJERDA RIVER UPSTREAM REACH PLAN AND PROFILE (4/6)	SHEET NO. E-11

NIPPON KOEI Co., Ltd.



PROFILE OF MEJERDA RIVER UPSTREAM REACH (5/6)

SCALE
Horizontal 0 1000 2000 3000 4000 5000 m
Vertical 0 10 20 30 40 50 m

REPUBLIC OF TUNISIA
MINISTRY OF AGRICULTURE AND WATER RESOURCES
DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS

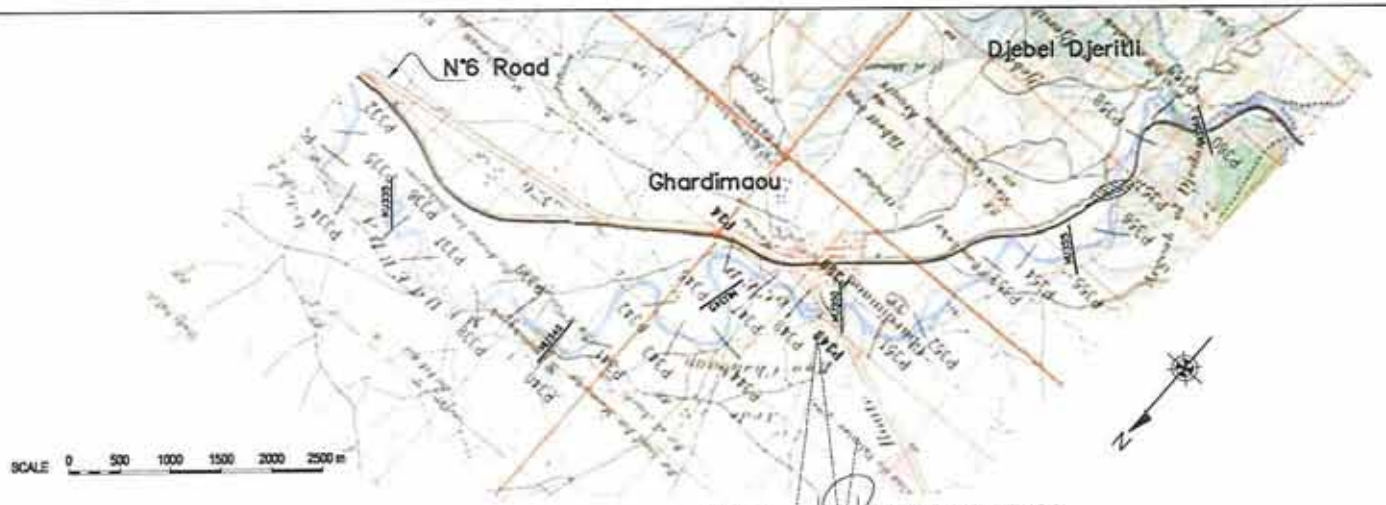
JAPAN INTERNATIONAL COOPERATION AGENCY

THE STUDY ON INTEGRATED BASIN MANAGEMENT
FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER

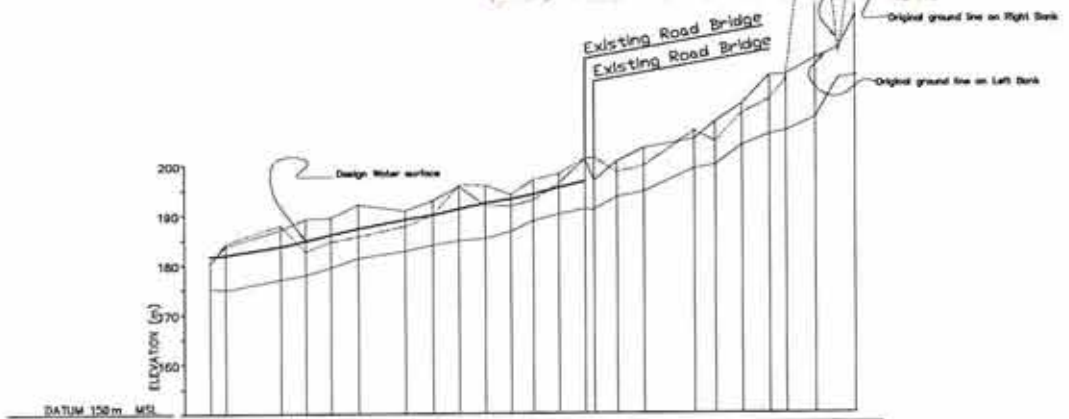
DRAWING TITLE: MEJERDA RIVER UPSTREAM REACH
PLAN AND PROFILE (5/6)

SHEET NO. E-12

NIPPON KOEI Co., Ltd.



Legend
Levee
Excavation



DESIGN SLOPE OF RIVERBED DESIGN DISCHARGE DESIGN EXCAVATION WIDTH	
DESIGN RIVERBED ELEVATION	
DESIGN CREST ELEVATION	
DESIGN WATER LEVEL	
ORIGINAL RIVERBED ELEVATION	
LEFT BANK GROUND ELEVATION	
RIGHT BANK GROUND ELEVATION	
ACCUMULATIVE DISTANCE	
DISTANCE	
STATION No.	

SCALE
Horizontal 0 1000 2000 3000 4000 5000 m
Vertical 0 10 20 30 40 50 m

PROFILE OF MEJERDA RIVER UPSTREAM REACH (6/6)

REPUBLIC OF TUNISIA
MINISTRY OF AGRICULTURE AND WATER RESOURCES
DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS

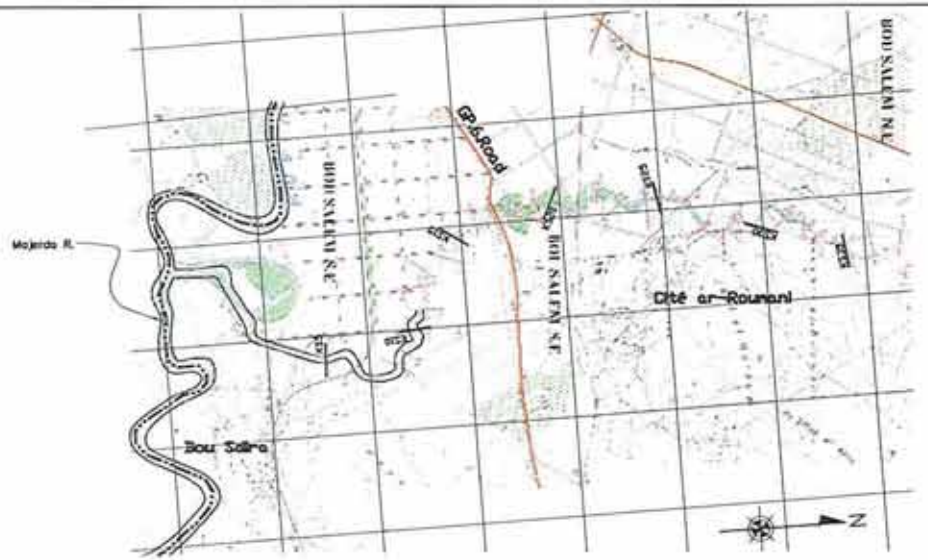
JAPAN INTERNATIONAL COOPERATION AGENCY

THE STUDY ON INTEGRATED BASIN MANAGEMENT
FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER

DRAWING TITLE: MEJERDA RIVER UPSTREAM REACH
PLAN AND PROFILE (6/6)

SHEET NO. E-13

NIPPON KOEI Co., Ltd.



STATION No.	DISTANCE	ACCUMULATIVE DISTANCE	RIGHT BANK GROUND ELEVATION	LEFT BANK GROUND ELEVATION	ORIGINAL GROUND ELEVATION	DESIGN WATER LEVEL	DESIGN CREST ELEVATION	DESIGN SLOPE OF LEVEE CREST
KS1	0.00	0.00	124.82	127.90	126.84	124.62	125.95	1:2.5
KS2	87.55	87.55	124.82	124.69	126.81	124.62	125.95	Level
KS3	84.74	172.29	124.82	125.79	126.82	124.62	125.95	
KS4	266.58	438.87	124.82	125.33	127.01	124.62	125.95	
KS5	279.43	718.30	124.82	125.89	127.14	124.62	125.95	
KS6	30.58	748.88	124.82	126.30	127.46	124.62	125.95	
KS7	21.06	769.94	124.82	124.15	128.34	124.62	125.95	
KS8	256.24	1026.18	124.82	125.96	129.05	124.62	125.95	
KS9	15.21	1041.39	124.82	124.42	129.50	124.62	125.95	
KS10	236.83	1278.22	125.11	125.10	129.40	124.62	125.95	
KS11	22.23	1300.45	127.26	125.11	129.33	124.62	125.95	
KS12	236.79	1537.24	128.12	125.62	129.39	124.62	125.95	
KS13	17.42	1554.66	128.49	126.26	129.28	124.62	125.95	
KS14	25.04	1579.70	128.90	126.73	129.30	124.62	125.95	
KS15	256.14	1835.84	129.55	126.55	129.82	124.62	125.95	
KS16	229.70	2065.54	129.97	126.53	129.99	124.62	125.95	
KS17	191.34	2256.88	130.84	130.43	130.23	124.62	125.95	
KS18	208.13	2465.01	130.50	130.79	130.14	124.62	125.95	
KS19	164.57	2629.58	130.82	130.31	130.45	124.62	125.95	
KS20	195.86	2825.44	131.04	131.59	131.33	124.62	125.95	
KS21	223.43	3048.87	131.94	132.94	132.71	124.62	125.95	
KS22	252.26	3301.13	132.71	133.70	133.06	124.62	125.95	
KS23	272.26	3573.39	133.10	135.56	133.88	124.62	125.95	
KS24	258.86	3832.25	133.57	135.95	133.96	124.62	125.95	
KS25	178.79	4011.04	134.57	136.69	133.74	124.62	125.95	
KS26	189.53	4200.57	135.19	136.32	133.62	124.62	125.95	
KS27	253.24	4453.81	135.66	137.63	134.43	124.62	125.95	
KS28	254.42	4708.23	136.33	138.49	134.63	124.62	125.95	
KS29	273.35	4981.58	137.23	139.73	135.42	124.62	125.95	
KS30	137.99	5119.57	137.71	140.25	135.71	124.62	125.95	
KS31	20.66	5140.23	137.77	140.31	135.84	124.62	125.95	
KS32	252.91	5393.14	138.16	140.89	136.29	124.62	125.95	
KS33	254.45	5647.59	138.49	141.53	136.84	124.62	125.95	
KS34	252.57	5900.16	138.90	142.04	137.49	124.62	125.95	
KS35	254.42	6154.58	139.53	142.89	138.40	124.62	125.95	
KS36	254.44	6409.02	140.30	143.47	139.24	124.62	125.95	
KS37	253.30	6662.32	141.20	144.34	140.04	124.62	125.95	
KS38	112.19	6774.51	141.57	144.65	140.50	124.62	125.95	
KS39	229.44	7003.95	142.17	145.43	140.84	124.62	125.95	
KS40	185.90	7189.85	142.69	146.49	141.30	124.62	125.95	
KS41	243.48	7433.33	143.47	147.43	141.84	124.62	125.95	
KS42	273.35	7706.68	144.27	148.47	142.33	124.62	125.95	
KS43	137.99	7844.67	144.65	148.84	142.50	124.62	125.95	
KS44	20.66	7865.33	144.71	148.90	142.56	124.62	125.95	
KS45	252.91	8118.24	145.43	149.76	143.30	124.62	125.95	
KS46	254.45	8372.69	146.27	150.74	143.89	124.62	125.95	
KS47	252.57	8625.26	146.84	151.37	144.45	124.62	125.95	
KS48	254.42	8879.68	147.43	151.99	144.84	124.62	125.95	
KS49	254.44	9134.12	148.17	152.74	145.30	124.62	125.95	
KS50	253.30	9387.42	148.84	153.45	145.65	124.62	125.95	
KS51	112.19	9499.61	149.16	153.79	145.87	124.62	125.95	
KS52	229.44	9729.05	149.76	154.48	146.46	124.62	125.95	
KS53	185.90	9914.95	150.27	155.06	146.98	124.62	125.95	
KS54	243.48	10158.43	150.99	155.90	147.43	124.62	125.95	
KS55	273.35	10431.78	151.78	156.86	147.90	124.62	125.95	
KS56	137.99	10569.77	152.15	157.35	148.17	124.62	125.95	
KS57	20.66	10590.43	152.21	157.42	148.23	124.62	125.95	
KS58	252.91	10843.34	152.93	158.28	148.84	124.62	125.95	
KS59	254.45	11097.79	153.77	159.26	149.56	124.62	125.95	
KS60	252.57	11350.36	154.48	160.07	150.26	124.62	125.95	
KS61	254.42	11604.78	155.26	160.84	150.96	124.62	125.95	
KS62	254.44	11859.22	156.03	161.64	151.54	124.62	125.95	
KS63	253.30	12112.52	156.71	162.25	152.12	124.62	125.95	
KS64	112.19	12224.71	157.06	162.47	152.37	124.62	125.95	
KS65	229.44	12454.15	157.77	163.40	153.09	124.62	125.95	
KS66	185.90	12640.05	158.34	164.15	153.69	124.62	125.95	
KS67	243.48	12883.53	159.09	165.11	154.38	124.62	125.95	
KS68	273.35	13156.88	159.94	166.25	155.18	124.62	125.95	
KS69	137.99	13294.87	160.37	166.82	155.58	124.62	125.95	
KS70	20.66	13315.53	160.43	166.90	155.64	124.62	125.95	
KS71	252.91	13568.44	161.22	167.95	156.45	124.62	125.95	
KS72	254.45	13822.89	162.08	169.09	157.36	124.62	125.95	
KS73	252.57	14075.46	162.87	170.14	158.16	124.62	125.95	
KS74	254.42	14329.88	163.71	171.25	159.03	124.62	125.95	
KS75	254.44	14584.32	164.54	172.36	159.90	124.62	125.95	
KS76	253.30	14837.62	165.34	173.43	160.74	124.62	125.95	
KS77	112.19	14949.81	165.71	173.93	161.13	124.62	125.95	
KS78	229.44	15179.25	166.47	174.95	161.93	124.62	125.95	
KS79	185.90	15365.15	167.09	175.78	162.58	124.62	125.95	
KS80	243.48	15608.63	167.89	176.85	163.42	124.62	125.95	
KS81	273.35	15881.98	168.80	178.07	164.38	124.62	125.95	
KS82	137.99	16019.97	169.26	178.68	164.86	124.62	125.95	
KS83	20.66	16040.63	169.33	178.78	164.94	124.62	125.95	
KS84	252.91	16293.54	170.17	179.90	165.82	124.62	125.95	
KS85	254.45	16547.99	171.07	181.07	166.80	124.62	125.95	
KS86	252.57	16800.56	171.91	182.17	167.79	124.62	125.95	
KS87	254.42	17054.98	172.77	183.31	168.84	124.62	125.95	
KS88	254.44	17309.42	173.64	184.48	169.87	124.62	125.95	
KS89	253.30	17562.72	174.49	185.61	170.88	124.62	125.95	
KS90	112.19	17674.91	174.86	186.11	171.33	124.62	125.95	
KS91	229.44	17904.35	175.63	187.13	172.26	124.62	125.95	
KS92	185.90	18090.25	176.25	187.96	173.01	124.62	125.95	
KS93	243.48	18333.73	177.06	189.04	173.99	124.62	125.95	
KS94	273.35	18607.08	177.97	190.26	175.09	124.62	125.95	
KS95	137.99	18745.07	178.43	190.87	175.64	124.62	125.95	
KS96	20.66	18765.73	178.50	190.97	175.73	124.62	125.95	
KS97	252.91	19018.64	179.34	192.09	176.74	124.62	125.95	
KS98	254.45	19273.09	180.19	193.23	177.77	124.62	125.95	
KS99	252.57	19525.66	181.03	194.35	178.78	124.62	125.95	
KS100	254.42	19780.08	181.88	195.48	179.80	124.62	125.95	
KS101	254.44	20034.52	182.73	196.61	180.82	124.62	125.95	
KS102	253.30	20287.82	183.57	197.73	181.83	124.62	125.95	
KS103	112.19	20400.01	183.94	198.23	182.28	124.62	125.95	
KS104	229.44	20629.45	184.71	199.25	183.20	124.62	125.95	
KS105	185.90	20815.35	185.33	200.08	183.95	124.62	125.95	
KS106	243.48	21058.83	186.14	201.16	184.92	124.62	125.95	
KS107	273.35	21332.18	187.05	202.38	186.02	124.62	125.95	
KS108	137.99	21470.17	187.51	202.99	186.57	124.62	125.95	
KS109	20.66	21490.83	187.58	203.09	186.66	124.62	125.95	
KS110	252.91	21743.74	188.42	204.21	187.67	124.62	125.95	
KS111	254.45	21998.19	189.27	205.34	188.69	124.62	125.95	
KS112	252.57	22250.76	190.11	206.46	189.70	124.62	125.95	
KS113	254.42	22505.18	190.96	207.60	190.73	124.62	125.95	
KS114	254.44	22759.62	191.81	208.73	191.75	124.62	125.95	
KS115	253.30	23012.92	192.65	209.85	192.76	124.62	125.95	
KS116	112.19	23125.11	193.02	210.35	193.21	124.62	125.95	
KS117	229.44	23354.55	193.79	211.37	194.13	124.62	125.95	
KS118	185.90	23540.45	194.41	212.20	194.88	124.62	125.95	
KS119	243.48	23783.93	195.22	213.28	195.85	124.62	125.95	
KS120	273.35	24057.28	196.13	214.50	196.95	124.62	125.95	
KS121	137.99	24195.27	196.59	215.11	197.50	124.62	125.95	
KS122	20.66	24215.93	196.66	215.21	197.59	124.62	125.95	
KS123	252.91	24468.84	197.50	216.33	198.60	124.62	125.95	
KS124	254.45	24723.29	198.35	217.46	199.62	124.62	125.95	
KS125	252.57	24975.86	199.19	218.58	200.63	124.62	125.95	
KS126	254.42	25230.28	200.04	219.72	201.66	124.62	125.95	
KS127	254.44	25484.72	200.89	220.85	202.68	124.62	125.95	
KS128	253.30	25738.02	201.73	221.97	203.69	124.62	125.95	
KS129	112.19	25850.21	202.10	222.47	204.14	124.62	125.95	
KS130	229.44	26079.65	202.87	223.49	205.06	124.62	125.95	
KS131	185.90	26265.55	203.49	224.32	205.81	124.62	125.95	
KS132	243.48	26509.03	204.30	225.40	206.78	124.62	125.95	
KS133	273.35	26782.38	205.21	226.62	207.88	124.62	125.95	
KS134	137.99	26920.37	205.67	227.23	208.43	124.62	125.95	
KS135	20.66	26941.03	205.74	227.33	208.52	124.62	125.95	
KS136	252.91	27193.94	206.58	228.45	209.53	124.62	125.95	
KS137	254.45	27448.39	207.43	229.58	210.55	124.62	125.95	
KS138	252.57	27700.96	208.27	230.70	211.56	124.62	125.95	
KS139	254.42	27955.38	209.12	231.84	212.59	124.62	125.95	
KS140	254.44	28209.82	209.97	232.97	213.61	124.62	125.95	
KS141	253.30	28463.12	210.81	234.09	214.62	124.62	125.95	
KS142	112.19	28575.31	211.18	234.59	215.07	124.62	125.95	
KS143	229.44	28804.75	211.95	235.61	215.99	124.62	125.95	
KS144	185.90	28990.65	212.57	236.44	216.74	124.62	125.95	
KS145	243.48	29234.13	213.38	237.52	217.71	124.62	125.95	
KS146	273.35	29507.48	214.29	238.74	218.81	124.62	125.95	
KS147	137.99	29645.47	214.75	239.35	219.36	124.62	125.95	
KS148	20.66	29666.13	214.82	239.45	219.45	124.62	125.95	
KS149	252.91	29919.04	215.66	240.57	220.46	124.62	125.95	
KS150	254.45	30173.49	216.51	241.70	221.48	124.62	125.95	
KS151	252.57	30426.06	217.35	242.82	222.49	124.62	125.95	
KS152	254.42	30680.48	218.20	243.96	223.52	124.62	125.95	
KS153	254.44	30934.92	219.05	245.09	224.54	124.62	125.95	
KS154	253.30	31188.22	219.89	246.21	225.55	124.62	125.95	
KS155	112.19	31300.41	220.26	246.71	226.00	124.62	125.95	
KS156	229.44	31529.85	221.03	247.73	226.92	124.62	125.95	
KS157	185.90	31715.75	221.65	248.56	227.67	124.62	125.95	
KS158	243.48	31959.23	222.46	249.64	228.64	124.62	125.95	
KS159	273.35	32232.58	223.37	250.86	229.74	124.62	125.95	
KS160	137.99	32370.57	223.83	251.47	230.29	124.62	125.95	
KS161	20.66	32391.23	223.90	251.57	230.38	124.62	125.95	
KS162	252.91	32644.14	224.74	252.69	231.39	124.62	125.95	
KS163	254.45	32898.59	225.59	253.82	232.41	124.62	125.95	
KS164	252.57	33151.16	226.43	254.94	233.42	124.62	125.95	
KS165	254.42	33405.58	227.28	256.08	234.45	124.62	125.95	
KS166	254.44	33660.02	228.13	257.21	235.47	124.62	125.95	
KS167	253.30	33913.32	228.97	258.33	236.48	124.62	125.95	
KS168	112.19	34025.51	229.34	258.83	236.93	124.62	125.95	
KS169	229.44	34254.95	230.11	259.85	237.85	124.62	125.95	
KS170	185.90	34440.85	230.73	260.68	238.60	124.62	125.95	
KS171	243.48	34684.33	231.54	261.76	239.57	124.62	125.95	

PROFILE OF KASSEB RIVER

REPUBLIC OF TUNISIA
MINISTRY OF AGRICULTURE AND WATER RESOURCES
DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS

JAPAN INTERNATIONAL COOPERATION AGENCY

THE STUDY ON INTEGRATED BASIN MANAGEMENT
FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER

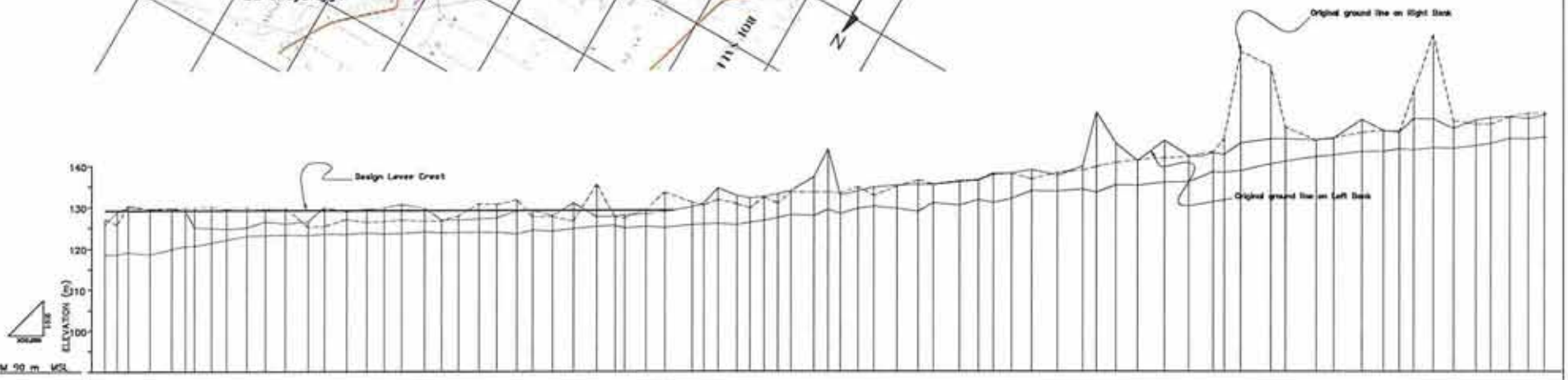
DRAWING TITLE: KASSEB RIVER
PLAN AND PROFILE

SHEET NO. E-14

NIPPON KOEI Co., Ltd.

Legend
Levee
Excavation

Horizontal 0 500 1000 1500 2000 2500 m



DESIGN SLOPE OF LEVEE CREST	Level
DESIGN CREST ELEVATION	
DESIGN WATER LEVEL	
ORIGINAL GROUND ELEVATION	
LEFT BANK GROUND ELEVATION	
RIGHT BANK GROUND ELEVATION	
ACCUMULATIVE DISTANCE	
DISTANCE	
STATION No.	

SCALE
Horizontal 0 500 1000 1500 2000 2500
Vertical 0 10 20 30 40 50 m

PROFILE OF BOU HEURTMA RIVER

REPUBLIC OF TUNISIA
MINISTRY OF AGRICULTURE AND WATER RESOURCES
DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS

JAPAN INTERNATIONAL COOPERATION AGENCY

THE STUDY ON INTEGRATED BASIN MANAGEMENT
FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER

DRAWING TITLE: BOU HEURTMA RIVER
PLAN AND PROFILE

SHEET NO. E-15

NIPPON KOEI Co., Ltd.

DESIGN SLOPE OF LEVEE CREST	Level
DESIGN CREST ELEVATION	133.30
DESIGN WATER LEVEL	
ORIGINAL GROUND ELEVATION	122.79 … 146.77
LEFT BANK GROUND ELEVATION	133.21 … 150.53
RIGHT BANK GROUND ELEVATION	133.22 … 150.73
ACCUMULATIVE DISTANCE	0.00 … 1449.50
DISTANCE	0.00 … 19.34
STATION No.	T11 … T164

PROFILE OF TESSA RIVER (1/2)

SCALE
Horizontal 0 500 1000 1500 2000 2500
Vertical 0 10 20 30 40 50 m

REPUBLIC OF TUNISIA
MINISTRY OF AGRICULTURE AND WATER RESOURCES
DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS

JAPAN INTERNATIONAL COOPERATION AGENCY

THE STUDY ON INTEGRATED BASIN MANAGEMENT
FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER

DRAWING TITLE: TESSA RIVER
PLAN AND PROFILE (1/2)

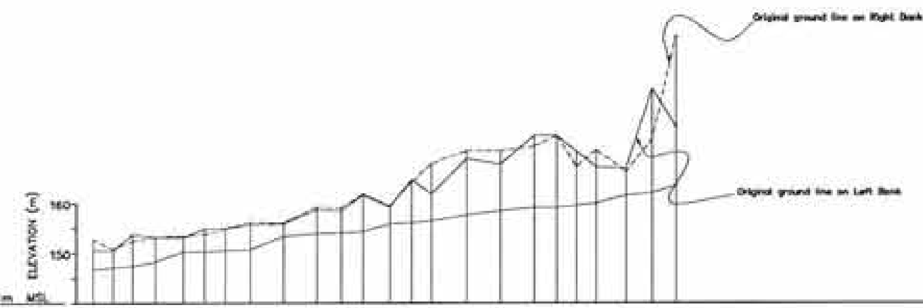
SHEET NO. E-16

NIPPON KOEI Co., Ltd.

DE1-17

Legend
Levee
Excavation

Horizontal 0 500 1000 1500 2000 2500 m



DESIGN SLOPE OF LEVEE CREST																								
DESIGN CREST ELEVATION																								
DESIGN WATER LEVEL																								
ORIGINAL GROUND ELEVATION	146.77	147.26	147.38	148.29	150.26	150.33	150.51	150.63	153.32	153.09	153.96	154.26	155.85	156.02	156.43	157.59	158.47	159.09	159.09	159.47	159.95	161.10	162.02	163.33
LEFT BANK GROUND ELEVATION	150.53	150.37	153.67	153.25	153.07	154.91	154.87	155.73	155.93	158.48	158.46	161.60	159.23	164.40	161.71	168.88	167.69	173.38	173.49	170.38	167.17	166.93	180.98	178.16
RIGHT BANK GROUND ELEVATION	152.73	150.88	153.46	153.19	153.43	153.77	154.87	156.16	156.03	159.24	159.02	160.69	159.42	164.23	167.83	170.42	170.56	172.20	173.52	169.20	170.53	165.24	172.73	193.38
ACCUMULATIVE DISTANCE	14493.00	14691.47	14889.25	15113.19	15393.97	15605.97	15838.49	16083.12	16370.88	16714.23	16955.68	17373.73	17437.72	17653.23	17853.37	18089.23	18533.73	18877.38	19103.33	19290.24	19493.57	19788.41	20248.46	20284.99
DISTANCE	193.34	198.47	197.48	223.04	279.79	212.00	232.52	244.63	287.86	303.25	241.45	218.05	263.99	215.57	196.88	249.83	338.79	338.79	226.95	187.73	203.33	296.64	279.05	296.53
STATION No.	T164	T165	T166	T167	T168	T169	T170	T171	T172	T173	T174	T175	T176	T177	T178	T179	T180	T181	T182	T183	T184	T185	T186	T187

PROFILE OF TESSA RIVER (2/2)

SCALE
Horizontal 0 500 1000 1500 2000 2500
Vertical 0 10 20 30 40 50 m

REPUBLIC OF TUNISIA
MINISTRY OF AGRICULTURE AND WATER RESOURCES
DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS

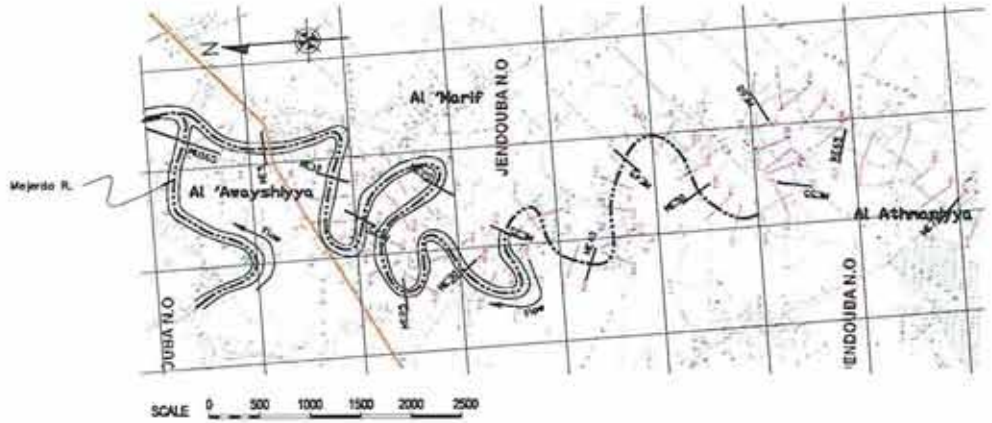
JAPAN INTERNATIONAL COOPERATION AGENCY

THE STUDY ON INTEGRATED BASIN MANAGEMENT FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER

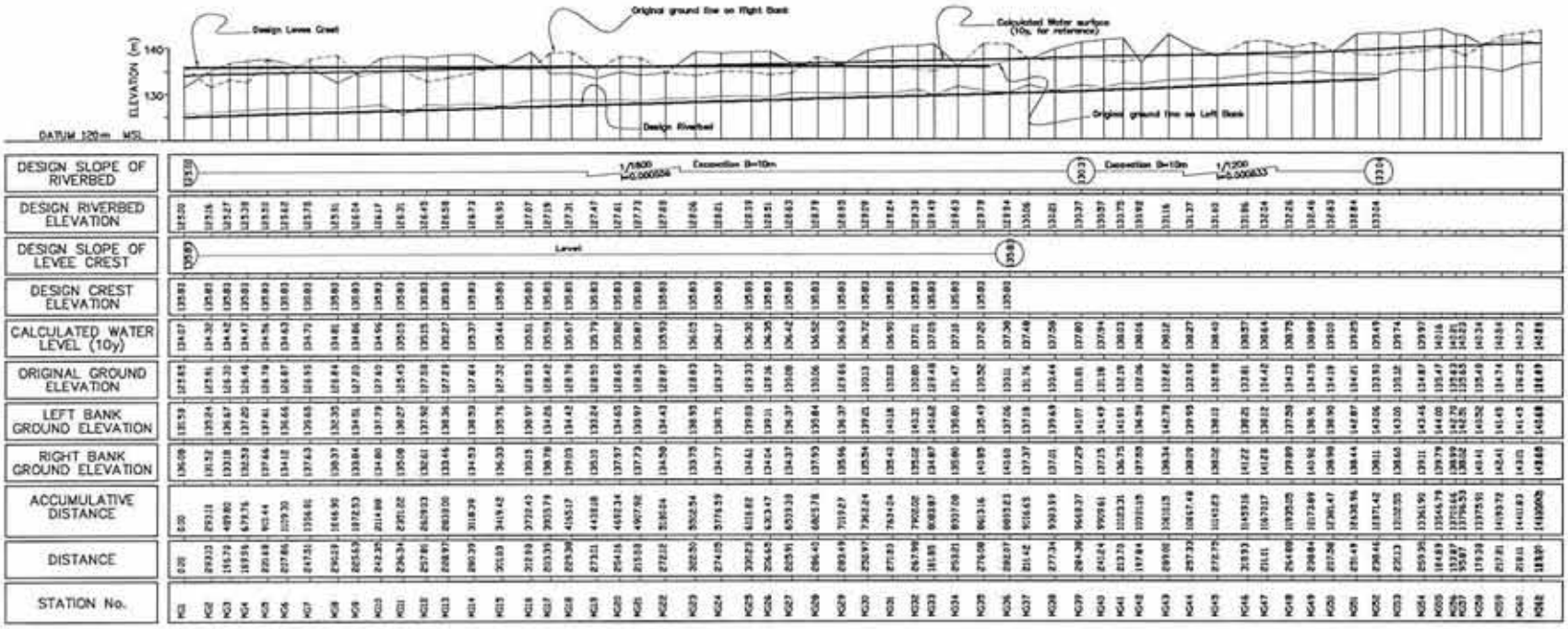
DRAWING TITLE: TESSA RIVER PLAN AND PROFILE (2/2)

SHEET NO. E-17

NIPPON KOEI Co., Ltd.



Legend
Levee
Excavation

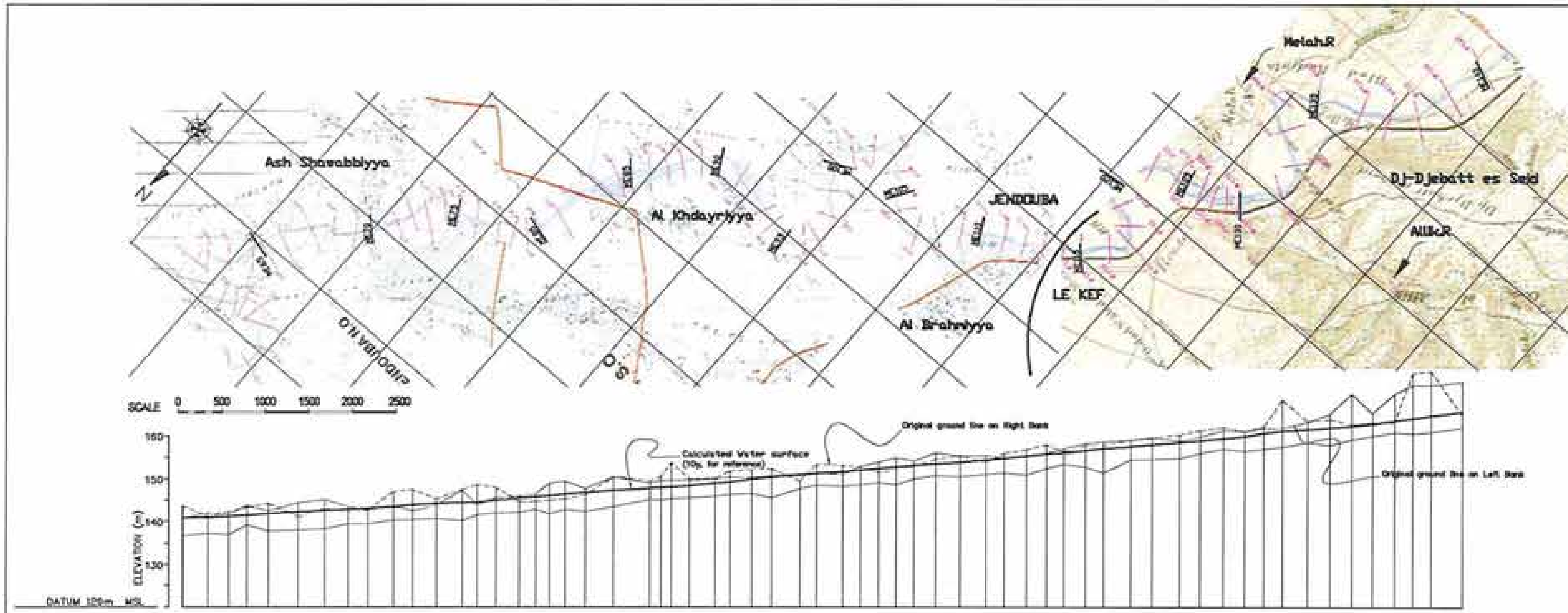


PROFILE OF MELLEGUE RIVER (1/3)

SCALE
Horizontal 0 500 1000 1500 2000 2500 m
Vertical 0 10 20 30 40 50 m

	REPUBLIC OF TUNISIA MINISTRY OF AGRICULTURE AND WATER RESOURCES DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS	JAPAN INTERNATIONAL COOPERATION AGENCY
THE STUDY ON INTEGRATED BASIN MANAGEMENT FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER		
DRAWING TITLE	MELLEGUE RIVER PLAN AND PROFILE (1/3)	SHEET NO. E-18
NIPPON KOEI Co., Ltd.		

DE1-19



DESIGN SLOPE OF RIVERBED	
DESIGN RIVERBED ELEVATION	
DESIGN SLOPE OF LEVEE CREST	
DESIGN CREST ELEVATION	
CALCULATED WATER LEVEL (10y)	[illegible]
ORIGINAL GROUND ELEVATION	[illegible]
LEFT BANK GROUND ELEVATION	[illegible]
RIGHT BANK GROUND ELEVATION	[illegible]
ACCUMULATIVE DISTANCE	[illegible]
DISTANCE	[illegible]
STATION No.	[illegible]

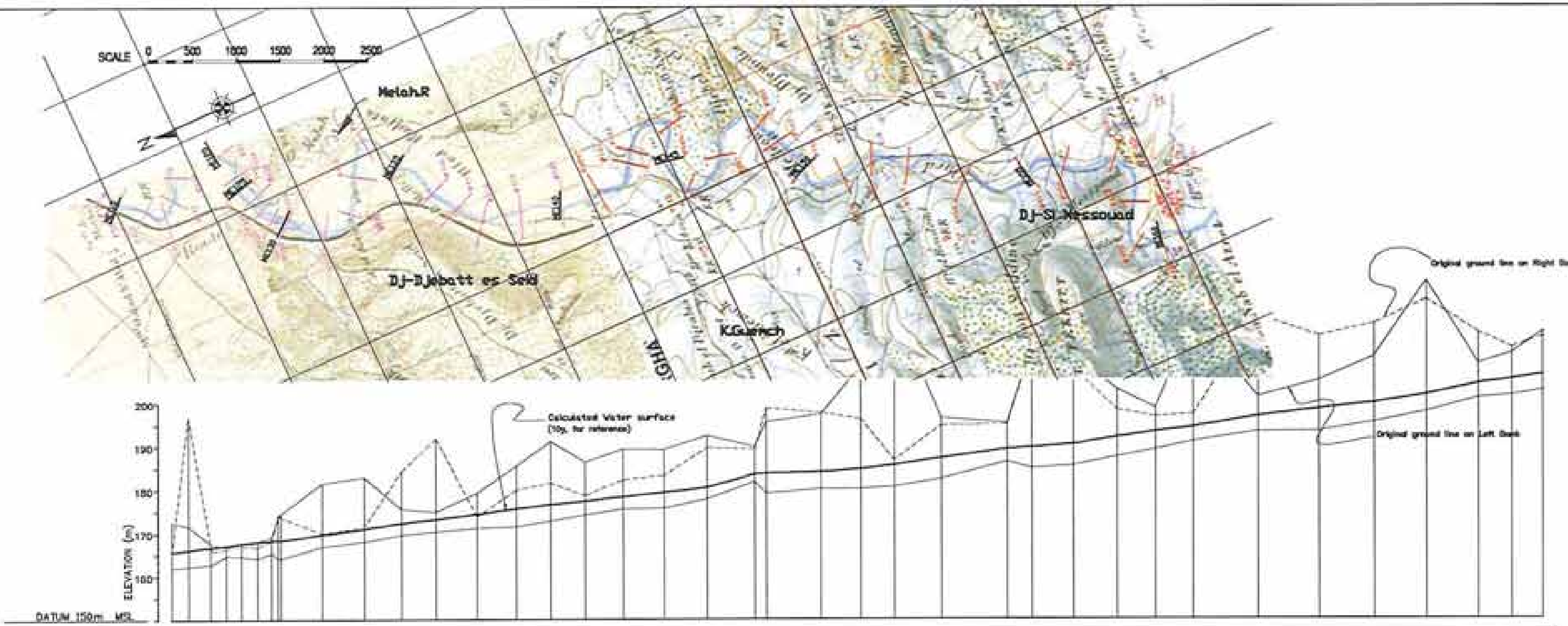
PROFILE OF MELLEGUE RIVER (2/3)

SCALE

Horizontal 0 500 1000 1500 2000 2500 m

Vertical 0 10 20 30 40 50 m

REPUBLIC OF TUNISIA MINISTRY OF AGRICULTURE AND WATER RESOURCES DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS	JAPAN INTERNATIONAL COOPERATION AGENCY
THE STUDY ON INTEGRATED BASIN MANAGEMENT FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER	
DRAWING TITLE: MELLEGUE RIVER PLAN AND PROFILE (2/3)	SHEET NO. E-19
NIPPON KOEI Co., Ltd.	



STATION No.	DISTANCE	ACCUMULATIVE DISTANCE	RIGHT BANK GROUND ELEVATION	LEFT BANK GROUND ELEVATION	ORIGINAL GROUND ELEVATION	CALCULATED WATER LEVEL (10y)	DESIGN CREST ELEVATION	DESIGN SLOPE OF LEVEE CREST	DESIGN RIVERBED ELEVATION	DESIGN SLOPE OF RIVERBED
HQ122	331.30	29345.23	164.87	172.53	161.90	165.61				
HQ123	187.20	29532.43	196.92	171.55	162.31	166.19				
HQ124	268.47	29800.90	165.09	167.47	162.65	166.83				
HQ125	168.80	29969.70	166.58	166.93	164.74	167.17				
HQ126	171.59	30141.29	167.06	167.64	164.56	167.40				
HQ127	184.55	30325.84	168.81	168.50	164.17	168.06				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
HQ131	469.92	31057.41	165.97	181.51	166.90	169.43				
HQ132	483.70	31541.31	171.43	180.65	168.05	170.59				
HQ133	429.34	31970.65	184.29	175.50	169.51	172.27				
HQ134	395.81	32365.46	181.82	174.87	170.33	173.17				
HQ135	459.08	32823.54	173.79	179.09	171.07	174.35				
HQ136	449.88	33272.42	179.90	185.42	171.51	175.69				
HQ137	393.54	33675.96	181.53	191.22	172.73	176.54				
HQ138	395.63	34072.59	178.63	186.43	174.03	177.37				
HQ139	435.94	34508.53	182.87	189.42	175.54	178.38				
HQ140	469.08	34977.61	183.22	189.32	175.64	179.36				
HQ141	497.81	35475.42	189.63	192.41	177.78	180.46				
HQ142	547.13	36022.55	189.31	199.89	181.78	183.49				
HQ143	130.26	36152.81	198.78	195.57	179.07	183.69				
HQ144	632.16	36784.97	197.71	197.42	180.15	184.52				
HQ145	457.71	37242.68	196.30	208.36	181.12	184.82				
HQ146	385.71	37628.39	186.63	201.81	180.47	185.62				
HQ147	537.31	38165.70	194.77	196.46	182.42	187.19				
HQ148	760.07	38925.77	195.04	195.35	186.28	189.31				
HQ149	285.34	39211.11	212.91	202.97	184.85	189.68				
HQ150	477.36	39688.47	207.49	203.76	185.43	190.37				
HQ151	501.99	40190.46	188.32	203.14	187.53	192.24				
HQ152	434.20	40624.66	196.81	198.76	189.19	193.29				
HQ153	434.29	41058.95	197.32	209.08	191.09	194.37				
HQ154	744.81	41803.96	220.19	203.47	193.37	196.88				
HQ155	692.67	42496.63	215.50	205.19	193.39	198.57				
HQ156	633.92	43130.55	218.30	210.78	195.54	199.97				
HQ157	596.93	43727.48	223.89	228.31	197.90	201.85				
HQ158	588.14	44315.62	215.83	209.12	201.05	204.33				
HQ159	384.64	44700.26	202.71	211.53	201.68	205.44				
HQ160	343.40	45043.66	215.23	216.27	202.83	206.43				

PROFILE OF MELLEGUE RIVER (3/3)

SCALE
Horizontal 0 500 1000 1500 2000 2500 m
Vertical 0 10 20 30 40 50 m

REPUBLIC OF TUNISIA
MINISTRY OF AGRICULTURE AND WATER RESOURCES
DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS

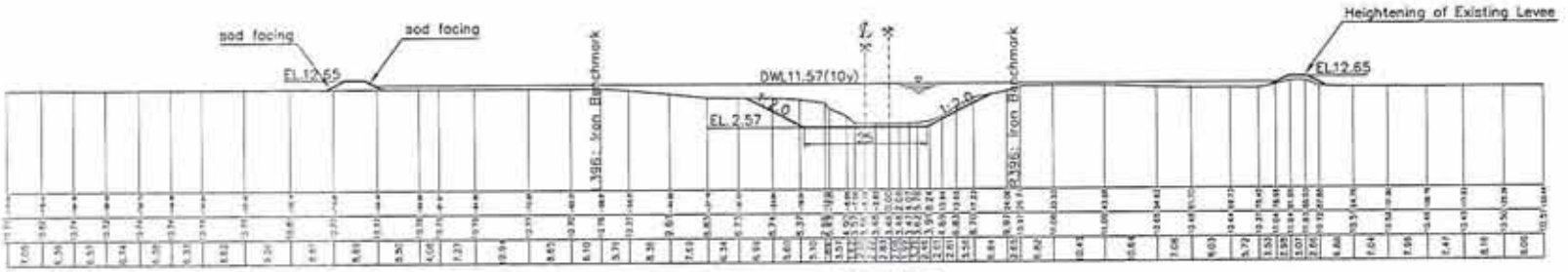
JAPAN INTERNATIONAL COOPERATION AGENCY

THE STUDY ON INTEGRATED BASIN MANAGEMENT FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER

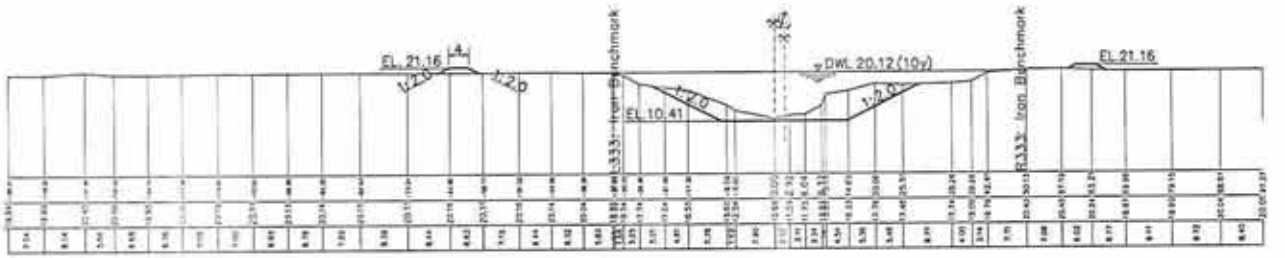
DRAWING TITLE: MELLEGUE RIVER PLAN AND PROFILE (3/3)

SHEET NO. E-20

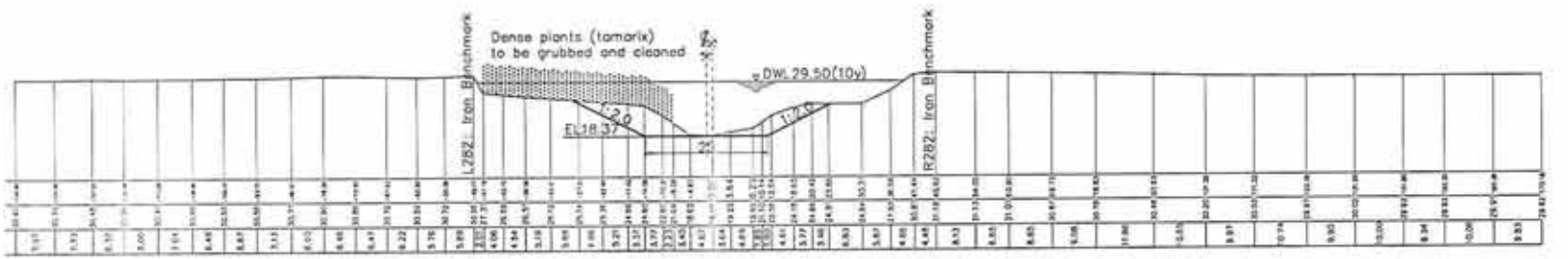
NIPPON KOEI Co., Ltd.



MD 396



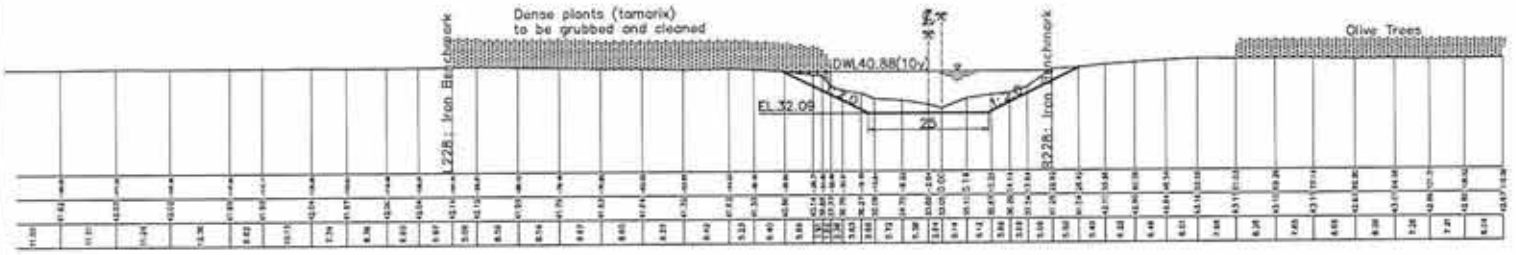
MD 333



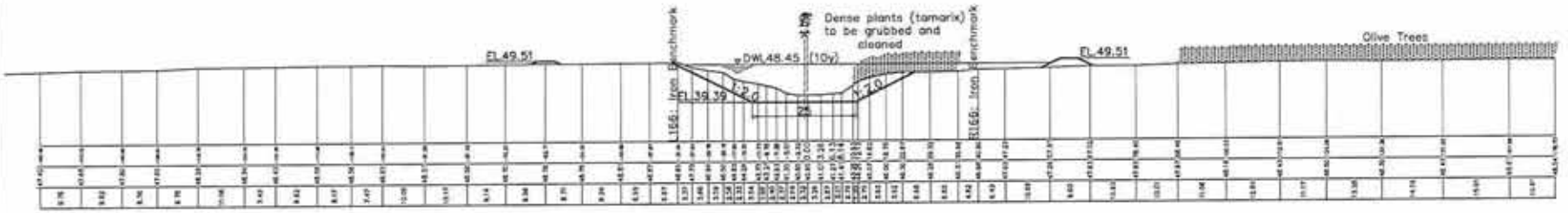
MD282

SCALE 0 10 20 30 40 50m

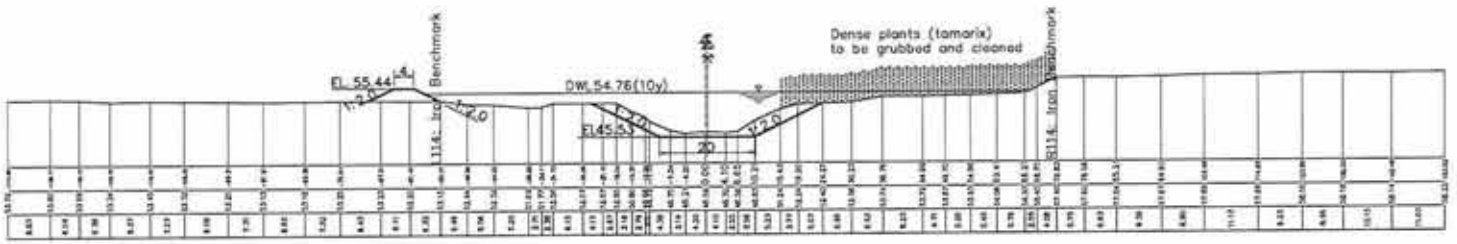
	REPUBLIC OF TUNISIA MINISTRY OF AGRICULTURE AND WATER RESOURCES DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS		JAPAN INTERNATIONAL COOPERATION AGENCY
THE STUDY ON INTEGRATED BASIN MANAGEMENT FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER			
DRAWING TITLE	TYPICAL SECTIONS OF MEJERDA RIVER (1/4)		SHEET NO. E-21
NIPPON KOEI Co., Ltd.			



MD 228



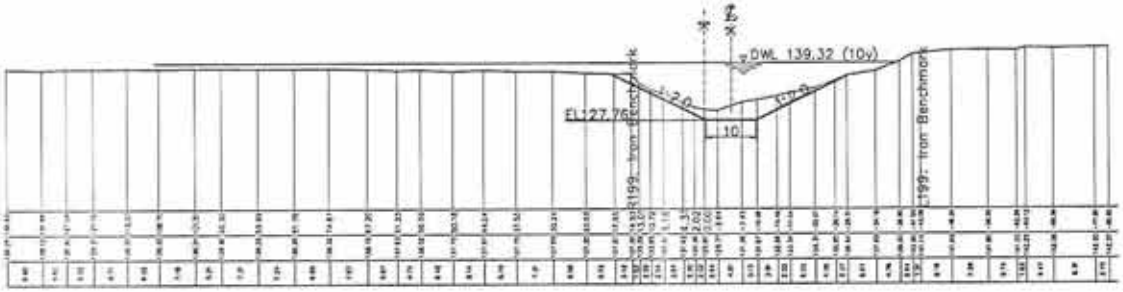
MD 166



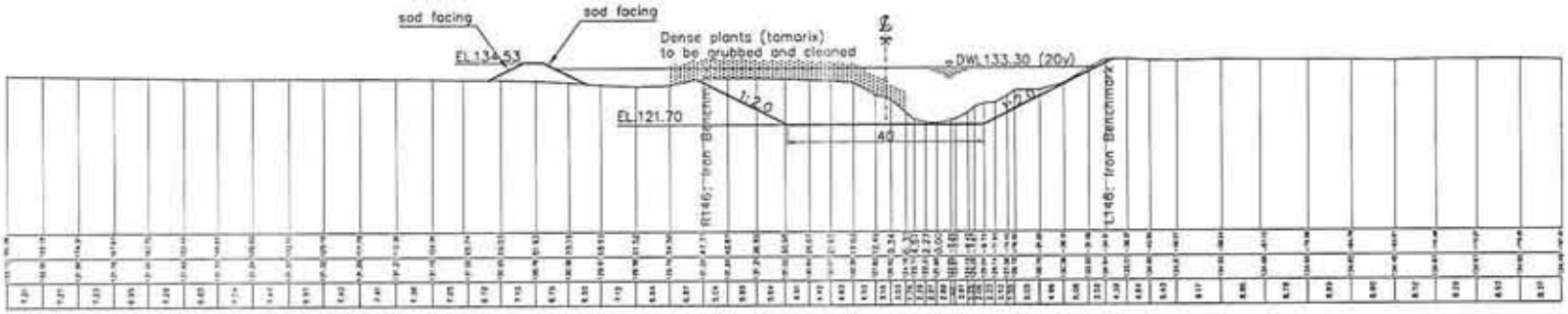
MD 114

REPUBLIC OF TUNISIA MINISTRY OF AGRICULTURE AND WATER RESOURCES DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS		JAPAN INTERNATIONAL COOPERATION AGENCY
THE STUDY ON INTEGRATED BASIN MANAGEMENT FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER		
DRAWING TITLE: TYPICAL SECTIONS OF MEJERDA RIVER (2/4)		SHEET NO. E-22
NIPPON KOEI Co., Ltd.		

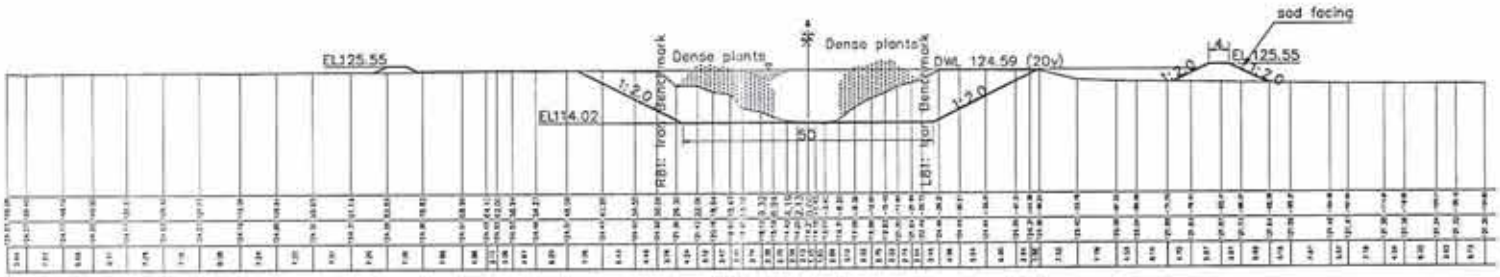
SCALE 0 10 20 30 40 50 m



MU 199



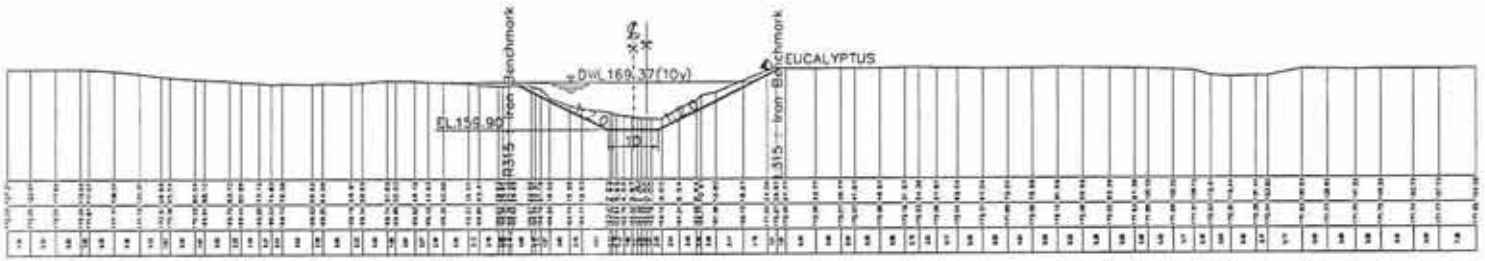
MU 146



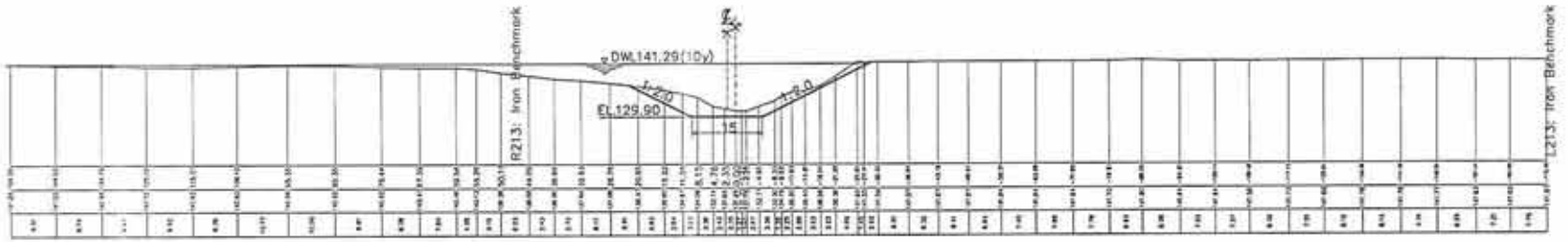
MU 81

SCALE 0 10 20 30 40 50 m

REPUBLIC OF TUNISIA MINISTRY OF AGRICULTURE AND WATER RESOURCES DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS		JAPAN INTERNATIONAL COOPERATION AGENCY
THE STUDY ON INTEGRATED BASIN MANAGEMENT FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER		
DRAWING TITLE: TYPICAL SECTIONS OF MEJERDA RIVER (3/4)		SHEET NO. E-23
NIPPON KOEI Co., Ltd.		



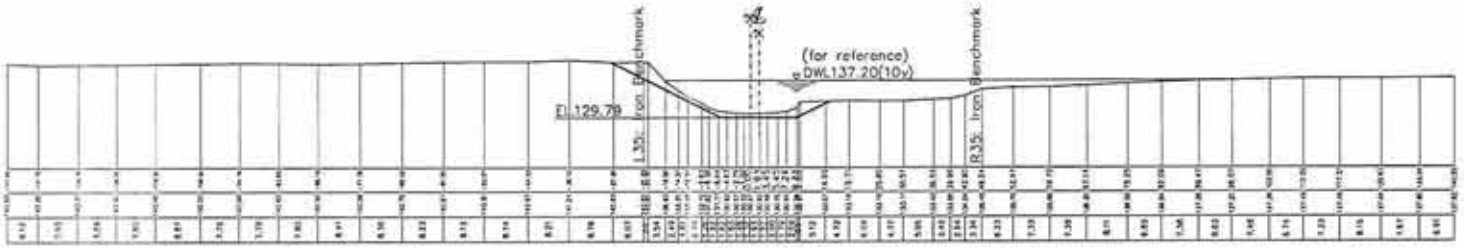
MU 315



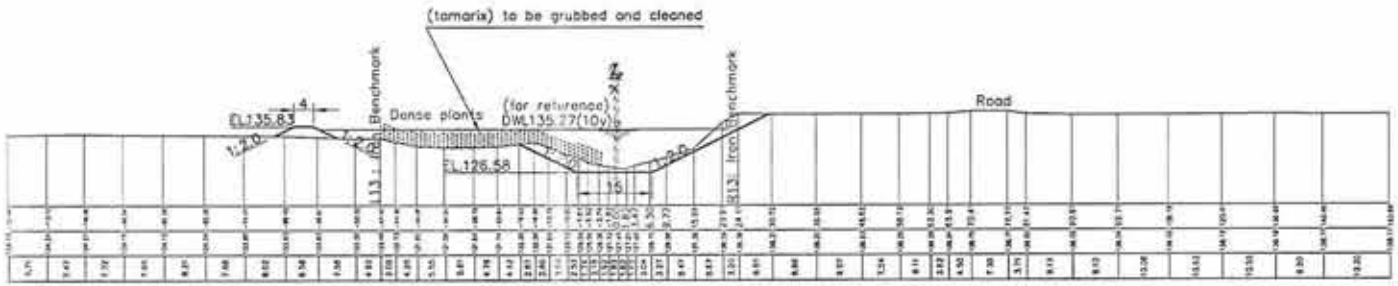
MU 213

SCALE 0 10 20 30 40 50 m

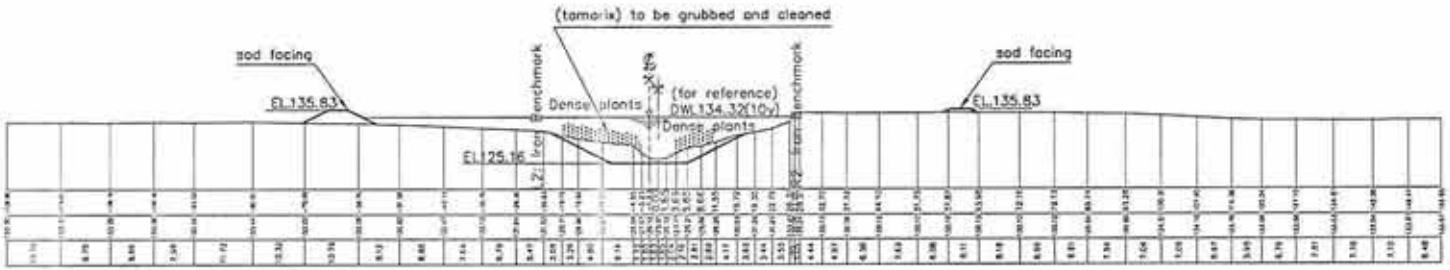
	REPUBLIC OF TUNISIA MINISTRY OF AGRICULTURE AND WATER RESOURCES DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS		JAPAN INTERNATIONAL COOPERATION AGENCY
THE STUDY ON INTEGRATED BASIN MANAGEMENT FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER			
DRAWING TITLE	TYPICAL SECTIONS OF MEJERDA RIVER (4/4)		SHEET NO. E-24
NIPPON KOEI Co., Ltd.			



ME 35



ME 13

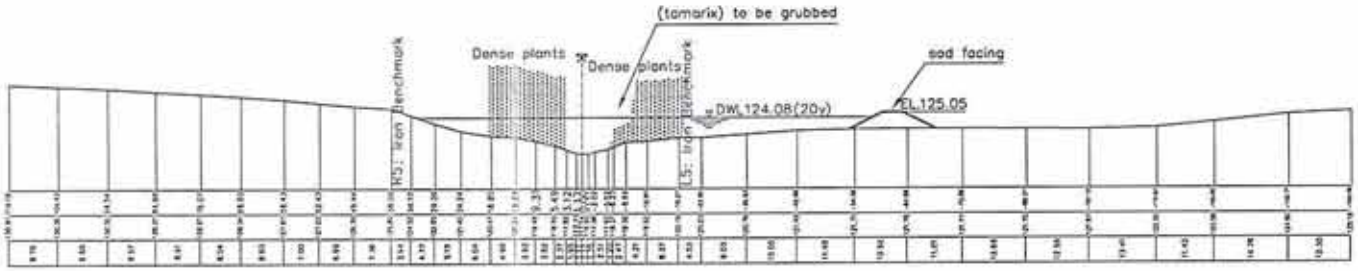


ME 2

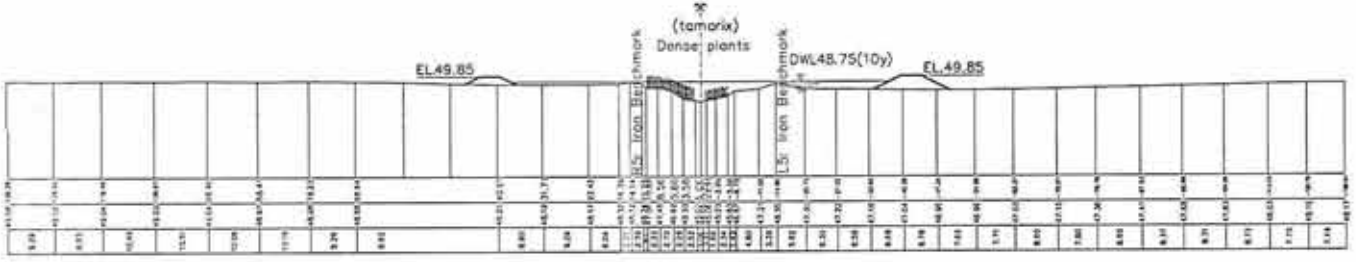
SCALE 0 10 20 30 40 50 m

REPUBLIC OF TUNISIA MINISTRY OF AGRICULTURE AND WATER RESOURCES DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS			JAPAN INTERNATIONAL COOPERATION AGENCY
THE STUDY ON INTEGRATED BASIN MANAGEMENT FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER			
DRAWING TITLE	TYPICAL SECTIONS OF MELLEGUE RIVER		SHEET NO. E-25
NIPPON KOEI Co., Ltd.			

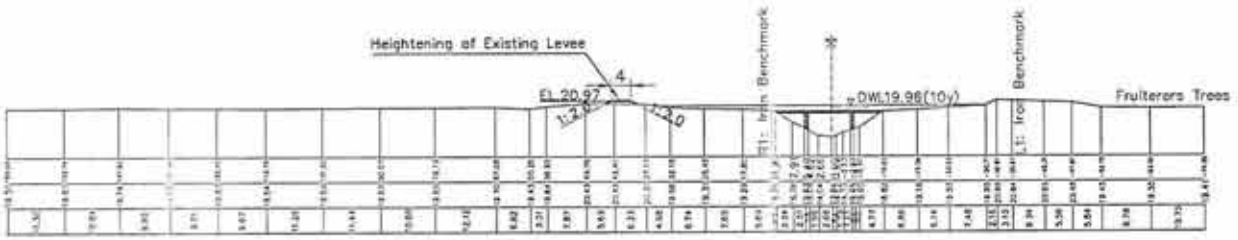
DE1-25



KASSEB RIVER 5



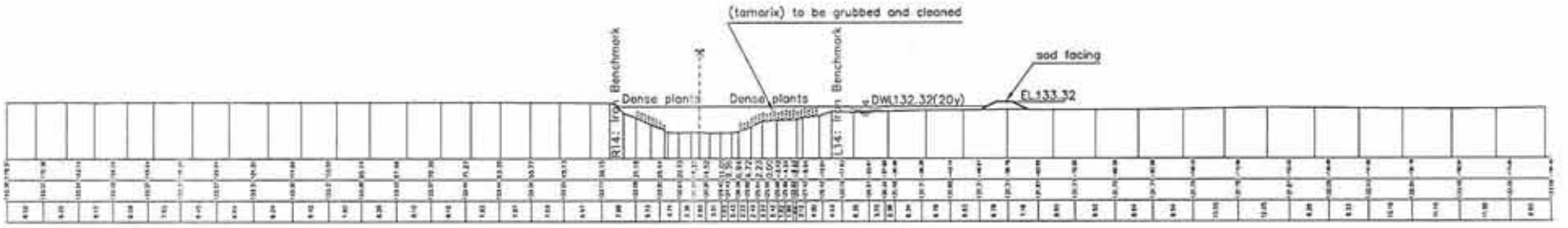
LAHMAR RIVER 5



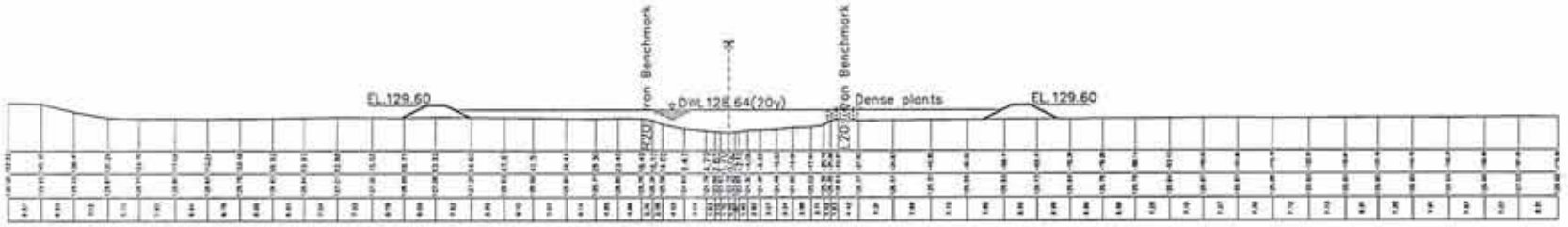
CHAFFROU RIVER 1

SCALE 0 10 20 30 40 50 m

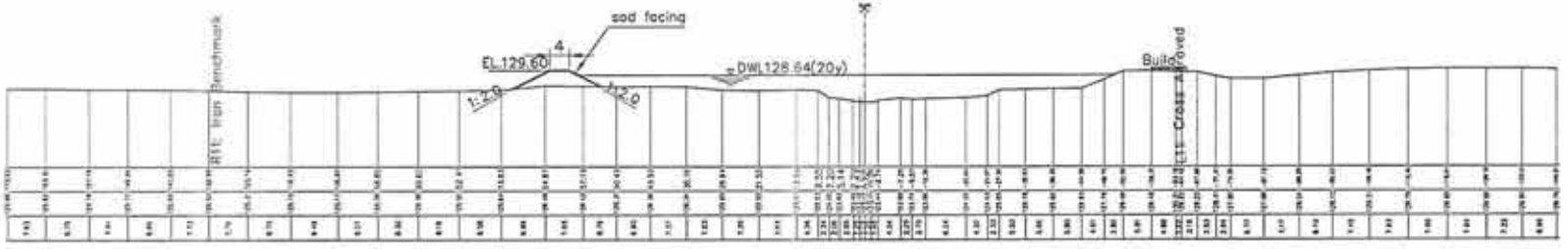
	REPUBLIC OF TUNISIA MINISTRY OF AGRICULTURE AND WATER RESOURCES DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS		JAPAN INTERNATIONAL COOPERATION AGENCY
THE STUDY ON INTEGRATED BASIN MANAGEMENT FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER			
DRAWING TITLE	TYPICAL SECTION OF CHAFFROU RIVER TYPICAL SECTION OF LAHMAR RIVER TYPICAL SECTION OF KASSEB RIVER		SHEET NO. E-26
NIPPON KOEI Co., Ltd.			



TESSA RIVER 15



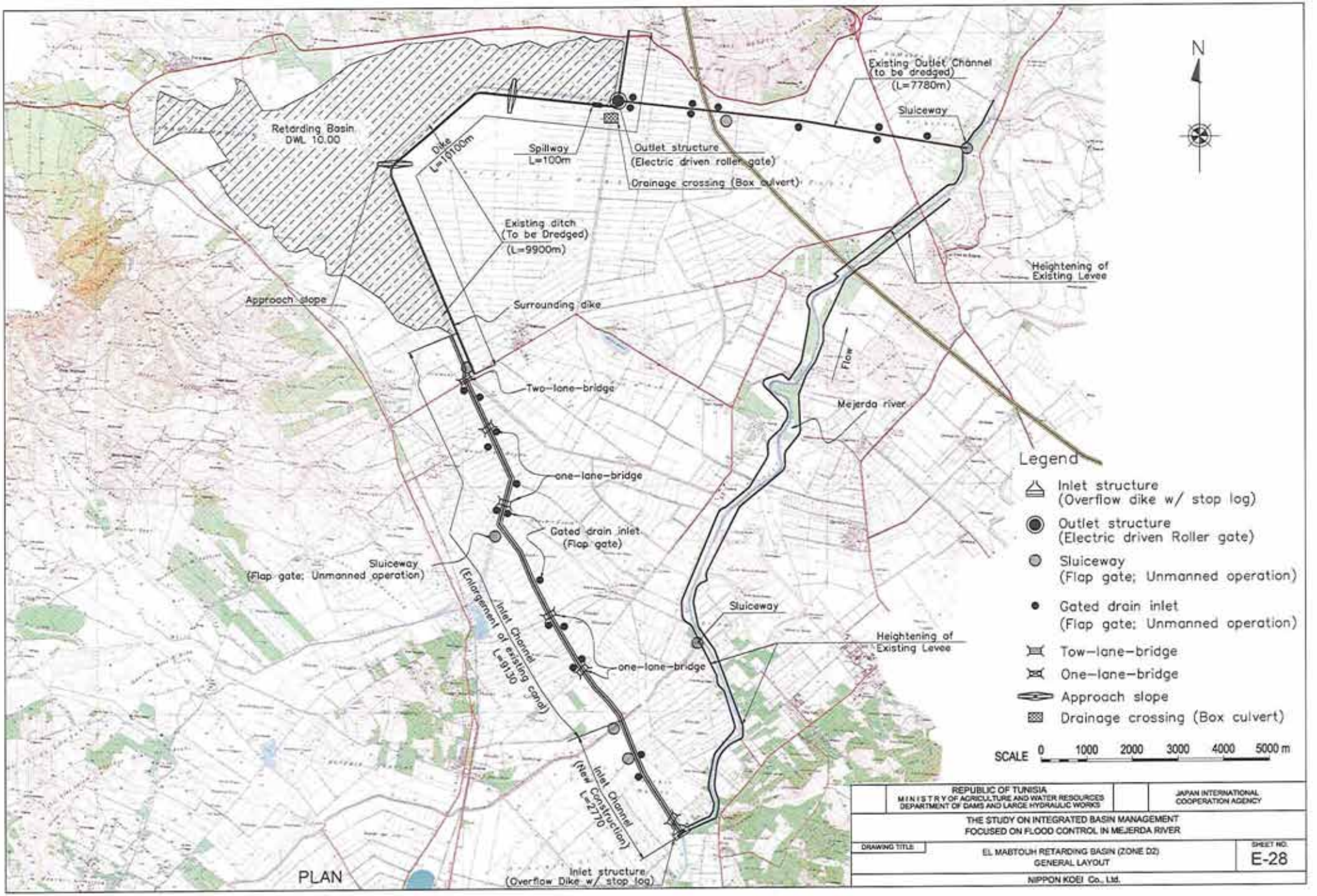
BOU HEURTMA RIVER 20

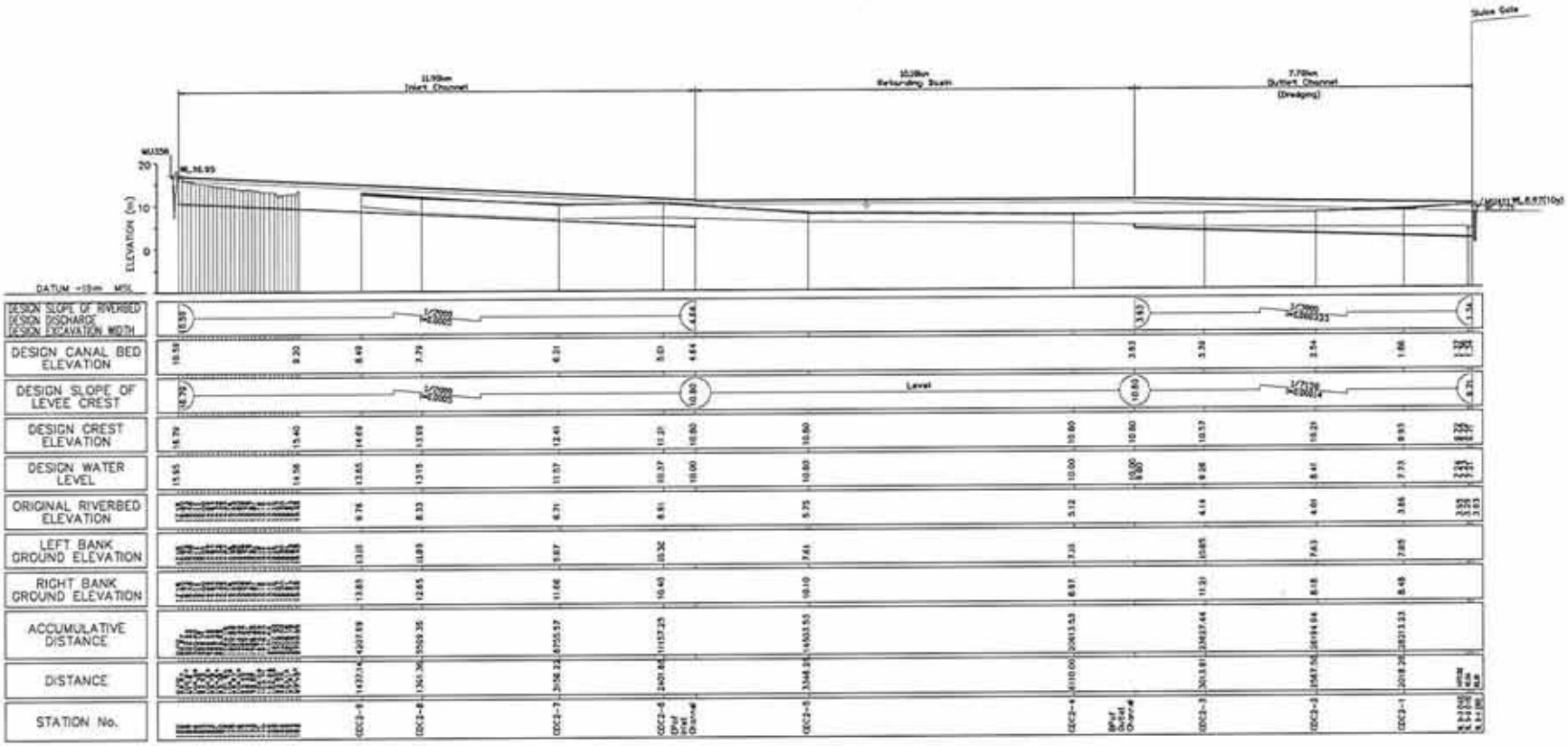


BOU HEURTMA RIVER 11

SCALE 0 10 20 30 40 50 m

	REPUBLIC OF TUNISIA MINISTRY OF AGRICULTURE AND WATER RESOURCES DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS		JAPAN INTERNATIONAL COOPERATION AGENCY
THE STUDY ON INTEGRATED BASIN MANAGEMENT FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER			
DRAWING TITLE	TYPICAL SECTIONS OF BOU HEURTMA RIVER TYPICAL SECTION OF TESSA RIVER		SHEET NO. E-27
NIPPON KOEI Co., Ltd.			


Retarding Basin
DWL 10.00
Dike
L=10100m
Spillway
L=100m
Outlet structure
(Electric driven roller gate)
Drainage crossing (Box culvert)
Existing Outlet Channel
(to be dredged)
(L=7780m)
Sluiceway
Existing ditch
(To be Dredged)
(L=9900m)
Heightening of
Existing Levee
Approach slope
Surrounding dike
Flow
Two-lane-bridge
Mejerda river
one-lane-bridge
Gated drain inlet
(Flap gate)
Sluiceway
(Flap gate; Unmanned operation)
Inlet Channel
(Enlargement of existing canal)
L=9130
Sluiceway
Heightening of
Existing Levee
one-lane-bridge
Inlet Channel
(New Construction)
L=2770
Inlet structure
(Overflow Dike w/ stop log)
PLAN
N
Legend
Inlet structure
(Overflow dike w/ stop log)
Outlet structure
(Electric driven Roller gate)
Sluiceway
(Flap gate; Unmanned operation)
Gated drain inlet
(Flap gate; Unmanned operation)
Tow-lane-bridge
One-lane-bridge
Approach slope
Drainage crossing (Box culvert)
SCALE 0 1000 2000 3000 4000 5000 m
REPUBLIC OF TUNISIA
MINISTRY OF AGRICULTURE AND WATER RESOURCES
DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS
JAPAN INTERNATIONAL
COOPERATION AGENCY
THE STUDY ON INTEGRATED BASIN MANAGEMENT
FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER
DRAWING TITLE
EL MABTOUH RETARDING BASIN (ZONE D2)
GENERAL LAYOUT
SHEET NO.
E-28
NIPPON KOEI Co., Ltd.



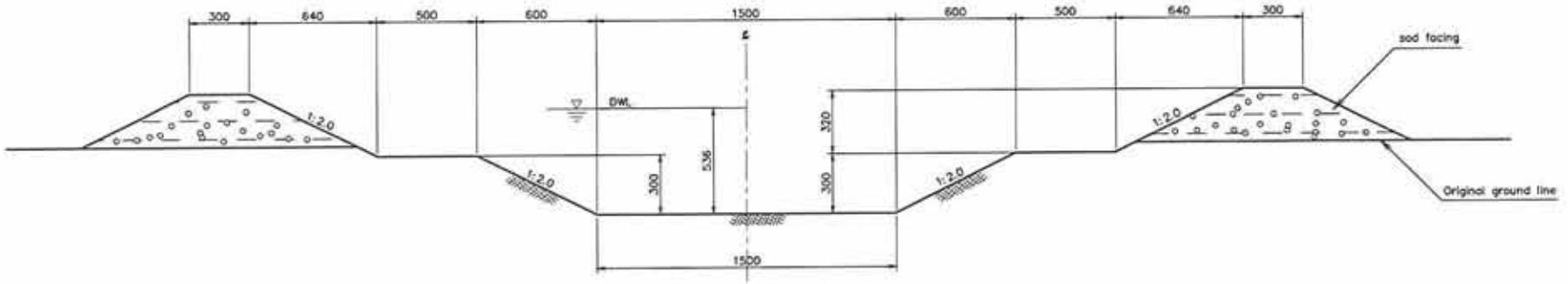
PROFILE OF INLET AND OUTLET CHANNEL OF EL MABTOUH RETARDING POND

SCALE

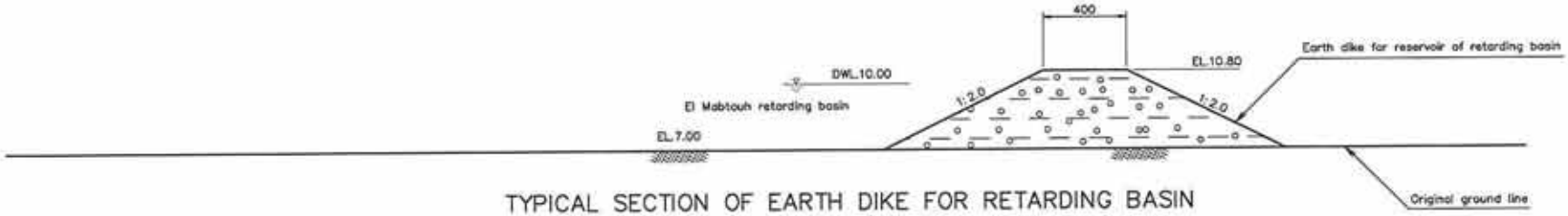
Horizontal 0 1000 2000 3000 4000 5000 m

Vertical 0 10 20 30 40 50 m

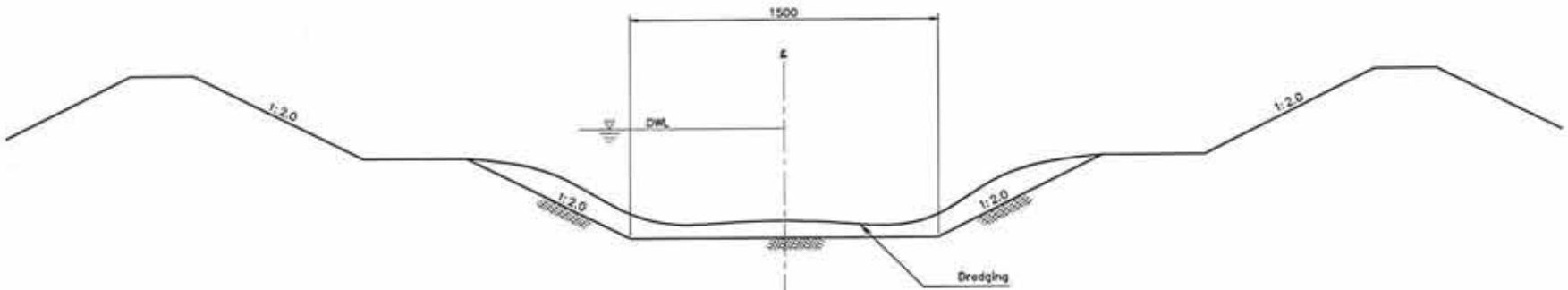
	REPUBLIC OF TUNISIA MINISTRY OF AGRICULTURE AND WATER RESOURCES DEPARTMENT OF DAMS AND LARGE HYDRAULIC WORKS	JAPAN INTERNATIONAL COOPERATION AGENCY
THE STUDY ON INTEGRATED BASIN MANAGEMENT FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER		
DRAWING TITLE	EL MABTOUH RETARDING BASIN (ZONE D2) PROFILE OF INLET TO OUTLET CHANNEL	SHEET NO. E-29
NIPPON KOEI Co., Ltd.		



TYPICAL SECTION OF INLET CHANNEL



TYPICAL SECTION OF EARTH DIKE FOR RETARDING BASIN



TYPICAL SECTION OF OUTLET CHANNEL

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THE STUDY ON INTEGRATED BASIN MANAGEMENT FOCUSED ON FLOOD CONTROL IN MEJERDA RIVER			
DRAWING TITLE	EL MABTOUH RETARDING BASIN (ZONE D2) INTEL STRUCTURE OF RETARDING BASIN-OVERFLOW DIKE WITH STOP LOG TYPICAL SECTIONS FOR EARTH WORKS		SHEET NO. E-30
NIPPON KOEI Co., Ltd.			