









4.3.2 Exposure of reinforcement



(1) Substructure



Abutment 01	
Damage: Not exist	Damage: Not exist
	
No damage	No damage



Pier 01	
Damage: Not exist	Damage: Not exist
	
No damage	No damage in reinforcement



Pier 02	
Damage: Not exist	Damage: Not exist
	
No damage	No damage in reinforcement



Pier 03	
Damage: Not exist	Damage: Not exist
	
No damage	No damage in reinforcement



Pier 04	
Damage: Not exist	Damage: Not exist
	
No damage	No damage in reinforcement



Pier 05	
Damage: Not exist	Damage: Not exist
	
No damage in reinforcement	No damage



Pier 06	
Damage: Not exist	Damage: Not exist
	
No damage in reinforcement	No damage in reinforcement



Pier 07	
Damage: Not exist	Damage: Not exist
	
No damage in reinforcement	No damage in reinforcement



Pier 08	
Damage: Not exist	Damage: Not exist
	
No damage in reinforcement	No damage in reinforcement



Pier 09	
Damage: Not exist	Damage: Not exist
	
No damage	No damage in reinforcement



Pier 10	
Damage: Not exist	Damage: Not exist
	
No damage	No damage in reinforcement



Pier 11	
Damage: Not exist	Damage: Not exist
	
No damage	No damage



Pier 12	
Damage: Not exist	Damage: Not exist
	
No damage	No damage in reinforcement

Pier 13	
Damage: Not exist	Damage: Not exist
	
No damage in reinforcement	No damage in reinforcement



Pier 14	
Damage: Not exist	Damage: Not exist
	
No damage in reinforcement	No damage in reinforcement



Pier 15	
Damage: Not exist	Damage: Not exist
	
No damage in reinforcement	No damage in reinforcement



Pier 16	
Damage: Not exist	Damage: Not exist
	
No damage	No damage in reinforcement



Abutment 02	
Damage: Not exist	Damage: Not exist
	
No damage	No damage



(2) Superstructure

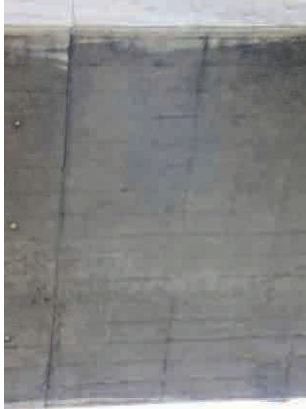

Superstructure P1	
Damage: Not exist	Damage: Not exist
	
No damage	No damage



Superstructure P2	
Damage: Not exist	Damage: Not exist
	
No damage	No damage



Superstructure P3	
Damage: Not exist	Damage: Not exist
	
No damage	No damage



Superstructure P4	
Damage: Not exist	Damage: Not exist
	
No damage	No damage



Superstructure P5	
Damage: Not exist	Damage: Not exist
	
No damage	No damage



Superstructure P6	
Damage: Not exist	Damage: Not exist
	
No damage	No damage



Superstructure P7	
Damage: Not exist	Damage: Not exist
	
No damage	No damage



Superstructure P8	
Damage: Not exist	Damage: Not exist
	
No damage	No damage



Superstructure P9	
Damage: Not exist	Damage: Not exist
	
No damage	No damage



Superstructure P10	
Damage: Not exist	Damage: Not exist
	
No damage	No damage



Superstructure P11	
Damage: Not exist	Damage: Not exist
	
No damage	No damage

Superstructure P12	
Damage: Not exist	Damage: Not exist
	
No damage	No damage

Superstructure P13	
Damage: Not exist	Damage: Not exist
	
No damage	No damage



Superstructure P14	
Damage: Not exist	Damage: Not exist
	
No damage	No damage



Superstructure P15	
Damage: Not exist	Damage: Not exist
	
No damage	No damage



Superstructure P16	
Damage: Not exist	Damage: Not exist
	
No damage	No damage



4.3.3 Falling out damaged particle and Crack in concrete slab



(1) Slab



Slab P1	
Damage: Not exist	Damage: a
	
No damage	No crack



Slab P2	
Damage: Not exist	Damage: a
	
No damage	No crack



Slab P3	
Damage: Not exist	Damage: a
	
No damage	No crack



Slab P4	
Damage: Not exist	Damage: a
	
No damage	No crack



Slab P5	
Damage: Not exist	Damage: a
	
No damage	No crack



Slab P6	
Damage: Not exist	Damage: a
	
No damage	No crack



Slab P7	
Damage: Not exist	Damage: a
	
No damage	No crack



Slab P8	
Damage: Not exist	Damage: a
	
No damage	No crack



Slab P9	
Damage: Not exist	Damage: a
	
No damage	No crack

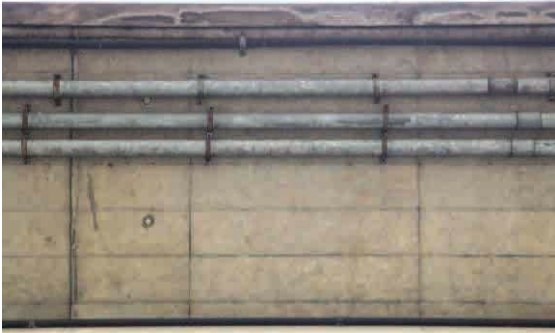

Slab P10	
Damage: Not exist	Damage: a
	
No damage	No crack



Slab P11	
Damage: Not exist	Damage: a
	
No damage	No crack

Slab P12	
Damage: Not exist	Damage: a
	
No damage	No crack



Slab P13	
Damage: Not exist	Damage: a
	
No damage	No crack

Slab P14	
Damage: Not exist	Damage: a
	
No damage	No crack

Slab P15	
Damage: Not exist	Damage: a
	
No damage	No crack

Slab P16	
Damage: Not exist	Damage: a
	
No damage	No damage

4.3.4 Uneven on road surface

Surface	
Damage: Exist	Damage: Exist
	
Uneven more than 20mm	Uneven more than 20mm

2. Schmidt hammer test

PIER No: #P1 (UPSTREAM)

44	42	44	46
46	42	44	52
40	42	46	42
42	40	46	54

AVERAGE= 44.50

PIER No: #P1 (DOWN STREAM)

45	38	48	50
46	48	50	47
40	43	40	50
46	44	50	40

AVERAGE= 45.31

PIER No: #P2 (UPSTREAM)

44	46	46	46
44	46	40	48
44	42	40	42
50	54	48	40

AVERAGE= 45.00

PIER No: #P2 (DOWN STREAM)

50	52	46	50
40	50	48	50
42	44	42	42
40	50	42	42

AVERAGE= 45.63

PIER No: #P3 (UPSTREAM)

42	36	36	38
44	45	50	36
48	38	32	35
44	40	35	38

AVERAGE= 39.81

PIER No: #P3 (DOWN STREAM)

50	44	37	40
38	40	40	38
38	40	40	42
40	38	36	40

AVERAGE= 40.06

PIER No: #P4 (UPSTREAM)

40	39	38	36
38	42	40	40
38	39	44	36
36	32	40	42

AVERAGE= 38.75

PIER No: #P4 (DOWN STREAM)

42	36	34	34
36	36	38	36
38	36	34	40
40	38	38	36

AVERAGE= 37.00

PIER No: #P5 (UPSTREAM)

PIER No: #P5 (DOWN STREAM)

40	44	38	50
42	44	42	42
44	42	40	46
48	46	40	44

AVERAGE= 43.25

PIER No: #P7 (UPSTREAM)

46	44	40	46
44	42	42	44
50	48	50	50
46	46	45	48

AVERAGE= 45.69

PIER No: #P7 (DOWN STREAM)

44	42	44	44
46	42	48	48
42	46	42	47
48	48	40	46

AVERAGE= 44.81

Piercap

40	36	42	40
44	38	44	36
42	36	40	38
40	39	42	44

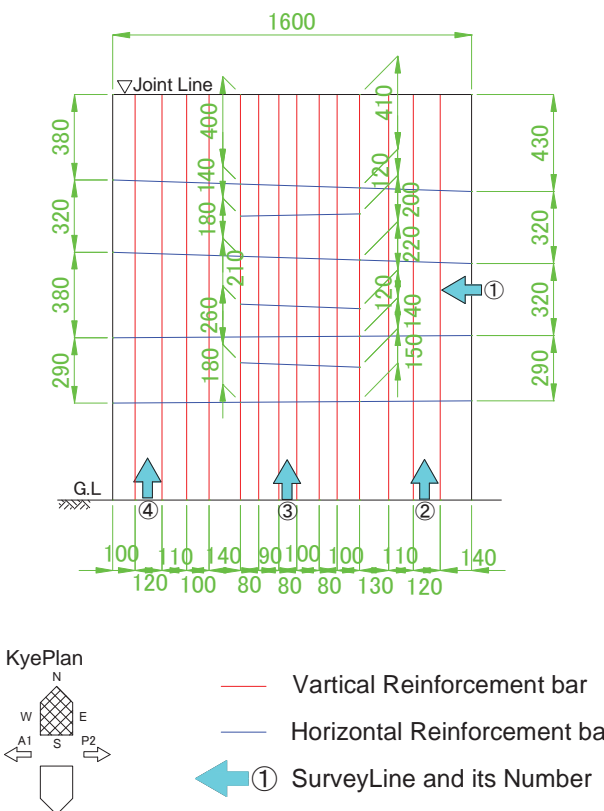

AVERAGE= 40.06

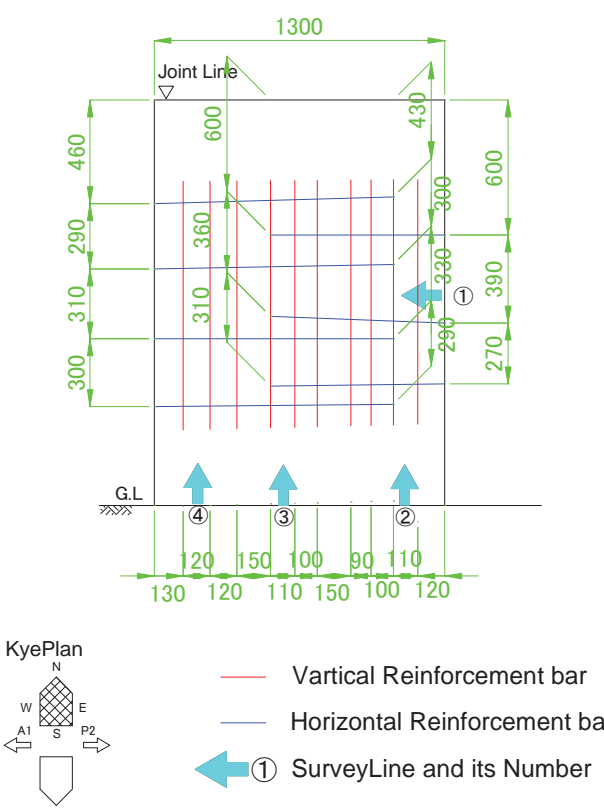




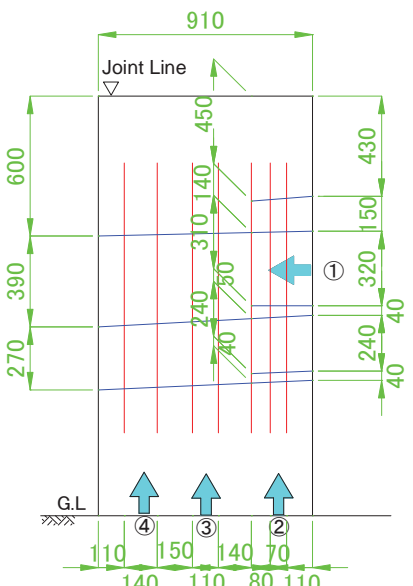


3. Measuring

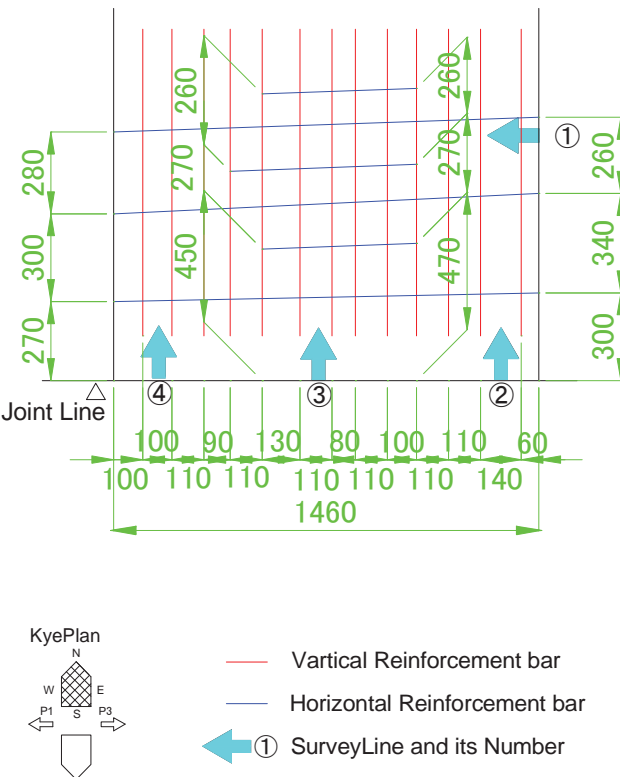

4. Reinforcement Survey (Kanchpur Bridge)

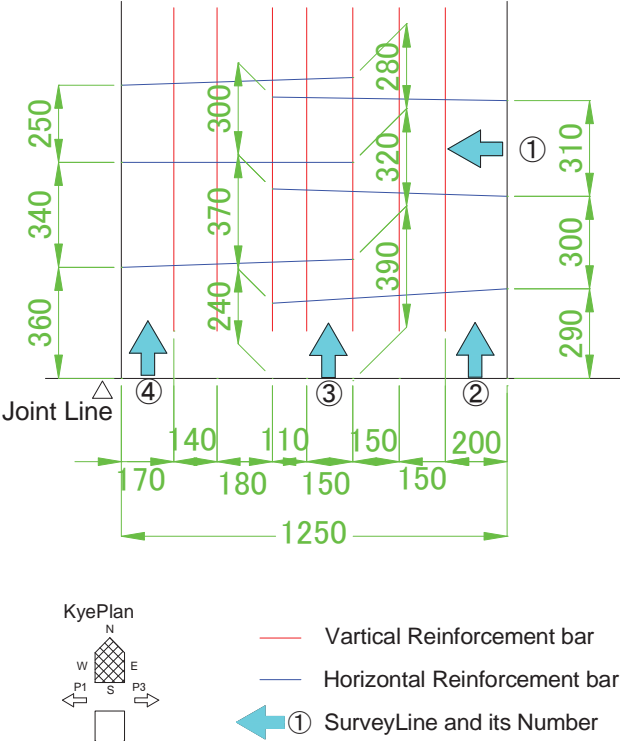

The Result of Investigation

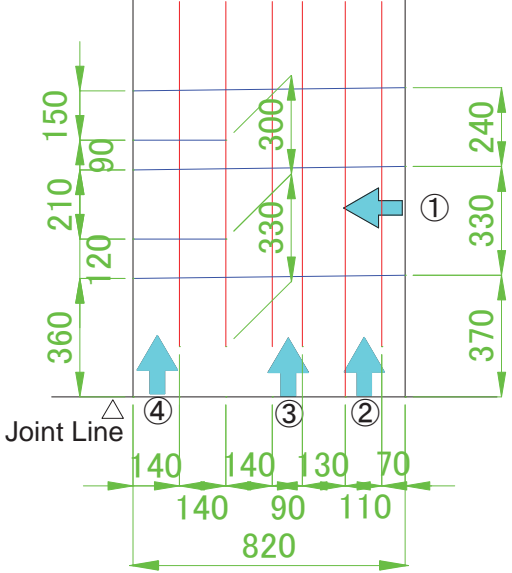
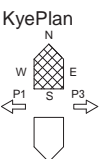

Group A	P1	North Column	Down-side South Face	
<p>Bar arrangement drawing</p>  <p>Key Plan</p> <ul style="list-style-type: none"> — Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number 			<p>Picture</p> 	
<p>Note</p>				
<p>Survey Results</p>				
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P2 Chipping Results)
	Max.	Min.	Ave.	
①	140	80	105.0	D29
②	320	290	310.0	D16
③	210	115	160.5	D16
④	380	290	330.0	D16

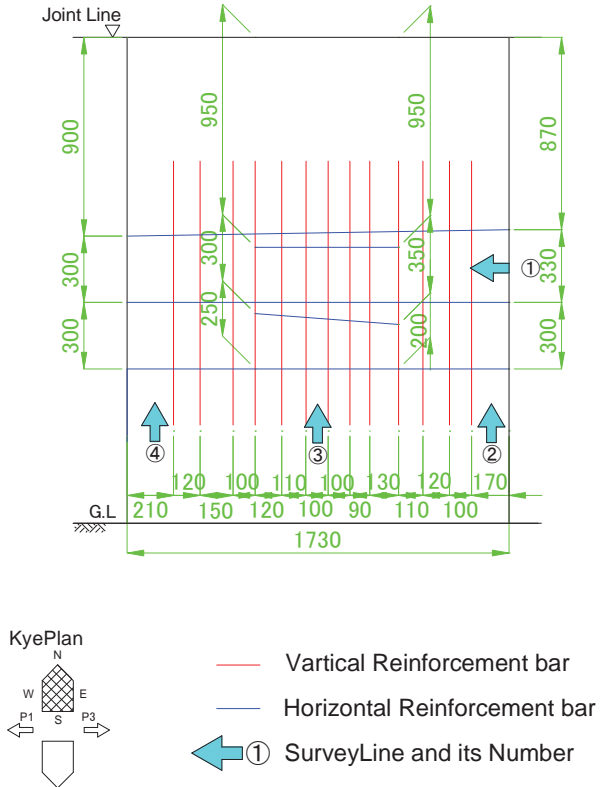

Group A	P1	North Column	Down-side East Face	
<p>Bar arrangement drawing</p>  <p>KeyPlan</p> <p>— Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number</p>			<p>Picture</p> 	
			<p>Note</p>	
				
<p>Survey Results</p>				
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P2 Chipping Results)
	Max.	Min.	Ave.	
①	150	90	117.0	D29
②	390	270	330.0	D16
③	235	80	151.5	D16
④	310	290	300.0	D16

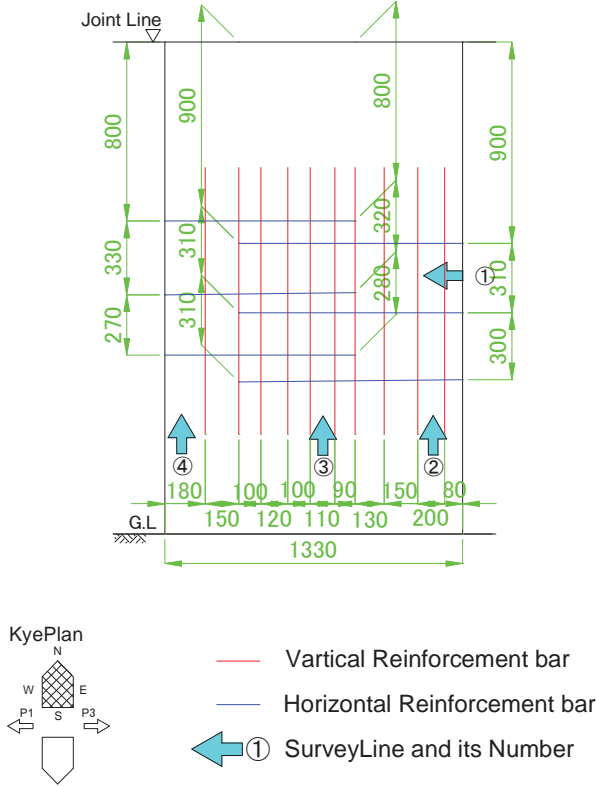
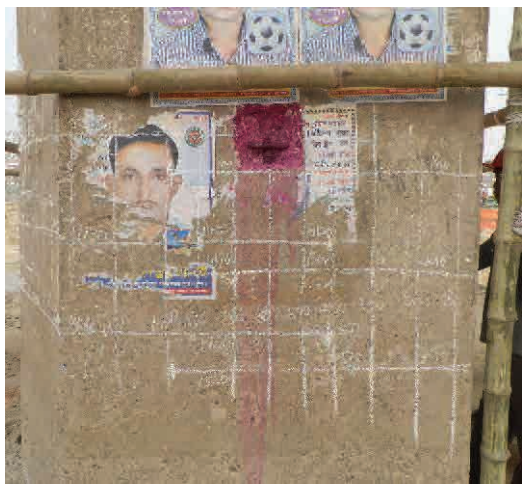
Group A	P1	North Column	Down-side Northwest Face	
<p>Bar arrangement drawing</p>  <p>KeyPlan</p> <p>— Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number</p>			<p>Picture</p> 	
			<p>Note</p> 	
<p>Survey Results</p>				
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P2 Chipping Results)
	Max.	Min.	Ave.	
①	150	70	115.0	D29
②	320	40	158.0	D16
③	310	60	160.0	D16
④	390	270	330.0	D16

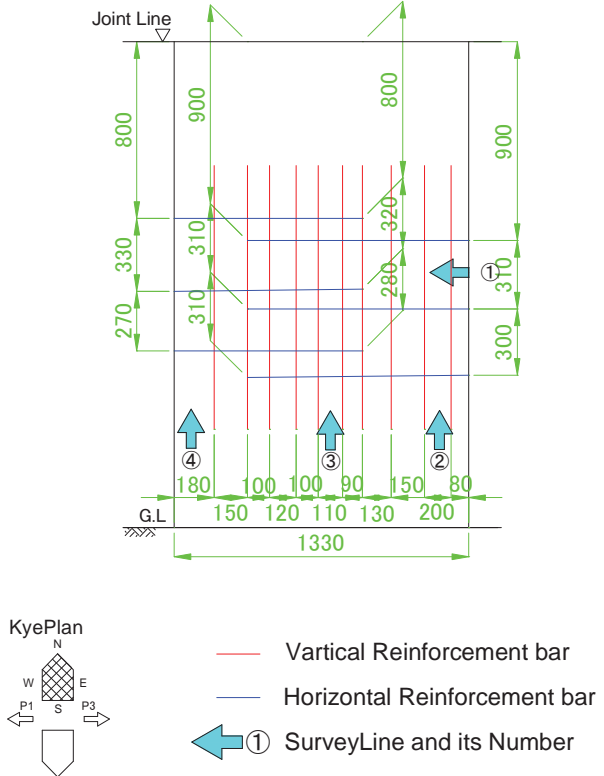

Group A	P2	North Column	Down-side Up-side South Face	
<p>Bar arrangement drawing</p>  <p>Joint Line</p> <p>100 90 130 80 100 110 60</p> <p>100 110 110 110 110 110 140</p> <p>1460</p> <p>270 300 280 270 260 450 270 260 470 270 260 300 340 260</p> <p>④ ③ ② ①</p> <p>KyePlan N W E S P3 P1</p> <p>— Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number</p>			<p>Picture</p> 	
			<p>Note</p>	
<p>Survey Results</p>				
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P2 Chipping Results)
	Max.	Min.	Ave.	
①	140	80	108.0	D29
②	340	270	305.0	D16
③	160	100	136.0	D16
④	300	180	240.0	D16

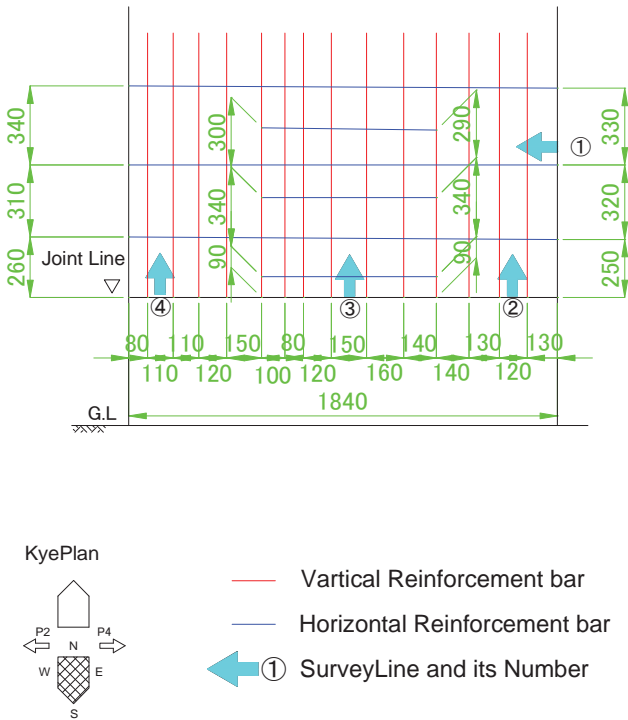

Group A	P2	North Column	Up-side West Face	
<p>Bar arrangement drawing</p>  <p>Joint Line</p> <p>KyePlan</p> <p>— Vertical Reinforcement bar</p> <p>— Horizontal Reinforcement bar</p> <p>← ① SurveyLine and its Number</p>			<p>Picture</p> 	
Survey Results			Note	
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P2 Chipping Results)
	Max.	Min.	Ave.	
①	180	110	147.0	D29
②	310	300	305.0	D16
③	230	60	144.0	D16
④	340	250	295.0	D16

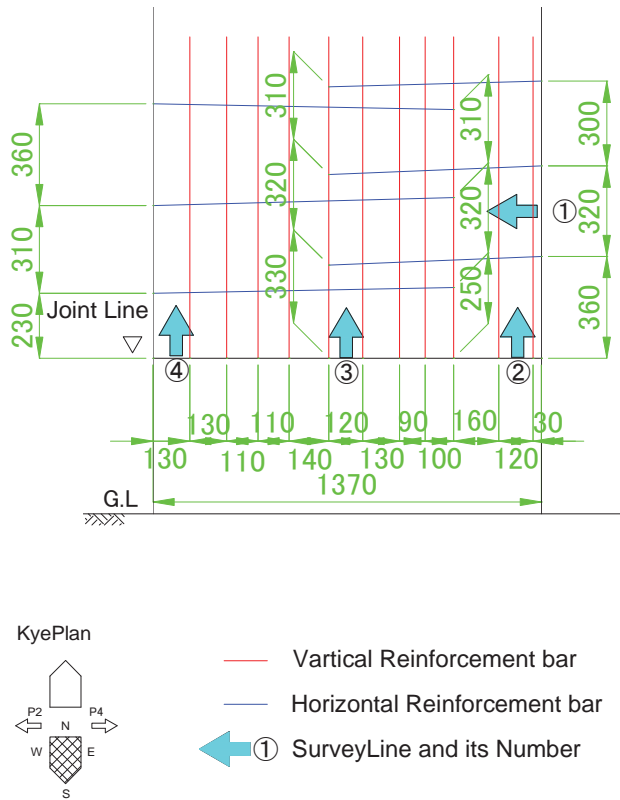

Group A	P2	North Column	Up-side Northwest Face	
<p>Bar arrangement drawing</p>  <p>The drawing shows a column with a total width of 820 mm and a total height of 1080 mm. Vertical reinforcement bars are shown in red, and horizontal reinforcement bars are shown in blue. Survey lines are indicated by blue arrows and numbered 1, 2, 3, and 4. The horizontal spacing between bars is 140, 140, 90, 130, and 70 mm. The vertical spacing between bars is 360, 210, 150, 120, 90, 330, 300, 330, 240, and 370 mm. A joint line is shown at the bottom of the column.</p> <p>KyePlan  </p> <ul style="list-style-type: none"> — Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number 			<p>Picture</p> 	
<p>Note</p>				
<p>Survey Results</p>				
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P2 Chipping Results)
	Max.	Min.	Ave.	
①	140	90	122.0	D29
②	330	240	285.0	D16
③	220	80	157.0	D16
④	210	90	143.0	D16

Group A	P2	North Column	Down-side South Face	
<p>Bar arrangement drawing</p>  <p>Joint Line</p> <p>900</p> <p>950</p> <p>950</p> <p>870</p> <p>300</p> <p>300</p> <p>300</p> <p>250</p> <p>300</p> <p>350</p> <p>200</p> <p>330</p> <p>300</p> <p>300</p> <p>G.L.</p> <p>210</p> <p>150</p> <p>120</p> <p>100</p> <p>110</p> <p>100</p> <p>90</p> <p>110</p> <p>100</p> <p>170</p> <p>1730</p> <p>KyePlan</p> <p>N</p> <p>E</p> <p>W</p> <p>S</p> <p>P1</p> <p>P3</p> <p>— Vertical Reinforcement bar</p> <p>— Horizontal Reinforcement bar</p> <p>← ① SurveyLine and its Number</p>			<p>Picture</p> 	
			<p>Note</p>	
<p>Survey Results</p>				
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P2 Chipping Results)
	Max.	Min.	Ave.	
①	150	90	113.0	D29
②	330	300	315.0	D16
③	235	60	128.5	D16
④	300	300	300.0	D16

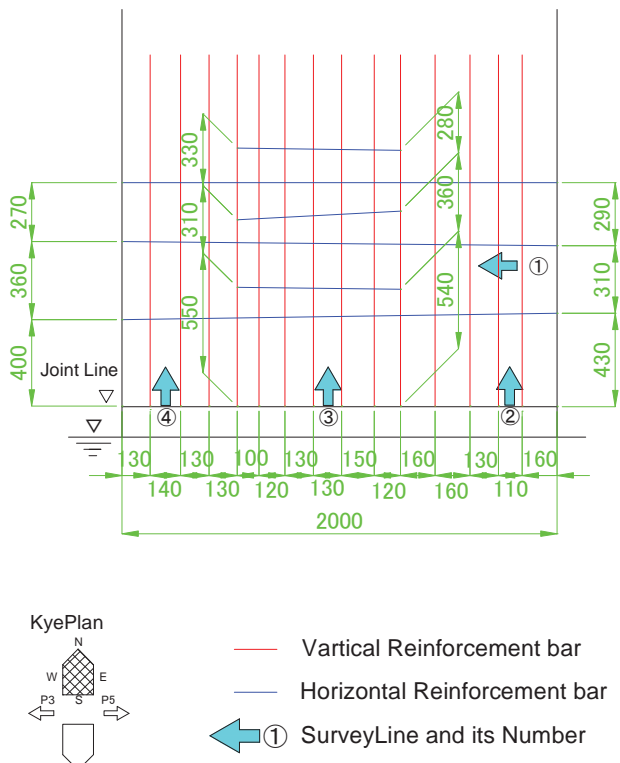
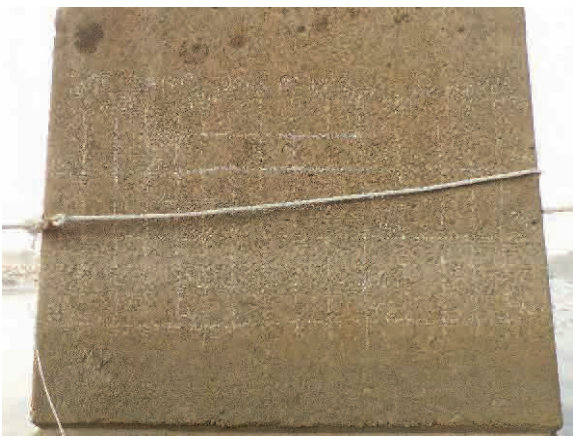
Group A	P2	North Column	Down-side West Face	
<p>Bar arrangement drawing</p>  <p>Joint Line</p> <p>800</p> <p>900</p> <p>800</p> <p>900</p> <p>330</p> <p>310</p> <p>310</p> <p>280</p> <p>310</p> <p>300</p> <p>270</p> <p>180</p> <p>100</p> <p>100</p> <p>90</p> <p>150</p> <p>80</p> <p>150</p> <p>120</p> <p>110</p> <p>130</p> <p>200</p> <p>1330</p> <p>G.L.</p> <p>KyePlan</p> <p>N</p> <p>W</p> <p>E</p> <p>S</p> <p>P1</p> <p>P3</p> <p>— Vertical Reinforcement bar</p> <p>— Horizontal Reinforcement bar</p> <p>← ① SurveyLine and its Number</p>			<p>Picture</p> 	
			<p>Note</p>	
<p>Survey Results</p>				
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P2 Chipping Results)
	Max.	Min.	Ave.	
①	150	90	119.0	D29
②	310	300	305.0	D16
③	215	90	144.0	D16
④	330	270	300.0	D16

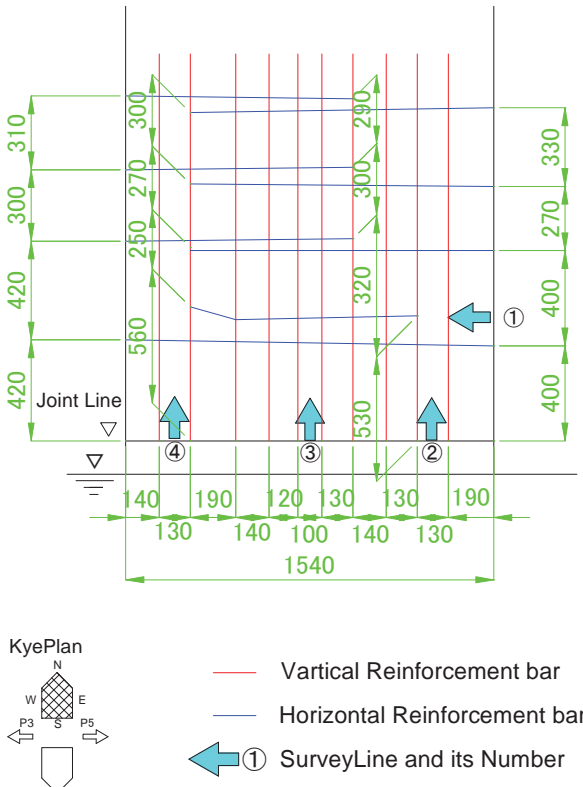

Group A	P2	North Column	Down-side Northwest Face	
<p>Bar arrangement drawing</p>  <p>KyePlan N W E S P1 P3</p> <ul style="list-style-type: none"> — Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number 			<p>Picture</p> 	
			<p>Note</p>	
<p>Survey Results</p>				
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P2 Chipping Results)
	Max.	Min.	Ave.	
①	190	100	128.0	D29
②	310	300	305.0	D16
③	190	110	150.0	D16
④	190	110	146.0	D16

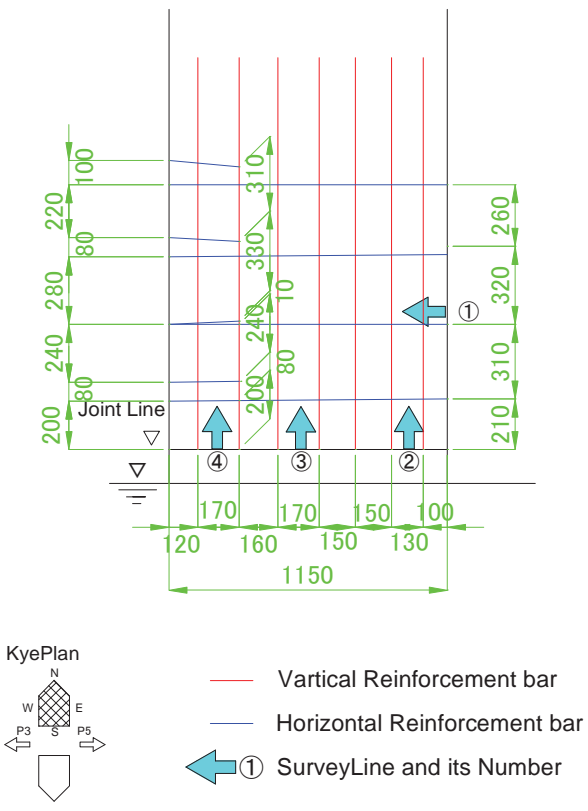
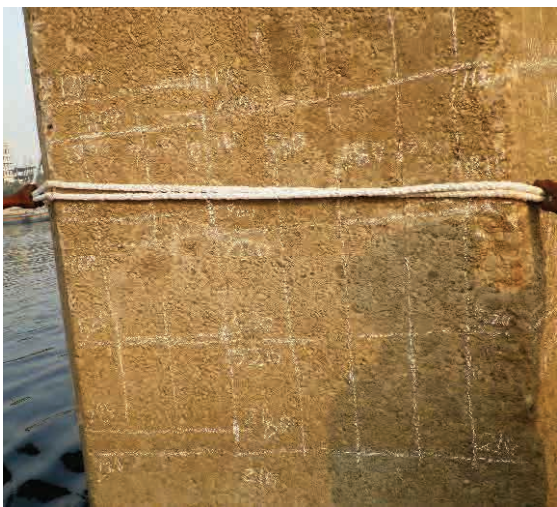
Group A	P3	South Column	Down-side North Face	
<p>Bar arrangement drawing</p>  <p>KeyPlan</p> <ul style="list-style-type: none"> — Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number 			<p>Picture</p> 	
Survey Results			Note	
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P2 Chipping Results)
	Max.	Min.	Ave.	
①	160	80	125.0	D29
②	330	320	325.0	D16
③	195	145	166.0	D16
④	340	310	325.0	D16

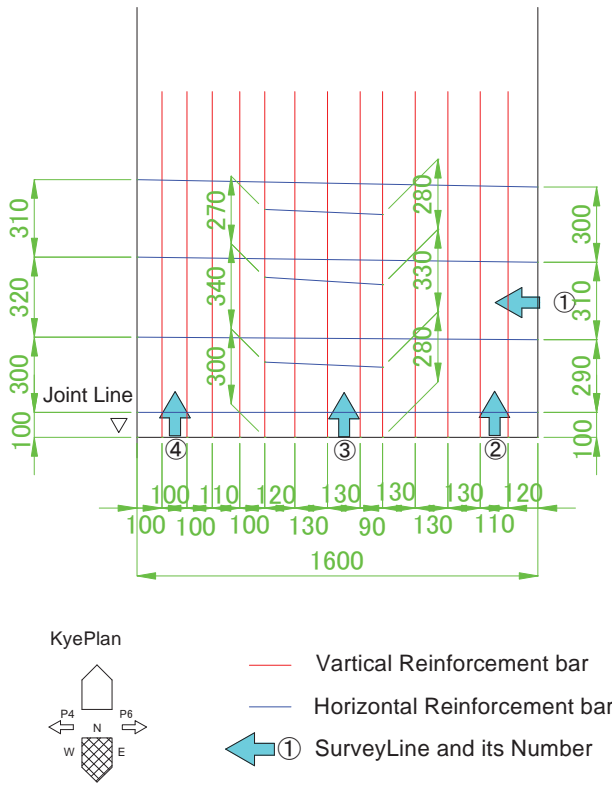
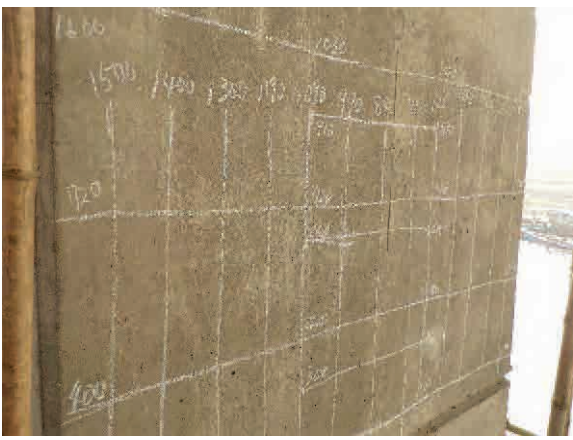
Group A	P3	South Column	Down-side West Face	
<p>Bar arrangement drawing</p>  <p>KyePlan</p> <ul style="list-style-type: none"> — Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number 			<p>Picture</p> 	
Survey Results			Note	
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P2 Chipping Results)
	Max.	Min.	Ave.	
①	160	90	121.0	D29
②	320	300	310.0	D16
③	230	85	146.0	D16
④	360	310	335.0	D16

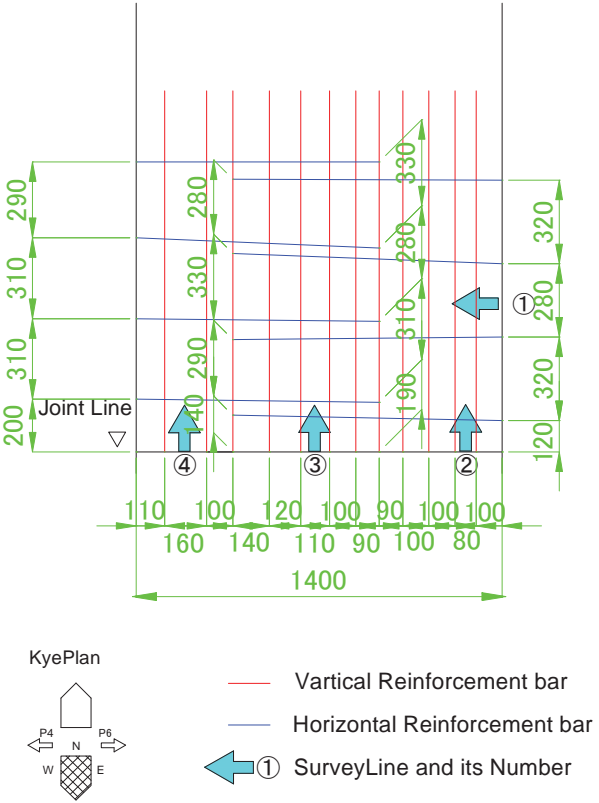

Group A	P3	South Column	Down-side Southwest Face	
Bar arrangement drawing			Picture	
<p>The drawing shows a column with a total width of 1070 mm and a total height of 1070 mm. The reinforcement is arranged in four vertical survey lines (1, 2, 3, 4) and four horizontal survey lines (1, 2, 3, 4). The horizontal spacing between survey lines is 120 mm, 120 mm, 140 mm, and 180 mm. The vertical spacing between survey lines is 350 mm, 330 mm, 330 mm, and 320 mm. The drawing also shows a joint line and ground level (G.L.).</p>			<p>A photograph showing the down-side southwest face of the column. The surface is textured and shows the reinforcement layout. A blue arrow points to survey line 1.</p>	
			Note	
Survey Results				
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P2 Chipping Results)
	Max.	Min.	Ave.	
①	180	110	135.0	D29
②	240	70	140.0	D16
③	240	70	144.0	D16
④	330	300	315.0	D16

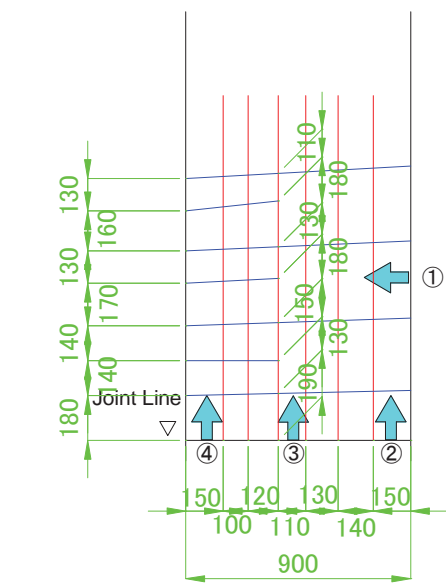

Group B	P4	North Column	Down-side South Face	
<p>Bar arrangement drawing</p>  <p> — Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number </p>			<p>Picture</p> 	
<p>Survey Results</p>			<p>Note</p>	
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P7 Chipping Results)
	Max.	Min.	Ave.	
①	160	100	132.0	D29
②	340	290	315.0	D16
③	210	110	155.0	D16
④	360	270	315.0	D16

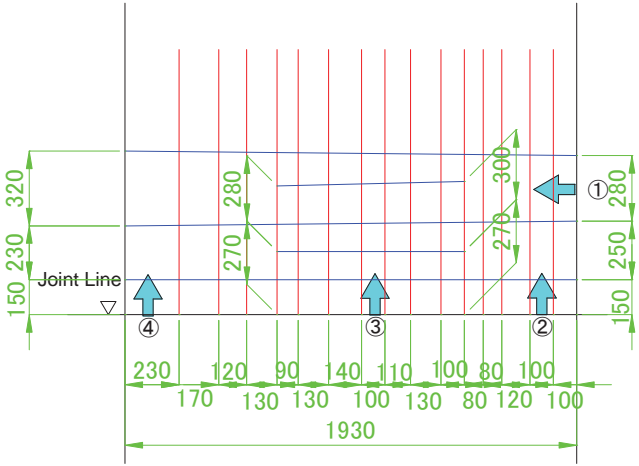
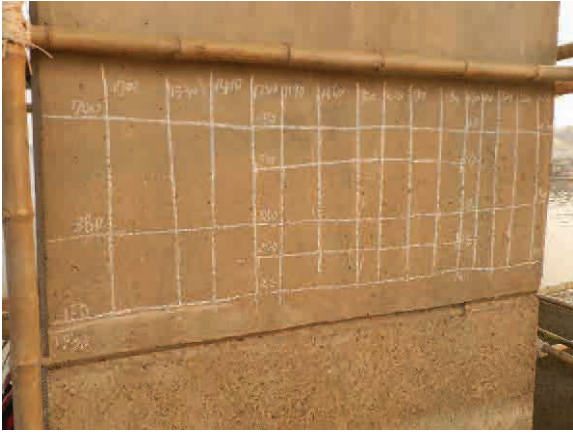
Group B	P4	North Column	Down-side West Face	
<p>Bar arrangement drawing</p>  <p> — Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number </p>			<p>Picture</p> 	
<p>Survey Results</p>			<p>Note</p>	
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P7 Chipping Results)
	Max.	Min.	Ave.	
①	190	100	134.0	D29
②	400	230	333.0	D16
③	280	45	156.0	D16
④	340	300	317.0	D16

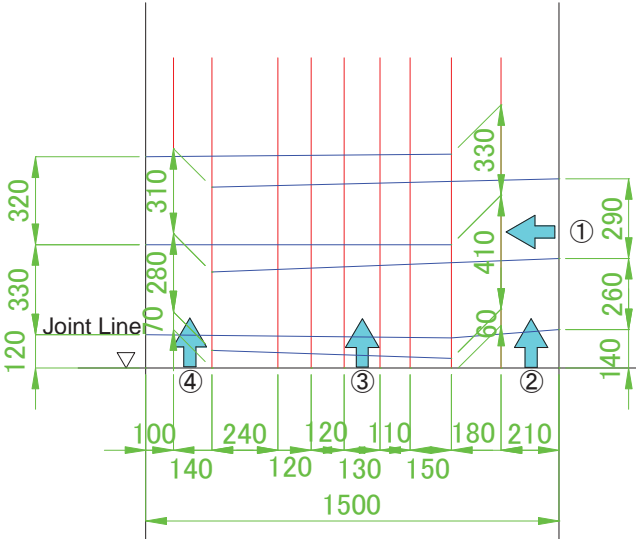
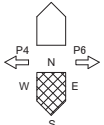

Group B	P4	North Column	Down-side Northwest Face	
<p>Bar arrangement drawing</p>  <p>— Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number</p>			<p>Picture</p> 	
<p>Note</p>				
<p>Survey Results</p>				
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P7 Chipping Results)
	Max.	Min.	Ave.	
①	170	130	155.0	D29
②	370	290	323.0	D16
③	250	10	137.0	D16
④	280	60	163.0	D16

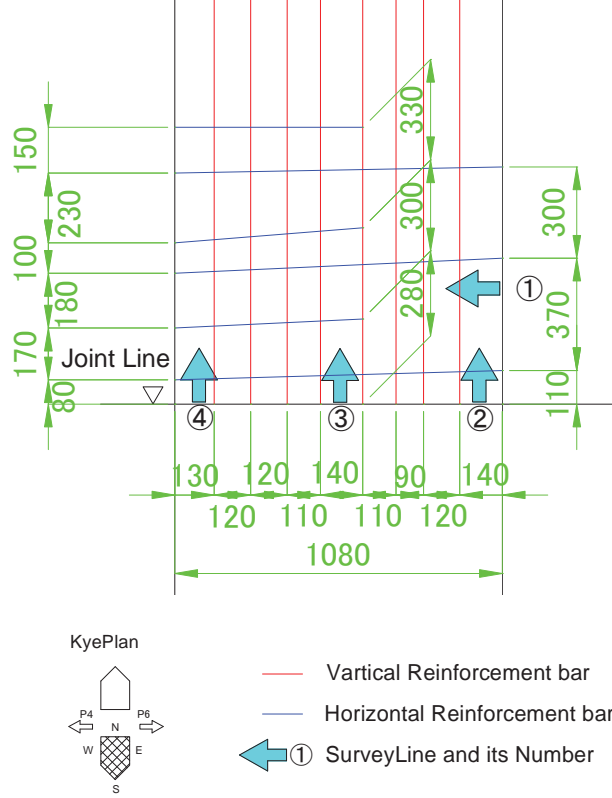

Group C	P5	South Column	Up-side North Face	
<p>Bar arrangement drawing</p>  <p> — Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number </p>			<p>Picture</p> 	
<p>Survey Results</p>			<p>Note</p>	
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P5 Chipping Results)
	Max.	Min.	Ave.	
①	130	90	115.0	D29
②	310	290	300.0	D16
③	215	85	152.0	D16
④	320	300	310.0	D16

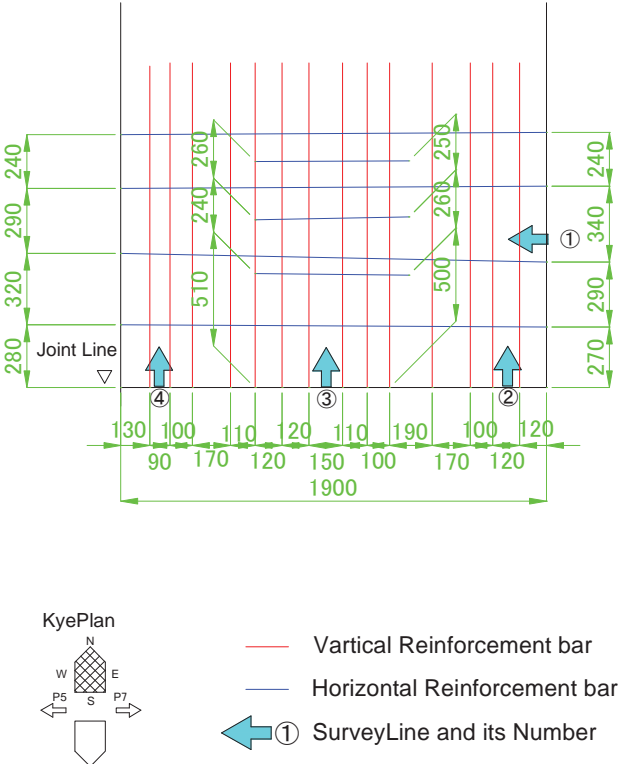

Group C	P5	South Column	Up-side East Face	
<p>Bar arrangement drawing</p>  <p>KyePlan</p> <ul style="list-style-type: none"> — Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number 			<p>Picture</p> 	
<p>Survey Results</p>			<p>Note</p>	
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P5 Chipping Results)
	Max.	Min.	Ave.	
①	160	80	108.0	D29
②	320	280	307.0	D16
③	265	40	138.5	D16
④	310	290	303.0	D16

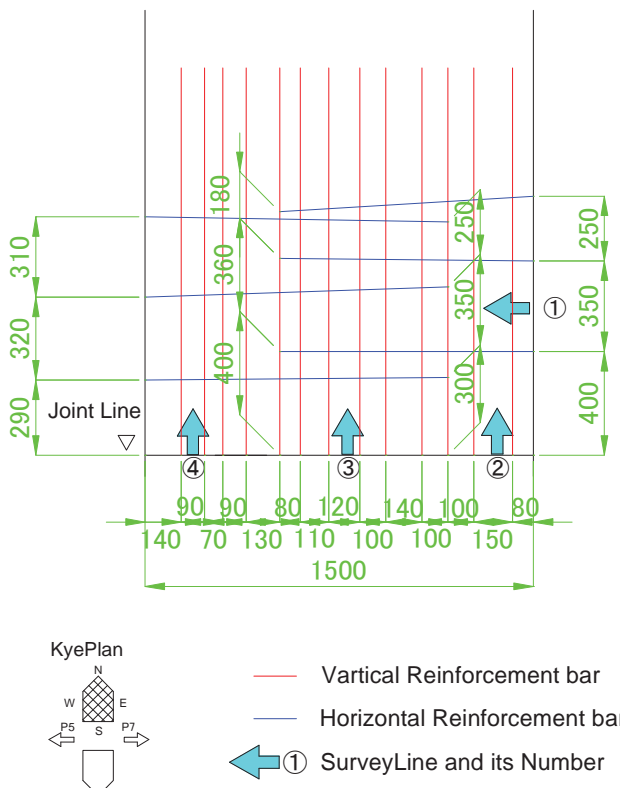

Group C	P5	South Column	Up-side Southeast Face	
<p>Bar arrangement drawing</p>  <p>KyePlan</p> <ul style="list-style-type: none"> — Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number 			<p>Picture</p> 	
<p>Survey Results</p>			<p>Note</p>	
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P5 Chipping Results)
	Max.	Min.	Ave.	
①	140	100	120.0	D29
②	310	290	300.0	D16
③	180	120	150.0	D16
④	330	130	180.0	D16

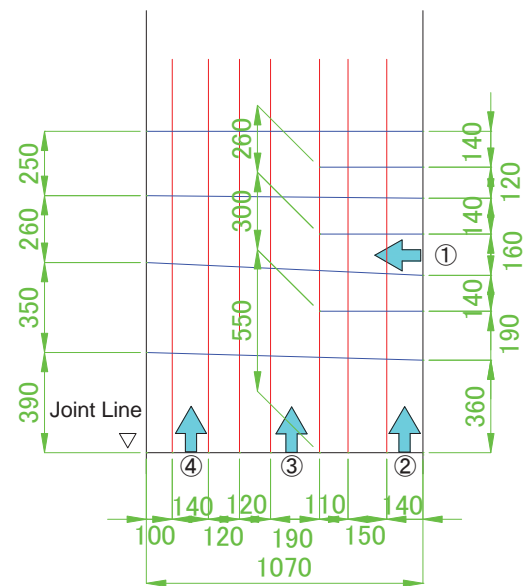

Group C	P5	South Column	Down-side North Face	
Bar arrangement drawing			Picture	
 <p>The drawing shows a rectangular column with a total width of 1930 mm and a total height of 320 mm. A horizontal joint line is located 150 mm from the top. Vertical reinforcement bars are shown in red, and horizontal reinforcement bars are shown in blue. Survey lines are indicated by blue arrows and numbered 1, 2, 3, and 4. The horizontal spacing between bars varies, with a total width of 1930 mm. The vertical spacing between bars also varies, with a total height of 320 mm. A legend below the drawing identifies the symbols used.</p> <p>KyePlan</p> <p>— Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number</p>			 <p>The photograph shows the actual column face with a grid of reinforcement bars. The bars are arranged in a regular pattern, with horizontal bars spaced at approximately 280 mm and vertical bars spaced at approximately 110 mm. The column is made of concrete and has a rough, weathered appearance.</p>	
			Note	
Survey Results				
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P5 Chipping Results)
	Max.	Min.	Ave.	
①	170	80	114.0	D29
②	280	250	265.0	D16
③	175	110	131.5	D16
④	320	230	275.0	D16

Group C	P5	South Column	Down-side East Face	
<p>Bar arrangement drawing</p>  <p>KyePlan</p>  <ul style="list-style-type: none"> — Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number 			<p>Picture</p> 	
<p>Note</p>				
<p>Survey Results</p>				
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P5 Chipping Results)
	Max.	Min.	Ave.	
①	240	110	149.0	D29
②	290	260	275.0	D16
③	215	70	133.0	D16
④	340	320	330.0	D16

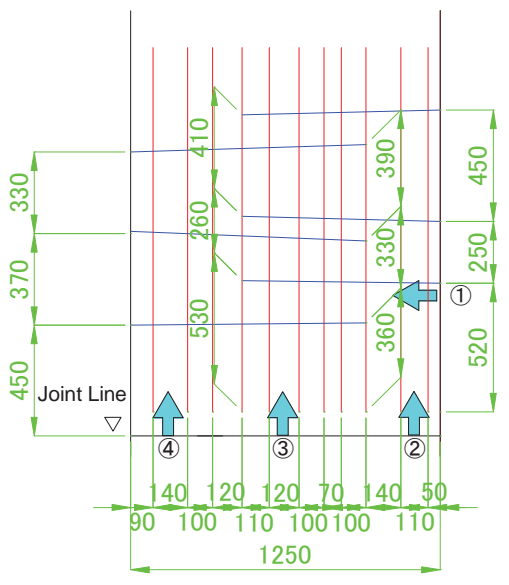

Group C	P5	South Column	Down-side Southeast Face	
<p>Bar arrangement drawing</p>  <p>KyePlan</p> <p> — Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number </p>			<p>Picture</p> 	
<p>Survey Results</p>			<p>Note</p>	
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P5 Chipping Results)
	Max.	Min.	Ave.	
①	200	90	127.0	D29
②	370	300	335.0	D16
③	200	130	162.0	D16
④	230	100	166.0	D16

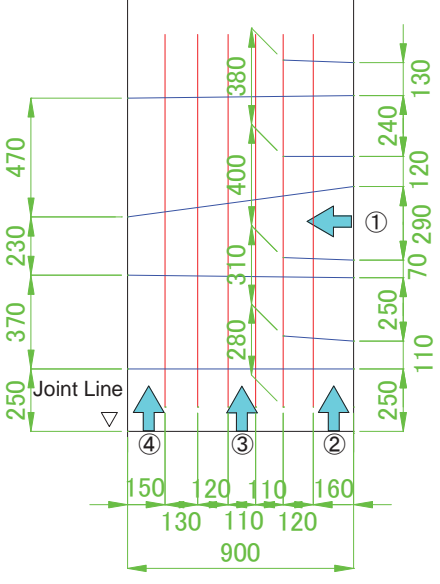
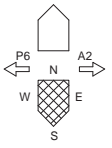

Group C	P6	North Column	Down-side South Face	
<p>Bar arrangement drawing</p>  <p>KeyPlan</p> <ul style="list-style-type: none"> — Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number 			<p>Picture</p> 	
Survey Results			Note	
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P5 Chipping Results)
	Max.	Min.	Ave.	
①	190	90	127.0	D29
②	340	240	290.0	D16
③	220	70	140.0	D16
④	290	220	250.0	D16

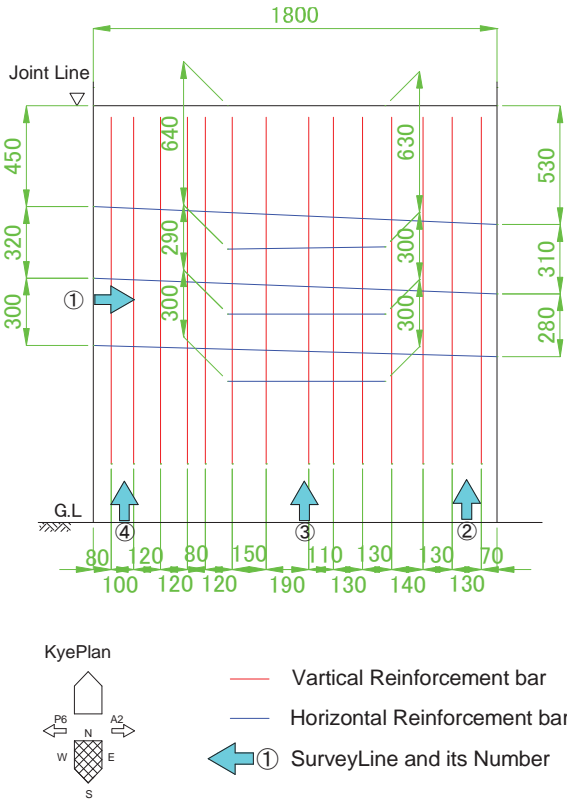

Group C	P6	North Column	Down-side East Face	
<p>Bar arrangement drawing</p>  <p>KyePlan</p> <p>— Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number</p>			<p>Picture</p> 	
<p>Note</p>				
<p>Survey Results</p>				
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P5 Chipping Results)
	Max.	Min.	Ave.	
①	150	70	107.0	D29
②	350	250	300.0	D16
③	230	60	135.0	D16
④	320	310	315.0	D16

Group C	P6	North Column	Down-side Northeast Face	
<p>Bar arrangement drawing</p>  <p>KyePlan</p> <p>— Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number</p>			<p>Picture</p> 	
<p>Note</p>				
<p>Survey Results</p>				
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P5 Chipping Results)
	Max.	Min.	Ave.	
①	190	110	138.0	D29
②	190	120	148.0	D16
③	180	120	147.0	D16
④	350	250	287.0	D16

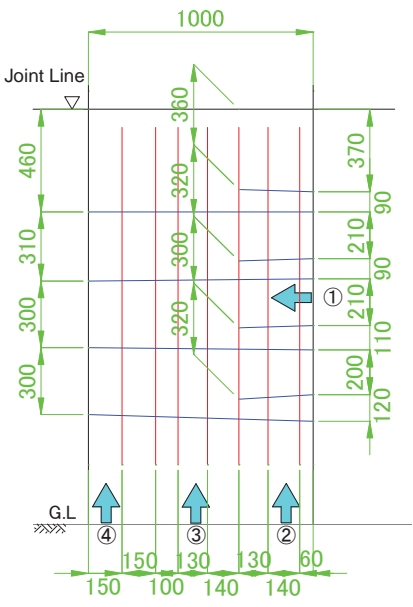

Group B	P7	South Column	Up-side North Face	
<p>Bar arrangement drawing</p> <p>KeyPlan</p> <ul style="list-style-type: none"> — Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number 			<p>Picture</p>	
<p>Survey Results</p>			<p>Note</p>	
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P7 Chipping Results)
	Max.	Min.	Ave.	
①	130	100	106.0	D29
②	380	310	345.0	D16
③	235	115	165.0	D16
④	390	280	335.0	D16

Group B	P7	South Column	Up-side West Face	
<p>Bar arrangement drawing</p>  <p>Joint Line</p> <p>KyePlan</p> <p>— Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number</p>			<p>Picture</p> 	
<p>Note</p>				
<p>Survey Results</p>				
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P7 Chipping Results)
	Max.	Min.	Ave.	
①	140	70	111.0	D29
②	350	250	300.0	D16
③	285	90	170.0	D16
④	380	320	350.0	D16

Group B	P7	South Column	Up-side Southwest Face	
<p>Bar arrangement drawing</p>  <p>KyePlan</p>  <ul style="list-style-type: none"> — Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number 			<p>Picture</p> 	
			<p>Note</p>	
<p>Survey Results</p>				
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P7 Chipping Results)
	Max.	Min.	Ave.	
①	130	110	118.0	D29
②	290	70	173.0	D16
③	640	70	245.0	D16
④	470	230	357.0	D16

Group B	P7	South Column	Down-side North Face	
<p>Bar arrangement drawing</p>  <p>KeyPlan</p> <ul style="list-style-type: none"> — Vertical Reinforcement bar — Horizontal Reinforcement bar ← ① SurveyLine and its Number 			<p>Picture</p> 	
<p>Note</p>				
Survey Results				
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P7 Chipping Results)
	Max.	Min.	Ave.	
①	190	80	127.0	D29
②	310	280	295.0	D16
③	180	120	145.0	D16
④	320	300	310.0	D16

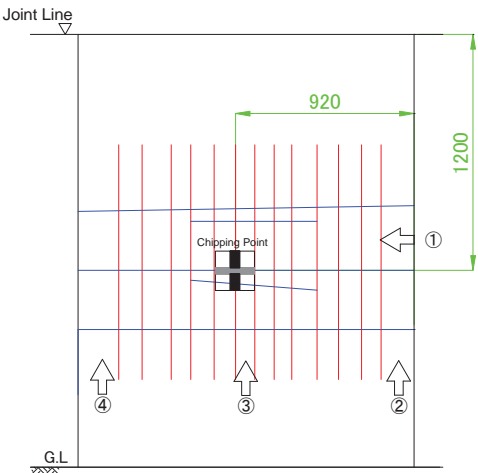






Group B	P7	South Column	Down-side West Face	
Bar arrangement drawing			Picture	
			Note	
Survey Results				
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P7 Chipping Results)
	Max.	Min.	Ave.	
①	140	100	119.0	D29
②	330	290	310.0	D16
③	210	100	153.5	D16
④	340	270	310.0	D16

Group B	P7	South Column	Down-side Southwest Face	
Bar arrangement drawing 			Picture 	
			Note	
Survey Results				
SurveyLine No	Pitch (mm)			Presumptive Diameter of Reinforcement (By the P7 Chipping Results)
	Max.	Min.	Ave.	
①	150	100	132.0	D29
②	210	90	147.0	D16
③	210	90	147.0	D16
④	310	300	303.0	D16

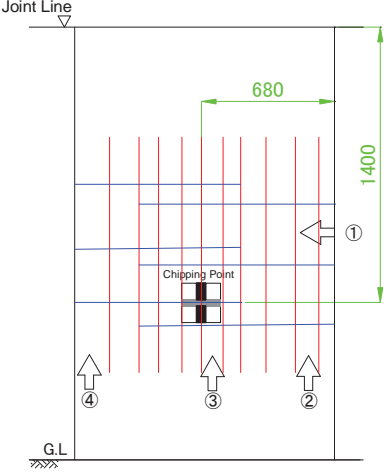


Result of Chipping and Corbonation test

Group A	P2	North Column	Up-side West Face
Location			
Picture		Corbonation	
Chipping			
Survey Results			
Reinforcement	Presumptive Diameter of Reinforcement	Covering depth (mm)	Corbonation Depth(mm) (Up,Down,Right,Left)
Vartical	D29	72	Av.13.8mm
Horizontal	D16	55	(20, 5,20, 10)

Result of Chipping and Corbonation test

Group A	P2	North Column	Down-side South Face					
<p>Location</p> 								
<p>Picture</p> <table border="1" data-bbox="215 907 1460 1467"> <thead> <tr> <th data-bbox="215 907 837 952">Chipping</th> <th data-bbox="837 907 1460 952">Corbonation</th> </tr> </thead> <tbody> <tr> <td data-bbox="215 963 837 1467">  </td> <td data-bbox="837 963 1460 1467">  </td> </tr> </tbody> </table>					Chipping	Corbonation		
Chipping	Corbonation							
								
<p>Survey Results</p>								
Reinforcement	Presumptive Diameter of Reinforcement	Covering depth (mm)	Corbonation Depth(mm) (Up,Down,Right,Left)					
Vartical	D29	49	Av.8.8mm					
Horizontal	D16	30	(20,5 ,0,10)					

Result of Chipping and Corbonation test

Group A	P2	North Column	Down-side West Face	
<p>Location</p> 				
<p>Picture</p> <p>Chipping</p> 		<p>Carbonation</p> 		
<p>Survey Results</p>				
Reinforcement	Presumptive Diameter of Reinforcement	Covering depth (mm)	Corbonation Depth(mm) (Up,Down,Right,Left)	
Vartical	D29	73	Av.3.8mm	
Horizontal	D16	54	(0,5 ,10, 0)	

Result of Chipping and Corbonation test

Group A	P2	North Column	Down-side Northwest Face
Location			
Picture		Corbonation	
Chipping			
Survey Results			
Reinforcement	Presumptive Diameter of Reinforcement	Covering depth (mm)	Corbonation Depth(mm) (Up,Down,Right,Left)
Vartical	D29	54	Av.5.0mm
Horizontal	D16	32	(5,5 ,5, 5)

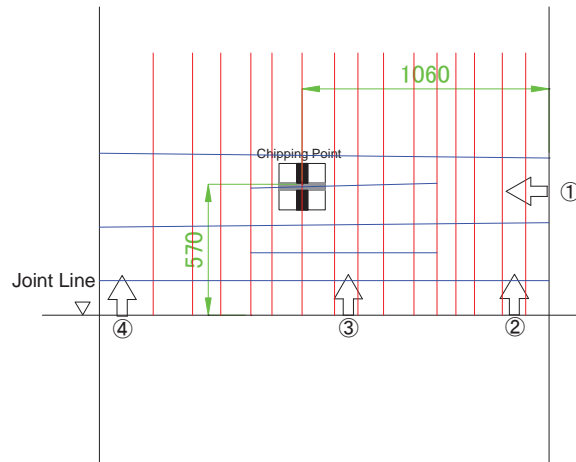
Result of Chipping and Corbonation test

Group B	P5	South Column	Up-side East Face
Location			
Picture Chipping		Corbonation	
Survey Results			
Reinforcement	Presumptive Diameter of Reinforcement	Covering depth (mm)	Corbonation Depth (Up,Down,Right,Left)
Vartical	D29	68	Av.6.3mm
Horizontal	D16	52	(5,5 ,5, 5)

Result of Chipping and Corbonation test

Group B	P5	South Column	Down-side North Face
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Location



Picture

Chipping



Corbonation



Survey Results

Reinforcement	Presumptive Diameter of Reinforcement	Covering depth (mm)	Corbonation Depth (Up,Down,Right,Left)
Vartical	D29	98	Av.1.3mm
Horizontal	D16	65	(0,0 ,5, 0)

Result of Chipping and Corbonation test

Group B	P5	South Column	Down-side East Face
Location			
Picture		Chipping	
Picture		Corbonation	
Survey Results			
Reinforcement	Presumptive Diameter of Reinforcement	Covering depth (mm)	Corbonation Depth (Up,Down,Right,Left)
Vartical	D29	124	Av.2.5mm
Horizontal	D16	106	(5,0 ,5, 0)

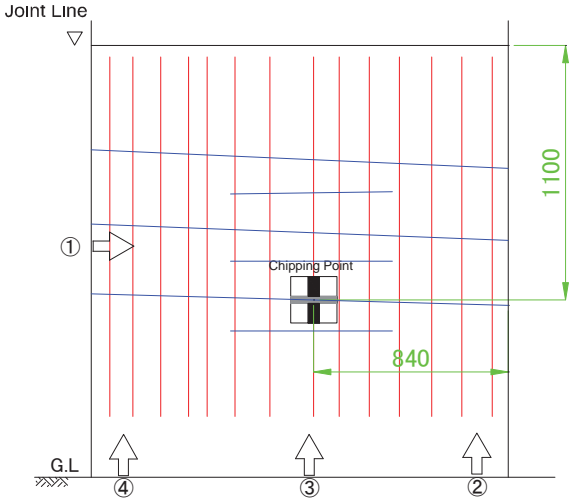


Result of Chipping and Corbonation test

Group B	P5	South Column	Down-side Southeast Face
Location			
Picture		Chipping	
Picture		Corbonation	
Survey Results			
Reinforcement	Presumptive Diameter of Reinforcement	Covering depth (mm)	Corbonation Depth (Up,Down,Right,Left)
Vartical	D29	101	Av.5.0mm
Horizontal	D16	88	(5,5 ,5, 5)

Result of Chipping and Corbonation test

Group C	P7	South Column	Up-side North Face
Location			
Picture		Chipping	
Survey Results			
Reinforcement	Presumptive Diameter of Reinforcement	Covering depth (mm)	Corbonation Depth (Up,Down,Right,Left)
Vartical	D29	65	Av.12.5mm
Horizontal	D16	44	(10,15,10,15)

Result of Chipping and Corbonation test

Group C	P7	South Column	Down-side North Face												
<p>Location</p> 															
<p>Picture</p> <p>Chipping</p> 		<p>Corbonation</p> 													
<p>Survey Results</p> <table border="1"> <thead> <tr> <th>Reinforcement</th> <th>Presumptive Diameter of Reinforcement</th> <th>Covering depth (mm)</th> <th>Corbonation Depth (Up,Down,Right,Left)</th> </tr> </thead> <tbody> <tr> <td>Vartical</td> <td>D29</td> <td>55</td> <td>Av.10.0mm</td> </tr> <tr> <td>Horizontal</td> <td>D16</td> <td>36</td> <td>(10,15,0,15)</td> </tr> </tbody> </table>				Reinforcement	Presumptive Diameter of Reinforcement	Covering depth (mm)	Corbonation Depth (Up,Down,Right,Left)	Vartical	D29	55	Av.10.0mm	Horizontal	D16	36	(10,15,0,15)
Reinforcement	Presumptive Diameter of Reinforcement	Covering depth (mm)	Corbonation Depth (Up,Down,Right,Left)												
Vartical	D29	55	Av.10.0mm												
Horizontal	D16	36	(10,15,0,15)												

Result of Chipping and Corbonation test

Group C	P7	South Column	Down-side West Face
Location			
Picture		Corbonation	
Chipping			
Survey Results			
Reinforcement	Presumptive Diameter of Reinforcement	Covering depth (mm)	Corbonation Depth (Up,Down,Right,Left)
Vartical	D29	59	Av.6.3mm
Horizontal	D16	43	(5,0,10,10)

Result of Chipping and Corbonation test

Group C	P7	South Column	Down-side West Face
Location			
Picture Chipping		Corbonation	
Survey Results			
Reinforcement	Presumptive Diameter of Reinforcement	Covering depth (mm)	Corbonation Depth (Up,Down,Right,Left)
Vartical	D29	61	Av.6.3mm
Horizontal	D16	45	(5,10,5,5)