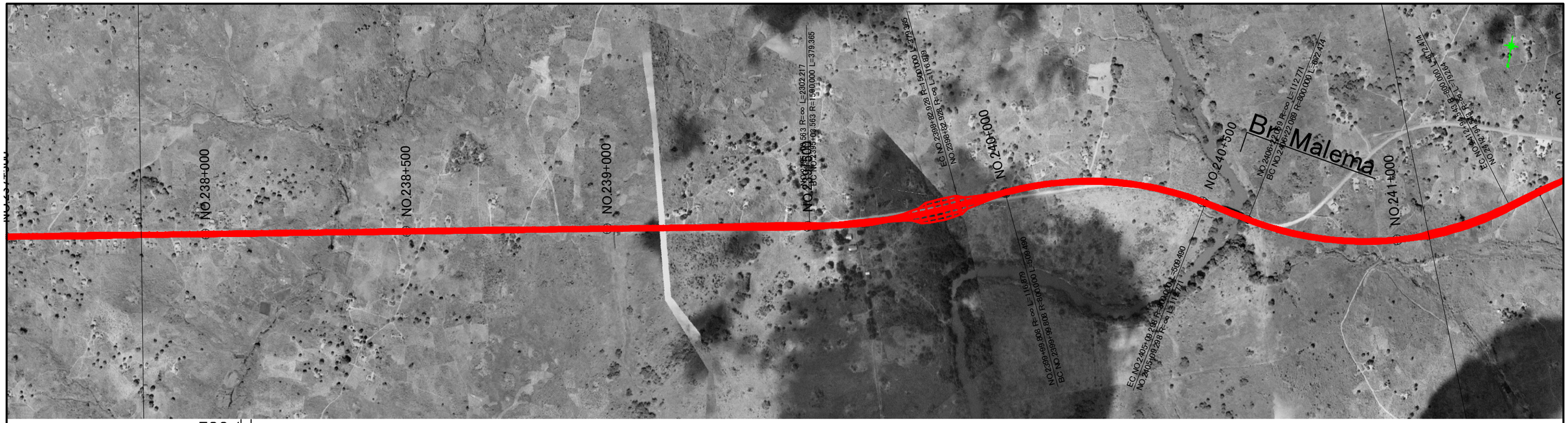

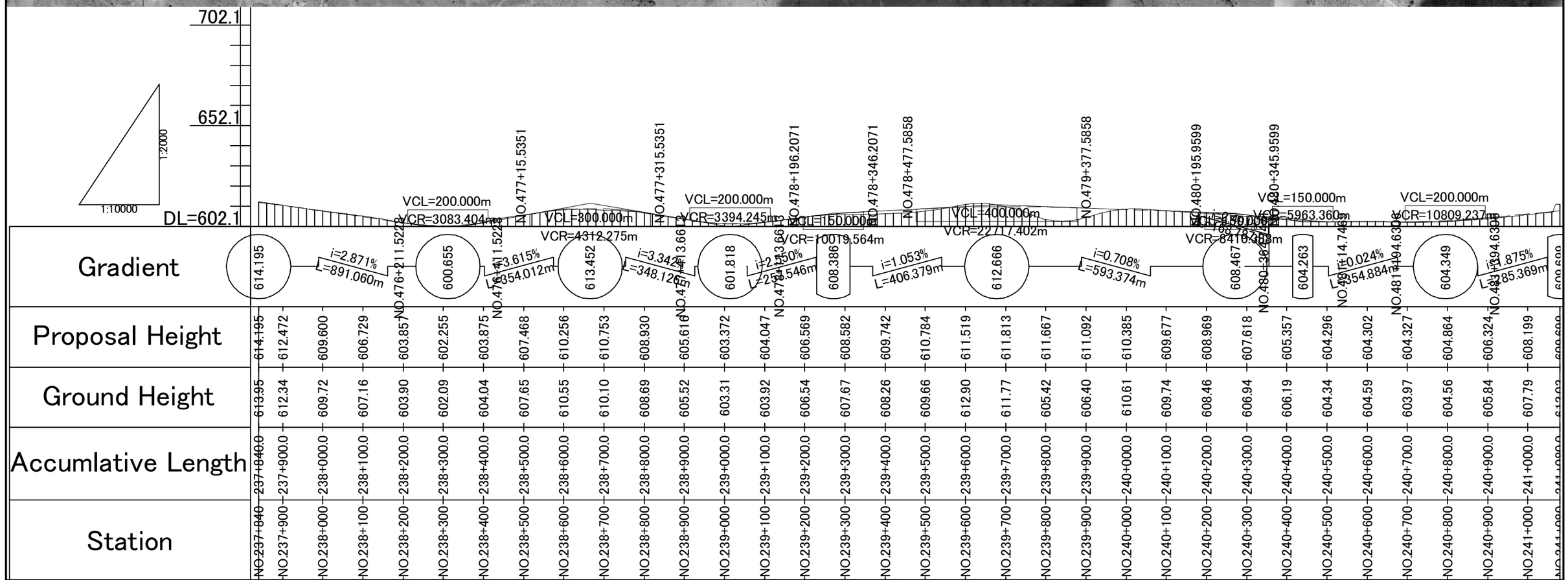

JAPAN INTERNATIONAL COOPERATION AGENCY

NATIONAL ROAD ADMINISTRATION

REMARKS:

THE STUDY ON UPGRADING OF NAMPULA - CUAMBA ROAD

ORINTAL CONSULTANTS CO., LTD.
JAPAN ENGINEERING CONSULTANTS CO., LTD.

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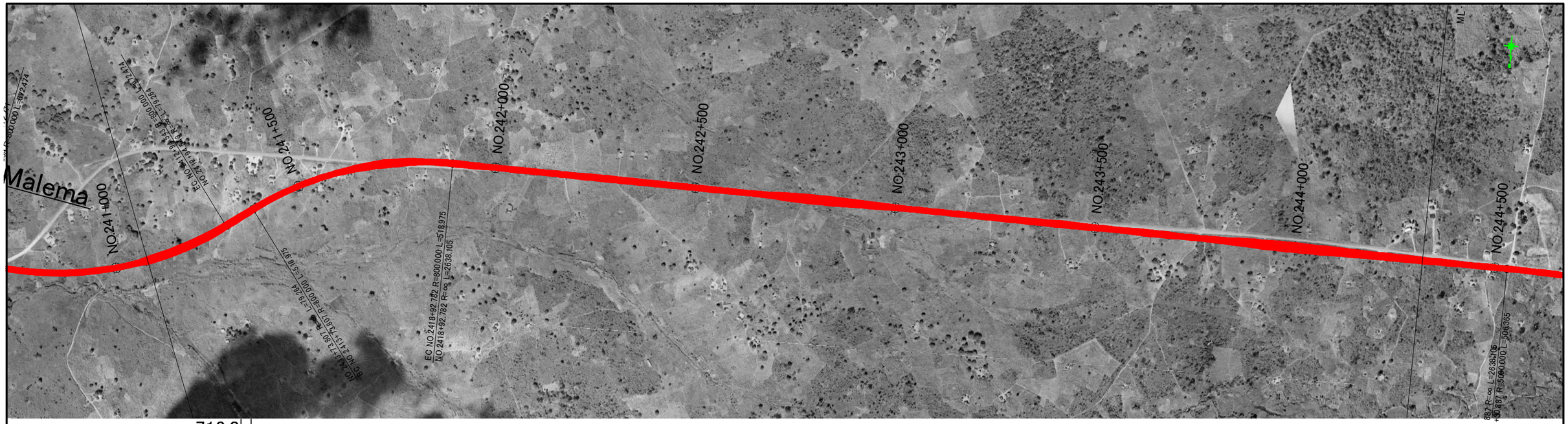
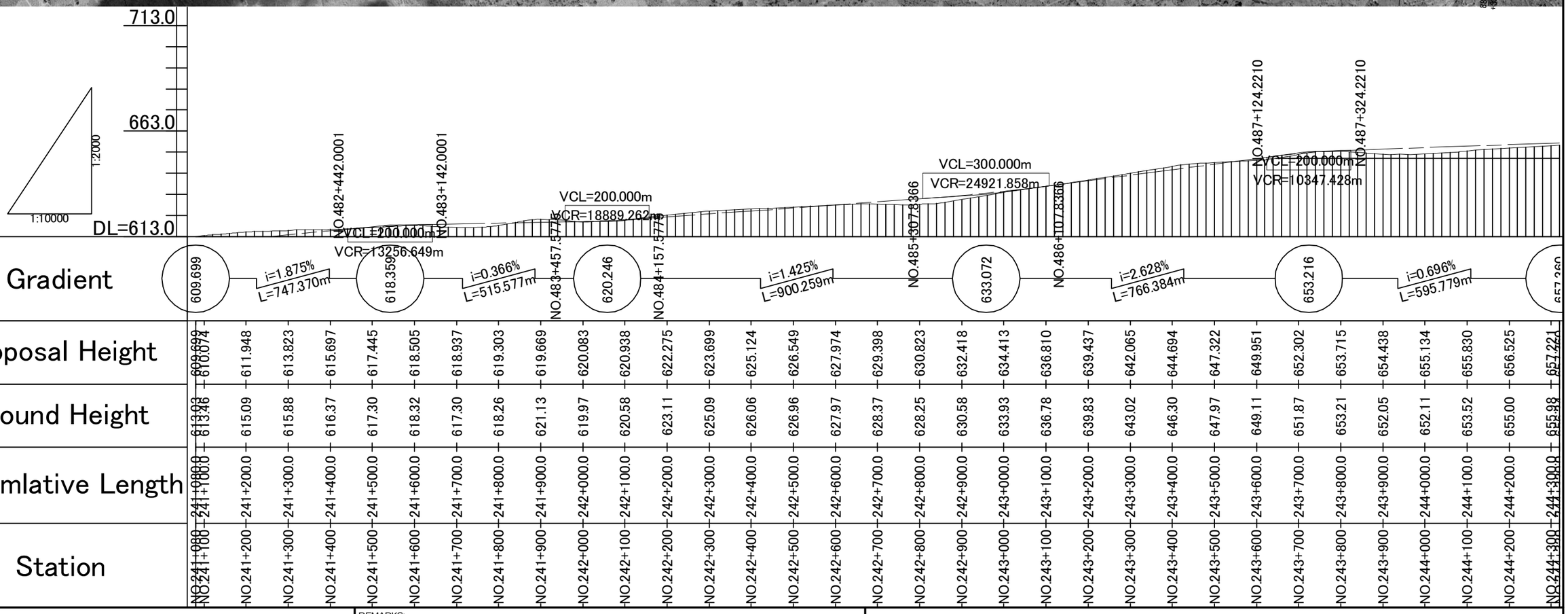
NAME			
SIGNATURE			
DATE			

DRAWING TITLE

Plan and Profile (80/115)

SCALE	SHEET NO.	DRAWING NO.	REV. NO.
1: 10,000		81	-





JICA JAPAN INTERNATIONAL COOPERATION AGENCY

ANE NATIONAL ROAD ADMINISTRATION

REMARKS:

THE STUDY ON UPGRADING OF NAMPULA - CUAMBA ROAD

ORINTAL CONSULTANTS CO., LTD.
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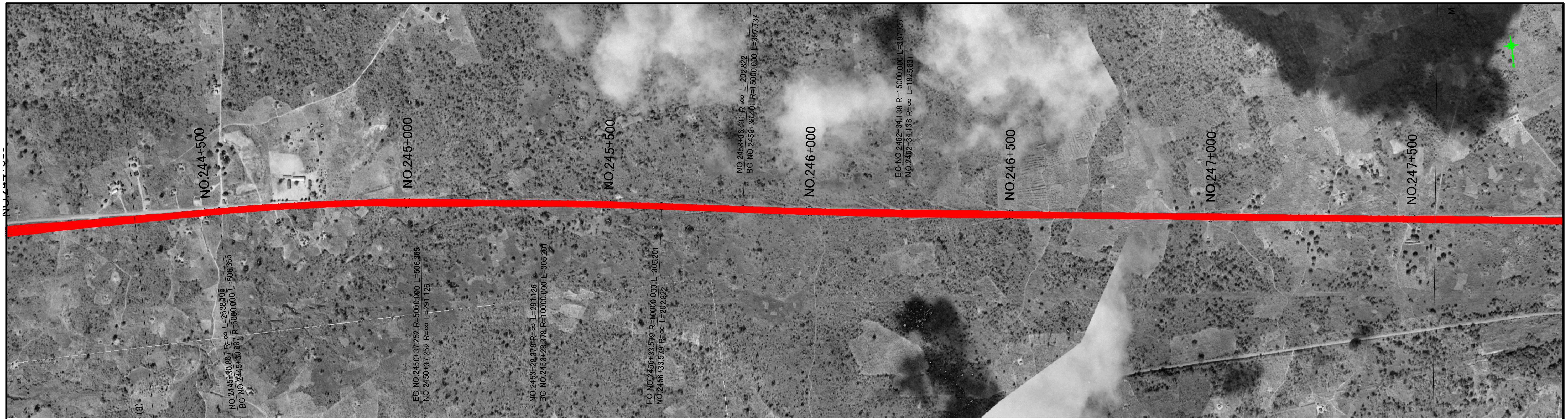
DRAWING TITLE

Plan and Profile (81/115)

SCALE	SHEET NO.	DRAWING NO.	REV. NO.
1: 10,000		82	-



Gradient: 657.360 — i=0.696% L=1027.372m — 660.362 — i=1.399% L=368.026m — 655.213 — i=1.734% L=1788.778m — 686.224 — i=2.189% L=651.603m — 671.950

Station	Accumlative Length	Ground Height	Proposal Height
NO.244+320	244+320.0	656.24	657.360
NO.244+400	244+400.0	657.37	657.917
NO.244+500	244+500.0	658.96	658.612
NO.244+600	244+600.0	659.02	659.308
NO.244+700	244+700.0	659.84	659.881
NO.244+800	244+800.0	659.41	659.546
NO.244+900	244+900.0	657.83	658.286
NO.245+000	245+000.0	655.54	656.887
NO.245+100	245+100.0	655.07	655.994
NO.245+200	245+200.0	656.66	656.637
NO.245+300	245+300.0	658.93	658.340
NO.245+400	245+400.0	660.13	660.074
NO.245+500	245+500.0	662.44	661.807
NO.245+600	245+600.0	663.51	663.541
NO.245+700	245+700.0	665.62	665.275
NO.245+800	245+800.0	666.92	667.008
NO.245+900	245+900.0	668.33	668.742
NO.246+000	246+000.0	669.97	670.476
NO.246+100	246+100.0	671.43	672.209
NO.246+200	246+200.0	672.97	673.943
NO.246+300	246+300.0	674.55	675.676
NO.246+400	246+400.0	676.34	677.410
NO.246+500	246+500.0	678.42	679.144
NO.246+600	246+600.0	680.48	680.877
NO.246+700	246+700.0	682.36	682.611
NO.246+800	246+800.0	683.74	684.231
NO.246+900	246+900.0	684.51	684.767
NO.247+000	247+000.0	683.27	683.995
NO.247+100	247+100.0	681.52	682.029
NO.247+200	247+200.0	679.67	679.840
NO.247+300	247+300.0	677.25	677.651
NO.247+400	247+400.0	675.35	675.462
NO.247+500	247+500.0	673.22	673.272
NO.247+560	247+560.0	[illegible]	[illegible]

JAPAN INTERNATIONAL COOPERATION AGENCY

NATIONAL ROAD ADMINISTRATION

REMARKS:

THE STUDY ON UPGRADING OF NAMPULA - CUAMBA ROAD

ORINTAL CONSULTANTS CO., LTD.
JAPAN ENGINEERING CONSULTANTS CO., LTD.

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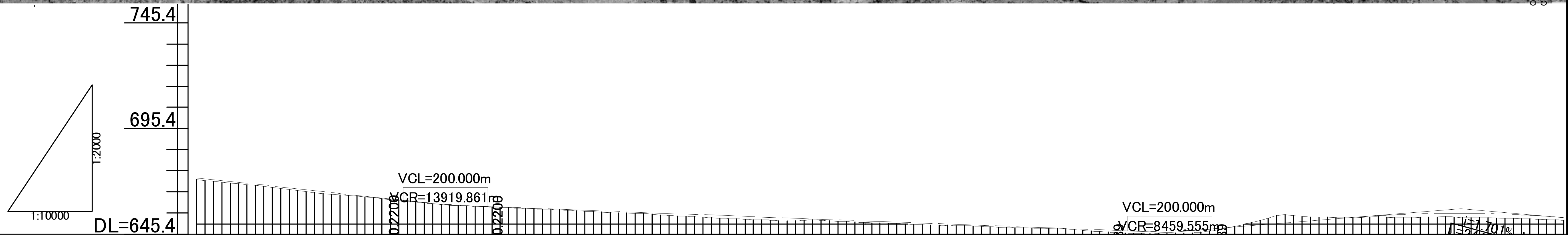
NAME			
SIGNATURE			
DATE			

DRAWING TITLE

Plan and Profile (82/115)

SCALE	SHEET NO.	DRAWING NO.	REV. NO.
1: 10,000		83	-



Gradient: 671.959 — i=2.189% L=1241.823m — NO.496+50.2200 — 659.038 — NO.496+250.2200 — i=0.752% L=1716.169m — NO.499+266.388 — 646.125 — NO.499+466.388 — i=1.612% L=689.297m — 657.235 — i=1.701% L=244.314m — 653.080

Station	Accumlative Length	Ground Height	Proposal Height
NO.247+560	247+560.0	671.20	671.959
NO.247+600	247+600.0	670.31	671.083
NO.247+700	247+700.0	668.29	668.894
NO.247+800	247+800.0	665.85	666.705
NO.247+900	247+900.0	663.74	664.516
NO.248+000	248+000.0	662.00	662.326
NO.248+100	248+100.0	660.06	660.226
NO.248+200	248+200.0	658.53	658.754
NO.248+300	248+300.0	657.76	657.911
NO.248+400	248+400.0	656.96	657.158
NO.248+500	248+500.0	655.95	656.406
NO.248+600	248+600.0	655.06	655.654
NO.248+700	248+700.0	653.89	654.901
NO.248+800	248+800.0	652.80	654.149
NO.248+900	248+900.0	652.00	653.396
NO.249+000	249+000.0	651.82	652.644
NO.249+100	249+100.0	651.24	651.892
NO.249+200	249+200.0	650.38	651.139
NO.249+300	249+300.0	649.53	650.387
NO.249+400	249+400.0	649.14	649.634
NO.249+500	249+500.0	648.37	648.882
NO.249+600	249+600.0	648.04	648.129
NO.249+700	249+700.0	646.46	647.377
NO.249+800	249+800.0	645.42	646.691
NO.249+900	249+900.0	645.69	646.927
NO.250+000	250+000.0	648.15	648.279
NO.250+100	250+100.0	652.85	649.890
NO.250+200	250+200.0	653.40	651.502
NO.250+300	250+300.0	653.12	653.114
NO.250+400	250+400.0	653.06	654.431
NO.250+500	250+500.0	653.42	655.087
NO.250+600	250+600.0	653.12	655.080
NO.250+700	250+700.0	652.65	654.411
NO.250+800	250+800.0	[illegible]	[illegible]

JAPAN INTERNATIONAL COOPERATION AGENCY

NATIONAL ROAD ADMINISTRATION

REMARKS:

THE STUDY ON UPGRADING OF NAMPULA - CUAMBA ROAD

ORINTAL CONSULTANTS CO., LTD.
JAPAN ENGINEERING CONSULTANTS CO., LTD.

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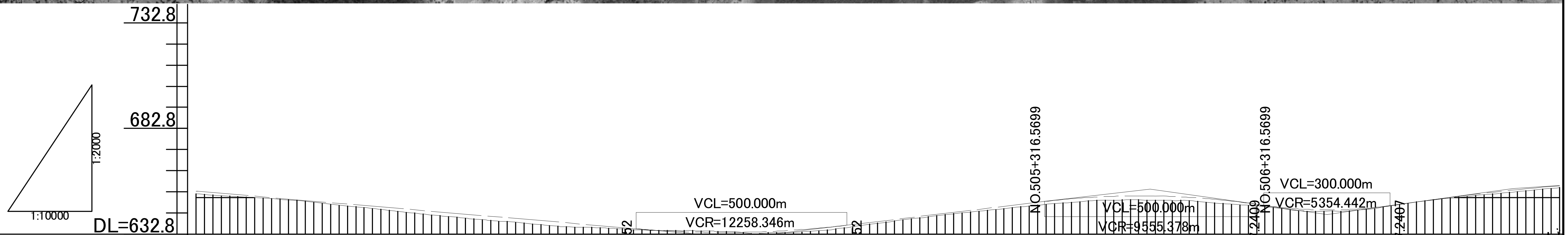
NAME			
SIGNATURE			
DATE			

DRAWING TITLE: Plan and Profile (83/115)

SCALE	SHEET NO.	DRAWING NO.	REV. NO.
1: 10,000		84	-



Gradient: 653.080 — i=1.701% L=1540.459m — 631.038 — i=2.378% L=970.425m — 654.116 — i=2.858% L=420.671m — 642.109 — i=2.748% L=441.458m — 654.242 — 655.748

Station	Accumlative Length	Ground Height	Proposal Height
NO.250+800	250+800.0	651.83	653.079
NO.250+900	250+900.0	650.46	651.380
NO.251+000	251+000.0	649.23	649.679
NO.251+100	251+100.0	647.38	647.978
NO.251+200	251+200.0	645.29	646.278
NO.251+300	251+300.0	643.11	644.577
NO.251+400	251+400.0	641.10	642.876
NO.251+500	251+500.0	639.19	641.176
NO.251+600	251+600.0	637.60	639.475
NO.251+700	251+700.0	636.01	637.775
NO.251+800	251+800.0	635.30	636.074
NO.251+900	251+900.0	634.53	634.492
NO.252+000	252+000.0	634.27	633.638
NO.252+100	252+100.0	633.51	633.600
NO.252+200	252+200.0	633.49	634.379
NO.252+300	252+300.0	634.68	635.972
NO.252+400	252+400.0	637.46	638.264
NO.252+500	252+500.0	639.99	640.642
NO.252+600	252+600.0	642.41	643.020
NO.252+700	252+700.0	644.38	645.399
NO.252+800	252+800.0	646.45	647.777
NO.252+900	252+900.0	648.12	649.791
NO.253+000	253+000.0	648.91	650.773
NO.253+100	253+100.0	648.75	650.708
NO.253+200	253+200.0	647.85	649.597
NO.253+300	253+300.0	646.35	647.439
NO.253+400	253+400.0	644.30	644.967
NO.253+500	253+500.0	643.69	644.218
NO.253+600	253+600.0	644.89	645.337
NO.253+700	253+700.0	647.92	647.956
NO.253+800	253+800.0	650.20	650.616
NO.253+900	253+900.0	652.14	652.941
NO.254+000	254+000.0	654.02	654.918
NO.254+040	254+040.0	[illegible]	[illegible]

JAPAN INTERNATIONAL COOPERATION AGENCY

NATIONAL ROAD ADMINISTRATION

REMARKS:

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ORINTAL CONSULTANTS CO., LTD.
JAPAN ENGINEERING CONSULTANTS CO., LTD.

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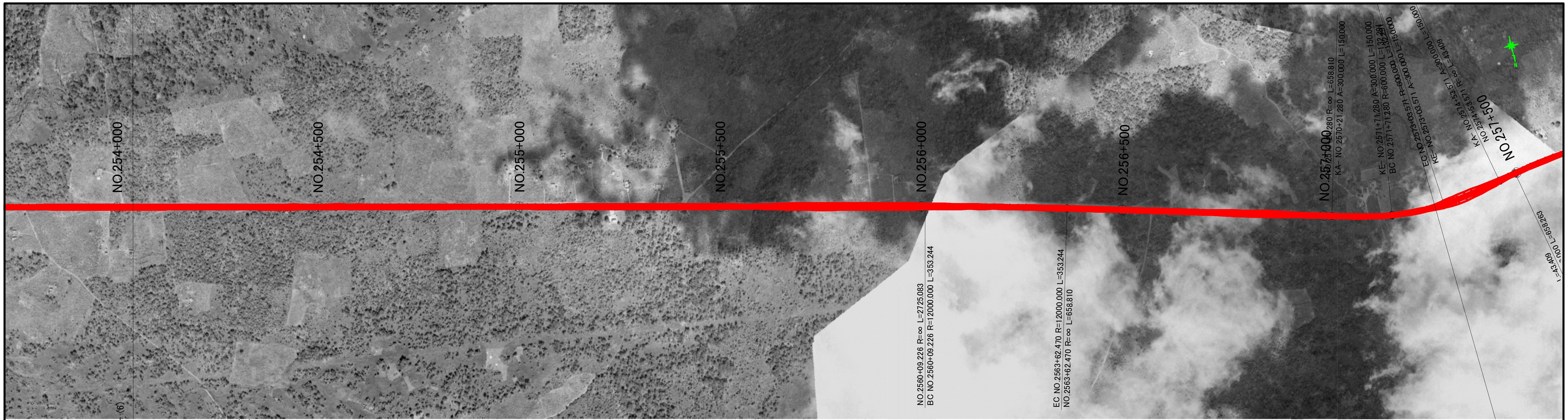
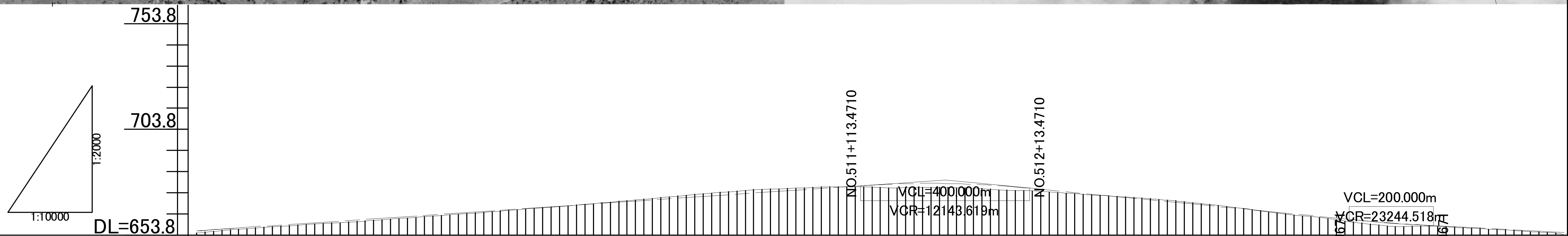
NAME			
SIGNATURE			
DATE			

DRAWING TITLE: Plan and Profile (84/115)

SCALE	SHEET NO.	DRAWING NO.	REV. NO.
1: 10,000		85	-





Gradient: 655.748 — i=1.353% L=1884.773m — 679.750 — i=1.941% L=1056.596m — NO.513+270.067 — 659.247 — NO.513+470.067 — i=1.080% L=409.933m — 654.81[illegible]

Proposal Height	655.611	656.546	657.913	659.267	660.620	661.974	663.327	664.680	666.034	667.387	668.741	670.094
Ground Height	654.73	655.85	657.39	658.65	659.82	661.27	662.60	664.12	665.71	667.18	668.94	670.67
Accumlative Length	254+040.0	254+100.0	254+200.0	254+300.0	254+400.0	254+500.0	254+600.0	254+700.0	254+800.0	254+900.0	255+000.0	255+100.0
Station	NO.254+040	NO.254+100	NO.254+200	NO.254+300	NO.254+400	NO.254+500	NO.254+600	NO.254+700	NO.254+800	NO.254+900	NO.255+000	NO.255+100

Proposal Height	671.447	672.801	674.154	675.508	676.861	677.906	678.135	677.541	676.123	674.190	672.250	670.309
Ground Height	672.48	674.16	675.46	676.23	676.39	676.11	676.31	675.67	674.75	673.55	672.26	670.86
Accumlative Length	255+200.0	255+300.0	255+400.0	255+500.0	255+600.0	255+700.0	255+800.0	255+900.0	256+000.0	256+100.0	256+200.0	256+300.0
Station	NO.255+200	NO.255+300	NO.255+400	NO.255+500	NO.255+600	NO.255+700	NO.255+800	NO.255+900	NO.256+000	NO.256+100	NO.256+200	NO.256+300

Proposal Height	668.369	666.428	664.488	662.547	660.626	659.029	657.844	656.763	655.683	654.81[illegible]
Ground Height	669.04	666.69	664.13	662.04	659.33	657.78	657.56	656.53	655.29	653.7[illegible]
Accumlative Length	256+400.0	256+500.0	256+600.0	256+700.0	256+800.0	256+900.0	257+000.0	257+100.0	257+200.0	257+300.0
Station	NO.256+400	NO.256+500	NO.256+600	NO.256+700	NO.256+800	NO.256+900	NO.257+000	NO.257+100	NO.257+200	NO.257+300

JAPAN INTERNATIONAL COOPERATION AGENCY

NATIONAL ROAD ADMINISTRATION

REMARKS:

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ORINTAL CONSULTANTS CO., LTD.
JAPAN ENGINEERING CONSULTANTS CO., LTD.

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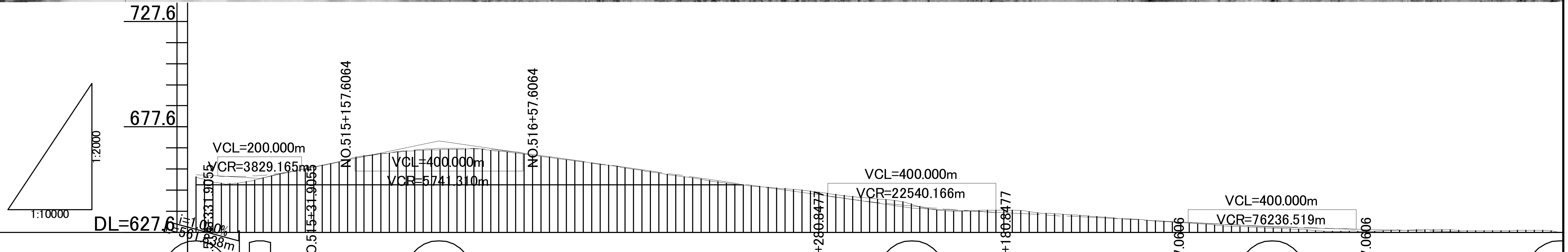
DATE			

DRAWING TITLE

Plan and Profile (85/115)

SCALE	SHEET NO.	DRAWING NO.	REV. NO.
1: 10,000		86	-



Gradient: 654.819 | NO.514+331.9055 | i=1.080% L=561.538m | 653.179 | NO.515+31.9055 | i=4.143% L=425.701m | 670.815 | i=2.824% L=1123.241m | NO.517+280.8477 | 639.094 | NO.518+180.8477 | i=1.049% L=856.213m | NO.519+137.0606 | 630.109 | NO.520+37.0606 | i=0.525% L=682.939m | 626.525

Station	Accumlative Length	Ground Height	Proposal Height
NO.257+280	257+280.0	653.76	654.819
NO.257+300	257+300.0	652.61	654.603
NO.257+400	257+400.0	651.52	654.129
NO.257+500	257+500.0	656.06	656.133
NO.257+600	257+600.0	660.03	660.143
NO.257+700	257+700.0	664.38	664.129
NO.257+800	257+800.0	666.25	666.663
NO.257+900	257+900.0	666.93	667.455
NO.258+000	258+000.0	665.97	666.505
NO.258+100	258+100.0	663.48	663.970
NO.258+200	258+200.0	660.94	661.146
NO.258+300	258+300.0	658.09	658.322
NO.258+400	258+400.0	655.01	655.498
NO.258+500	258+500.0	652.04	652.674
NO.258+600	258+600.0	649.56	649.850
NO.258+700	258+700.0	647.86	647.026
NO.258+800	258+800.0	645.44	644.210
NO.258+900	258+900.0	643.36	641.692
NO.259+000	259+000.0	639.70	639.619
NO.259+100	259+100.0	637.53	637.989
NO.259+200	259+200.0	638.14	636.794
NO.259+300	259+300.0	636.55	635.745
NO.259+400	259+400.0	635.30	634.696
NO.259+500	259+500.0	633.88	633.646
NO.259+600	259+600.0	632.37	632.597
NO.259+700	259+700.0	630.98	631.573
NO.259+800	259+800.0	629.81	630.672
NO.259+900	259+900.0	628.98	629.902
NO.260+000	260+000.0	627.90	629.263
NO.260+100	260+100.0	628.31	628.729
NO.260+200	260+200.0	628.72	628.204
NO.260+300	260+300.0	628.22	627.679
NO.260+400	260+400.0	628.30	627.155
NO.260+500	260+500.0	628.24	626.630

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JAPAN ENGINEERING CONSULTANTS CO., LTD.

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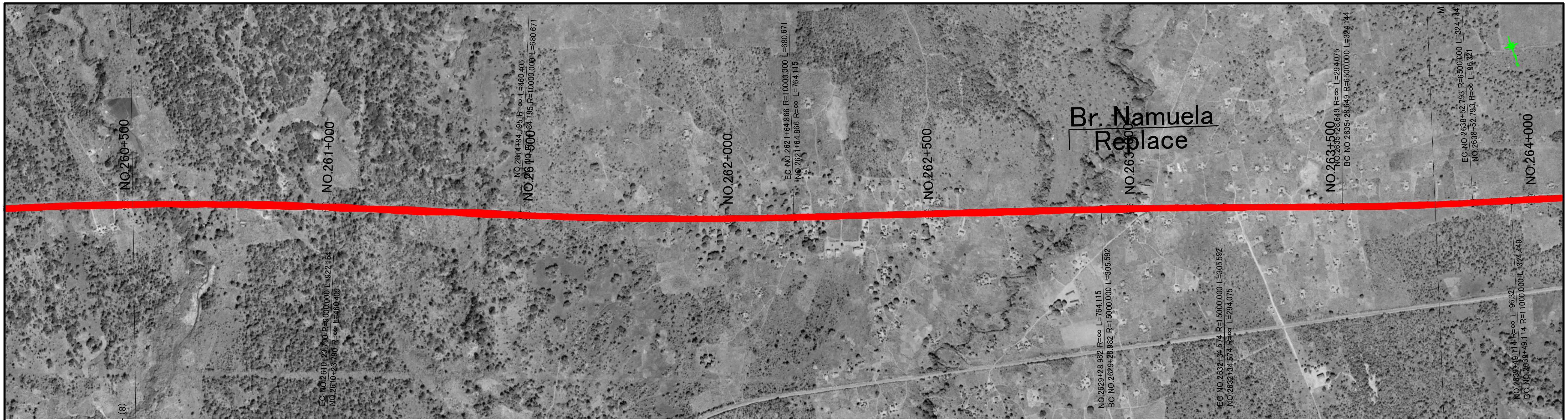
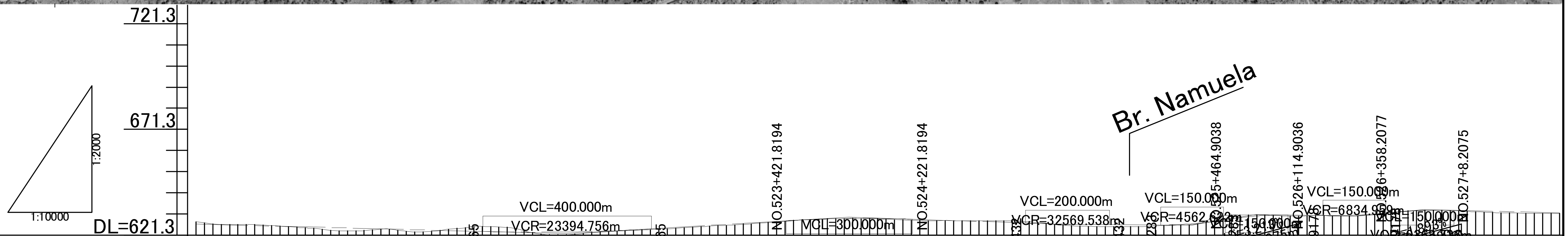
DATE			

DRAWING TITLE: Plan and Profile (86/115)

SCALE	SHEET NO.	DRAWING NO.	REV. NO.
1: 10,000		87	-





Gradient

Point	Value
(start)	626.525
	i=0.525% L=1564.536m
NO.522+201.5965	621.899
NO.523+101.5965	i=1.185% L=670.223m
	629.841
	i=0.689% L=518.524m
NO.524+490.3433	626.269
NO.525+100.3433	i=0.075% L=296.585m
NO.525+311.9238	626.047
NO.525+461	630.961
	i=0.302% L=232.014m
NO.526+196.9177	630.261
NO.526+346	633.314
	i=0.463% L=326.792m
	631.902

Station	Accumlative Length	Ground Height	Proposal Height
NO.260+520	260+520.0	627.58	626.525
NO.260+600	260+600.0	626.24	626.105
NO.260+700	260+700.0	625.78	625.580
NO.260+800	260+800.0	624.48	625.056
NO.260+900	260+900.0	623.31	624.531
NO.261+000	261+000.0	623.57	624.006
NO.261+100	261+100.0	623.48	623.481
NO.261+200	261+200.0	625.39	622.956
NO.261+300	261+300.0	623.33	622.639
NO.261+400	261+400.0	621.45	622.748
NO.261+500	261+500.0	622.85	623.285
NO.261+600	261+600.0	623.88	624.250
NO.261+700	261+700.0	625.02	625.435
NO.261+800	261+800.0	626.07	626.620
NO.261+900	261+900.0	627.50	627.805
NO.262+000	262+000.0	628.80	628.799
NO.262+100	262+100.0	629.07	629.183
NO.262+200	262+200.0	628.47	628.943
NO.262+300	262+300.0	628.15	628.269
NO.262+400	262+400.0	627.94	627.580
NO.262+500	262+500.0	627.51	626.892
NO.262+600	262+600.0	625.69	626.387
NO.262+700	262+700.0	625.35	626.187
NO.262+800	262+800.0	625.56	626.112
NO.262+900	262+900.0	626.61	626.887
NO.263+000	263+000.0	630.90	629.535
NO.263+100	263+100.0	630.40	630.754
NO.263+200	263+200.0	630.59	630.479
NO.263+300	263+300.0	630.63	630.953
NO.263+400	263+400.0	632.68	632.548
NO.263+500	263+500.0	632.82	632.999
NO.263+600	263+600.0	631.98	632.542
NO.263+700	263+700.0	631.50	632.079
[illegible]	[illegible]	[illegible]	[illegible]

JAPAN INTERNATIONAL COOPERATION AGENCY

NATIONAL ROAD ADMINISTRATION

REMARKS:

THE STUDY ON UPGRADING OF NAMPULA - CUAMBA ROAD

ORINTAL CONSULTANTS CO., LTD.
JAPAN ENGINEERING CONSULTANTS CO., LTD.

	PREPARED BY	CHECKED BY	APPROVED BY
NAME			
SIGNATURE			
DATE			

DRAWING TITLE

Plan and Profile (87/115)

SCALE	SHEET NO.	DRAWING NO.	REV. NO.
1: 10,000		88	-