

**PERANCANGAN RUAS JALAN TOL SOLO-NGAWI  
SEKSI IB STA 35+500-44+084 PROVINSI JAWA TENGAH**



**SKRIPSI**

Dibuat untuk Memenuhi Syarat dalam Menyelesaikan Pendidikan Sarjana Terapan  
pada Program Studi Perancangan Jalan dan Jembatan Jurusan Teknik Sipil  
Politeknik Negeri Sriwijaya

Disusun Oleh :

Almirah Ramadhanti	NPM. 0615 4011 1449
M. Bimo Alif	NPM. 0615 4011 1455

**PERANCANGAN JALAN DAN JEMBATAN  
JURUSAN TEKNIK SIPIL  
POLITEKNIK NEGERI SRIWIJAYA  
2019**

**PERANCANGAN RUAS JALAN TOL SOLO-NGAWI  
SEKSI IB STA 35+500-44+084 PROVINSI JAWA TENGAH**

**SKRIPSI**

**Palembang, Juli 2019**

**Disetujui oleh Dosen Pembimbing Skripsi  
Program Studi Perancangan Jalan dan Jembatan  
Jurusan Teknik Sipil  
Politeknik Negeri Sriwijaya**

**Pembimbing I,**

**Sukarman, S.T., M.T.  
NIP. 195812201985031001**

**Mengetahui,  
Ketua Jurusan Teknik Sipil  
Politeknik Negeri Sriwijaya,**

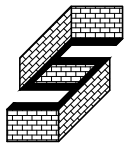
**Drs. H. Arfan Hasan, M.T.  
NIP. 195908081986031002**

**Pembimbing II,**

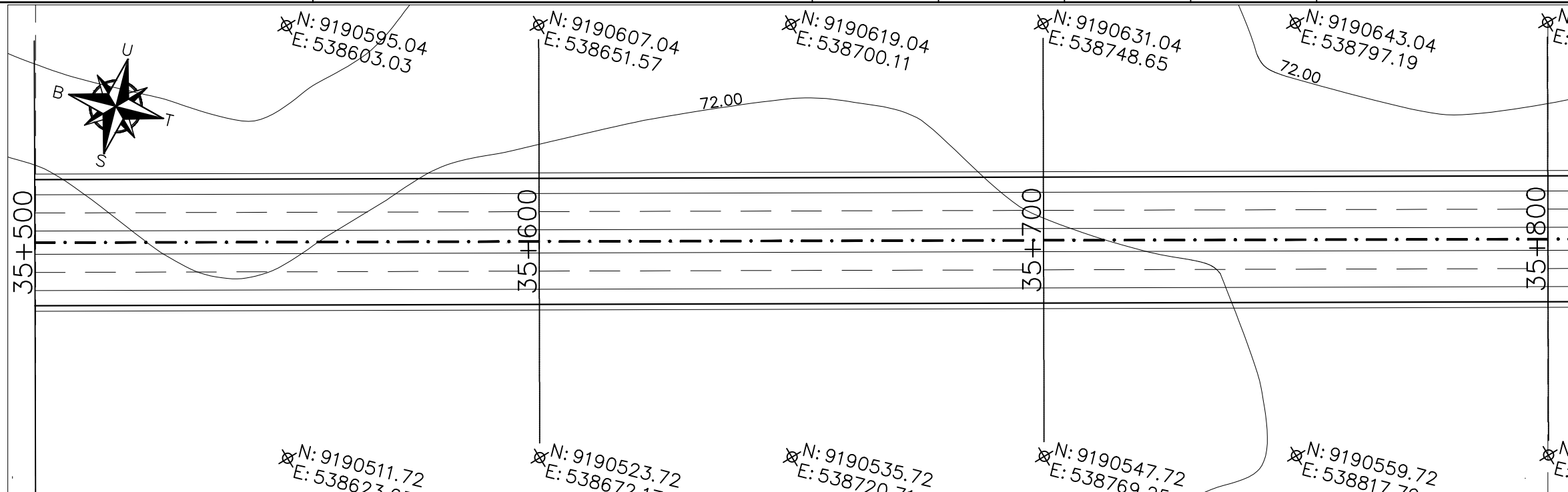
**Sri Rezki Artini, S.T., M.Eng.  
NIP. 198212042008122003**

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Perancangan Jalan dan Jembatan,**

**Drs. Raja Marpaung, S.T., M.T.  
NIP. 195706061988031011**

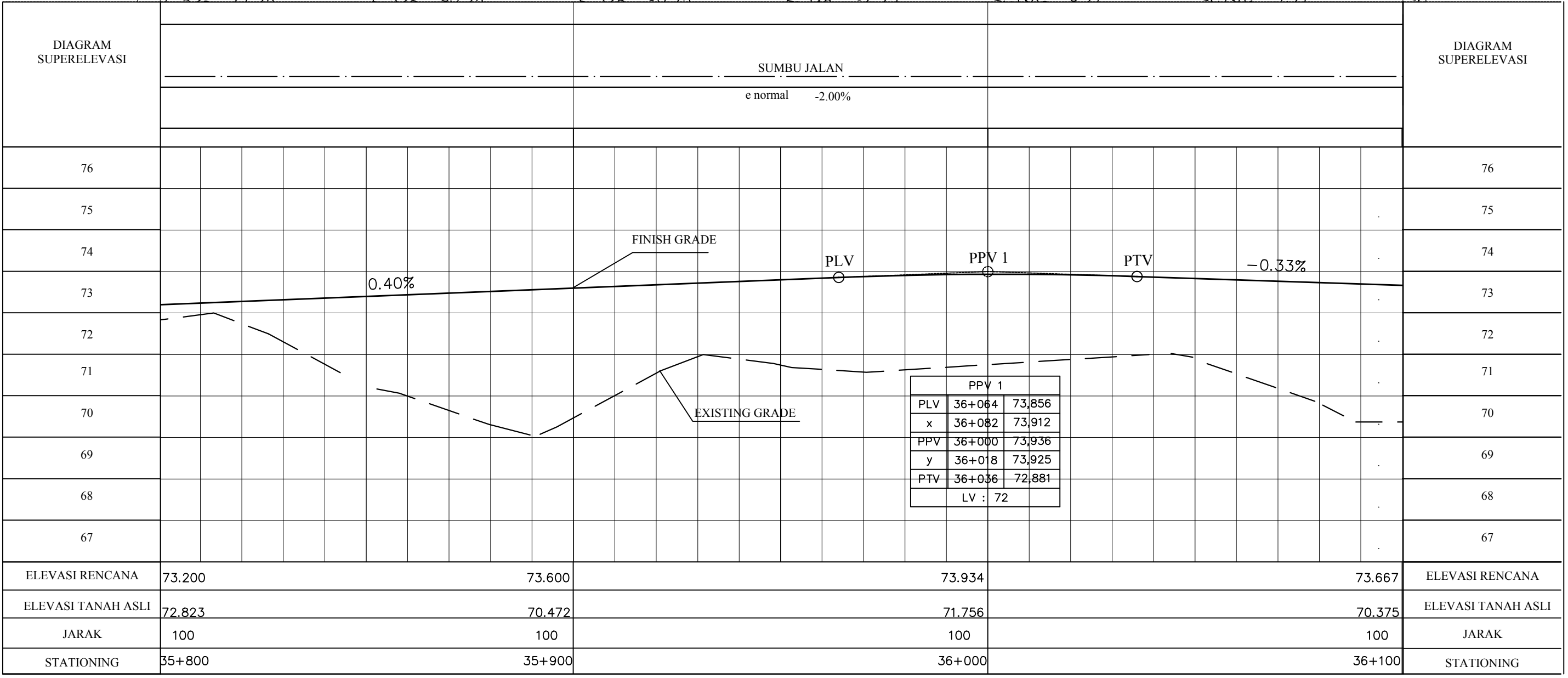
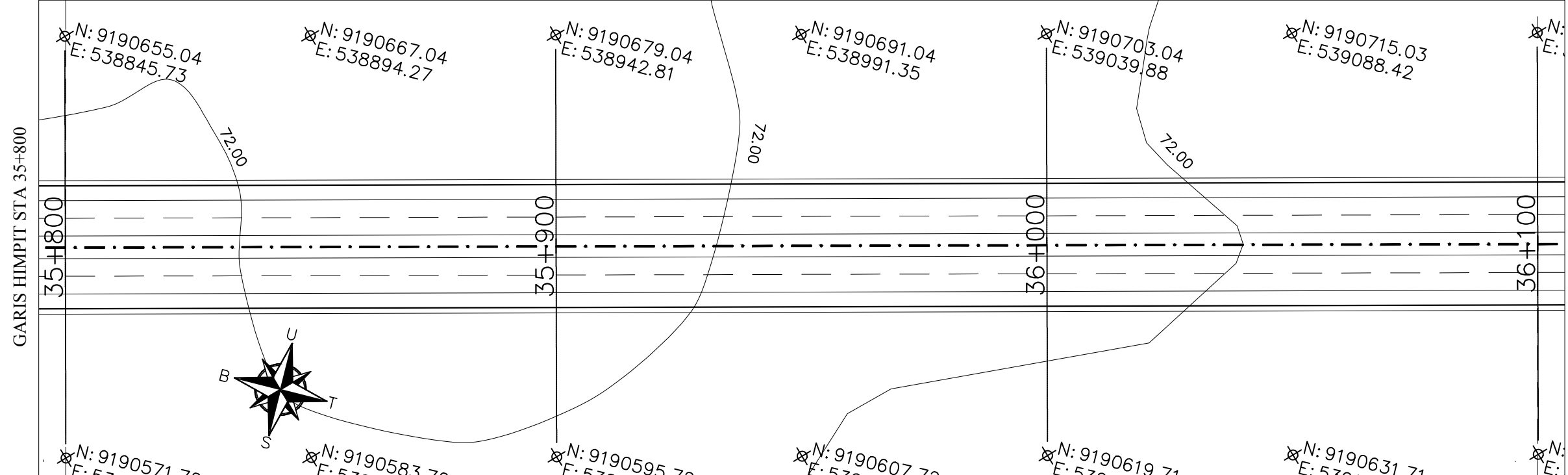
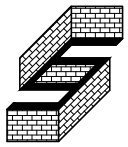


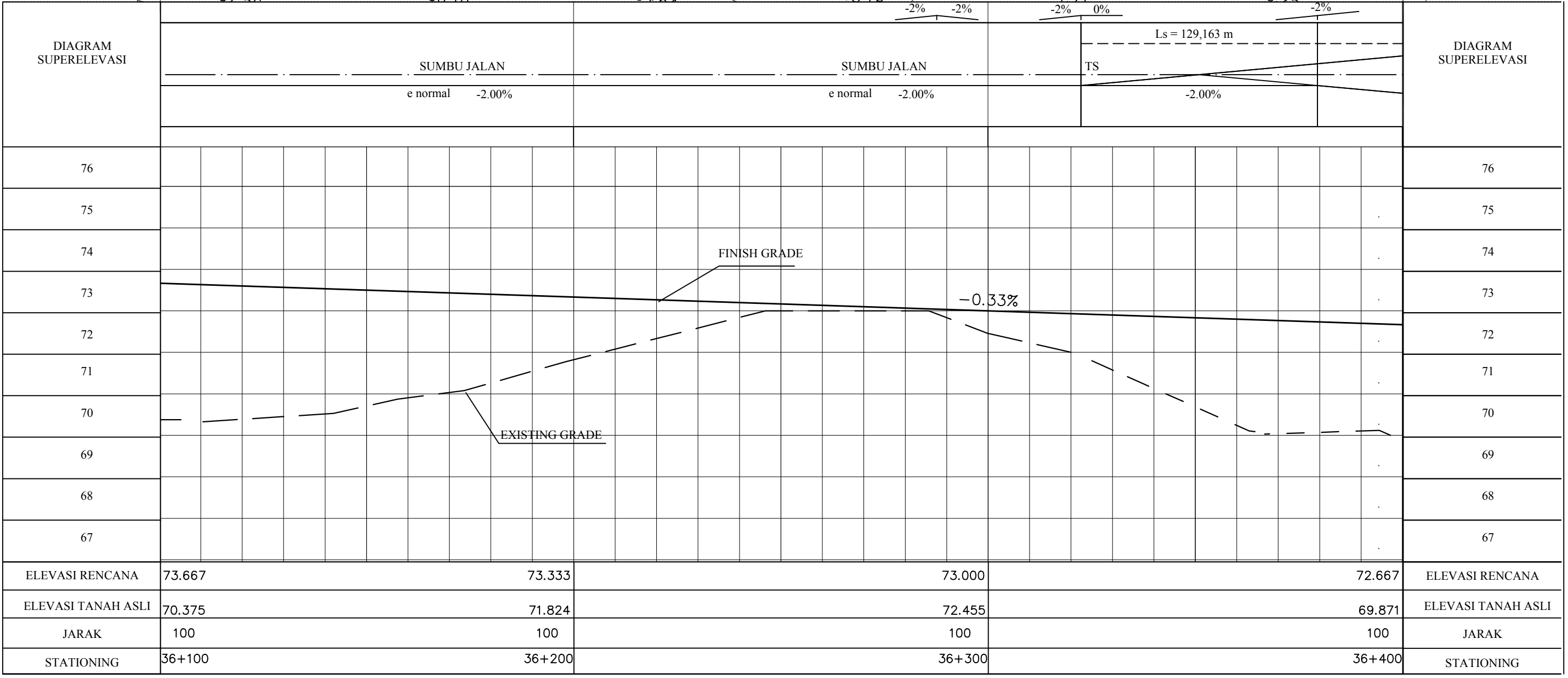
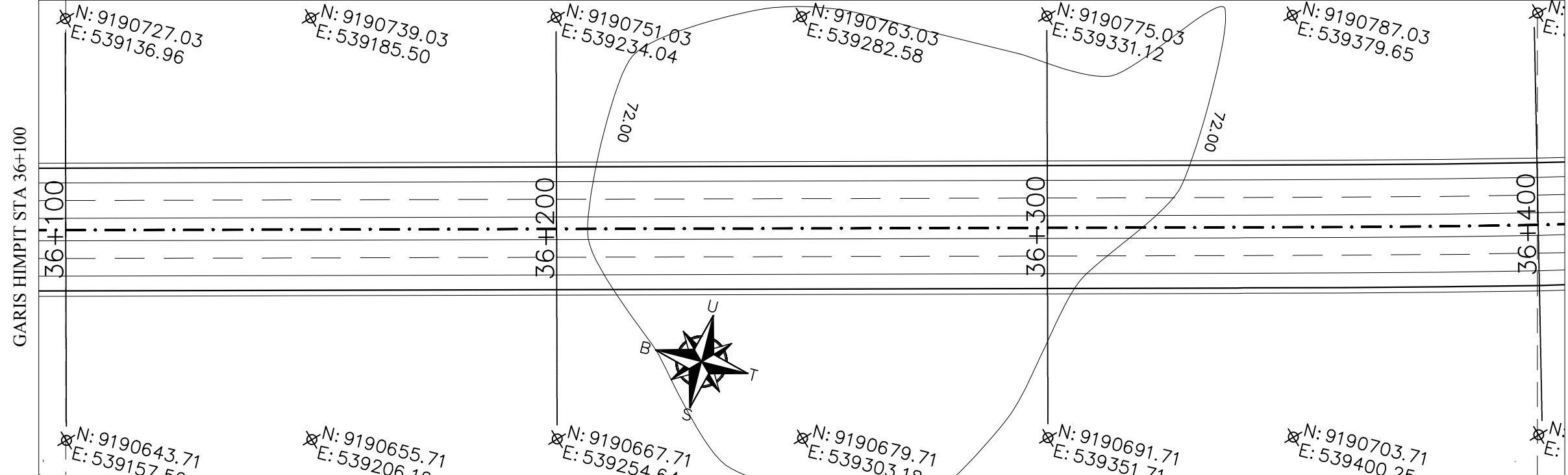
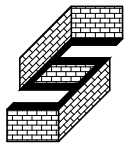
GARIS HIMPIT STA 35+500

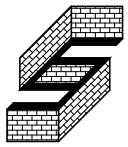


GARIS HIMPIT STA 35+800

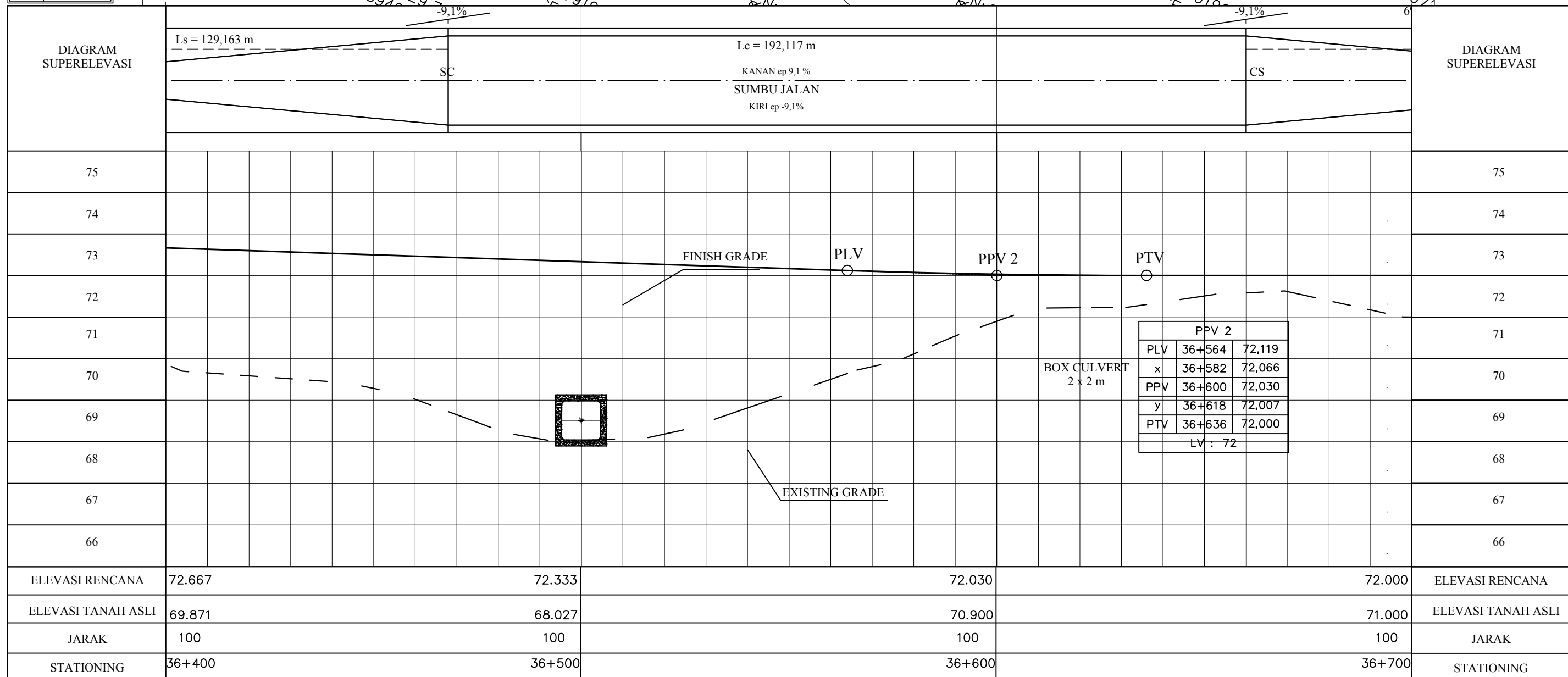
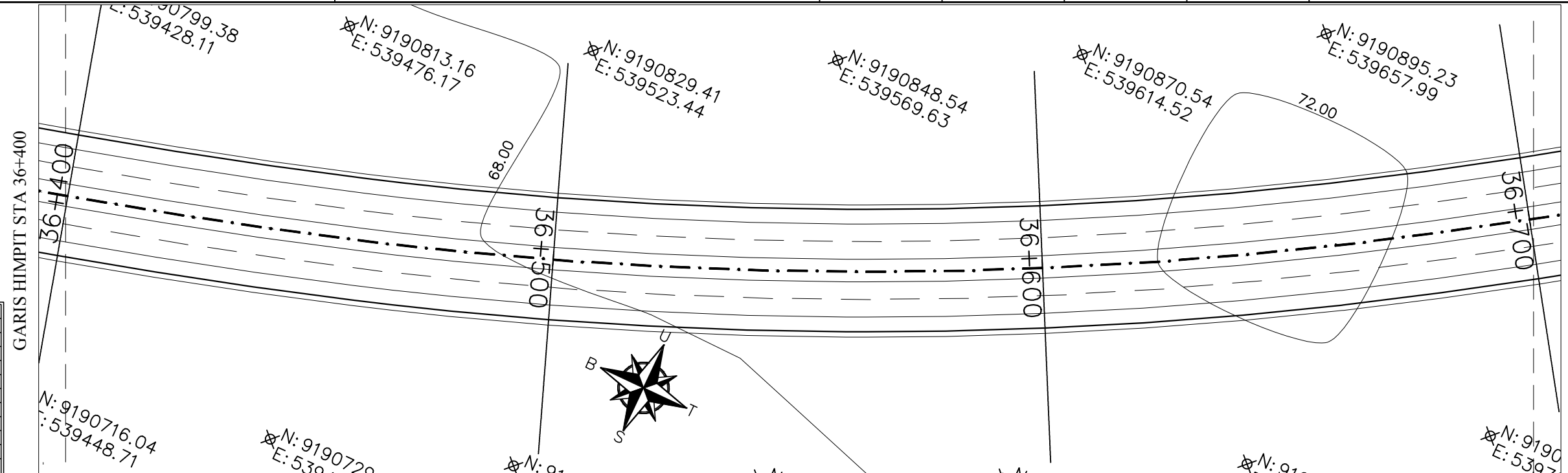
DIAGRAM SUPERELEVASI		Sumbu Jalan				DIAGRAM SUPERELEVASI		
		e normal -2.00%						
74							74	
73							73	
72							72	
71							71	
70							70	
69							69	
68							68	
67							67	
66							66	
ELEVASI RENCANA	72.000		72.400		72.800		73.200	ELEVASI RENCANA
ELEVASI TANAH ASLI	71.254		70.904		71.739		72.823	ELEVASI TANAH ASLI
JARAK	0		100		100		100	JARAK
STATIONING	35+500		35+600		35+700		35+800	STATIONING

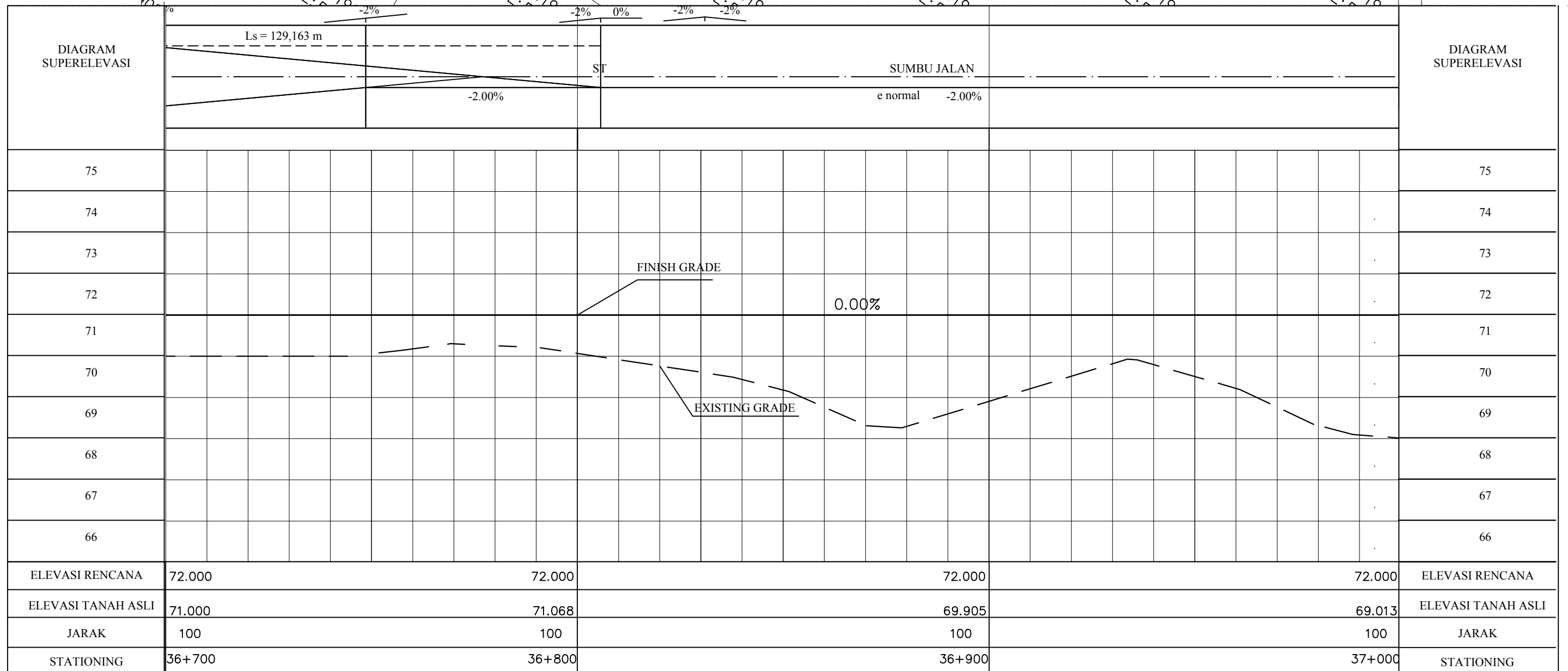
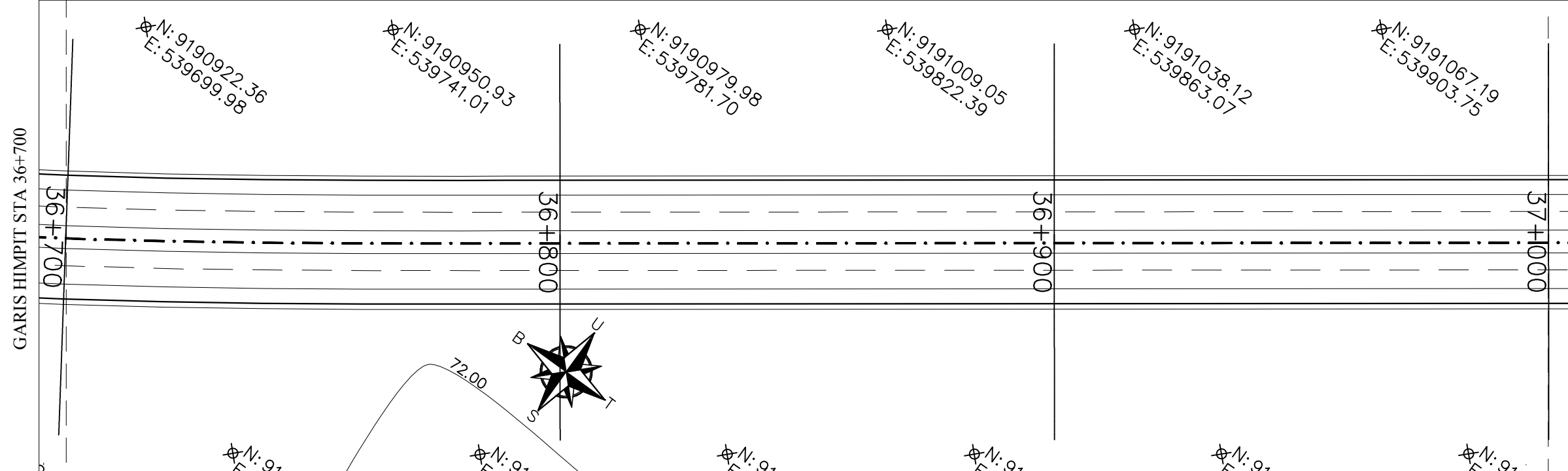
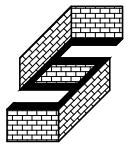


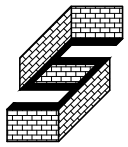




TIKUNGAN P1	
SPIRAL-CIRCLE-SPIRAL	
VR	120 Km/Jam
Δ	21,662°
R	850 m
Ts	227,383 m
Es	16,252 m
Lc	192,117 m
θs	4,356°
p	0,820 m
k	64,603 m
L	450,593 m







GARIS HIMPIT STA 37+000

GARIS HIMPIT STA 37+300

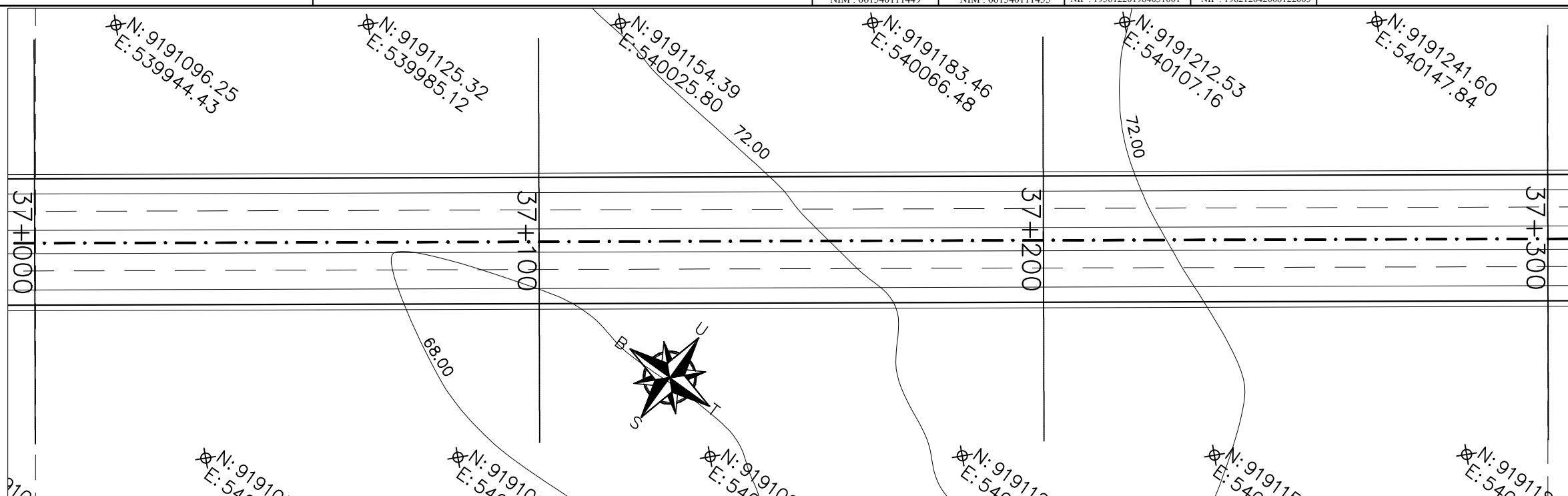
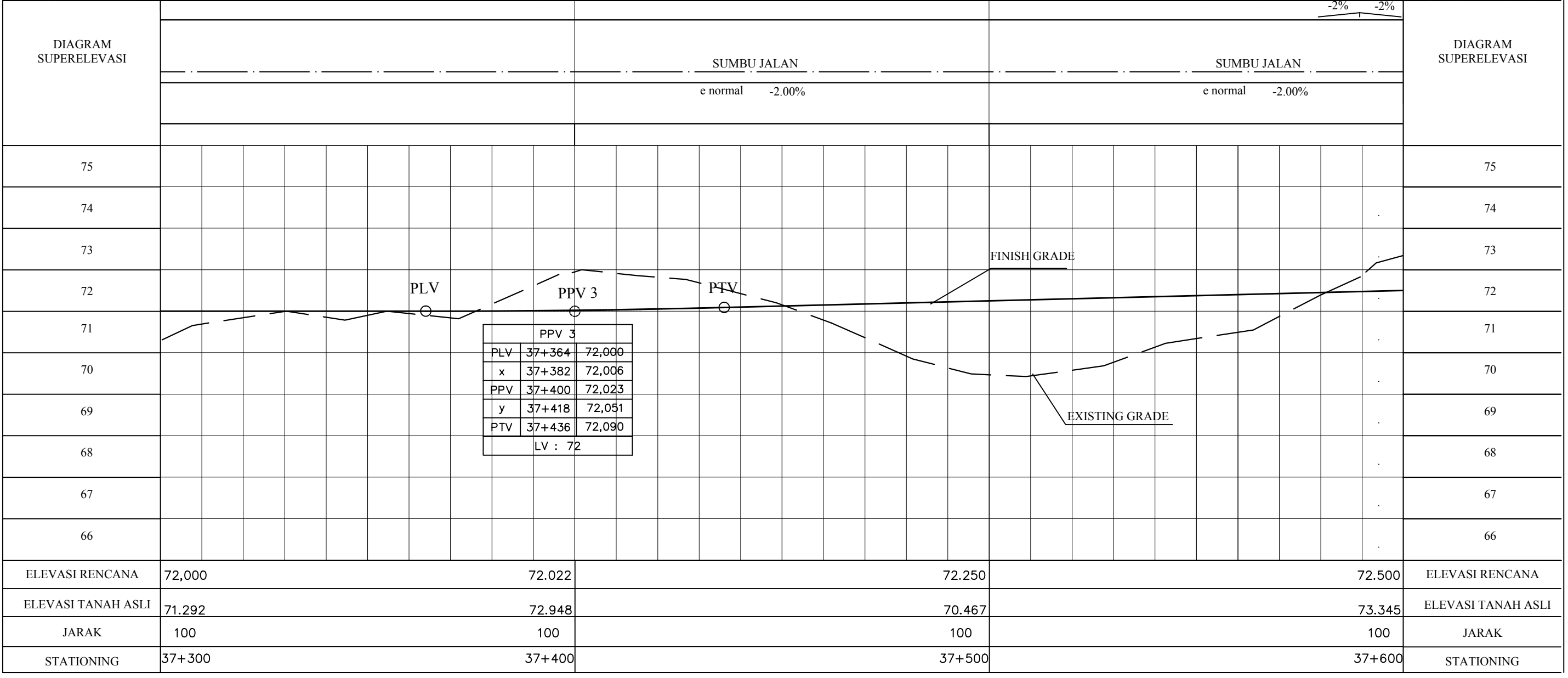
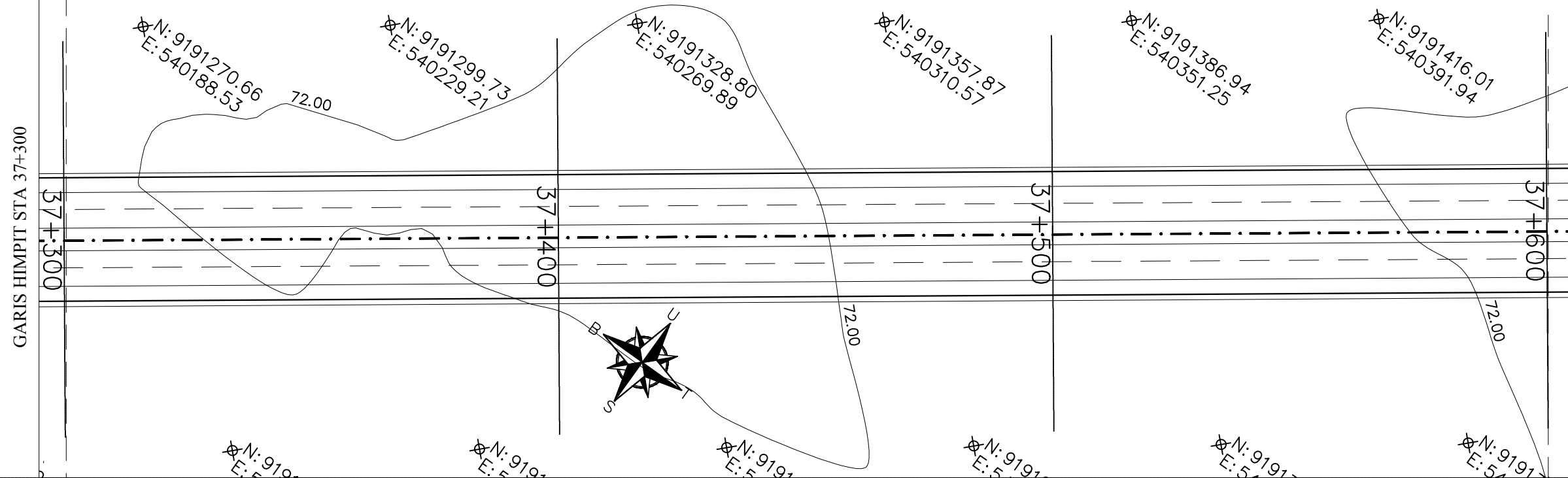
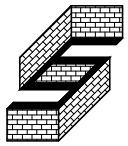
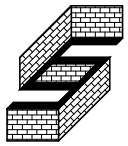


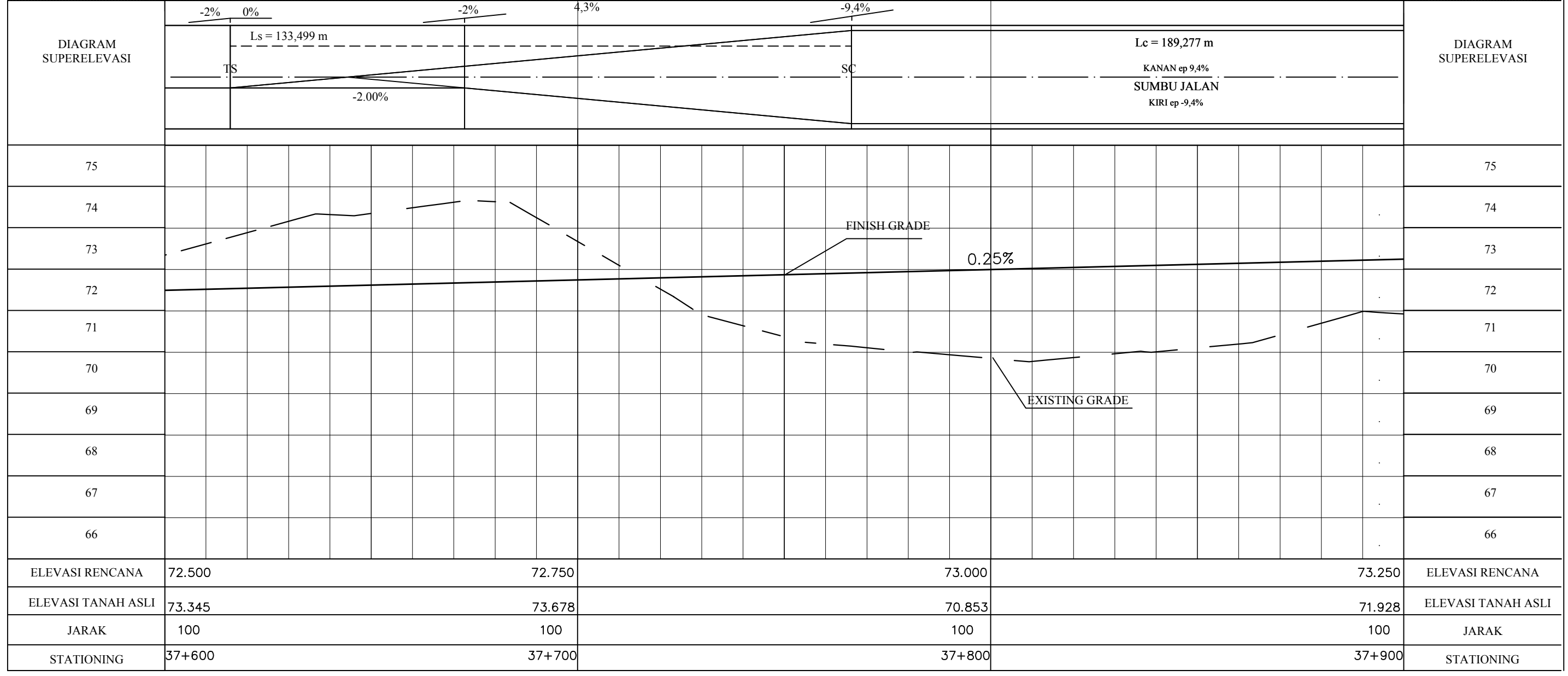
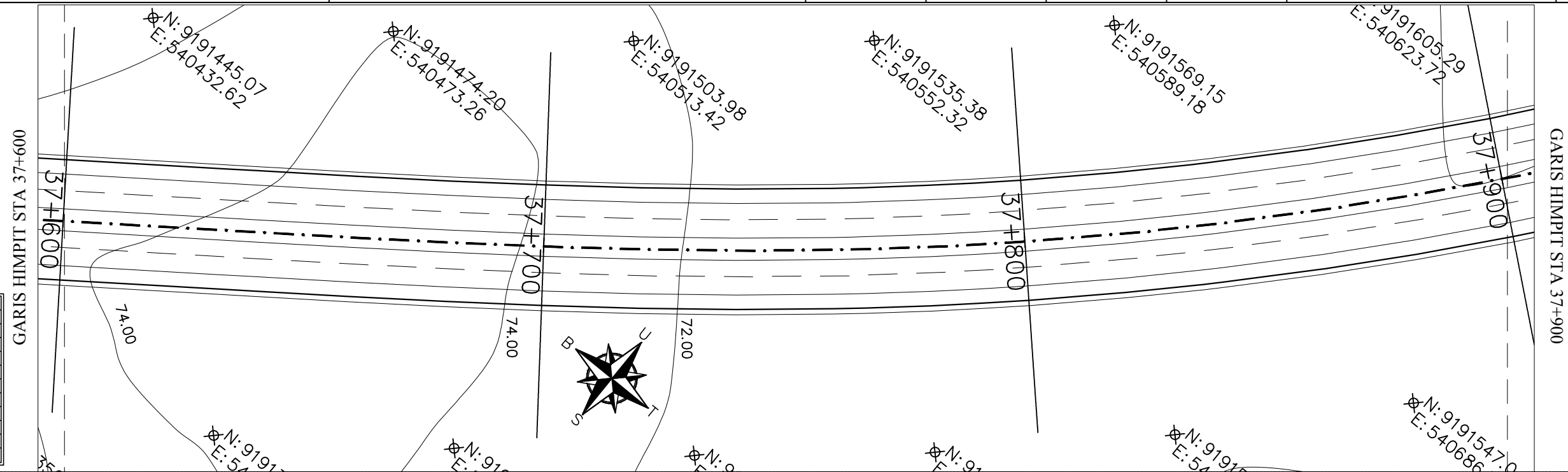
DIAGRAM SUPERELEVASI		Sumbu Jalan				DIAGRAM SUPERELEVASI		
		e normal -2.00%						
75							75	
74							74	
73							73	
72							72	
71							71	
70							70	
69							69	
68							68	
67							67	
66							66	
ELEVASI RENCANA	72.000		72.000		72.000		72,000	ELEVASI RENCANA
ELEVASI TANAH ASLI	69.013		68.696		73.268		71.292	ELEVASI TANAH ASLI
JARAK	100		100		100		100	JARAK
STATIONING	37+000		37+100		37+200		37+300	STATIONING

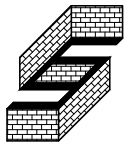




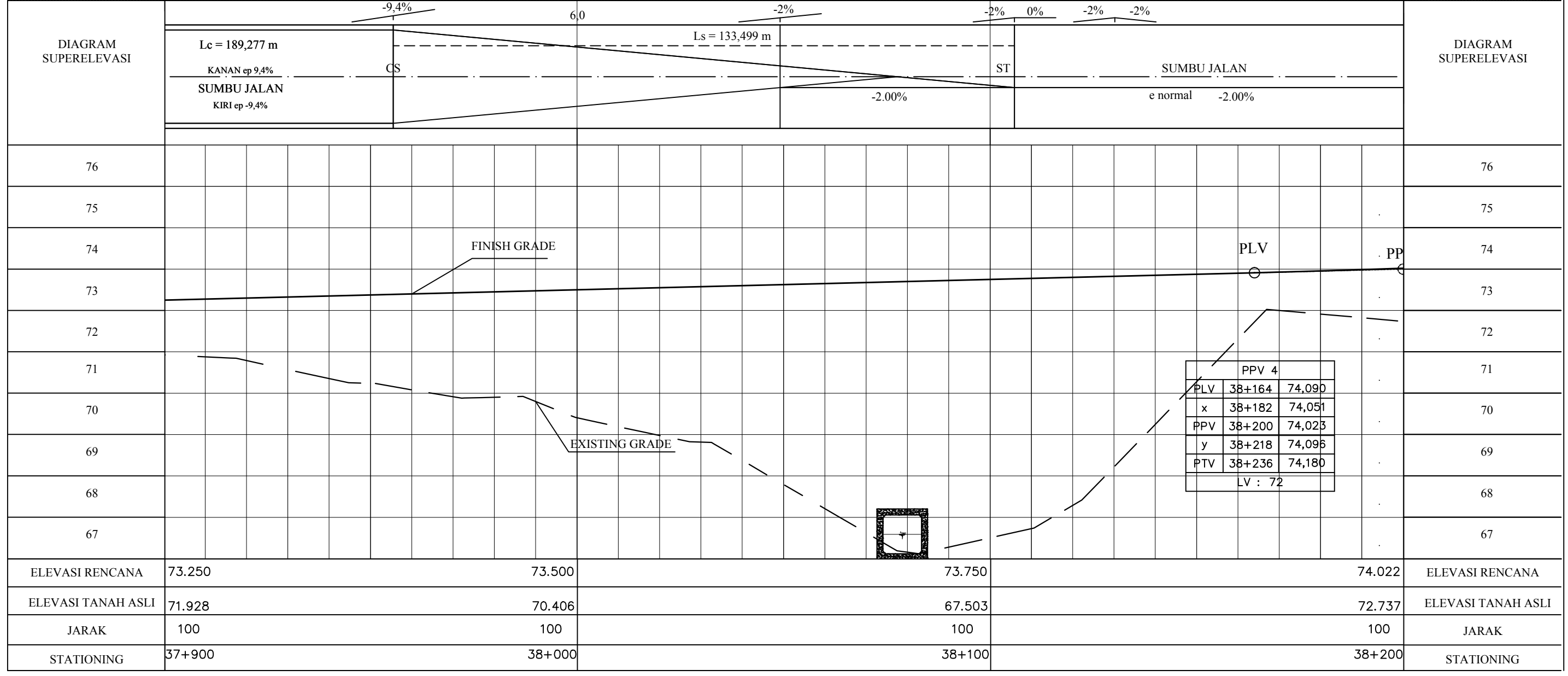
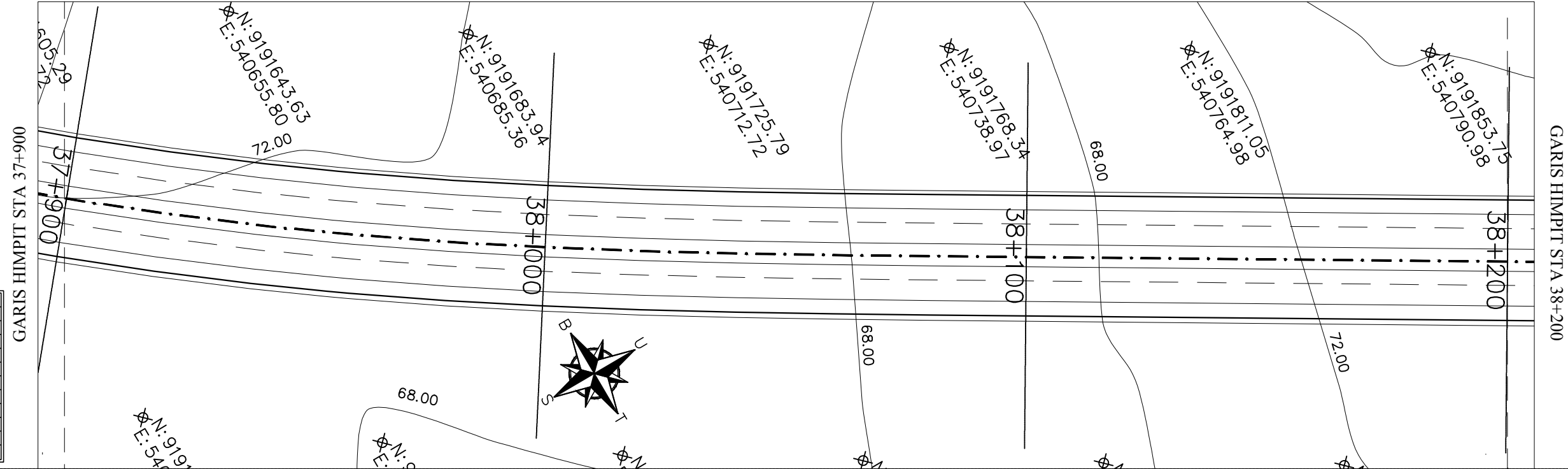


TIKUNGAN P2	
SPIRAL-CIRCLE-SPIRAL	
VR	120 Km/Jam
Δ	23,118°
R	800 m
Ts	230,538 m
Es	17,509 m
Lc	189,277 m
θs	4,781°
p	0,929 m
k	66,728 m
L	456,725 m

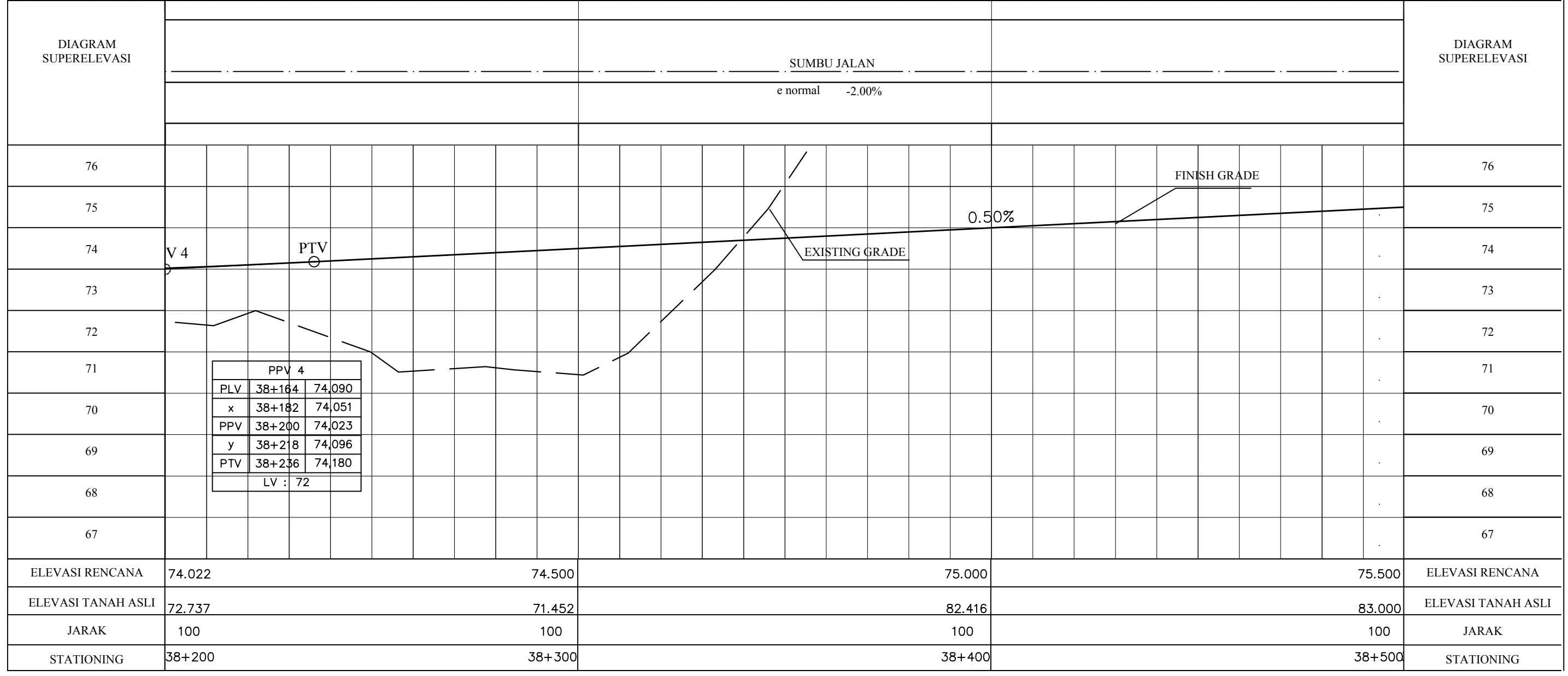
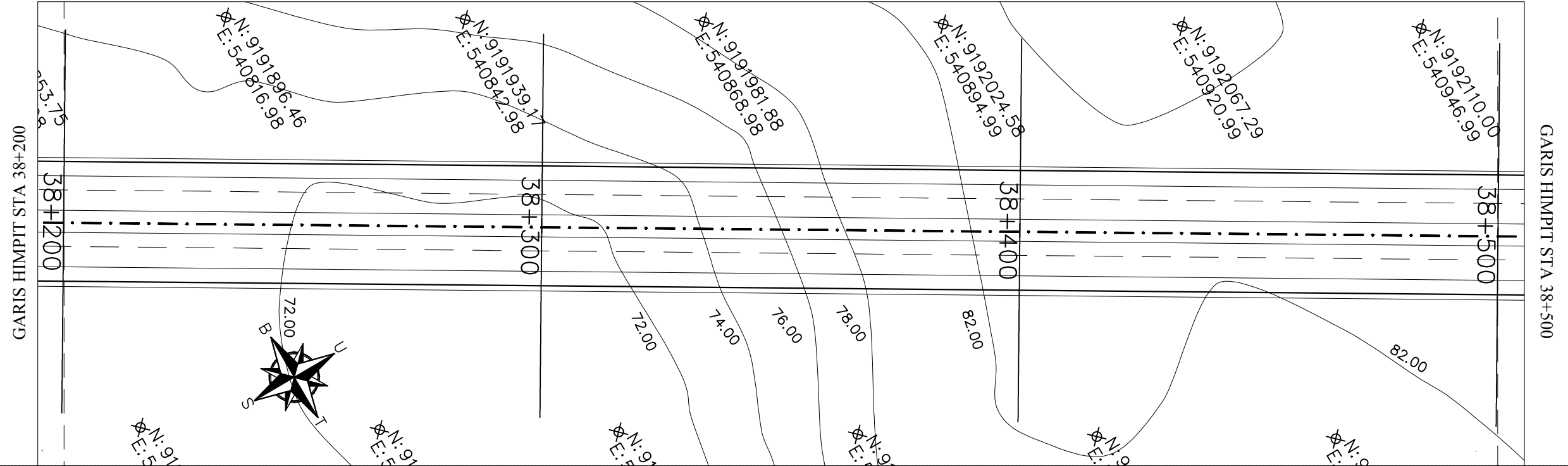
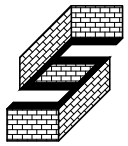


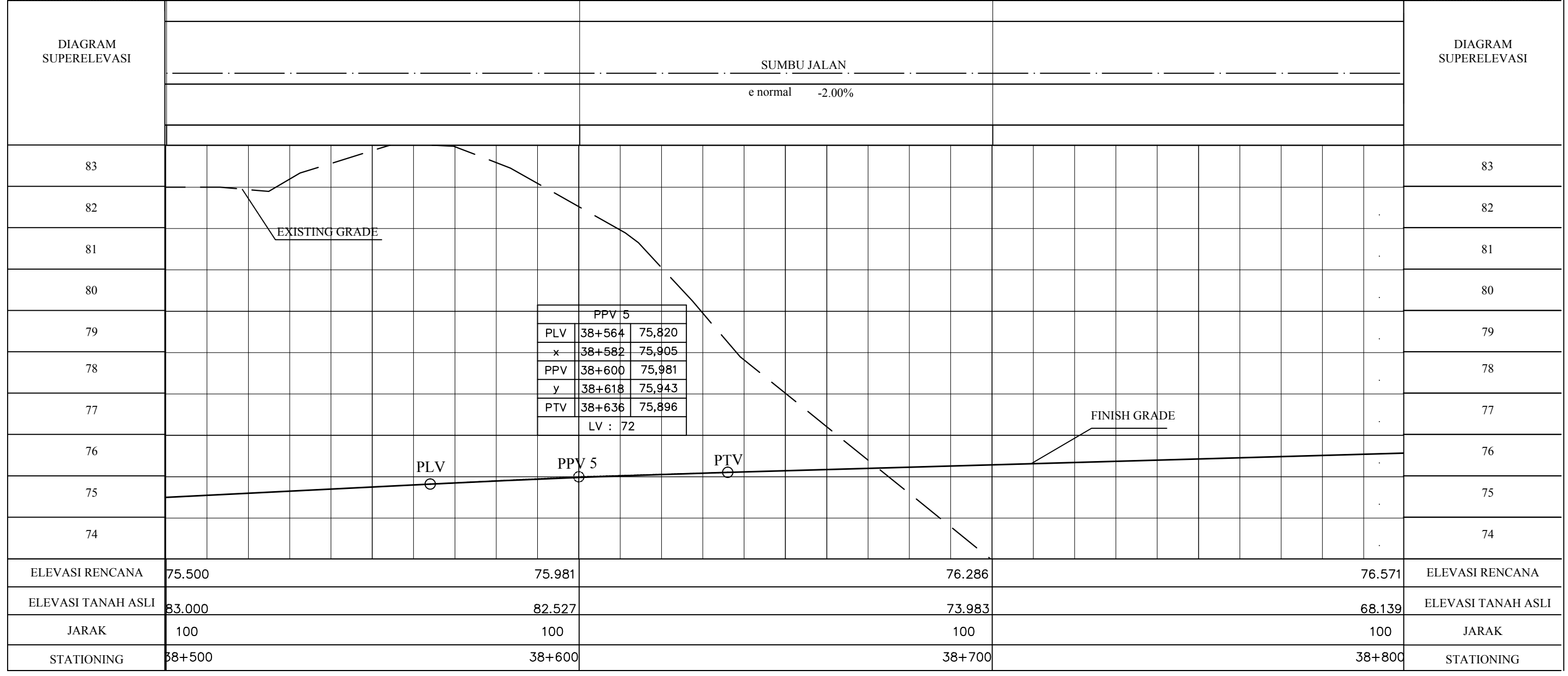
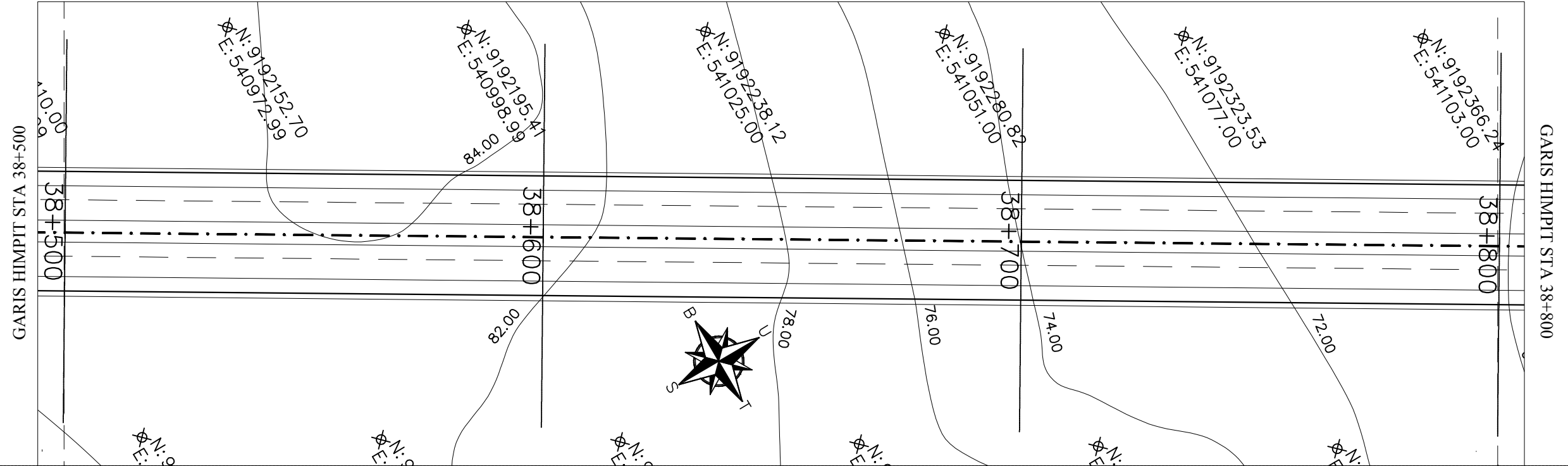
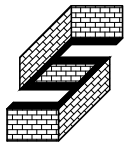


TIKUNGAN P2	
SPIRAL-CIRCLE-SPIRAL	
VR	120 Km/Jam
Δ	23,118°
R	800 m
Ts	230,538 m
Es	17,509 m
Lc	189,277 m
θs	4,781°
p	0,929 m
k	66,728 m
L	456,725 m

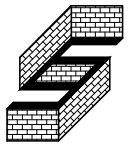


PPV 4		
PLV	38+164	74,090
x	38+182	74,051
PPV	38+200	74,023
y	38+218	74,096
PTV	38+236	74,180
LV : 72		

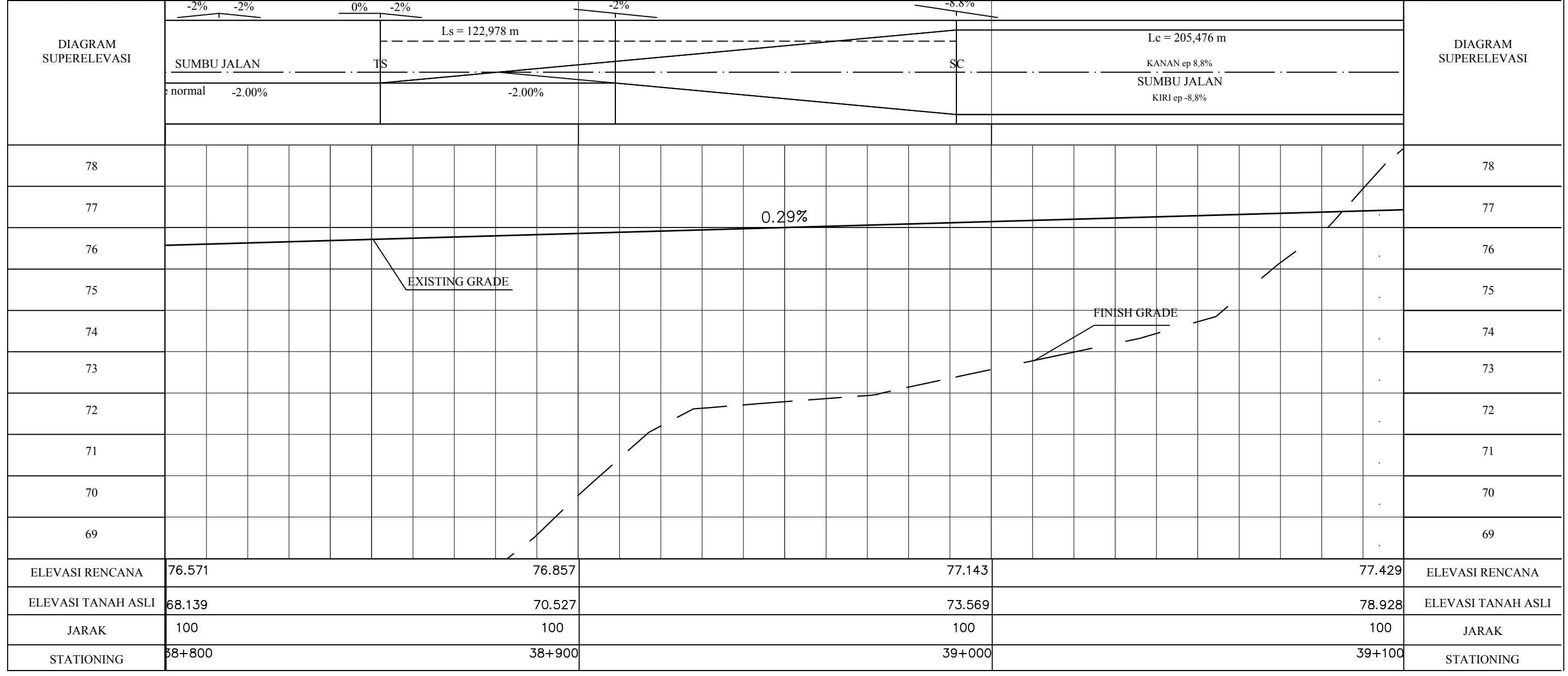
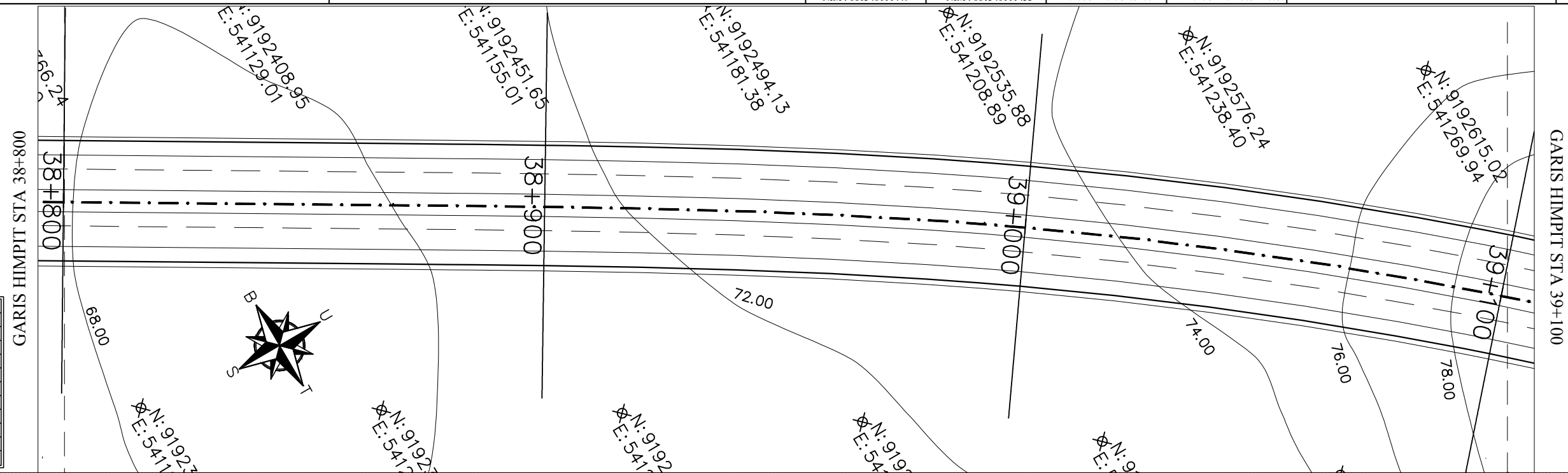


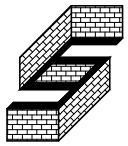


PPV 5		
PLV	38+564	75,820
x	38+582	75,905
PPV	38+600	75,981
y	38+618	75,943
PTV	38+636	75,896
LV : 72		

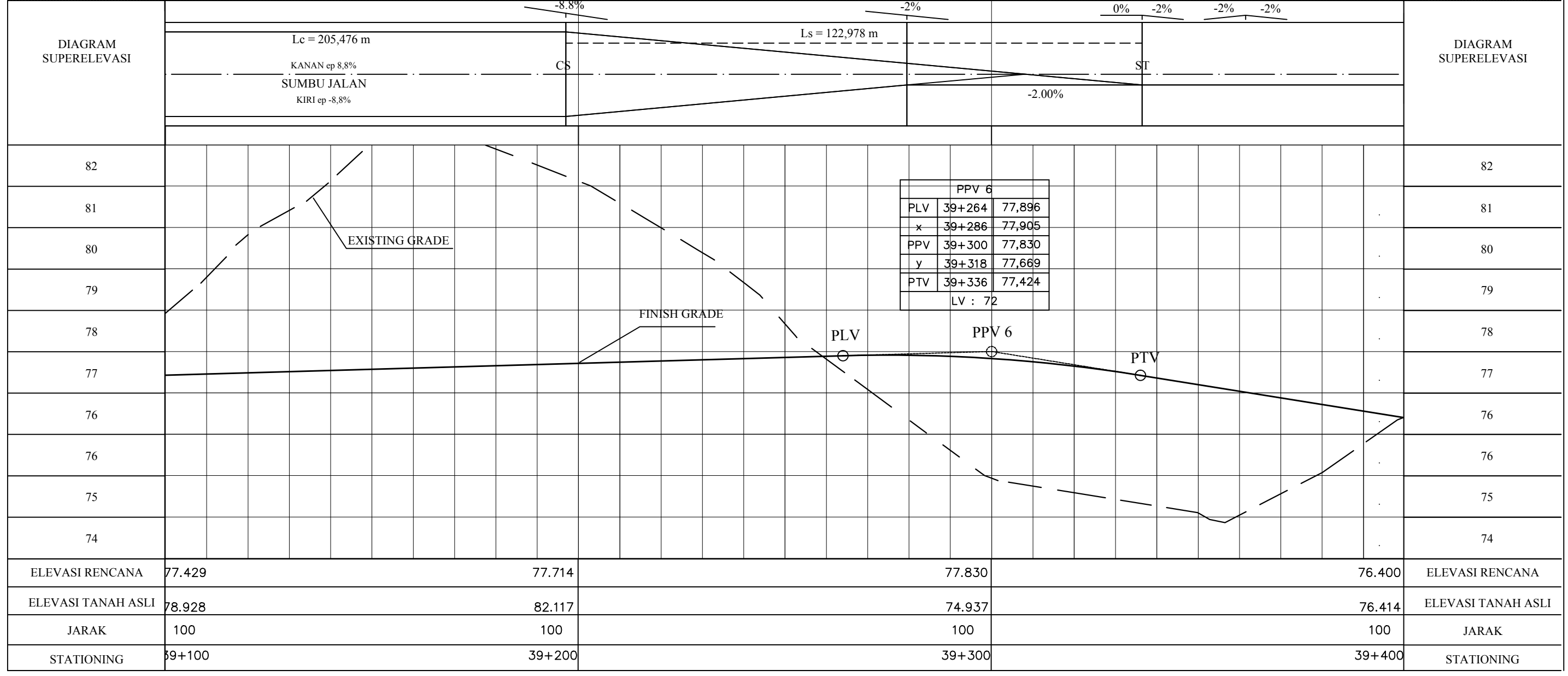
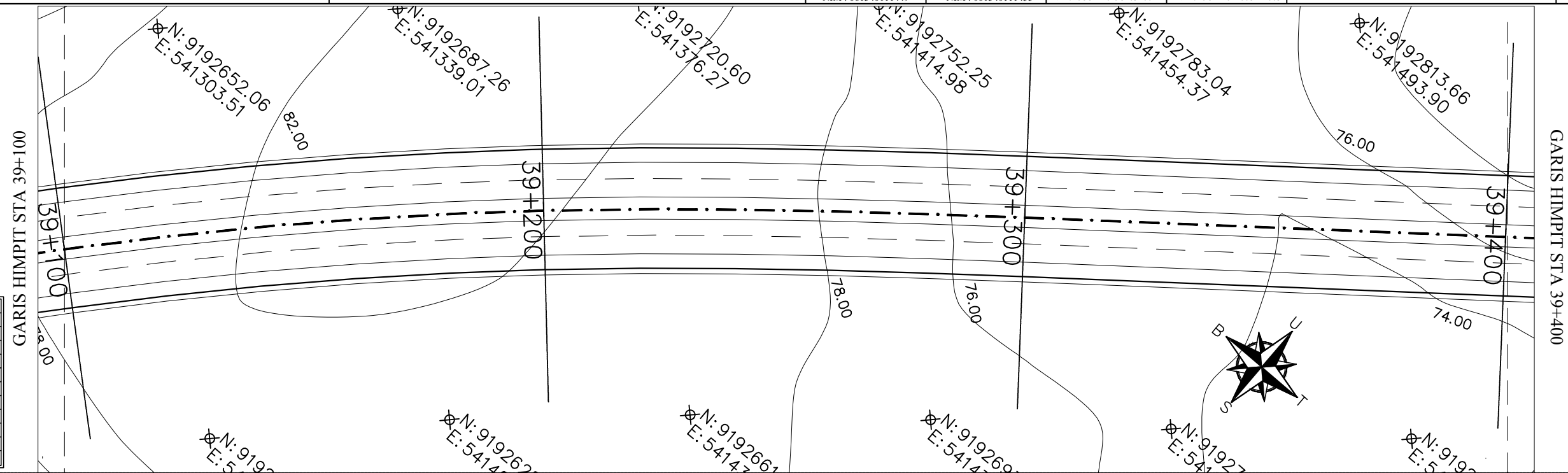


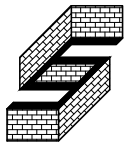
TIKUNGAN P3	
SPIRAL-CIRCLE-SPIRAL	
VR	120 Km/Jam
Δ	20,911°
R	900 m
Ts	227,683 m
Es	15,908 m
Lc	205,476 m
θs	3,915°
p	0,700 m
k	61,472 m
L	451,432 m



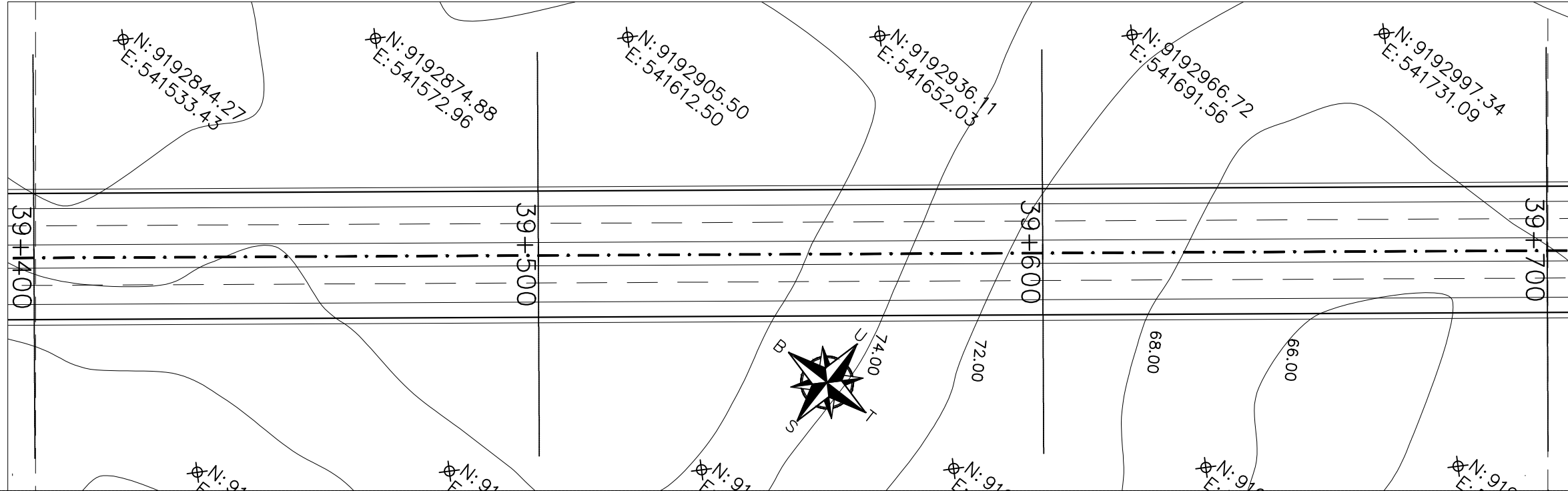


TIKUNGAN P3	
SPIRAL-CIRCLE-SPIRAL	
VR	120 Km/Jam
Δ	20,911°
R	900 m
Ts	227,683 m
Es	15,908 m
Lc	205,476 m
θs	3,915°
p	0,700 m
k	61,472 m
L	451,432 m





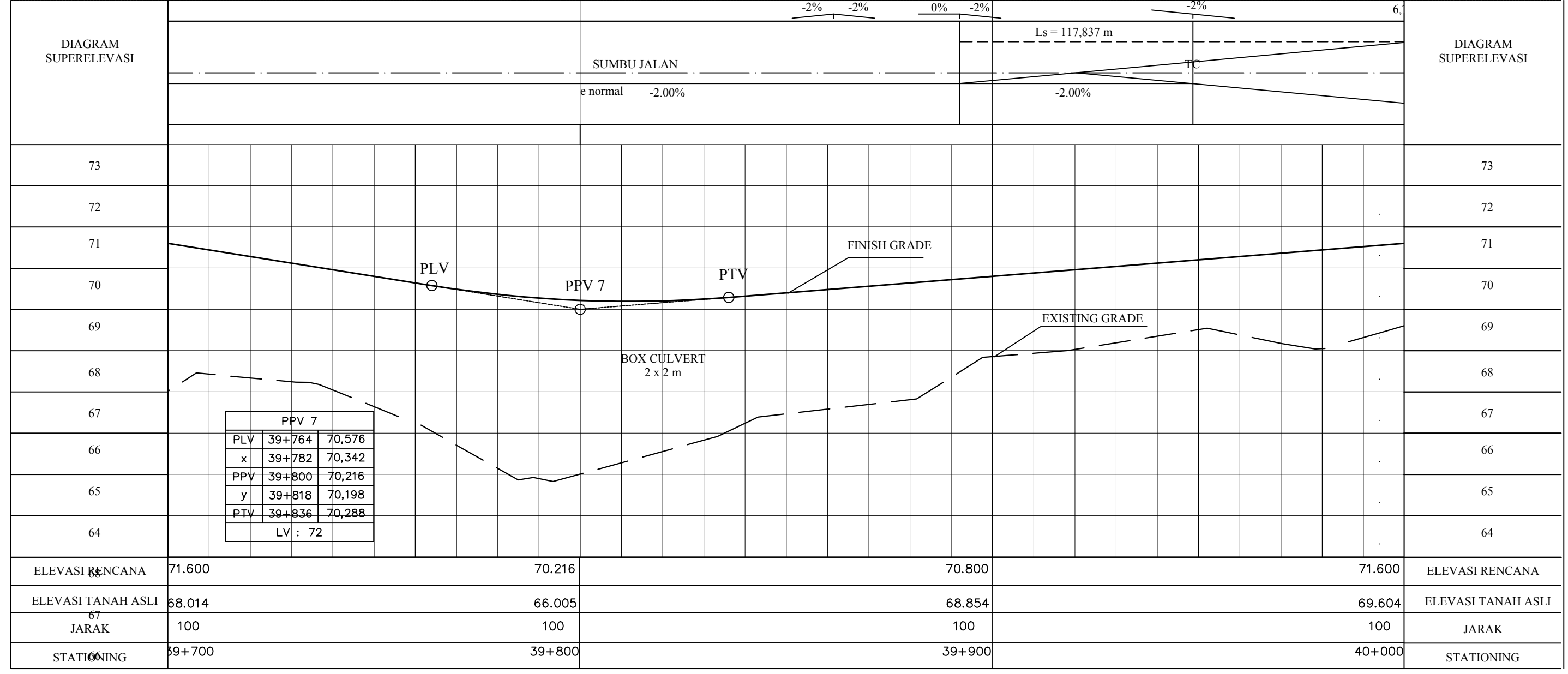
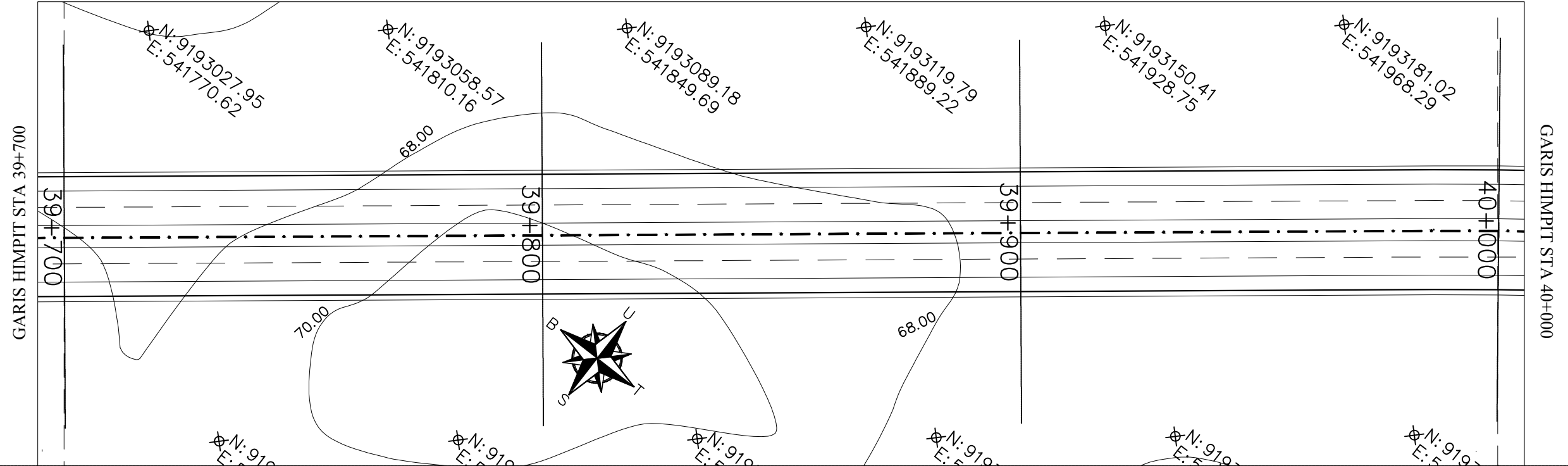
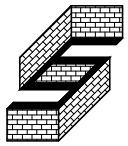
GARIS HIMPIT STA 39+400

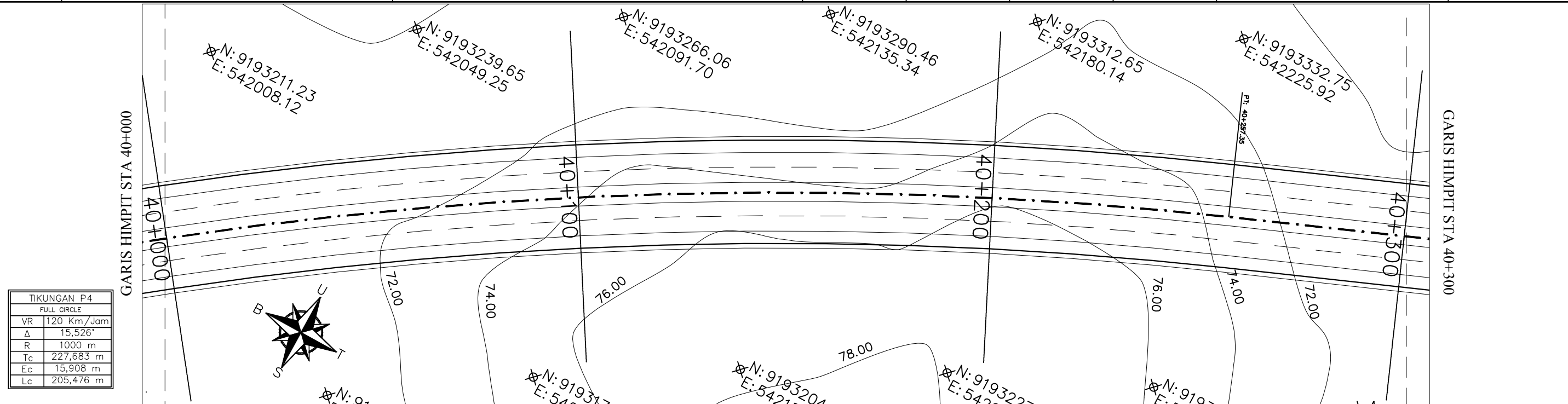
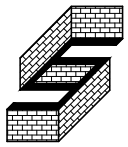


GARIS HIMPIT STA 39+700

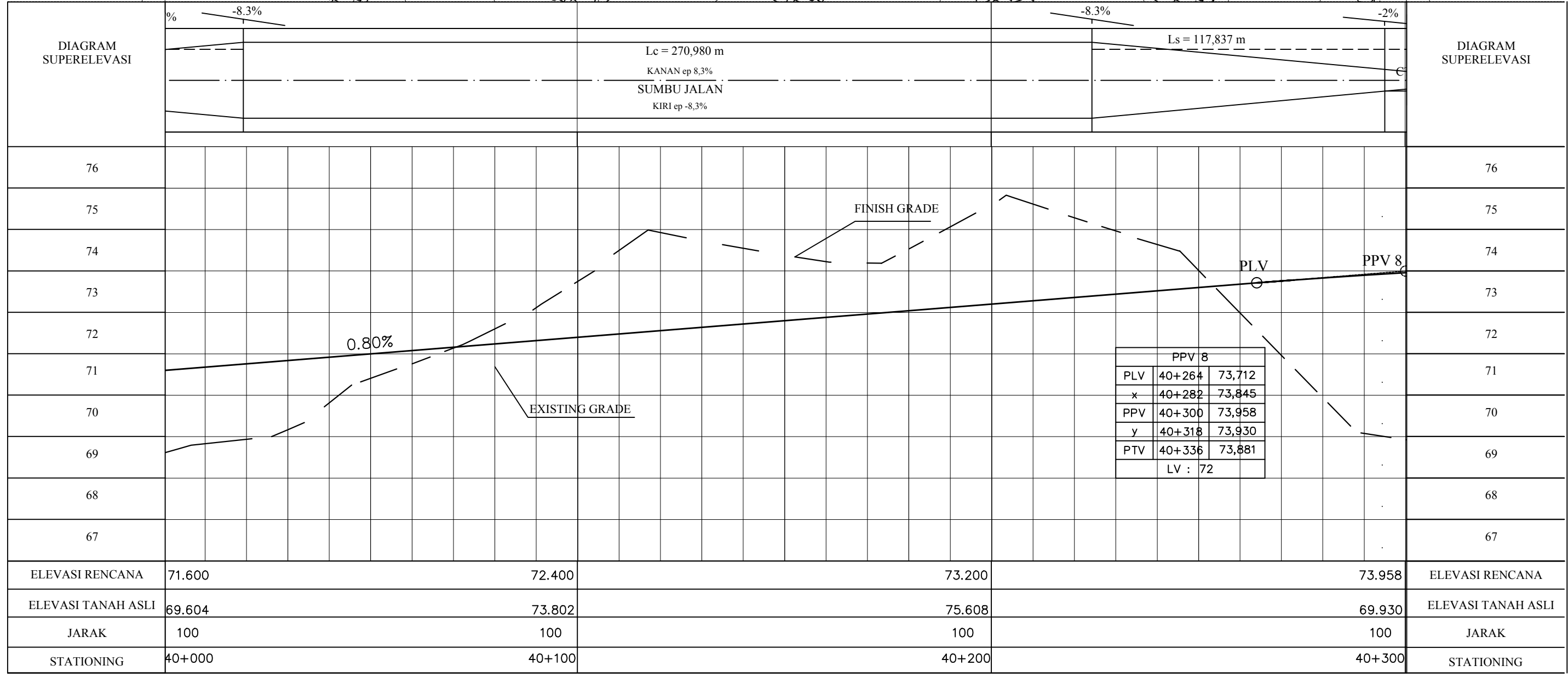
DIAGRAM SUPERELEVASI	Sumbu Jalan				DIAGRAM SUPERELEVASI
	e normal -2.00%				
76					76
77					77
76					76
75					75
74					74
73					73
72					72
71					71
70					70
69					69
ELEVASI RENCANA	76.400	74.800	73.200	71.600	ELEVASI RENCANA
ELEVASI TANAH ASLI	76.414	77.701	71.279	68.014	ELEVASI TANAH ASLI
JARAK	100	100	100	100	JARAK
STATIONING	39+400	39+500	39+600	39+700	STATIONING



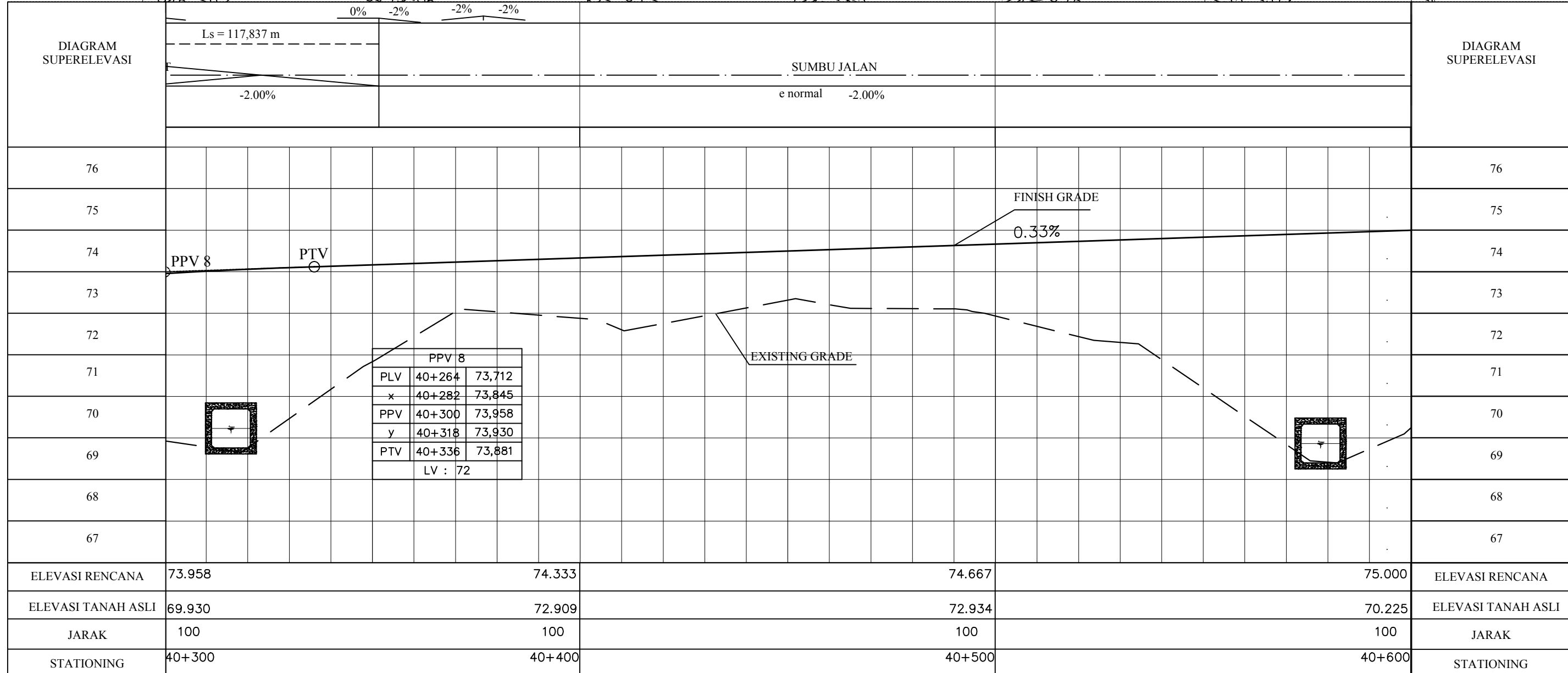
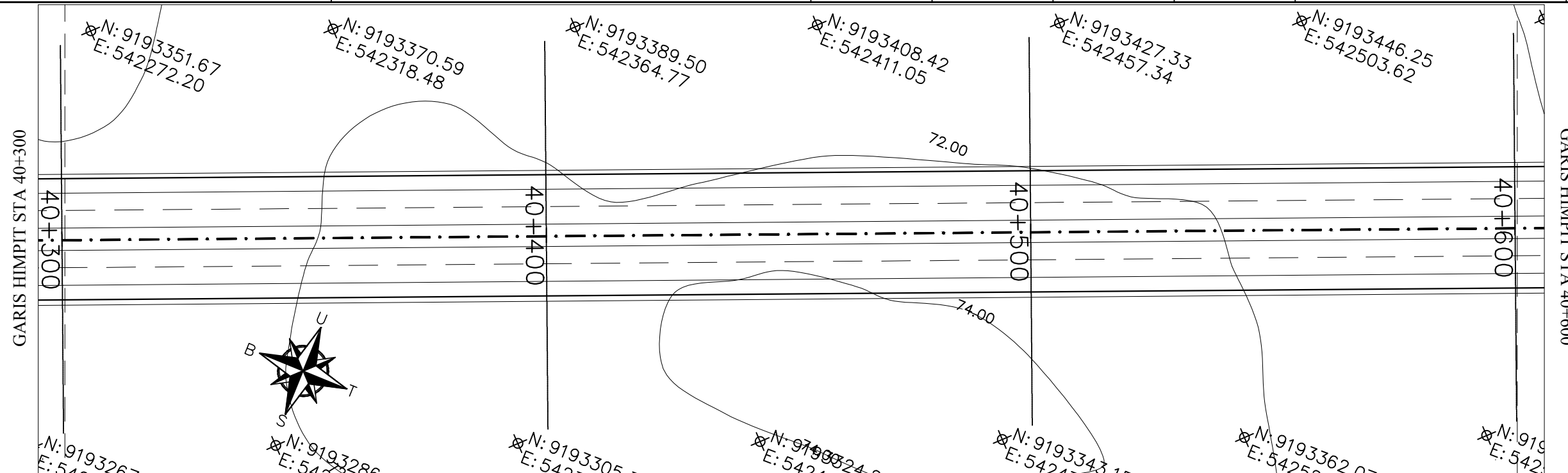
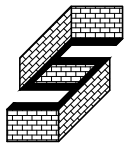


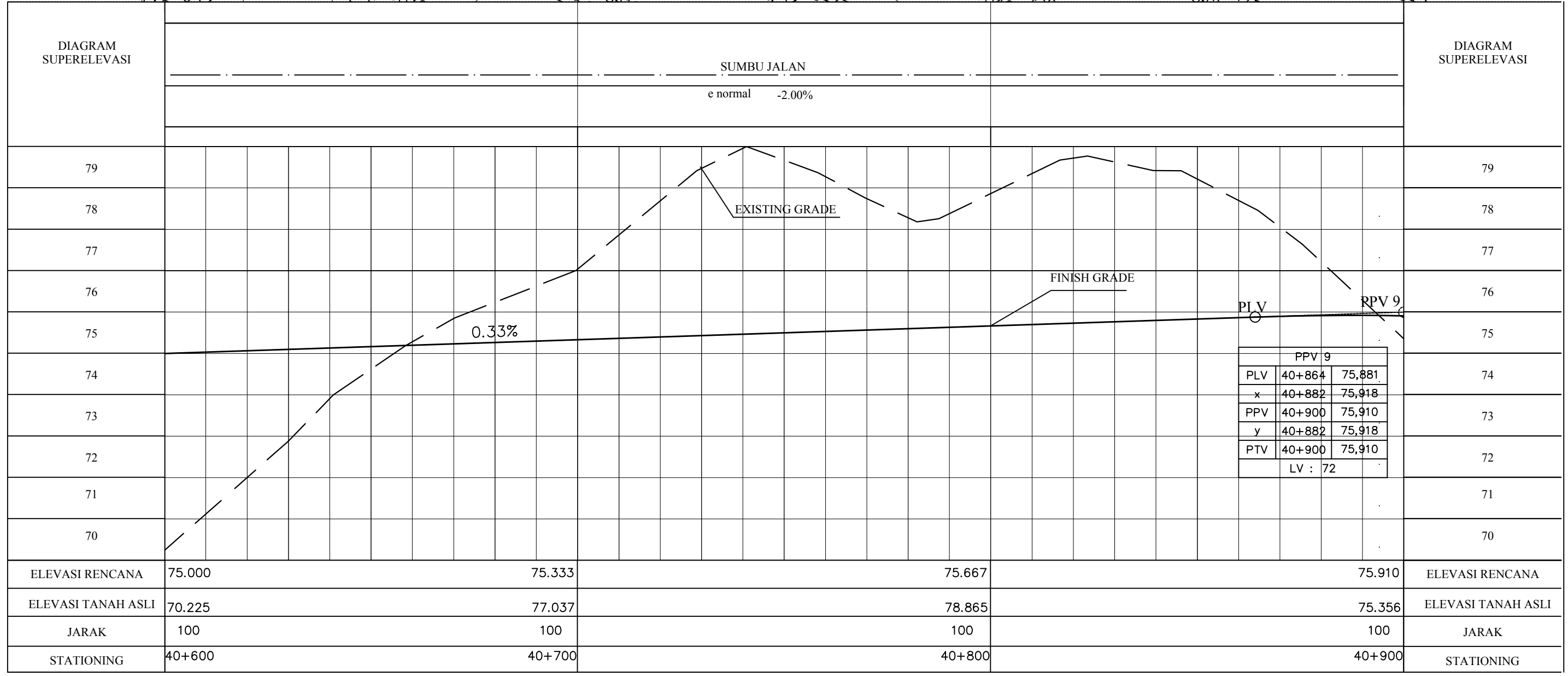
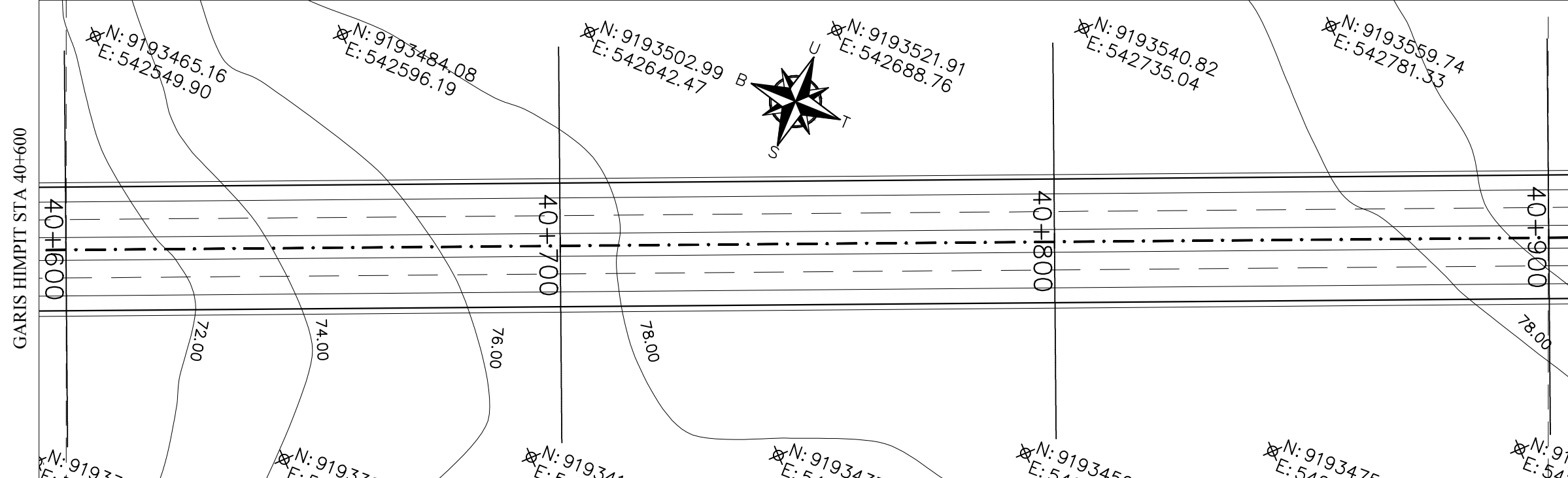
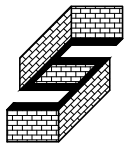


TIKUNGAN P4	
FULL CIRCLE	
VR	120 Km/Jam
Δ	15,526°
R	1000 m
Tc	227,683 m
Ec	15,908 m
Lc	205,476 m

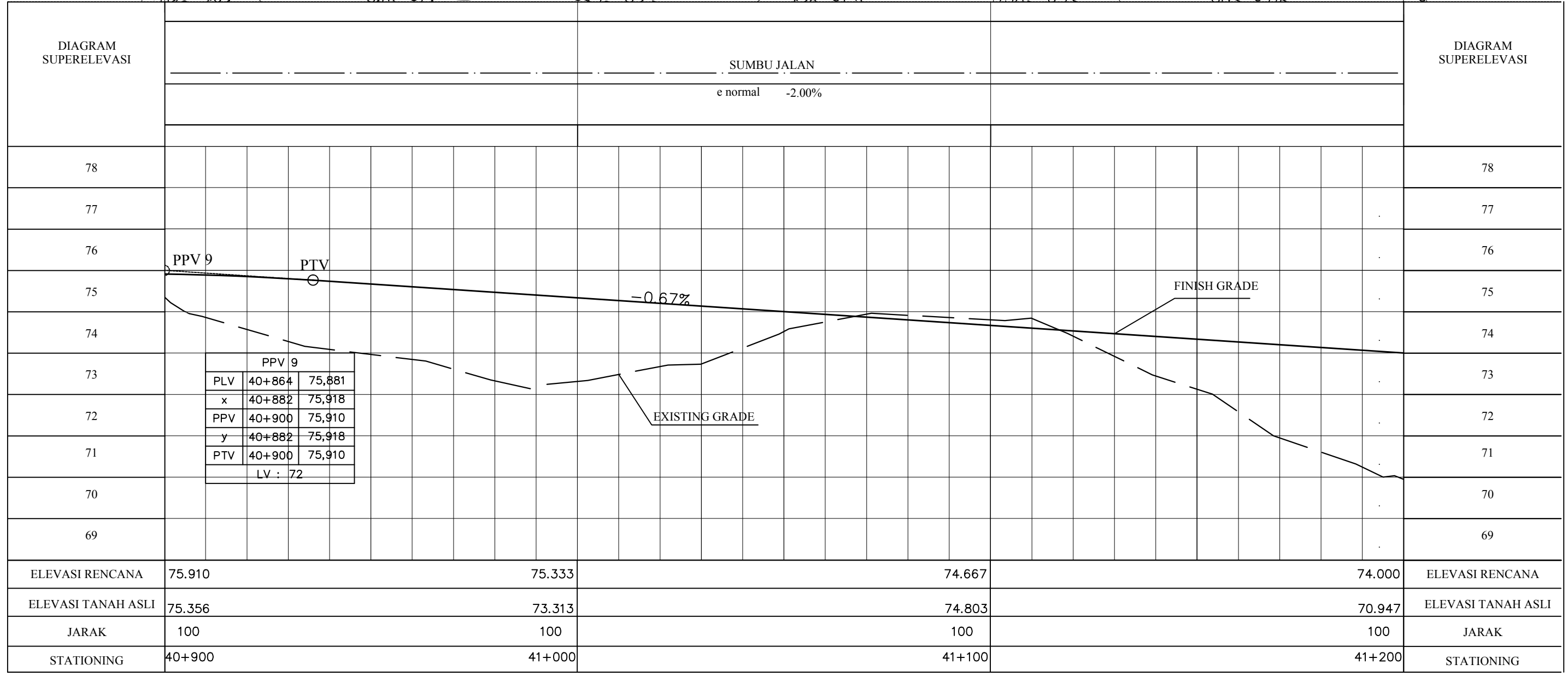
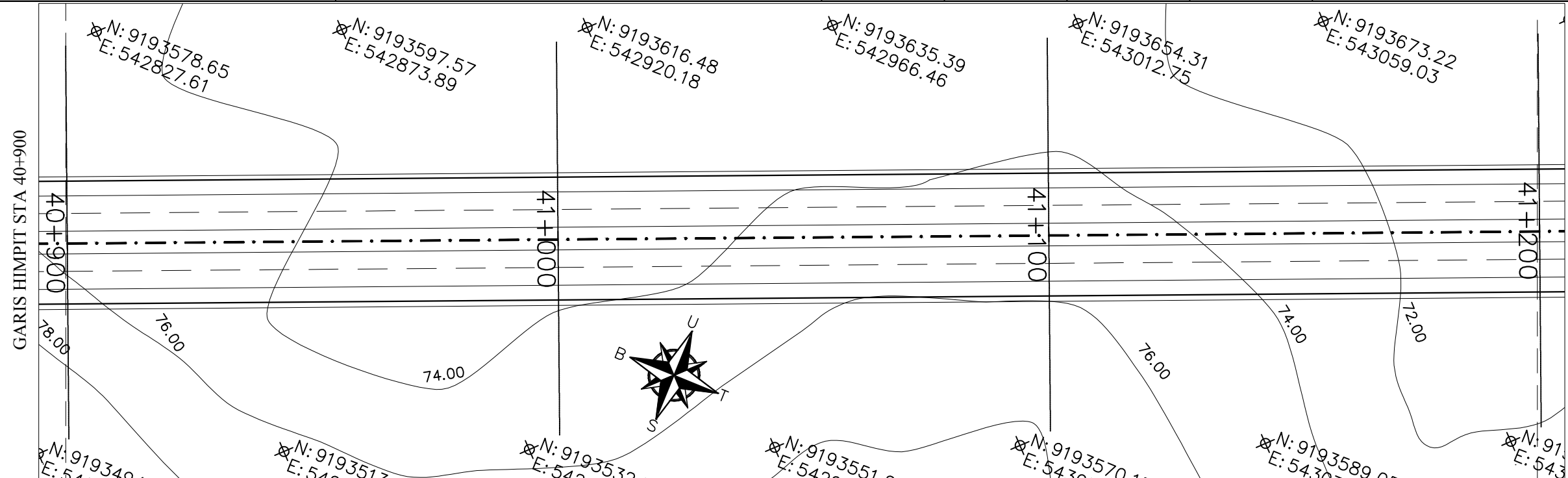
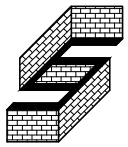


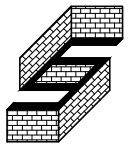
ELEVASI RENCANA	71.600	72.400	73.200	73.958	ELEVASI RENCANA
ELEVASI TANAH ASLI	69.604	73.802	75.608	69.930	ELEVASI TANAH ASLI
JARAK	100	100	100	100	JARAK
STATIONING	40+000	40+100	40+200	40+300	STATIONING





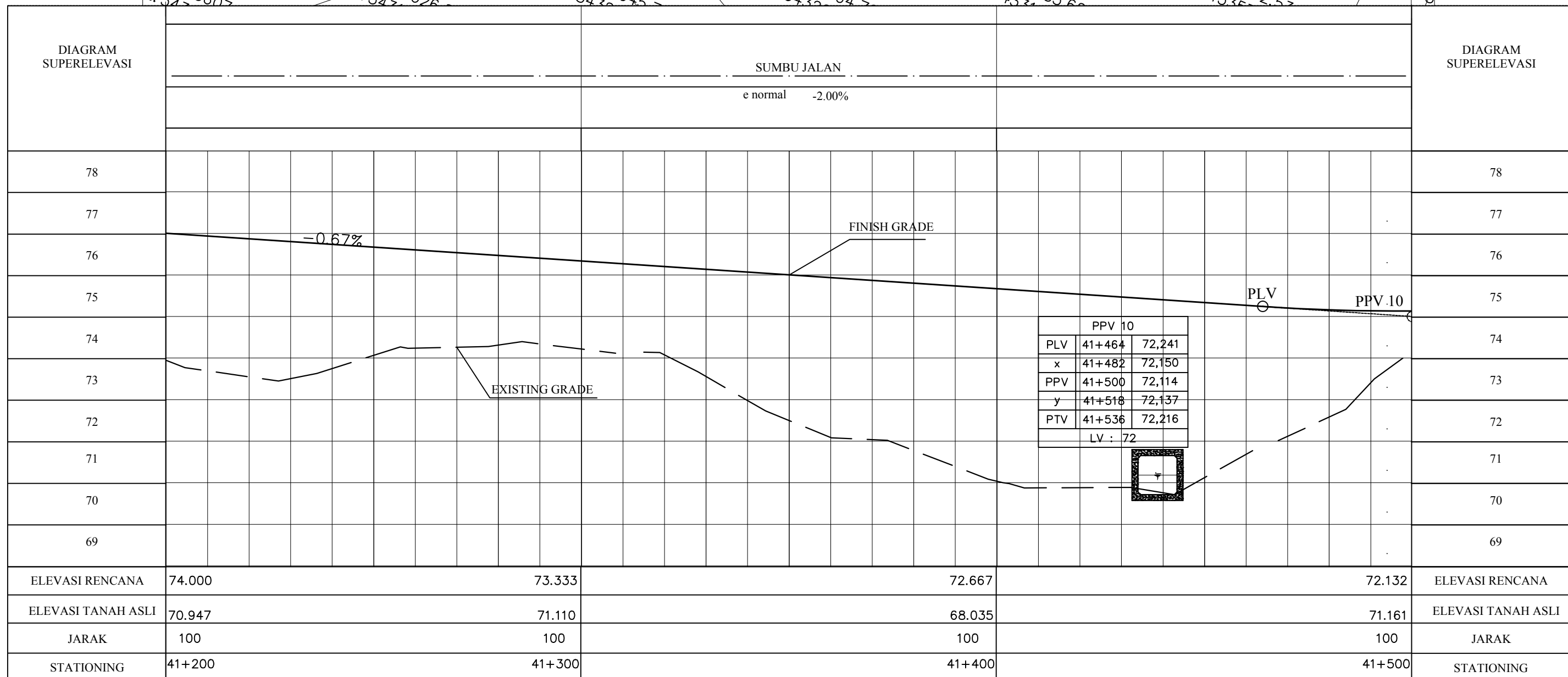
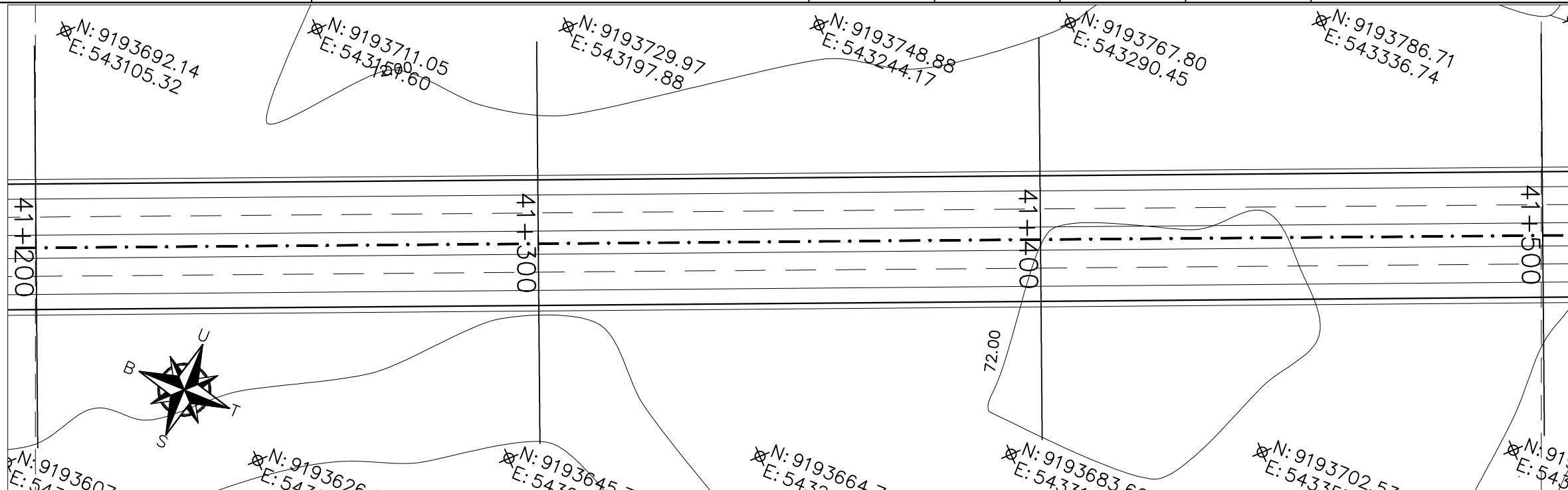
PPV 9		
PLV	40+864	75,881
x	40+882	75,918
PPV	40+900	75,910
y	40+882	75,918
PTV	40+900	75,910
LV : 72		

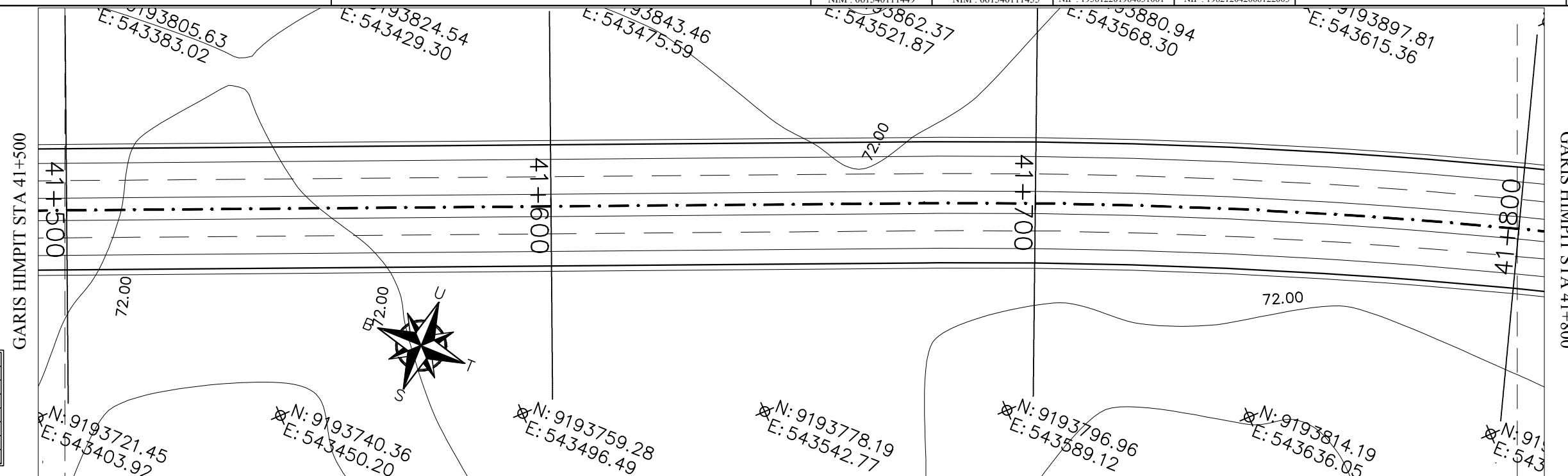
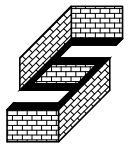




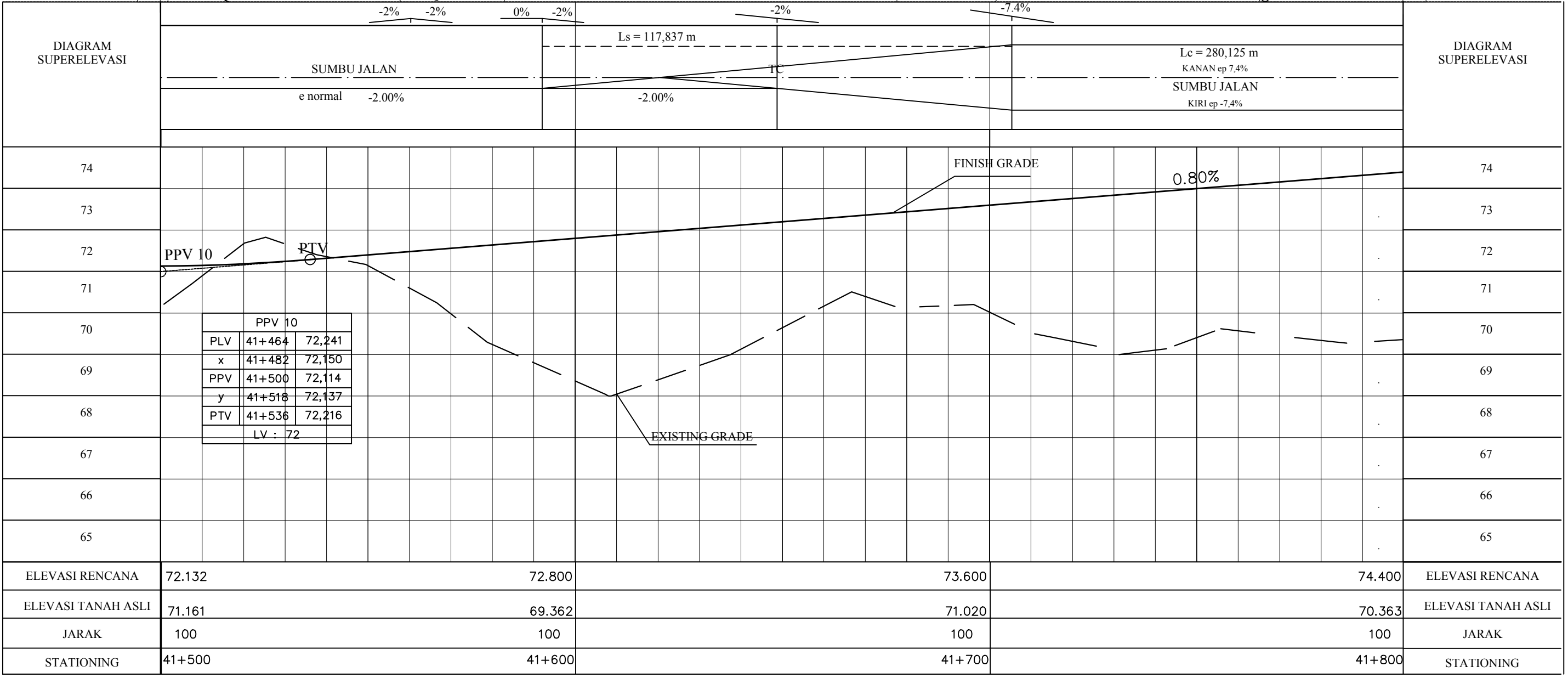
GARIS HIMPIT STA 41+200

GARIS HIMPIT STA 41+500

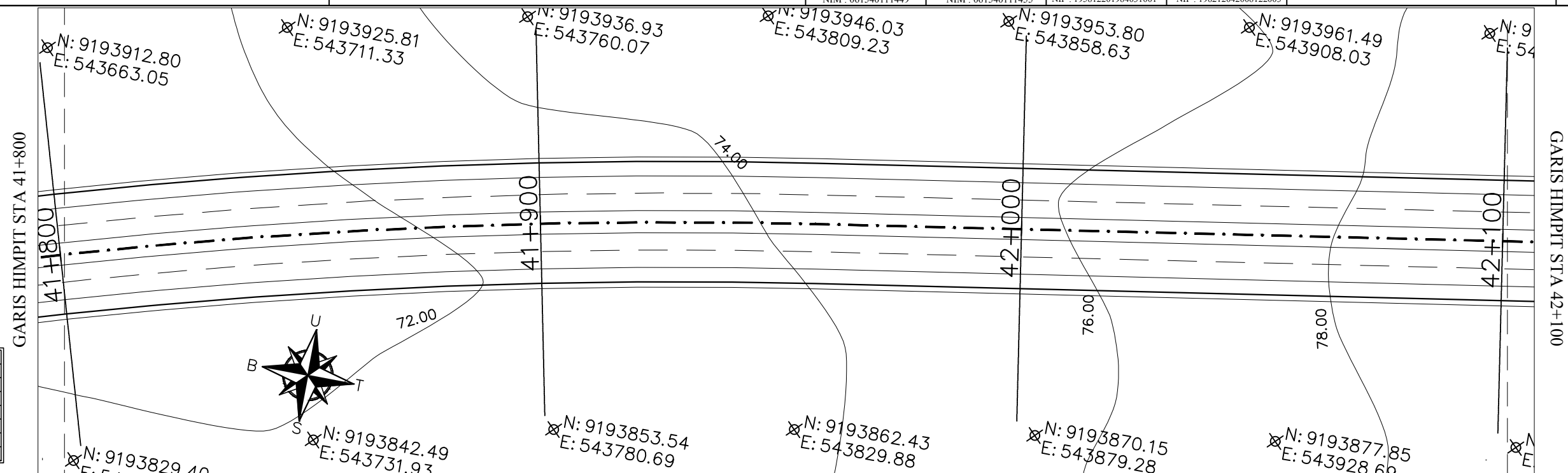
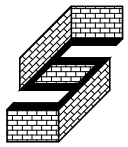




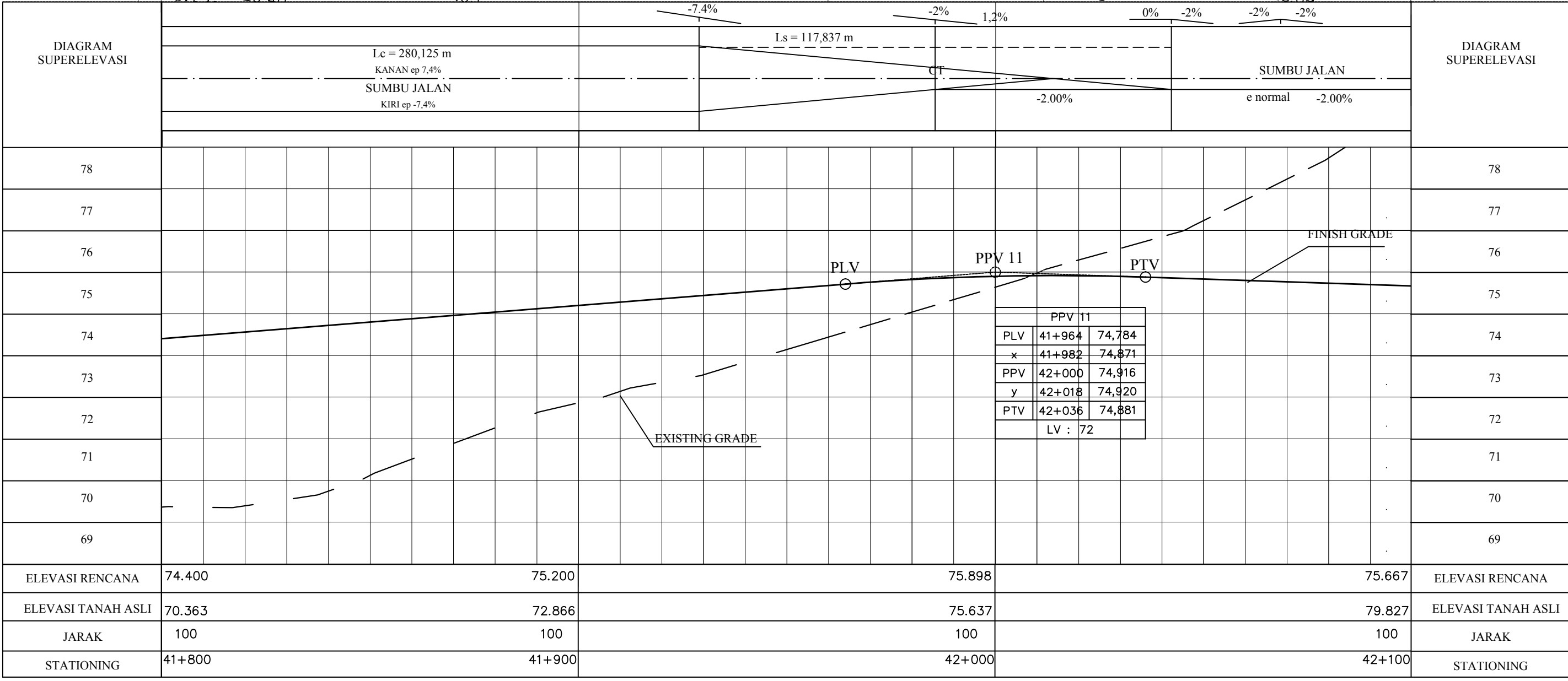
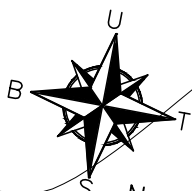
TIKUNGAN P5	
FULL CIRCLE	
VR	120 Km/Jam
Δ	15,526°
R	1200 m
Tc	140,702 m
Ec	8,221 m
Lc	280,125 m



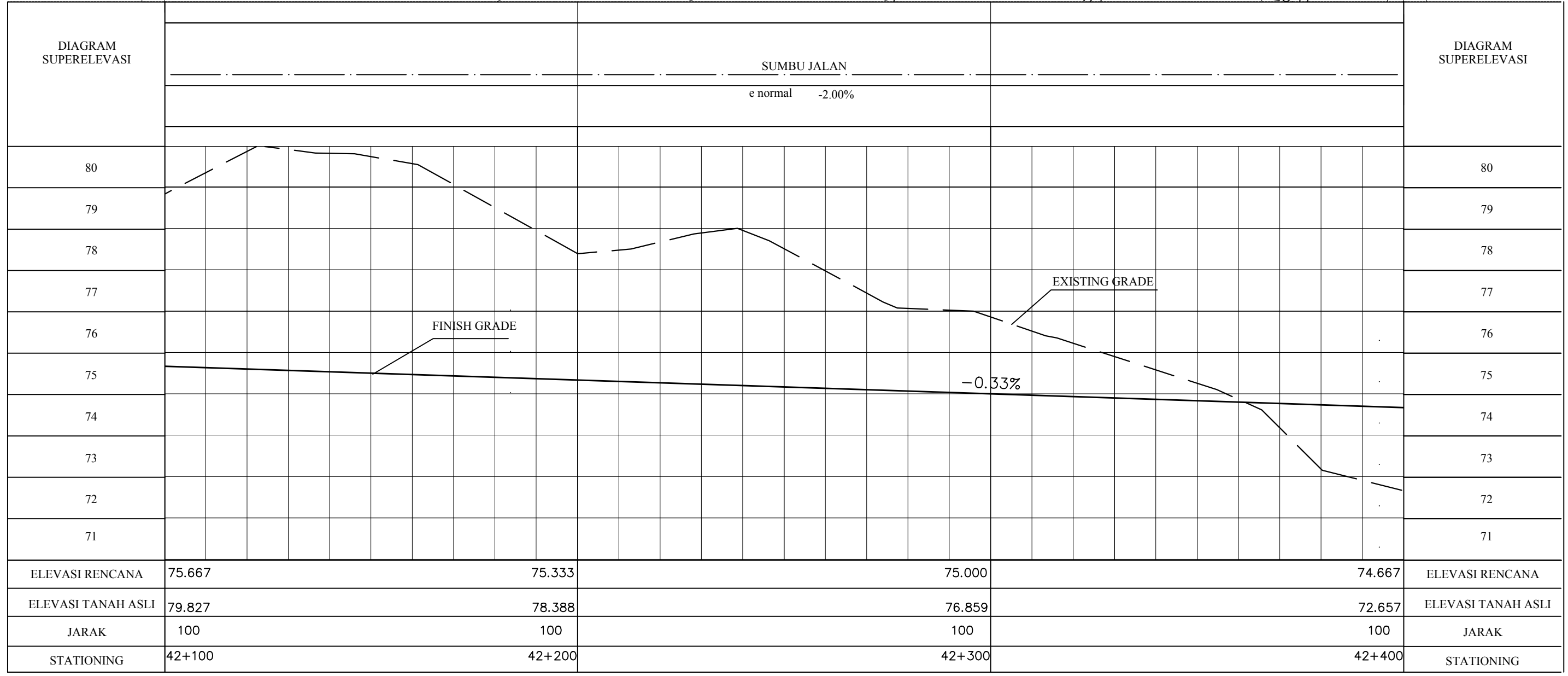
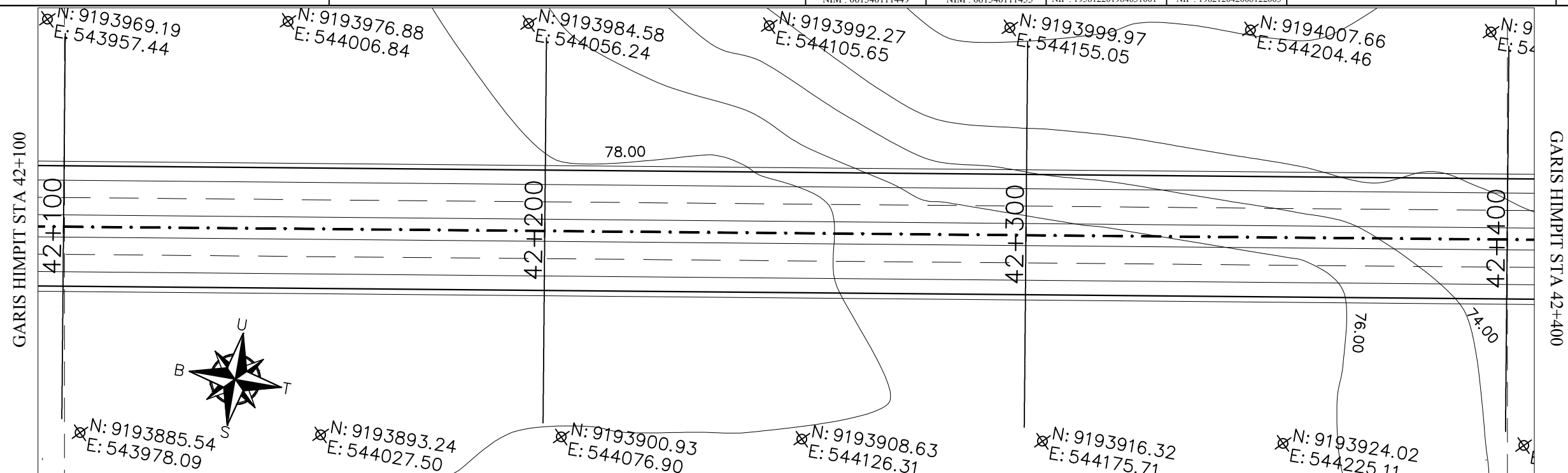
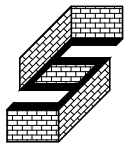
PPV 10		
PLV	41+464	72,241
x	41+482	72,150
PPV	41+500	72,114
y	41+518	72,137
PTV	41+536	72,216
LV : 72		

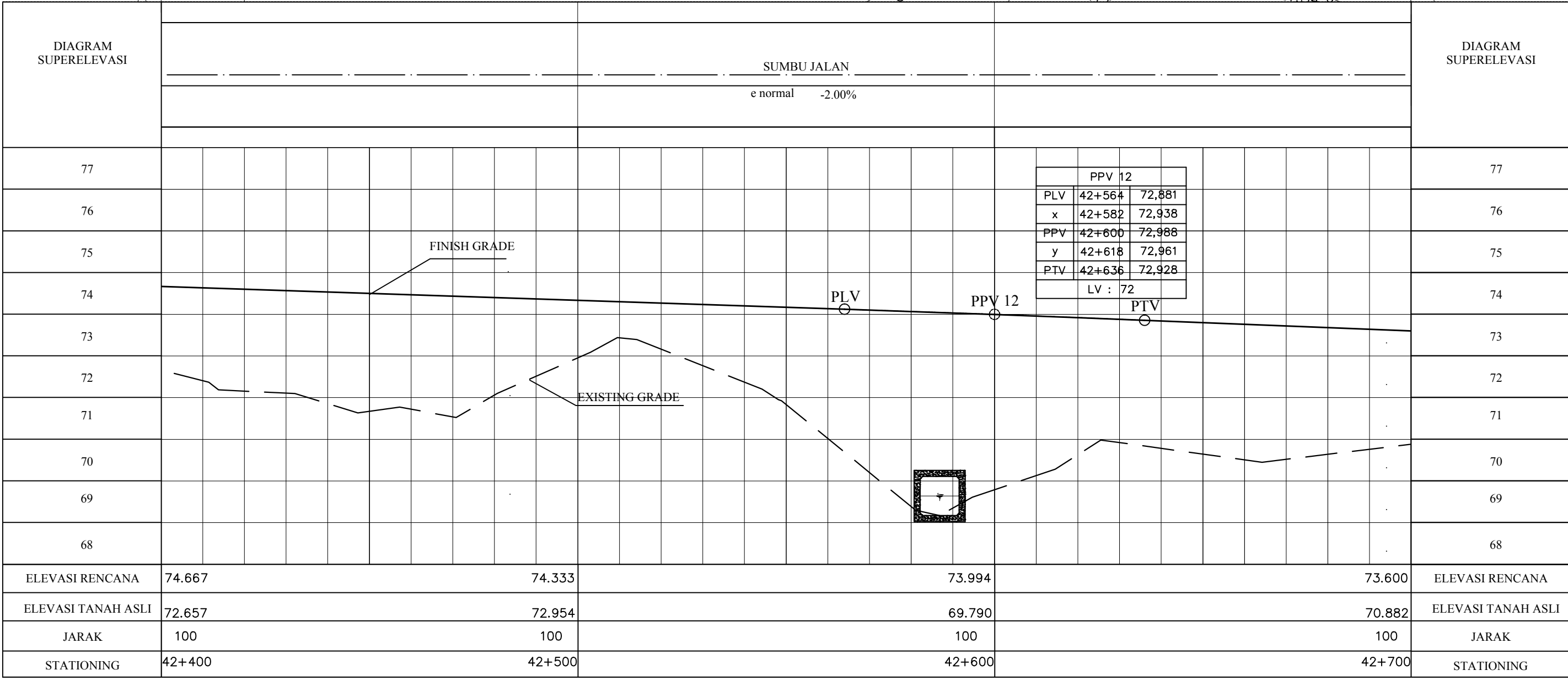
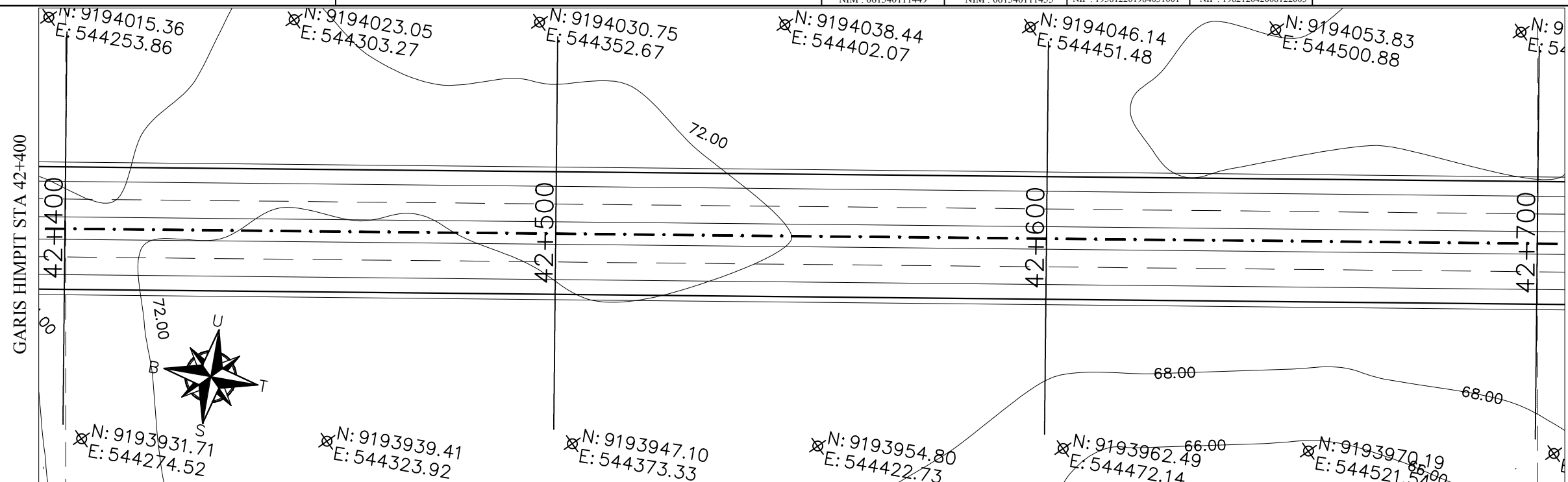
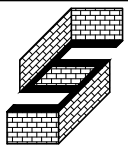


TIKUNGAN P5	
FULL CIRCLE	
VR	120 Km/Jam
Δ	15.526°
R	1200 m
Tc	140,702 m
Ec	8,221 m
Lc	280,125 m









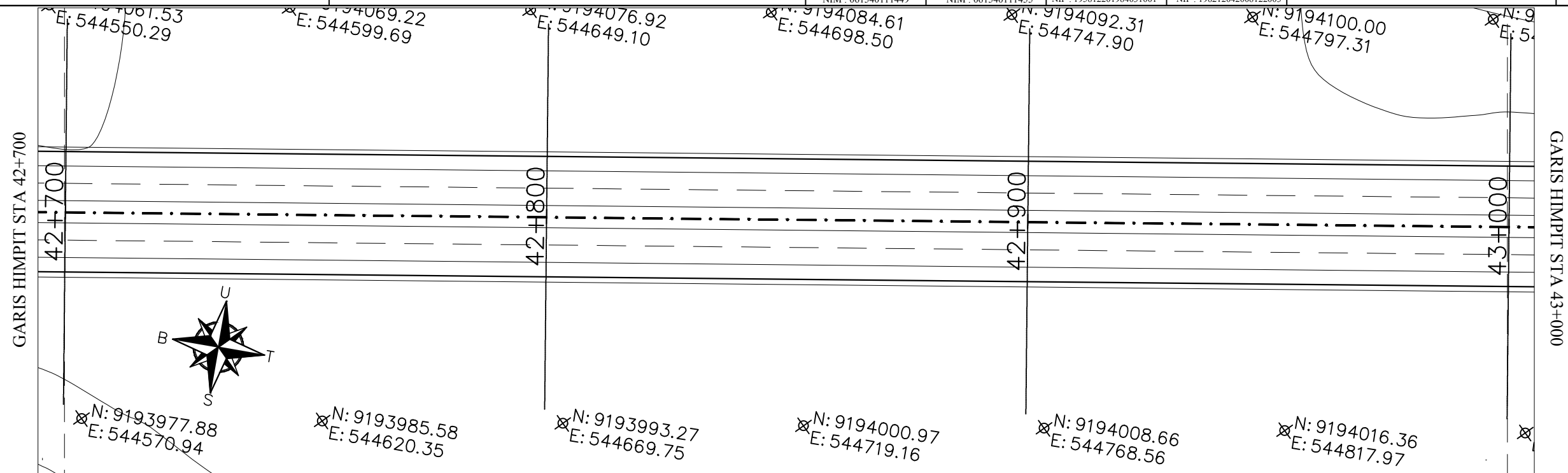
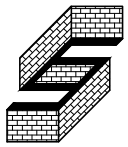
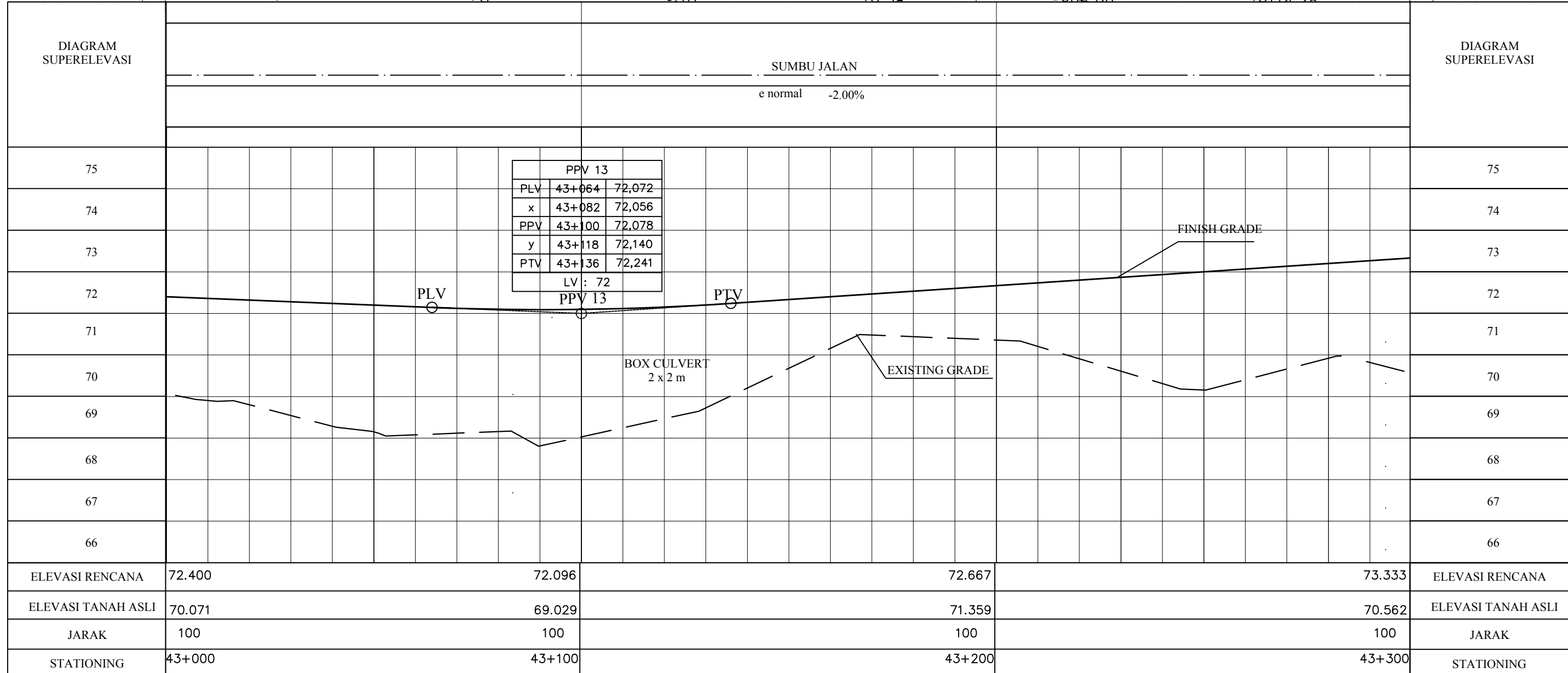
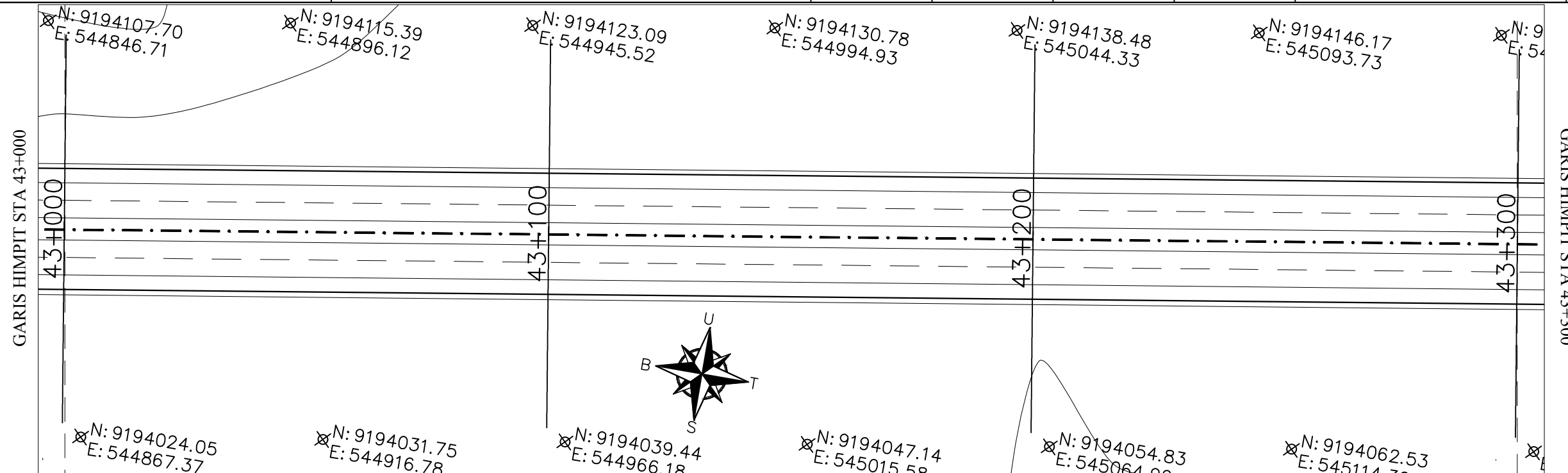
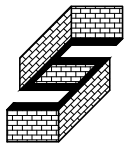
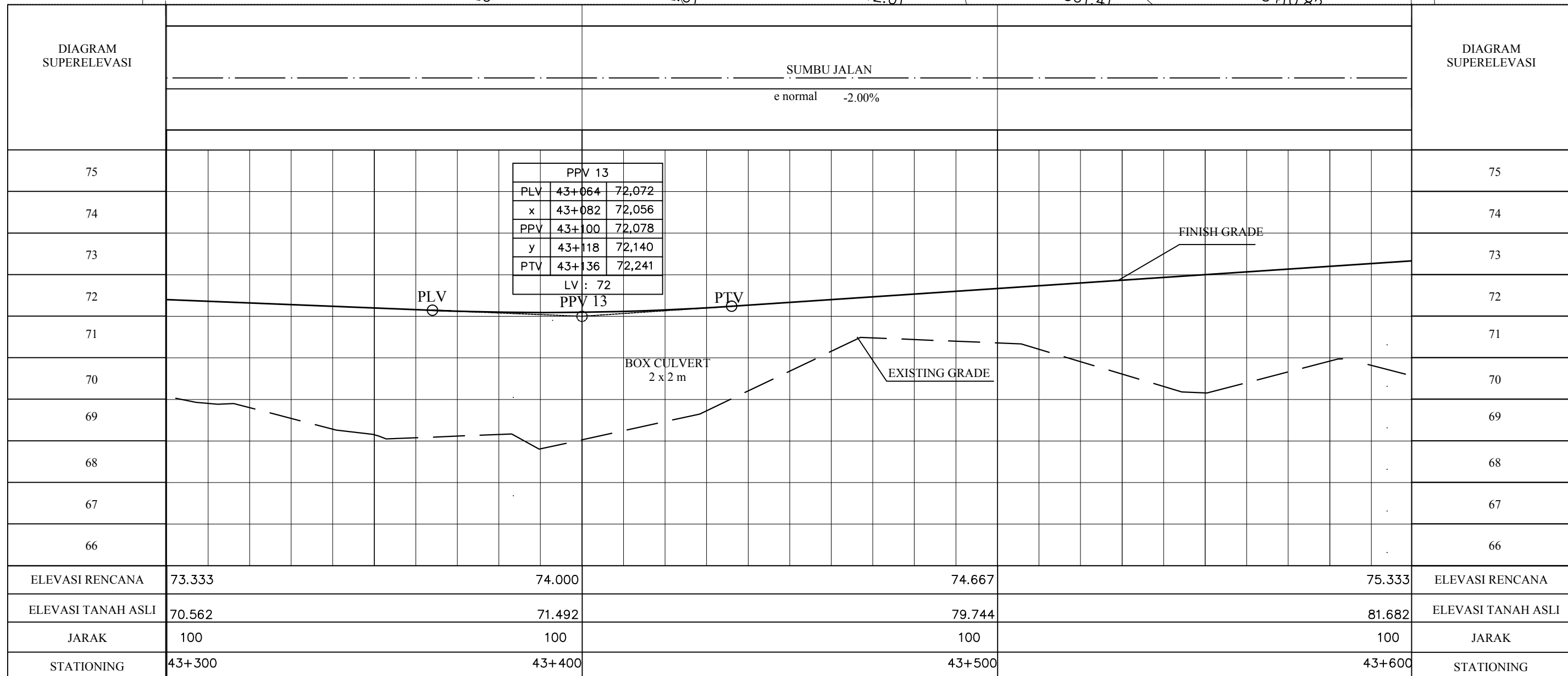
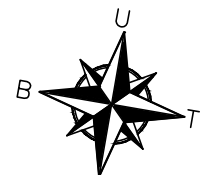
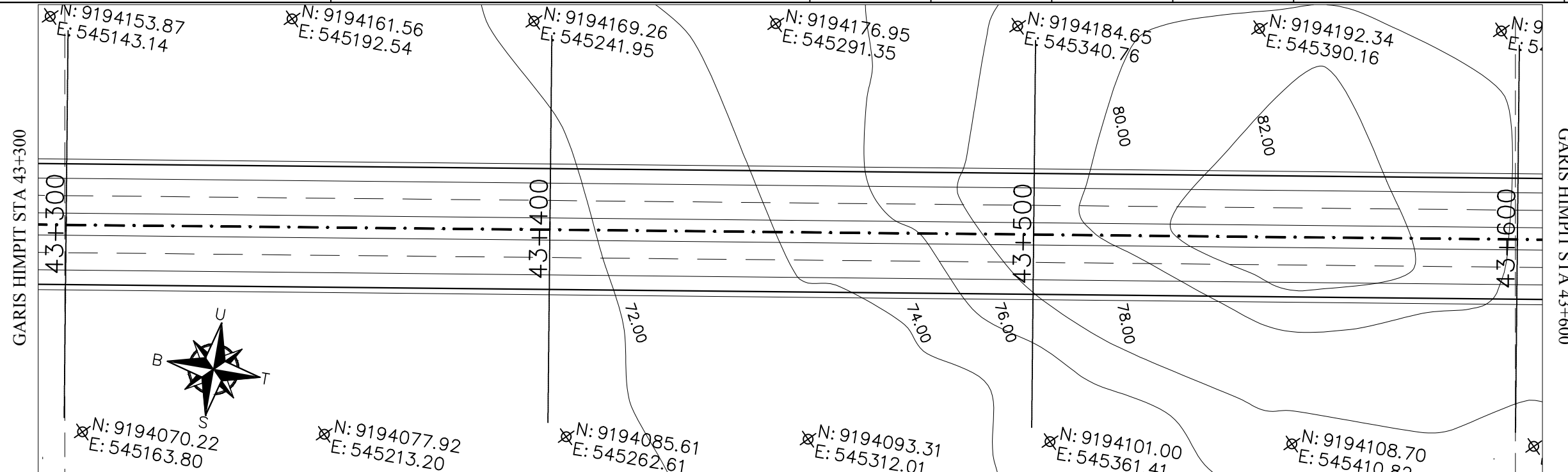
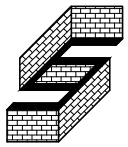
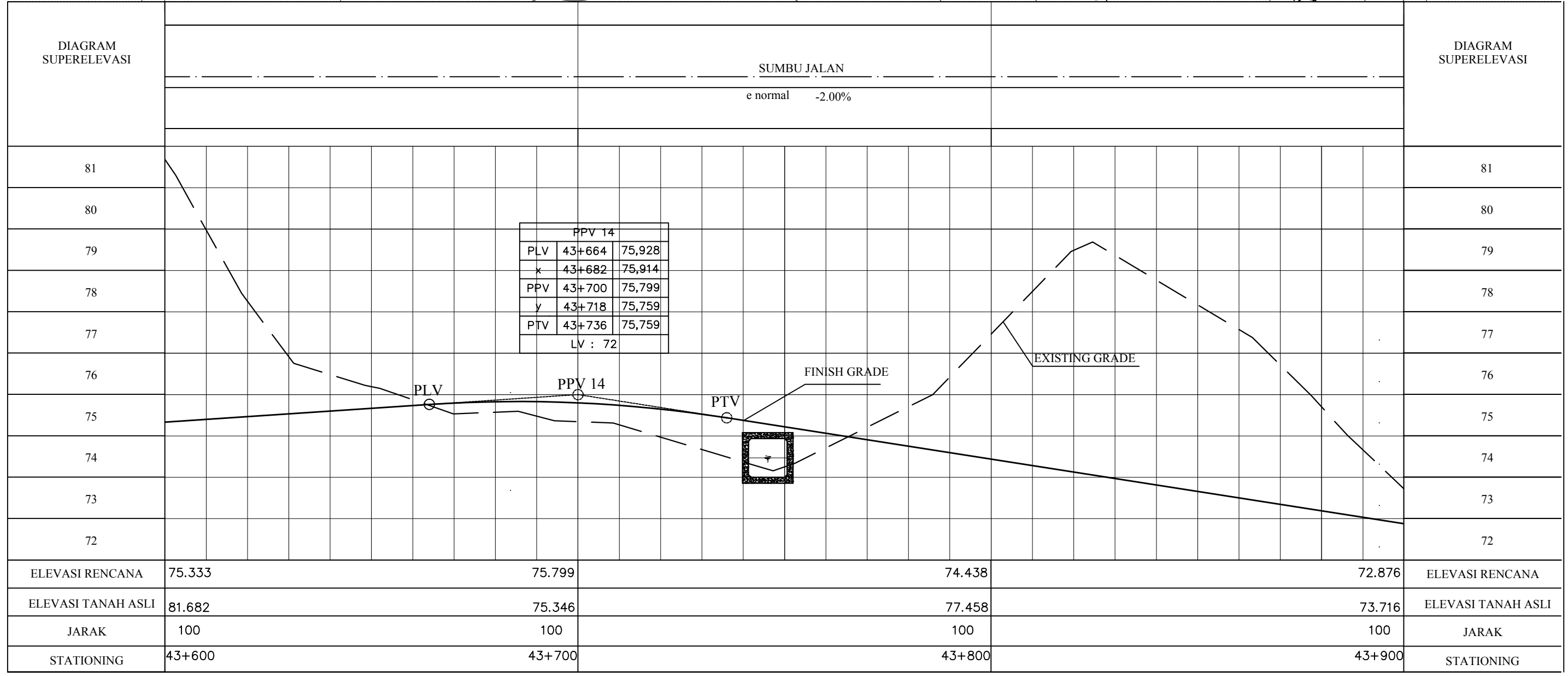
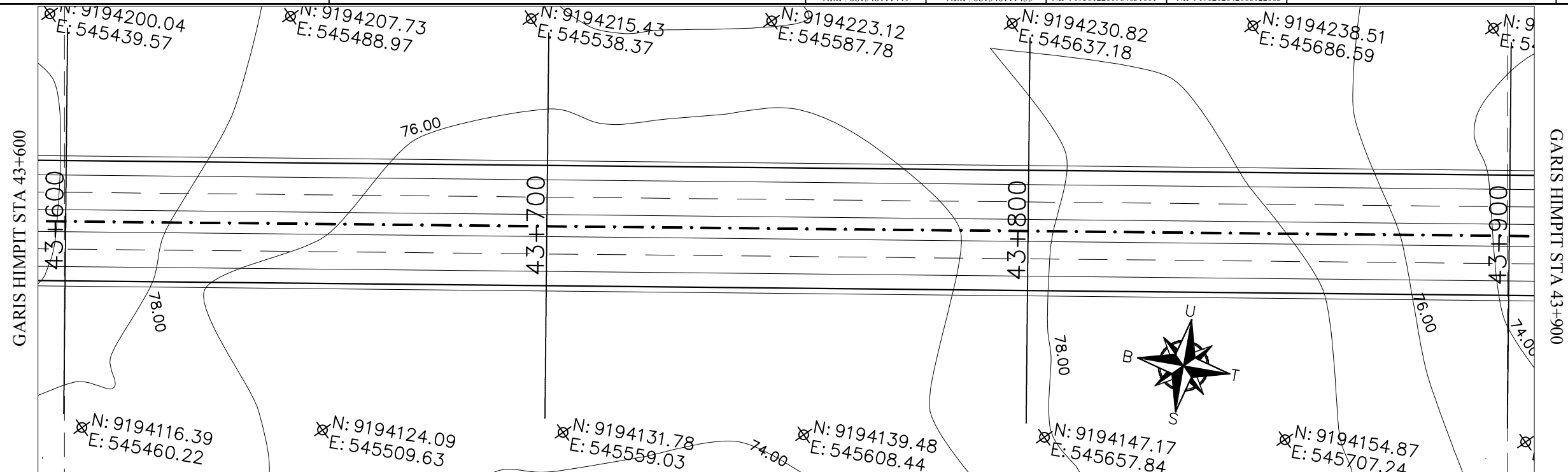
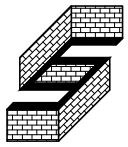


DIAGRAM SUPERELEVASI	Sumbu Jalan										DIAGRAM SUPERELEVASI					
	e normal -2.00%															
77											77					
76											76					
75											75					
74											74					
73											73					
72											72					
71											71					
70											70					
69											69					
68											68					
ELEVASI RENCANA	73.600					73.200					72.800				72.400	ELEVASI RENCANA
ELEVASI TANAH ASLI	70.882					71.481					70.615				70.071	ELEVASI TANAH ASLI
JARAK	100					100					100				100	JARAK
STATIONING	42+700					42+800					42+900				43+000	STATIONING







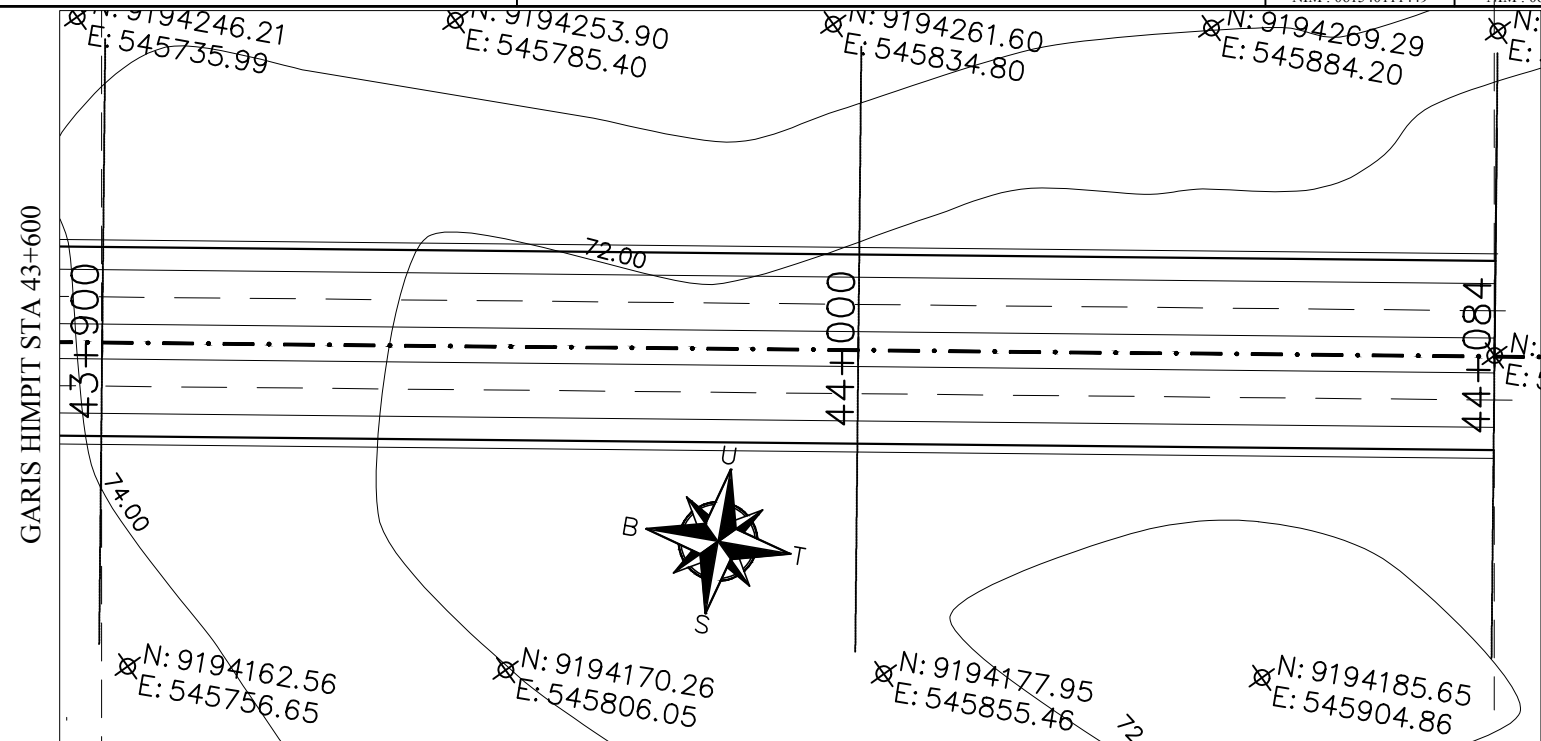
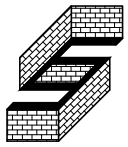
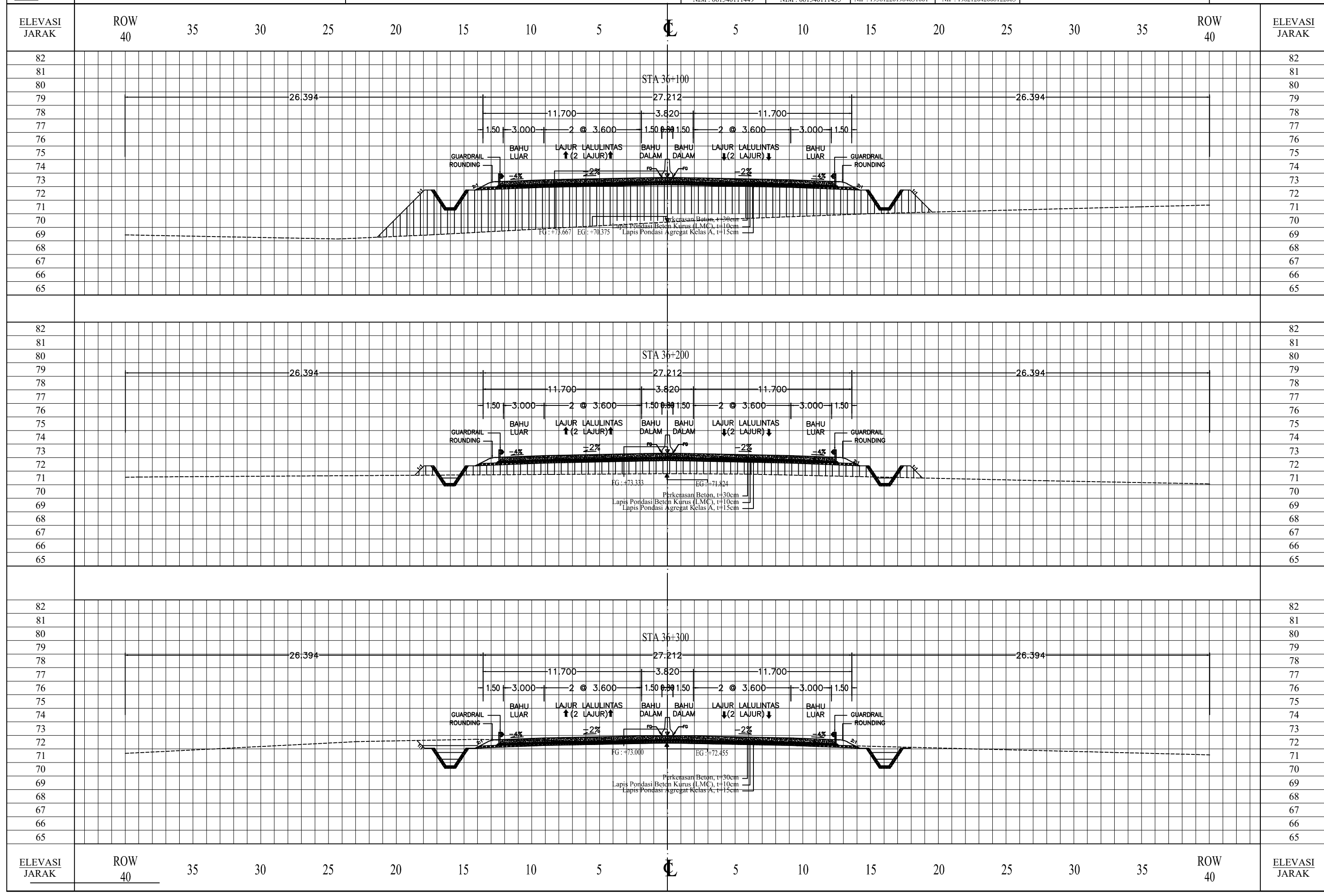
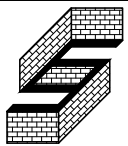


DIAGRAM SUPERELEVASI	Sumbu Jalan																DIAGRAM SUPERELEVASI	
	e normal -2.00%																	
75																		75
74																		74
73																		73
72																		72
71																		71
70																		70
69																		69
68																		68
67																		67
66																		66
ELEVASI RENCANA	72.876																	ELEVASI RENCANA
ELEVASI TANAH ASLI	73.716																	ELEVASI TANAH ASLI
JARAK	100																	JARAK
STATIONING	43+900																	STATIONING

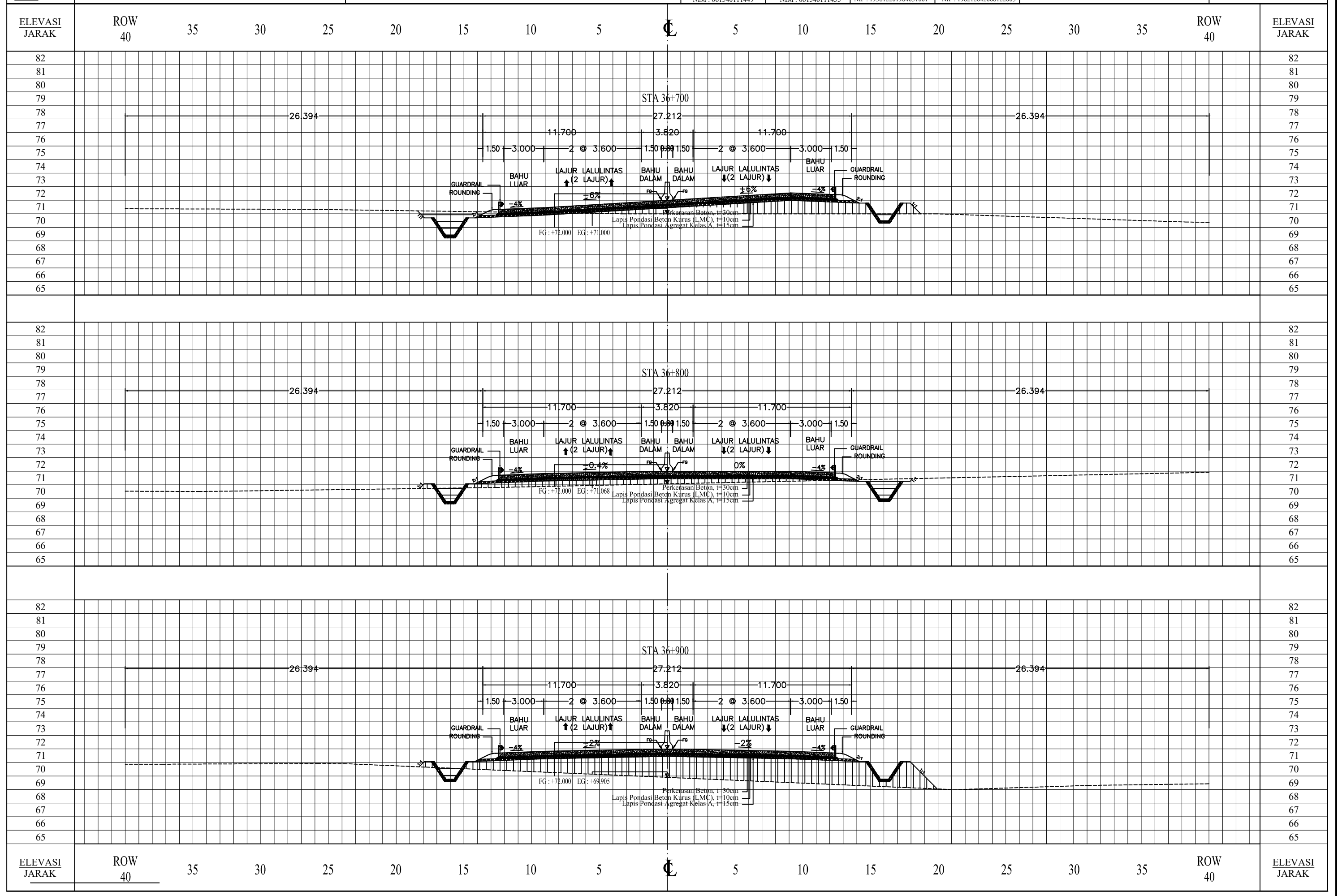
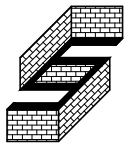


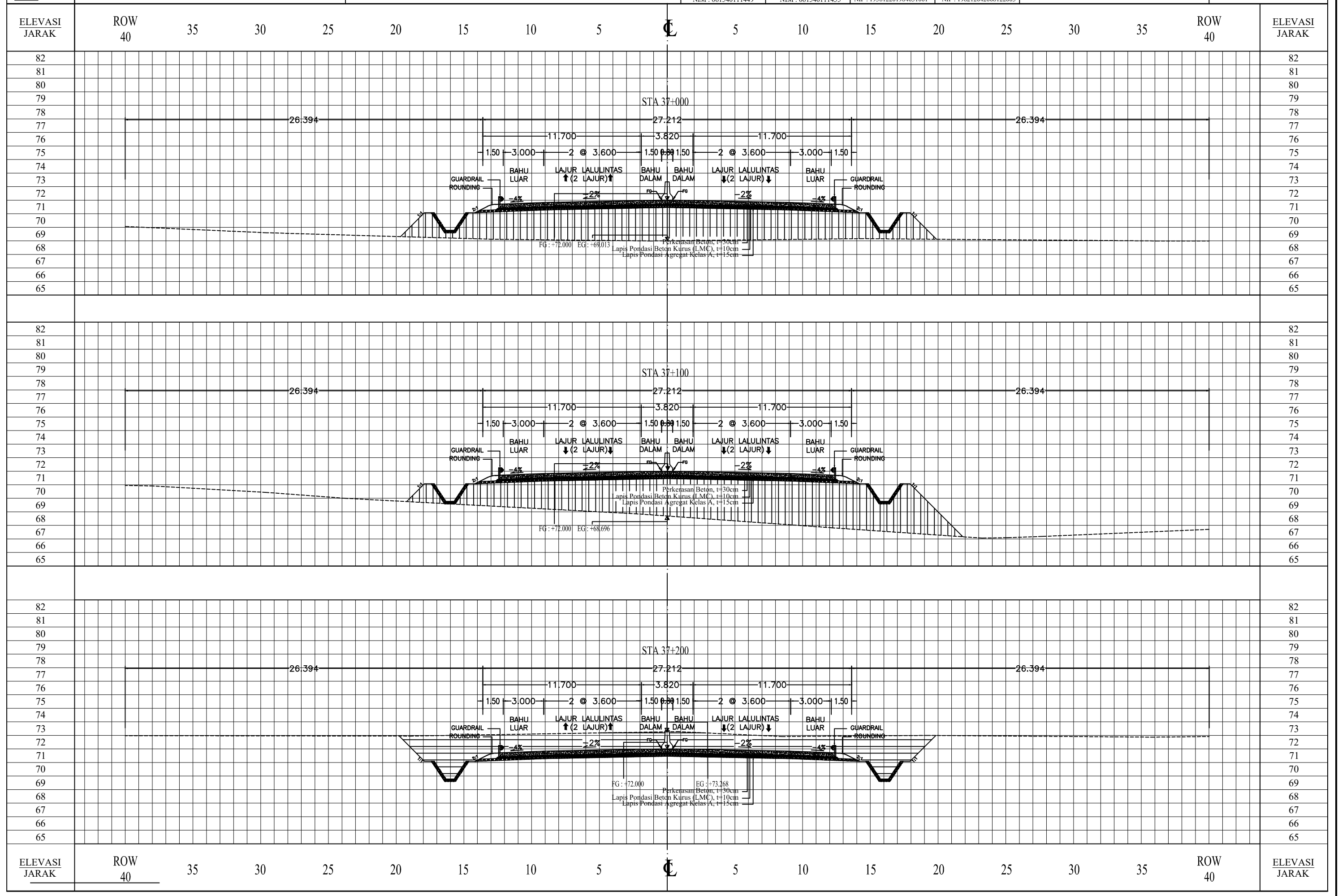
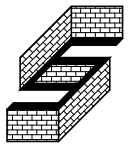


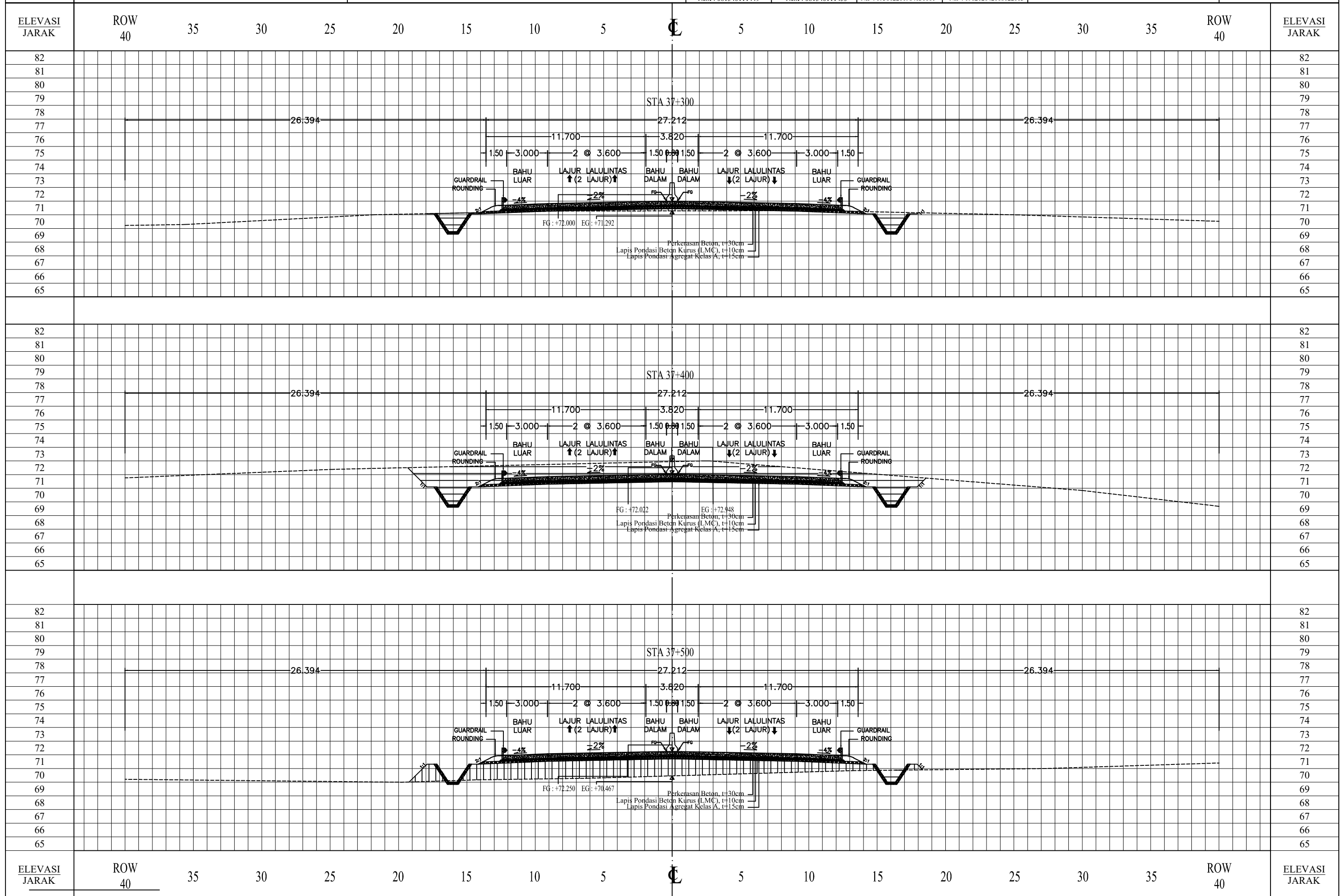
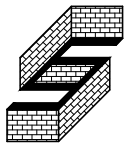


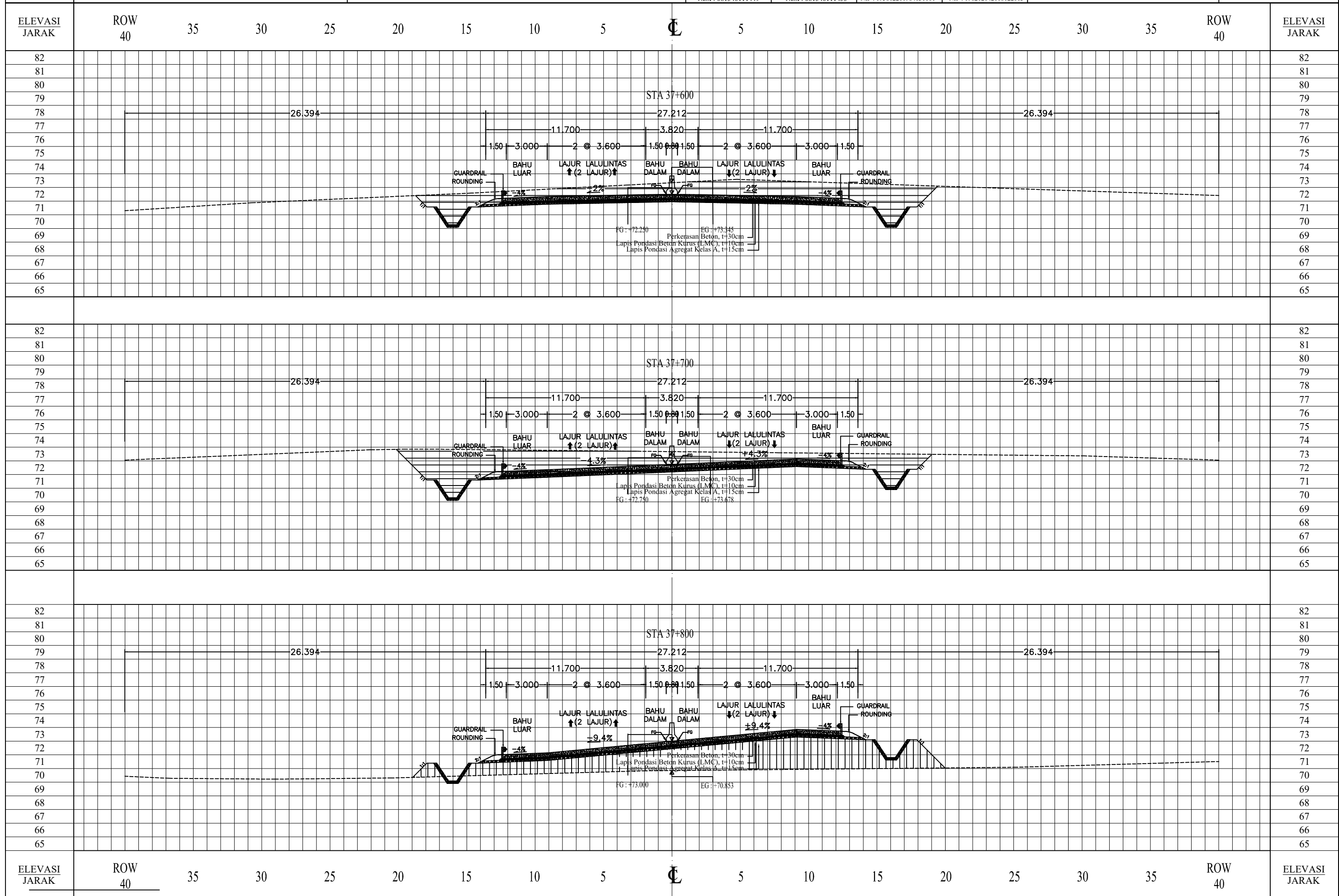
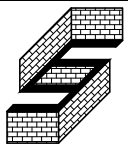


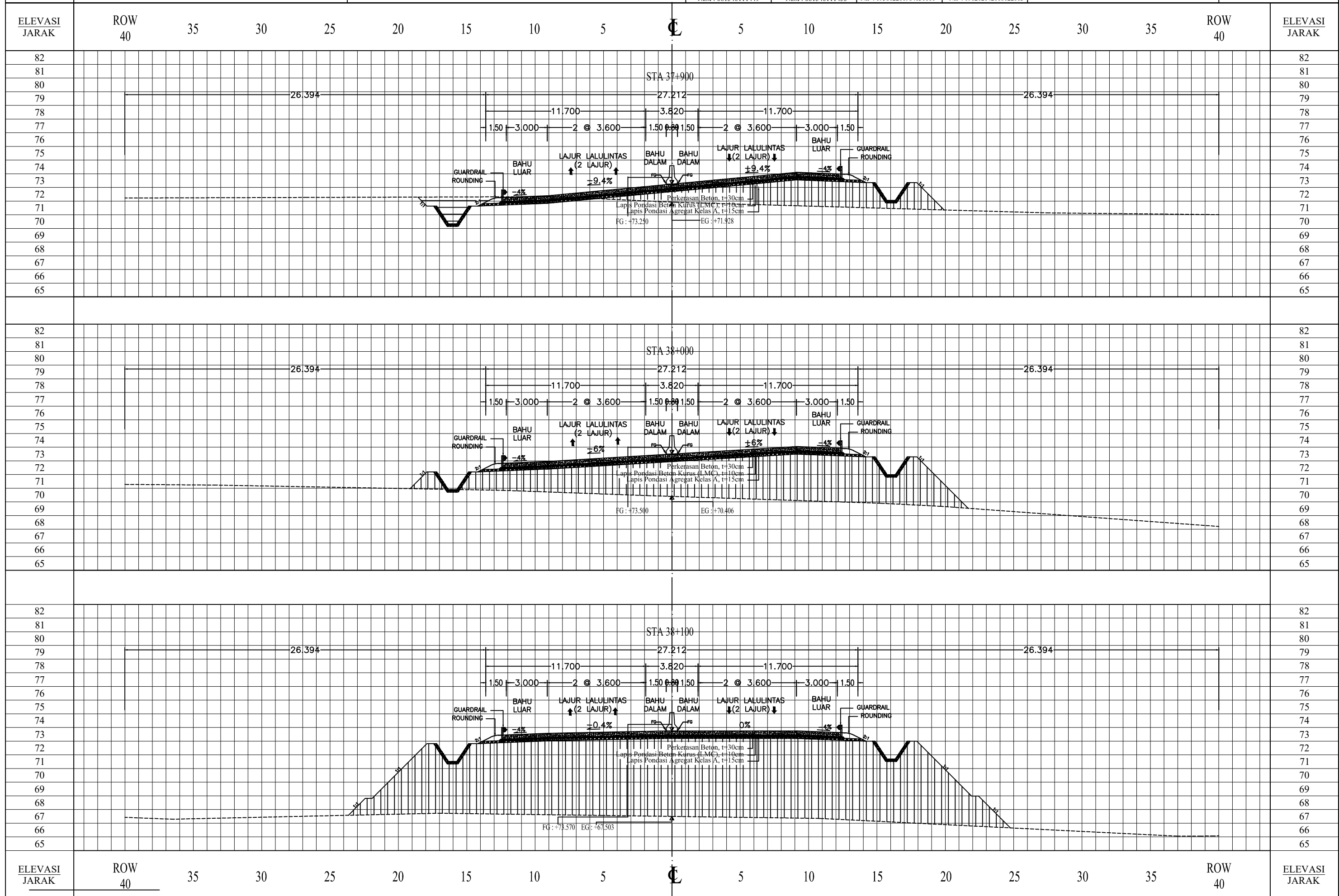
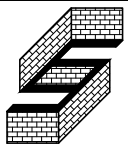




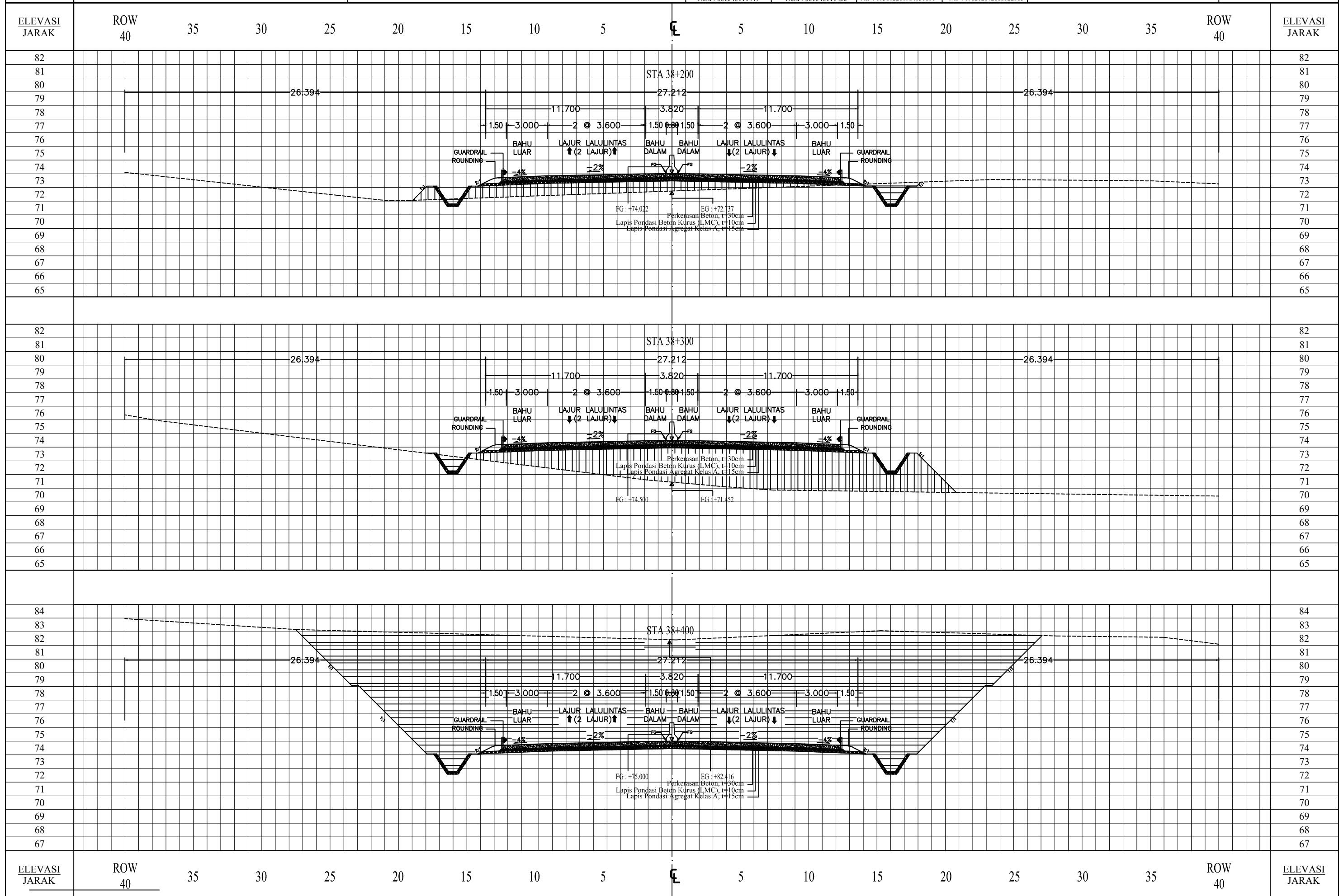
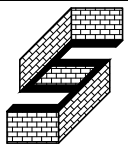






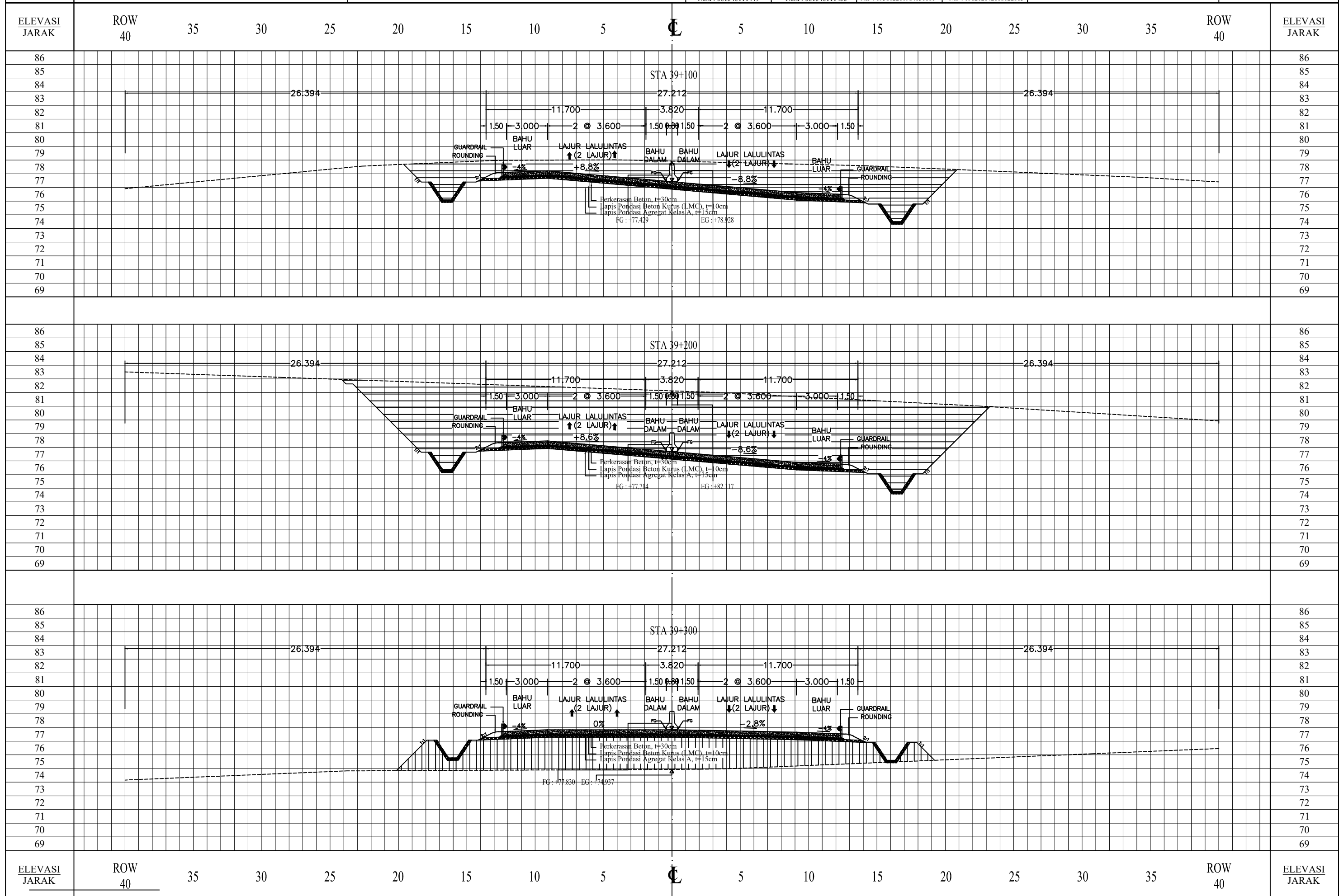
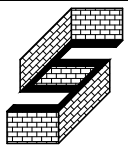


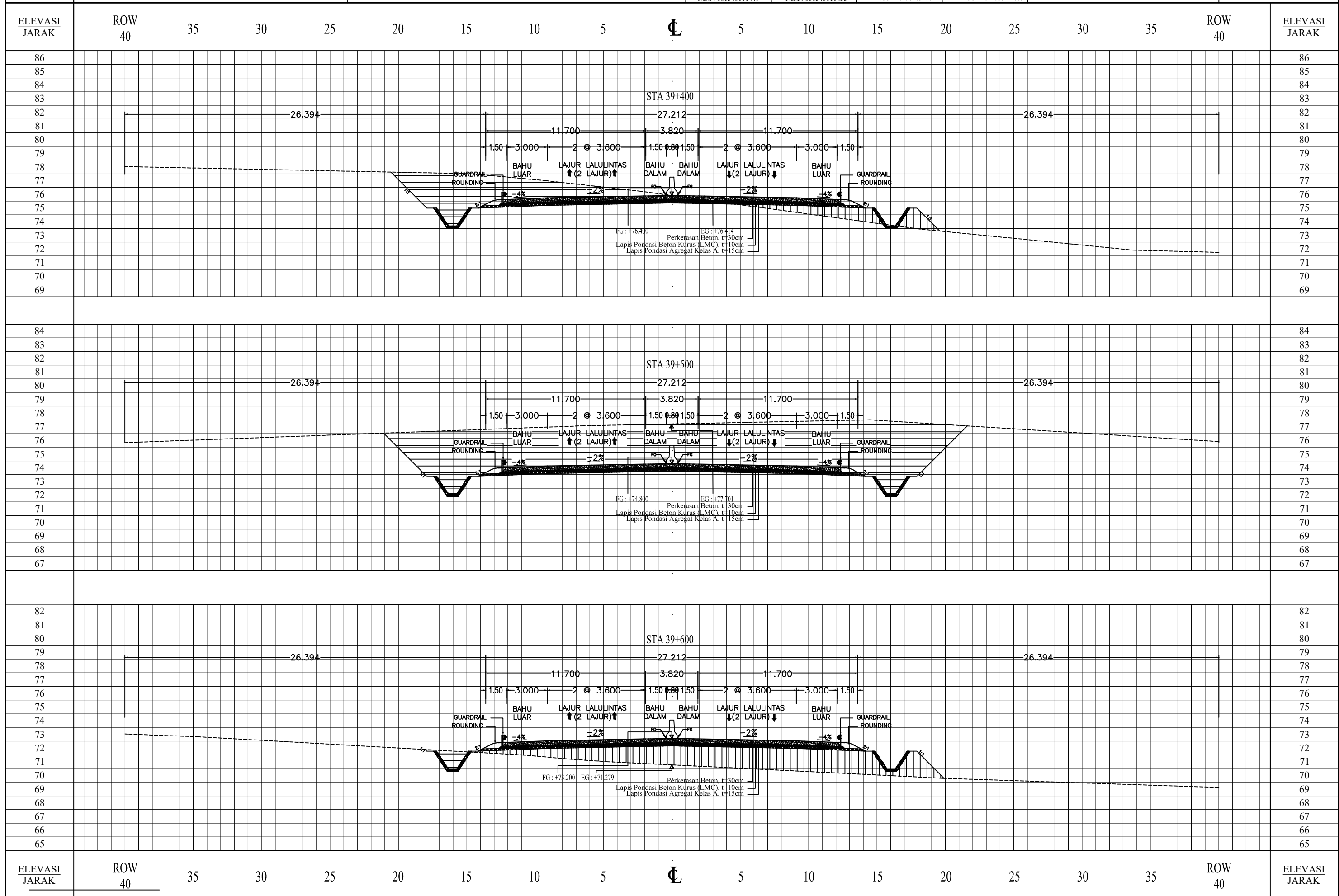
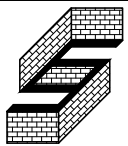




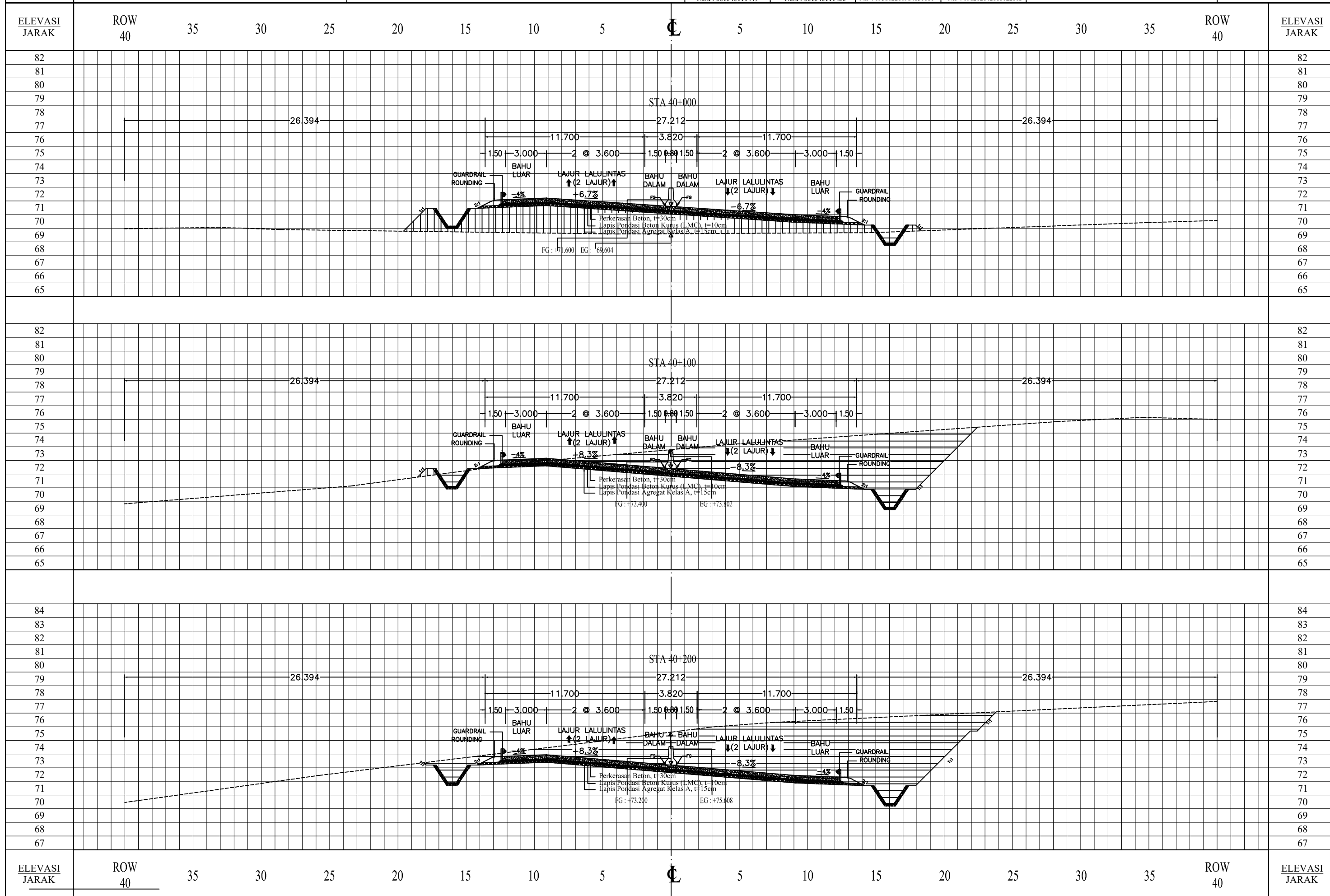
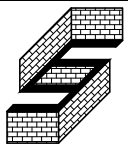


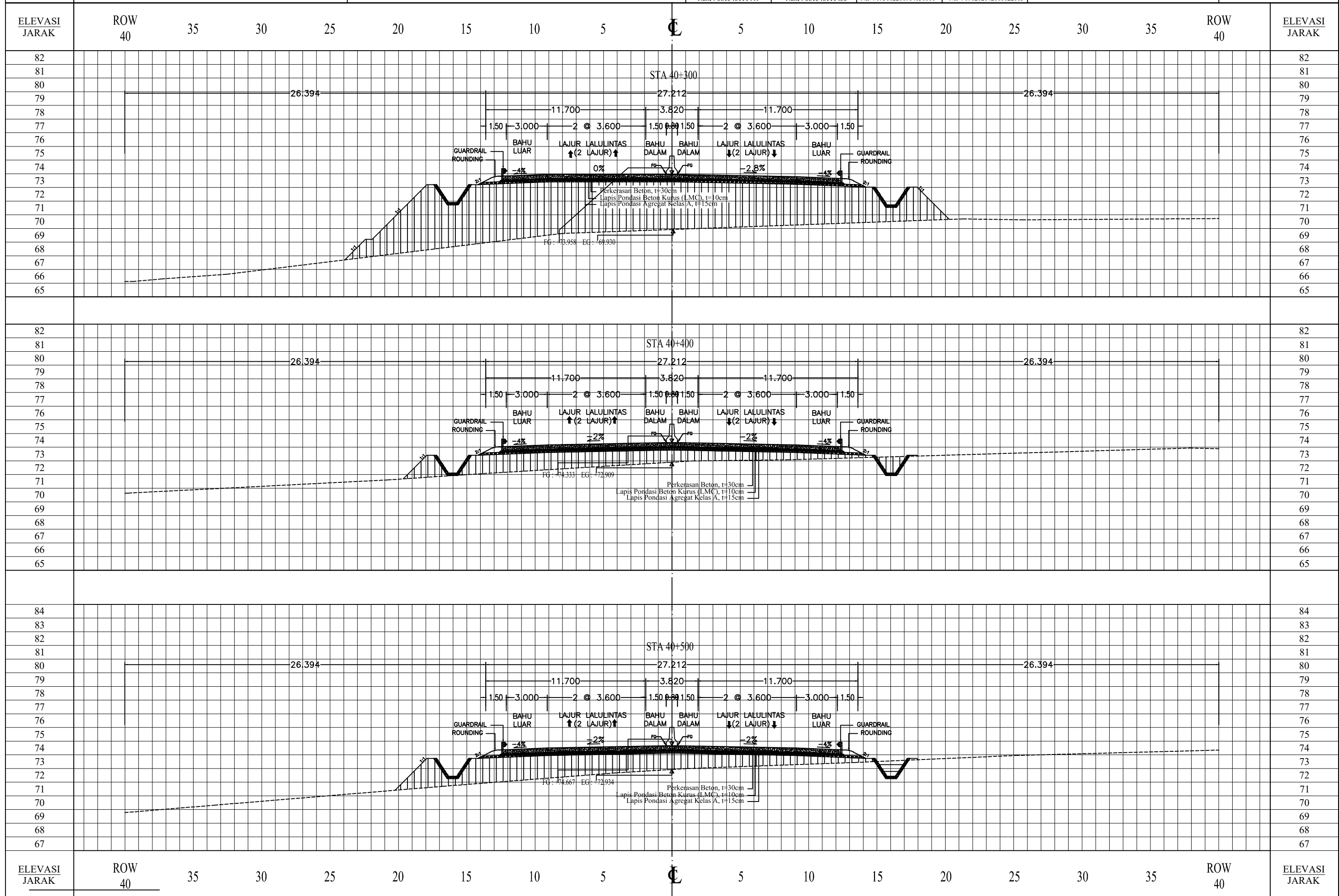
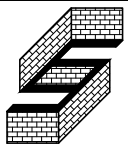




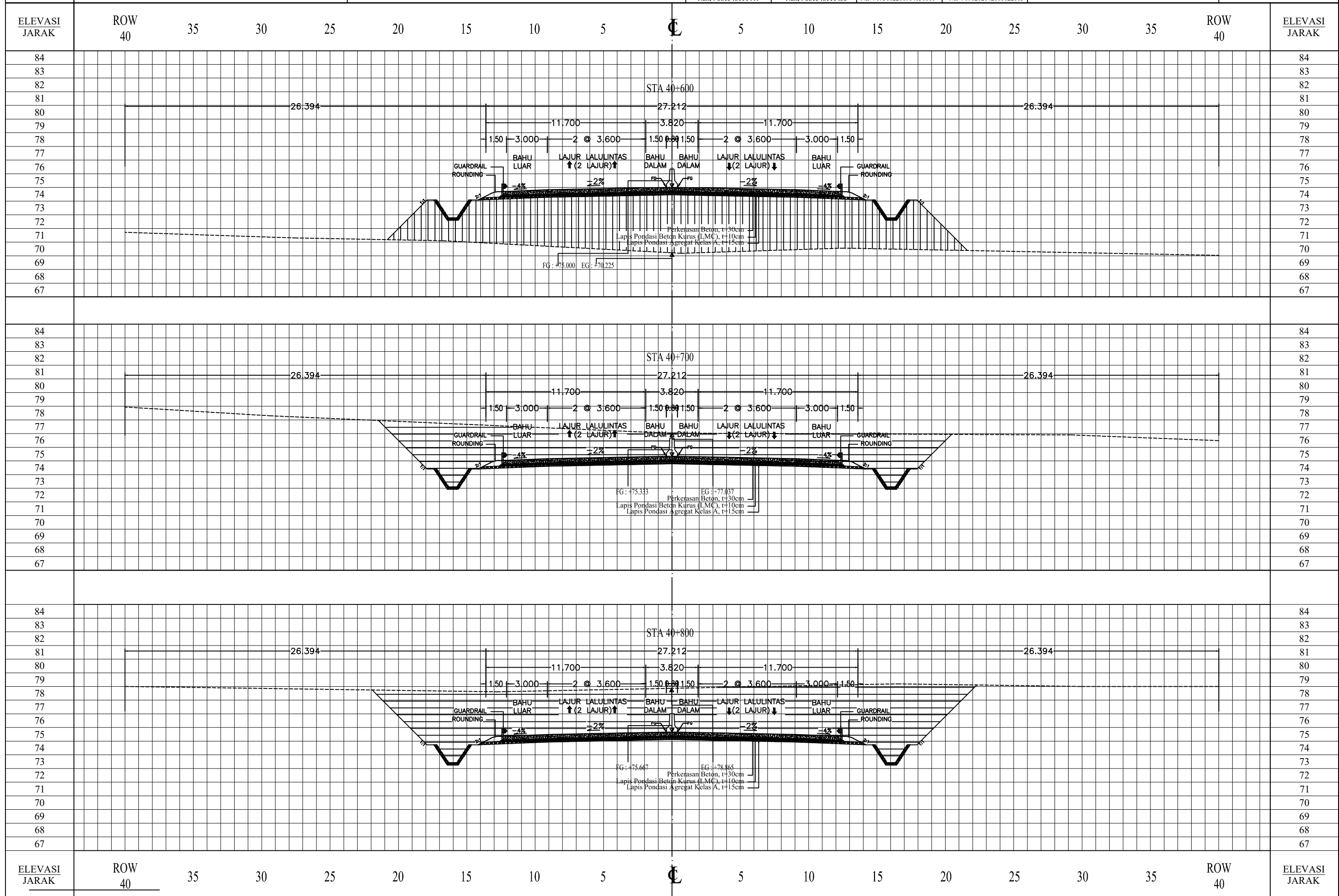
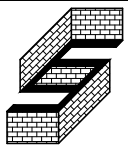


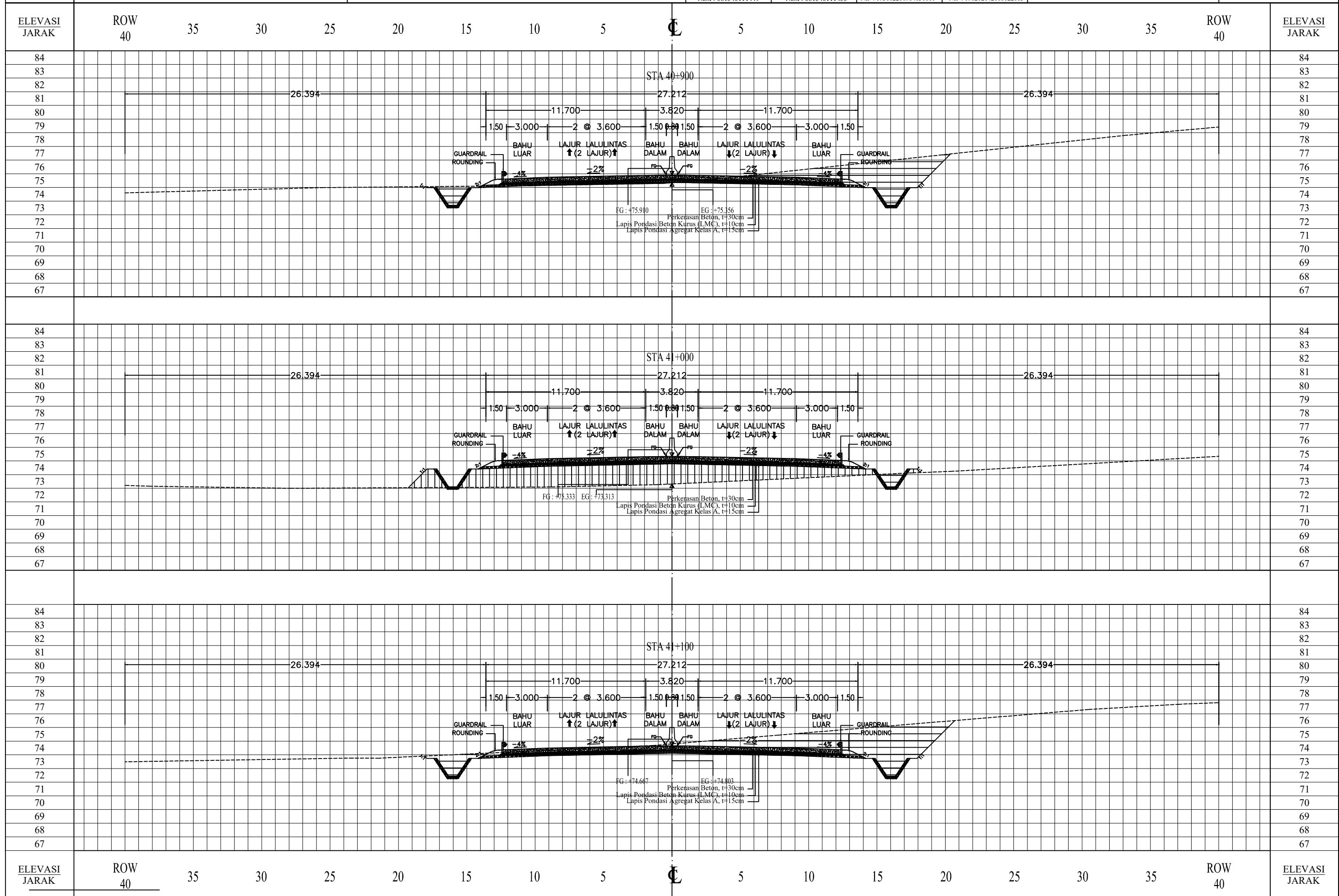
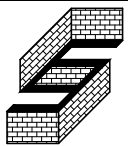


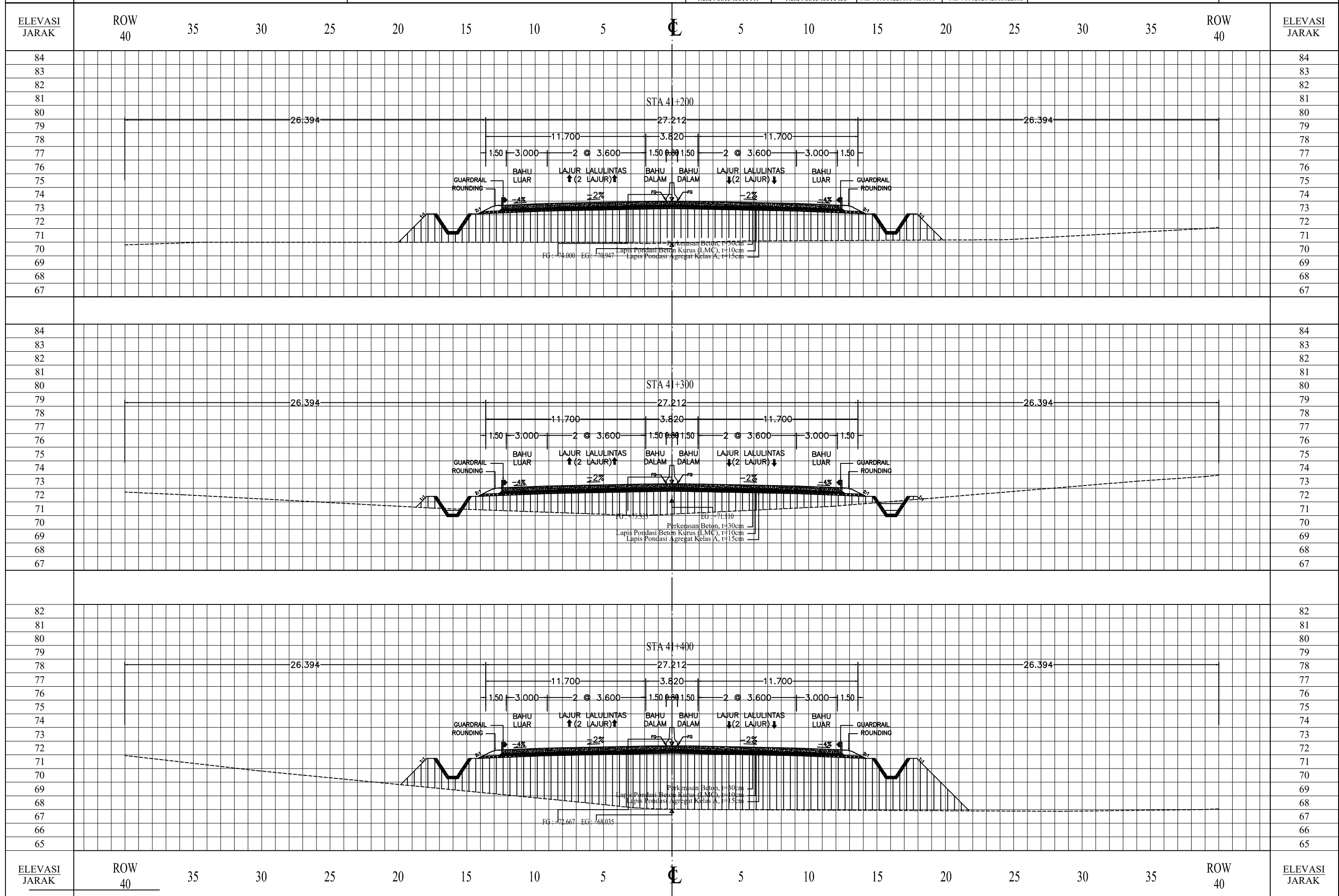
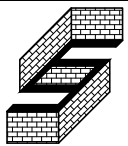






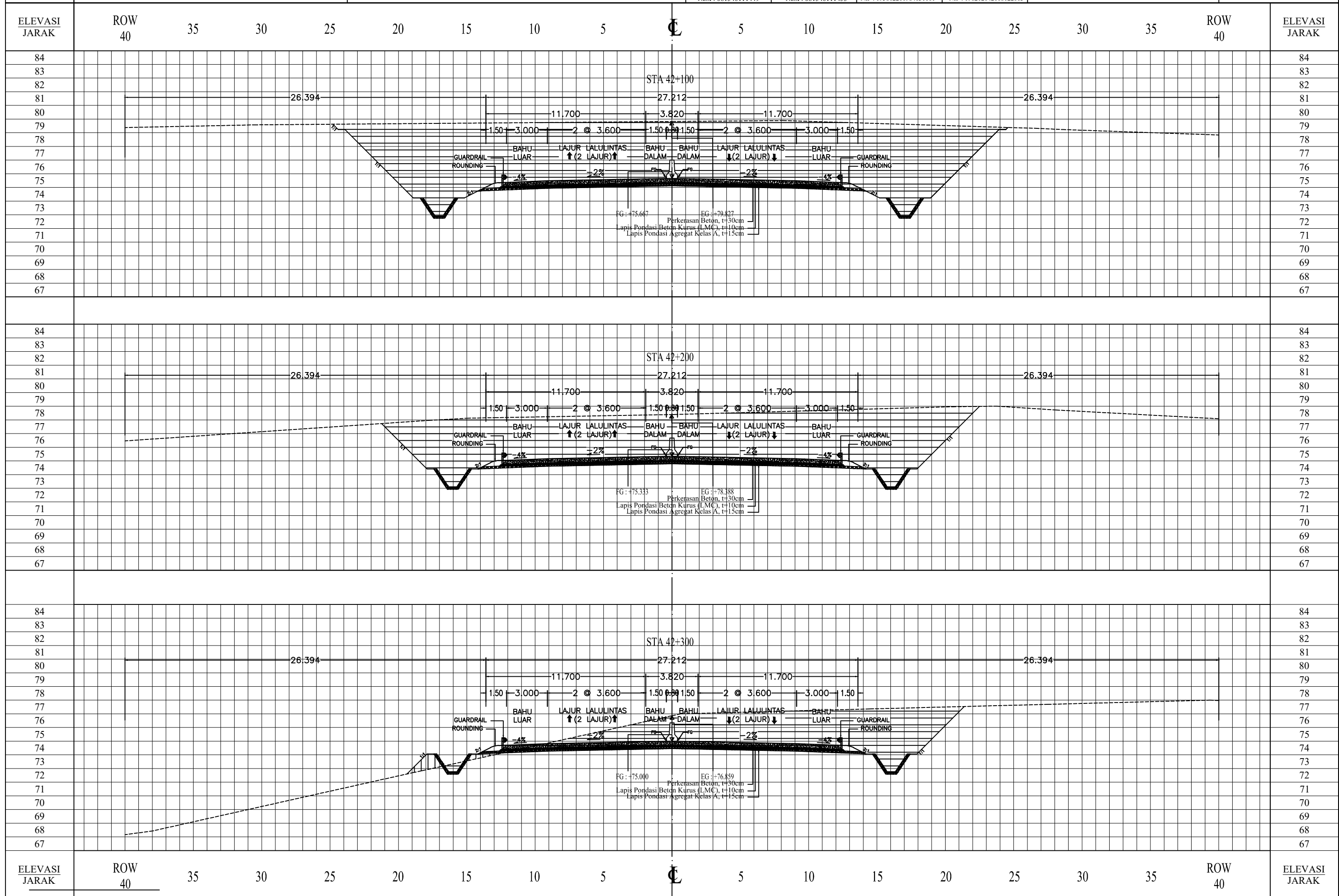
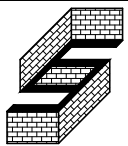


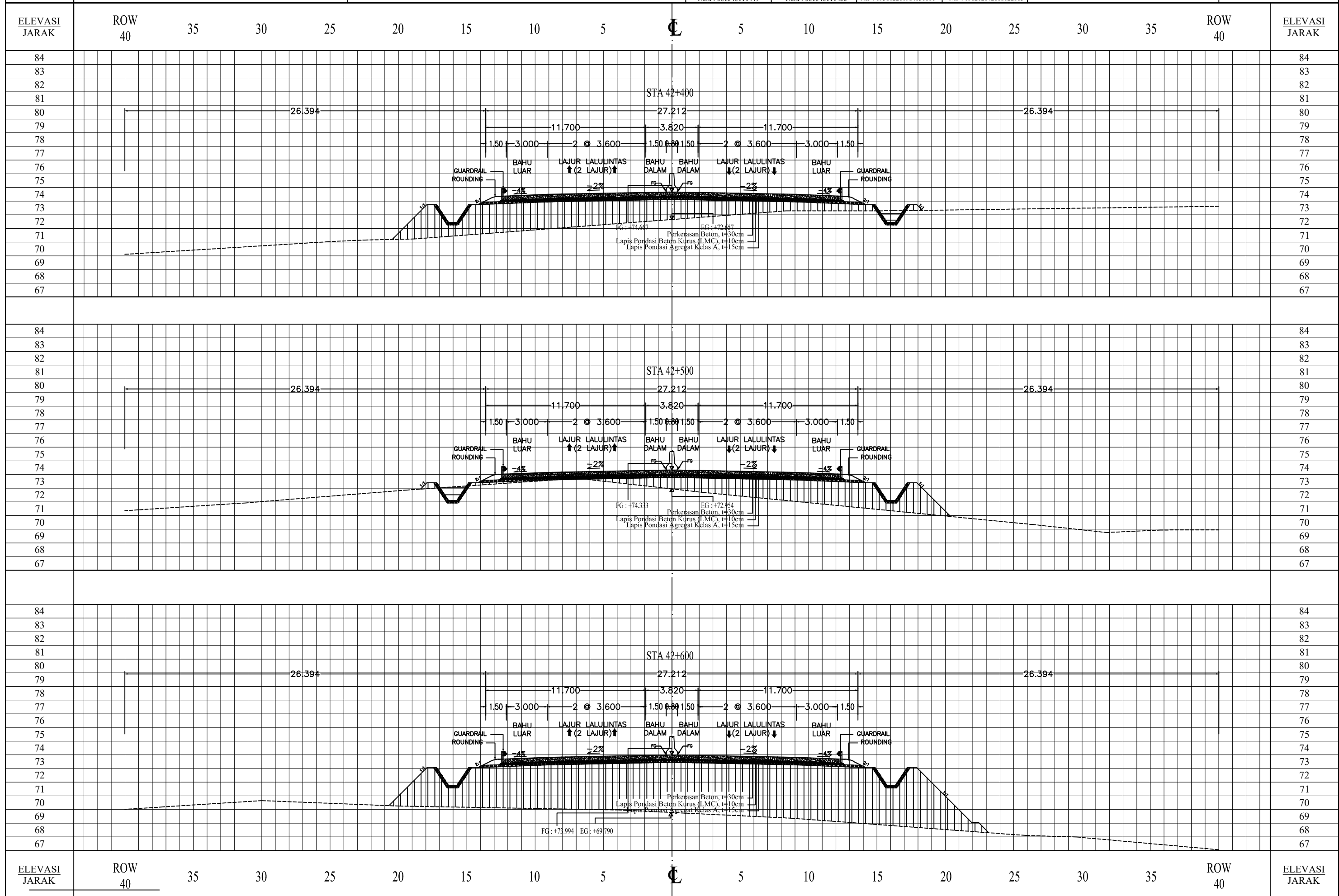
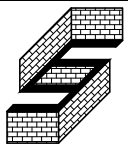


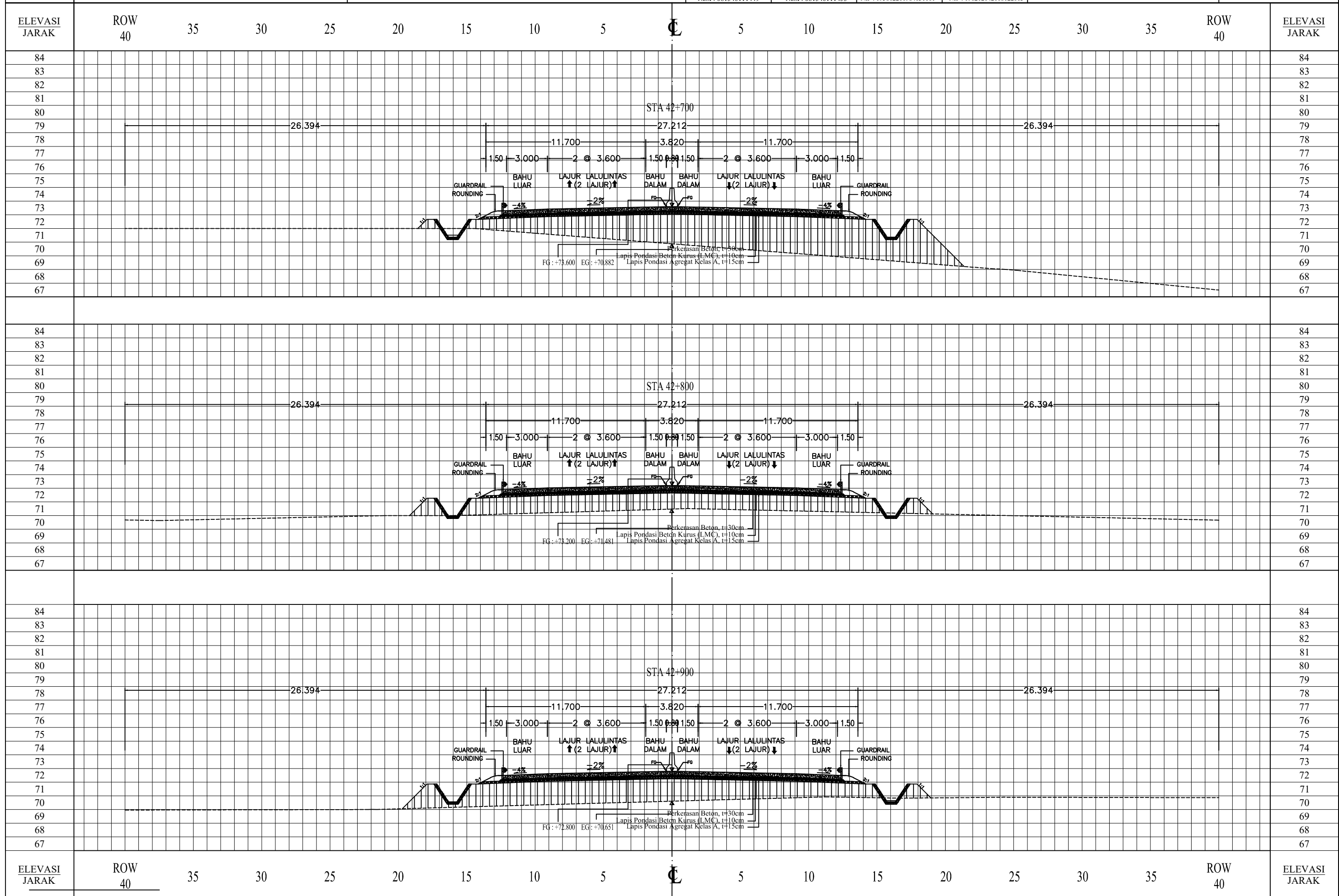
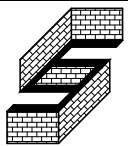




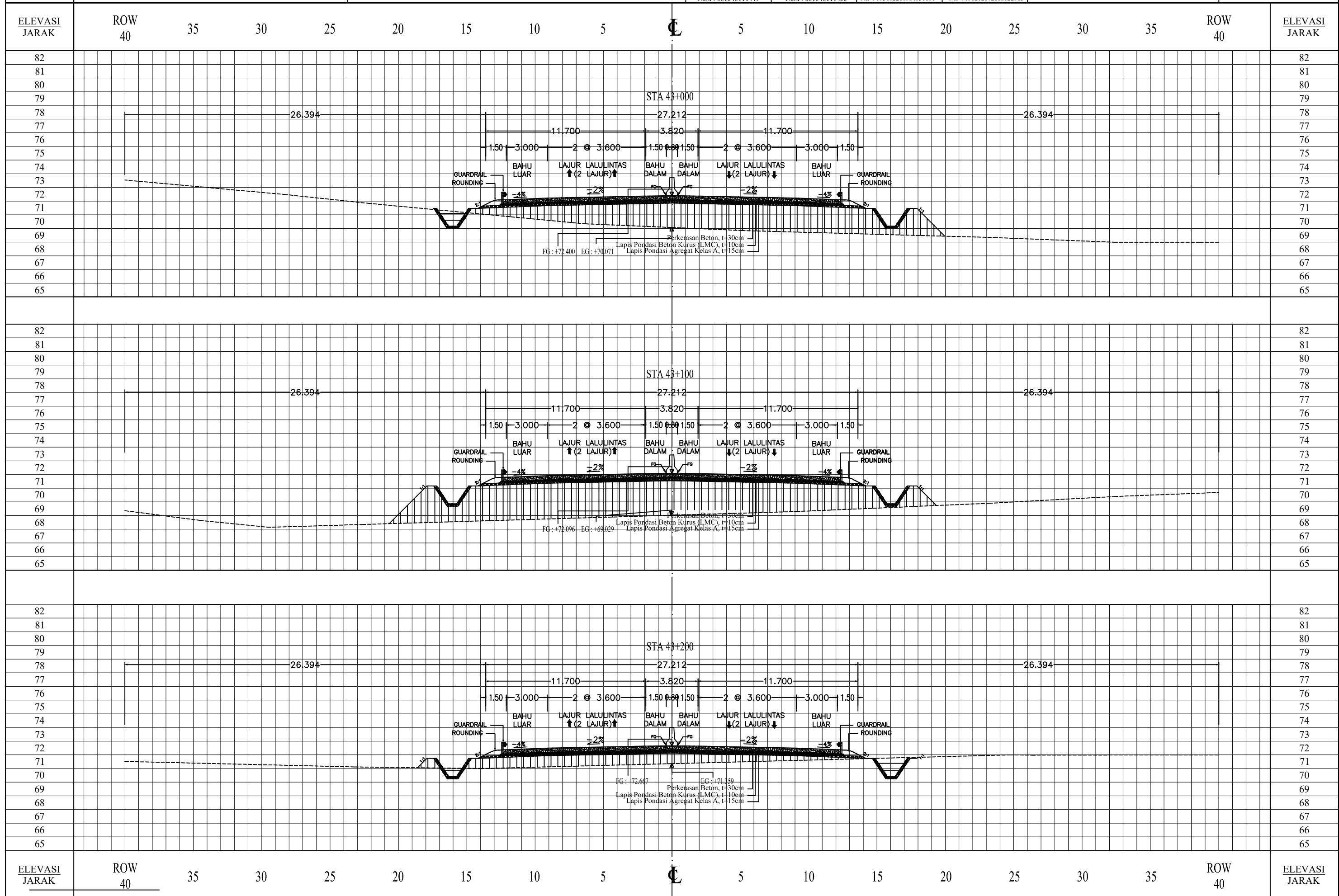
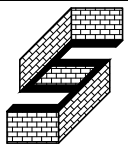




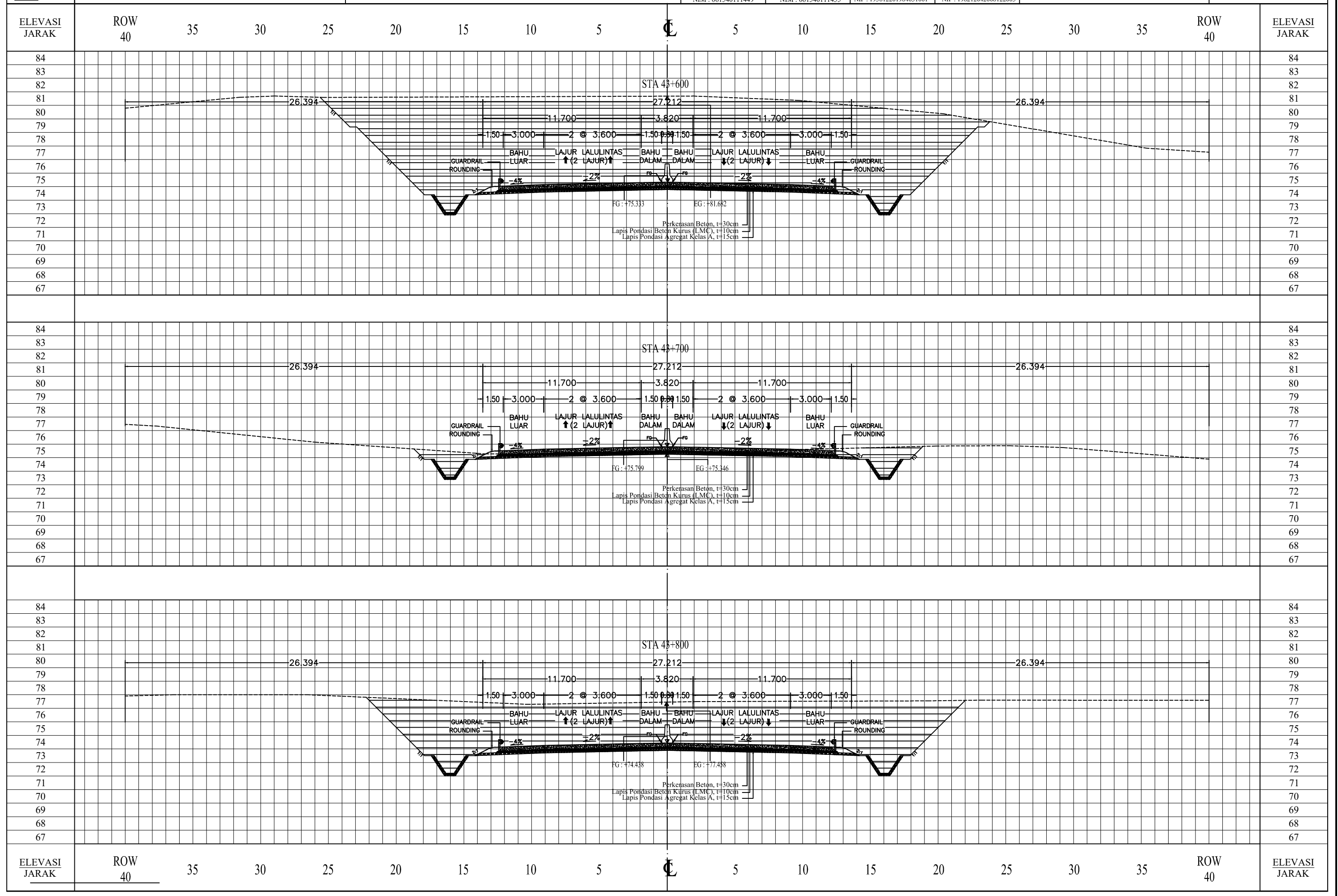
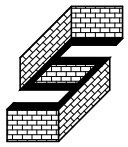












STA 43+600

STA 43+700

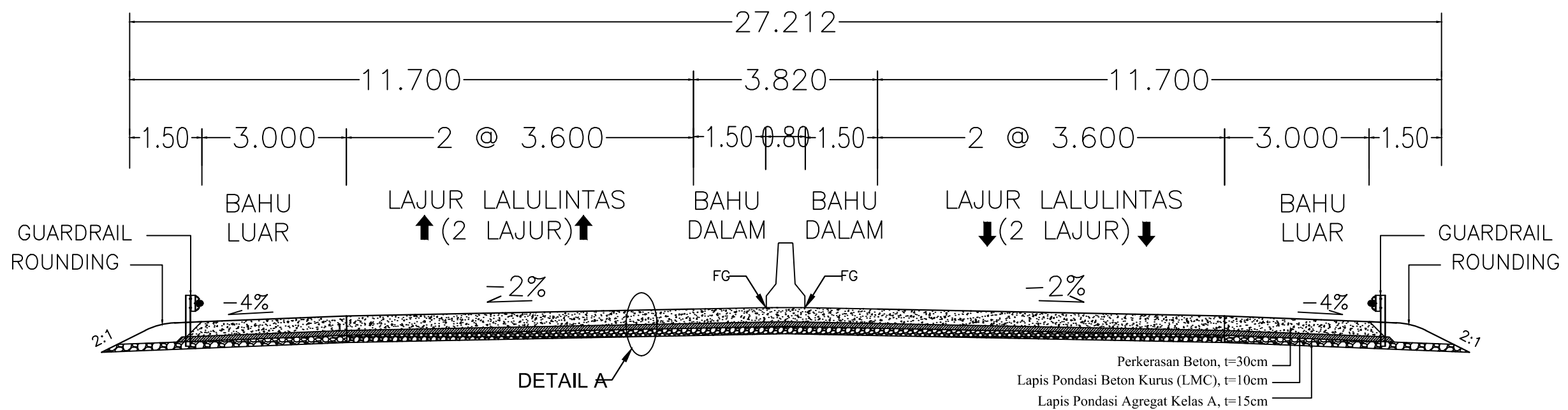
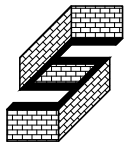
STA 43+800

FG : +75.333 EG : +81.682  
 Perkerasan Beton, t=30cm  
 Lapis Pondasi Beton Korus (LMC), t=10cm  
 Lapis Pondasi Agregat Kelas A, t=15cm

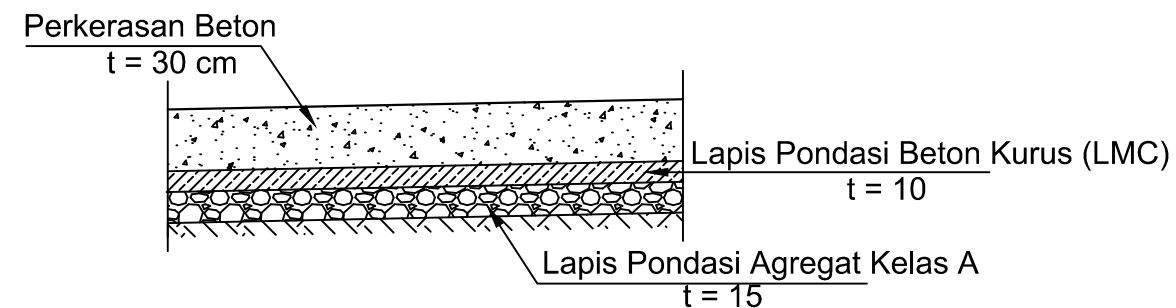
FG : +75.799 EG : +75.346  
 Perkerasan Beton, t=30cm  
 Lapis Pondasi Beton Korus (LMC), t=10cm  
 Lapis Pondasi Agregat Kelas A, t=15cm

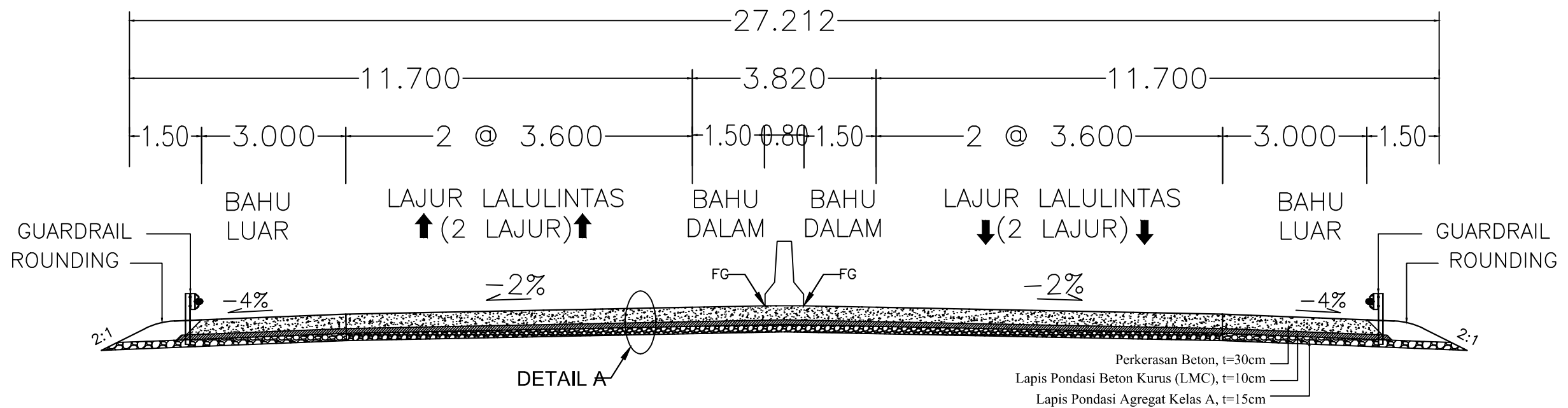
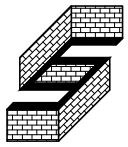
FG : +74.438 EG : +77.438  
 Perkerasan Beton, t=30cm  
 Lapis Pondasi Beton Korus (LMC), t=10cm  
 Lapis Pondasi Agregat Kelas A, t=15cm



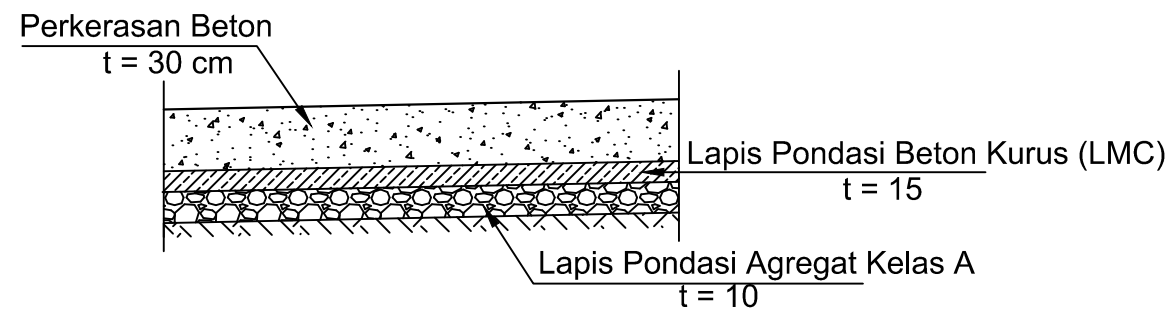


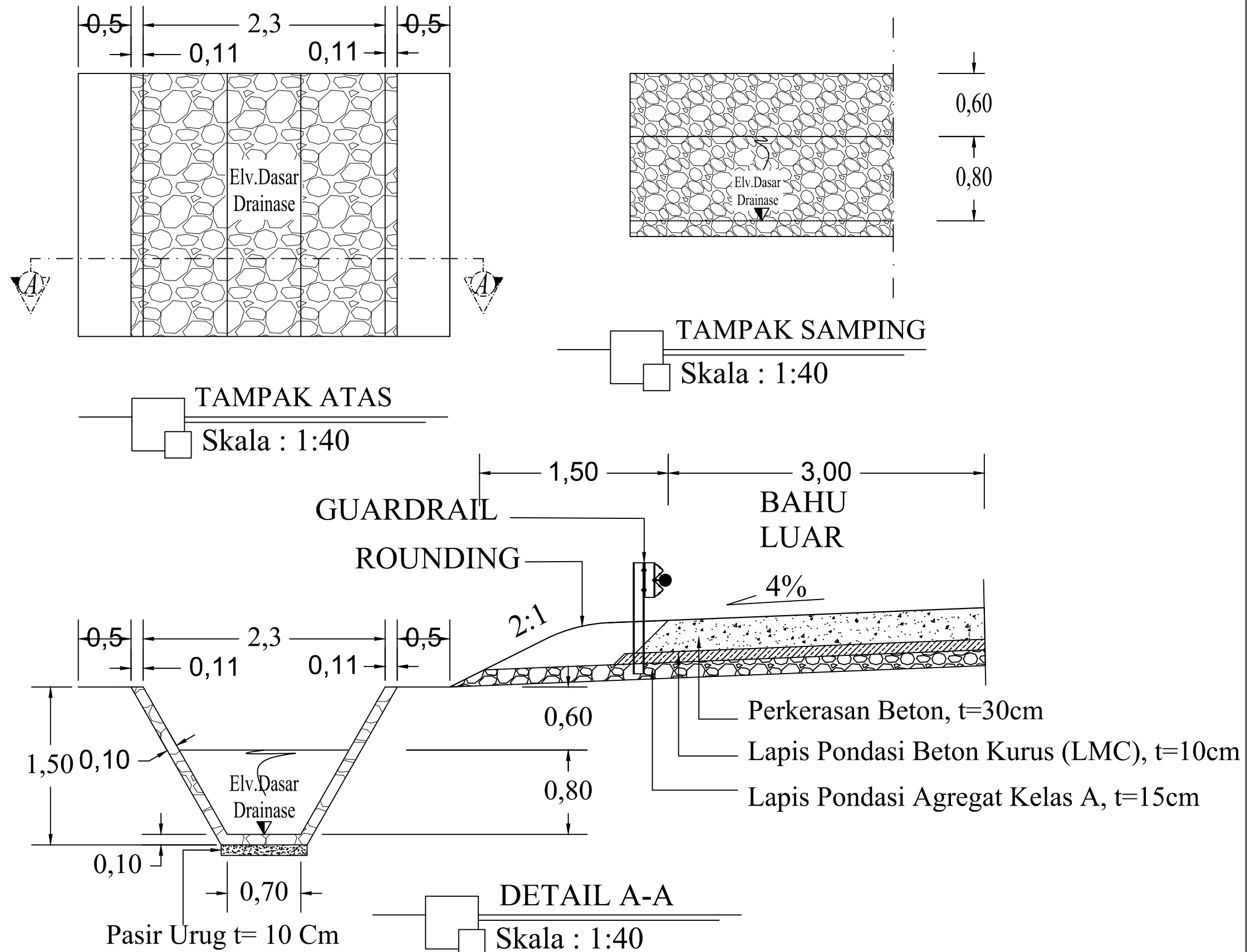
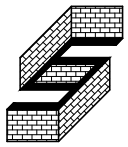
**TYPICAL CROSS SECTION**

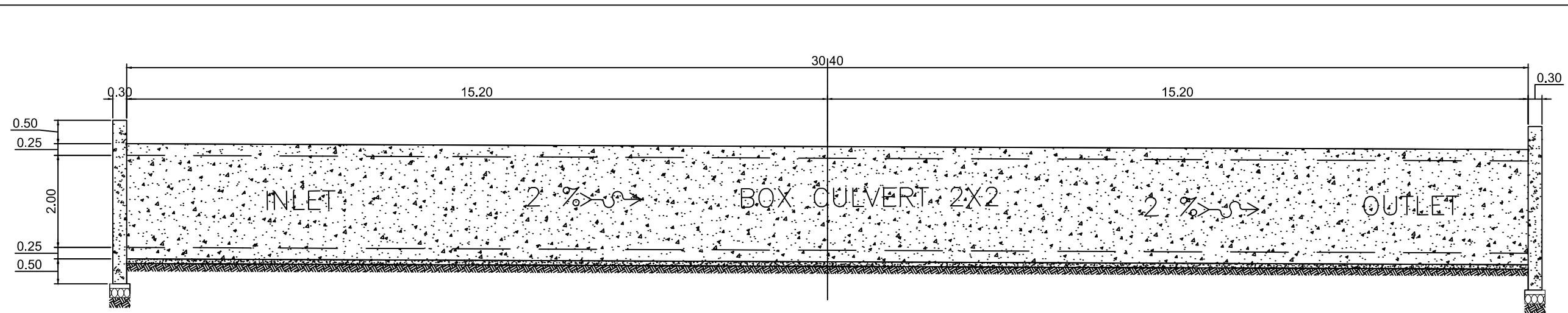
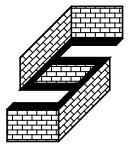




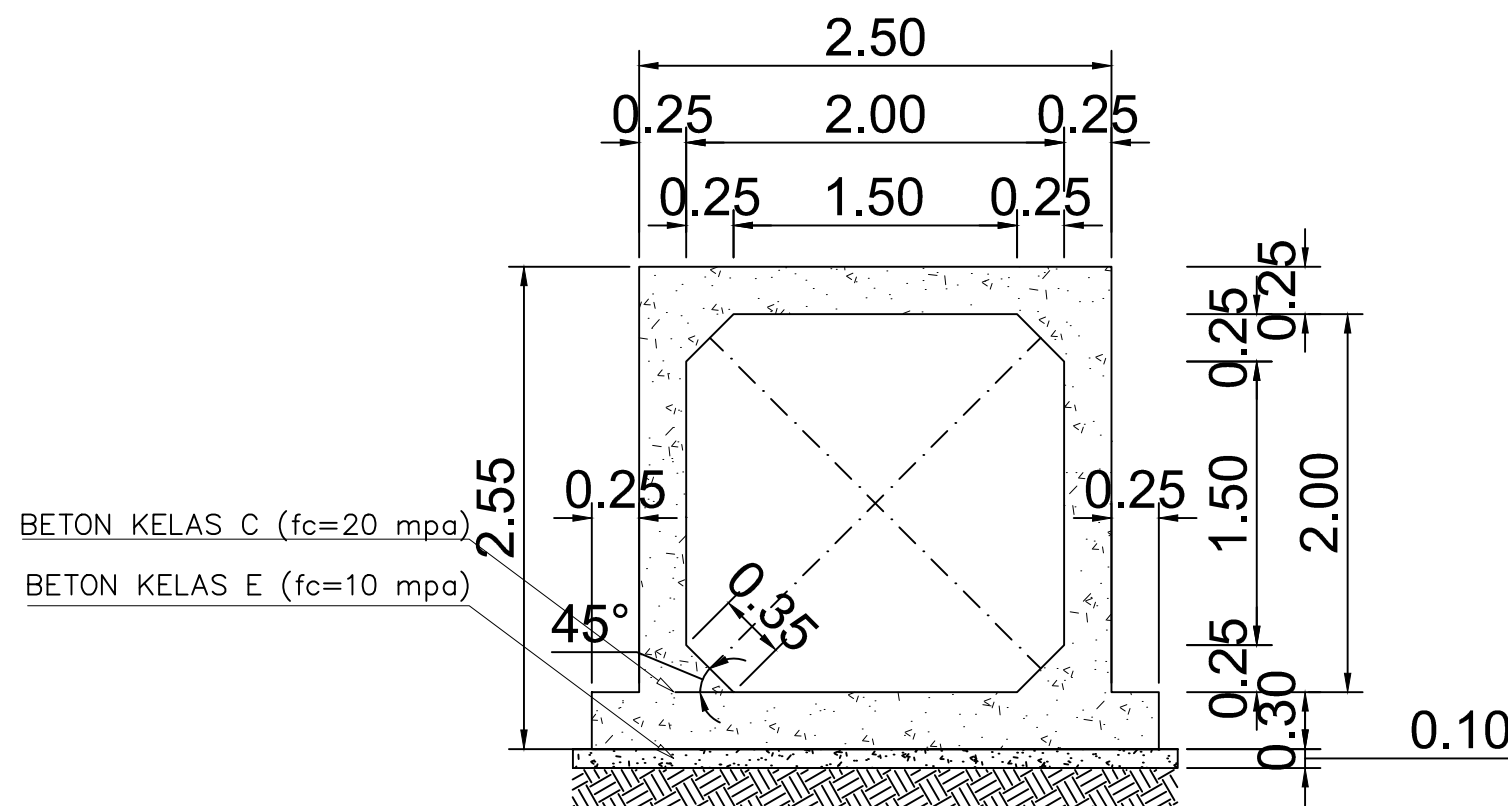
TYPICAL CROSS  
SECTION







TAMPAK SAMPING  
Skala : 1:40



DETAIL A  
Skala : 1:40



