NIPPON KOEI CO.,LTD.

QUANTITY CALCULATION COVER SHEET

Project	Detailed Design on Port Reactivation Project in La Union Province	**Project Code**	JC1N004/2N001
Work Section Title	Socket block	**Pay Item No. (BOQ)**	2C -1803
Quantity Item	Concrete for cover	**Unit**	m^3

Calculation Procedure Applied

Volume of concrete for cover was computed.

References. Calculation Base and Revisions

References : Tender Drawings :

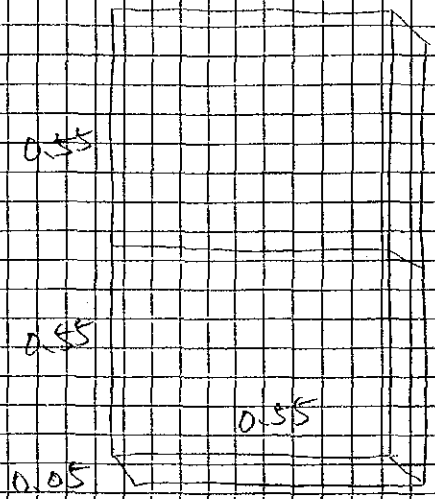
LVI - Q-N - 01 - 059 Detail of Anchor - Jack up Plate & Socket Block.

(Same as Sand (Socket Block))

Rev	Prepared by	Prepared Date	No. of Pages	Checked by	Checked Date	Reviewed by	Reviewed Date	Superseded by Calc No.
0	Karla Garcia			Mr. Tsuma		Mr. Ando		
1								
2								
3								

Project	Detailed Design on Port Reactivation Project in La Union	Calc. File No.	
Section	Socket block	Calc. Index No.	
Subject	Concrete for cover	Page No.	Rev.

References/ Notes



$V_1 = 1.1 \times 0.55 \times 0.05$

$\simeq 0.03\ m^3$

$N = 4$

$V = 0.03 \times 4 = 0.12\ m^3$

	Prepared by	Checked by
	/ /200	/ /200

NIPPON KOEI CO.,LTD.

QUANTITY CALCULATION COVER SHEET

Project	Detailed Design on Port Reactivation Project in La Union Province	**Project Code**	JC1N004/2N001
Work Section Title	Socket block	**Pay Item No. (BOQ)**	2C-1804
Quantity Item	Angle	**Unit**	kg

Calculation Procedure Applied

Weight of angle for Soket block hole was computed by multiplying unit weight by length.

References, Calculation Base and Revisions

References: Tender Drawings:

DW-SW-01-059 Detail of Anchor – Tack up Plate & Socket Block

(Same as Sond (Socket Block))

Rev	Prepared		No. of Pages	Checked		Reviewed		Superseded by Calc No.
	by	Date		by	Date	by	Date	
0	Karla Gorra			Mr. Inuma		Mr. Ando		
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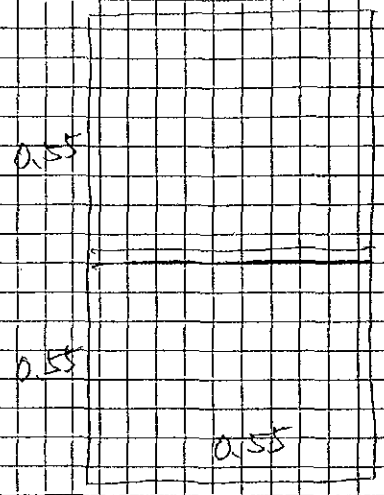
Project	Detailed Design on Port Reactivation Project in La Union	Calc. File No.	
Section	Socket block	Calc. Index No.	
Subject	Angle	Page No.	Rev.

References/ Notes



$L_1 = 0.55 \times 8 = 4.4\,m$

L50×50×6 4.43 kg/m

$W_1 = 4.43 \times 4.4 = 19.5\,kg$

$N = 4$

$W = 19.5 \times 4 = 78.0\,kg$

	Prepared by		Checked by	
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FN: Calculation_Sheet

NIPPON KOEI CO.,LTD.

QUANTITY CALCULATION COVER SHEET

Project	Detailed Design on Port Reactivation Project in La Union Province	**Project Code**	JC1N004/2N001
Work Section Title	Socket block	**Pay Item No. (BOQ)**	2C-1805
Quantity Item	Re-Bar	**Unit**	kg

Calculation Procedure Applied

Weight of re-bar was computed by multiplying unit weight by length.

References, Calculation Base and Revisions

References: Tender Drawings:

DW-QW-01-059 Detail of Anchor - Jack up Plate & Socket Block.

(Same as Sond (Socket Block))

Rev	Prepared		No. of Pages	Checked		Reviewed		Superseded by Calc No.
	by	Date		by	Date	by	Date	
0	Karla Garcia			Mr. Tsuma		Mr. Ando		
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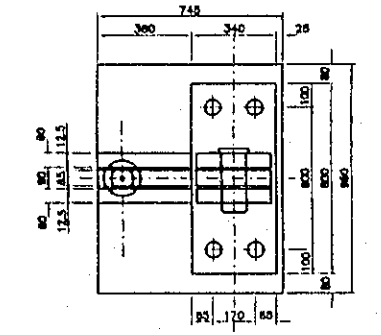
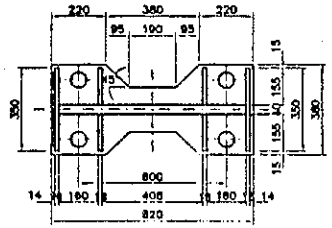
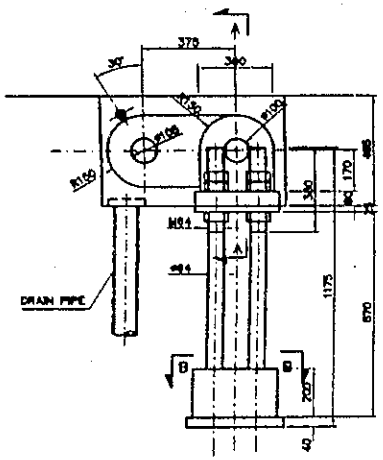
FN : Calculation_Cover_Sheet_020504_seg cover

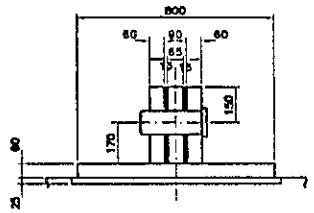
DETAIL OF ANCHORING FRAME
SCALE 1:20





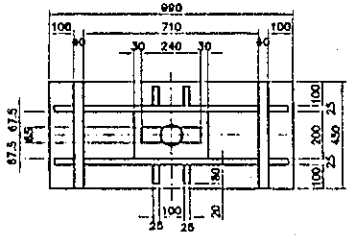
SECTION B–B



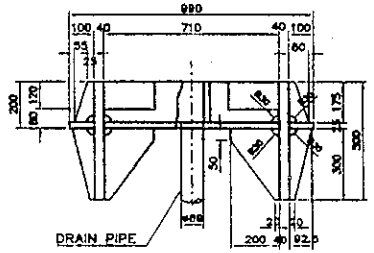


SECTION A–A

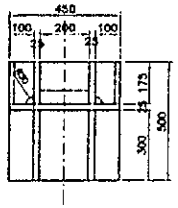
DETAIL OF SOCKET BLOCK
SCALE 1:20



PLAN

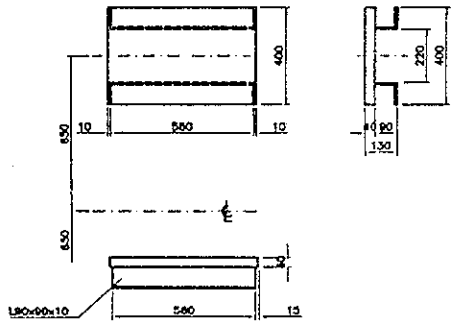


FRONT VIEW

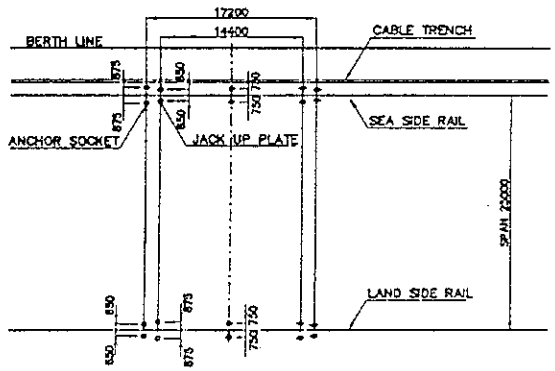


LATERAL VIEW

DETAIL OF JACK UP PLATE
SCALE 1:20



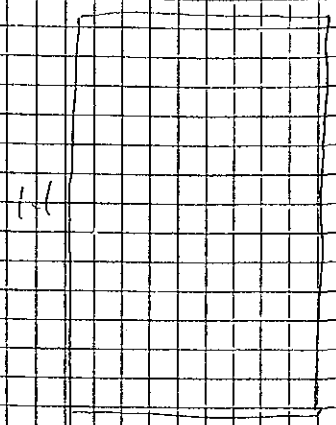
PLAN OF ANCHOR AND JACK UP PLATE
SCALE 1:500



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) / COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR / NIPPON KOEI CO., LTD.	SECTION : QUAYWALL WORK SUB-SECTION : CONTAINER AND MULTI-PURPOSE BERTH TITLE : DETAIL OF ANCHOR-JACK UP PLATE & SOCKET BLOCK	DATE : JULY/2002 SCALE : INDICATED DRAWING NO. DW-QW-01-059

Project	Detailed Design on Port Reactivation Project in La Union	Calc. File No.	
Section	Socket block	Calc. Index No.	
Subject	Re-Bar	Page No.	Rev.

References/ Notes



0.55

$L = 1.1 \times 2 + 0.55 \times 2 = 3.2$ m

$n = 3.3 \div 0.2 = 16.7 \rightarrow 17$

D9 @ 0.1m @ 200

0.50 kg/m

$W_1 = 0.50 \times 0.1 \times 17 = 0.85$ kg

$N = 4$

$W = 0.85 \times 4 = \boxed{3.41}$ kg

	Prepared by		Checked by	
		/ /200		/ /200

NIPPON KOEI CO.,LTD.

QUANTITY CALCULATION COVER SHEET

Project	Detailed Design on Port Reactivation Project in La Union Province	**Project Code**	JC1N004/2N001
Work Section Title	Crane anchoring frame	**Pay Item No. (BOQ)**	20-1901
Quantity Item	Sand	**Unit**	m^3

Calculation Procedure Applied

8 holes were to be prepared for crane anchoring frame and to be filled with sand until safty device will be set.

References, Calculation Base and Revisions

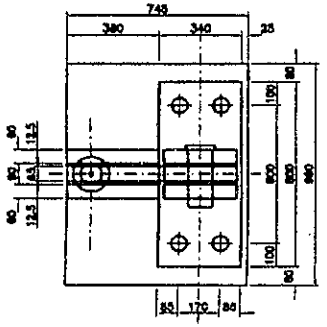
References : Tender Drawings :

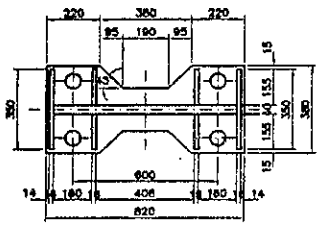
DW-QW-01-059 Detail of Anchor - Jack up Plate & Socket Block

Rev	Prepared by	Prepared Date	No. of Pages	Checked by	Checked Date	Reviewed by	Reviewed Date	Superseded by Calc No.
0	Karla Grace			Mr. Tsuma		Mr. Ando		
1								
2								
3								

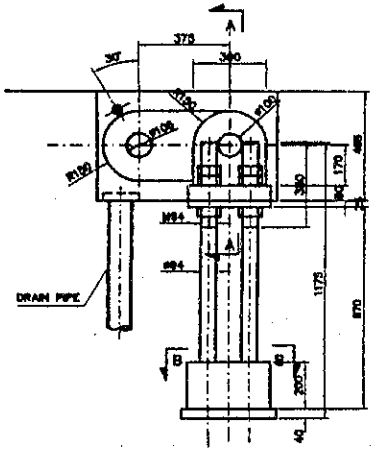
FN : Calculation_Cover_Sheet_020504_seg cover

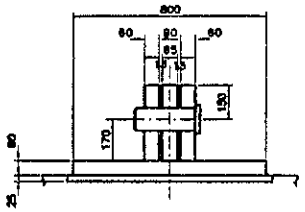
DETAIL OF ANCHORING FRAME
SCALE 1:20





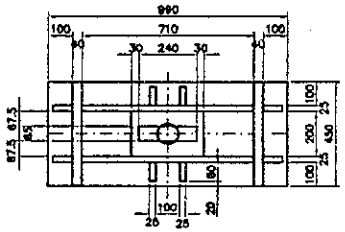
SECTION B–B



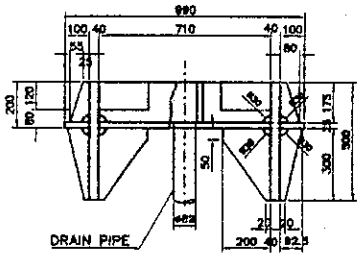


SECTION A–A

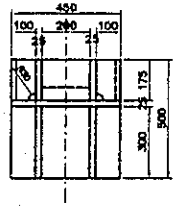
DETAIL OF SOCKET BLOCK
SCALE 1:20



PLAN

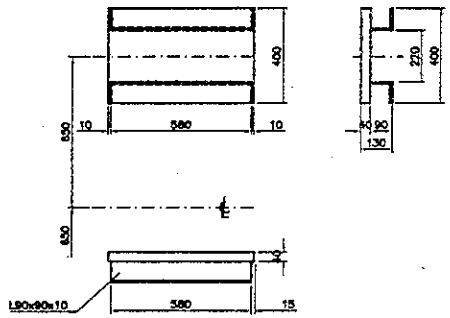


FRONT VIEW

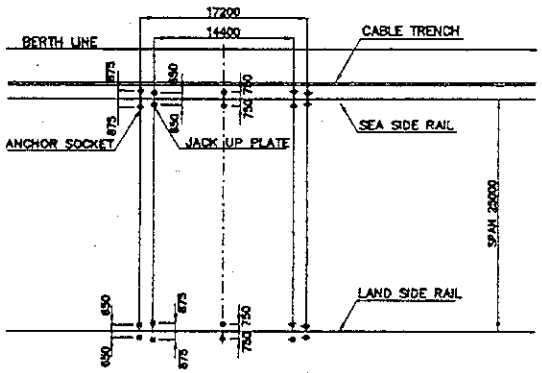


LATERAL VIEW

DETAIL OF JACK UP PLATE
SCALE 1:20



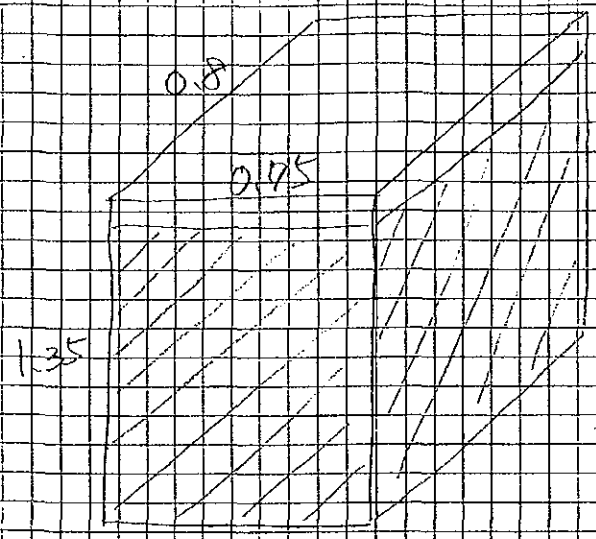
PLAN OF ANCHOR AND JACK UP PLATE
SCALE 1:500



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR	SECTION : QUAYWALL WORK	DATE : JULY/2002
COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	NIPPON KOEI CO., LTD.	SUB-SECTION : CONTAINER AND MULTI-PURPOSE BERTH	SCALE : INDICATED
		TITLE : DETAIL OF ANCHOR-JACK UP PLATE & SOCKET BLOCK	DRAWING NO. DW-QW-01-059

Project	Detailed Design on Port Reactivation Project in La Union	Calc. File No.	
Section	Crane anchoring frame	Calc. Index No.	
Subject	Sand	Page No.	Rev.

References/ Notes



$V_1 = 0.75 \times 0.8 \times 1.35$

$= 0.81\ m^3$

$N = 8$

$V = 0.81 \times 8 = \boxed{6.48}\ m^3$

	Prepared by		Checked by	
		/ /200		/ /200

NIPPON KOEI CO.,LTD.

QUANTITY CALCULATION COVER SHEET			
Project	Detailed Design on Port Reactivation Project in La Union Province	**Project Code**	JC1N004/2N001
Work Section Title	Crane anchoring frame	**Pay Item No. (BOQ)**	2C - 1902
Quantity Item	Form for cover	**Unit**	m^2

Calculation Procedure Applied

Area of form for cover was computed. This cover was to be separated into 2 parts

References, Calculation Base and Revisions

Reference : Tender Drawings :

[illegible] - 01 - [illegible] Detail of Anchor - [illegible] Plate & [illegible] Block.

(Same as "[illegible]")

Rev	Prepared by	Prepared Date	No. of Pages	Checked by	Checked Date	Reviewed by	Reviewed Date	Superseded by Calc No.
0	Kala Genco			Hr. Inoma		Hr. Ando		
1								
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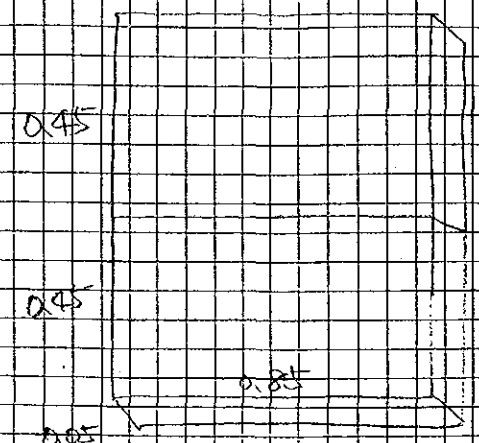
FN : Calculation_Cover_Sheet_020504_seg cover

Project	Detailed Design on Port Reactivation Project in La Union	Calc. File No.	
Section	Crane anchoring frame	Calc. Index No.	
Subject	Form for coven	Page No.	Rev.

References/ Notes



$A_1 = (0.45 \times 2 + 0.85 \times 2) \times 0.05 \times 2$

$+ 0.9 \times 0.85$

$= 1.03\ m^2$

$N = 8$

$A = 1.03 \times 8 = \boxed{8.24}\ m^2$

	Prepared by		Checked by	
		/ /200		/ /200

FN: Calculation_Sheet

QUANTITY CALCULATION COVER SHEET

Project	Detailed Design on Port Reactivation Project in La Union Province	**Project Code**	JC1N004/2N001
Work Section Title	Crane anchoring frame	**Pay Item No. (BOQ)**	2C-1903
Quantity Item	Concrete for cover	**Unit**	m^3

Calculation Procedure Applied

Volume of concrete for cover was computed.

References, Calculation Base and Revisions

Reference : Tender Drawings :

[illegible]-QW-01-053 Detail of Anchor - Tie up Plate & Concrete Block

(Same as Sand)

Rev	Prepared by	Prepared Date	No. of Pages	Checked by	Checked Date	Reviewed by	Reviewed Date	Superseded by Calc No.
0	Koko Garcia			Mr. Inumo		Mr. Ando		
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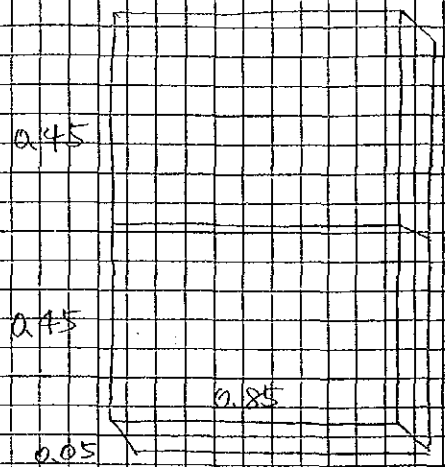
FN : Calculation_Cover_Sheet_020504_seg
cover

NIPPON KOEI CO.,LTD.

Project	Detailed Design on Port Reactivation Project in La Union	Calc. File No.	
Section	Crane anchoring frame	Calc. Index No.	
Subject	Concrete for cover	Page No.	Rev.

References/ Notes



$V_1 = 0.9 \times 0.85 \times 0.05$

$= 0.04 \text{ m}^3$

$N = 8$

$V = 0.04 \times 8 = \boxed{0.32 \text{ m}^3}$

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FN: Calculation_Sheet

NIPPON KOEI CO.,LTD.

QUANTITY CALCULATION COVER SHEET

Project	Detailed Design on Port Reactivation Project in La Union Province	**Project Code**	JC1N004/2N001
Work Section Title	Crane anchoring frame	**Pay Item No. (BOQ)**	2C-1904
Quantity Item	Angle	**Unit**	kg

Calculation Procedure Applied

Weight of angle for holes of crane anchoring devices were computed by multiplying unit weight by length.

References, Calculation Base and Revisions

References : Tender Drawings :

QW-QW-01 -059 Detail of Anchor - Jack up Plate & Socket Block

(Same as Sond)

Rev	Prepared by	Prepared Date	No. of Pages	Checked by	Checked Date	Reviewed by	Reviewed Date	Superseded by Calc No.
0	Karla Garcia			Mr. Inuma		Mr. Ando		
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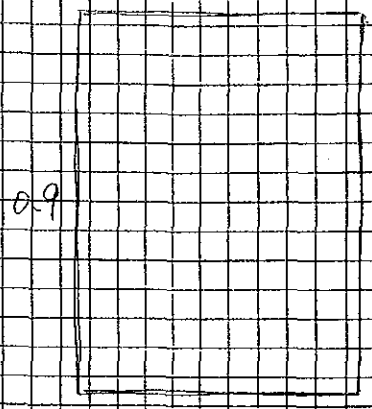
Project	Detailed Design on Port Reactivation Project in La Union	Calc. File No.	
Section	Crane anchoring frame	Calc. Index No.	
Subject	Angle	Page No.	Rev.

References/ Notes



$L_1 = 0.9 \times 2 + 0.85 \times 2 = 3.5$ m.

L 50×50×6 4.43 kg/m

$W_1 = 4.43 \times 3.5 = 15.5$ kg

$N = 8$

$W = 15.5 \times 8 = \boxed{124.0}$ kg

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FN: Calculation_Sheet

NIPPON KOEI CO.,LTD.

QUANTITY CALCULATION COVER SHEET			
Project	Detailed Design on Port Reactivation Project in La Union Province	Project Code	JC1N004/2N001
Work Section Title	Crane anchoring frame	Pay Item No. (BOQ)	20 -1905
Quantity Item	Re-Bar	Unit	kg

Calculation Procedure Applied

Weight of re-bar was computed by multiplying unit weight by length.

References, Calculation Base and Revisions

Reference : Tender Drawings :

[illegible] - 033 Detail of [illegible] - [illegible] Plate & [illegible] Block.

(Same as Sand)

Rev	Prepared		No. of Pages	Checked		Reviewed		Superseded by Calc No.
	by	Date		by	Date	by	Date	
0	Koila Garcia			Mr. Inuma		Mr. Ando		
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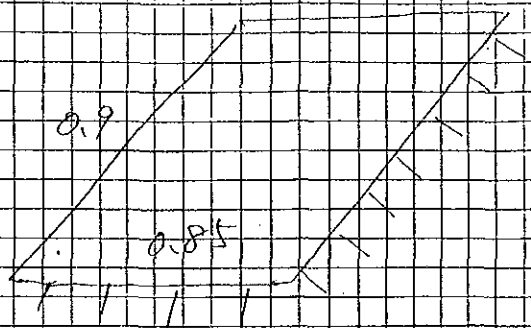
Project	Detailed Design on Port Reactivation Project in La Union	Calc. File No.	
Section	Crane anchoring frame	Calc. Index No.	
Subject	Re-Bar	Page No.	Rev.

References/ Notes



$L_1 = 0.9 \times 2 + 0.8\sqrt{5} \times 2 = 3.5\,m$

D9 : $\ell = 0.1\,m$ @ 200

0.50 kg/m

$n = 3.5 \div 0.2 = 17.5 \rightarrow 18$

$W_1 = 0.50 \times 0.1 \times 18 = 0.9\,kg$

$N = 8$

$W = 0.9 \times 8 = \boxed{7.2}\,kg$

	Prepared by		Checked by	
		/ /200		/ /200

NIPPON KOEI CO.,LTD.

QUANTITY CALCULATION COVER SHEET

Project	Detailed Design on Port Reactivation Project in La Union Province	**Project Code**	JC1N004/2N001
Work Section Title	FENDER	**Pay Item No. (BOQ)**	2C - 20
Quantity Item	TYPE - A	**Unit**	Sets

Calculation Procedure Applied

Fender was to be set in front of apron for Multi-purpose Berth.

See attached drawings.

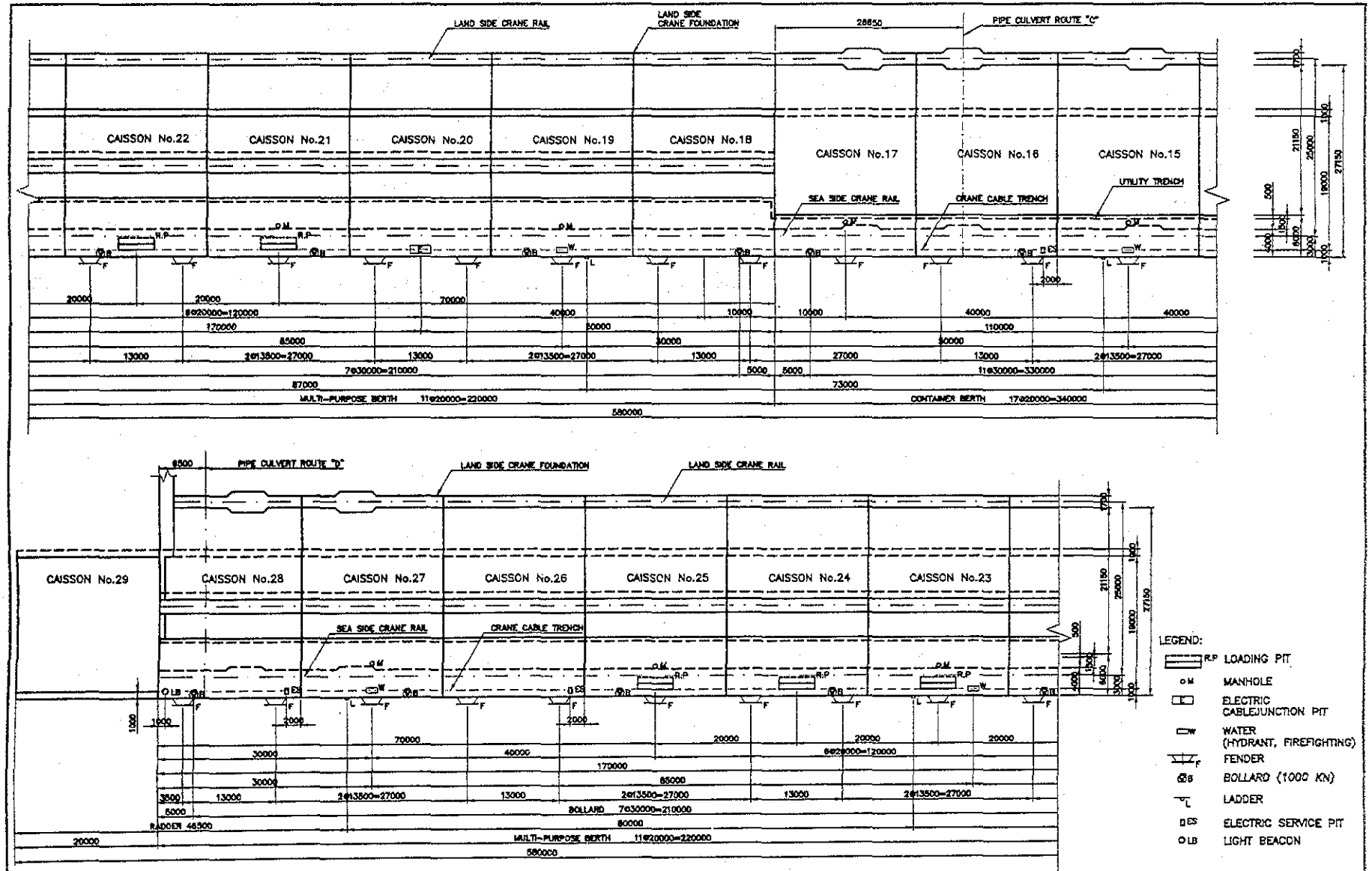
References, Calculation Base and Revisions

References : Fender Drawings :

DWG - 2N1 - C1 - 011 Detail layout Plan Container and Multipurpose Berth (2)

Rev	Prepared		No. of Pages	Checked		Reviewed		Superseded by Calc No.
	by	Date		by	Date	by	Date	
0	Maila Garcia			Mr. Inuma		Mr. Ando		
1								
2								
3								

FN : Calculation_Cover_Sheet_020504_seg cover



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR	DESIGNED BY :	SECTION : QUAYWALL WORK	DATE : JULY/2002
COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	NIPPON KOEI CO., LTD.	CHECKED BY :	SUB-SECTION : CONTAINER AND MULTI-PURPOSE BERTH	SCALE : 1 : 500
		APPROVED BY :	TITLE : DETAIL LAYOUT PLAN CONTAINER AND MULTI-PURPOSE BERTH (2)	DRAWING NO. DW-QW-01-041

Project	Detailed Design on Port Reactivation Project in La Union	Calc. File No.	
Section	FENDER	Calc. Index No.	
Subject	TYPE - A	Page No.	Rev.

References/ Notes

N = 17

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NIPPON KOEI CO.,LTD.

QUANTITY CALCULATION COVER SHEET

Project	Detailed Design on Port Reactivation Project in La Union Province	Project Code	JC1N004/2N001
Work Section Title	BOLLARD	Pay Item No. (BOQ)	2C – 21
Quantity Item	BOLLARD 30ct WITH ANCHOR BOLT	Unit	Sets

Calculation Procedure Applied

Bollard was to be set on the coping.

See attached drawing.

References, Calculation Base and Revisions

References : Tender Drawings :

LV1 – SV1 – 21 – 041 Detail Layout Plan Container and Multipurpose Berth (2)

Rev	Prepared by	Prepared Date	No. of Pages	Checked by	Checked Date	Reviewed by	Reviewed Date	Superseded by Calc No.
0	Karla Garcia			M. Tsuma		Mr. Ando		
1								
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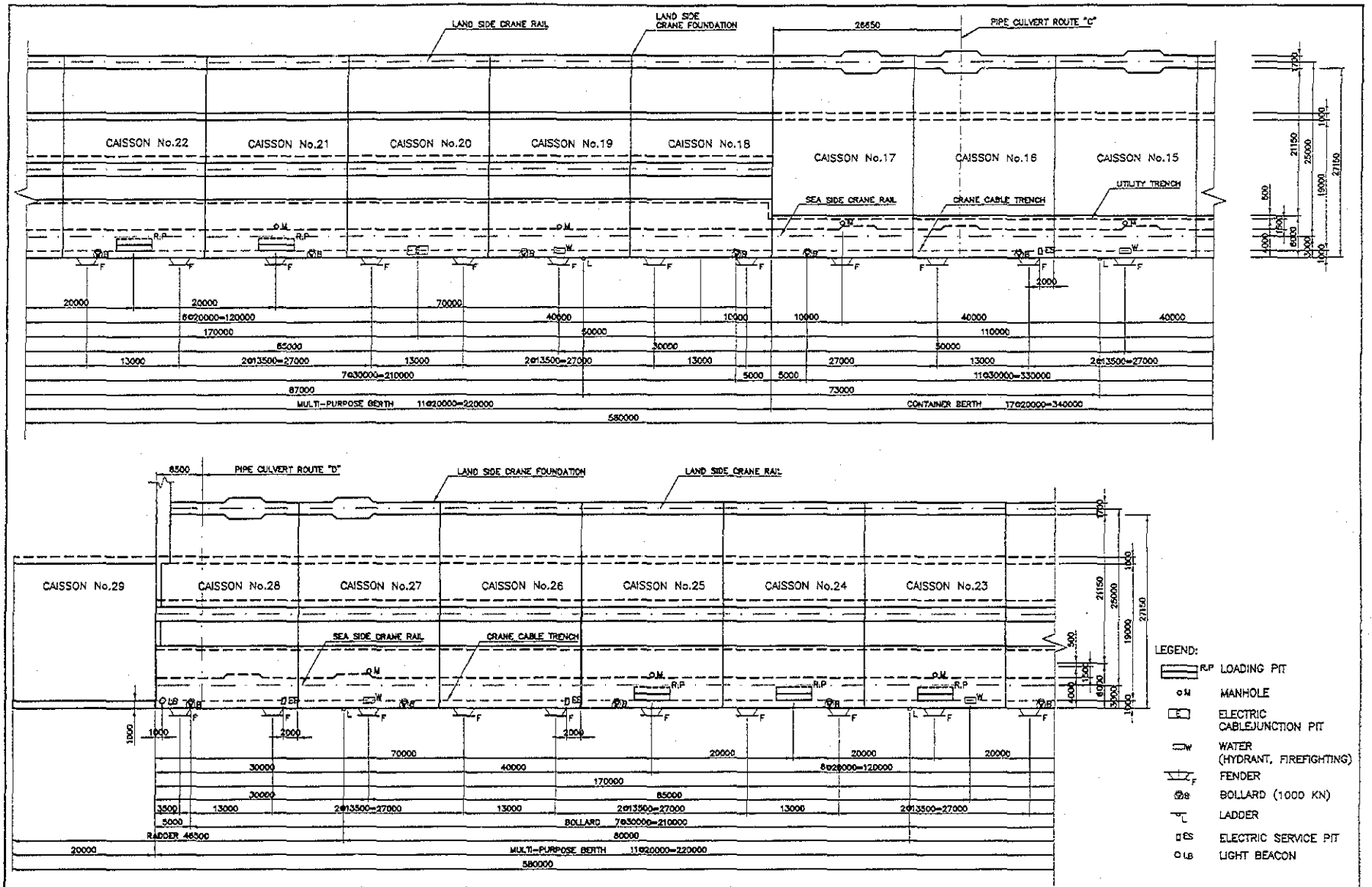

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)

DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR

NIPPON KOEI CO., LTD.

DESIGNED BY :
CHECKED BY :
APPROVED BY :

SECTION : QUAYWALL WORK
SUB-SECTION : CONTAINER AND MULTI-PURPOSE BERTH
TITLE : DETAIL LAYOUT PLAN CONTAINER AND MULTI-PURPOSE BERTH (2)

DATE : JULY/2002
SCALE : 1 : 500
DRAWING NO. DW-QW-01-041

Project	Detailed Design on Port Reactivation Project in La Union	Calc. File No.	
Section	BOLLARD	Calc. Index No.	
Subject	BOLLARD 100t WITH ANCHOR BOLT	Page No.	Rev.

References/ Notes

1000 KN TYPE

N = 8

	Prepared by		Checked by	
		/ /200		/ /200

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NIPPON KOEI CO.,LTD.

QUANTITY CALCULATION COVER SHEET

Project	Detailed Design on Port Reactivation Project in La Union Province	**Project Code**	JC1N004/2N001
Work Section Title	LADDER	**Pay Item No. (BOQ)**	20-22
Quantity Item	LADDER	**Unit**	Sets

Calculation Procedure Applied

ladder was to be set in front of the apron in order to get on or off a ship.

See attached drawings.

References, Calculation Base and Revisions

References : Tender Drawings :

DW-QW-01-041 Detail Layout Plan Container and Multipurpose Berth (e)

Rev	Prepared by	Prepared Date	No. of Pages	Checked by	Checked Date	Reviewed by	Reviewed Date	Superseded by Calc No.
0	Karla Garcia			Mr. Inuma		Mr. Ando		
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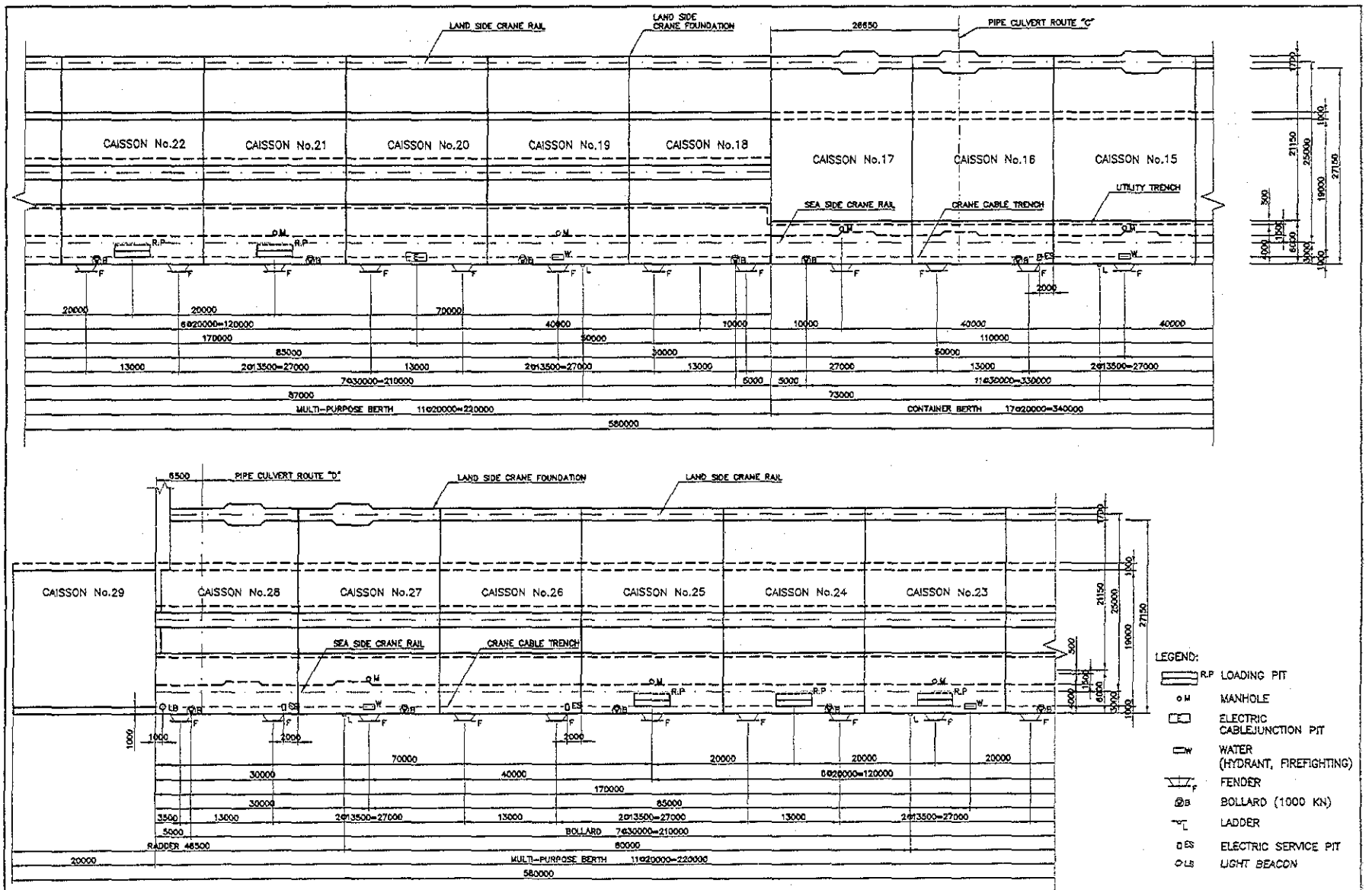

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR	DESIGNED BY :	SECTION : QUAYWALL WORK	DATE : JULY/2002
COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	NIPPON KOEI CO., LTD.	CHECKED BY :	SUB-SECTION : CONTAINER AND MULTI-PURPOSE BERTH	SCALE : 1 : 500
		APPROVED BY :	TITLE : DETAIL LAYOUT PLAN CONTAINER AND MULTI-PURPOSE BERTH (2)	DRAWING NO. DW-QW-01-041

Project	Detailed Design on Port Reactivation Project in La Union	Calc. File No.	
Section	LADDER	Calc. Index No.	
Subject	LADDER	Page No.	Rev.

References/ Notes

$N = \boxed{3}$

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NIPPON KOEI CO.,LTD.

QUANTITY CALCULATION COVER SHEET

Project	Detailed Design on Port Reactivation Project in La Union Province	**Project Code**	JC1N004/2N001
Work Section Title	PLATFORM 1	**Pay Item No. (BOQ)**	2D - P10101
Quantity Item	STEEL PIPE PILE	**Unit**	Nos

Calculation Procedure Applied

Steel pipe piles were computed for each type of pile, including diameter and thickness. Lenght was multiplied by the total number of pile in platform 1. Also, the unit and total weight of pile were computed using Weight Tables.

References, Calculation Base and Revisions

References : Tender Drawings :

1N-QN-02-002 Passenger Berth Pier 1 Plan & Typical Cross Section

Rev	Prepared by	Prepared Date	No. of Pages	Checked by	Checked Date	Reviewed by	Reviewed Date	Superseded by Calc No.
0	Karla Garcia			Mr. Inuma		Mr. Ando		
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Project	Detailed Design on Port Reactivation Project in La Union	Calc. File No.	
Section	PLATFORM 1	Calc. Index No.	
Subject	STEEL PIPE PILE	Page No.	Rev.

References/ Notes

No. piles = 12

ϕ = 700 mm

L = 31 m

t = 12 mm

$\Rightarrow$ w = 204 kg/m

$\Rightarrow$ Unit weight = (204 kg/m)(31 m) = 6,324 kg

$\Rightarrow$ W_T = (6,324 kg)(12)

= 75,888 kg

$\simeq$ **75.90 ton**

L_T = (31 m)(12) = 372 m

		Prepared by		Checked by	
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FN: Calculation_Sheet

NIPPON KOEI CO.,LTD.

QUANTITY CALCULATION COVER SHEET

Project	Detailed Design on Port Reactivation Project in La Union Province	**Project Code**	JC1N004/2N001
Work Section Title	PLATFORM 1	**Pay Item No. (BOQ)**	2D-P1012
Quantity Item	PLATE	**Unit**	Kg

Calculation Procedure Applied

Plate was computed for Platform 1. The unit weight was multiplied by the total number of pieces.

References, Calculation Base and Revisions

Reference: Tender Drawings:

DW-DW-02-009 Bar Arrangement for Platform 1 Pile Head

Rev	Prepared		No. of Pages	Checked		Reviewed		Superseded by Calc No.
	by	Date		by	Date	by	Date	
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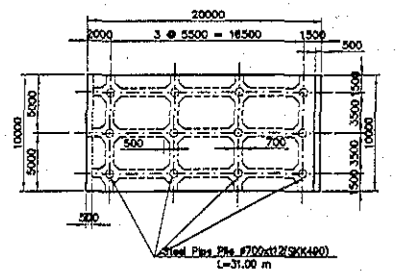
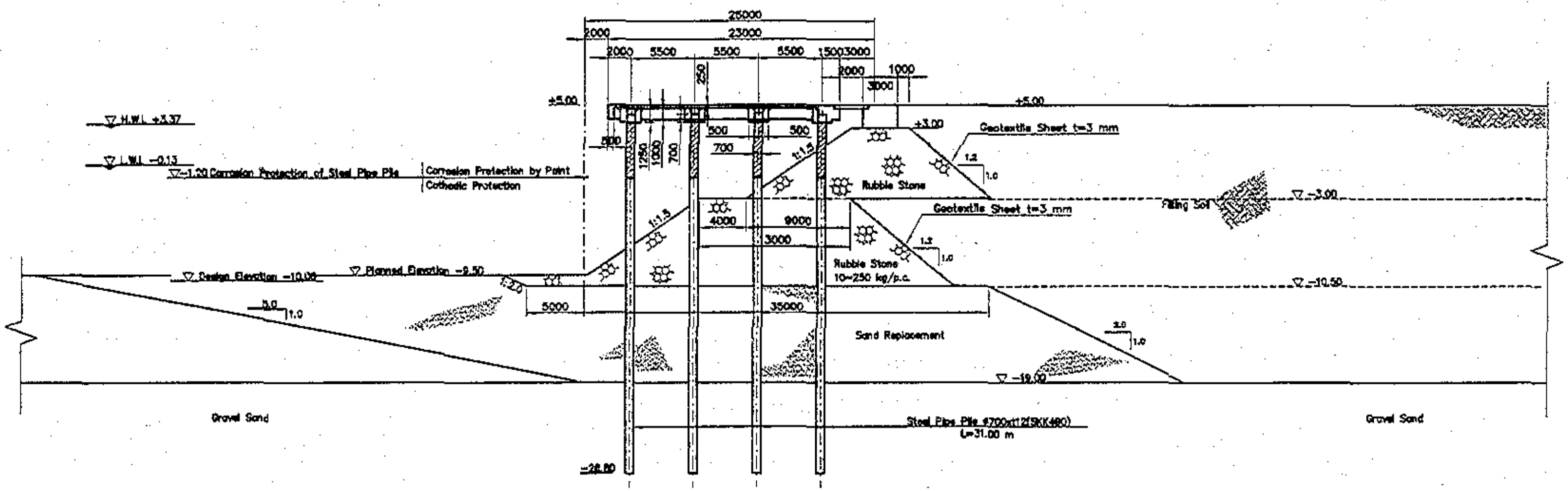


PLAN PIER 1



TYPICAL CROSS SECTION

SCALE 1:400 0 5.0 10.0 15.0 20.0 25.0 30.0

REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)

DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR

NIPPON KOEI CO., LTD

DESIGNED BY:

CHECKED BY:

APPROVED BY:

SECTION : QUAYWALL WORK

SUB-SECTION : PASSENGER BERTH

TITLE : PASSENGER BERTH PIER 1 PLAN & TYPICAL CROSS SECTION

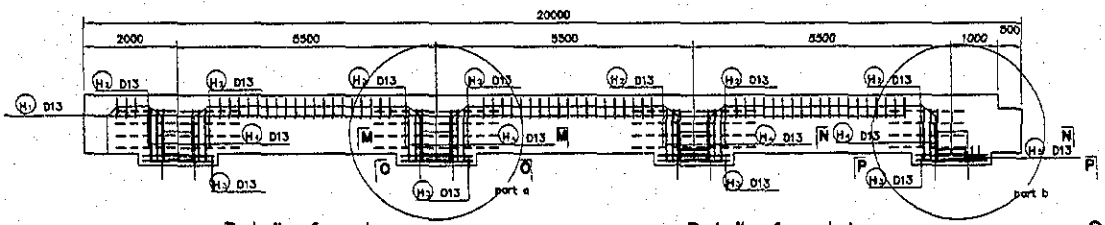
DATE : JULY/2002

SCALE : 1 : 400

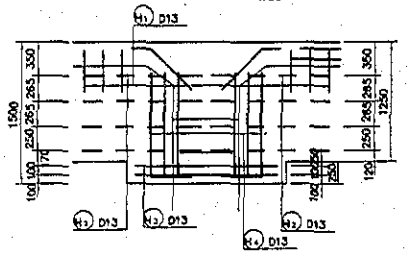
DRAWING NO: DW-QW-02-002

BAR ARRANGEMENT FOR PLATFORM1 PILE HEAD

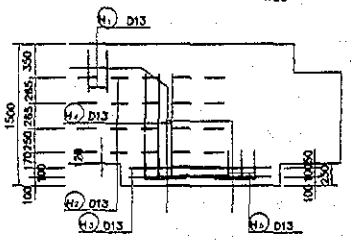
Sect.L–L (Arrangement for haunch bar)
1:100



Detail of part a
1:50



Detail of part b
1:50



Sect.M–M
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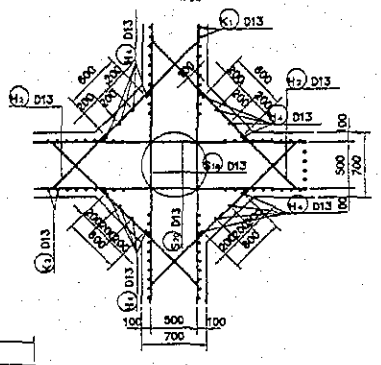

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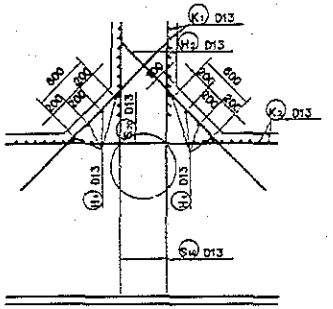
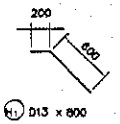
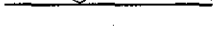
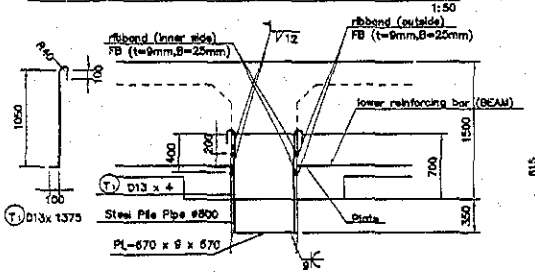
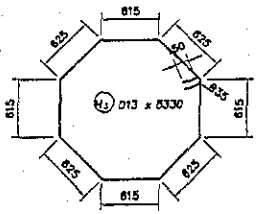


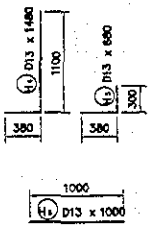




arreangement of ribband for pile head
1:50







Sect.O–O
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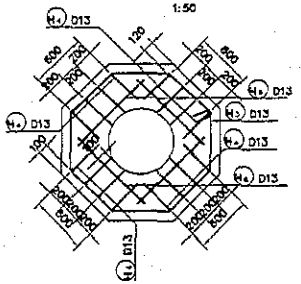

Sect.P–P
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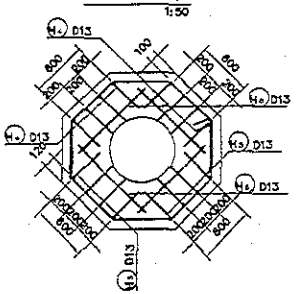

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) / COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR	NIPPON KOEI CO., LTD.	DESIGNED BY : / CHECKED BY : / APPROVED BY :	SECTION : QUAYWALL WORK SUB-SECTION : PASSENGER BERTH TITLE : BAR ARRANGEMENT FOR PLATAFORM1 PILE HEAD	DATE : JULY/2002 SCALE : INDICATED DRAWING NO. DW-QW-02-009

BAR SCHEDULE FOR PLATFORM1

BAR No.		DIA	LENGTH (mm)	UNIT WT. (kg/m)	Q.T.Y.	WEIGHT (kg)	TOTAL WT. (kg)	SHAPE	REMARKS
S1	1	D16	7,000	1.56	20	10.920	218		
	2	"	6,000	"	20	9.360	187		
	3	"	8,700	"	20	13.572	271		
S2	1	"	10,500	"	20	16.380	328		
	2	"	6,000	"	20	9.360	187		
	3	"	5,200	"	20	8.112	162		
S3	1	"	9,500	"	20	14.820	296		
	2	"	6,000	"	20	9.360	187		
	3	"	4,800	"	20	7.488	150		
S4	1	"	6,000	"	40	9.360	374		
	2	"	8,300	"	20	12.948	259		
S5	1	"	4,000	"	80	6.240	499		
	2	"	6,500	"	80	10.140	811		
S6	1	"	6,300	"	80	9.828	786		
	2	"	4,000	"	80	6.240	499		
S7	1	D22	8,500	3.04	9	25.840	233		
	2	"	6,000	"	18	18.240	328		
	3	"	6,060	"	9	18.422	166		
S8	1	"	9,800	"	9	29.792	268		
	2	"	6,000	"	9	18.240	164		
	3	"	5,500	"	9	16.720	150		
S9	1	"	7,000	"	9	21.280	192		
	2	"	6,000	"	18	18.240	328		
	3	"	7,560	"	9	22.982	207		
S10	1	"	6,500	"	9	19.760	178		
	2	"	6,000	"	9	18.240	164		
	3	"	8,800	"	9	26.752	241		
S11		"	4,800	"	54	14.592	788		
S12	1	"	5,740	"	24	17.450	419		
	2	"	9,000	"	24	27.360	657		
S13		"	2,800	"	48	8.512	409		
S14		D16	1,500	1.56	40	2.340	94		
S15	1	D22	4,640	3.04	6	14.106	85		
	2	"	8,000	"	6	24.320	146		
S16	1	"	6,500	"	11	19.760	217		
	2	"	4,600	"	11	13.984	154		
S17	1	"	4,540	"	5	13.802	69		
	2	"	7,500	"	5	22.800	114		
S18	1	D13	6,000	0.995	12	5.970	72		
	2	"	6,000	"	24	5.970	143		
	3	"	3,160	"	6	3.144	19		
	4	"	3,660	"	6	3.642	22		
S19	1	"	2,000	"	6	1.990	12		
	2	"	5,400	"	18	5.373	97		
	3	"	1,500	"	6	1.493	9		
S20	1	"	3,660	"	16	3.642	58		
	2	"	7,000	"	16	6.965	111		
S21	1	"	1,500	"	14	1.493	21		
	2	"	3,400	"	14	3.383	47		
S22	1	"	7,000	"	6	6.965	42		
	2	"	3,880	"	6	3.861	23		
S23		"	880	"	18	0.876	16		
S24		"	1,530	"	2	1.522	3		
S25		"	2,030	"	4	2.020	8		

BAR No.	DIA	LENGTH (mm)	UNIT WT. (kg/m)	Q.T.Y.	WEIGHT (kg)	TOTAL WT. (kg)	SHAPE	REMARKS
			D22	5.677				
			D16	5.308				
			D13	703				
			TOTAL	11.688	kg			
K1	D13	3,480	0.995	381	3.463	1,319		
K2	"	3,560	"	240	3.542	850		
K3	"	2,880	"	15	2.866	43		
K4	"	4,500	"	60	4.478	269		
			D13	2,481				
			TOTAL	2,481	kg			
H1	D13	800	0.995	558	0.796	444		
H2	"	2,200	"	168	2.189	368		
H3	"	5,330	"	24	5.303	127		
H4	"	1,480	"	168	1.473	247		
H5	"	680	"	24	0.677	16		
H6	"	1,000	"	48	0.995	48		
			D13	1,250				
			TOTAL	1,250	kg			
TOTAL			D22	5.677				
			D16	5.308				
			D13	4,434				
			TOTAL	15,419	kg			
			PLATE (SS400)					
			70.2 kg x 12 pieces = 842		kg			
			ribband(SS400)outside	1.77 kg/m x 2.20m x 24 pieces = 93.5 kg				
			ribband(SS400)inner side	1.77 kg/m x 2.06m x 24 pieces = 87.5 kg				
			TOTAL	181.0 kg				
			CONCRETE VOLUME	140.850	m3			
			FORM	387.434	m2			
T1	D13	1,375	0.995	48	1.368	66		
			D13	66				
			TOTAL	66	kg			
			PLATE (SS400)					
			24.9 kg x 12 pieces = 299		kg			

JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR

Project	Detailed Design on Port Reactivation Project in La Union	Calc. File No.	
Section	PLATFORM 1	Calc. Index No.	
Subject	PLATE	Page No.	Rev.

References/ Notes

$W = 842\ kg + 299\ kg = 1,141\ kg$

$\therefore W = \boxed{1,150\ kg}$

		Prepared by		Checked by	
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FN: Calculation_Sheet

NIPPON KOEI CO.,LTD.

QUANTITY CALCULATION COVER SHEET

Project	Detailed Design on Port Reactivation Project in La Union Province	**Project Code**	JC1N004/2N001
Work Section Title	PLATFORM 1	**Pay Item No. (BOQ)**	2D-B01103
Quantity Item	RIBBAND	**Unit**	Kg

Calculation Procedure Applied

Ribbond was computed for platform 1.
The outside and inner side ribbond were computed.

References, Calculation Base and Revisions

References : Tender Drawings :

DW-QW-02-009 Bor Arrangement for Platform 1 Pile Head.

Rev	Prepared by	Prepared Date	No. of Pages	Checked by	Checked Date	Reviewed by	Reviewed Date	Superseded by Calc No.
0	Koika Gonia			Mr. Inuma		Mr. Ando		
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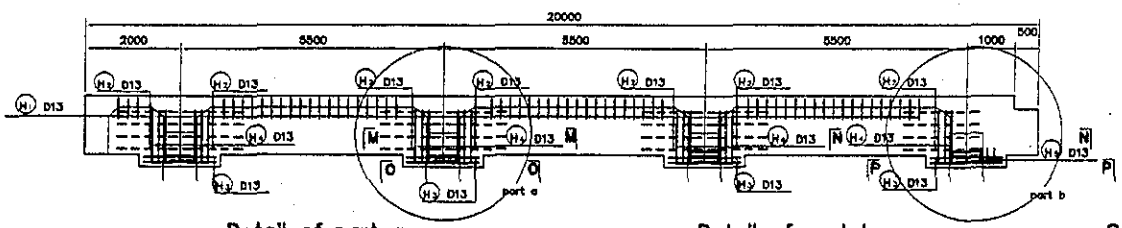
BAR ARRANGEMENT FOR PLATFORM1 PILE HEAD

Sect.L–L (Arrangement for haunch bar)
1:100



Detail of part a
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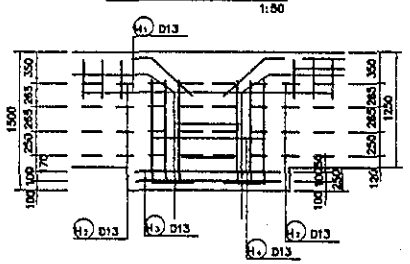

Detail of part b
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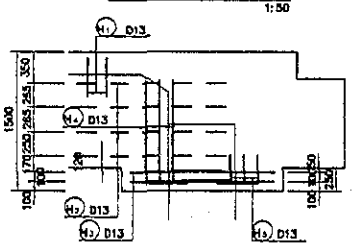

Sect.M–M
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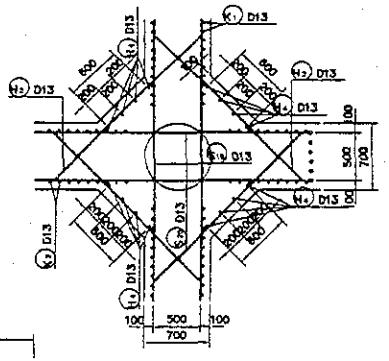

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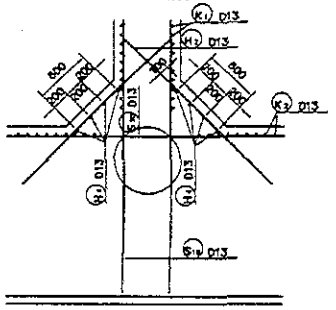
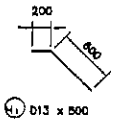
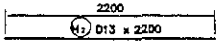
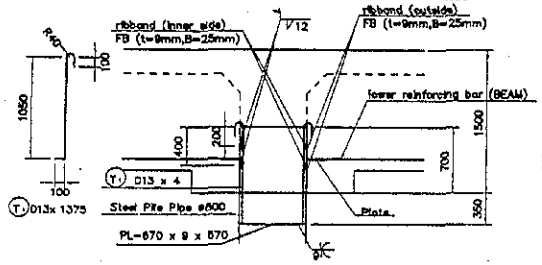
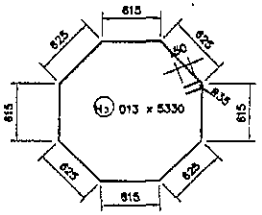


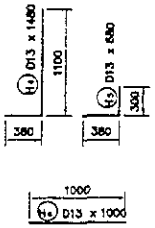




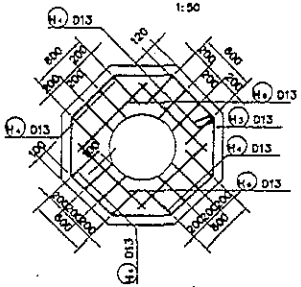
arreangement of ribband for pile head
1:50







Sect.O–O
1:50



Sect.P–P
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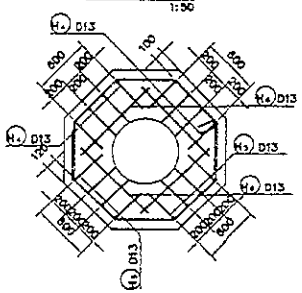

REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) / COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR / NIPPON KOEI CO., LTD.	DESIGNED BY / CHECKED BY / APPROVED BY	SECTION : QUAYWALL WORK / SUB-SECTION : PASSENGER BERTH / TITLE : BAR ARRANGEMENT FOR PLATAFORM1 PILE HEAD	DATE : JULY/2002 / SCALE : INDICATED / DRAWING NO. DW-QW-02-009

BAR SCHEDULE FOR PLATFORM1

BAR No.		DIA	LENGTH (mm)	UNIT WT. (kg/m)	Q.T.Y.	WEIGHT (kg)	TOTAL WT. (kg)	SHAPE	REMARKS
S1	1	D16	7,000	1.56	20	10.920	218		
	2	"	6,000	"	20	9.360	187		
	3	"	8,700	"	20	13.572	271		
S2	1	"	10,500	"	20	16.380	328		
	2	"	6,000	"	20	9.360	187		
	3	"	5,200	"	20	8.112	162		
S3	1	"	9,500	"	20	14.820	296		
	2	"	6,000	"	20	9.360	187		
	3	"	4,800	"	20	7.488	150		
S4	1	"	6,000	"	40	9.360	374		
	2	"	8,300	"	20	12.948	259		
S5	1	"	4,000	"	80	6.240	499		
	2	"	6,500	"	80	10.140	811		
S6	1	"	6,300	"	80	9.828	786		
	2	"	4,000	"	80	6.240	499		
S7	1	D22	8,500	3.04	9	25.840	233		
	2	"	6,000	"	18	18.240	328		
	3	"	6,060	"	9	18.422	166		
S8	1	"	9,800	"	9	29.792	268		
	2	"	6,000	"	9	18.240	164		
	3	"	5,500	"	9	16.720	150		
S9	1	"	7,000	"	9	21.280	192		
	2	"	6,000	"	18	18.240	328		
	3	"	7,560	"	9	22.982	207		
S10	1	"	6,500	"	9	19.760	178		
	2	"	6,000	"	9	18.240	164		
	3	"	8,800	"	9	26.752	241		
S11		"	4,800	"	54	14.592	788		
S12	1	"	5,740	"	24	17.450	419		
	2	"	9,000	"	24	27.360	657		
S13		"	2,800	"	48	8.512	409		
S14		D16	1,500	1.56	40	2.340	94		
S15	1	D22	4,640	3.04	6	14.106	85		
	2	"	8,000	"	6	24.320	146		
S16	1	"	6,500	"	11	19.760	217		
	2	"	4,600	"	11	13.984	154		
S17	1	"	4,540	"	5	13.802	69		
	2	"	7,500	"	5	22.800	114		
S18	1	D13	6,000	0.995	12	5.970	72		
	2	"	6,000	"	24	5.970	143		
	3	"	3,160	"	6	3.144	19		
	4	"	3,660	"	6	3.642	22		
S19	1	"	2,000	"	6	1.990	12		
	2	"	5,400	"	18	5.373	97		
	3	"	1,500	"	6	1.493	9		
S20	1	"	3,660	"	16	3.642	58		
	2	"	7,000	"	16	6.965	111		
S21	1	"	1,500	"	14	1.493	21		
	2	"	3,400	"	14	3.383	47		
S22	1	"	7,000	"	6	6.965	42		
	2	"	3,880	"	6	3.861	23		
S23		"	880	"	18	0.876	16		
S24		"	1,530	"	2	1.522	3		
S25		"	2,030	"	4	2.020	8		

BAR No.	DIA	LENGTH (mm)	UNIT WT. (kg/m)	Q.T.Y.	WEIGHT (kg)	TOTAL WT. (kg)	SHAPE	REMARKS
			D22	5,677				
			D16	5,308				
			D13	703				
			TOTAL	11,688	kg			
K1	D13	3,480	0.995	381	3,463	1,319		
K2	"	3,560	"	240	3,542	850		
K3	"	2,880	"	15	2,866	43		
K4	"	4,500	"	60	4,478	269		
			D13	2,481				
			TOTAL	2,481	kg			
H1	D13	800	0.995	558	0.796	444		
H2	"	2,200	"	168	2,189	368		
H3	"	5,330	"	24	5,303	127		
H4	"	1,480	"	168	1,473	247		
H5	"	680	"	24	0.677	16		
H6	"	1,000	"	48	0.995	48		
			D13	1,250				
			TOTAL	1,250	kg			
TOTAL			D22	5,677				
			D16	5,308				
			D13	4,434				
			TOTAL	15,419	kg			
			PLATE (SS400)					
			70.2 kg × 12 pieces = 842		kg			
			ribband(SS400)outside	1.77 kg/m × 2.20m × 24 pieces = 93.5 kg				
			ribband(SS400)inner side	1.77 kg/m × 2.06m × 24 pieces = 87.5 kg				
			TOTAL			181.0 kg		
			CONCRETE VOLUME	140.850	m3			
			FORM	387.434	m2			
T1	D13	1,375	0.995	48	1.368	66		
			D13	66				
			TOTAL	66	kg			
			PLATE (SS400)					
			24.9 kg × 12 pieces = 299		kg			

JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE IN THE REPUBLIC OF EL SALVADOR

Project	Detailed Design on Port Reactivation Project in La Union	Calc. File No.	
Section	PLATFORM 1	Calc. Index No.	
Subject	RIBBAND	Page No.	Rev.

References/ Notes

$W = 93.50\ kg + 87.50\ kg$

$= 181.0\ kg$

$\simeq \boxed{190\ kg}$

		Prepared by		Checked by	
			/ /200		/ /200

NIPPON KOEI CO.,LTD.

QUANTITY CALCULATION COVER SHEET

Project	Detailed Design on Port Reactivation Project in La Union Province	**Project Code**	JC1N004/2N001
Work Section Title	PLATFORM 1	**Pay Item No. (BOQ)**	2D - P10201
Quantity Item	CONCRETE FOR COPING	**Unit**	m^3

Calculation Procedure Applied

Concrete volume was computed for coping.
Volume was computed using geometric formulas, multiplying the area by the thickness of the coping.

References, Calculation Base and Revisions

References: Tender Drawings:

DW – QW – 02 - 002 Passenger Built Pier 1
Plan & Typical Cross Section

Rev	Prepared		No. of	Checked		Reviewed		Superseded
	by	Date	Pages	by	Date	by	Date	by Calc No.
0	Karla García-Ed			Mr. Inuma		Mr. Ando		
1								
2								
3								

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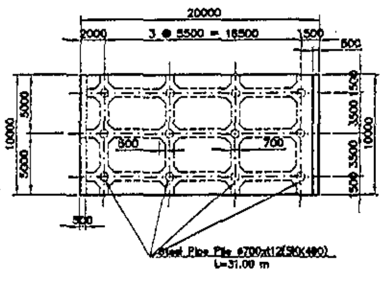
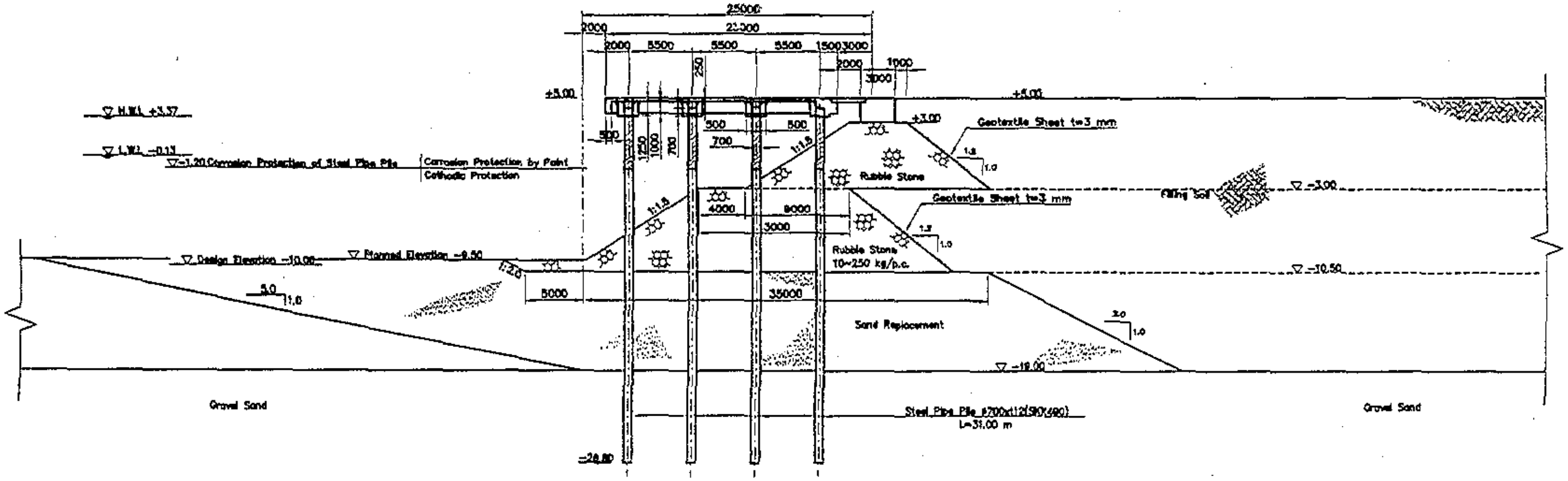


PLAN PIER 1



TYPICAL CROSS SECTION

SCALE 1:400 0 5.0 10.0 15.0 20.0 25.0 30.0

REV. NO.	DATE	COORDINATE	BY	APPROVED	DATE

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR NIPPON KOEI CO., LTD	DESIGNED BY : CHECKED BY : APPROVED BY :	SECTION : QUAYWALL WORK SUB-SECTION : PASSENGER BERTH TITLE : PASSENGER BERTH PIER 1 PLAN & TYPICAL CROSS SECTION
DATE : JULY/2002	SCALE : 1 : 400	DRAWING NO. DW-QW-02-002	

BAR SCHEDULE FOR PLATFORM1

BAR No.		DIA	LENGTH (mm)	UNIT WT. (kg/m)	D.T.Y.	WEIGHT (kg)	TOTAL WT. (kg)	SHAPE	REMARKS
S1	1	D16	7,000	1.56	20	10.920	218		
	2	"	6,000	"	20	9.360	187		
	3	"	8,700	"	20	13.572	271		
S2	1	"	10,500	"	20	16.380	328		
	2	"	6,000	"	20	9.360	187		
	3	"	5,200	"	20	8.112	162		
S3	1	"	9,500	"	20	14.820	296		
	2	"	6,000	"	20	9.360	187		
	3	"	4,800	"	20	7.488	150		
S4	1	"	6,000	"	40	9.360	374		
	2	"	8,300	"	20	12.948	259		
S5	1	"	4,000	"	80	6.240	499		
	2	"	6,500	"	80	10.140	811		
S6	1	"	6,300	"	80	9.828	786		
	2	"	4,000	"	80	6.240	499		
S7	1	D22	8,500	3.04	9	25.840	233		
	2	"	6,000	"	18	18.240	328		
	3	"	6,060	"	9	18.422	166		
S8	1	"	9,800	"	9	29.792	268		
	2	"	6,000	"	9	18.240	164		
	3	"	5,500	"	9	16.720	150		
S9	1	"	7,000	"	9	21.280	192		
	2	"	6,000	"	18	18.240	328		
	3	"	7,550	"	9	22.952	207		
S10	1	"	6,500	"	9	19.760	178		
	2	"	6,000	"	9	18.240	164		
	3	"	8,800	"	9	26.752	241		
S11		"	4,800	"	54	14.592	788		
S12	1	"	5,740	"	24	17.450	419		
	2	"	9,000	"	24	27.360	657		
S13		"	2,800	"	48	8.512	409		
S14		D16	1,500	1.56	40	2.340	94		
S15	1	D22	4,640	3.04	6	14.106	85		
	2	"	8,000	"	6	24.320	146		
S16	1	"	6,500	"	11	19.760	217		
	2	"	4,600	"	11	13.984	154		
S17	1	"	4,540	"	5	13.802	69		
	2	"	7,500	"	5	22.800	114		
S18	1	D13	6,000	0.995	12	5.970	72		
	2	"	6,000	"	24	5.970	143		
	3	"	3,160	"	6	3.144	19		
	4	"	3,660	"	6	3.642	22		
S19	1	"	2,000	"	6	1.990	12		
	2	"	5,400	"	18	5.373	97		
	3	"	1,500	"	6	1.493	9		
S20	1	"	3,660	"	16	3.642	58		
	2	"	7,000	"	16	6.965	111		
S21	1	"	1,500	"	14	1.493	21		
	2	"	3,400	"	14	3.383	47		
S22	1	"	7,000	"	6	6.965	42		
	2	"	3,880	"	6	3.861	23		
S23		"	880	"	18	0.876	16		
S24		"	1,530	"	2	1.522	3		
S25		"	2,030	"	4	2.020	8		

	BAR No.	DIA	LENGTH (mm)	UNIT WT. (kg/m)	D.T.Y.	WEIGHT (kg)	TOTAL WT. (kg)	SHAPE	REMARKS
				D22	5.677				
				D16	5.308				
				D13	703				
				TOTAL	11.688	kg			
	K1	D13	3,480	0.995	381	3,463	1,319		
	K2	"	3,560	"	240	3,542	850		
	K3	"	2,880	"	15	2,866	43		
	K4	"	4,500	"	60	4,478	269		
				D13	2,481				
				TOTAL	2,481	kg			
	H1	D13	800	0.995	558	0.796	444		
	H2	"	2,200	"	168	2,189	368		
	H3	"	5,330	"	24	5,303	127		
	H4	"	1,480	"	168	1,473	247		
	H5	"	680	"	24	0.677	16		
	H6	"	1,000	"	48	0.995	48		
				D13	1,250				
				TOTAL	1,250	kg			
TOTAL				D22	5.677				
				D16	5.308				
				D13	4,434				
				TOTAL	15,419	kg			
	PLATE (SS400)								
	70.2 kg x 12 pieces = 842 kg								
	ribband(SS400)outside 1.77 kg/m x 2.20m x 24 pieces = 93.5 kg								
	ribband(SS400)inner side 1.77 kg/m x 2.06m x 24 pieces = 87.5 kg								
	TOTAL 181.0 kg								
	CONCRETE VOLUME 140.850 m3								
	FORM 387.434 m2								
	T1	D13	1,375	0.995	48	1,368	66		
				D13	66				
				TOTAL	66 kg				
	PLATE (SS400)								
	24.9 kg x 12 pieces = 299 kg								

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR

NIPPON KOEI CO.,LTD.

Project	Detailed Design on Port Reactivation Project in La Union	Calc. File No.	
Section	PLATFORM 1	Calc. Index No.	
Subject	CONCRETE FOR COPING	Page No.	Rev.

References/ Notes

$V = 140.85\ m^3$

$\simeq$ **$141\ m^3$**

		Prepared by		Checked by	
			/ /200		/ /200

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NIPPON KOEI CO.,LTD.

QUANTITY CALCULATION COVER SHEET

Project	Detailed Design on Port Reactivation Project in La Union Province	**Project Code**	JC1N004/2N001
Work Section Title	PLATFORM 1	**Pay Item No. (BOQ)**	20-PJ 0202
Quantity Item	FORM FOR COPING	**Unit**	m^2

Calculation Procedure Applied

Form area was computed for Platform 1.
Form was computed in all sides of platform.

References, Calculation Base and Revisions

References: Tender Drawings:

DW-QW-02-002 Passenger Berth Pier 1
Plan & Typical Cross Section

Rev	Prepared		No. of	Checked		Reviewed		Superseded
	by	Date	Pages	by	Date	by	Date	by Calc No.
0	Hoda Garcia			Mr. Inuma		Mr. Ando		
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2								
3								

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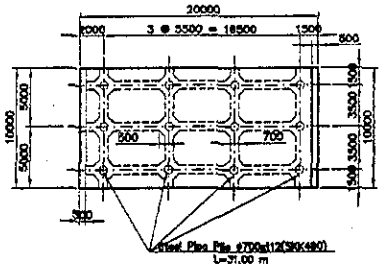
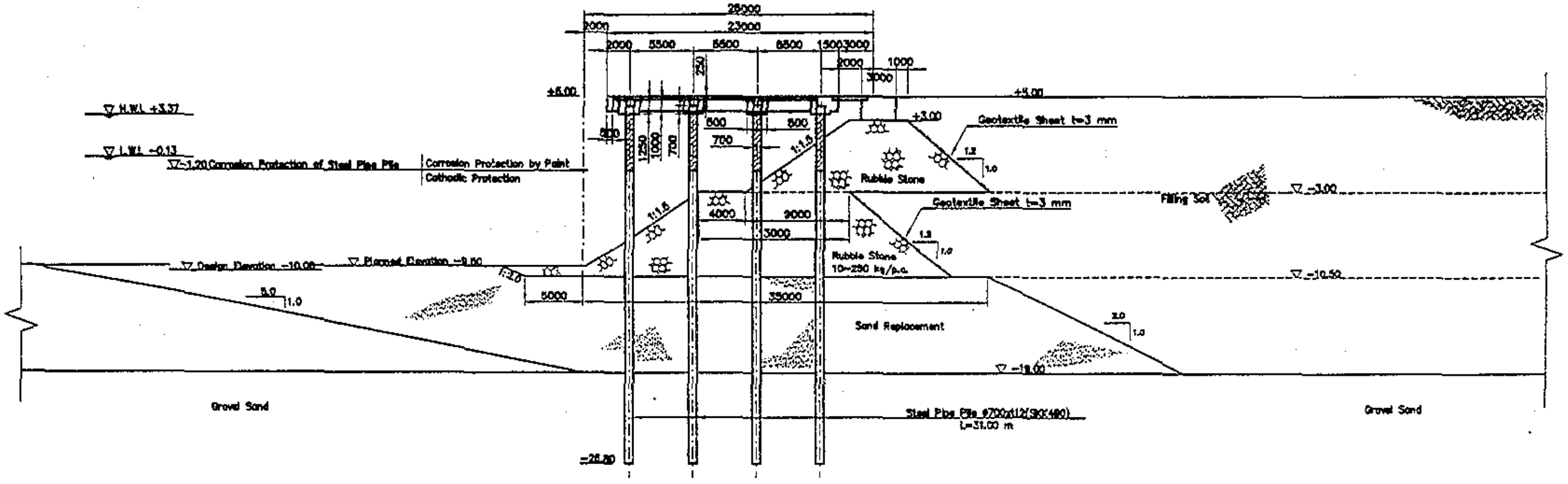


PLAN PIER 1



TYPICAL CROSS SECTION

SCALE 1:400 0 5.0 10.0 15.0 20.0 25.0 30.0

REV. NO.	DATE	DESCRIPTION	BY	APPROVED	DATE

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)

DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR

NIPPON KOEI CO., LTD

DESIGNED BY :

CHECKED BY :

APPROVED BY :

SECTION : QUAYWALL WORK

SUB-SECTION : PASSENGER BERTH

TITLE : PASSENGER BERTH PIER 1 PLAN & TYPICAL CROSS SECTION

DATE : JULY/2002

SCALE : 1 : 400

DRAWING NO. DW-QW-02-002

NIPPON KOEI CO.,LTD.

Project	Detailed Design on Port Reactivation Project in La Union	Calc. File No.	
Section	PLATFORM 1	Calc. Index No.	
Subject	FORM FOR COPING	Page No.	Rev.

References/ Notes

$A = 387.43\ m^2$

$\simeq$ **390 m^2**

		Prepared by		Checked by	
			/ /200		/ /200

FN: Calculation_Sheet

NIPPON KOEI CO.,LTD.

QUANTITY CALCULATION COVER SHEET

Project	Detailed Design on Port Reactivation Project in La Union Province	**Project Code**	JC1N004/2N001
Work Section Title	PLATFORM 1	**Pay Item No. (BOQ)**	2D - P10203
Quantity Item	REINFORCEMENT FOR COPING	**Unit**	ton

Calculation Procedure Applied

Reinforcement was computed for coping. It was computed summarizing all bar lenghts for each type of diameter These lenghts were multiplied by the weight to obtain unit weight, it was multiplied by the total quantity.

References, Calculation Base and Revisions

References : Tender Drawings :

From DW-QW-02-007 Bar Arrangement for Platform 1 Beam

To DW-QW-02-010 Bar Bending Schedule for Platform 1 Beam.

Rev	Prepared		No. of Pages	Checked		Reviewed		Superseded by Calc No.
	by	Date		by	Date	by	Date	
0	Karla Garcia			Mr. Inuma		Mr. Ando		
1								
2								
3								

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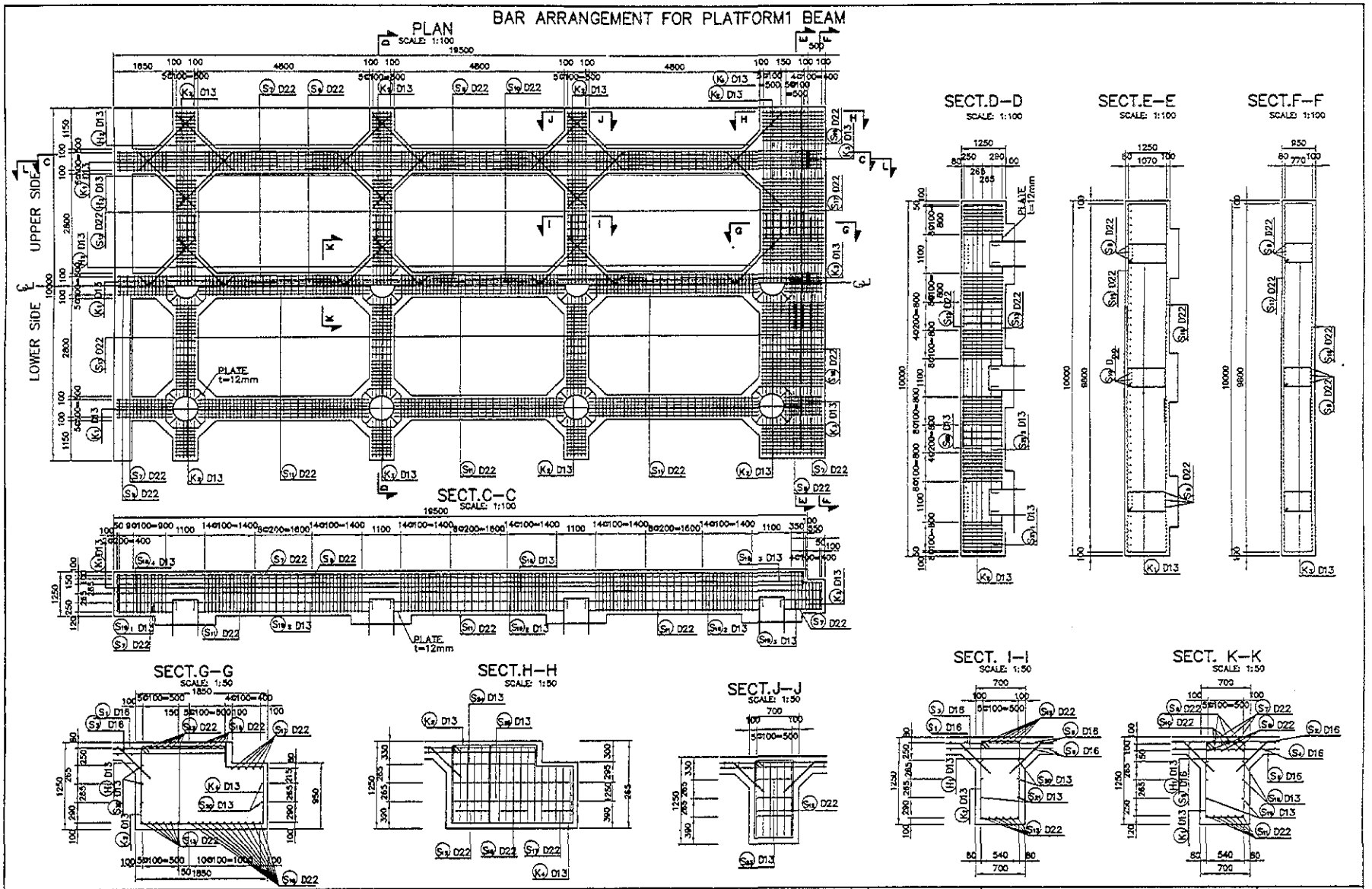
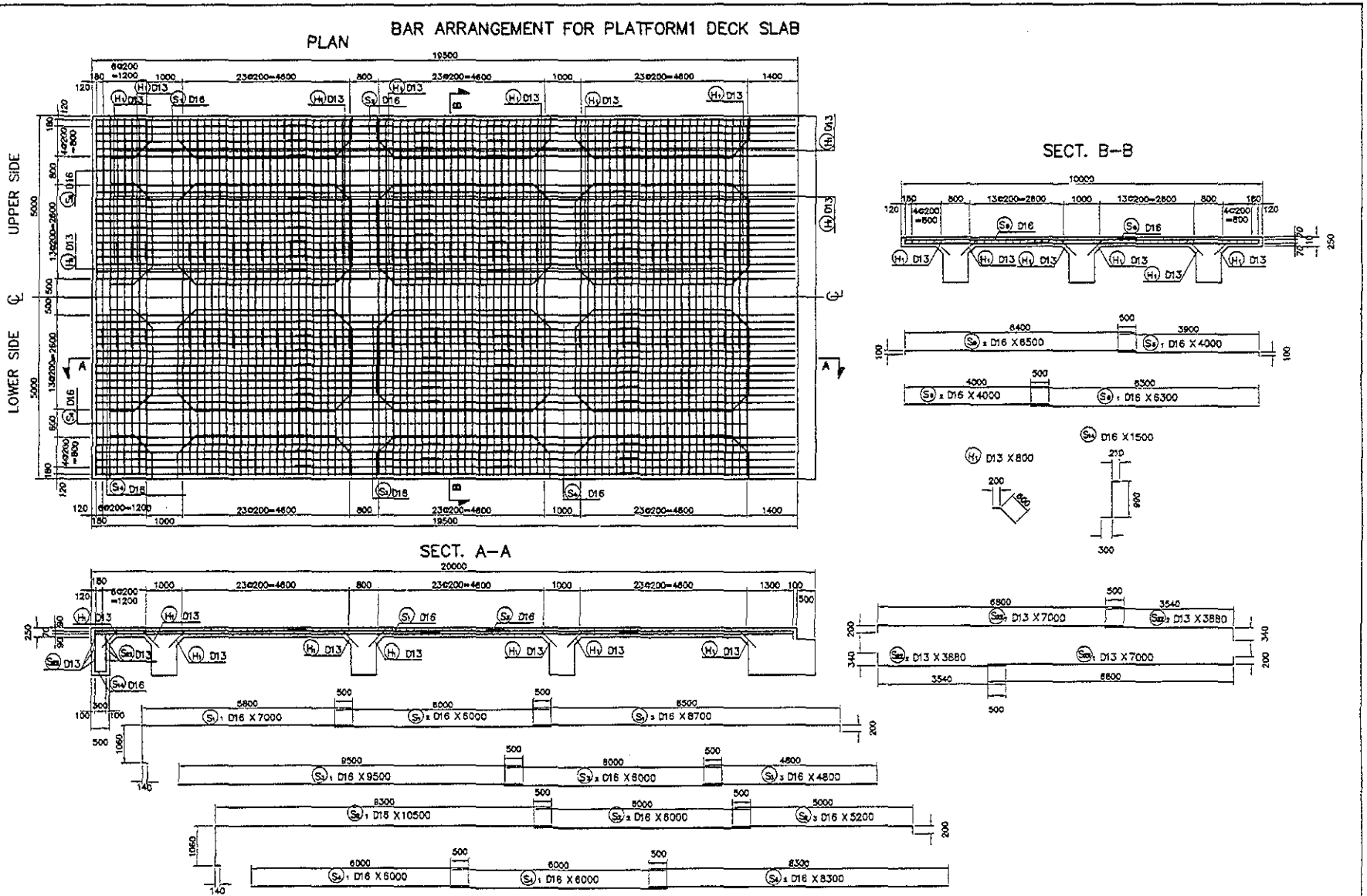
BAR ARRANGEMENT FOR PLATFORM1 BEAM



REV. NO. / DATE / CORRECTIONS / BY / APPROVED / DATE	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR NIPPON KOEI CO., LTD.	DESIGNED BY : CHECKED BY : APPROVED BY :	SECTION : QUAYWALL WORK SUB-SECTION : PASSENGER BERTH TITLE : BAR ARRANGMENT FOR PLATFORM1 BEAM	DATE : JULY/2002 SCALE : INDICATED DRAWING NO. : DW-QW-02-007

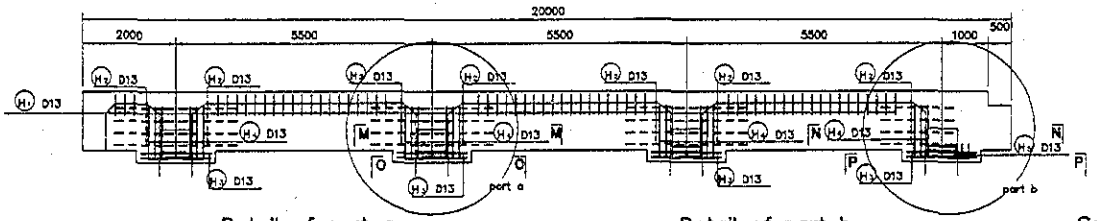
BAR ARRANGEMENT FOR PLATFORM1 DECK SLAB



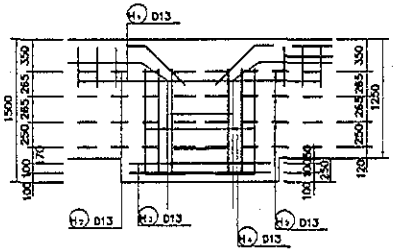
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) / COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR	NIPPON KOEI CO., LTD.	SECTION : QUAYWALL WORK SUB-SECTION : PASSENGER BERTH TITLE : BAR ARRANGEMENT FOR PLATFORM1 DECK SLAB	DATE : JULY/2002 SCALE : 1 : 100 DRAWING NO. DW-QW-02-009

BAR ARRANGEMENT FOR PLATFORM1 PILE HEAD

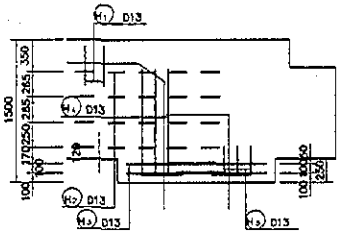
Sect.L–L (Arrangement for haunch bar)
1:100



Detail of part a
1:50



Detail of part b
1:50



Sect.M–M
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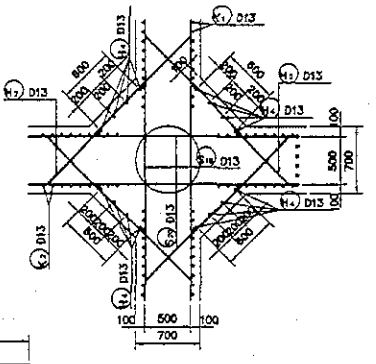

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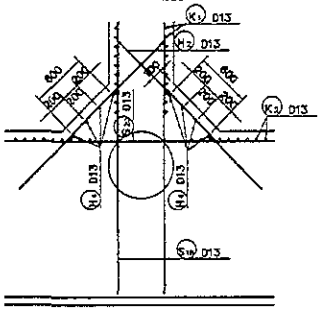
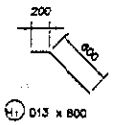
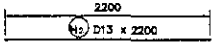
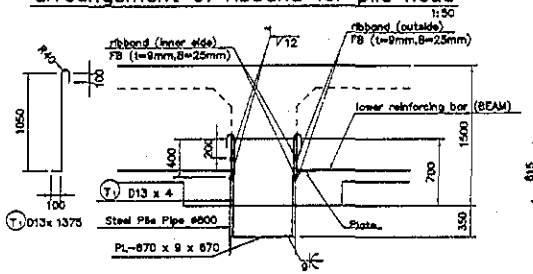
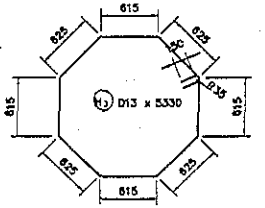


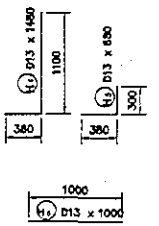




arreangement of ribband for pile head
1:50







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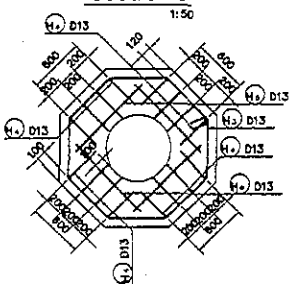

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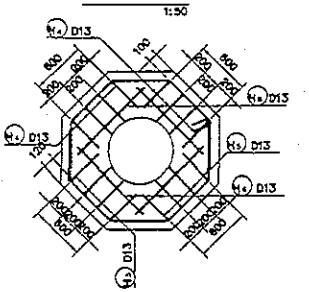


	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR	DESIGNED BY :	SECTION : QUAYWALL WORK	DATE : JULY/2002
	COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	NIPPON KOEI CO., LTD.	CHECKED BY :	SUB-SECTION : PASSENGER BERTH	SCALE : INDICATED
			APPROVED BY :	TITLE : BAR ARRANGEMENT FOR PLATAFORM1 PILE HEAD	DRAWING NO. DW-QW-02-009

BAR SCHEDULE FOR PLATFORM1

BAR No.		DIA	LENGTH (mm)	UNIT WT. (kg/m)	Q.T.Y.	WEIGHT (kg)	TOTAL WT. (kg)	SHAPE	REMARKS
S1	1	D16	7,000	1.56	20	10,920	218		
	2	"	6,000	"	20	9,360	187		
	3	"	8,700	"	20	13,572	271		
S2	1	"	10,500	"	20	16,380	328		
	2	"	6,000	"	20	9,360	187		
	3	"	5,200	"	20	8,112	162		
S3	1	"	9,500	"	20	14,820	296		
	2	"	6,000	"	20	9,360	187		
	3	"	4,800	"	20	7,488	150		
S4	1	"	6,000	"	40	9,360	374		
	2	"	8,300	"	20	12,948	259		
S5	1	"	4,000	"	80	6,240	499		
	2	"	6,500	"	80	10,140	811		
S6	1	"	6,300	"	80	9,828	786		
	2	"	4,000	"	80	6,240	499		
S7	1	D22	8,500	3.04	9	25,840	233		
	2	"	6,000	"	18	18,240	328		
	3	"	9,060	"	9	18,422	166		
S8	1	"	9,800	"	9	29,792	268		
	2	"	6,000	"	9	18,240	164		
	3	"	5,500	"	9	16,720	150		
S9	1	"	7,000	"	9	21,280	192		
	2	"	6,000	"	18	18,240	328		
	3	"	7,560	"	9	22,982	207		
S10	1	"	6,500	"	9	19,760	178		
	2	"	6,000	"	9	18,240	164		
	3	"	8,800	"	9	26,752	241		
S11		"	4,800	"	54	14,592	788		
S12	1	"	5,740	"	24	17,450	419		
	2	"	9,000	"	24	27,360	657		
S13		"	2,800	"	48	8,512	409		
S14		D16	1,500	1.56	40	2,340	94		
S15	1	D22	4,640	3.04	6	14,106	85		
	2	"	8,000	"	6	24,320	146		
S16	1	"	6,500	"	11	19,760	217		
	2	"	4,600	"	11	13,984	154		
S17	1	"	4,540	"	5	13,802	69		
	2	"	7,500	"	5	22,800	114		
S18	1	D13	6,000	0.995	12	5,970	72		
	2	"	6,000	"	24	5,970	143		
	3	"	3,160	"	6	3,144	19		
	4	"	3,660	"	6	3,642	22		
S19	1	"	2,000	"	6	1,990	12		
	2	"	5,400	"	18	5,373	97		
	3	"	1,500	"	6	1,493	9		
S20	1	"	3,660	"	16	3,642	58		
	2	"	7,000	"	16	6,965	111		
S21	1	"	1,500	"	14	1,493	21		
	2	"	3,400	"	14	3,383	47		
S22	1	"	7,000	"	6	6,965	42		
	2	"	3,880	"	6	3,861	23		
S23		"	880	"	18	0.876	16		
S24		"	1,530	"	2	1,522	3		
S25		"	2,030	"	4	2,020	8		

BAR No.		DIA	LENGTH (mm)	UNIT WT. (kg/m)	Q.T.Y.	WEIGHT (kg)	TOTAL WT. (kg)	SHAPE	REMARKS
					D22	5,677			
					D16	5,308			
					D13	703			
					TOTAL	11,688	kg		
K1		D13	3,480	0.995	381	3,463	1,319		
K2		"	3,560	"	240	3,542	850		
K3		"	2,880	"	15	2,866	43		
K4		"	4,500	"	60	4,478	269		
					D13	2,481			
					TOTAL	2,481	kg		
H1		D13	800	0.995	558	0.796	444		
H2		"	2,200	"	168	2,189	368		
H3		"	5,330	"	24	5,303	127		
H4		"	1,480	"	168	1,473	247		
H5		"	680	"	24	0,677	16		
H6		"	1,000	"	48	0.995	48		
					D13	1,250			
					TOTAL	1,250	kg		
TOTAL					D22	5,677			
					D16	5,308			
					D13	4,434			
					TOTAL	15,419	kg		
					PLATE (SS400)				
					70.2 kg x 12 pieces = 842		kg		
					ribband(SS400)outside	1.77 kg/m x 2.20m x 24 pieces = 93.5 kg			
					ribband(SS400)inner side	1.77 kg/m x 2.06m x 24 pieces = 87.5 kg			
					TOTAL		181.0 kg		
					CONCRETE VOLUME	140.850	m3		
					FORM	387.434	m2		
T1		D13	1,375	0.995	48	1.368	66		
					D13	66			
					TOTAL	66	kg		
					PLATE (SS400)				
					24.9 kg x 12 pieces = 299		kg		

JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

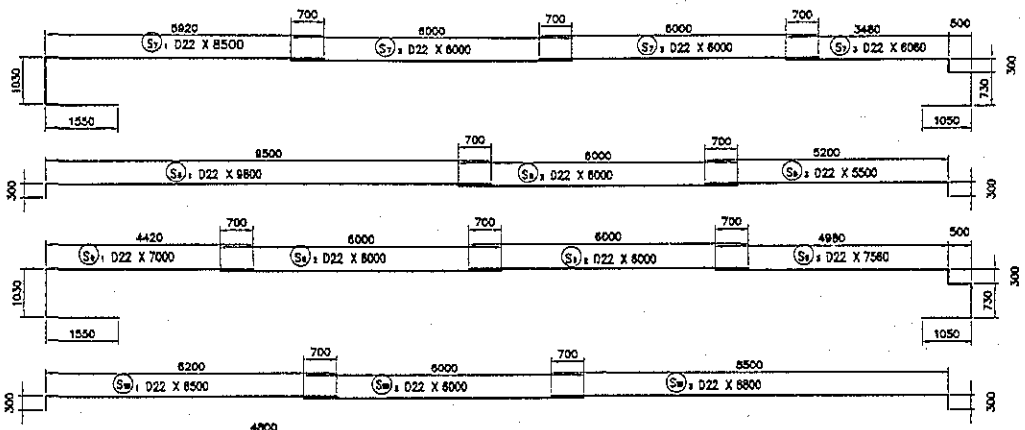
Cepa COMISION EJECUTIVA PORTUARIA AUTONOMA

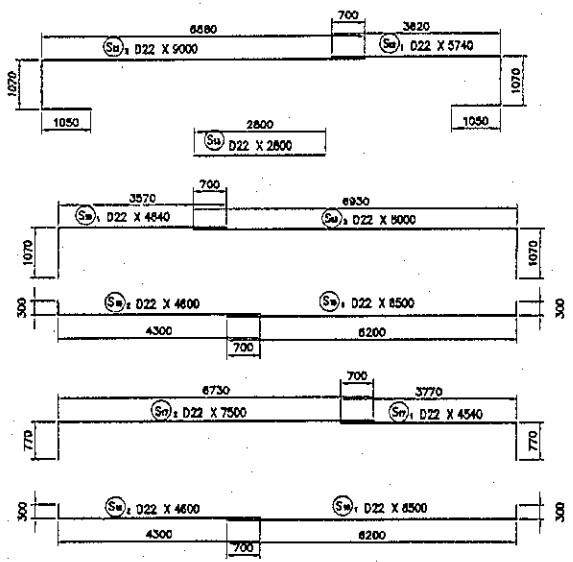
DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR

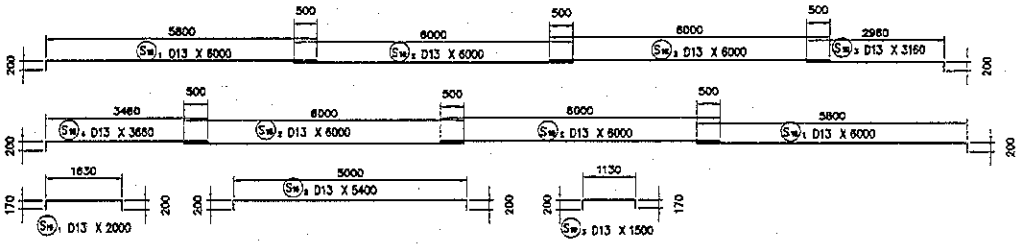
NIPPON KOEI CO., LTD.

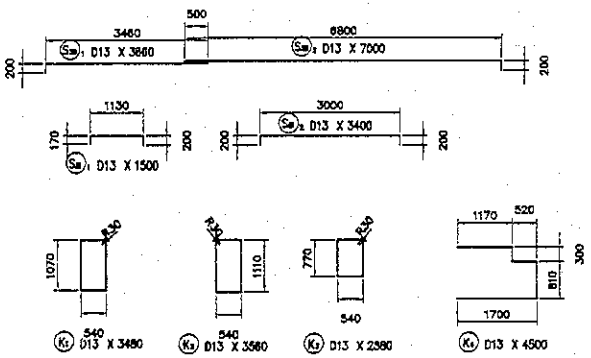
BAR SCHEDULE FOR PLATFORM1

BAR BENDING SCHEDULE FOR PLATFORM1 BEAM

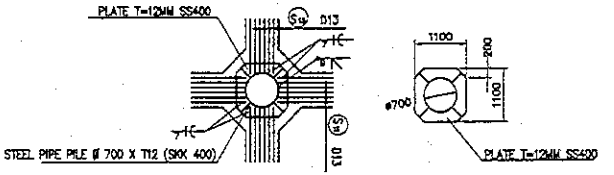


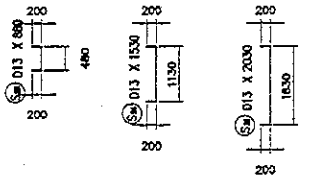






DETAIL & BENDING SCHEDULE FOR PLATE





JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR	DESIGNED BY :	SECTION : QUAYWALL WORK
COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	NIPPON KOEI CO., LTD.	CHECKED BY :	SUB-SECTION : PASSENGER BERTH
		APPROVED BY :	TITLE : BAR BENDING SCHEDULE FOR PLATFORM1 BEAM

DATE : JULY/2002
SCALE : 1 : 100
DRAWING NO: DW-QW-02-010

Project	Detailed Design on Port Reactivation Project in La Union	Calc. File No.	
Section	PLATFORM 1	Calc. Index No.	
Subject	REINFORCEMENT FOR COPING	Page No.	Rev.

References/ Notes

D 22 = 5,677 kg ≃ 5.7 ton.

D 16 = 5,308 kg ≃ 5.4 ton

D 13 = 4,434 kg ≃ 4.5 ton

W = (5,677 + 5,308 + 4,434) kg = 15,419 kg

≃ **15.5 ton**

		Prepared by		Checked by	
			/ /200		/ /200

FN: Calculation_Sheet

NIPPON KOEI CO.,LTD.

QUANTITY CALCULATION COVER SHEET

Project	Detailed Design on Port Reactivation Project in La Union Province	**Project Code**	JC1N004/2N001
Work Section Title	PLATFORM 1	**Pay Item No. (BOQ)**	2D-P10204
Quantity Item	CORNER PROTECTION	**Unit**	m

Calculation Procedure Applied

Corner protection lenght was computed for platform 1.
It was applied in one side of the platform.

References, Calculation Base and Revisions

References: Tender Drawings:

DW-QW-02-001 Plan and Profile of Pasungay Berth.

Rev	Prepared by	Prepared Date	No. of Pages	Checked by	Checked Date	Reviewed by	Reviewed Date	Superseded by Calc No.
0	Karla Gorio			M. Inuma		Mr. Ando		
1								
2								
3								

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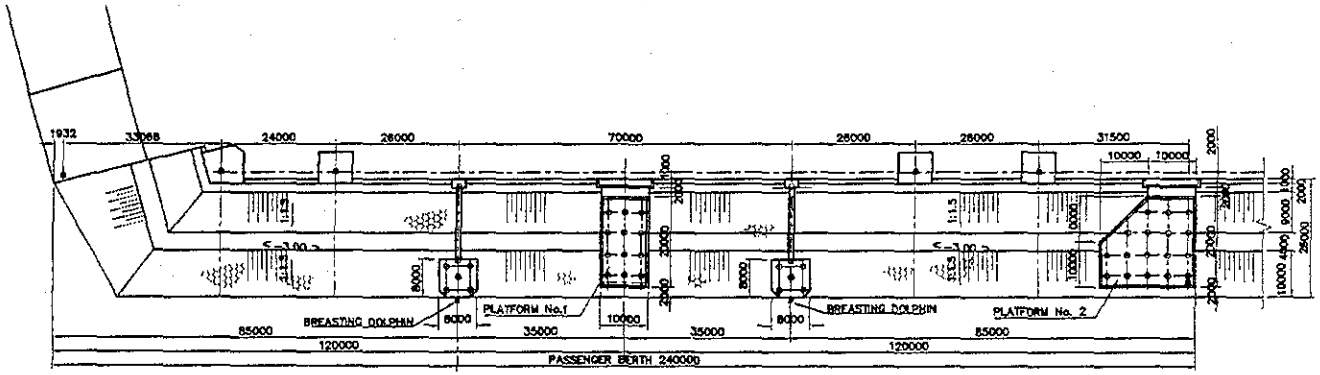
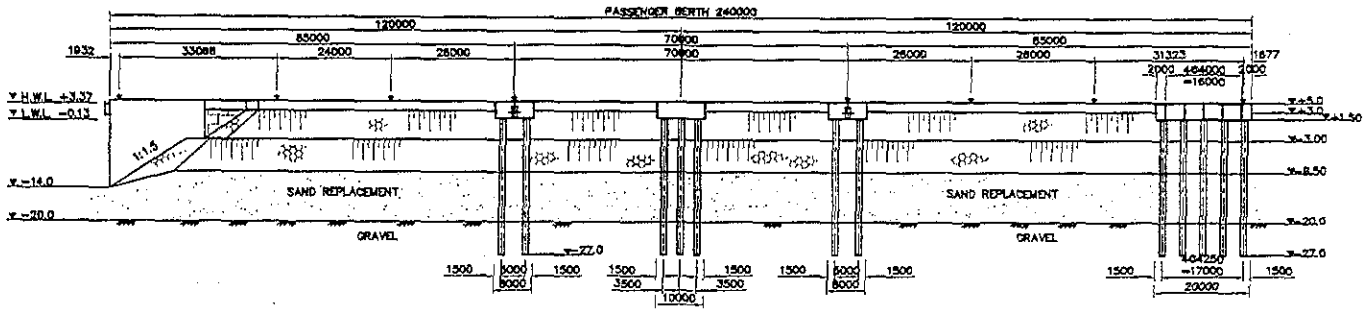


PLAN



PROFILE

PASSENGER BERTH

SCALE 1:1,000 0 10.0 20.0 30.0 40.0 50.0 60.0

REV. NO.	DATE	COMMENTS	BY	APPROVED	DATE		

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)

DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR

NIPPON KOEI CO., LTD.

DESIGNED BY :

CHECKED BY :

APPROVED BY :

SECTION : QUAYWALL WORK

SUB-SECTION : PASSENGER BERTH

TITLE :

PLAN AND PROFILE OF PASSENGER BERTH

DATE : JULY/2002

SCALE : 1 : 1,000

DRAWING NO. DW-QW-02-001

NIPPON KOEI CO.,LTD.

Project	Detailed Design on Port Reactivation Project in La Union	Calc. File No.	
Section	PLATFORM 1	Calc. Index No.	
Subject	CORNER PROTECTION	Page No.	Rev.

References/ Notes

L = 10 m

		Prepared by		Checked by	
			/ /200		/ /200

FN: Calculation_Sheet

NIPPON KOEI CO.,LTD.

QUANTITY CALCULATION COVER SHEET

Project	Detailed Design on Port Reactivation Project in La Union Province	**Project Code**	JC1N004/2N001
Work Section Title	PLATFORM 1	**Pay Item No. (BOQ)**	2D - P102,05
Quantity Item	CONCRETE FOR WRB	**Unit**	M^3

Calculation Procedure Applied

Concrete for wrb was computed for platform 1. Concrete volume was computed for each type of wrb. The cross section was multiplied by the different types of lenghts.

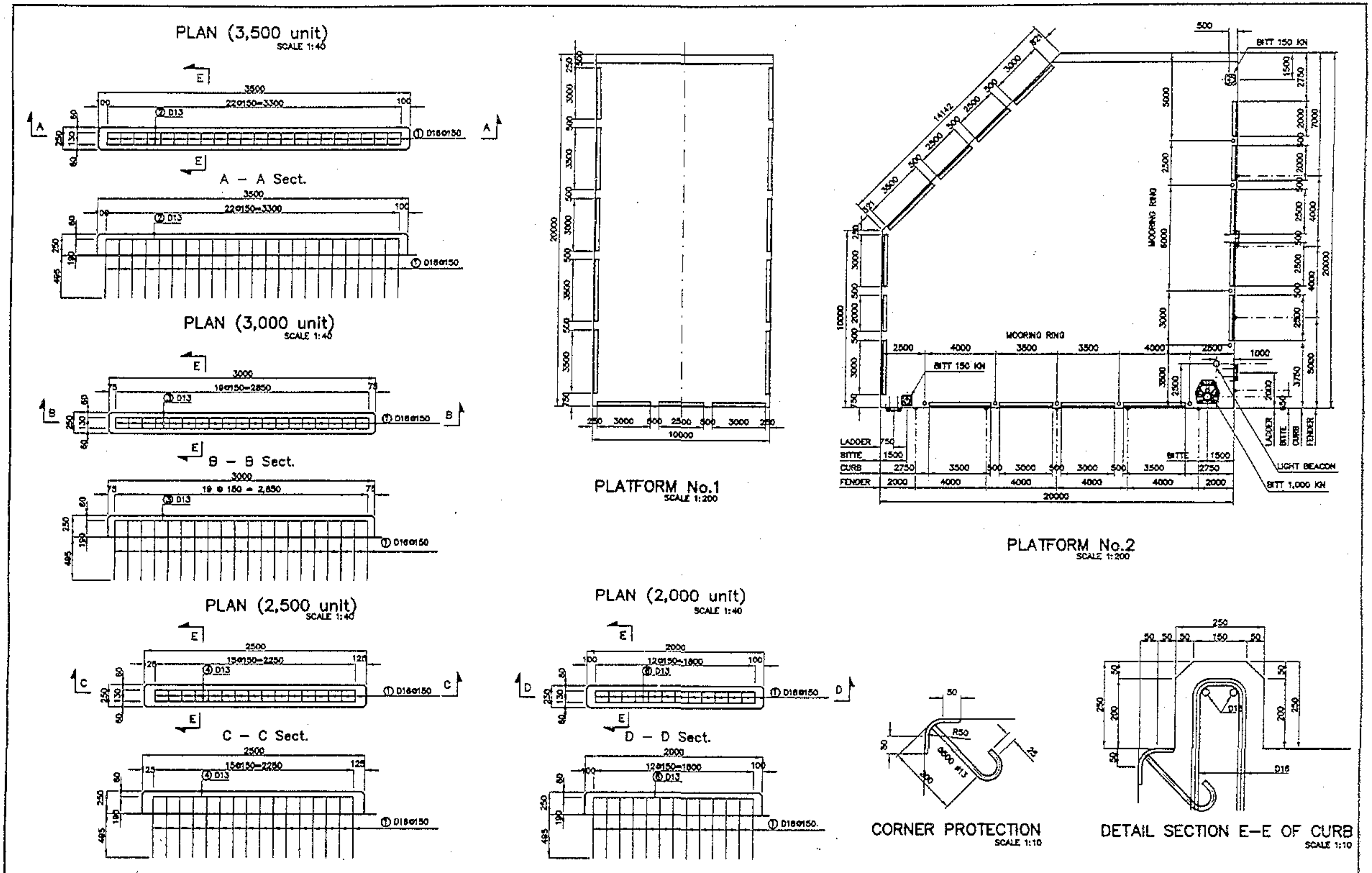
References, Calculation Base and Revisions

References: Tender Drawings

DW - QW - 02 - 028 Detail of wrb

Rev	Prepared		No. of Pages	Checked		Reviewed		Superseded by Calc No.
	by	Date		by	Date	by	Date	
0	Kola Garcia			Mr. Inuma		Mr. Ando		
1								
2								
3								

FN : Calculation_Cover_Sheet_020504_seg cover



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)	DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR NIPPON KOEI CO., LTD.	DESIGNED BY : CHECKED BY : APPROVED BY :	SECTION : QUAYWALL WORK SUB-SECTION : PASSENGER BERTH TITLE : DETAIL OF CURB
			DATE : JULY/2002 SCALE : INDICATED DRAWING NO. DW-CW-02-028

REV. NO. | DATE | COORDINATE | BY | APPROVED | DATE

Project	Detailed Design on Port Reactivation Project in La Union	Calc. File No.	
Section	PLATFORM 1	Calc. Index No.	
Subject	CONCRETE FOR CURB	Page No.	Rev.

References/ Notes

$L = 3.50\ m \quad N_o = 6$

$A = (0.25m)(0.25m) + (0.05m)(0.05m)(2)$

$= 0.06\ m^2$

$V = (0.06\ m^2)(3.5m) = 0.21\ m^3$

$V_T = (0.21\ m^3)(6) = 1.26\ m^3$

$L = 3.0\ m \quad N_o = 6$

$V = (0.06\ m^2)(3.0\ m) = 0.18\ m^3$

$V_T = (0.18\ m^3)(6) = 1.08\ m^3$

$L = 2.5\ m \quad N_o = 1$

$V = (0.06\ m^2)(2.5\ m) = 0.15\ m^3$

$V_T = (0.15\ m^3)(1) = 0.15\ m^3$

$V_T = 2.49\ m^3 \approx \boxed{2.50\ m^3}$

	Prepared by		Checked by	
		/ /200		/ /200

FN: Calculation_Sheet