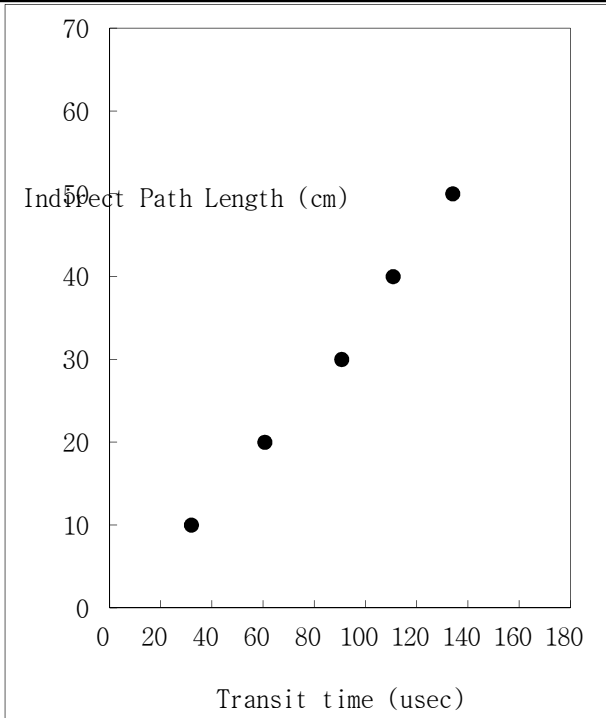
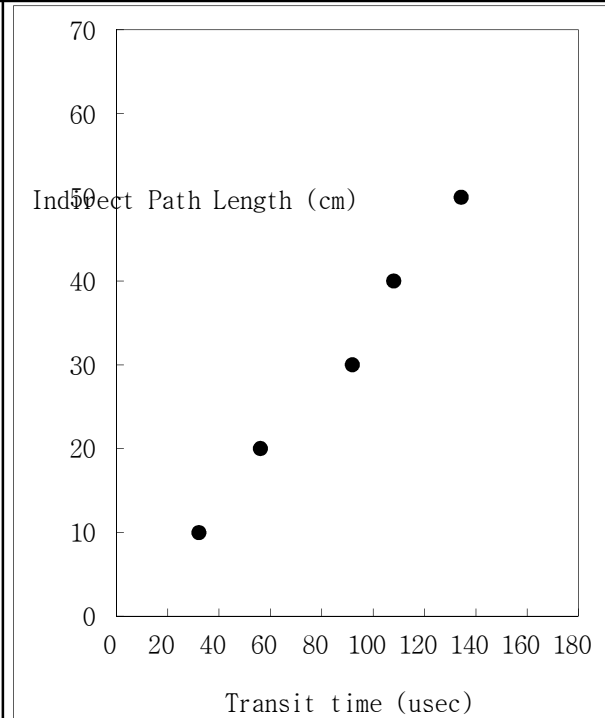


초음파속도 DATA					
시 설 물	북삼교				
측정연월일	2026년 03월 10일~11일				
강도추정식	공식 1	FC=(215Vd-620)x0.098	일본 건축학회식	설계강도	27.0
	공식 2	FC=(102Vd-117)x0.098	일본 재료학회식	Method	초음파법
Pulse Velocity Data					
(Vi : Indirect Pluse Velocity, Vd : Direct Pluse Velocity)					
위치	S1	측정부재	바닥판	위치	S4
	S1	측정부재	바닥판		S4
X	Transit Time (usec)		X	Transit Time (usec)	
Y	Indirect Path Length (cm)		Y	Indirect Path Length (cm)	
X	Y		X	Y	
32.1	10		32.2	10	
60.7	20		56.1	20	
90.8	30		91.9	30	
110.8	40		108.1	40	
134.1	50		134.3	50	
Best fit line (Equation)			Best fit line (Equation)		
Y = 3.911 X - 35.2			Y = 3.862 X - 26.429		
Vi (km/s)		3.911	Vi (km/s)		3.862
Correction Ration (Vi → Vd)		4.107	Correction Ration (Vi → Vd)		4.055
공식1	25.8	공식2	29.6	공식1	24.7
				공식2	29.1
					

Pulse Velocity Data

(Vi : Indirect Pluse Velocity, Vd : Direct Pluse Velocity)

위치		S5	측정부재		바닥판	
X		Transit Time (usec)				
Y		Indirect Path Length (cm)				
X		Y				
31.9		10				
58.3		20				
91.9		30				
106.2		40				
134.0		50				
Best fit line (Equation)						
Y = 3.921 X - 31.188						
Vi (km/s)		3.921				
Correction Ration (Vi → Vd)		4.117				
공식1	26.0	공식2	29.7			

Indirect Path Length (cm)

Transit time (usec)

위치		S8	측정부재		바닥판	
X		Transit Time (usec)				
Y		Indirect Path Length (cm)				
X		Y				
30.2		10				
58.4		20				
91.9		30				
109.8		40				
134.9		50				
Best fit line (Equation)						
Y = 3.800 X - 23.148						
Vi (km/s)		3.800				
Correction Ration (Vi → Vd)		3.990				
공식1	23.3	공식2	28.4			

Indirect Path Length (cm)

Transit time (usec)

Pulse Velocity Data

(Vi : Indirect Pluse Velocity, Vd : Direct Pluse Velocity)

S9				S12			
위치	측정부재		바닥판	위치	측정부재		바닥판
X	Transit Time (usec)			X	Transit Time (usec)		
Y	Indirect Path Length (cm)			Y	Indirect Path Length (cm)		
X	Y			X	Y		
32.5	10			29.5	10		
58.9	20			58.2	20		
87.5	30			86.5	30		
107.2	40			102.4	40		
134.2	50			131.9	50		
Best fit line (Equation)				Best fit line (Equation)			
Y = 3.962 X - 33.05				Y = 3.985 X - 25.563			
Vi (km/s)		3.962		Vi (km/s)		3.985	
Correction Ration (Vi → Vd)		4.160		Correction Ration (Vi → Vd)		4.184	
공식1	26.9	공식2	30.1	공식1	27.4	공식2	30.4

Pulse Velocity Data

(Vi : Indirect Pluse Velocity, Vd : Direct Pluse Velocity)

위치		S13	측정부재	바닥판	위치		S14	측정부재	바닥판
X		Transit Time (usec)			X		Transit Time (usec)		
Y		Indirect Path Length (cm)			Y		Indirect Path Length (cm)		
X		Y			X		Y		
29.1		10			28.9		10		
53.6		20			58.7		20		
80.6		30			87.5		30		
102.7		40			108.5		40		
131.5		50			128.5		50		
Best fit line (Equation)				Best fit line (Equation)					
Y = 3.934 X - 12.732				Y = 3.980 X - 28.027					
Vi (km/s)		3.934			Vi (km/s)		3.980		
Correction Ration (Vi → Vd)		4.131			Correction Ration (Vi → Vd)		4.179		
공식1	26.3	공식2	29.8		공식1	27.2	공식2	30.3	

Indirect Path Length (cm)

70

60

50

40

30

20

10

0

0

20

40

60

80

100

120

140

160

180

Transit time (usec)

Indirect Path Length (cm)

70

60

50

40

30

20

10

0

0

20

40

60

80

100

120

140

160

180

Transit time (usec)

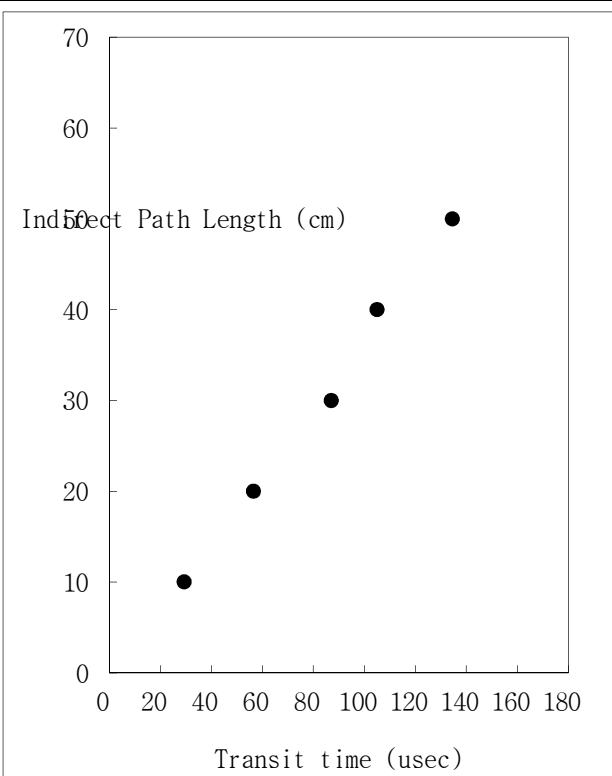
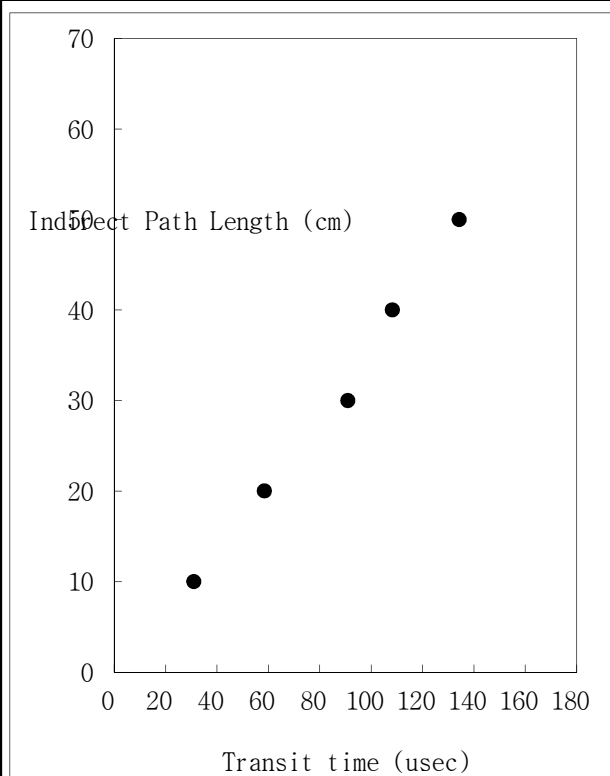
Pulse Velocity Data

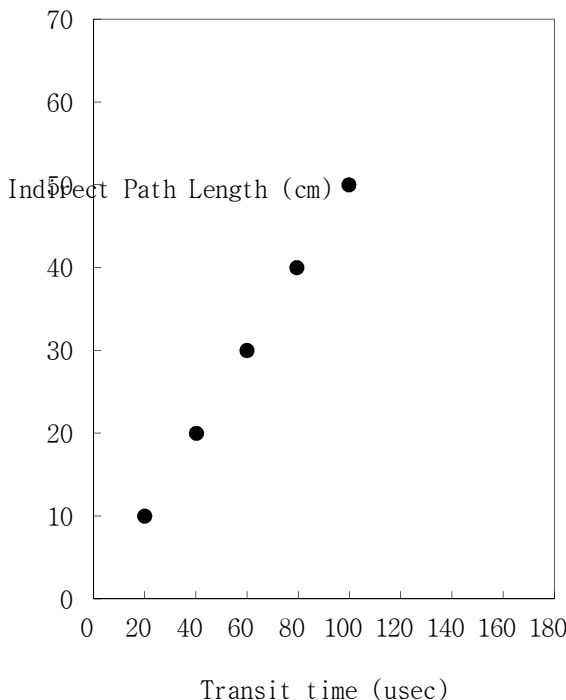
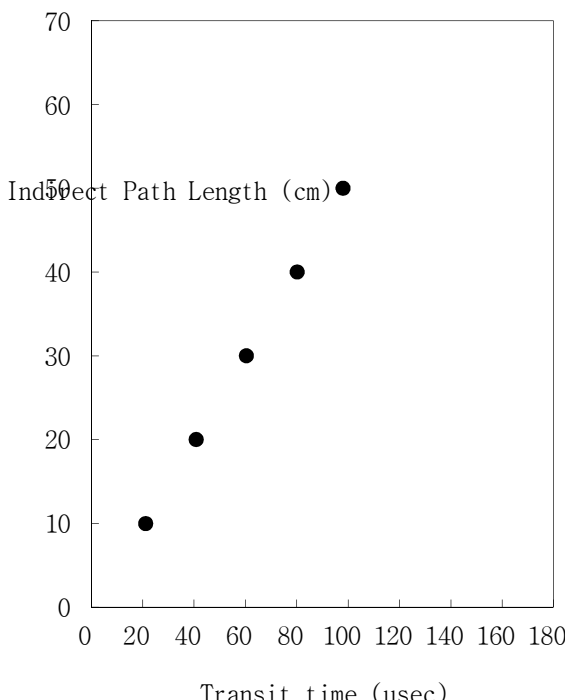
(Vi : Indirect Pluse Velocity, Vd : Direct Pluse Velocity)

위치		S15		측정부재		바닥판		위치		S16		측정부재		바닥판									
X		Transit Time (usec)										X		Transit Time (usec)									
Y		Indirect Path Length (cm)										Y		Indirect Path Length (cm)									
X				Y				X				Y											
32.1				10				30.9				10											
62.7				20				59.1				20											
83.4				30				89.5				30											
105.5				40				103.5				40											
134.8				50				131.2				50											
Best fit line (Equation)								Best fit line (Equation)															
Y = 4.010 X - 35.606								Y = 4.035 X - 34.295															
Vi (km/s)				4.010				Vi (km/s)				4.035											
Correction Ration (Vi → Vd)				4.211				Correction Ration (Vi → Vd)				4.237											
공식1		27.9		공식2		30.7		공식1		28.5		공식2		30.9									
Indirect Path Length (cm) 70 60 50 40 30 20 10 0 0 20 40 60 80 100 120 140 160 180 Transit time (usec) Indirect Path Length (cm) 70 60 50 40 30 20 10 0 0 20 40 60 80 100 120 140 160 180 Transit time (usec)																							

Pulse Velocity Data

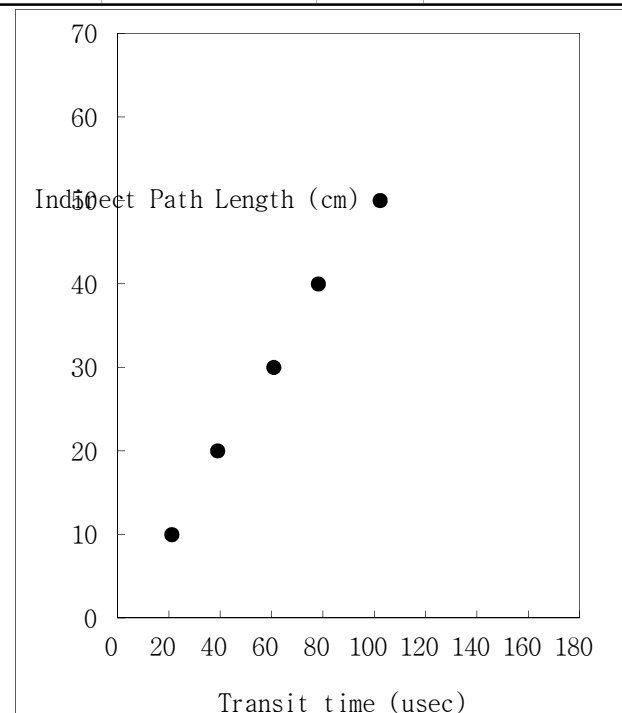
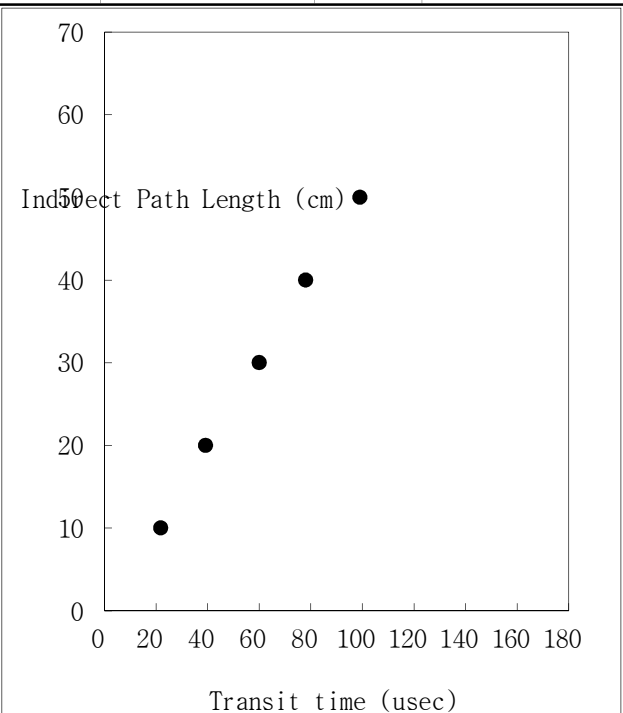
(Vi : Indirect Pluse Velocity, Vd : Direct Pluse Velocity)

위치		S17		측정부재		바닥판		위치		S21		측정부재		바닥판									
X		Transit Time (usec)										X		Transit Time (usec)									
Y		Indirect Path Length (cm)										Y		Indirect Path Length (cm)									
X				Y				X				Y											
29.3				10				31.0				10											
56.6				20				58.5				20											
87.1				30				91.0				30											
105.0				40				108.3				40											
134.6				50				134.3				50											
Best fit line (Equation)								Best fit line (Equation)															
Y = 3.841 X - 16.967								Y = 3.869 X - 27.401															
Vi (km/s)				3.841				Vi (km/s)				3.869											
Correction Ration (Vi → Vd)				4.033				Correction Ration (Vi → Vd)				4.062											
공식1		24.2		공식2		28.8		공식1		24.8		공식2		29.1									
																							
																							

초음파속도 DATA					
시 설 물	북삼교				
측정연월일	2026년 03월 10일~11일				
강도추정식	공식 1	FC=(215Vd-620)x0.098	일본 건축학회식	설계강도	40.0
	공식 2	FC=(102Vd-117)x0.098	일본 재료학회식	Method	초음파법
Pulse Velocity Data					
(Vi : Indirect Pluse Velocity, Vd : Direct Pluse Velocity)					
위치	S1-G2	측정부재	거더	위치	S2-G3
X	Transit Time (usec)		X	Transit Time (usec)	
Y	Indirect Path Length (cm)		Y	Indirect Path Length (cm)	
X	Y		X	Y	
20.1	10		21.2	10	
40.3	20		40.9	20	
60.0	30		60.4	30	
79.5	40		80.2	40	
99.8	50		98.1	50	
Best fit line (Equation)			Best fit line (Equation)		
Y = 5.035 X - 1.799			Y = 5.177 X - 11.451		
Vi (km/s)		5.035	Vi (km/s)		5.177
Correction Ration (Vi → Vd)		5.287	Correction Ration (Vi → Vd)		5.436
공식1	50.7	공식2	41.4	공식1	53.8
			42.8		
					

Pulse Velocity Data

(Vi : Indirect Pluse Velocity, Vd : Direct Pluse Velocity)

위치		S3-G1	측정부재		거더	위치		S6-G1	측정부재		거더
X		Transit Time (usec)				X		Transit Time (usec)			
Y		Indirect Path Length (cm)				Y		Indirect Path Length (cm)			
X		Y				X		Y			
21.1		10				21.8		10			
39.0		20				39.2		20			
60.9		30				60.0		30			
78.2		40				78.0		40			
102.3		50				99.1		50			
Best fit line (Equation)						Best fit line (Equation)					
Y = 4.947 X + 1.689						Y = 5.166 X - 7.976					
Vi (km/s)		4.947				Vi (km/s)		5.166			
Correction Ration (Vi → Vd)		5.194				Correction Ration (Vi → Vd)		5.424			
공식1	48.7	공식2	40.5		공식1	53.5	공식2	42.7			
											

Pulse Velocity Data

(Vi : Indirect Pluse Velocity, Vd : Direct Pluse Velocity)

S7-G1				S11-G1			
위치		측정부재		위치		측정부재	
거더		거더		거더		거더	
X		Transit Time (usec)		X		Transit Time (usec)	
Y		Indirect Path Length (cm)		Y		Indirect Path Length (cm)	
X		Y		X		Y	
21.9		10		20.9		10	
41.6		20		39.1		20	
59.2		30		60.2		30	
79.5		40		78.4		40	
102.5		50		102.1		50	
Best fit line (Equation)				Best fit line (Equation)			
Y = 5.011 X - 5.399				Y = 4.948 X + 2.437			
Vi (km/s)		5.011		Vi (km/s)		4.948	
Correction Ration (Vi → Vd)		5.262		Correction Ration (Vi → Vd)		5.195	
공식1	50.1	공식2	41.2	공식1	48.7	공식2	40.5

Indirect Path Length (cm)

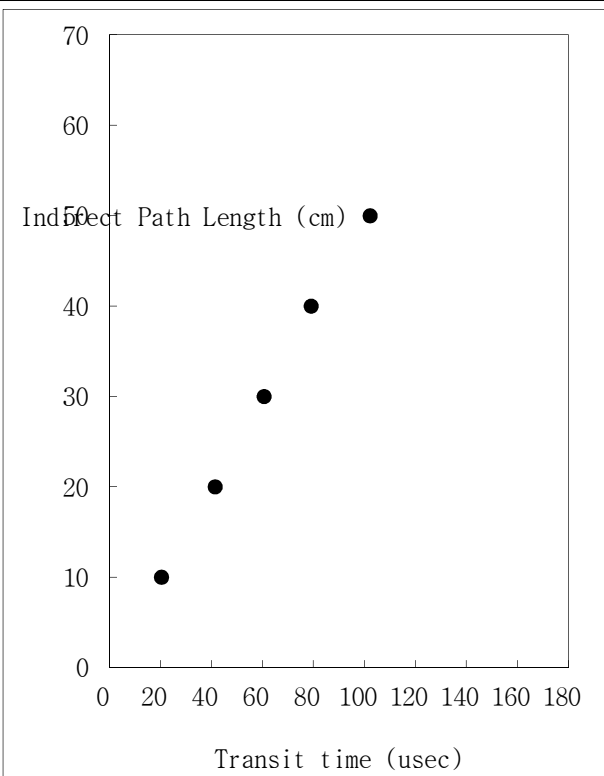
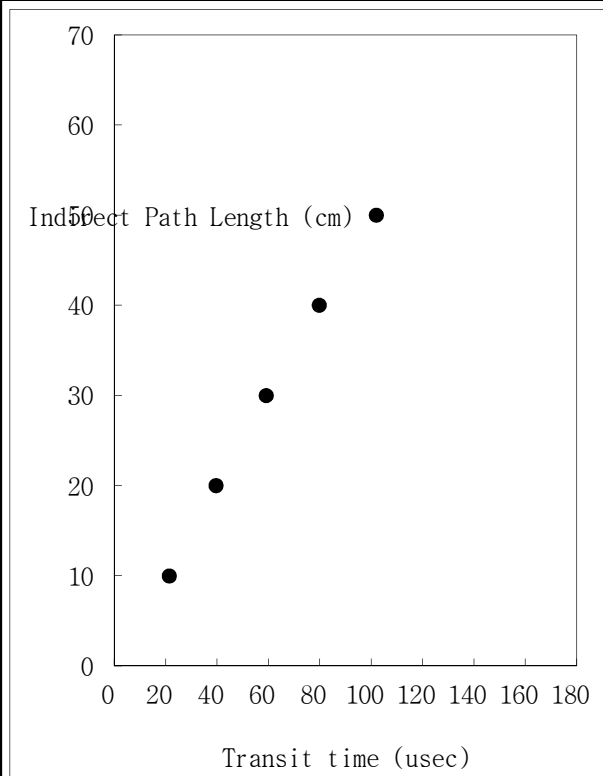
Transit time (usec)

Indirect Path Length (cm)

Transit time (usec)

Pulse Velocity Data

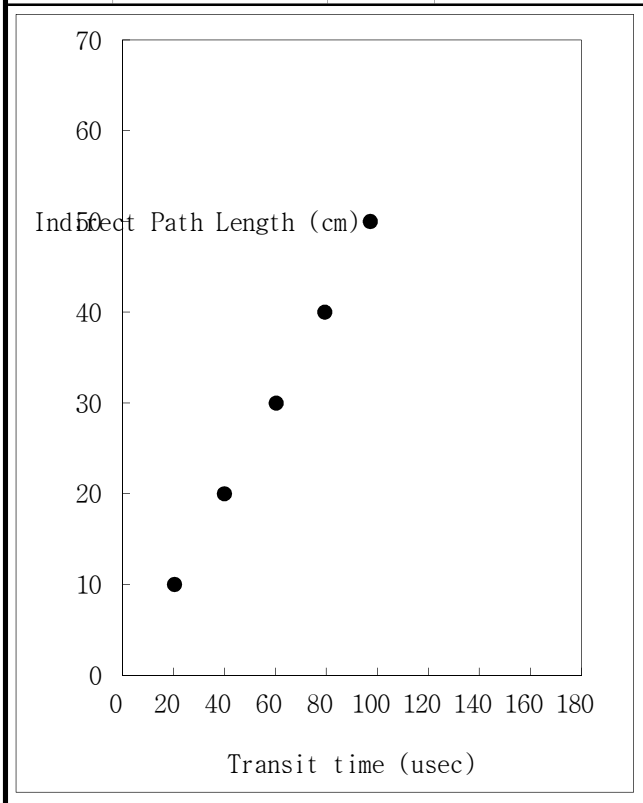
(Vi : Indirect Pluse Velocity, Vd : Direct Pluse Velocity)

위치		S17-G1		측정부재		거더		위치		S18-G1		측정부재		거더	
X		Transit Time (usec)						X		Transit Time (usec)					
Y		Indirect Path Length (cm)						Y		Indirect Path Length (cm)					
X		Y						X		Y					
20.5		10						21.5		10					
41.5		20						39.6		20					
60.7		30						59.2		30					
79.2		40						79.8		40					
102.3		50						102.1		50					
Best fit line (Equation)								Best fit line (Equation)							
Y = 4.961 X - 1.846								Y = 4.957 X + 0.369							
Vi (km/s)		4.961						Vi (km/s)		4.957					
Correction Ration (Vi → Vd)		5.209						Correction Ration (Vi → Vd)		5.205					
공식1	49.0	공식2	40.6	공식1	48.9	공식2	40.6	공식1	48.9	공식2	40.6	공식1	48.9	공식2	40.6
															

Pulse Velocity Data

(Vi : Indirect Pluse Velocity, Vd : Direct Pluse Velocity)

위치		S19-G1		측정부재		거더	
X		Transit Time (usec)					
Y		Indirect Path Length (cm)					
X				Y			
20.5				10			
40.1				20			
60.4				30			
79.4				40			
97.3				50			
Best fit line (Equation)							
$Y = 5.181 X - 8.494$							
Vi (km/s)				5.181			
Correction Ration (Vi → Vd)				5.440			
공식1		53.9		공식2		42.9	

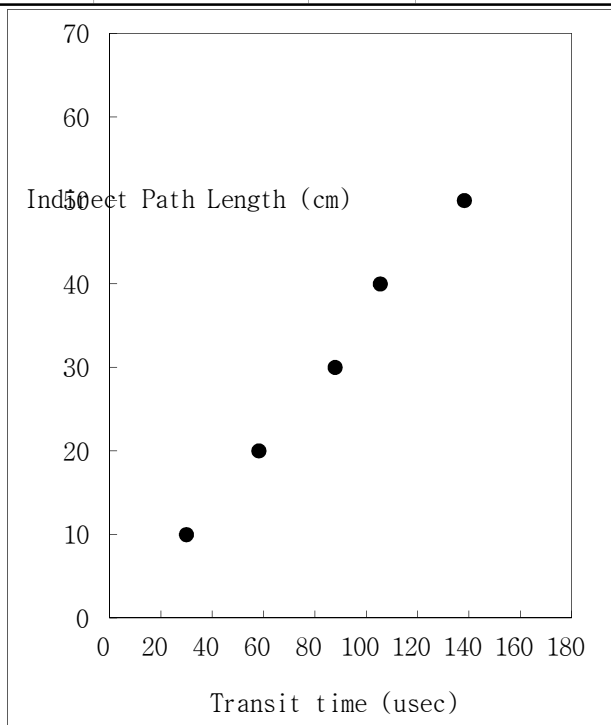


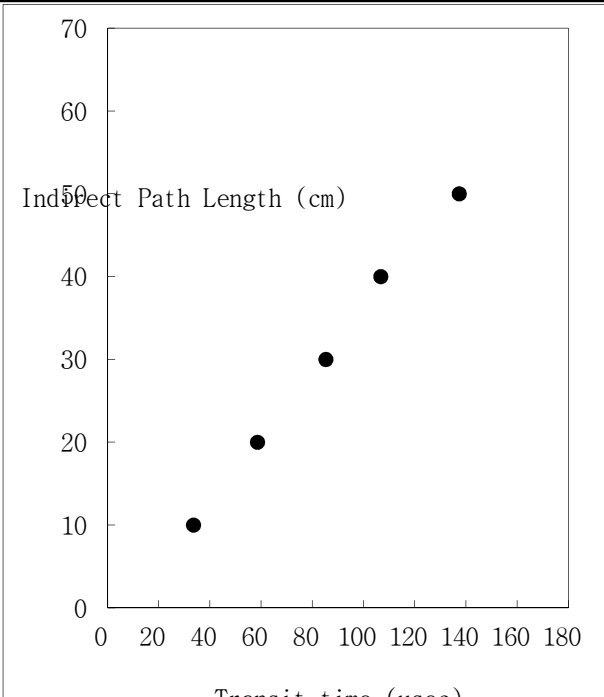
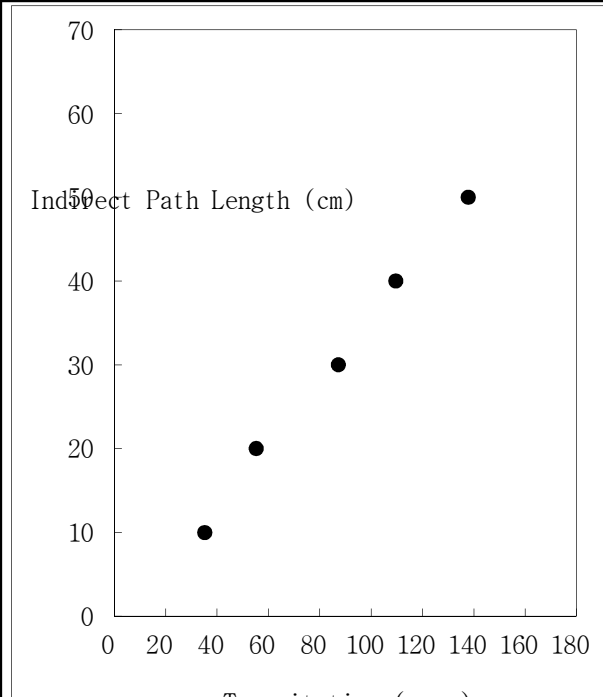
초음파속도 DATA					
시 설 물	북삼교				
측정연월일	2026년 03월 10일~11일				
강도추정식	공식 1	FC=(215Vd-620)x0.098	일본 건축학회식	설계강도	24.0
	공식 2	FC=(102Vd-117)x0.098	일본 재료학회식	Method	초음파법
Pulse Velocity Data					
(Vi : Indirect Pluse Velocity, Vd : Direct Pluse Velocity)					
위치	A1	측정부재	교대	위치	A2
X	Transit Time (usec)		X	Transit Time (usec)	
Y	Indirect Path Length (cm)		Y	Indirect Path Length (cm)	
X	Y		X	Y	
30.7	10		31.3	10	
59.1	20		57.4	20	
88.7	30		85.5	30	
109.2	40		109.6	40	
135.9	50		135.4	50	
Best fit line (Equation)			Best fit line (Equation)		
Y = 3.826 X - 24.121			Y = 3.838 X - 21.801		
Vi (km/s)		3.826	Vi (km/s)		3.838
Correction Ration (Vi → Vd)		4.017	Correction Ration (Vi → Vd)		4.030
공식1	23.9	공식2	28.7	공식1	24.1
				공식2	28.8

Pulse Velocity Data

(Vi : Indirect Pluse Velocity, Vd : Direct Pluse Velocity)

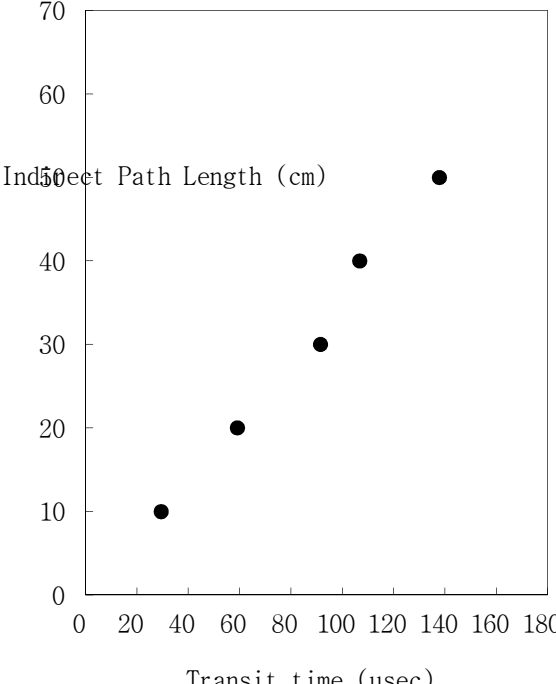
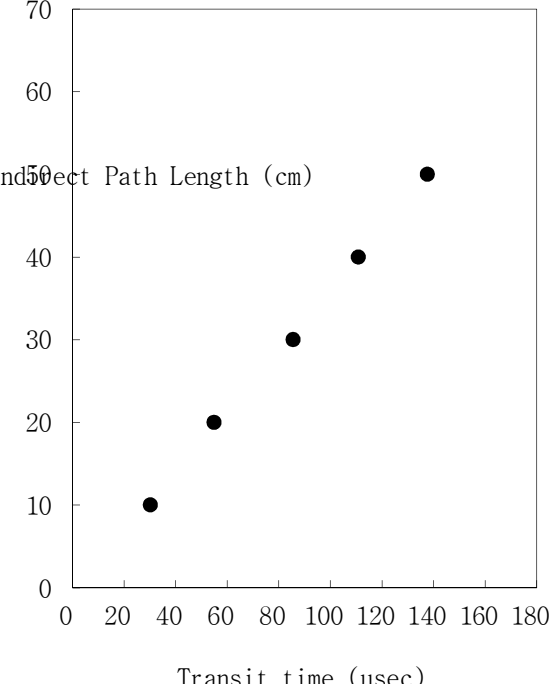
위치	A2	측정부재	교대
X	Transit Time (usec)		
Y	Indirect Path Length (cm)		
X		Y	
29.9		10	
58.2		20	
87.9		30	
105.4		40	
138.2		50	
Best fit line (Equation)			
Y = 3.767 X - 16.113			
Vi (km/s)		3.767	
Correction Ration (Vi → Vd)		3.955	
공식1	22.5	공식2	28.0



초음파속도 DATA					
시 설 물	북삼교				
측정연월일	2026년 03월 10일~11일				
강도추정식	공식 1	FC=(215Vd-620)x0.098	일본 건축학회식	설계강도	24.0
	공식 2	FC=(102Vd-117)x0.098	일본 재료학회식	Method	초음파법
Pulse Velocity Data					
(Vi : Indirect Pluse Velocity, Vd : Direct Pluse Velocity)					
위치	P1	측정부재	교각	위치	P2
X	Transit Time (usec)		X	Transit Time (usec)	
Y	Indirect Path Length (cm)		Y	Indirect Path Length (cm)	
X	Y		X	Y	
33.7	10		35.2	10	
58.6	20		55.3	20	
85.4	30		87.3	30	
106.8	40		109.7	40	
137.5	50		137.9	50	
Best fit line (Equation)			Best fit line (Equation)		
Y = 3.900 X - 29.184			Y = 3.834 X - 26.212		
Vi (km/s)		3.900	Vi (km/s)		3.834
Correction Ration (Vi → Vd)		4.095	Correction Ration (Vi → Vd)		4.026
공식1	25.5	공식2	29.5	공식1	24.1
					

Pulse Velocity Data

(Vi : Indirect Pluse Velocity, Vd : Direct Pluse Velocity)

위치		P5	측정부재		교각	위치		P8	측정부재		교각
X		Transit Time (usec)				X		Transit Time (usec)			
Y		Indirect Path Length (cm)				Y		Indirect Path Length (cm)			
X		Y				X		Y			
29.5		10				30.2		10			
59.2		20				54.9		20			
91.5		30				85.6		30			
106.8		40				110.9		40			
137.8		50				137.6		50			
Best fit line (Equation)						Best fit line (Equation)					
Y = 3.747 X - 18.334						Y = 3.689 X - 9.306					
Vi (km/s)		3.747				Vi (km/s)		3.689			
Correction Ration (Vi → Vd)		3.934				Correction Ration (Vi → Vd)		3.873			
공식1	22.1	공식2	27.8		공식1	20.9	공식2	27.2			
											

Pulse Velocity Data

(Vi : Indirect Pluse Velocity, Vd : Direct Pluse Velocity)

P10				P12			
위치	측정부재		교각	위치	측정부재		교각
X	Transit Time (usec)			X	Transit Time (usec)		
Y	Indirect Path Length (cm)			Y	Indirect Path Length (cm)		
X	Y			X	Y		
32.5	10			30.9	10		
56.3	20			57.2	20		
86.5	30			88.5	30		
103.4	40			108.2	40		
137.5	50			133.9	50		
Best fit line (Equation)				Best fit line (Equation)			
Y = 3.859 X - 21.263				Y = 3.874 X - 24.436			
Vi (km/s)		3.859		Vi (km/s)		3.874	
Correction Ration (Vi → Vd)		4.052		Correction Ration (Vi → Vd)		4.068	
공식1	24.6	공식2	29.0	공식1	25.0	공식2	29.2

Pulse Velocity Data

(Vi : Indirect Pluse Velocity, Vd : Direct Pluse Velocity)

위치		P14	측정부재	교각	위치		P16	측정부재	교각
X		Transit Time (usec)			X		Transit Time (usec)		
Y		Indirect Path Length (cm)			Y		Indirect Path Length (cm)		
X		Y			X		Y		
29.4		10			29.2		10		
59.0		20			57.7		20		
85.2		30			86.6		30		
104.6		40			111.0		40		
136.8		50			134.3		50		
Best fit line (Equation)				Best fit line (Equation)					
Y = 3.821 X - 17.151				Y = 3.786 X - 17.095					
Vi (km/s)		3.821			Vi (km/s)		3.786		
Correction Ration (Vi → Vd)		4.012			Correction Ration (Vi → Vd)		3.975		
공식1	23.8	공식2	28.6		공식1	23.0	공식2	28.2	

Transit time (usec)	Indirect Path Length (cm)
29.4	10
59.0	20
85.2	30
104.6	40
136.8	50

Transit time (usec)	Indirect Path Length (cm)
29.2	10
57.7	20
86.6	30
111.0	40
134.3	50

Pulse Velocity Data

(Vi : Indirect Pluse Velocity, Vd : Direct Pluse Velocity)

P18				P20			
위치	측정부재		교각	위치	측정부재		교각
X	Transit Time (usec)			X	Transit Time (usec)		
Y	Indirect Path Length (cm)			Y	Indirect Path Length (cm)		
X	Y			X	Y		
30.7	10			32.5	10		
58.5	20			56.2	20		
87.7	30			90.8	30		
110.7	40			110.2	40		
136.9	50			137.2	50		
Best fit line (Equation)				Best fit line (Equation)			
Y = 3.773 X - 20.369				Y = 3.774 X - 22.263			
Vi (km/s)		3.773		Vi (km/s)		3.774	
Correction Ration (Vi → Vd)		3.962		Correction Ration (Vi → Vd)		3.963	
공식1	22.7	공식2	28.1	공식1	22.7	공식2	28.1

Indirect Path Length (cm)

Transit time (usec)

Indirect Path Length (cm)

Transit time (usec)