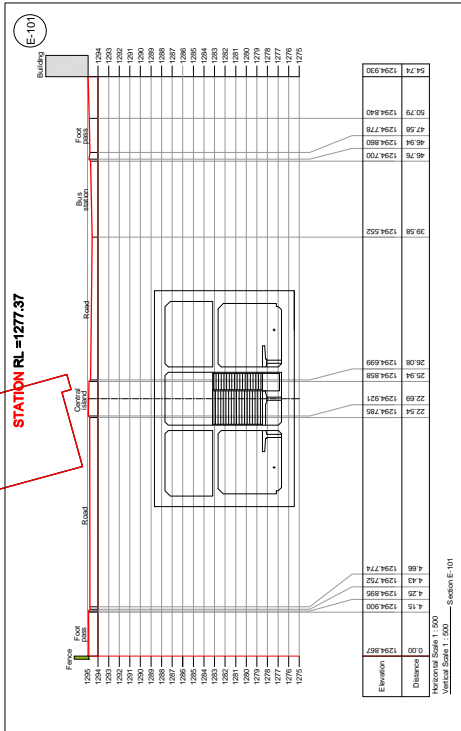
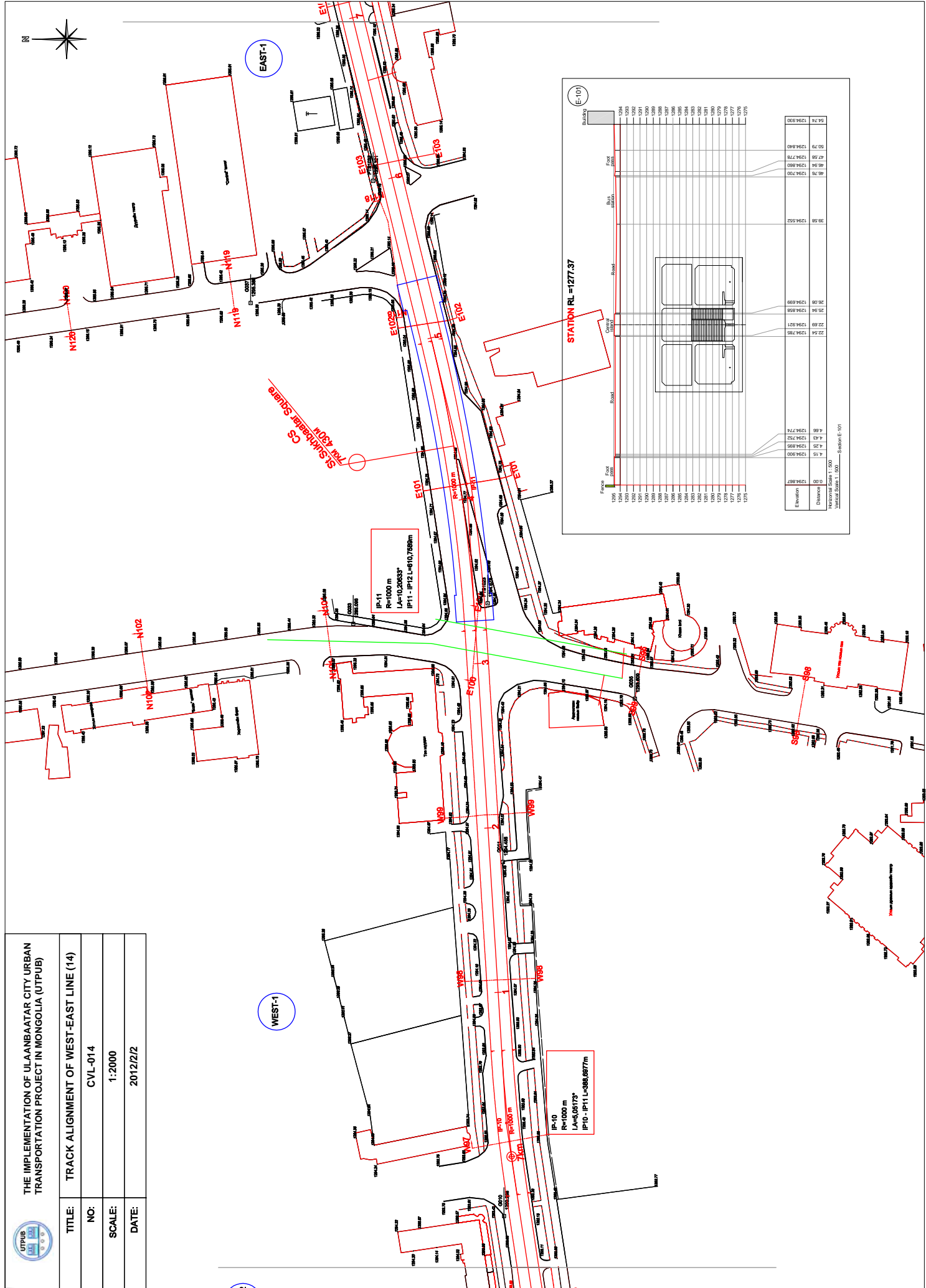




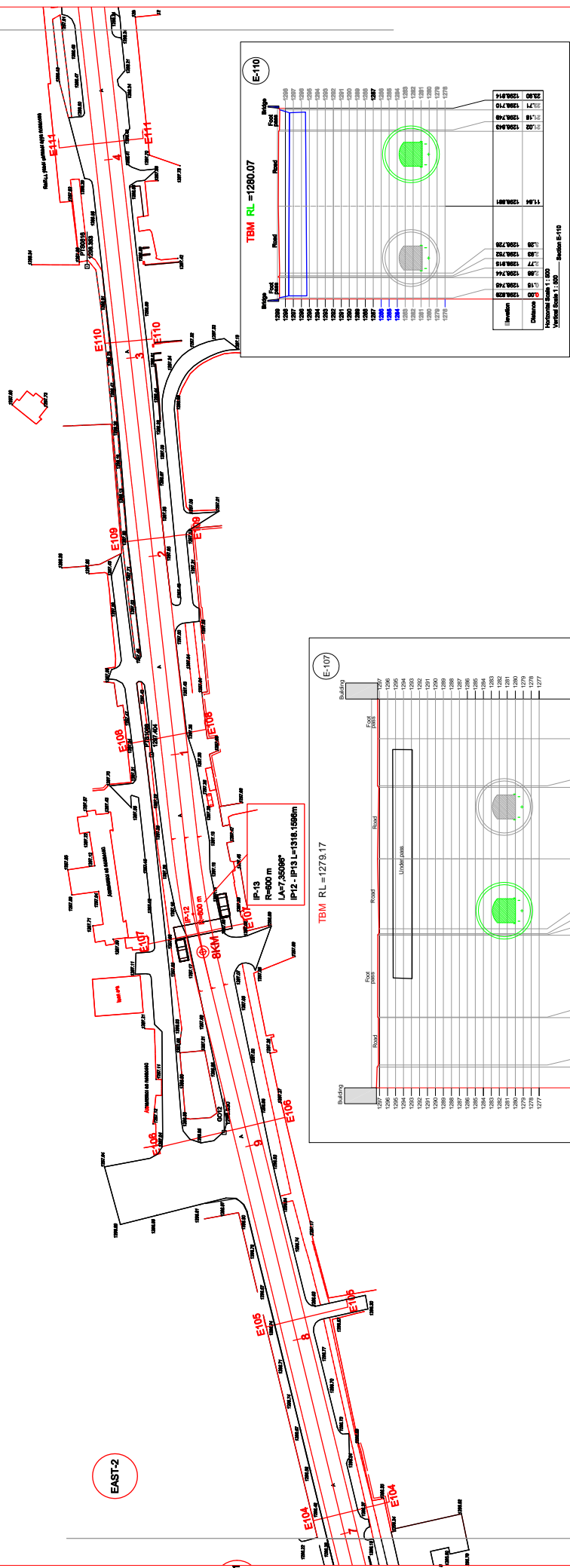
THE IMPLEMENTATION OF ULAANBAATAR CITY URBAN  
TRANSPORTATION PROJECT IN MONGOLIA (UTPUB)

TITLE:	TRACK ALIGNMENT OF WEST-EAST LINE (14)
NO:	CVL-014
SCALE:	1:2000
DATE:	2012/2/2

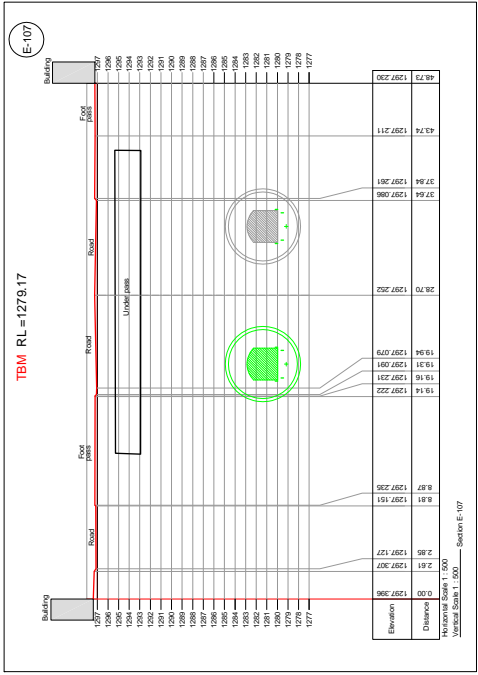
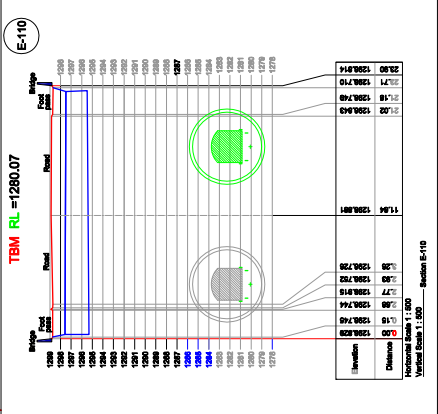




EAST-3

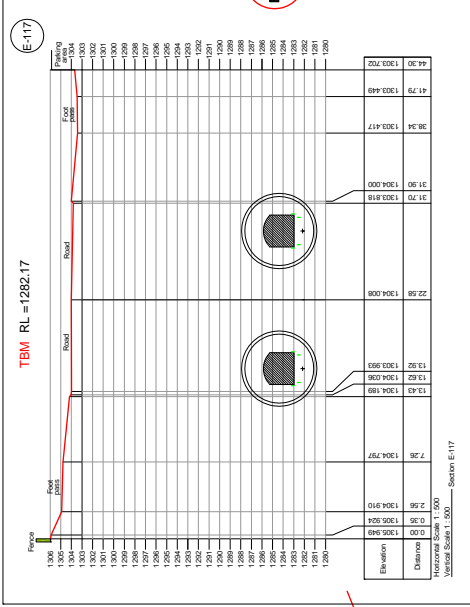
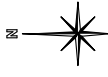


EAST-2



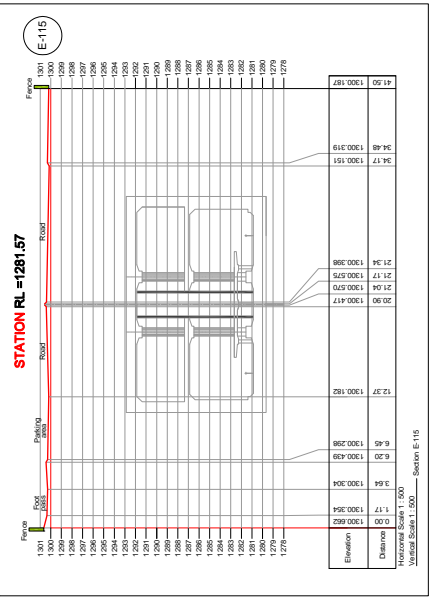
THE IMPLEMENTATION OF ULAANBAATAR CITY URBAN TRANSPORTATION PROJECT IN MONGOLIA (UTPUB)

TITLE:	TRACK ALIGNMENT OF WEST-EAST LINE (15)
NO:	CVL-015
SCALE:	1:2000
DATE:	2012/2/2

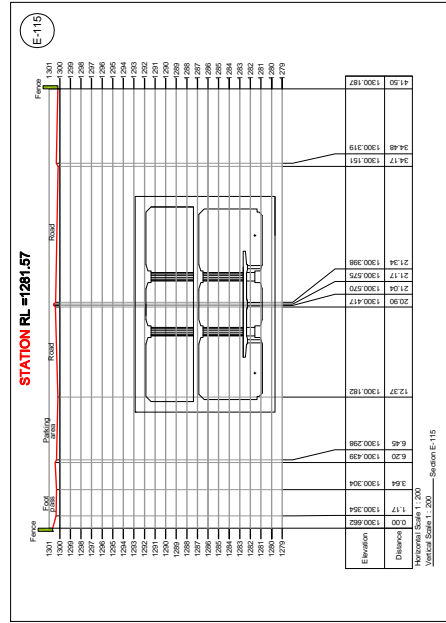
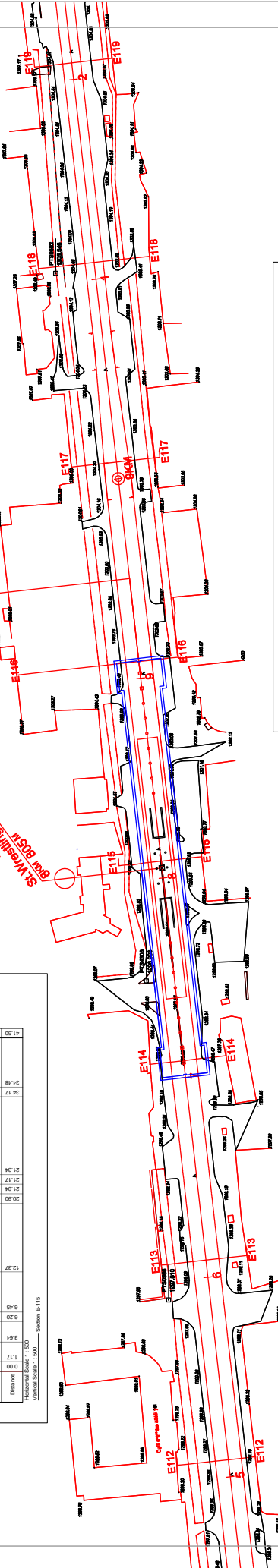


EAST-5

3%  
RL=1282.00  
9x=95.0M



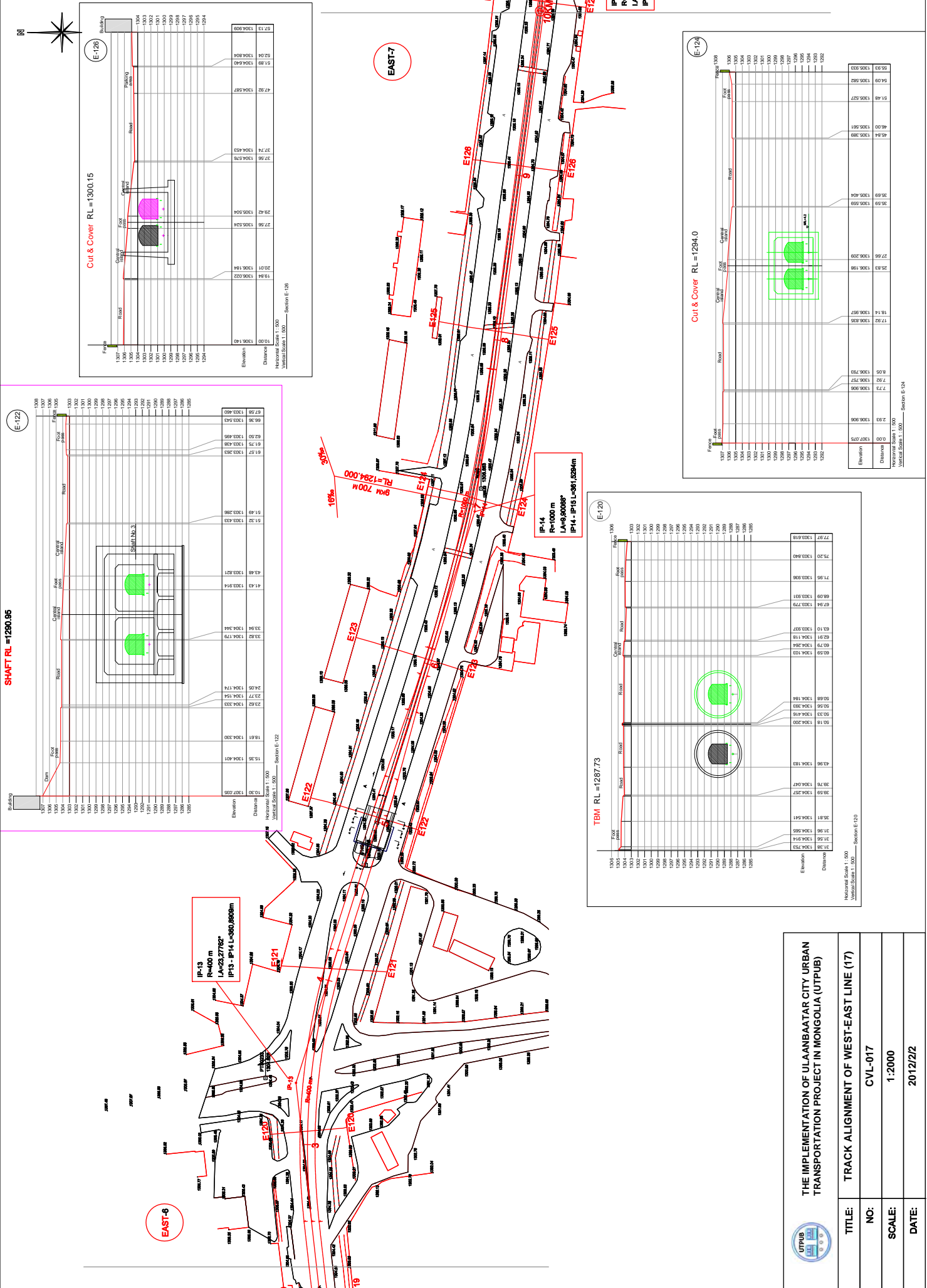
EAST-4  
ST. Winding Place  
Rd. R3051



STATION RL=1281.57

UTPUB  
THE IMPLEMENTATION OF ULAANBAATAR CITY URBAN  
TRANSPORTATION PROJECT IN MONGOLIA (UTPUB)

TITLE:	TRACK ALIGNMENT OF WEST-EAST LINE (16)
NO:	CVL-016
SCALE:	1:2000
DATE:	2012/2/2



**E-122**

SHAF-T RL = 1290.85

Station	1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311	1312	1313	1314	1315	1316	1317	1318	1319	1320	
Elevation	1307.80	1308.01	1308.21	1308.41	1308.61	1308.81	1309.01	1309.21	1309.41	1309.61	1309.81	1310.01	1310.21	1310.41	1310.61	1310.81	1311.01	1311.21	1311.41	1311.61	1311.81	1312.01
Distance	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	

**E-123**

Station	1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311	1312	1313	1314	1315	1316	1317	1318	1319	1320	
Elevation	1307.80	1308.01	1308.21	1308.41	1308.61	1308.81	1309.01	1309.21	1309.41	1309.61	1309.81	1310.01	1310.21	1310.41	1310.61	1310.81	1311.01	1311.21	1311.41	1311.61	1311.81	1312.01
Distance	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	

**E-120**

TBM RL = 1287.73

Station	1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311	1312	1313	1314	1315	1316	1317	1318	1319	1320	
Elevation	1307.80	1308.01	1308.21	1308.41	1308.61	1308.81	1309.01	1309.21	1309.41	1309.61	1309.81	1310.01	1310.21	1310.41	1310.61	1310.81	1311.01	1311.21	1311.41	1311.61	1311.81	1312.01
Distance	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	

**E-121**

IP-13 R=400 m LA=23.27782°  
IP13 - IP14 L=480.8808m

Station	1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311	1312	1313	1314	1315	1316	1317	1318	1319	1320	
Elevation	1307.80	1308.01	1308.21	1308.41	1308.61	1308.81	1309.01	1309.21	1309.41	1309.61	1309.81	1310.01	1310.21	1310.41	1310.61	1310.81	1311.01	1311.21	1311.41	1311.61	1311.81	1312.01
Distance	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	

**E-122**

SHAF-T RL = 1290.85

Station	1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311	1312	1313	1314	1315	1316	1317	1318	1319	1320	
Elevation	1307.80	1308.01	1308.21	1308.41	1308.61	1308.81	1309.01	1309.21	1309.41	1309.61	1309.81	1310.01	1310.21	1310.41	1310.61	1310.81	1311.01	1311.21	1311.41	1311.61	1311.81	1312.01
Distance	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	

**E-124**

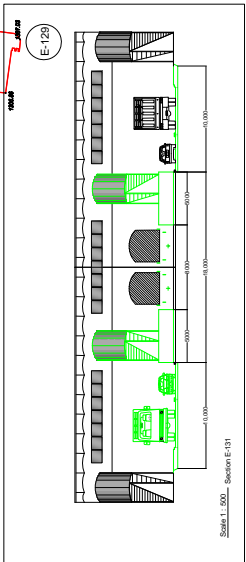
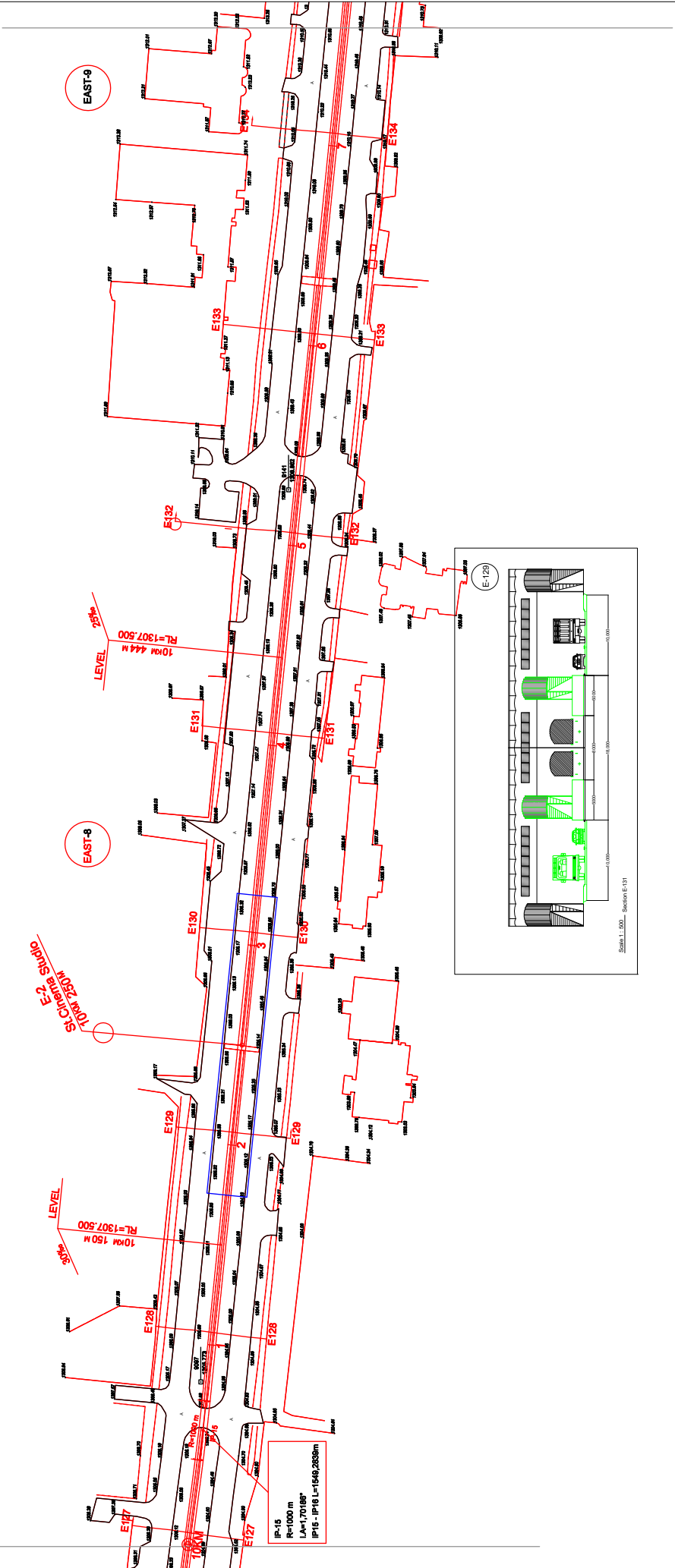
Cut & Cover RL = 1294.0


Station	1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311	1312	1313	1314	1315	1316	1317	1318	1319	1320	
Elevation	1307.80	1308.01	1308.21	1308.41	1308.61	1308.81	1309.01	1309.21	1309.41	1309.61	1309.81	1310.01	1310.21	1310.41	1310.61	1310.81	1311.01	1311.21	1311.41	1311.61	1311.81	1312.01
Distance	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	

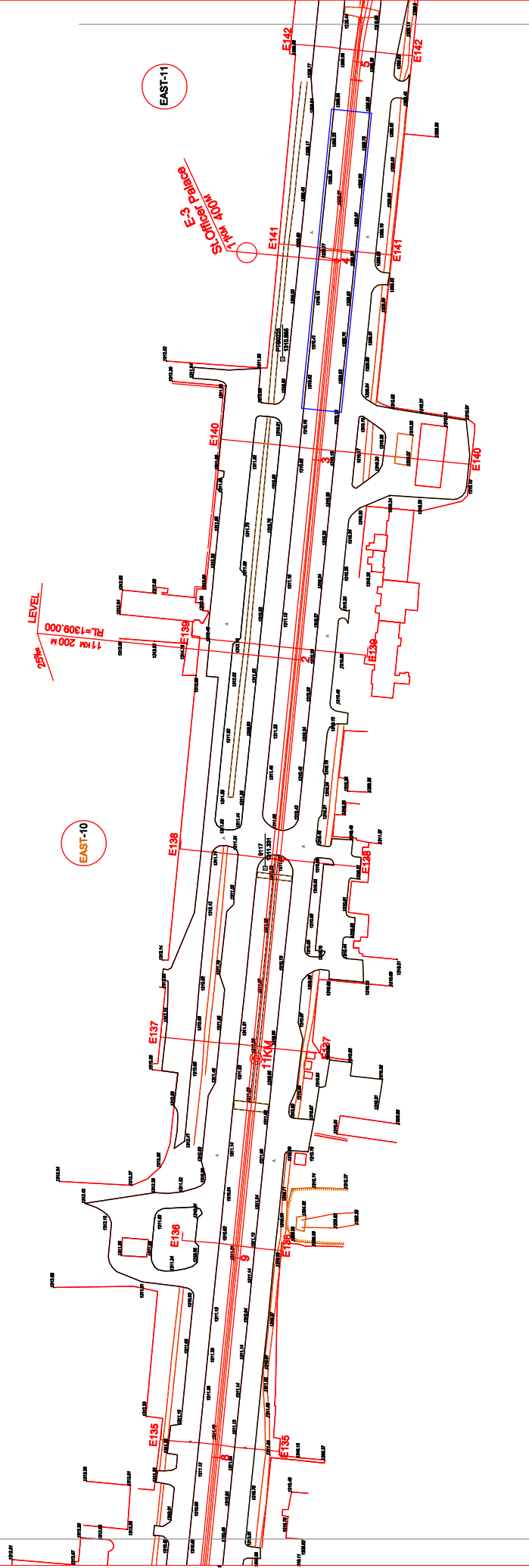
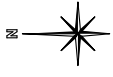
UTPUS  
U T P U S

THE IMPLEMENTATION OF ULAANBAATAR CITY URBAN TRANSPORTATION PROJECT IN MONGOLIA (UTPUB)

TITLE:	TRACK ALIGNMENT OF WEST-EAST LINE (17)
NO:	CVL-017
SCALE:	1:2000
DATE:	2012/2/2



 THE IMPLEMENTATION OF ULAANBAATAR CITY URBAN TRANSPORTATION PROJECT IN MONGOLIA (UTPUB)	
TITLE:	TRACK ALIGNMENT OF WEST-EAST LINE (18)
NO:	CVL-018
SCALE:	1:2000
DATE:	2012/2/2



THE IMPLEMENTATION OF ULAANBAATAR CITY URBAN TRANSPORTATION PROJECT IN MONGOLIA (UTPUB)

TITLE:	TRACK ALIGNMENT OF WEST-EAST LINE (19)
NO:	CVL-019
SCALE:	1:2000
DATE:	2012/2/2



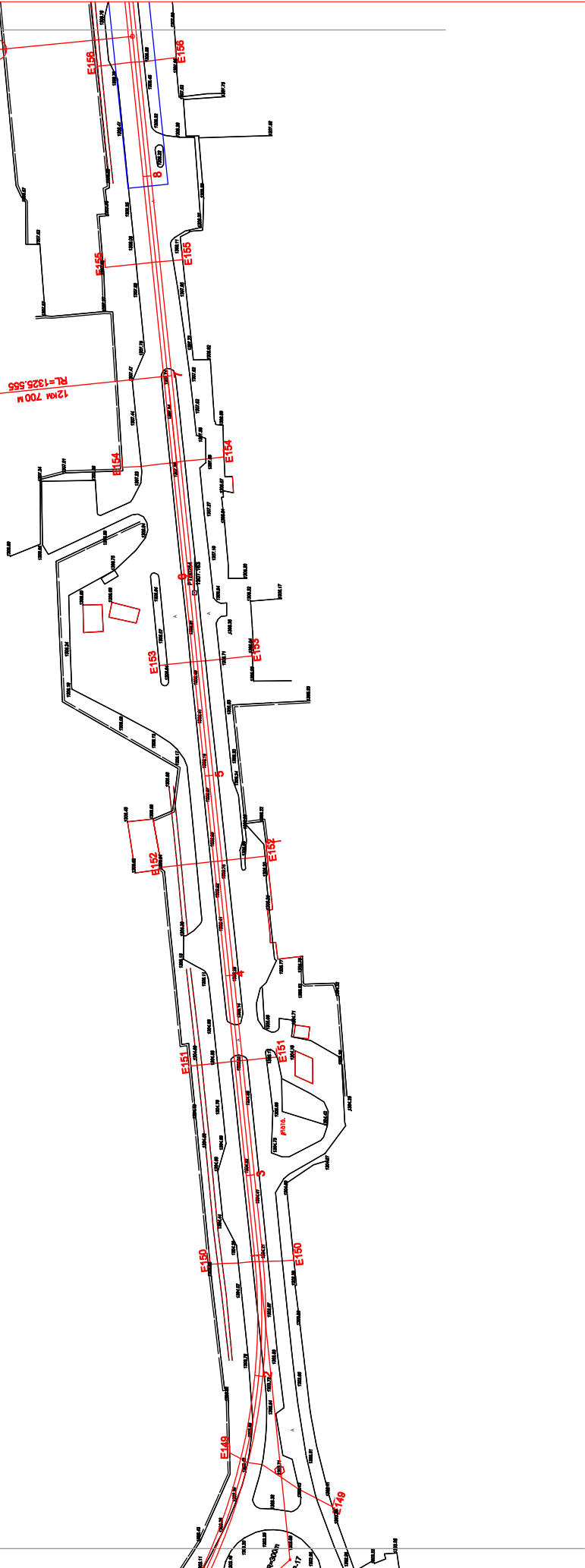


EAST-16

УБАН  
ТЭМ  
СЭЛЭ  
Э

EAST-14

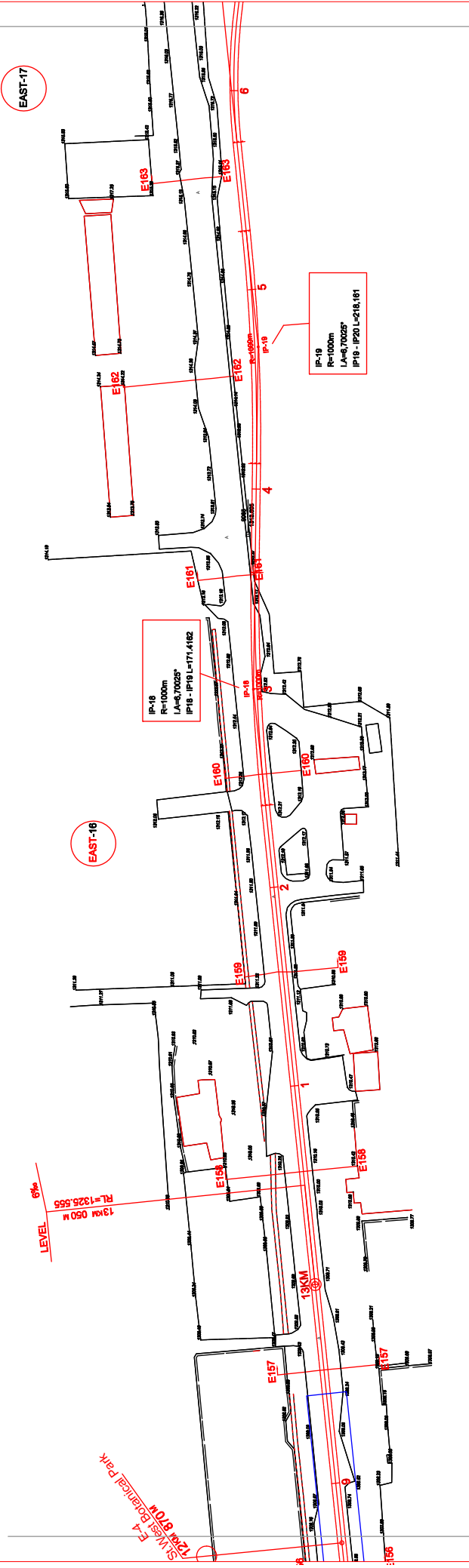
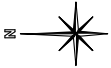
1% LEVEL  
RL=1325.555  
12km 700m



THE IMPLEMENTATION OF ULAANBAATAR CITY URBAN  
TRANSPORTATION PROJECT IN MONGOLIA (UTPUB)

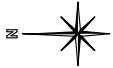
TITLE:	TRACK ALIGNMENT OF WEST-EAST LINE (21)
NO:	CVL-021
SCALE:	1:2000
DATE:	2012/2/2





THE IMPLEMENTATION OF ULAANBAATAR CITY URBAN TRANSPORTATION PROJECT IN MONGOLIA (UTPUB)

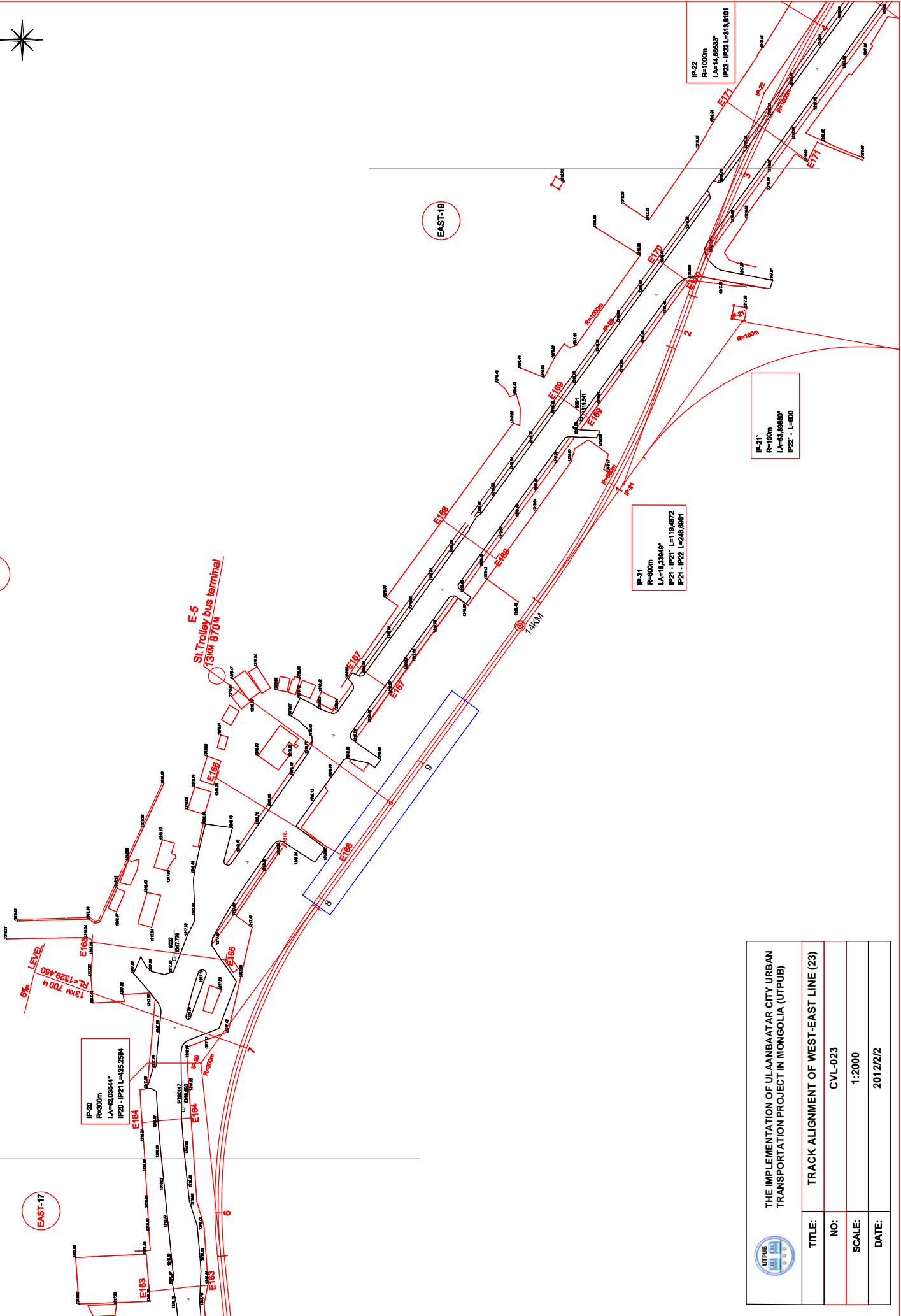
TITLE:	TRACK ALIGNMENT OF WEST-EAST LINE (22)
NO:	CVL-022
SCALE:	1:2000
DATE:	2012/2/26



EAST-18

EAST-17

EAST-19




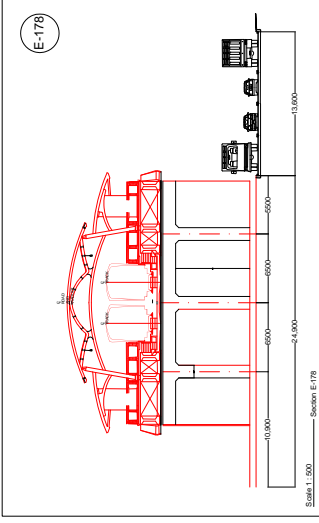
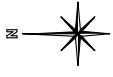
IP-20  
R=500m  
LA=42.03544°  
IP20 - IP21 L=425.2694

IP-21  
R=500m  
LA=16.33948°  
IP21 - IP21' L=119.4572  
IP21 - IP22 L=246.6981

IP-21'  
R=100m  
LA=63.69690°  
IP22 - L=800

IP-22  
R=100m  
LA=14.95633°  
IP22 - IP23 L=319.8101

	
THE IMPLEMENTATION OF ULAANBAATAR CITY URBAN TRANSPORTATION PROJECT IN MONGOLIA (UTPUB)	
TITLE:	TRACK ALIGNMENT OF WEST-EAST LINE (23)
NO:	CVL-023
SCALE:	1:2000
DATE:	2012/2/2



EAST-21

EAST-20


IP-22  
R=1000m  
LA=14.65833°  
IPZ2 - IPZ3 L=313.8101

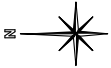
IP-23  
R=1000m  
LA=11.86242°  
IPZ3 - L1

LEVEL 8%  
R=1400 900 M  
RL=1328.430

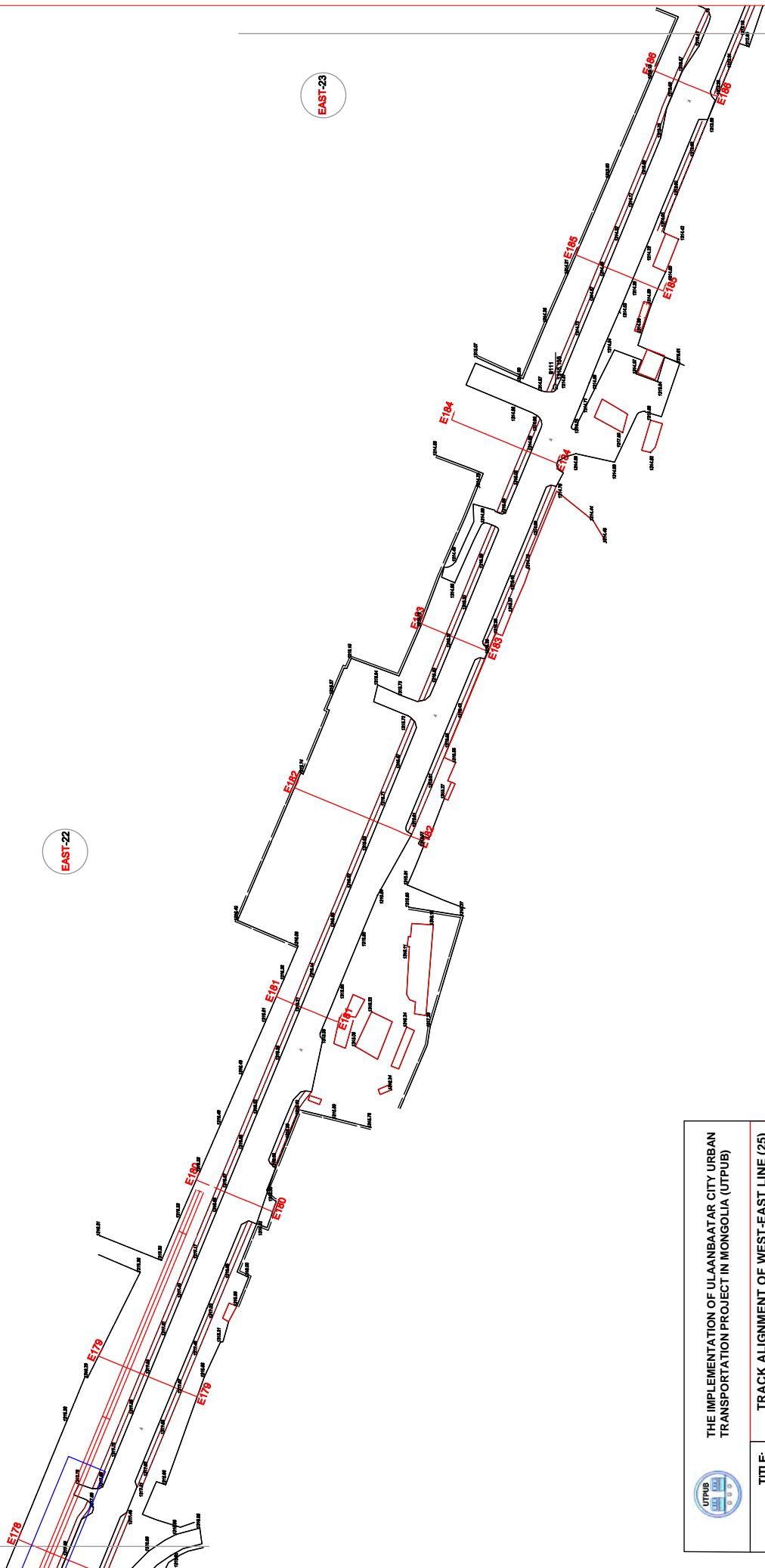
LEVEL 8%  
R=1400 900 M  
RL=1327.050


E-6 Terminal Anggaleen  
15km 000M

	
<p>THE IMPLEMENTATION OF ULAANBAATAR CITY URBAN TRANSPORTATION PROJECT IN MONGOLIA (UTPUB)</p>	
TITLE:	TRACK ALIGNMENT OF WEST-EAST LINE (24)
NO:	CVL-024
SCALE:	1:2000
DATE:	2012/2/2



E-6  
St. Terminal Amgalan  
15km 000m



	
THE IMPLEMENTATION OF ULAANBAATAR CITY URBAN TRANSPORTATION PROJECT IN MONGOLIA (UTPUB)	
TITLE:	TRACK ALIGNMENT OF WEST-EAST LINE (25)
NO:	CVL- 025
SCALE:	1:2000
DATE:	2012/2/2

**Appendix 2**

**Member List**

**of**

**JCC, Working Group and**

**JICA Study Team**

**JOINT COORDINATING COMMITTEE (JCC) I**  
**(From September 2011 to December 2012)**

Chairperson:	Mr. J.Bat-Erdene	State Secretary of MRTCUD
Vice Chairperson:	Mr. B. Munkhbaatar	Vice Mayor of Urban Development and Infrastructure Municipality, UB city
Secretariat:	Mr. Kh.Bulgaa	Head of Transportation Planning Division, Public Transport Department, UB City
	Mr. R.Bayar	Head of Urban Planning and Economy Division, Construction Urban Development Planning Department, UB city
Member:		
Mongolian Side	Mr. B.Mahbal	Director General of Road and Transportation Policy Department, MRTCUD
	Mr. D.Nemehbayar	Director General of Department of Finance and Investment, MRTCUD
	Mr. B.Hurenbaatar	Director General of Financing and Cooperation Department, Ministry of Finance
	Mr. Ch.Hashchuluun	Head of National Development and Innovation Committee
	Mr. E.Hurelbaatar	Head of Construction Urban Development Planning Department, UB city
	Mr. G.Nandinjargal	Head of City Development Policy Department, UB city
	Ms. P.Narantsetseg	Head of Public Transport Department, UB city
	Mr. D.Od	Head of Road Department, UB city
	Ms. E.Ganhuu	Head of State Finance and Treasury Department, UB city
	Mr. Ts.Sandui	Head of Department of Land Administrations, UB city
	Mr. S.Tsahiur	Head of Urban Planning, Architecture and Design Institute of UB city
	Mr. E.Altangerel	Head of Division of Engineering Facilities, UB city
Japanese side	Mr. Toshinori Isogai	Resident Representative, JICA Mongolian Office

**JOINT COORDINATING COMMITTEE (JCC) II**  
**(From January 2013 to May 2013)**

Chairperson:	Mr. B. Batzaya	State Secretary of MRT
Vice Chairperson:	Mr. N. Gantumur	Vice Mayor of Road transportation and Infrastructure Municipality, UB city
Secretariat:	Ms. N. Zolzaya	Senior Specialist of Transport Department, UB city
Member:		
Mongolian Side	Mr. B. Bymbajav	Director General of Strategic Policy and Planning Department, MRT
	Mr. B. Artur	Director of Railway Transportation Policy Implementation and Coordination Division, MRT
	Mr. Ts. Bayarbat	Head of Strategic policy planning Division, UB city
	Mr. T. Dorjhand	Director of Financing Policy and Debt Management Department, MOF
	Mr. G. Bathurel	Vice Director of Development Policy and Strategic Planning and Coordination Department, MED
	Mr. S. Bayarbaatar	Head of Strategic policy planning Division, UB city
	Ms. E. Ganhuu	Head of State Finance and Treasury Department, UB city
	Mr. N. Natsagdorj	Director of Master Planning Department, UB city
	Mr. Ch. Enhbat	Director of Transport Department, UB city
	Mr. D. Nanzaddorj	Director of Road Department, UB city
	Mr. M. Batsaikhan	Vice Director of Property Relations Department, UB city
	Mr. S. Tsahiur	Head of Urban Planning, Architecture and Design Institute of UB city
	Mr. S. Bayar-Ulzii	Head of Division of Engineering Facilities, UB city
Japanese side	Mr. Toshinori Isogai	Resident Representative, JICA Mongolian Office

**TECHNICAL WORKING GROUP I**  
**(From August 2012 to December 2012)**

**Ministry of Road and Transportation**

Mr. B. Artur                      Director of Railway Transportation Policy Implementation and  
Coordination Division, MRT

Mr. B. Zorigtbaatar            Officer of Railway Transportation Policy Implementation and  
Coordination Division, MRT

Mr. R. Batsukh                 Officer of Railway Transportation Policy Implementation and  
Coordination Division, MRT

Ms. T. Munkhtsetseg         Officer of Railway Transportation Policy Implementation and  
Coordination Division, MRT

Mr. J. Bold                        Officer of Railway Transportation Policy Implementation and  
Coordination Division, MRT

Mr. Ch. Erdenedalai          Officer of Road Transportation Control and Registration Department,  
MRT

**Ulaanbaatar City Government**

Mr. N. Gantumur                Vice Mayor of Road Transportation and Infrastructure Municipality, UB  
city

Mr. M. Batsaikhan             Director of Land Affairs Department, UB city

Mr. Ts. Myagmar                Head of Administration Division, Road Department, UB city

Ms. G. Enhtuya                 Head of Construction Quality and Safety Division, Construction Urban  
Development Planning Department, UB city

Mr. H. Bulgaa                  Head of Transportation Planning Division, Public Transport Department,  
UB City

Mr. G. Sugarbat                 Senior Specialist of City Development Policy Department, UB city

**TECHNICAL WORKING GROUP II**  
**(From January 2013 to May 2013)**

**Ministry of Road and Transportation**

Mr. B. Artur                      Director of Railway Transportation Policy Implementation and  
Coordination Division, MRT

Mr. B. Zorigtbaatar            Officer of Railway Transportation Policy Implementation and  
Coordination Division, MRT

Mr. R. Batsukh                 Officer of Railway Transportation Policy Implementation and  
Coordination Division, MRT

Ms. T. Munkhtsetseg         Officer of Railway Transportation Policy Implementation and  
Coordination Division, MRT

Mr. J. Bold                        Officer of Railway Transportation Policy Implementation and  
Coordination Division, MRT

Mr. Ch. Erdenedalai          Officer of Road Transportation Control and Registration Department,  
MRT

**Ulaanbaatar City Government**

Mr. N. Gantumur                Vice Mayor of Road transportation and Infrastructure Municipality, UB  
city

Mr. M. Batsaikhan             Vice Director of Property Relations Department, UB city

Mr. B. Bayasgalan             Vice Director of Road Department, UB city

Ms. G. Enhtuya                 Head of Construction Quality and Safety Division, Master Planning  
Department, UB city

Mr. O. Tushig                    Vice Director of Transport Department, UB city

Mr. Ch. Tsogtsaikhan         Specialist of Strategic Policy Planning Division, UB city

Ms. G. Altantsetseg          Specialist of Transport Department, UB city



## **JICA Study Team**

Project Manager:	Dr. Kastuhide Nagayama	PPP Project Model Building
Deputy Project Manager:	Mr. Iwata Shizuo	Urban Transportation Policy
	Mr. Toshiaki Kudo	Railway Planning/Legal System
Member:	Mr. Kunihiko Ozawa	Intermodal Transportation System
	Ms. Tomoko Abe	Urban planning
	Mr. Hiroaki Ohashi	Transit Corridor Development Planning
	Ms. Sakai Yuko	Traffic Survey
	Mr. Naoshi Okamura	Traffic Analysis & Forecasting
	Mr. Nobuyuki Kawai	Railway Structure Planning and Design
	Mr. Kazumasa Yamaoka	Tunnel Structure Design
	Mr. Tastumi Sakamoto	Utility Planning
	Mr. Shohei Ishikawa	Station and Related Facility Planning
	Mr. Sestuo Kikuch	Railway System and Operation Planning
	Mr. Yuichiro Urai	Procurement Planning
	Dr. Jorge Mula	Railway Operation and Management Planning
	Mr. Kazuhiro Tanaka	Operation of Railway Business and Organization Planning/
	Ms. Nobuko Shimomura	Financial Analysis (1)
	Mr. Masateru Igata	Financial Analysis (1)
	Ms. Rie Tajima	Financial Analysis (2)
	Mr. Hiroshi Matsuoka	Financial Management Planning
	Mr. Masayoshi Iwasaki	PPP Project Model Evaluation
	Mr. Naoaki Eguchi	PPP Legal System Development
	Ms. Rieko Sasaki	Environmental and Social Consideration (1)
Mr. Toru Tabata	Environmental and Social Consideration (2)	
Mr. Maeda Hiroyuki	Environmental Analysis (CDM)	
Local Staff:	Ms. Banzragch Bayartsetseg	Project Coordinator/Translator
	Ms. Tumurkhyag Uuganzaya	Project Coordinator/Translator
	Ms. Ganbold Odtsetseg	Translator/Secretary
	Mr. Ikhbayar Tsevelmaa	CAD GIS operator