

東北自動車道 下衣川高架橋床版更新工事発注用図面作成

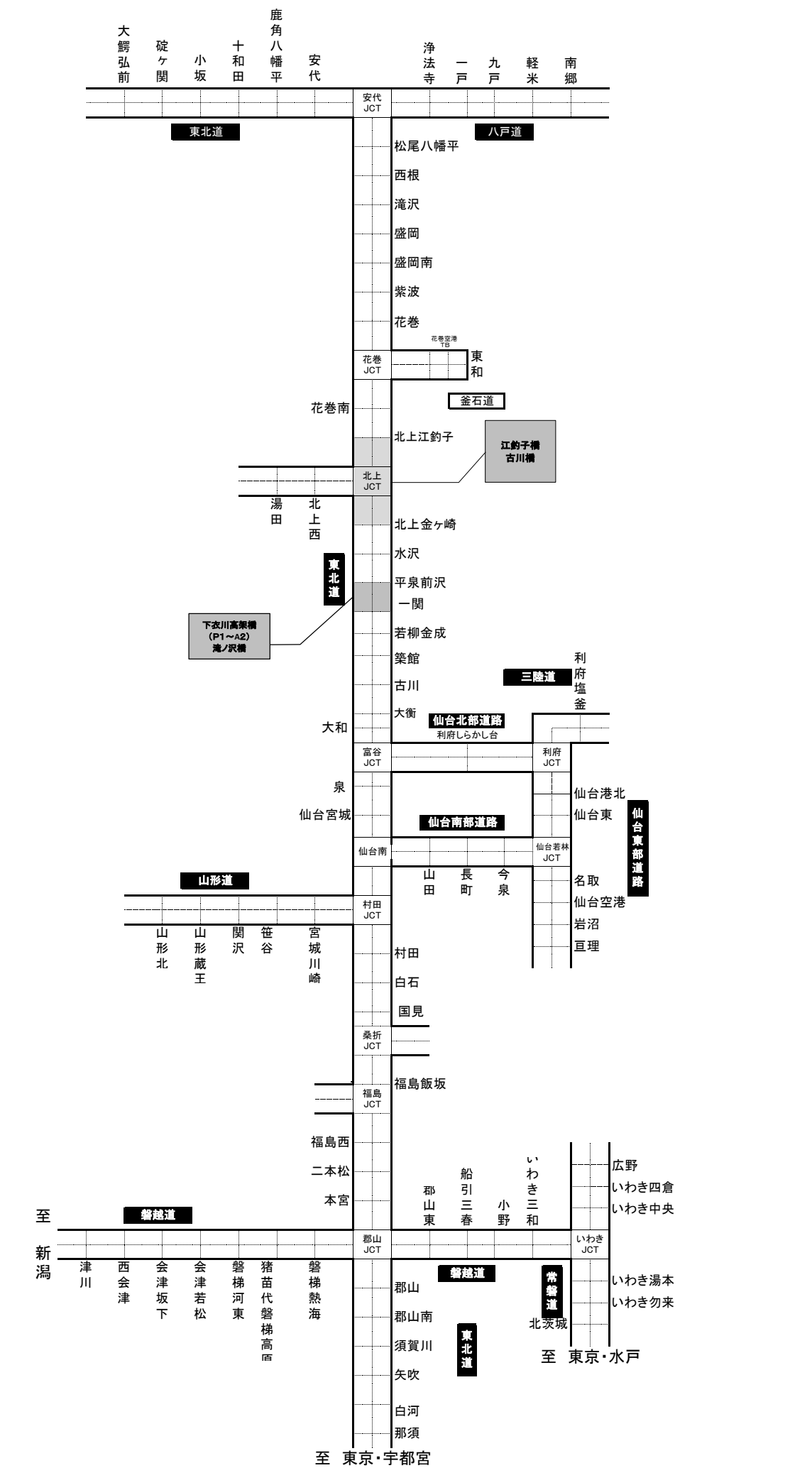
参 考 図

令和6年9月

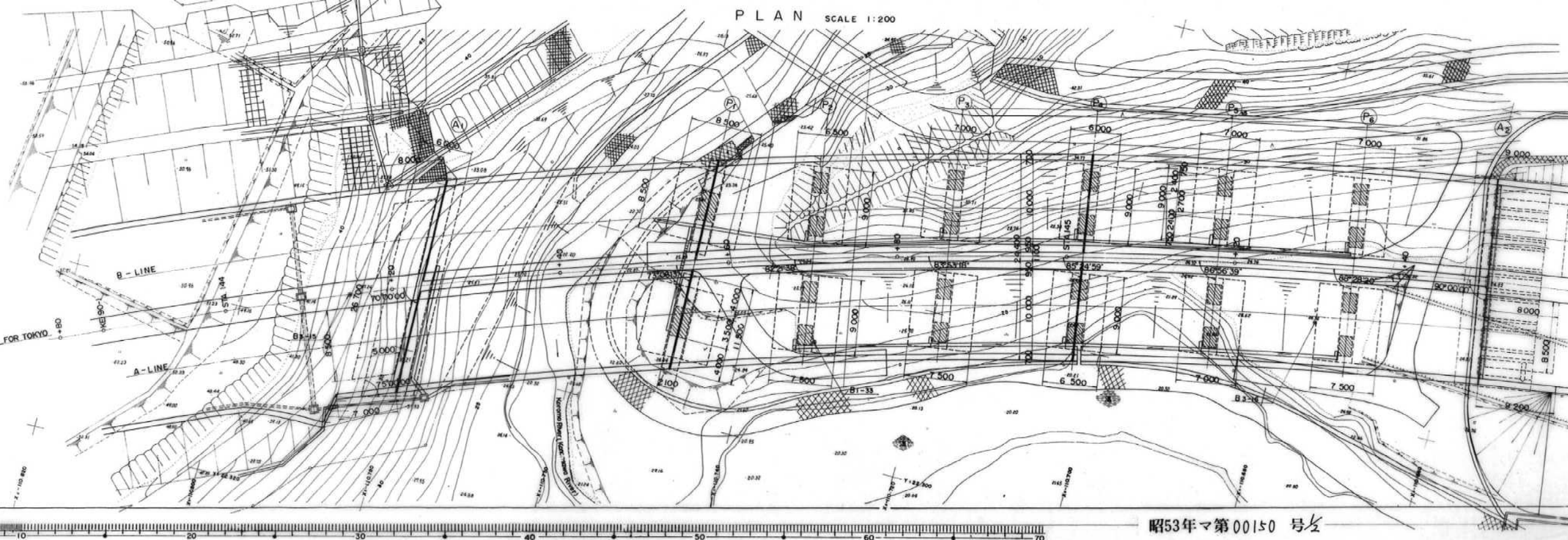
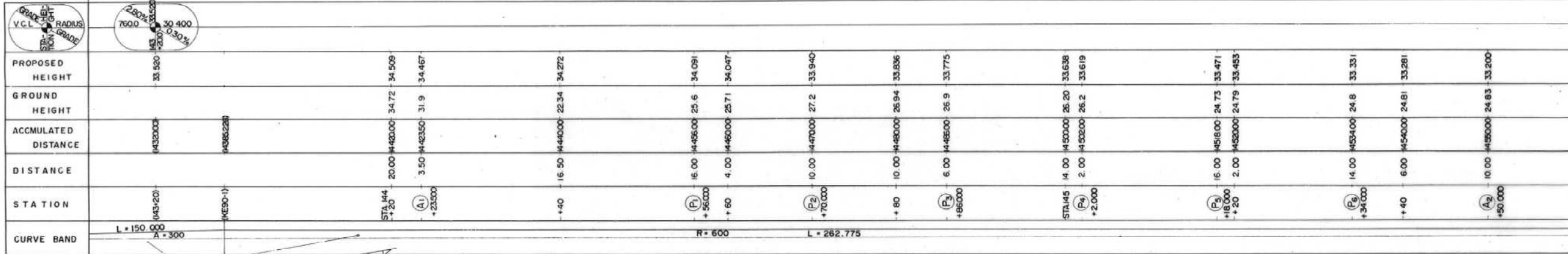
東日本高速道路株式会社 東北支社

管理事業部 構造設計チーム

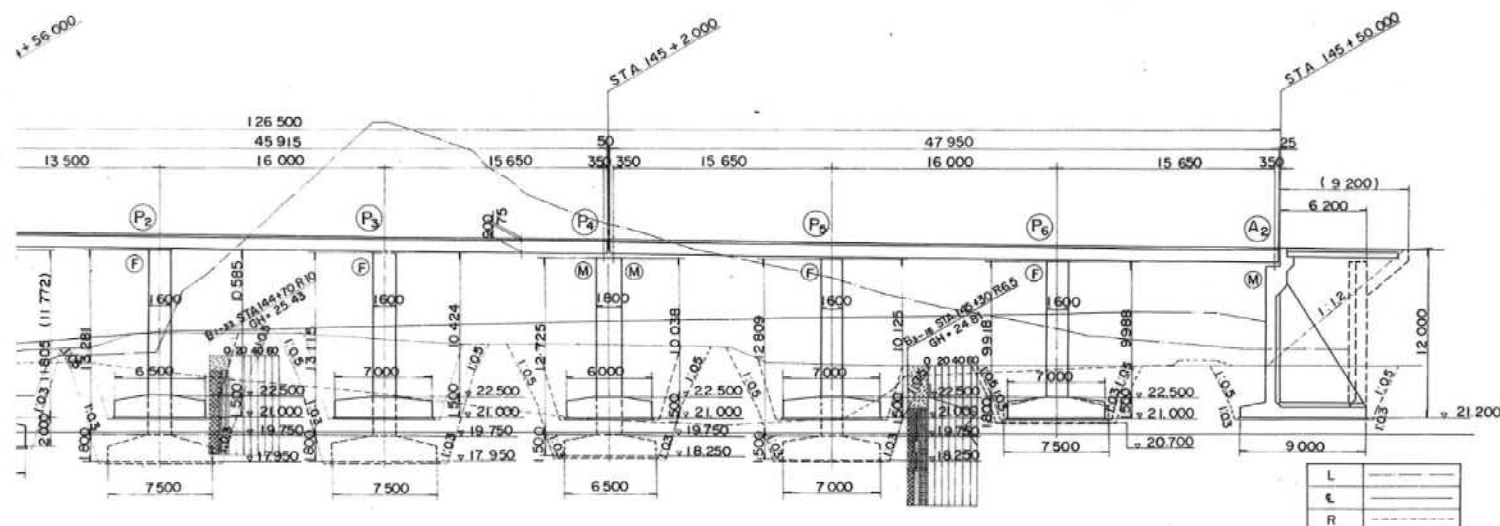
検討業務位置図



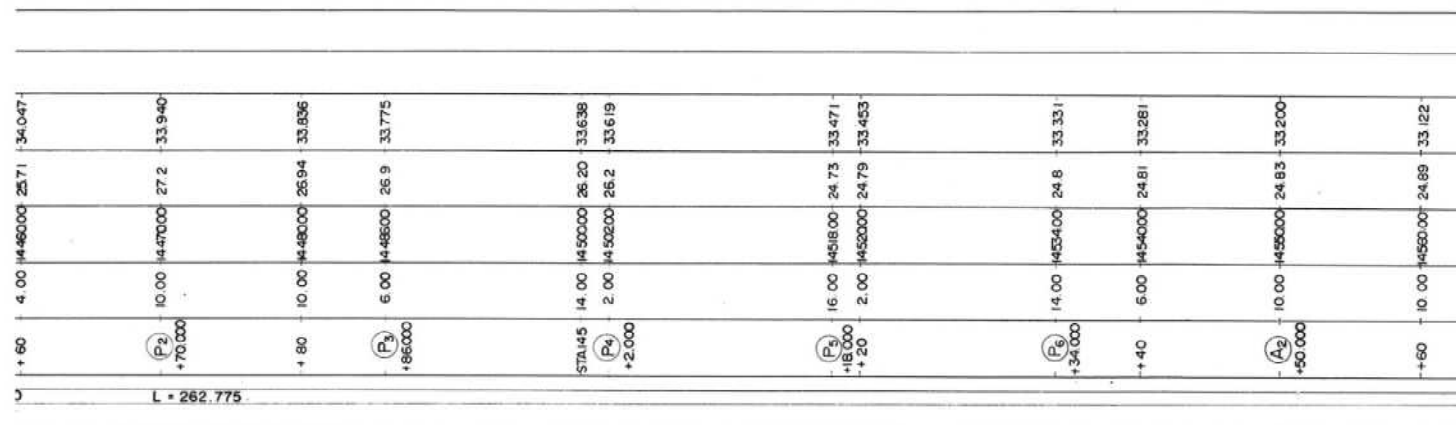
下衣川高架橋



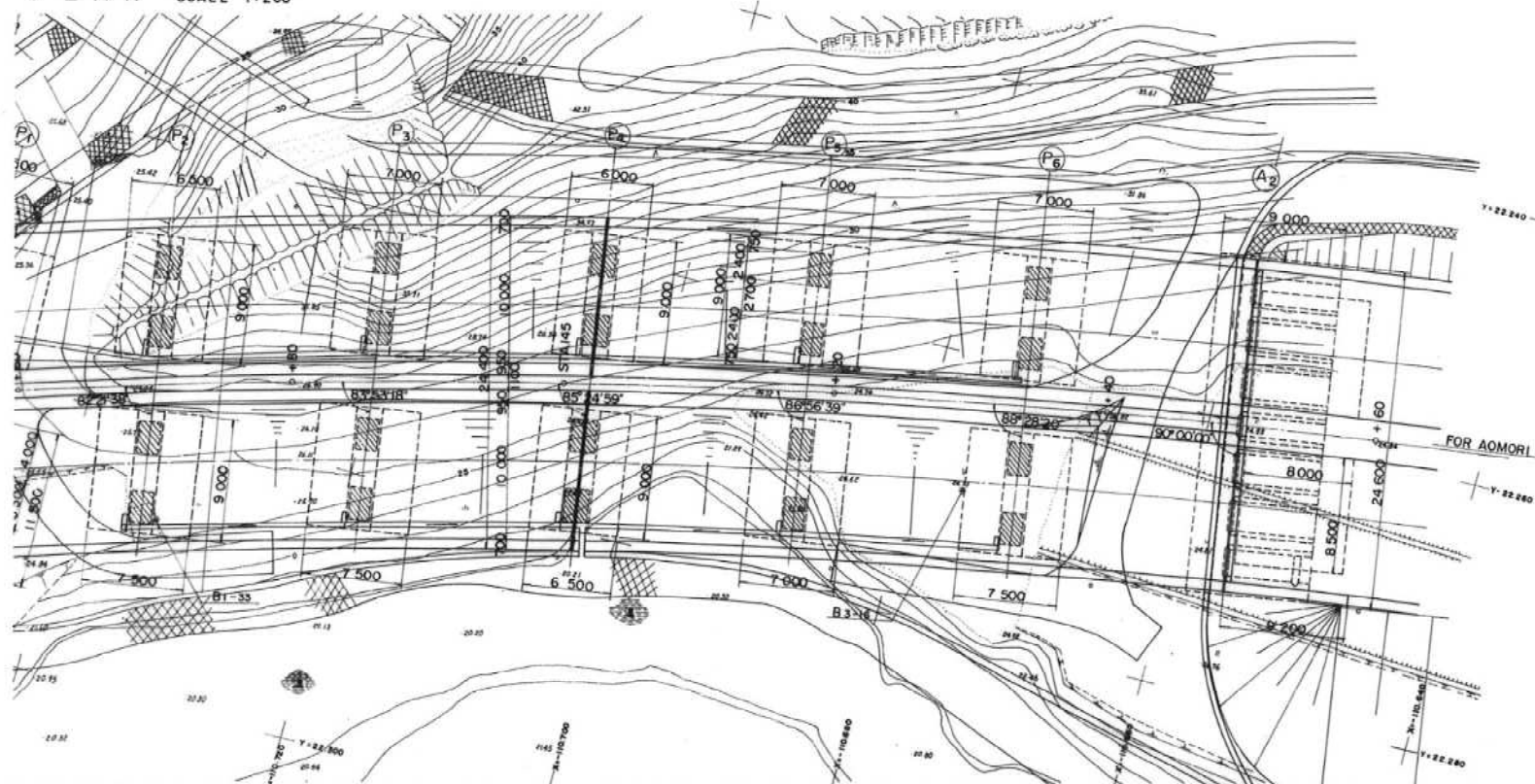
GENERAL VIEW



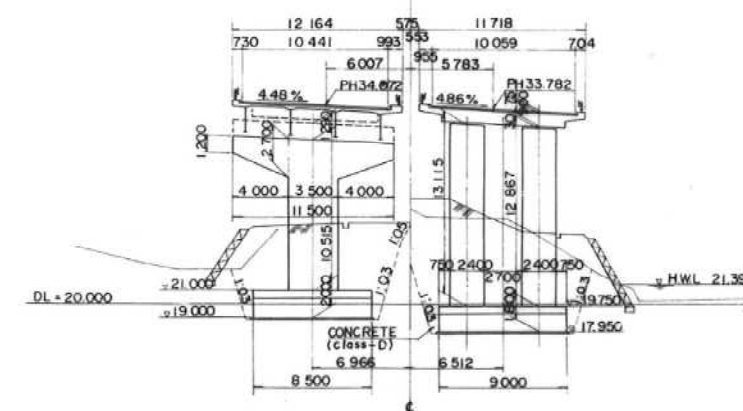
注)破線および()内の値はA-LINEを示す。



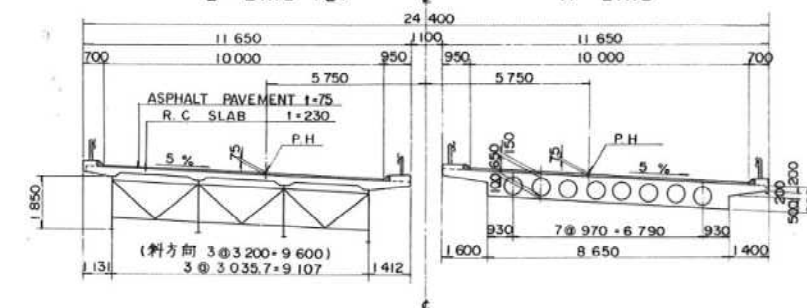
P L A N SCALE 1:200



$(P_1) - B$ $(P_3) - A$



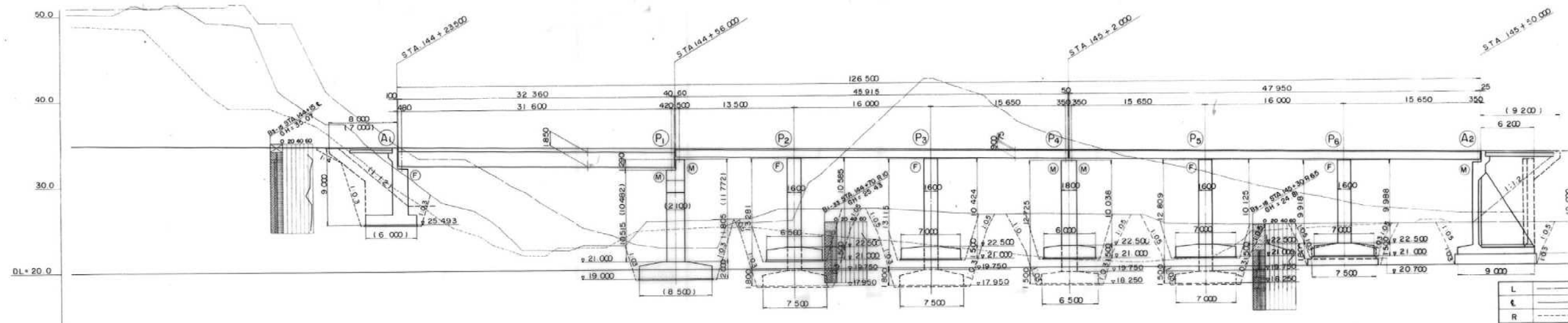
STEEL COMPOSITE GIRDER RC CONTINUOUS HOLLOW SLAB
B - LINE (L) A - LINE



BRIDGE TYPE	STEEL COMPOSITE GIRDER	RC CONTINUOUS HOLLOW SLAB
TOTAL BRIDGE LENGTH	32 500 ^M	94 000 ^M
GIRDER LENGTH	32 370 ^M	45 915 ^M + 47 950 ^M
SPAN	31 600 ^M	13 500 + 16 000 + 15 650, 15 650 + 16 000 + 15 650
WIDTH	2 @ 10 000 ^M	
LIVE LOAD	TL - 20	TT - 43
IMPACT COEFFICIENT	$i = 20 / (50 + \ell)$	$i = 77 / (20 + \ell), i = 20 / (50 + \ell)$
TEMPERATURE CHANGE	-10°C ~ 50°C	± 15°C
SEISMIC INTENSITY	Kh=0.15 (0.85 × 0.9 × 1.0 × 0.2) Kv = 0	
SPECIAL LOAD (SNOW)		
ANGLE OF SKEW	A1 = 70° , A2 = 90°	
RADIUS OF CURVATURE	R = 600 ^M	
LONGITUDINAL SLOPE	2.80% 0.30% V.C.L	

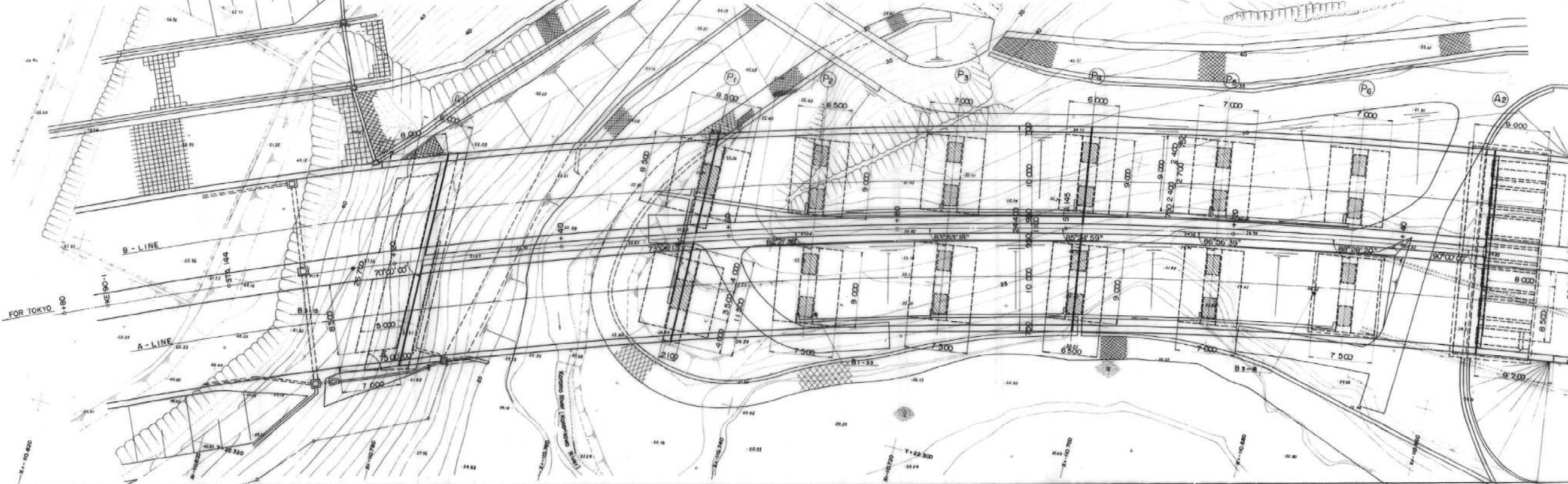
東北自動車道 (一関~平泉前沢) 完成図		255
		1990
工種	長大橋	150
		350
名	下秋川高架橋 上部工	縮尺
		1
	一般図	100
称		93
		250
日本道路公団仙台建設局		255
		74
		409

PROFILE SCALE 1:200



PROPOSED HEIGHT	33.300	34.509	34.72	34.509	34.272	34.091	33.940	33.836	33.775	33.638	33.471	33.493	33.331	33.281	33.200
GROUND HEIGHT															
ACCUMULATED DISTANCE	143.300	143.300	143.300	143.300	143.300	143.300	143.300	143.300	143.300	143.300	143.300	143.300	143.300	143.300	143.300
DISTANCE		20.00	3.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50	16.50
STATION	143+00	143+20	143+23.50	143+40	143+56.50	143+73.00	143+89.50	144+06.00	144+22.50	144+39.00	144+55.50	144+72.00	144+88.50	145+05.00	145+21.50
CURVE BAND	L=150.000 A=300														

PLAN SCALE 1:200



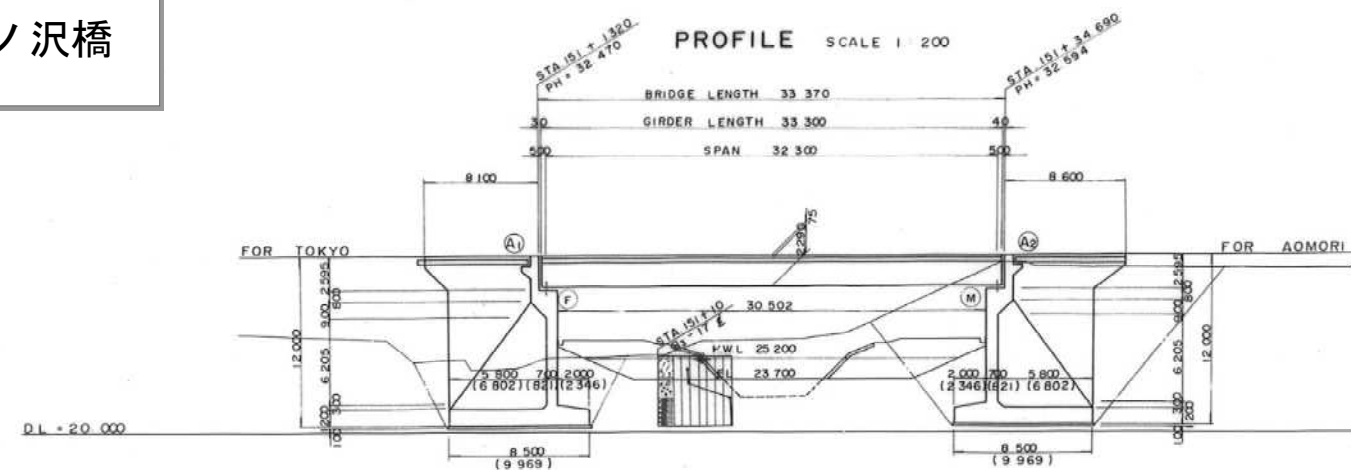
L	-----
t	-----
R	-----

+ 60	4.00	14 460.00	26.71	34.047
(P_2)	10.00	14 470.00	27.2	33.940
+ 70.00				
+ 80	10.00	14 480.00	26.94	33.626
(P_2)	6.00	14 486.00	26.9	33.775
+ 86.000				
STB.145	14.00	14 500.00	26.20	33.638
(P_2)	2.00	14 500.00	26.2	33.619
+ 2.000				
(P_5)	16.00	14 516.00	24.73	33.471
+ 16.000				
+ 20	2.00	14 520.00	24.79	33.453
(P_6)	14.00	14 534.00	24.8	33.331
+ 36.000				
+ 40	6.00	14 540.00	24.81	33.281
(A_2)	10.00	14 550.00	24.63	33.200
+ 50.000				
+ 60	10.00	14 560.00	24.69	33.122

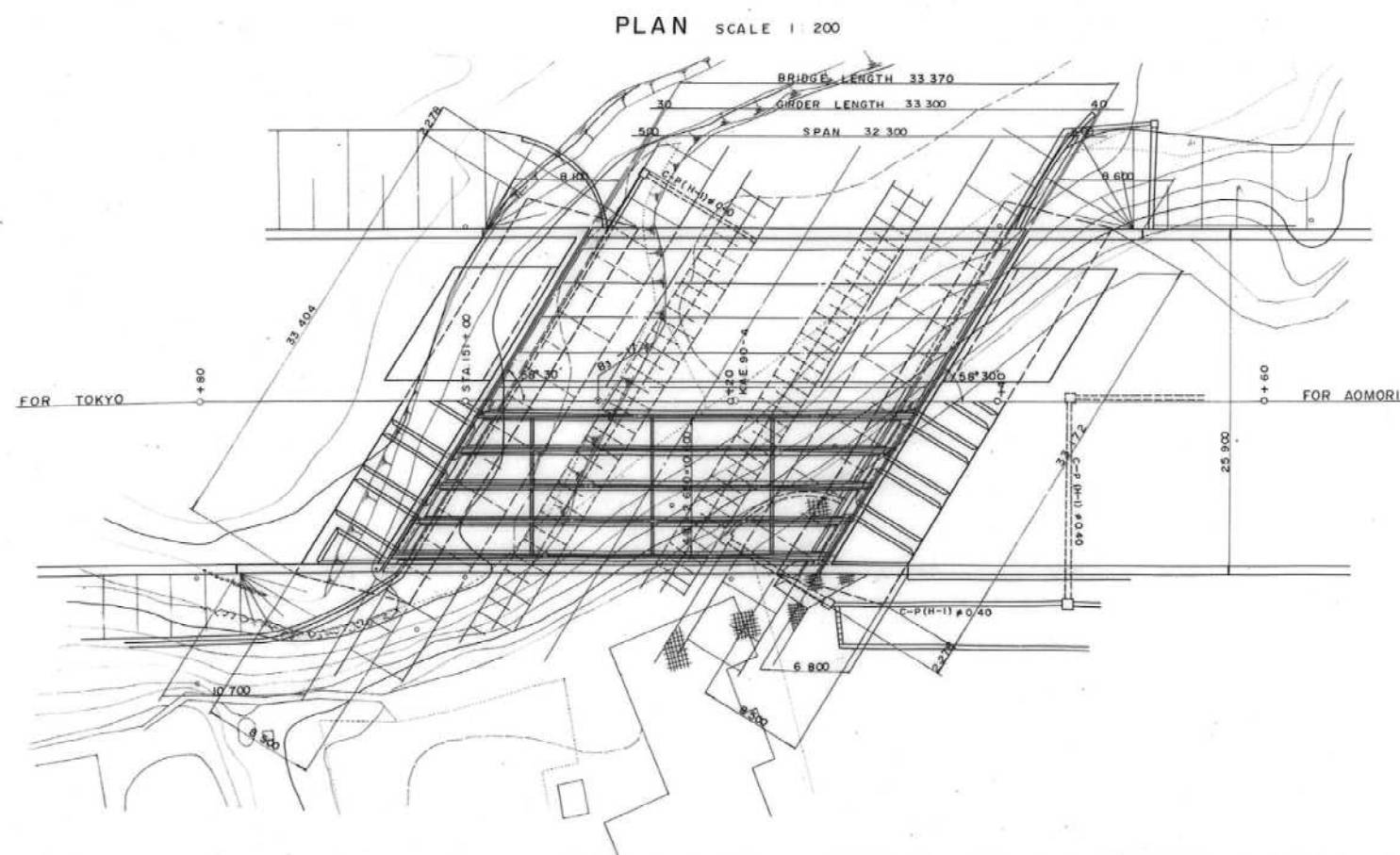
BRIDGE TYPE	STEEL SIMPLE GIRDER	RC CONTINUOUS HOLLOW SLAB
TOTAL BRIDGE LENGTH	34.500	94.000
GIRDER LENGTH	32.360	45.875 + 47.950
SPAN	31.600	13.500+16.000+16.650+16.000+16.000+16.000
WIDTH	10.000 (11.650)	
LIVE LOAD	TL - 20 , TT - 43	
IMPACT COEFFICIENT	$1 + 20 / (50 + \ell)$	$1 + 7 / (20 + \ell)$, $1 + 20 / (50 + \ell)$
TEMPERATURE CHANGE	—	$\pm 15^{\circ}\text{C}$
SEISMIC INTENSITY	$K_h = 0.15$, $K_v = 0$	
SPECIAL LOAD (SNOW)	—	
ANGLE OF SKEW	$A_1 = 70^{\circ}$,	$A_2 = 90^{\circ}$
RADIUS OF CURVATURE	$R = 600$	
LONGITUDINAL SLOPE	2.80 %	0.30 %

東北自動車道 (一関~平泉前沢) 完成図		450 129
工種	長大橋	17, 356
名	下宮川高家橋 千那江流のPC上鋼工	縮尺 1
称	一般図 (I)	200
		100
日本道路公団仙台建設局		97 400

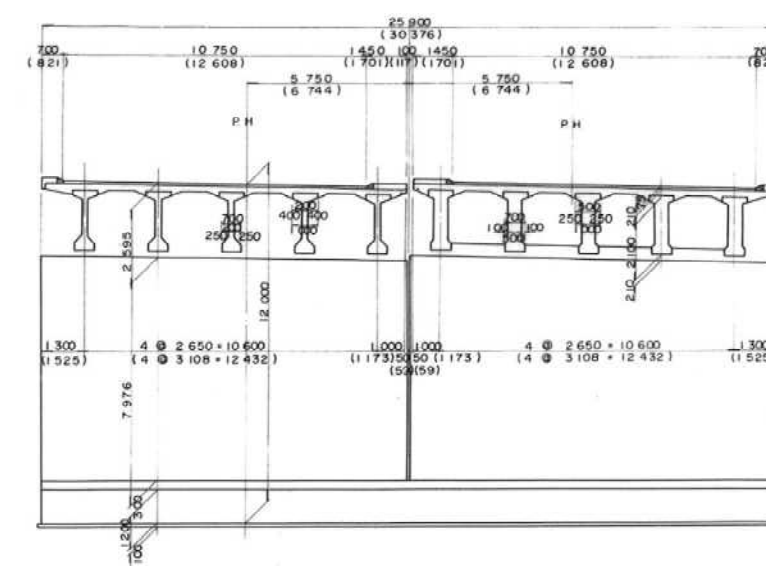
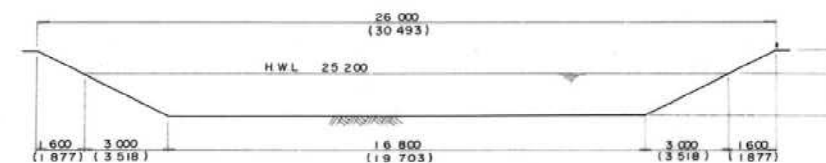
滝ノ沢橋



PROPOSED HEIGHT	32.400	32.466	32.538	32.594	32.616	32.700
GROUND HEIGHT	26.94	24.56	26.46	31.95	31.61	32.02
ACCUMULATIVE DISTANCE	0+000.00	0+000.00	0+000.00	0+000.00	0+000.00	0+000.00
DISTANCE	0+000.00	0+000.00	0+000.00	0+000.00	0+000.00	0+000.00
STATION	0+000.00	0+000.00	0+000.00	0+000.00	0+000.00	0+000.00
CURVE BAND	L = 337.1515 R = 6.000 A = 300					



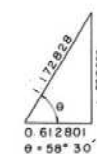
TYPICAL CROSS SECTION SCALE 1:100

TYPICAL SECTION SCALE 1:100
(TAKINOSAWAGAWA Q = 80m³/s i = 1/150)

DESIGN DATA

TYPE	PC COMPOSITE SIMPLE GIRDER
TOTAL BRIDGE LENGTH	33.370m
GIRDER LENGTH	33.300m
SPAN	32.300m
BRIDGE WIDTH	10.750m x 2
LIVE LOAD	TL-20 TT-43
IMPACT COEFFICIENT	20% + 10% / 25%
SEISMIC COEFFICIENT	K _y = 0 K = 0.15
ANGLE OF SKEW	58° 30'
RADIUS OF CURVATURE	R = 6,000m A = 300m
STATION OF M.O.R.	STA 152 + 60
GRADIENT	0.300%
LENGTH OF LONGITUDINAL CURVATURE	112.0m
RADIUS OF DO	62.200m

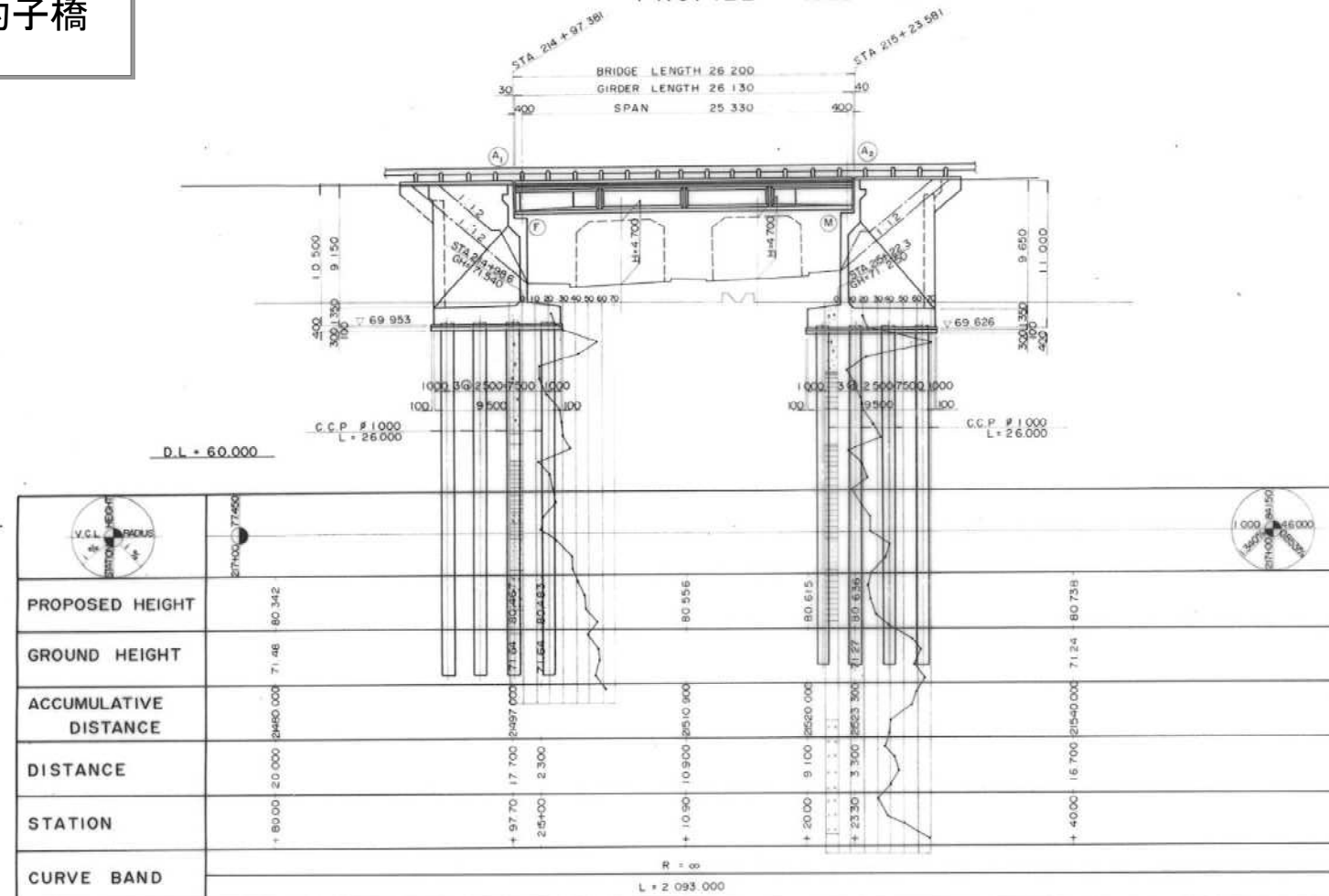
SKEW RATIO



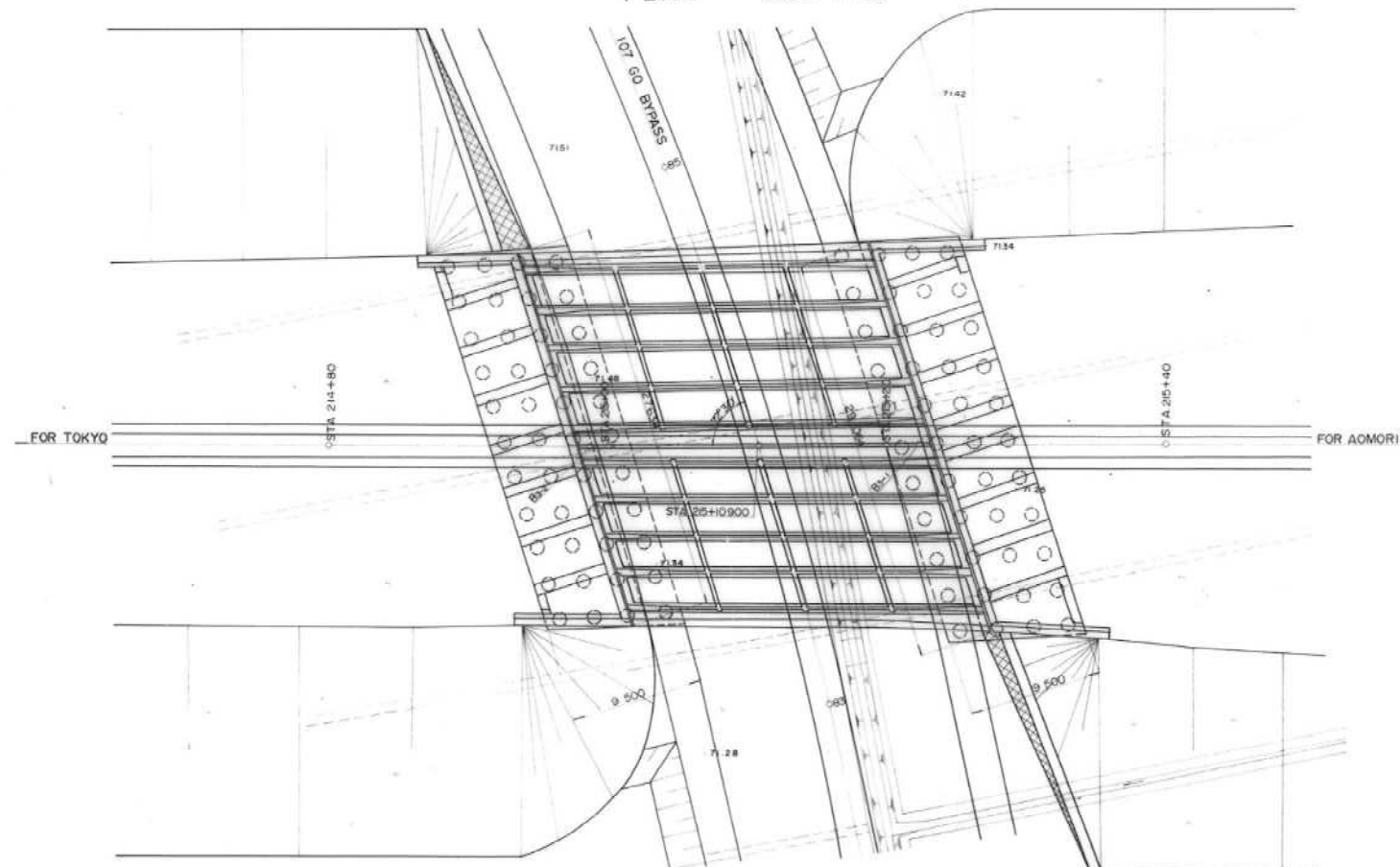
東北自動車道 (一関~平泉前沢) 完成図	763
工種	180
名	226
称	一般図
日本道路公団仙台建設局	276
	409

江釣子橋

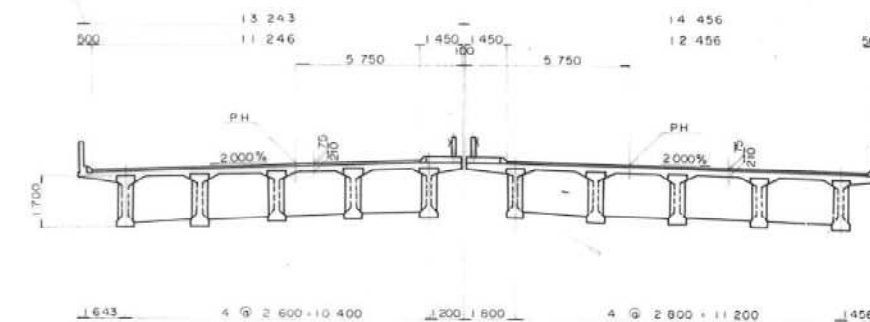
PROFILE SCALE 1:200



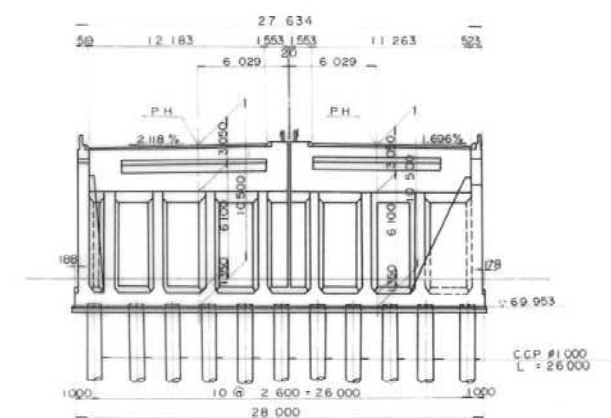
PLAN SCALE 1:200



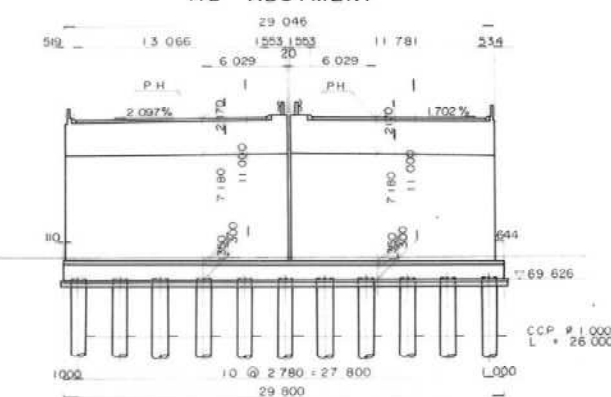
TYPICAL CROSS SECTION SCALE 1:100



A1 ABUTMENT



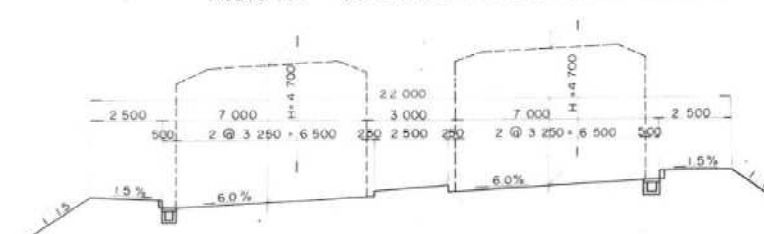
A2 ABUTMENT



DESIGN CONDITION

TYPE	P.C. COMPOSITE GIRDER
TOTAL BRIDGE LENGTH	26 ^M 200
GIRDER LENGTH	26 ^M 130
SPAN	25 ^M 330
WIDTH	11 ^M 781 - 13 ^M 066
LIVE LOAD	T L - 20 TT - 43
IMPACT COEFFICIENT	1 + 20/50 + 1/10 + 25/25
SEISMIC INTENSITY	KH = 0.10 KV = 0
ANGLE OF SKEW	72° 30'
RADIUS OF CURVATURE	R = ∞
LONGITUDINAL SLOPE	1/3000 = 0.033%

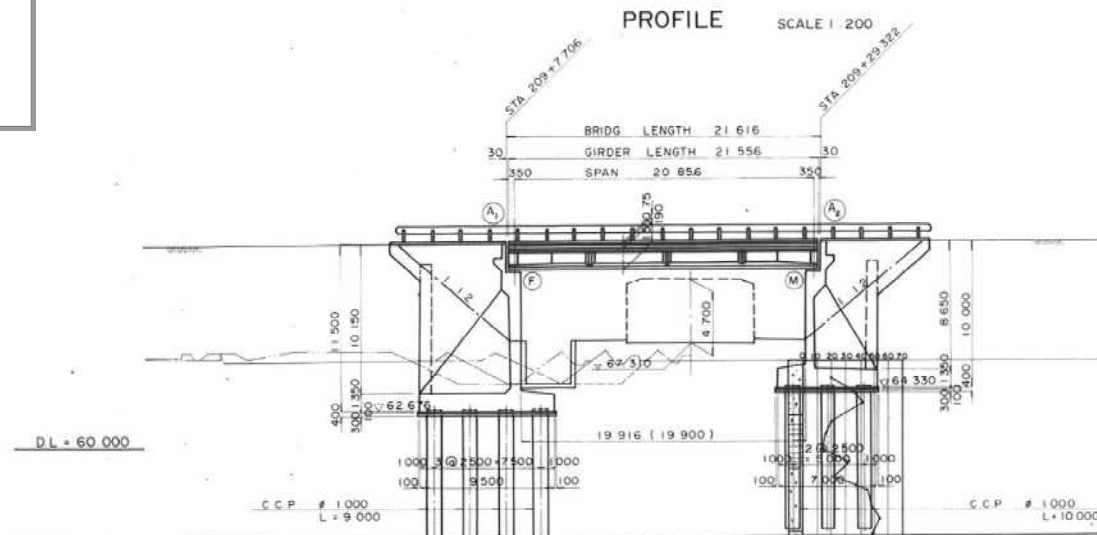
Route 107 GO BYPASS TYPICAL CROSS SECTION



東北自動車道 (花巻~江釣子) 完成図		444
中 小 橋		2615
江釣子橋 上部工 橋 尺		3
444/2615-444/2615		696
一般図		2
日本道路公団仙台建設局		52
北 上		1297

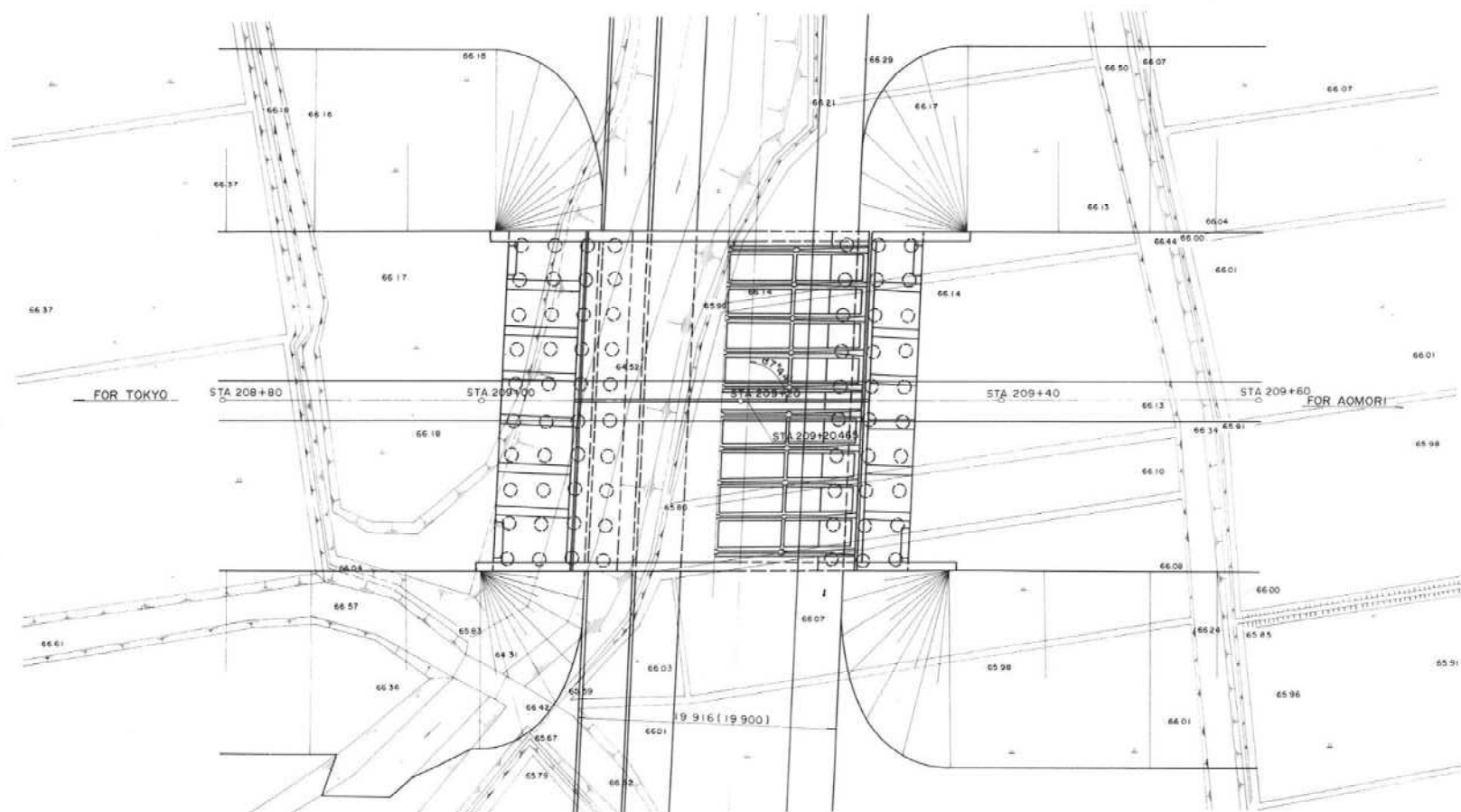
古川橋

PROFILE SCALE 1/200

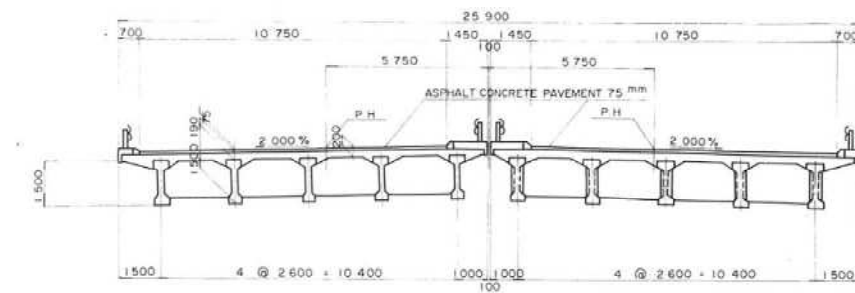


PROPOSED HEIGHT	74.901	74.123	74.178	74.260	74.325	74.410
GROUND HEIGHT	66.33	66.12	66.12	66.11	66.20	66.20
ACCUMULATIVE DISTANCE	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
DISTANCE	20.000	20.000	7.530	11.914	6.477	10.525
STATION	NO. 208+80	NO. 209+00	NO. 209+07.530	NO. 209+19.444	NO. 209+31.421	NO. 209+41.946
CURVE BAND	R = ∞ L = 2093.000					

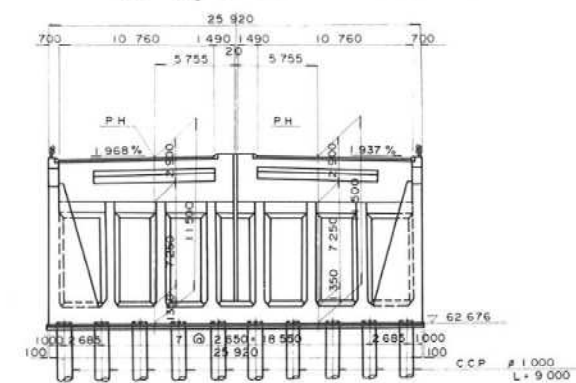
PLAN SCALE 1/200



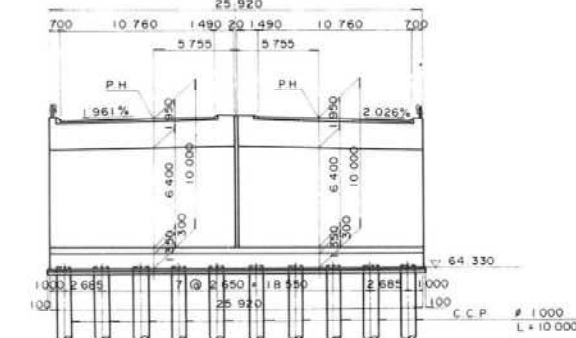
TYPICAL CROSS SECTION SCALE 1/100



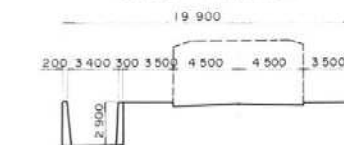
A1 ABUTMENT SCALE 1/200



A2 ABUTMENT



WANO-YANAGIDA



DESIGN CONDITION

TYPE	PC COMPOSITE GIRDER
TOTAL BRIDGE LENGTH	21.616
GIRDER LENGTH	21.556
SPAN LENGTH	20.856
BRIDGE WIDTH	10.750
LIVE LOAD	TL-20, TT-43
IMPACT COEFFICIENT	$i = 20/80 + \epsilon$ $i = 10/25 + \epsilon$
SEISMIC COEFFICIENT	$K_h = 0.19$ $K_v = 0$
ANGLE OF SKEW	$87^\circ 44' 00''$
RADIUS OF CURVATURE	$R = \infty$
LONGITUDINAL SLOPE	0.30% 1.340%
CANT	

東北自動車道 (水沢～北沢) 完成図 925
2170
工 中 小 橋 (II) 502
種 557
名 古川橋 上部工 橋 尺
一 般 図 図 示 2
35
標 4635⁺・57252⁺・4635⁺・78060⁺
日本道路公団仙台建設局 北 上 14
4 28