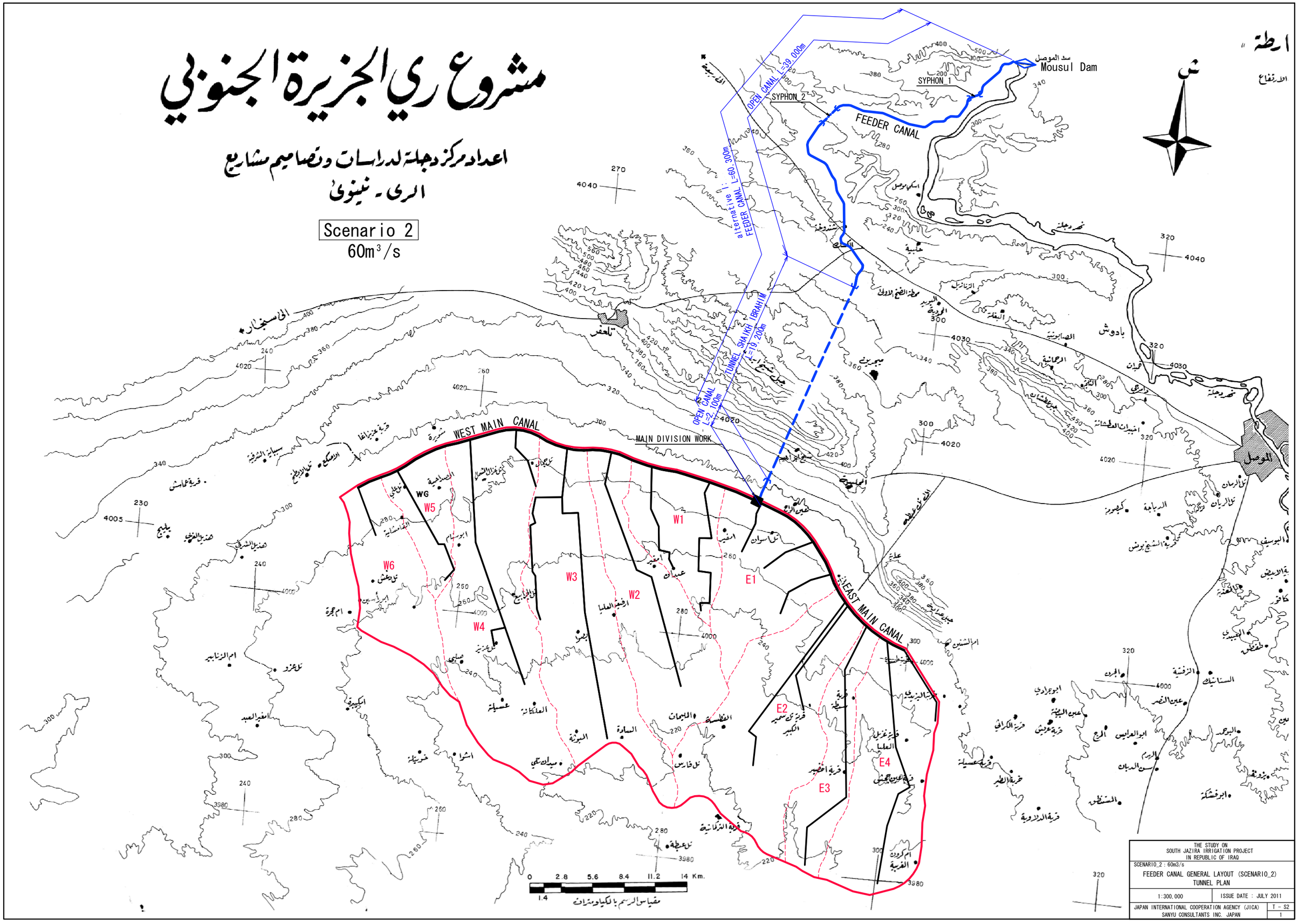
مشروع ري الجزيرة الجنوبي

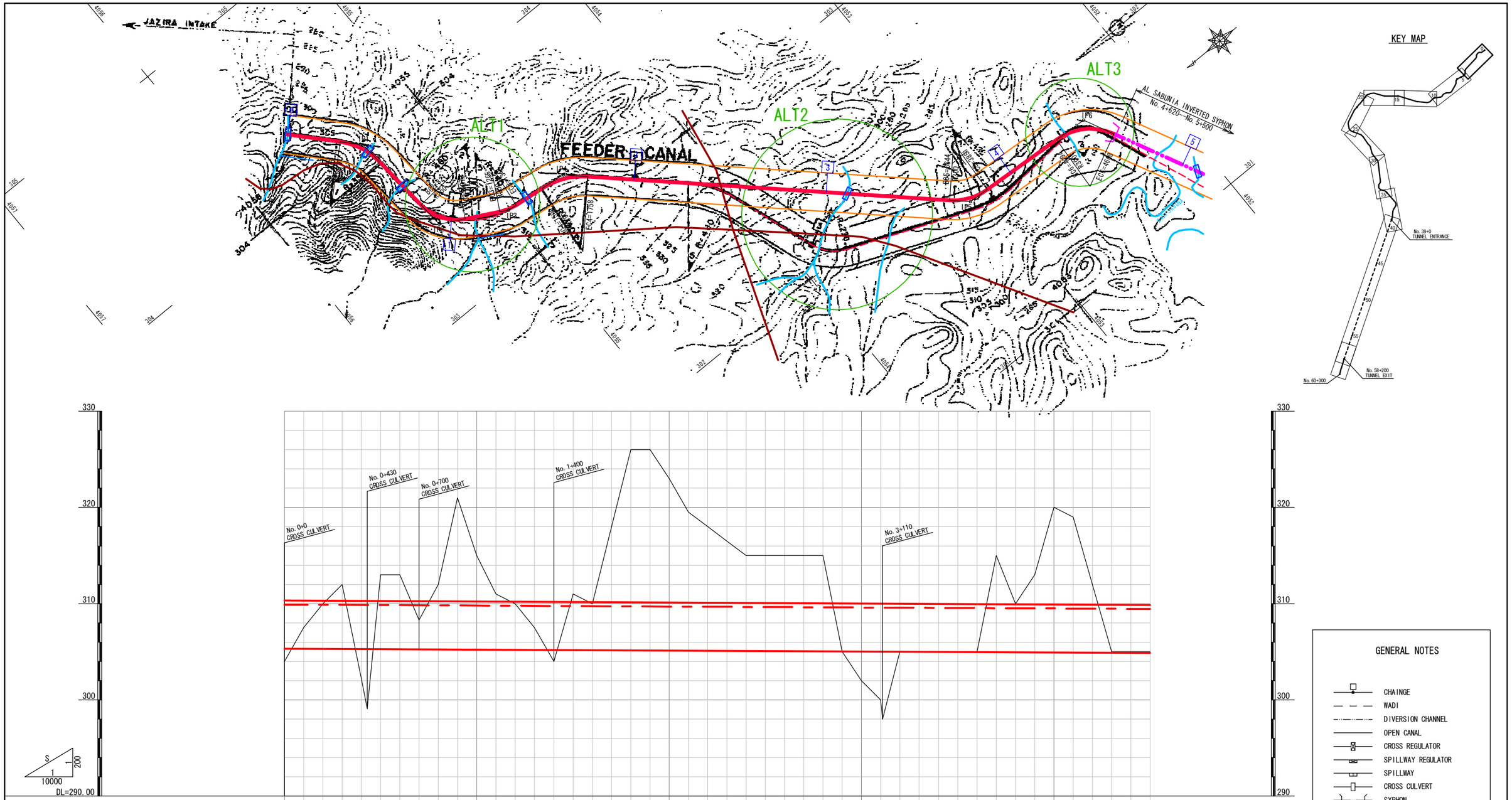
اعداد مركز دجلة لدراسات وتصاميم مشاريع الري - نينوى

Scenario 2

60m³/s



THE STUDY ON SOUTH JAZIRA IRRIGATION PROJECT IN REPUBLIC OF IRAQ	
SCENARIO_2 : 60m3/s FEEDER CANAL GENERAL LAYOUT (SCENARIO_2) TUNNEL PLAN	
1:300,000	ISSUE DATE : JULY 2011
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) SANYU CONSULTANTS INC. JAPAN	T - S2 1



GENERAL NOTES

- CHAINGE
- WADI
- DIVERSION CHANNEL
- OPEN CANAL
- CROSS REGULATOR
- SPILLWAY REGULATOR
- SPILLWAY
- CROSS CULVERT
- SYPHON
- TUNNEL
- RAILWAY CROSSING
- VEHICLE BRIDGE
- OIL PIPE CROSSING
- PUMP STATION
- FOOT BRIDGE
- AQUEDUCT

PLAN	WATER SURFACE LEVEL (W.S.L.) m	309.90, 309.80, 309.70, 309.60, 309.50
	BED LEVEL (B.L.) m	305.32, 305.22, 305.12, 305.02, 304.92
	CANAL SLOPE	1/10000
NATURAL GROUND LEVEL (N.G.L.) m		304.00, 307.50, 310.00, 312.00, 302.20, 299.10, 313.00, 313.00, 308.00, 312.00, 321.00, 305.00, 311.00, 310.00, 307.50, 304.00, 311.00, 310.00, 318.00, 326.00, 326.00, 323.00, 319.50, 318.00, 316.50, 315.00, 315.00, 315.00, 315.00, 315.00, 305.00, 302.00, 300.00, 298.00, 305.00, 305.00, 305.00, 305.00, 305.00, 315.00, 310.00, 313.00, 320.00, 319.00, 312.00, 305.00, 305.00, 305.00
ADDITIONAL DISTANCE (m)		0, 100, 200, 300, 400, 430, 500, 600, 700, 800, 900, 1,000, 100, 200, 300, 400, 500, 600, 700, 800, 900, 2,000, 100, 200, 300, 400, 500, 600, 700, 800, 900, 3,000, 100, 110, 200, 300, 400, 500, 600, 700, 800, 900, 4,000, 100, 200, 300, 400, 500
BLOCK DISTANCE (m)		0.00, 500.00, 500.00, 500.00, 500.00, 500.00, 500.00, 500.00, 500.00, 500.00
SURVEY POINT		No.0, No.1, No.2, No.3, No.4
CURVE		IP1, IP2, IP3, IP4, IP5, IP6

THE STUDY ON
SOUTH JAZIRA IRRIGATION PROJECT
IN REPUBLIC OF IRAQ

SCENARIO_2 : 60m3/s

FEEDER CANAL
PLAN AND PROFILE (0.0km-4.5km)

SCALE V 1 : 200 H 1 : 10000 | ISSUE DATE : JULY 2011

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SANYU CONSULTANTS INC. JAPAN

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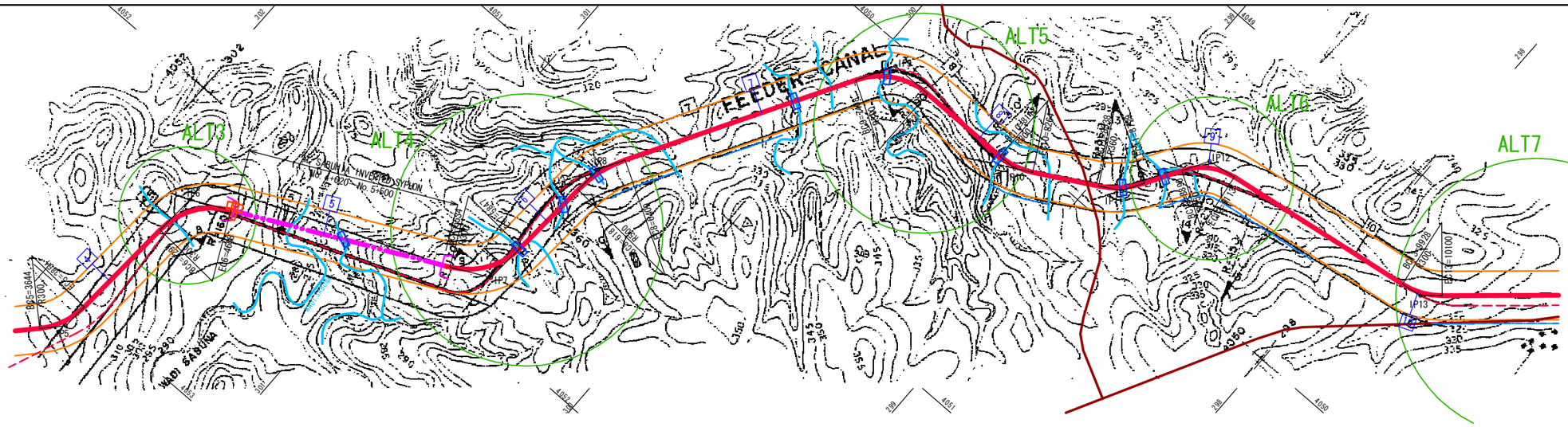
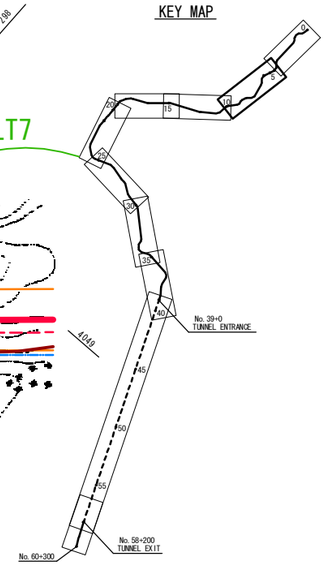
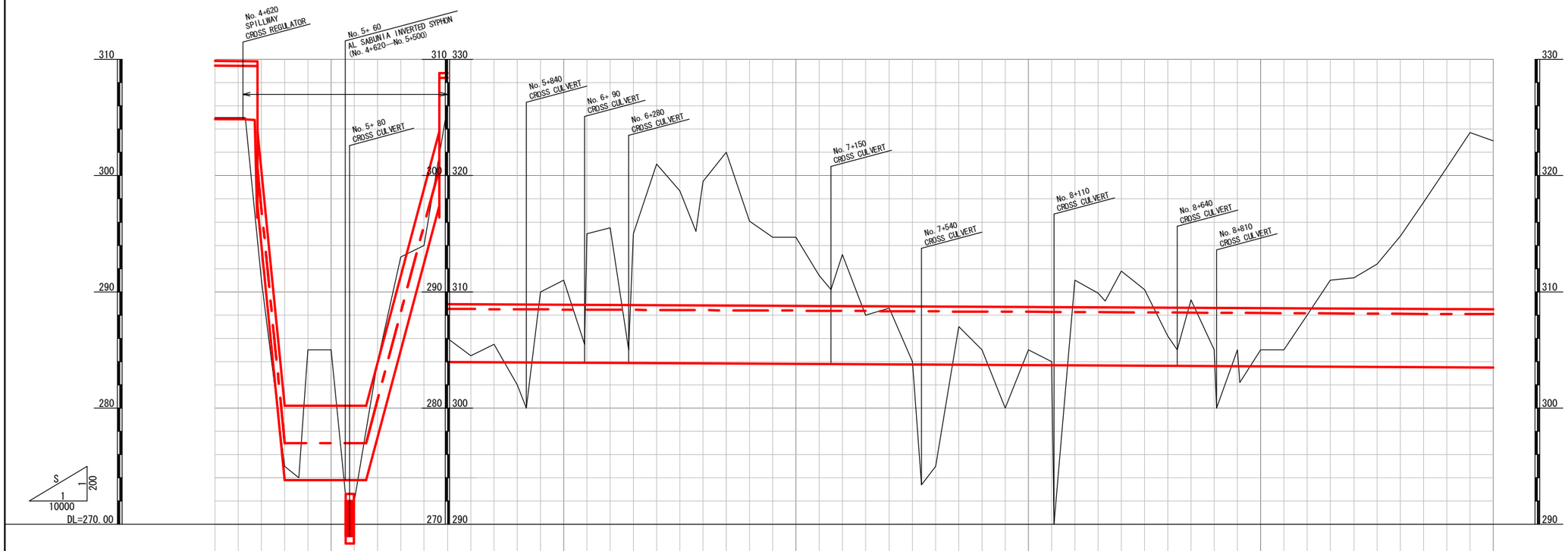
2



KEY MAP





PLAN	WATER SURFACE LEVEL (W.S.L) m	309.44, 308.53, 308.48, 308.38, 308.28, 308.18, 308.08
	BED LEVEL (B.L) m	304.86, 303.95, 303.90, 303.80, 303.70, 303.60, 303.50
	CANAL SLOPE	1/10000 — AL SABUNIA INVERTED SYPHON — 1/10000
NATURAL GROUND LEVEL (N.G.L) m		305.00, 305.00, 291.00, 275.00, 274.00, 285.00, 285.00, 269.00, 272.00, 284.00, 293.00, 294.00, 306.00, 304.50, 305.50, 302.00, 300.00, 310.00, 311.00, 305.50, 315.00, 315.50, 305.00, 318.00, 321.00, 318.70, 315.20, 319.50, 322.00, 316.10, 314.70, 314.70, 311.40, 310.20, 313.20, 308.70, 308.60, 304.00, 299.40, 295.00, 307.00, 305.00, 300.00, 305.00, 304.00, 294.00, 311.00, 309.90, 309.20, 311.80, 310.20, 306.20, 305.00, 309.30, 305.00, 300.00, 305.00, 302.20, 305.00, 305.00, 308.00, 311.00, 311.20, 312.40, 314.80, 317.70, 320.70, 323.70, 323.00
ADDITIONAL DISTANCE (m)		4,500, 600, 620, 700, 800, 860, 874.00, 900, 5,000, 80, 100, 200, 300, 400, 500, 600, 700, 800, 840, 900, 6,000, 90, 100, 200, 280, 300, 400, 500, 570, 600, 700, 800, 900, 7,000, 100, 150, 310.20, 200, 300, 400, 500, 540, 600, 700, 800, 900, 8,000, 100, 110, 200, 300, 330, 400, 500, 600, 640, 700, 800, 810, 900, 910, 9,000, 100, 200, 300, 400, 500, 600, 700, 800, 900, 10,000
BLOCK DISTANCE (m)		500.00, 500.00, 500.00, 500.00, 500.00, 500.00, 500.00, 500.00, 500.00, 500.00, 500.00
SURVEY POINT		No.5, No.6, No.7, No.8, No.9, No.10
CURVE		IP6, IP7, IP8, IP9, IP10, IP11, IP12, IP13

GENERAL NOTES

- CHAINGE
- WADI
- DIVERSION CHANNEL
- OPEN CANAL
- CROSS REGULATOR
- SPILLWAY REGULATOR
- SPILLWAY
- CROSS CULVERT
- SYPHON
- TUNNEL
- RAILWAY CROSSING
- VEHICLE BRIDGE
- OIL PIPE CROSSING
- PUMP STATION
- FOOT BRIDGE
- AQUEDUCT

THE STUDY ON
SOUTH JAZIRA IRRIGATION PROJECT
IN REPUBLIC OF IRAQ

SCENARIO_2 : 60m3/s

FEEDER CANAL
PLAN AND PROFILE (4.5km-10.0km)

SCALE V 1 : 200 H 1 : 10000 | ISSUE DATE : JULY 2011

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) | T - S2
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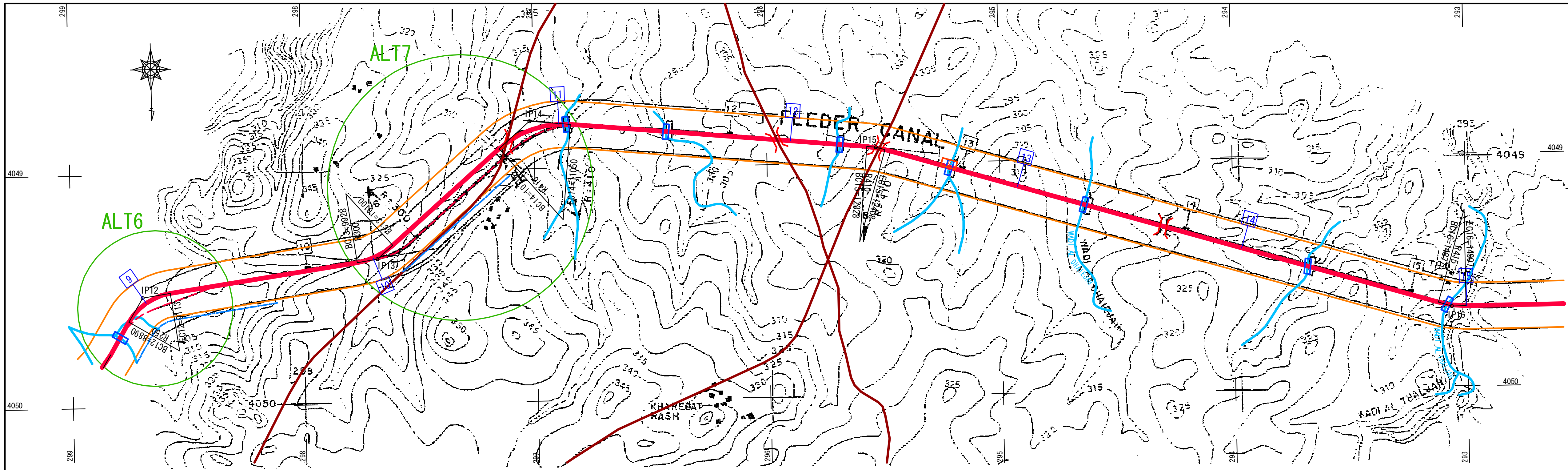

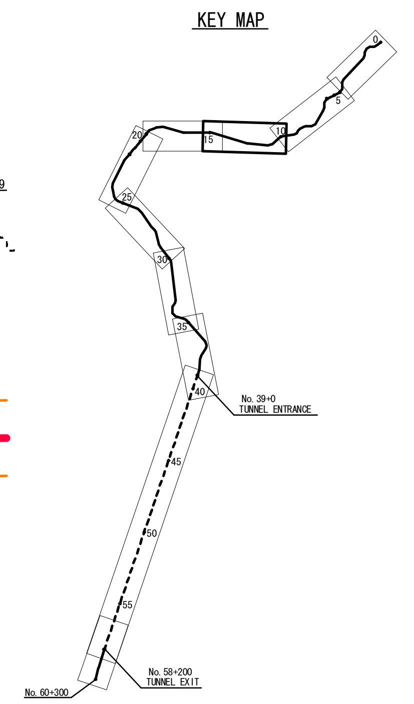

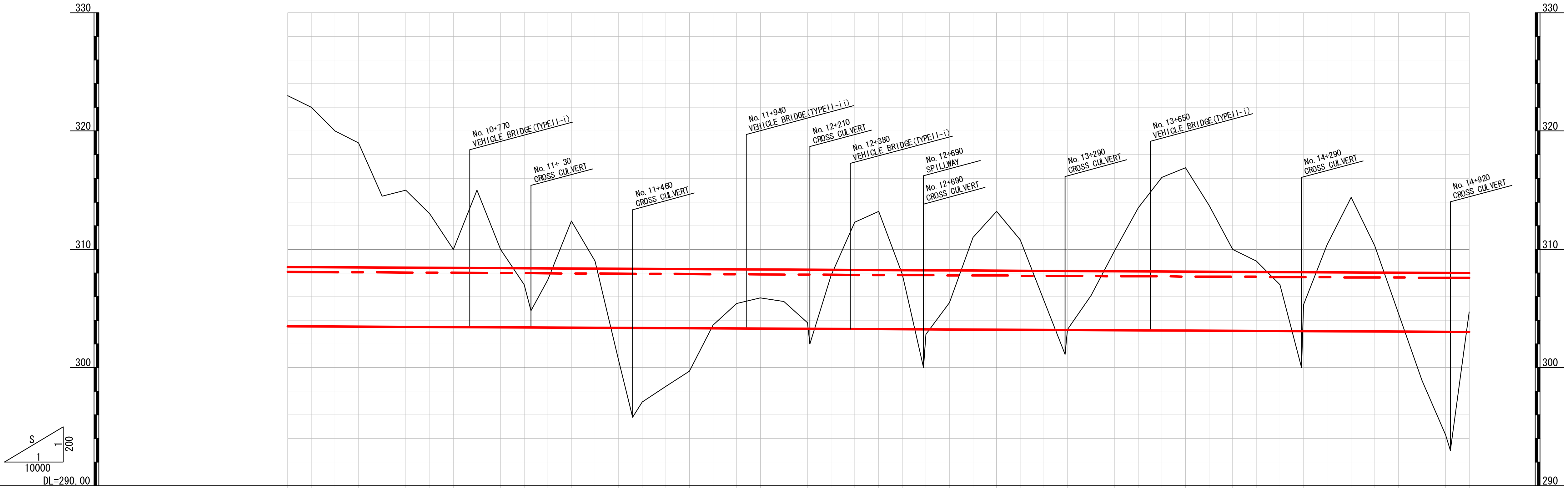

ADDITIONAL DISTANCE (m)	NATURAL GROUND LEVEL (N.G.L) m	WATER SURFACE LEVEL (W.S.L) m	BED LEVEL (B.L) m	BLOCK DISTANCE (m)	SURVEY POINT
10,000	323.00	308.08	303.50	500.00	No.10
100	322.00				
200	320.00				
300	319.00				
400	314.50				
500	315.00			500.00	
600	313.00				
700	310.00				
800	315.00				
900	310.00				
11,000	307.00	307.98	303.40	500.00	No.11
30	304.80				
100	307.40				
200	312.40				
300	309.00				
400	300.60				
460	295.80				
500	297.10			500.00	
600	298.40				
700	299.70				
800	303.60				
900	305.40				
12,000	305.90	307.88	303.30	500.00	No.12
100	305.60				
200	303.80				
210	302.00				
300	307.80				
400	312.30				
500	313.20			500.00	
600	307.90				
690	300.00				
700	302.80				
800	305.50				
900	311.00				
13,000	313.20	307.78	303.20	500.00	No.13
100	310.80				
200	305.70				
290	301.10				
300	303.20				
400	306.10				
500	309.90			500.00	
600	313.50				
700	316.10				
800	316.90				
900	313.70				
14,000	310.00	307.68	303.10	500.00	No.14
100	309.00				
200	307.00				
290	300.00				
300	305.30				
400	310.40				
500	314.40			500.00	
600	310.30				
700	304.60				
800	298.90				
900	294.30				
920	293.00				
15,000	304.70	307.58	303.00	500.00	No.15

PLAN

CANAL SLOPE: 1/10000

CURVE: IP13, IP14, IP15, IP16

GENERAL NOTES

- CHAINGE
- WADI
- DIVERSION CHANNEL
- OPEN CANAL
- CROSS REGULATOR
- SPILLWAY REGULATOR
- SPILLWAY
- CROSS CULVERT
- SYPHON
- TUNNEL
- RAILWAY CROSSING
- VEHICLE BRIDGE
- OIL PIPE CROSSING
- PUMP STATION
- FOOT BRIDGE
- AQUEDUCT

THE STUDY ON
SOUTH JAZIRA IRRIGATION PROJECT
IN REPUBLIC OF IRAQ

SCENARIO_2 : 60m3/s

FEEDER CANAL
PLAN AND PROFILE (10.0km-15.0km)

SCALE V 1 : 200 H 1 : 10000	ISSUE DATE : JULY 2011

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
SANYU CONSULTANTS INC. JAPAN

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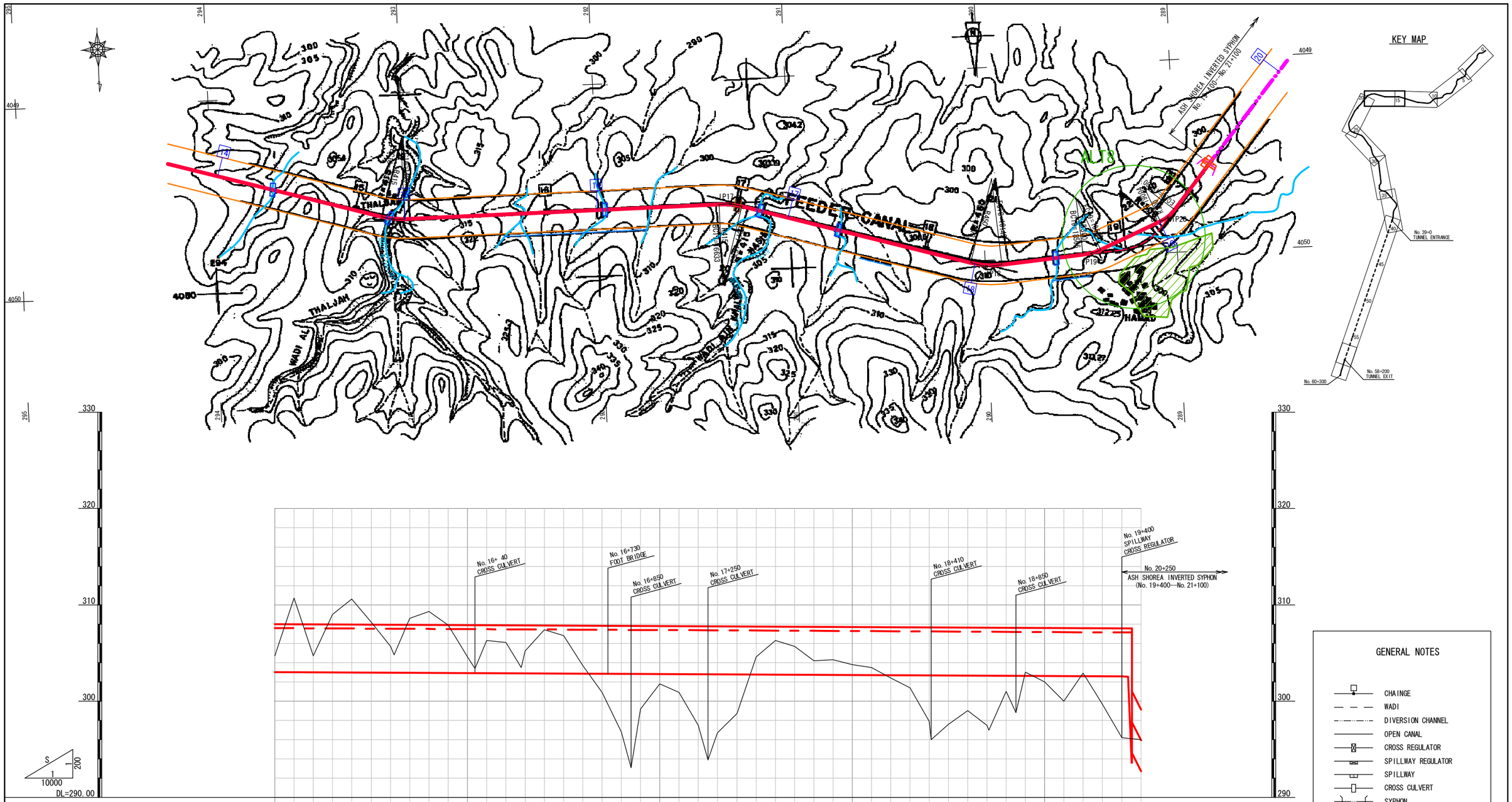

PLAN	WATER SURFACE LEVEL (W.S.L) m	307.58, 307.48, 307.38, 307.28, 307.18, 307.14
	BED LEVEL (B.L) m	303.00, 302.90, 302.80, 302.70, 302.60, 302.56
	CANAL SLOPE	1/10000; ASH SHOREA INVERTED SYPHON
NATURAL GROUND LEVEL (N.G.L) m		304.70, 310.70, 304.70, 309.00, 310.60, 308.20, 305.70, 304.80, 308.60, 309.30, 307.90, 304.60, 303.40, 306.30, 306.10, 308.50, 308.25, 308.00, 307.40, 306.80, 303.70, 300.90, 296.80, 293.10, 299.20, 301.80, 300.90, 297.50, 293.90, 296.70, 298.70, 304.60, 306.30, 305.70, 304.20, 304.30, 303.80, 303.50, 302.40, 301.40, 297.90, 296.00, 297.60, 299.00, 297.50, 297.00, 301.00, 298.80, 303.00, 302.00, 300.00, 302.90, 299.70, 296.20, 296.00
ADDITIONAL DISTANCE (m)		15.000, 100, 200, 300, 400, 500, 600, 620, 700, 800, 900, 16.000, 40, 100, 200, 300, 400, 500, 600, 700, 800, 850, 900, 17.000, 100, 200, 250, 300, 400, 500, 600, 700, 800, 900, 18.000, 100, 200, 300, 400, 410, 500, 600, 700, 710, 800, 850, 900, 19.000, 100, 200, 300, 400, 500
BLOCK DISTANCE (m)		500.00, 500.00, 500.00, 500.00, 500.00, 500.00, 500.00, 500.00, 500.00
SURVEY POINT		No.15, No.16, No.17, No.18, No.19
CURVE		IP17, IP18, IP19, IP20

GENERAL NOTES

- CHAINGE
- WADI
- DIVERSION CHANNEL
- OPEN CANAL
- CROSS REGULATOR
- SPILLWAY REGULATOR
- SPILLWAY
- CROSS CULVERT
- SYPHON
- TUNNEL
- RAILWAY CROSSING
- VEHICLE BRIDGE
- OIL PIPE CROSSING
- PUMP STATION
- FOOT BRIDGE
- AQUEDUCT

THE STUDY ON
SOUTH JAZIRA IRRIGATION PROJECT
IN REPUBLIC OF IRAQ

SCENARIO_2 : 60m3/s

FEEDER CANAL
PLAN AND PROFILE (15.0km-19.5km)

SCALE V 1 : 200 H 1 : 10000 | ISSUE DATE : JULY 2011

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
SANYU CONSULTANTS INC. JAPAN

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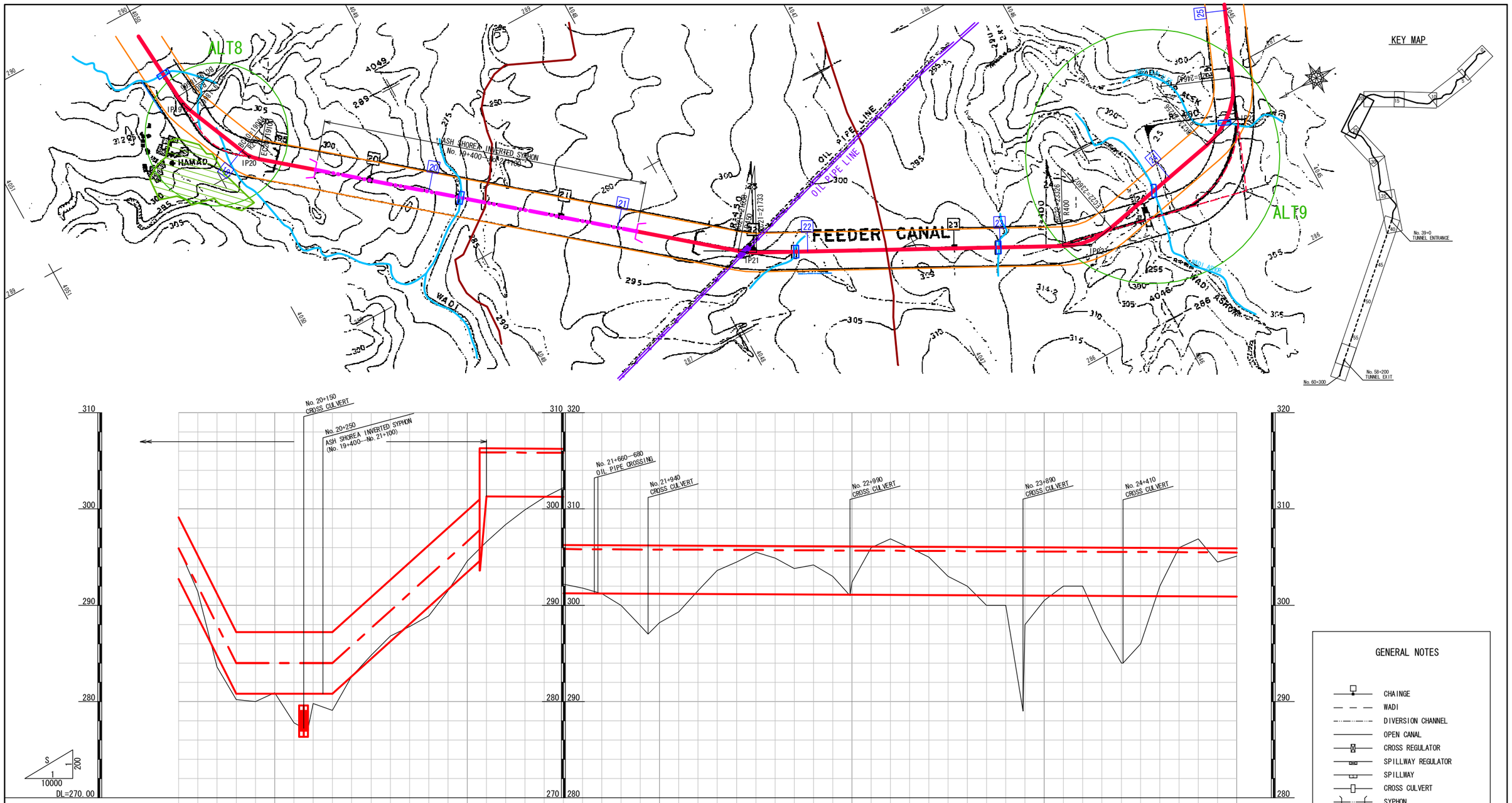

PLAN	WATER SURFACE LEVEL (W.S.L) m	305.88 (No. 20+250); 305.79 (No. 21+660); 305.69 (No. 22+990); 305.59 (No. 23+890); 305.49 (No. 25+000)
	BED LEVEL (B.L) m	301.30 (No. 20+250); 301.21 (No. 21+660); 301.11 (No. 22+990); 301.01 (No. 23+890); 300.91 (No. 25+000)
	CANAL SLOPE	ASH SHOREA INVERTED SYPHON; 1/10000
NATURAL GROUND LEVEL (N.G.L) m		296.00, 291.40, 283.60, 280.20, 280.00, 280.90, 277.80, 277.00, 279.80, 279.10, 282.60, 284.60, 286.80, 287.80, 288.90, 291.50, 294.60, 296.60, 298.40, 299.90, 301.20, 302.20, 301.80, 301.20, 300.00, 297.90, 297.00, 296.20, 299.30, 301.50, 303.60, 304.50, 305.50, 304.90, 303.80, 304.20, 303.00, 302.40, 301.00, 306.00, 306.90, 306.00, 305.00, 303.00, 302.00, 300.00, 300.00, 298.00, 296.00, 300.50, 302.00, 302.00, 297.50, 294.00, 296.00, 302.00, 306.00, 306.90, 304.50, 305.10
ADDITIONAL DISTANCE (m)		19.500, 600, 700, 800, 900, 20.000, 100, 170, 200, 300, 400, 500, 600, 700, 800, 900, 21.000, 100, 200, 300, 400, 500, 600, 700, 800, 900, 940, 22.000, 100, 200, 300, 400, 500, 600, 700, 800, 900, 23.000, 100, 200, 300, 400, 500, 600, 700, 800, 900, 24.000, 100, 200, 300, 400, 410, 500, 600, 700, 800, 900, 25.000
BLOCK DISTANCE (m)		500.00; 500.00 (No. 20); 500.00; 500.00 (No. 21); 500.00; 500.00; 500.00 (No. 22); 500.00; 500.00 (No. 23); 500.00; 500.00 (No. 24); 500.00; 500.00 (No. 25)
SURVEY POINT		No. 20; No. 21; No. 22; No. 23; No. 24; No. 25
CURVE		IP21; IP22; IP23

GENERAL NOTES

- CHAINGE
- WADI
- DIVERSION CHANNEL
- OPEN CANAL
- CROSS REGULATOR
- SPILLWAY REGULATOR
- SPILLWAY
- CROSS CULVERT
- SYPHON
- TUNNEL
- RAILWAY CROSSING
- VEHICLE BRIDGE
- OIL PIPE CROSSING
- PUMP STATION
- FOOT BRIDGE
- AQUEDUCT

THE STUDY ON
SOUTH JAZIRA IRRIGATION PROJECT
IN REPUBLIC OF IRAQ

SCENARIO_2 : 60m3/s

FEEDER CANAL
PLAN AND PROFILE (19.5km-25.0km)

SCALE V 1 : 200 H 1 : 10000 | ISSUE DATE : JULY 2011

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
SANYU CONSULTANTS INC. JAPAN

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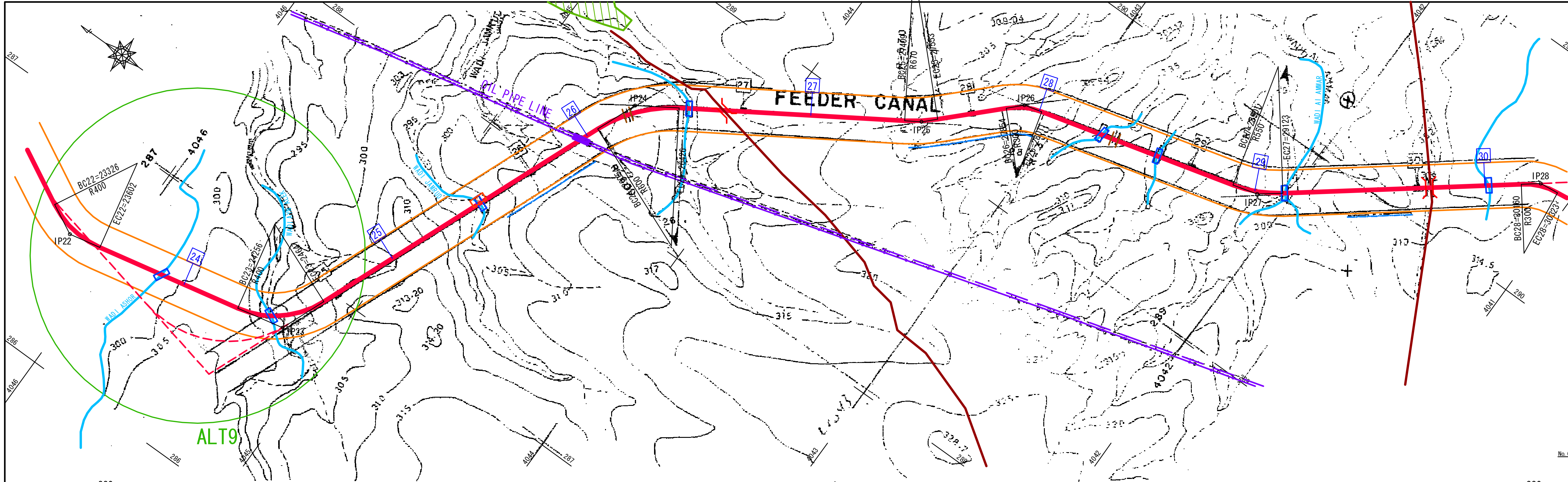

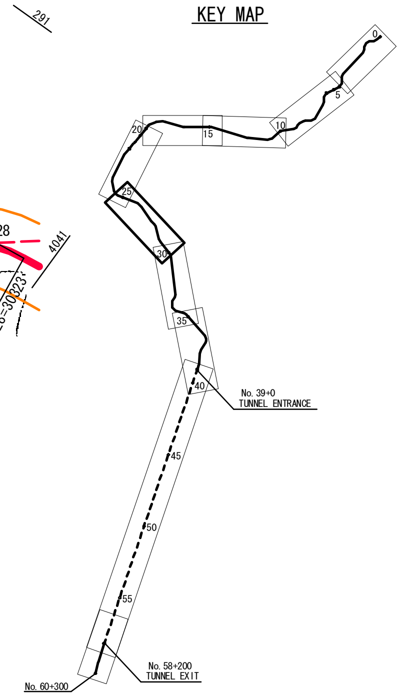

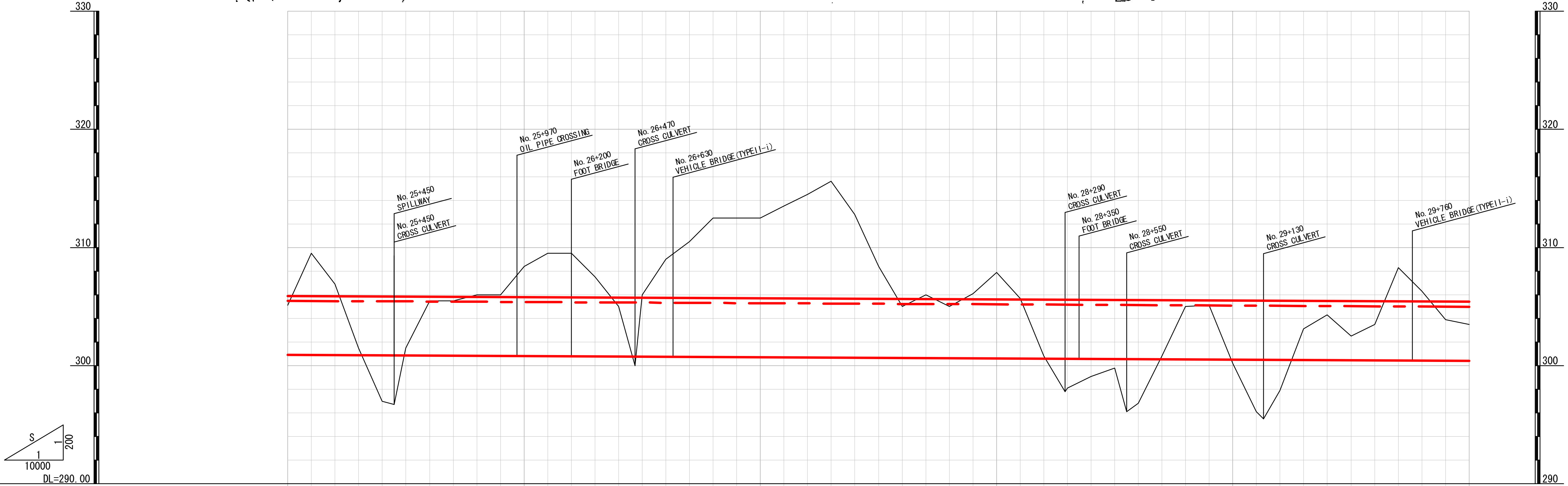

ADDITIONAL DISTANCE (m)	NATURAL GROUND LEVEL (N.G.L) m	WATER SURFACE LEVEL (W.S.L) m	BED LEVEL (B.L) m	BLOCK DISTANCE (m)	SURVEY POINT
25,000	305.10	305.49	300.91	500.00	No.25
100	309.50				
200	306.90				
300	301.50				
400	297.00				
450	296.70				
500	301.50			500.00	
600	305.50				
700	305.50				
800	306.00				
900	306.00				
26,000	308.40	305.39	300.81	500.00	No.26
100	309.50				
200	309.50				
300	307.50				
400	305.00				
470	300.00				
500	306.00			500.00	
600	309.00				
700	310.50				
800	312.50				
900	312.50				
27,000	312.50	305.29	300.71	500.00	No.27
100	313.50				
200	314.50				
300	315.60				
400	312.80				
500	308.40			500.00	
600	305.00				
700	306.00				
800	305.00				
900	306.10				
28,000	307.90	305.19	300.61	500.00	No.28
100	305.70				
200	300.80				
290	297.80				
300	298.10				
400	299.10				
500	299.80			500.00	
550	296.10				
600	296.80				
700	300.80				
800	305.00				
900	305.10				
29,000	300.20	305.09	300.51	500.00	No.29
100	296.10				
130	295.50				
200	297.90				
300	303.10				
400	304.30				
500	302.50			500.00	
600	303.50				
700	308.30				
800	306.30				
900	303.90				
30,000	303.50	304.99	300.41	500.00	No.30

PLAN

CANAL SLOPE: 1/10000

CURVE: IP24, IP25, IP26, IP27

GENERAL NOTES

- CHAINGE
- WADI
- DIVERSION CHANNEL
- OPEN CANAL
- CROSS REGULATOR
- SPILLWAY REGULATOR
- SPILLWAY
- CROSS CULVERT
- SYPHON
- TUNNEL
- RAILWAY CROSSING
- VEHICLE BRIDGE
- OIL PIPE CROSSING
- PUMP STATION
- FOOT BRIDGE
- AQUEDUCT

THE STUDY ON
SOUTH JAZIRA IRRIGATION PROJECT
IN REPUBLIC OF IRAQ

SCENARIO_2 : 60m3/s

FEEDER CANAL
PLAN AND PROFILE (25.0km-30.0km)

SCALE V 1 : 200 H 1 : 10000 | ISSUE DATE : JULY 2011

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
SANYU CONSULTANTS INC. JAPAN

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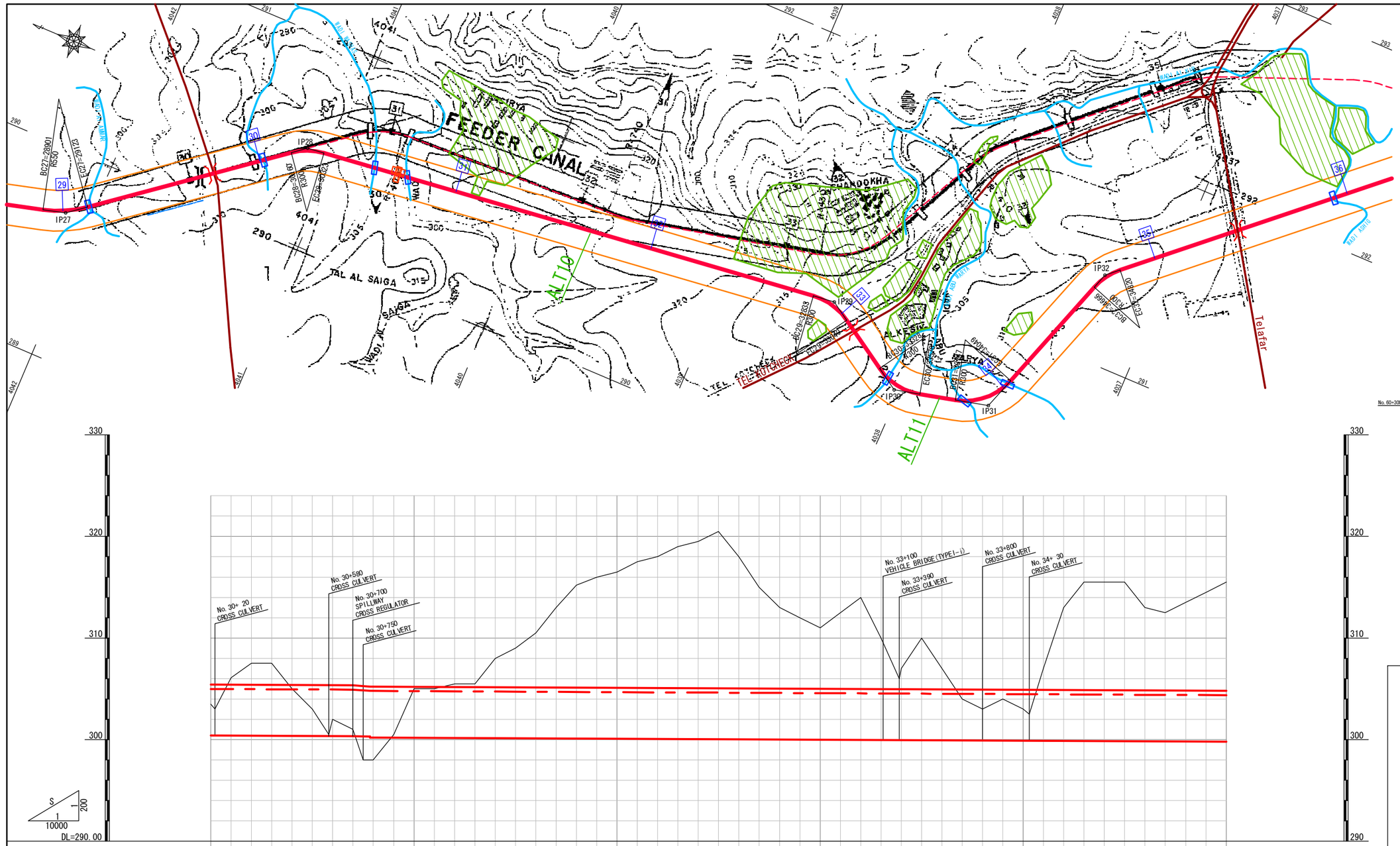

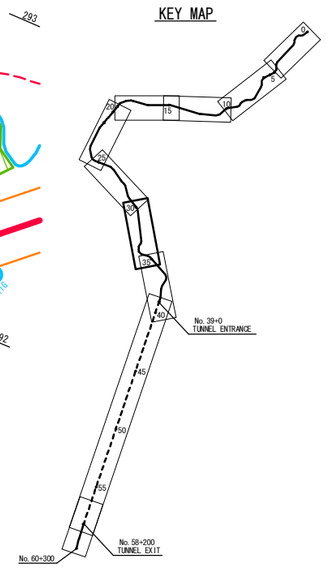

GENERAL NOTES

- CHAINGE
- WADI
- DIVERSION CHANNEL
- OPEN CANAL
- CROSS REGULATOR
- SPILLWAY REGULATOR
- SPILLWAY
- CROSS CULVERT
- SYPHON
- TUNNEL
- RAILWAY CROSSING
- VEHICLE BRIDGE
- OIL PIPE CROSSING
- PUMP STATION
- FOOT BRIDGE
- AQUEDUCT

PLAN

WATER SURFACE LEVEL (W.S.L) m	304.99	
	304.80	
	304.78	
	304.68	
	304.58	
	304.48	
	304.38	
BED LEVEL (B.L) m	300.41	
	300.34	
	300.30	
	300.22	
	300.20	
	300.10	
	300.00	
	299.90	
	299.80	
CANAL SLOPE	1/10000	
	1/2000	
	1/10000	
NATURAL GROUND LEVEL (N.G.L) m	303.50	
	303.00	
	306.10	
	307.50	
	307.50	
	305.00	
	303.00	
	302.50	
	302.00	
	301.00	
	298.00	
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	319.50	
	320.50	
	318.00	
	315.00	
	313.00	
	312.00	
	311.00	
	312.50	
	314.00	
	310.00	
	310.00	
	310.00	
	307.00	
	307.00	
	304.00	
	303.00	
	304.00	
	303.00	
	302.50	
	307.00	
	313.00	
	315.50	
	315.50	
	315.50	
	313.00	
	312.50	
	313.50	
	314.50	
	315.50	
ADDITIONAL DISTANCE (m)	30.000	
	20	
	100	
	200	
	300	
	400	
	500	
	600	
	700	
	750	
	784	
	800	
	900	
	31.000	
	100	
	200	
	300	
	400	
	500	
	600	
	700	
	800	
	900	
	32.000	
	100	
	200	
	300	
	400	
	500	
	600	
	700	
	800	
	900	
	33.000	
	100	
	200	
	300	
	380	
	400	
	500	
	600	
	700	
	800	
	900	
	34.000	
	30	
	100	
	200	
	300	
	400	
	500	
	600	
	700	
	800	
	900	
	35.000	
BLOCK DISTANCE (m)	500.00	
	500.00	
	500.00	
	500.00	
	500.00	
	500.00	
	500.00	
	500.00	
	500.00	
	500.00	
	500.00	
	500.00	
SURVEY POINT	No.30	
	No.31	
	No.32	
	No.33	
	No.34	
	No.35	
CURVE	IP28	
	IP29	
	IP30	
	IP31	
	IP32	

THE STUDY ON
SOUTH JAZIRA IRRIGATION PROJECT
IN REPUBLIC OF IRAQ

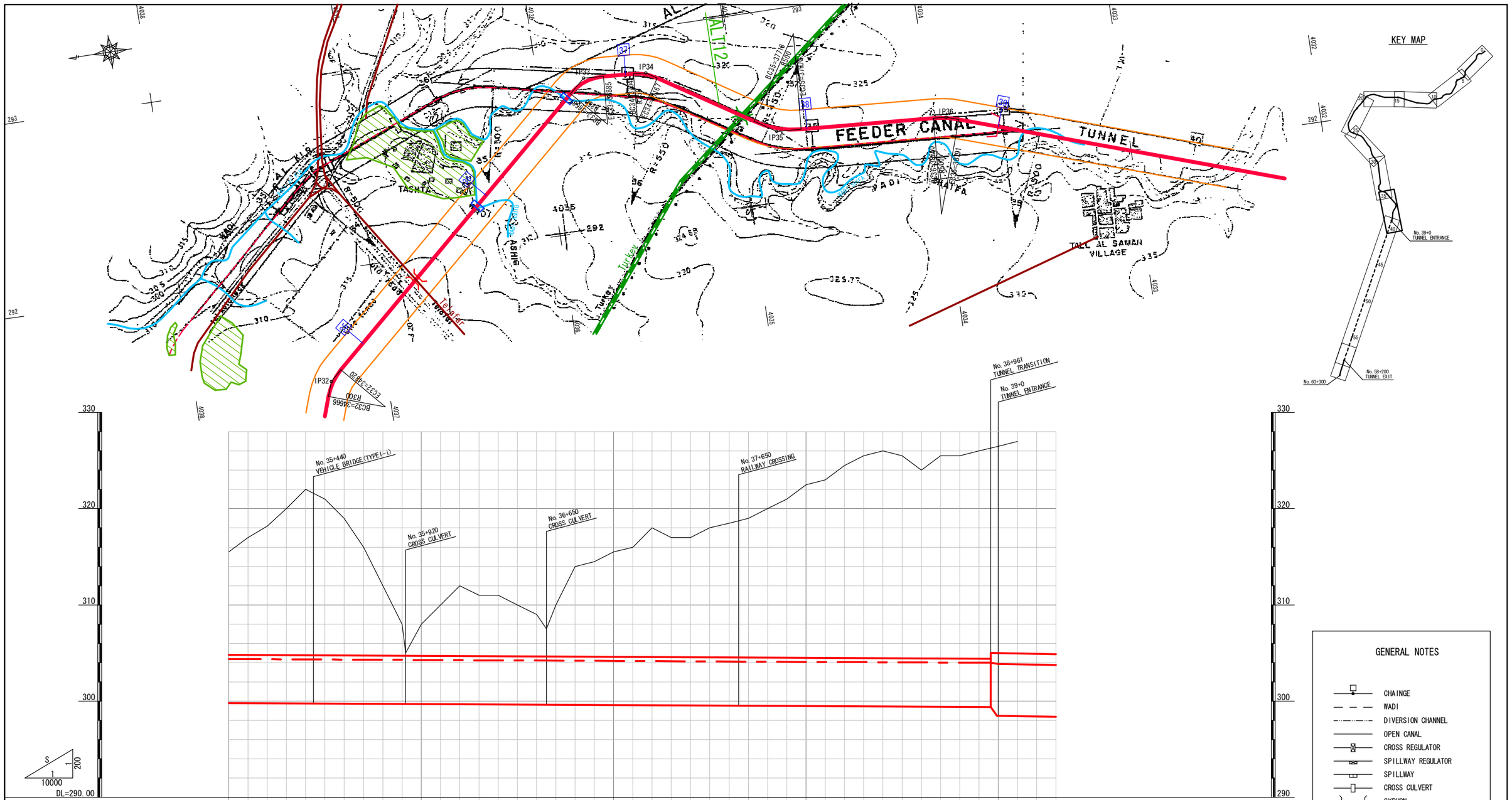
SCENARIO_2 : 60m3/s

FEEDER CANAL
PLAN AND PROFILE (30.0km-35.0km)

SCALE V 1 : 200 H 1 : 10000 | ISSUE DATE : JULY 2011

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
SANYU CONSULTANTS INC. JAPAN

T - S2
8



PLAN	WATER SURFACE LEVEL (W.S.L) m	304.38, 304.28, 304.18, 304.08, 303.984, 303.846
	BED LEVEL (B.L) m	299.80, 299.70, 299.60, 299.50, 299.402, 299.486, 299.486
	CANAL SLOPE	1/10000; O.T. C.T. 1/3000
NATURAL GROUND LEVEL (N.G.L) m		315.50, 317.00, 318.20, 320.00, 322.00, 321.00, 319.00, 316.00, 312.00, 308.00, 305.00, 308.00, 310.00, 312.00, 311.00, 311.00, 310.00, 309.00, 307.50, 310.00, 314.00, 314.50, 315.50, 316.00, 318.00, 317.00, 317.00, 318.00, 318.50, 319.00, 320.00, 321.00, 322.50, 323.00, 324.50, 325.50, 326.00, 325.50, 324.00, 325.50, 325.50, 326.00, 326.50
ADDITIONAL DISTANCE (m)		35,000, 100, 200, 300, 400, 500, 600, 700, 800, 900, 920, 36,000, 100, 200, 300, 400, 500, 600, 650, 700, 800, 900, 37,000, 100, 200, 300, 400, 500, 600, 700, 800, 900, 38,000, 100, 200, 300, 400, 500, 600, 700, 800, 900, 961, 993, 39,000
BLOCK DISTANCE (m)		500.00, 500.00, 500.00, 500.00, 500.00, 500.00, 500.00, 500.00
SURVEY POINT		No.35, No.36, No.37, No.38, No.39
CURVE		IP33, IP34, IP35, IP36

GENERAL NOTES

- CHAINGE
- WADI
- DIVERSION CHANNEL
- OPEN CANAL
- CROSS REGULATOR
- SPILLWAY REGULATOR
- SPILLWAY
- CROSS CULVERT
- SYPHON
- TUNNEL
- RAILWAY CROSSING
- VEHICLE BRIDGE
- OIL PIPE CROSSING
- PUMP STATION
- FOOT BRIDGE
- AQUEDUCT

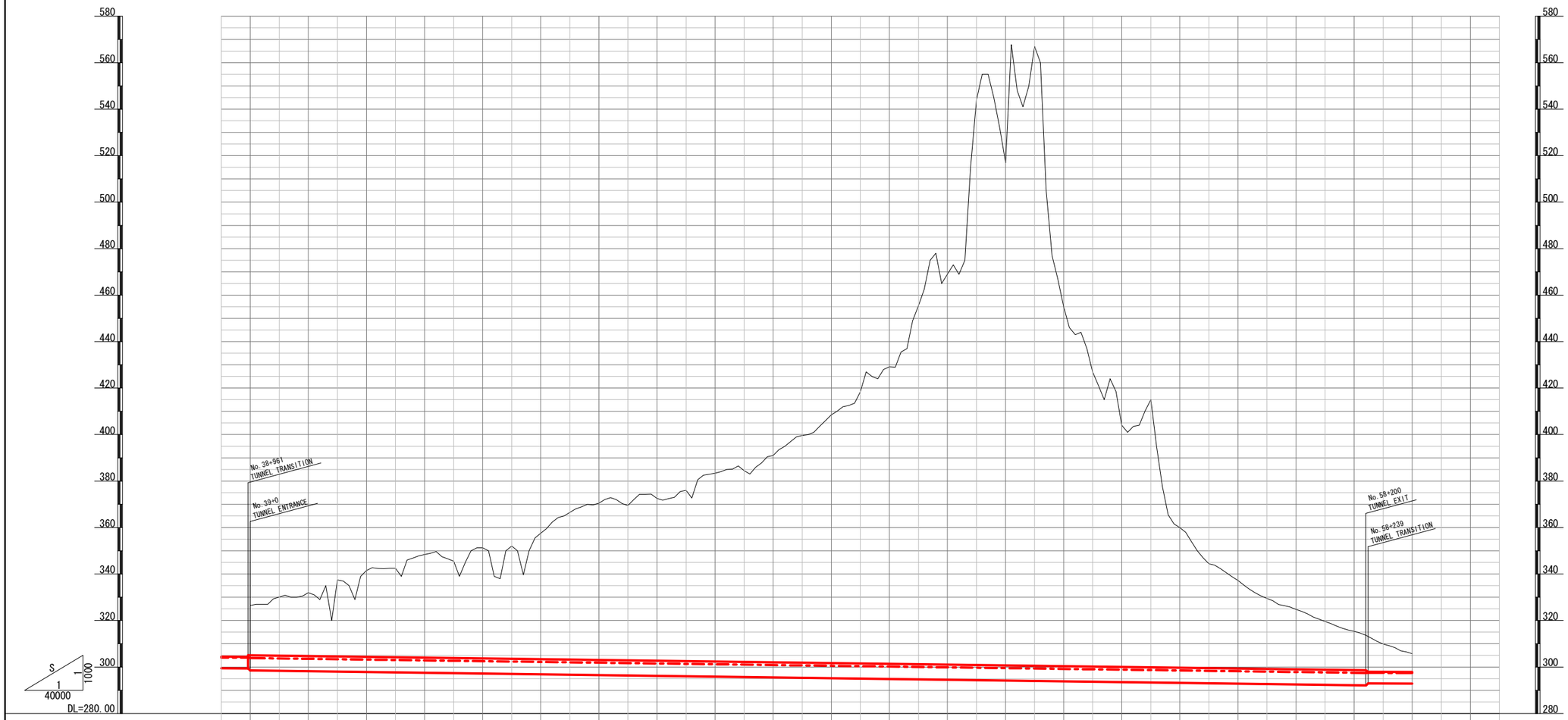
THE STUDY ON
SOUTH JAZIRA IRRIGATION PROJECT
IN REPUBLIC OF IRAQ

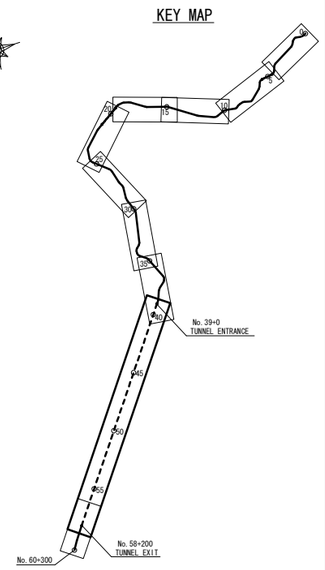
SCENARIO_2 : 60m3/s

FEEDER CANAL
PLAN AND PROFILE (35.0km-39.0km)

SCALE V 1 : 200 H 1 : 10000 | ISSUE DATE : JULY 2011

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) | T - S2
SANYU CONSULTANTS INC. JAPAN | 9





GENERAL NOTES

- CHAINGE
- WADI
- DIVERSION CHANNEL
- OPEN CANAL
- CROSS REGULATOR
- SPILLWAY REGULATOR
- SPILLWAY
- CROSS CULVERT
- SYPHON
- TUNNEL
- RAILWAY CROSSING
- VEHICLE BRIDGE
- OIL PIPE CROSSING
- PUMP STATION
- FOOT BRIDGE
- AQUEDUCT

PLAN

TUNNEL TYPE	TYPE 3 L=1,800m	TYPE 1 L=12,300m	TYPE 2 L=1,900m	TYPE 3 L=3,200m

WATER SURFACE LEVEL (W.S.L) m	BED LEVEL (B.L) m
303.984	299.402
303.846	298.466
303.52	298.16
303.18	297.82
302.85	297.49
302.52	297.16
302.18	296.82
301.85	296.49
301.52	296.16
301.18	295.82
300.85	295.49
300.52	295.16
300.18	294.82
299.85	294.49
299.52	294.16
299.18	293.82
298.85	293.49
298.52	293.16
298.18	292.82
297.85	292.49
297.52	292.16
297.446	292.086
297.496	292.914

CANAL SLOPE: O.T. 1/10000 — C.T. — 1/3000 — C.T. — O.T. 1/10000

NATURAL GROUND LEVEL (N.G.L) m	ADDITIONAL DISTANCE (m)	BLOCK DISTANCE (m)	SURVEY POINT
326.50	38,961	0.00	No.39
330.10	39,000	500.00	
332.00	40,000	500.00	No.40
337.50	500	500.00	
341.50	41,000	500.00	No.41
342.50	500	500.00	
348.40	42,000	500.00	No.42
345.50	500	500.00	
351.30	43,000	500.00	No.43
352.00	500	500.00	
357.50	44,000	500.00	No.44
366.50	500	500.00	
370.50	45,000	500.00	No.45
369.50	500	500.00	
372.50	46,000	500.00	No.46
376.00	500	500.00	
383.40	47,000	500.00	No.47
384.50	500	500.00	
391.00	48,000	500.00	No.48
399.60	500	500.00	
408.50	49,000	500.00	No.49
418.30	500	500.00	
429.20	50,000	500.00	No.50
455.50	500	500.00	
469.00	51,000	500.00	No.51
544.00	500	500.00	
517.00	52,000	500.00	No.52
567.00	500	500.00	
455.00	53,000	500.00	No.53
427.00	500	500.00	
404.00	54,000	500.00	No.54
415.00	500	500.00	
360.00	55,000	500.00	No.55
344.40	500	500.00	
337.20	56,000	500.00	No.56
329.50	500	500.00	
324.80	57,000	500.00	No.57
319.60	500	500.00	
315.40	58,000	500.00	No.58
	200		
	58,271		
	239		

CURVE

THE STUDY ON
SOUTH JAZIRA IRRIGATION PROJECT
IN REPUBLIC OF IRAQ

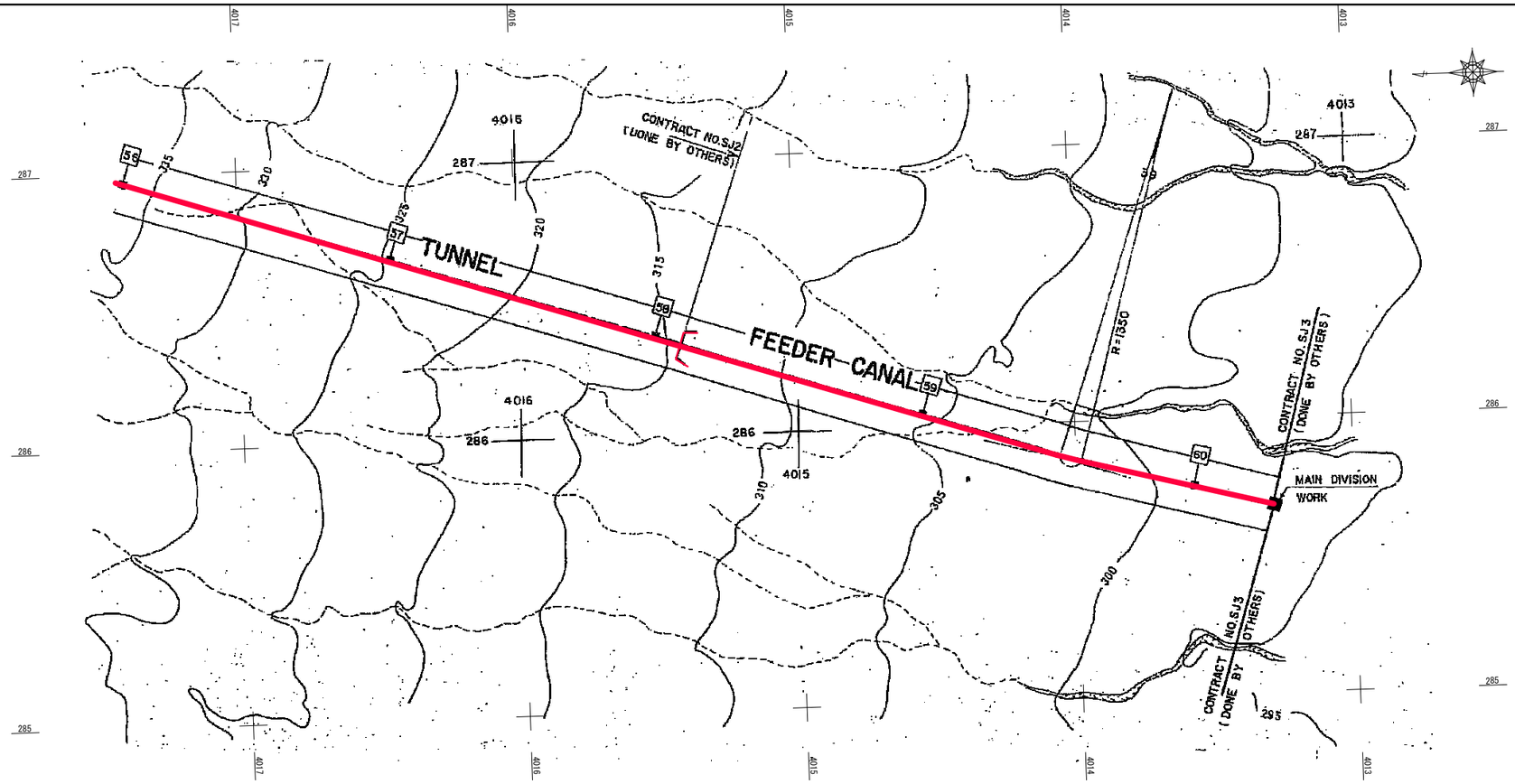
SCENARIO_2 : 60m3/s

TUNNEL PLAN AND LONGITUDINAL PROFILE
(39.0km-58.2km)

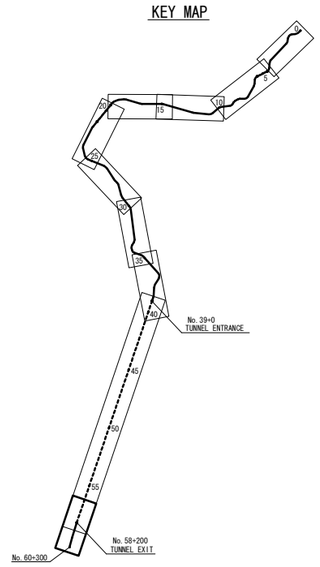
SCALE V 1 : 1000 H 1 : 40000 | ISSUE DATE : JULY 2011

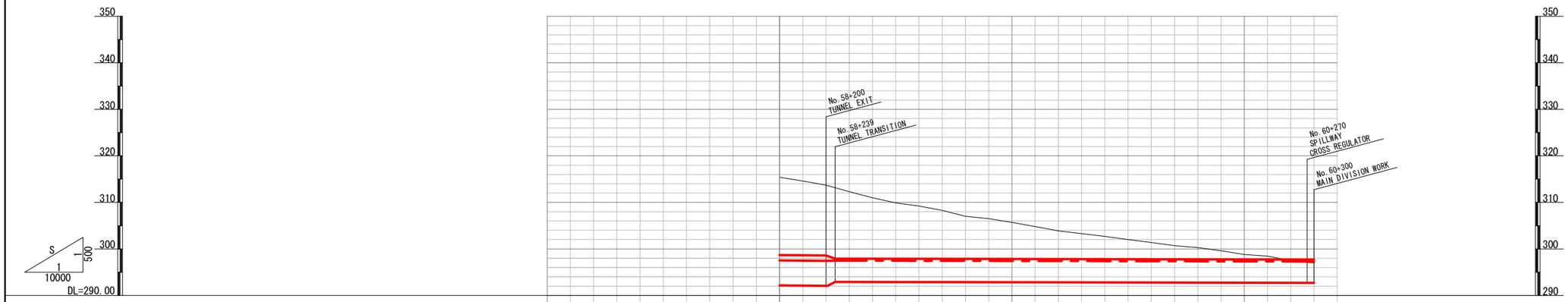
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
SANYU CONSULTANTS INC. JAPAN

T - S2
10



KEY MAP





PLAN	WATER SURFACE LEVEL (W.S.L) m	297.446, 297.496, 297.42, 297.32, 297.29
	BED LEVEL (B.L) m	292.086, 292.086, 292.914, 292.83, 292.73, 292.704
	CANAL SLOPE	1/3000 C.T. O.T. 1/10000
NATURAL GROUND LEVEL (N.G.L) m		313.70, 312.30, 311.00, 309.90, 309.20, 308.30, 307.00, 306.50, 305.70, 304.80, 303.90, 303.30, 302.70, 302.00, 301.40, 300.70, 300.30, 299.60, 298.80, 298.48, 297.50, 297.00
ADDITIONAL DISTANCE (m)		200, 207, 239, 300, 400, 500, 600, 700, 800, 900, 59.000, 100, 200, 300, 400, 500, 600, 700, 800, 900, 60.000, 100, 200, 300
BLOCK DISTANCE (m)		500.00, 500.00, 500.00, 500.00, 300.00
SURVEY POINT		No.59, No.60
CURVE		

GENERAL NOTES

- CHAINGE
- WADI
- DIVERSION CHANNEL
- OPEN CANAL
- CROSS REGULATOR
- SPILLWAY REGULATOR
- SPILLWAY
- CROSS CULVERT
- SYPHON
- TUNNEL
- RAILWAY CROSSING
- VEHICLE BRIDGE
- OIL PIPE CROSSING
- PUMP STATION
- FOOT BRIDGE
- AQUEDUCT

THE STUDY ON
SOUTH JAZIRA IRRIGATION PROJECT
IN REPUBLIC OF IRAQ

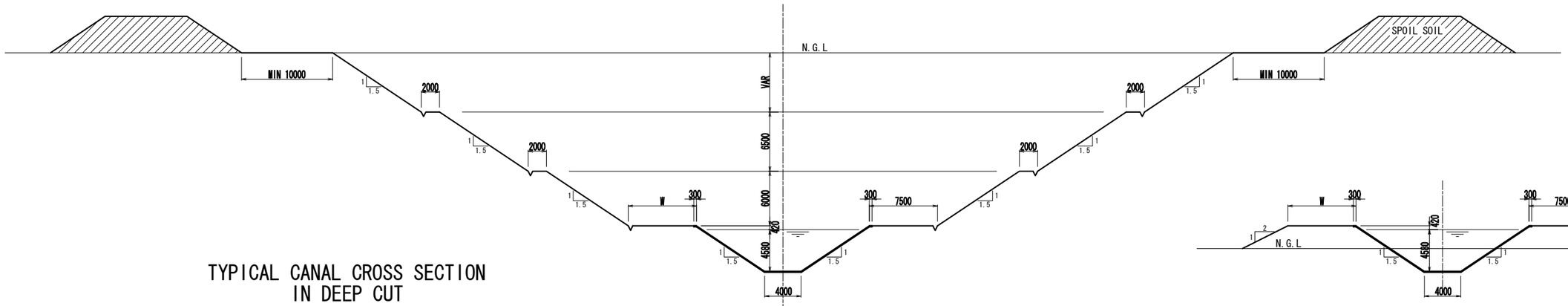
SCENARIO_2 : 60m3/s

FEEDER CANAL
PLAN AND PROFILE (58.2km-60.3km)

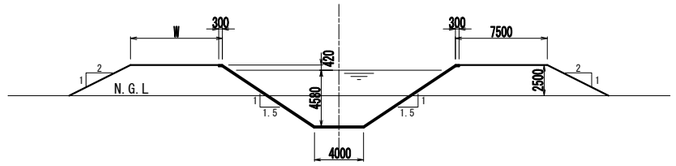
SCALE V 1 : 500 H 1 : 10000 | ISSUE DATE : JULY 2011

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
SANYU CONSULTANTS INC. JAPAN

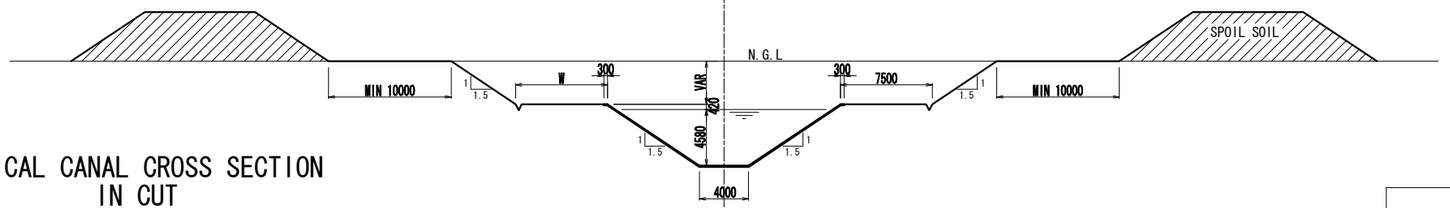
T - S2
11



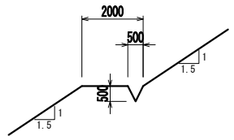
TYPICAL CANAL CROSS SECTION
IN DEEP CUT



TYPICAL CANAL CROSS SECTION
IN CUT & FILL

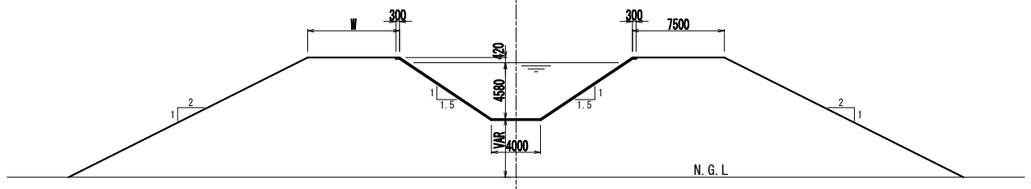


TYPICAL CANAL CROSS SECTION
IN CUT

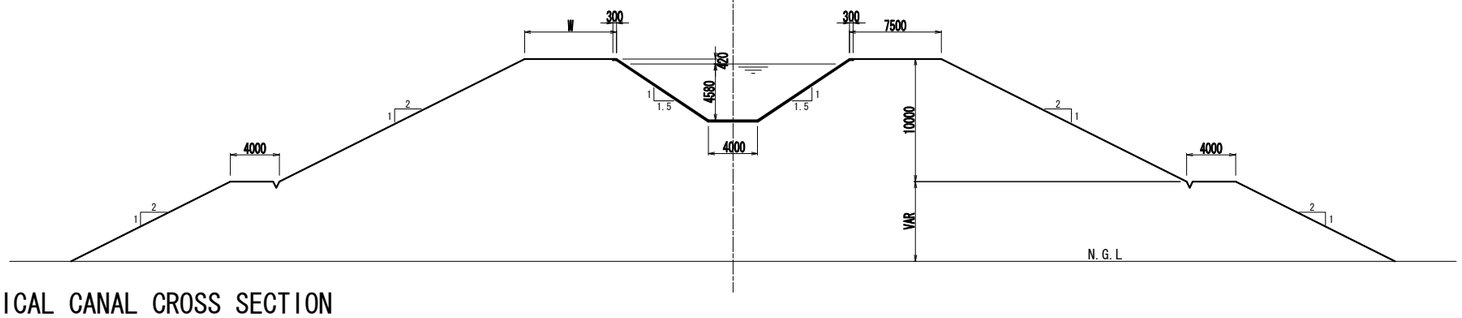


	HYDRAULIC DATA					GEOMETRICAL DATA		
TYPE	Q m^3/sec	S m/m	n	V m/sec	F	B m	h m	C.LINED FREE BOARD
SCENARIO 2	60	0.0001	0.015	1.204	0.18	4.00	4.58	0.42

S: SLOPE OF BOTTOM OF CANALS
n: MANNING COEFFICIENT
F: FROUDE NUMBER
V: DESIGN VELOCITY
Q: DESIGN DISCHARGE
W: WIDTH OF ROAD



TYPICAL CANAL CROSS SECTION
IN FILL



TYPICAL CANAL CROSS SECTION
IN HIGH FILL

THE STUDY ON
SOUTH JAZIRA IRRIGATION PROJECT
IN REPUBLIC OF IRAQ

SCENARIO_2 : 60m3/s

FEEDER CANAL
TYPICAL CROSS SECTIONS (OPEN CANAL)

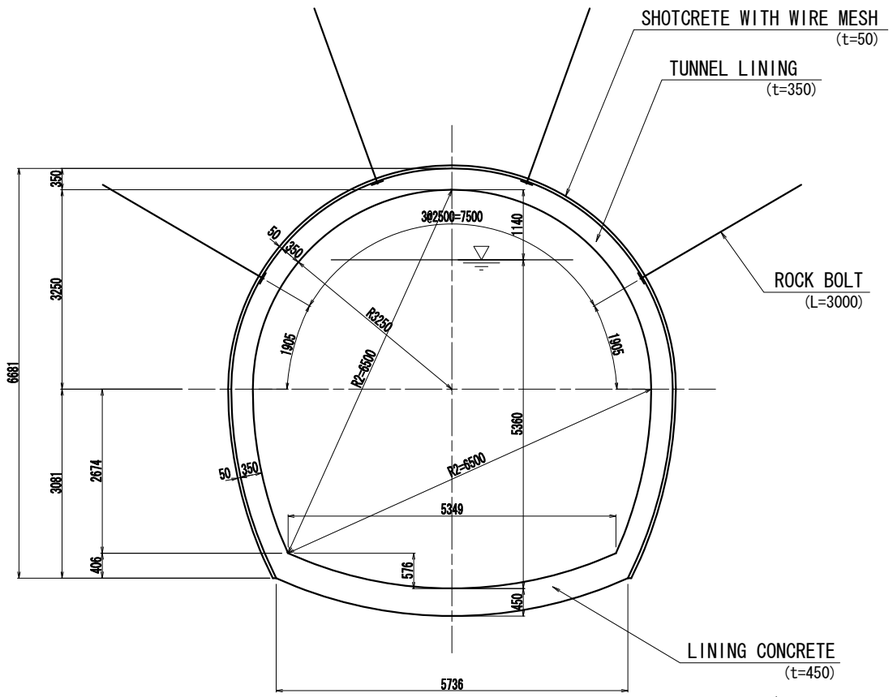
SCALE 1 : 250 | ISSUE DATE : JULY 2011

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
SANYU CONSULTANTS INC. JAPAN

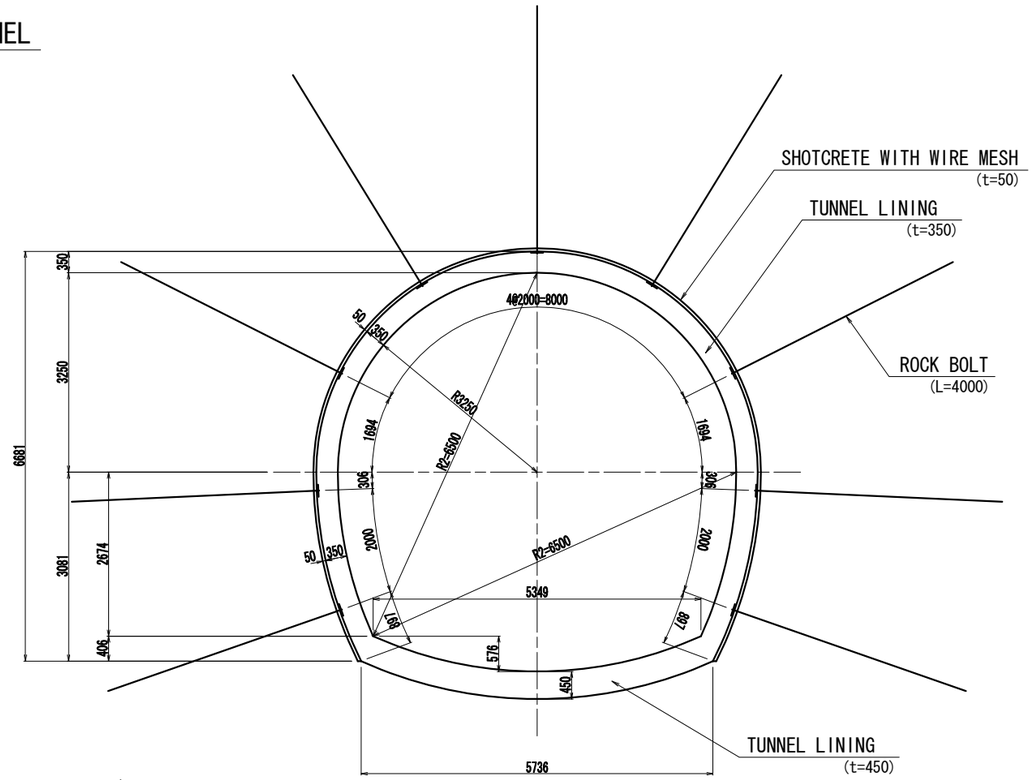
T - S2
12

TYPICAL TUNNEL

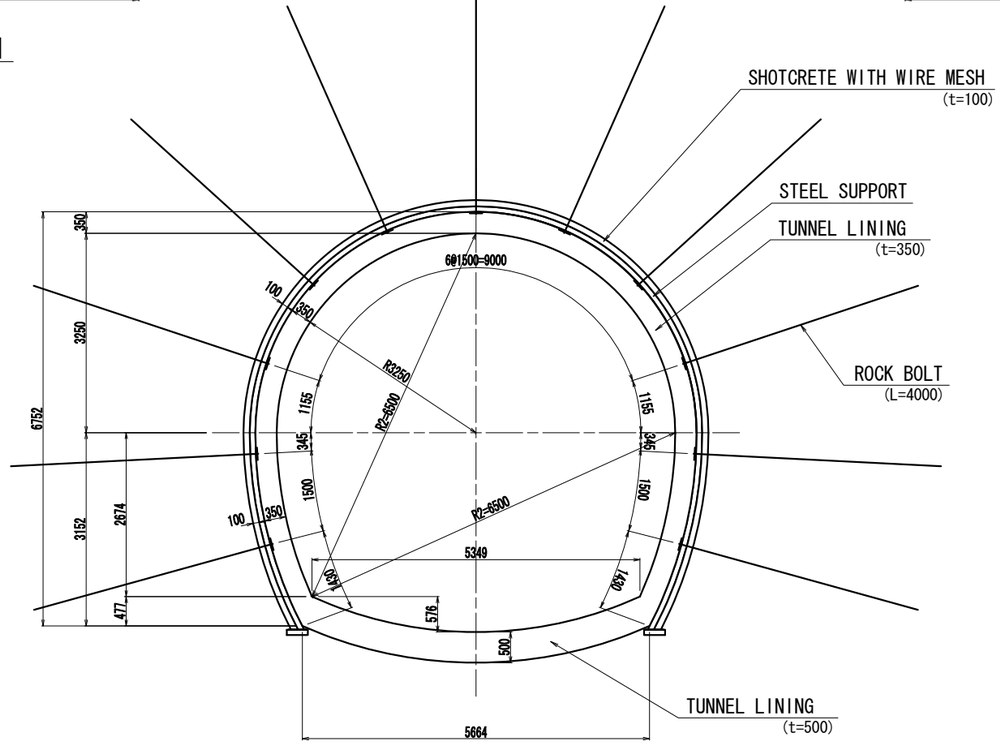
SCALE 1:50



TYPE 1

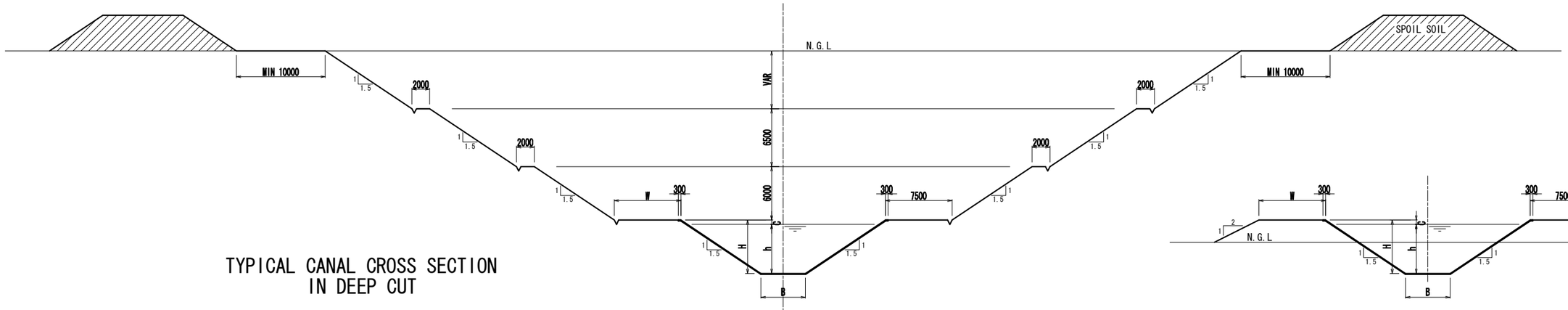


TYPE 2

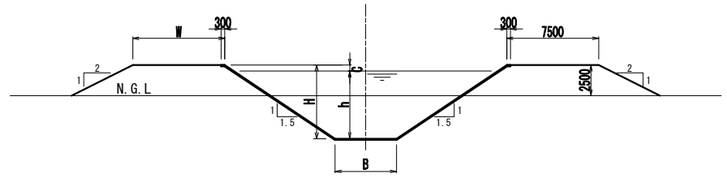


TYPE 3

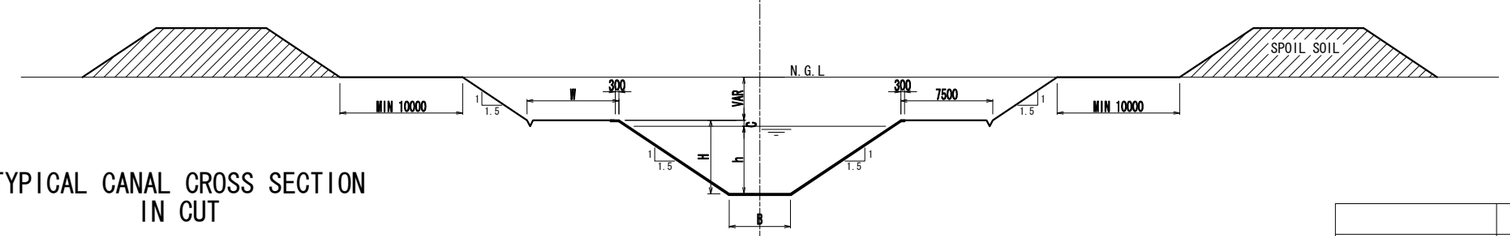
THE STUDY ON SOUTH JAZIRA IRRIGATION PROJECT IN REPUBLIC OF IRAQ	
SCENARIO_2 : 60m3/s FEEDER CANAL TYPICAL CROSS SECTIONS (TUNNEL)	
SCALE 1 : 50	ISSUE DATE : JULY 2011
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) SANYU CONSULTANTS INC. JAPAN	T - S2 13



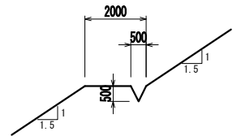
TYPICAL CANAL CROSS SECTION
IN DEEP CUT



TYPICAL CANAL CROSS SECTION
IN CUT & FILL

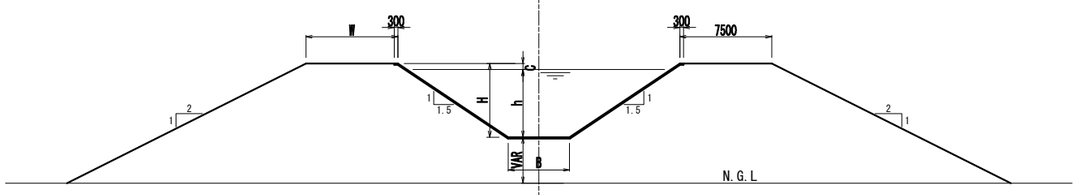


TYPICAL CANAL CROSS SECTION
IN CUT

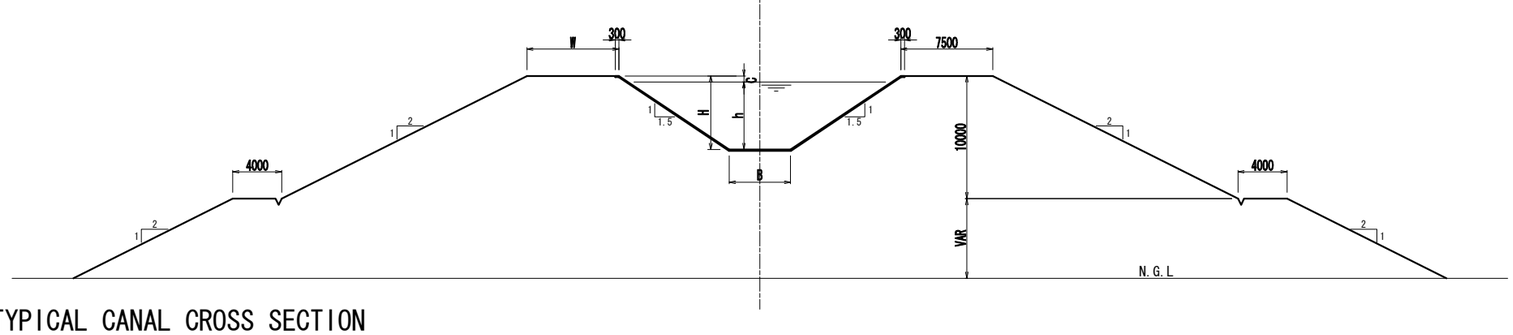


TYPE		HYDRAULIC DATA					GEOMETRICAL DATA			
		Q m^3/sec	S m/m	n	V m/sec	F	B m	h m	C.LINED FREE BOARD	H m
EAST MAIN CANAL	EMC_01	23	0.0005	0.015	1.729	0.37	2.50	2.26	0.34	2.60
	EMC_02	19	0.0005	0.015	1.647	0.37	2.50	2.06	0.34	2.40
	EMC_03	11	0.0005	0.015	1.431	0.36	2.40	1.60	0.30	1.90
	EMC_04	8	0.0005	0.015	1.328	0.34	1.70	1.52	0.28	1.80

S: SLOPE OF BOTTOM OF CANALS
n: MANNING COEFFICIENT
F: FROUDE NUMBER
V: DESIGN VELOCITY
Q: DESIGN DISCHARGE
W: WIDTH OF ROAD



TYPICAL CANAL CROSS SECTION
IN FILL



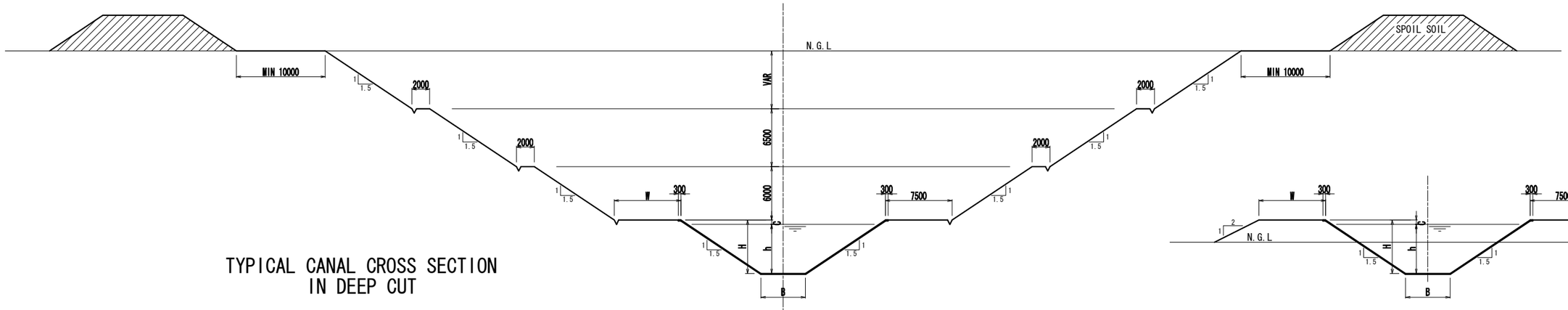
TYPICAL CANAL CROSS SECTION
IN HIGH FILL

THE STUDY ON
SOUTH JAZIRA IRRIGATION PROJECT
IN REPUBLIC OF IRAQ

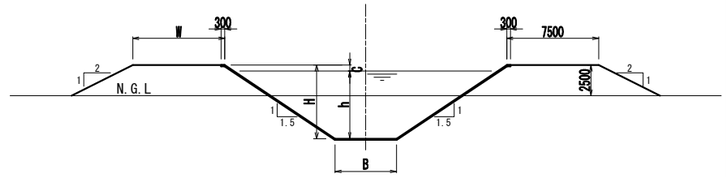
SCENARIO_2 : 60m3/s
EAST MAIN CANAL
TYPICAL CROSS SECTIONS (OPEN CANAL)

SCALE 1 : 250 | ISSUE DATE : JULY 2011

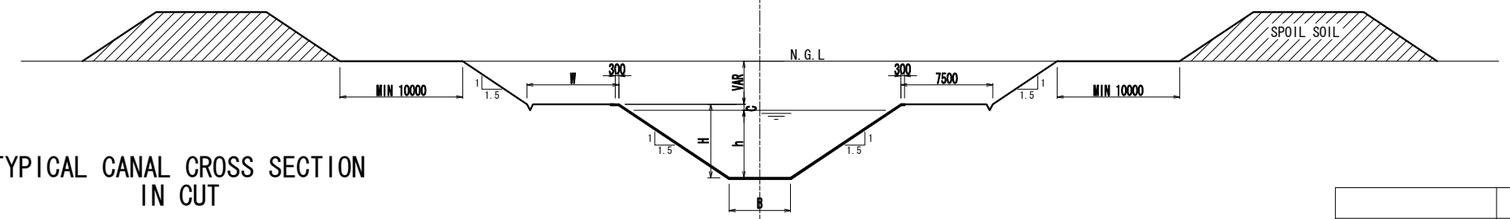
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) | T - S2
SANYU CONSULTANTS INC. JAPAN | 14



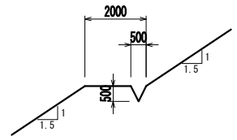
TYPICAL CANAL CROSS SECTION
IN DEEP CUT



TYPICAL CANAL CROSS SECTION
IN CUT & FILL

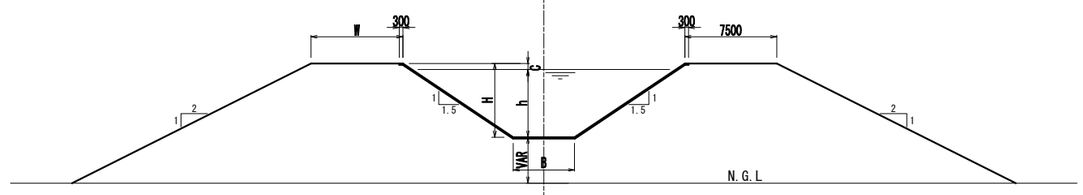


TYPICAL CANAL CROSS SECTION
IN CUT

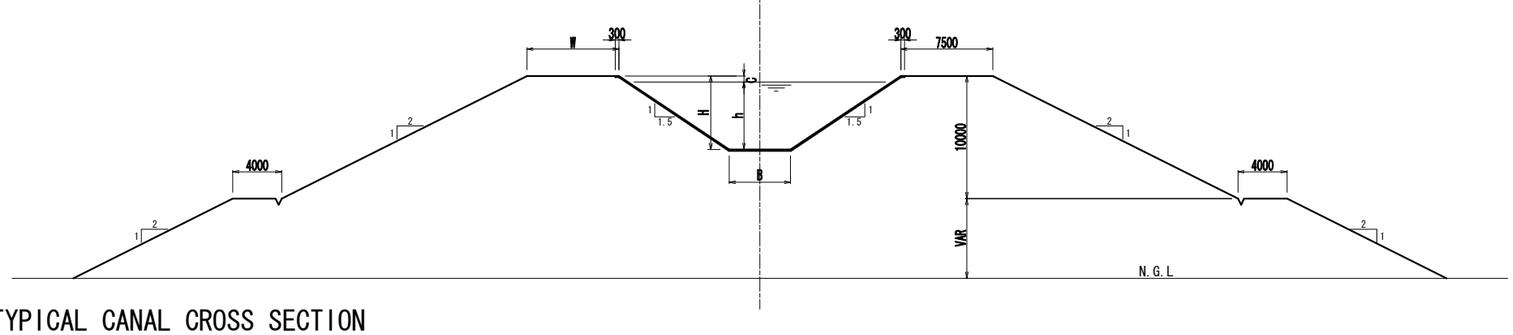


TYPE		HYDRAULIC DATA					GEOMETRICAL DATA			
		Q m^3/sec	S m/m	n	V m/sec	F	B m	h m	C.LINED FREE BOARD	H m
WEST MAIN CANAL	WMC_01	36	0.00005	0.015	0.804	0.14	7.30	3.55	0.35	3.90
	WMC_02	32	0.00005	0.015	0.782	0.13	6.70	3.45	0.35	3.80
	WMC_03	26	0.00005	0.015	0.742	0.13	6.30	3.17	0.33	3.50
	WMC_04	17	0.00005	0.015	0.664	0.13	6.00	2.59	0.31	2.90
	WMC_05	7	0.00005	0.015	0.538	0.12	3.40	2.02	0.28	2.30
	WMC_06	4	0.00005	0.015	0.470	0.11	2.30	1.74	0.26	2.00

S: SLOPE OF BOTTOM OF CANALS
n: MANNING COEFFICIENT
F: FROUDE NUMBER
V: DESIGN VELOCITY
Q: DESIGN DISCHARGE
W: WIDTH OF ROAD



TYPICAL CANAL CROSS SECTION
IN FILL



TYPICAL CANAL CROSS SECTION
IN HIGH FILL

THE STUDY ON
SOUTH JAZIRA IRRIGATION PROJECT
IN REPUBLIC OF IRAQ

SCENARIO_2 : 60m3/s
WEST MAIN CANAL
TYPICAL CROSS SECTIONS (OPEN CANAL)

SCALE 1 : 250 | ISSUE DATE : JULY 2011

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) | T - S2
SANYU CONSULTANTS INC. JAPAN | 15