

FUNDED BY

DFID
DEPARTMENT FOR
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Department
for International
Development

CLIENT

UWA - Urban Water Administration
SWC - STATE WATER CORPORATION

IMPLEMENTED BY:

UNOPS
UNITED NATIONS OFFICE FOR
PROJECT SERVICES



In Collaboration with UNICEF

**SUSTAINABLE AND MORE EQUITABLE ACCESS TO WATER AND IMPROVED SANITATION AND
HYGIENE BEHAVIOUR IN TARGETED STATE CAPITALS IN DARFUR URBAN WATER FOR DARFUR**

**Design of El Fasher Urban Water Supply Scheme
IN NORTH DARFUR STATE**

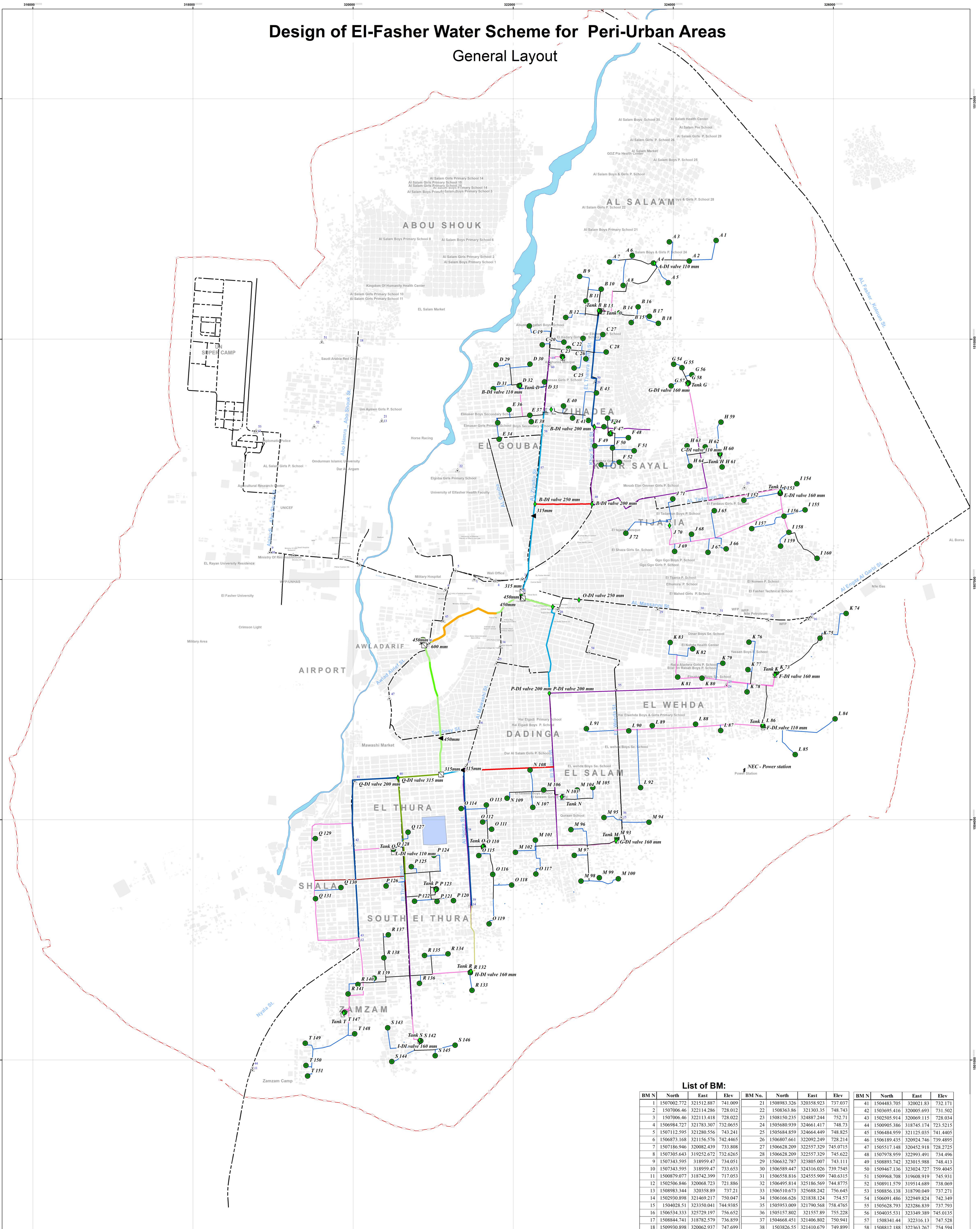
DRAWINGS



JANUARY 2019

Design of El-Fasher Water Scheme for Peri-Urban Areas

General Layout



List of BM:

BM N	North	East	Elev	BM No.	North	East	Elev	BM N	North	East	Elev
1	1507002.772	321512.887	741.009	21	1508983.326	320358.923	737.037	41	1504483.705	320021.83	732.171
2	1507006.46	322114.286	728.012	22	1508363.86	321303.35	748.743	42	1503695.416	320005.693	731.502
3	1507006.46	322113.418	728.022	23	1508150.235	324887.244	752.71	43	1502505.914	320069.115	728.034
4	1506984.727	321783.307	732.0655	24	1505680.939	324661.417	748.73	44	1500905.386	318745.174	723.5215
5	1507112.595	321280.556	743.241	25	1505684.859	324664.449	748.825	45	1506484.959	321125.035	741.4405
6	1506873.168	321156.576	742.4465	26	1506807.661	322092.249	728.214	46	1506189.435	320924.746	739.4895
7	1507186.946	320082.439	733.808	27	1506628.209	322557.329	745.0715	47	1505517.148	320452.918	728.2725
8	1507385.643	319252.672	732.6265	28	1506628.209	322557.329	745.022	48	1507978.959	322993.491	734.496
9	1507343.595	318959.47	734.051	29	1506632.787	323805.607	743.111	49	1508893.742	323015.988	748.413
10	1507343.595	318959.47	733.653	30	1506589.447	324316.026	739.7545	50	1509467.136	323024.727	759.4045
11	1508879.077	318742.399	717.053	31	1506558.816	324555.909	740.6315	51	1509968.708	319608.919	745.931
12	1502506.846	320068.723	721.886	32	1506495.814	325186.569	744.8775	52	1508911.579	319514.689	738.069
13	1508983.344	320358.89	737.21	33	1506510.673	325688.242	756.645	53	1508856.138	318790.049	737.271
14	1502930.898	321469.217	750.047	34	1506166.626	321838.124	754.57	54	1506091.486	322949.824	742.349
15	1504028.51	323350.041	744.9385	35	1505953.009	321790.568	758.4765	55	1505628.793	323286.839	737.793
16	1506534.333	325729.197	756.652	36	1505157.802	321557.89	755.228	56	1504035.531	323349.389	745.0135
17	1508844.741	318782.579	736.859	37	1504668.451	321406.802	750.941	57	1508341.44	322316.13	747.528
18	1509930.898	320062.937	747.699	38	1503826.55	321410.679	749.899	58	1508812.188	322363.267	754.594

Project:
Design of El-Fasher Water Scheme for Peri-Urban Areas

General Layout

Sheet No. 1

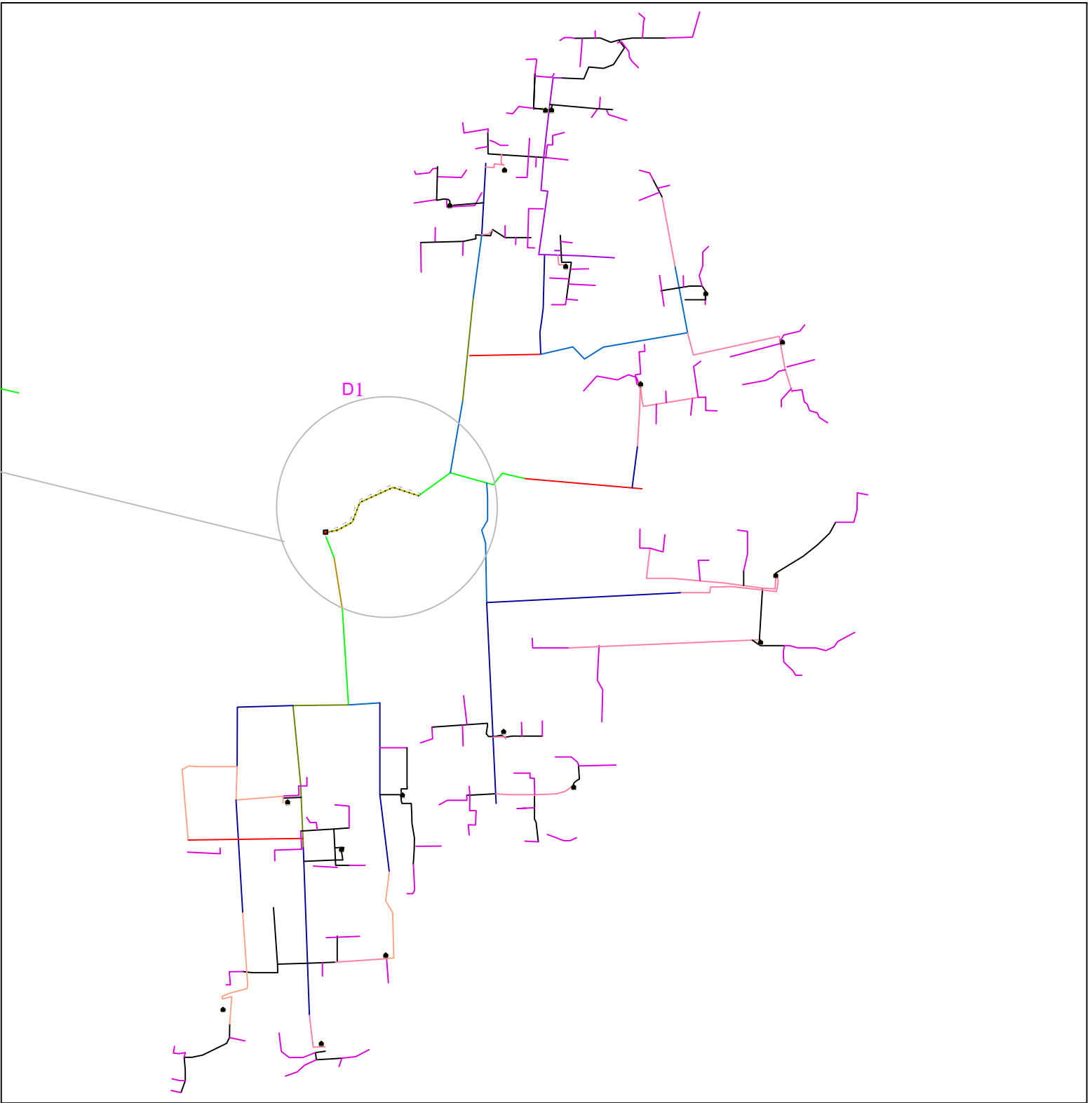
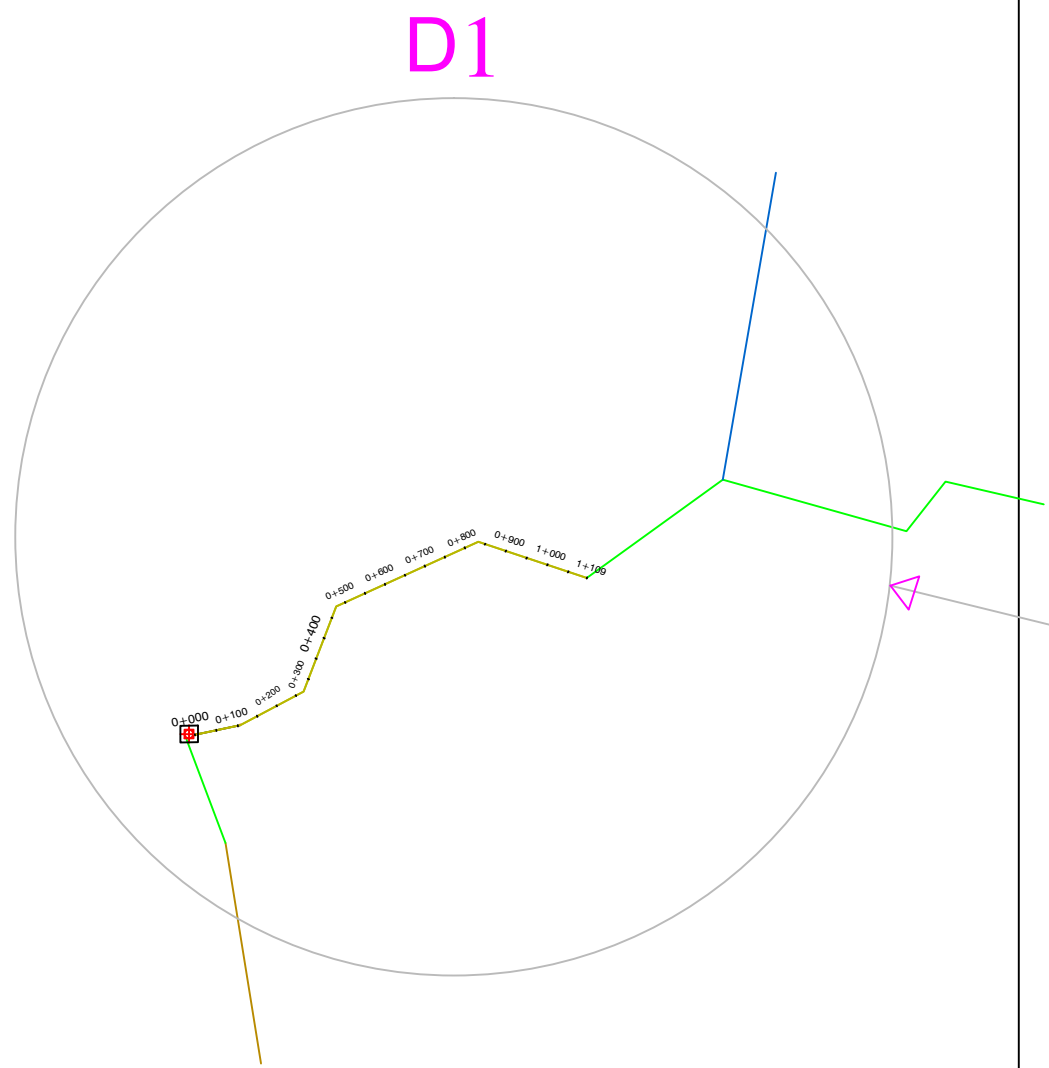
Implemented By :
United Nations
Office for
Project Services

Donor :
Department for
International
Development

Client :
Urban Water Administration
(UWA)
State Water Corporation
(SWC)

Legend	
	Bench mark
	Control Valve
	Check Valve
	Air Valve
	Existing Ground Tank
	Kiosks
	Main Ground Tank
	N.E.C. Power Station
	Proposed Elevated Tank
	Residential zone
	Paved Road
	Security Barrier
	<all other values>
	Existing 160 mm
	Existing 200 mm
	Existing 250 mm
	Existing 315 mm
	Existing 450 mm
	Existing 600 mm
	Proposed 110 mm
	Proposed 150 mm
	Proposed 160 mm
	Proposed 200 mm
	Proposed 250 mm
	Proposed 315 mm
	Proposed 450 mm
	Proposed 600 mm
	Proposed 63 mm

Scale: 1:15,000
Coordinate System: WGS 1984 UTM Zone 35N
Projection: Transverse Mercator
Datum: WGS 1984
Units: Meter
Map has been produced By ArcGIS Software
January 2019



CLIENT: UWA – Urban Water Administration
SWC - STATE WATER CORPORATION

PROJECT:
DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
Urban Water Scheme**

FUNDED BY:
DID
DEPARTMENT FOR
INTERNATIONAL DEVELOPMENT




IMPLEMENTED BY:
UNOPS
UNITED NATIONS OFFICE
FOR PROJECT SERVICES



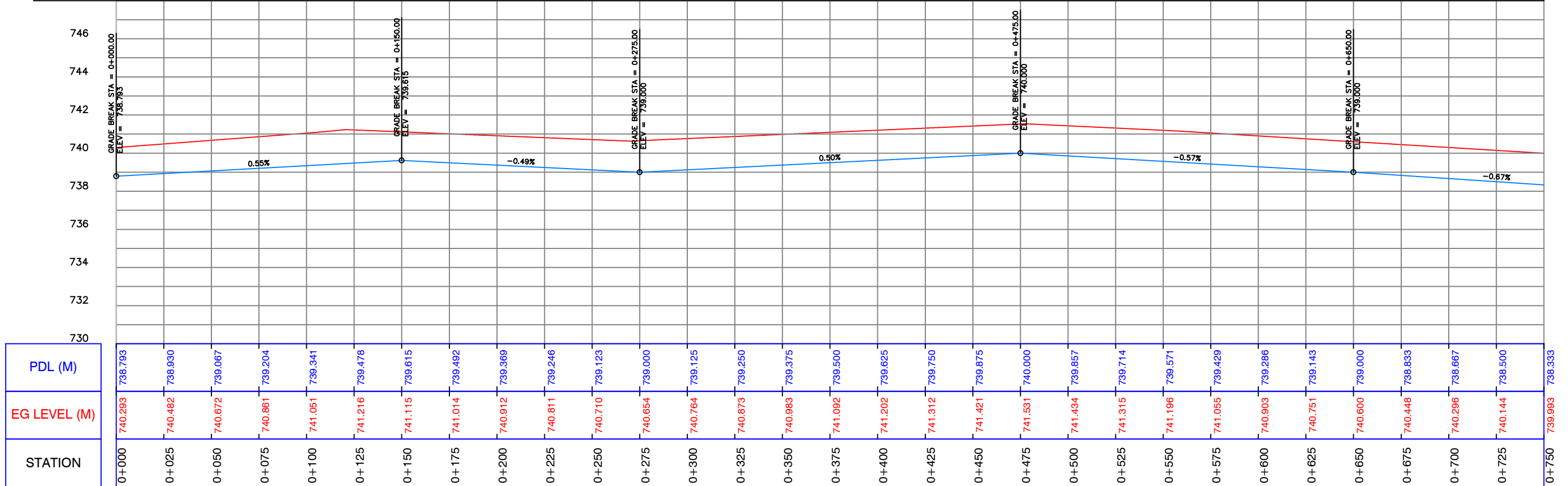
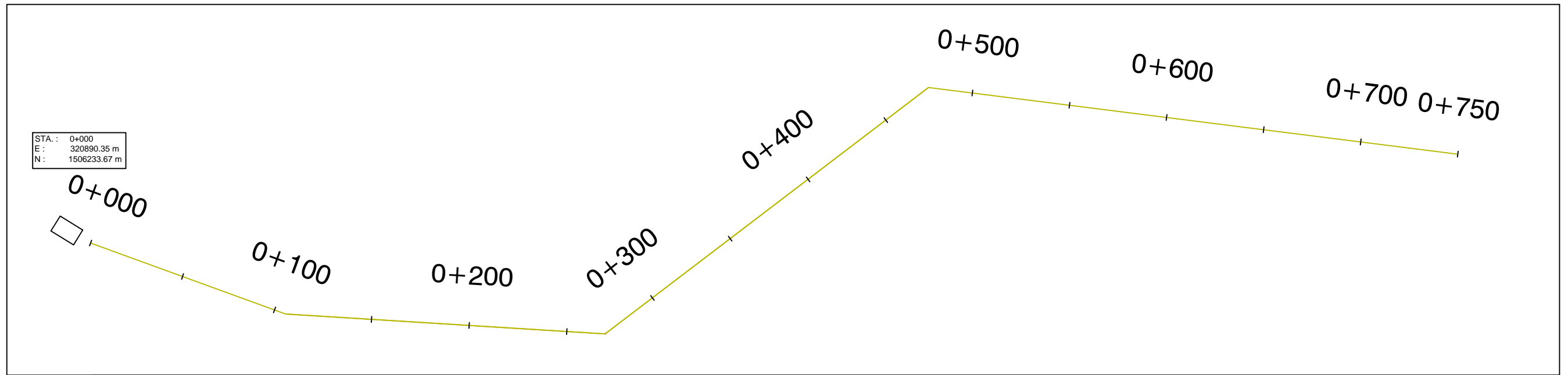
REV.:	DESCRIPTION	DATE	SIGN.

DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 600 mm (PROPOSED)			
DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019

SHEET

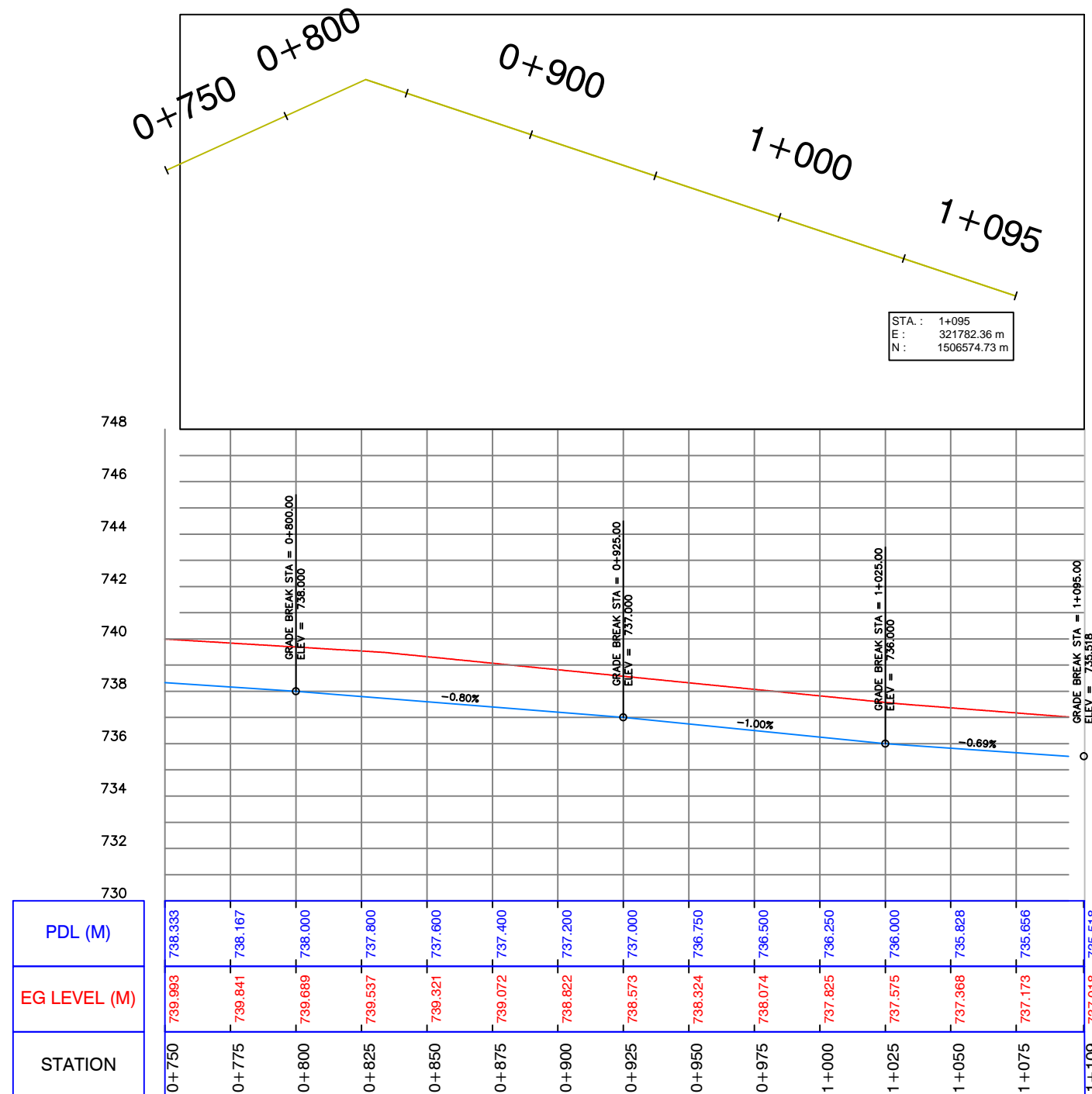
SCALE:
AS SHOWN

DRAWING No:
600-1






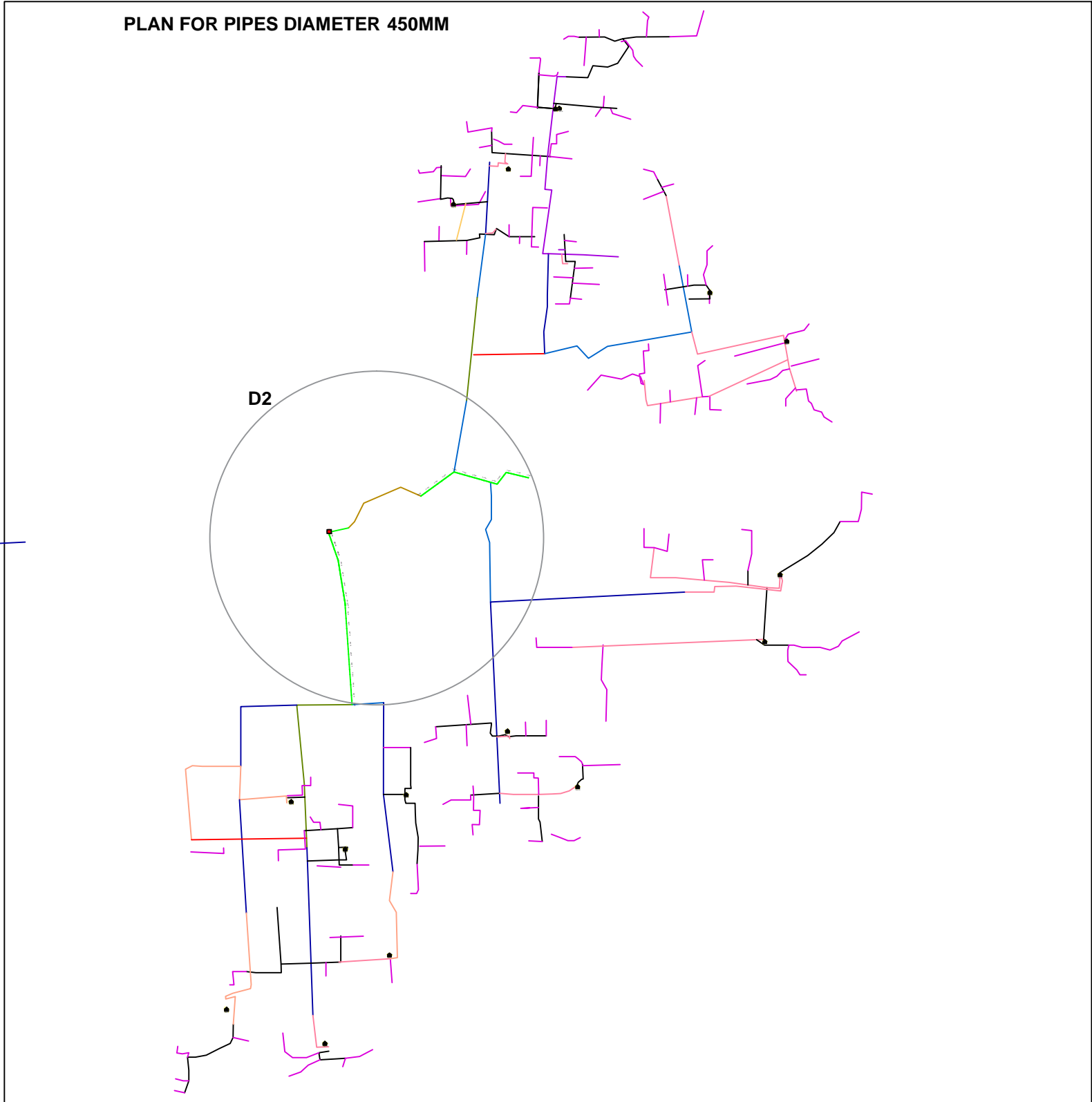
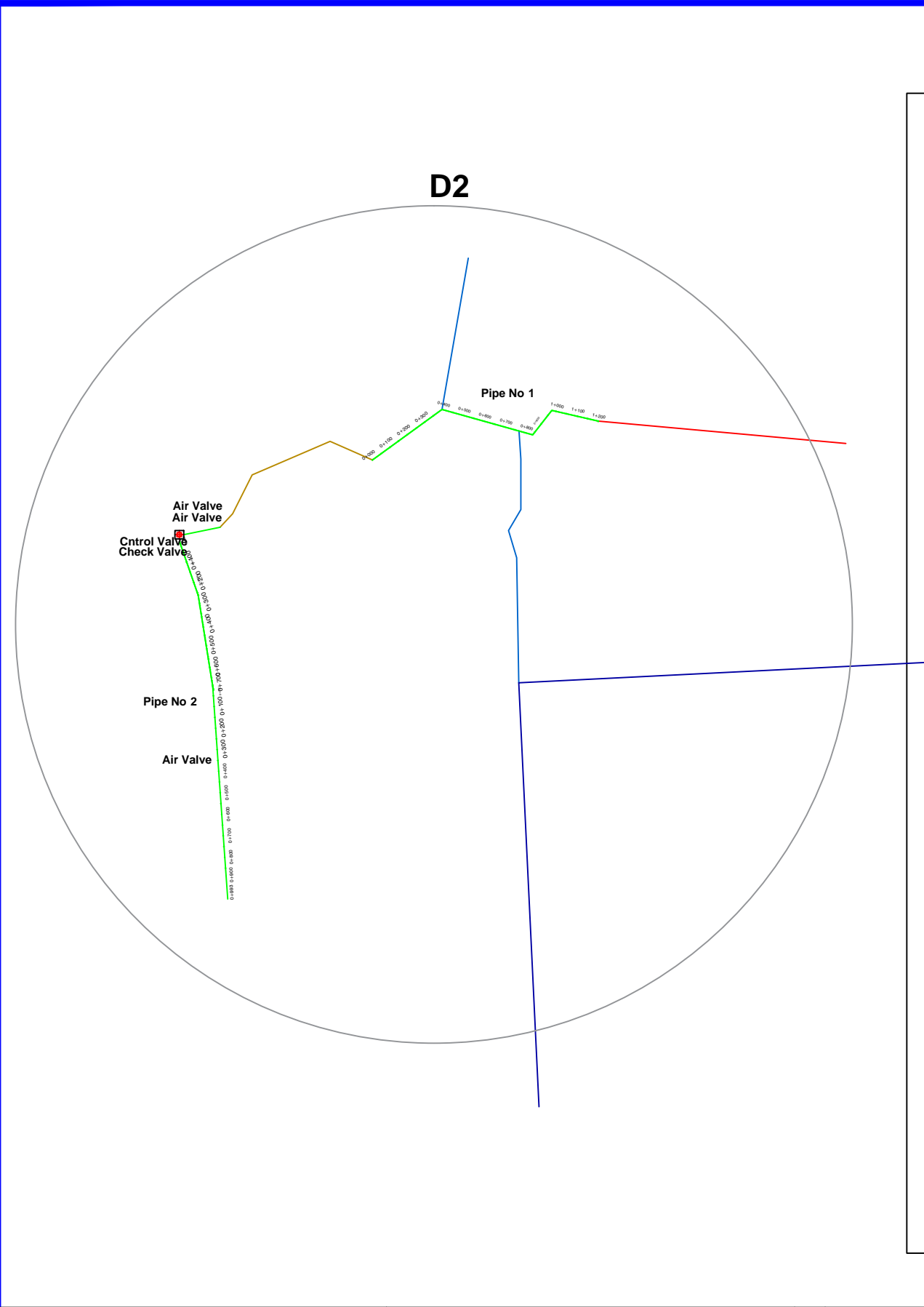
Profile (1-1) Existing

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT 	REV. DESCRIPTION DATE SIGN. 	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 600 mm (PROPOSED)		SHEET
			DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :
IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 		CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019
			DRAWING No: 600-2		



Profile (1-2) Existing and Proposed last 100m

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 600 mm (PROPOSED)		SHEET SCALE: AS SHOWN DRAWING No: 600-3
			DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	
IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 		CHECKED : Prof.Siddig E.A		DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER DATE: JANUARY 2019



CLIENT: UWA – Urban Water Administration
SWC - STATE WATER CORPORATION

PROJECT:
DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
Urban Water Scheme**

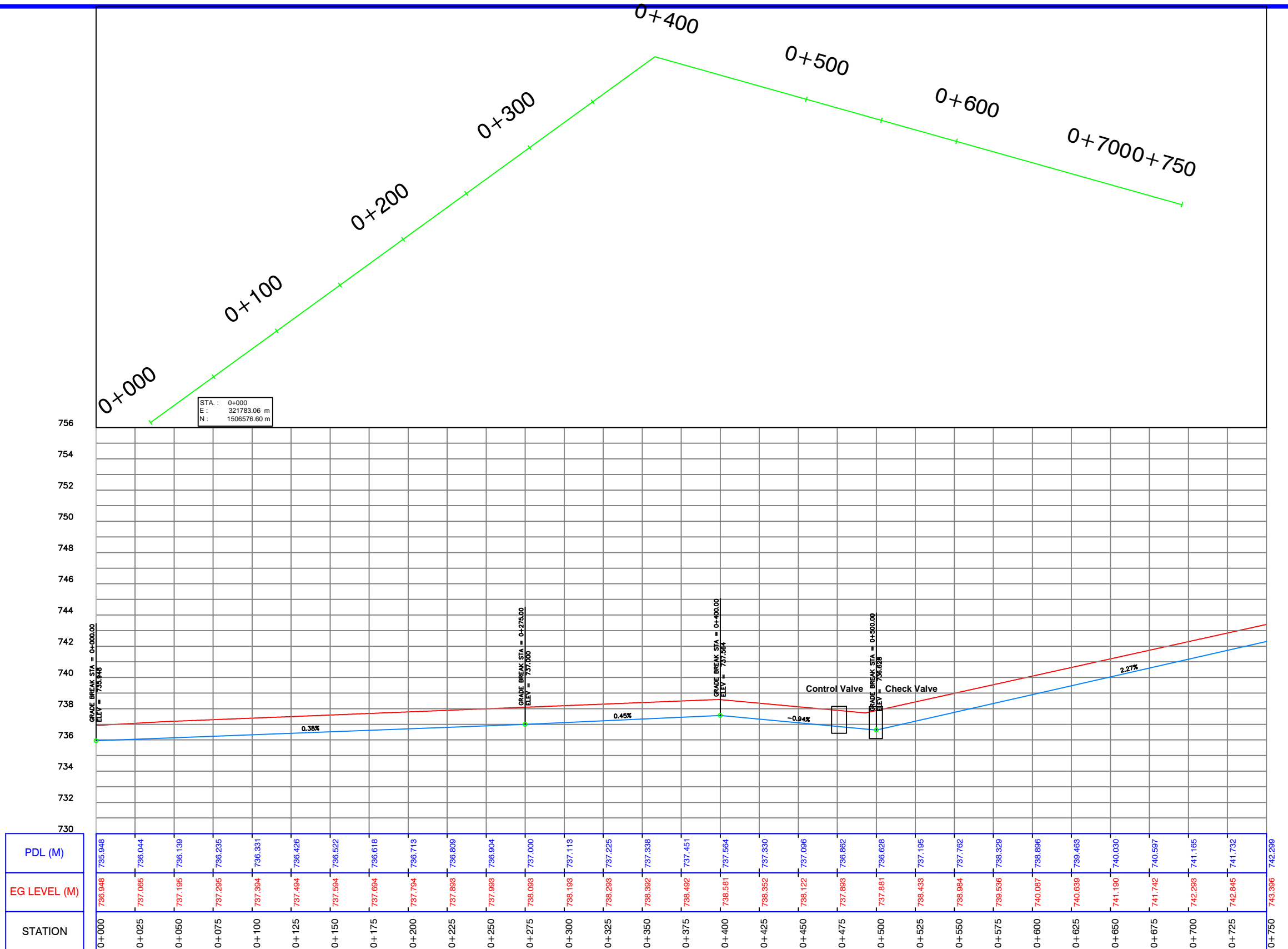
FUNDED BY:
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DEPARTMENT FOR
INTERNATIONAL DEVELOPMENT

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FOR PROJECT SERVICES






REV.	DESCRIPTION	DATE	SIGN.

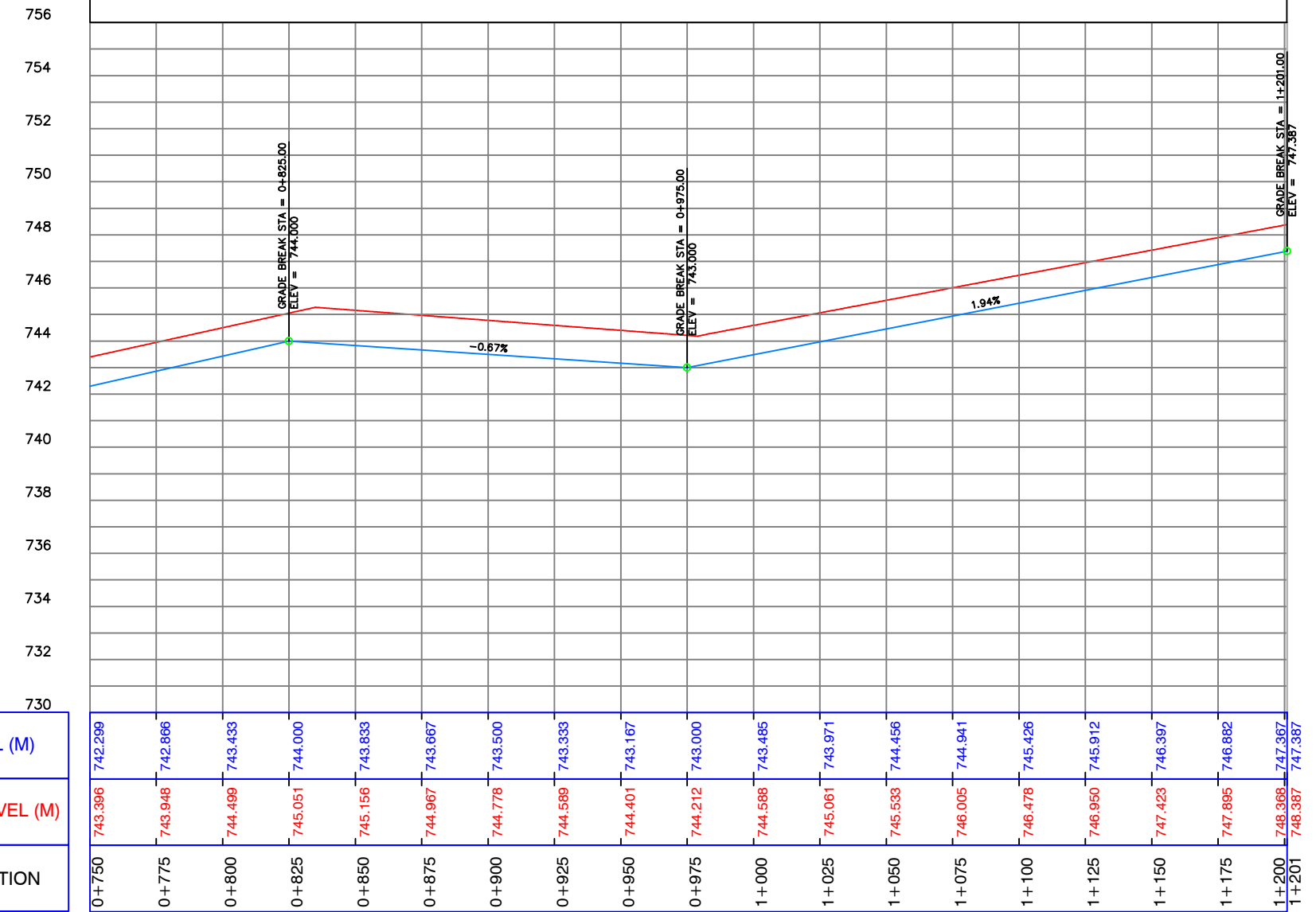
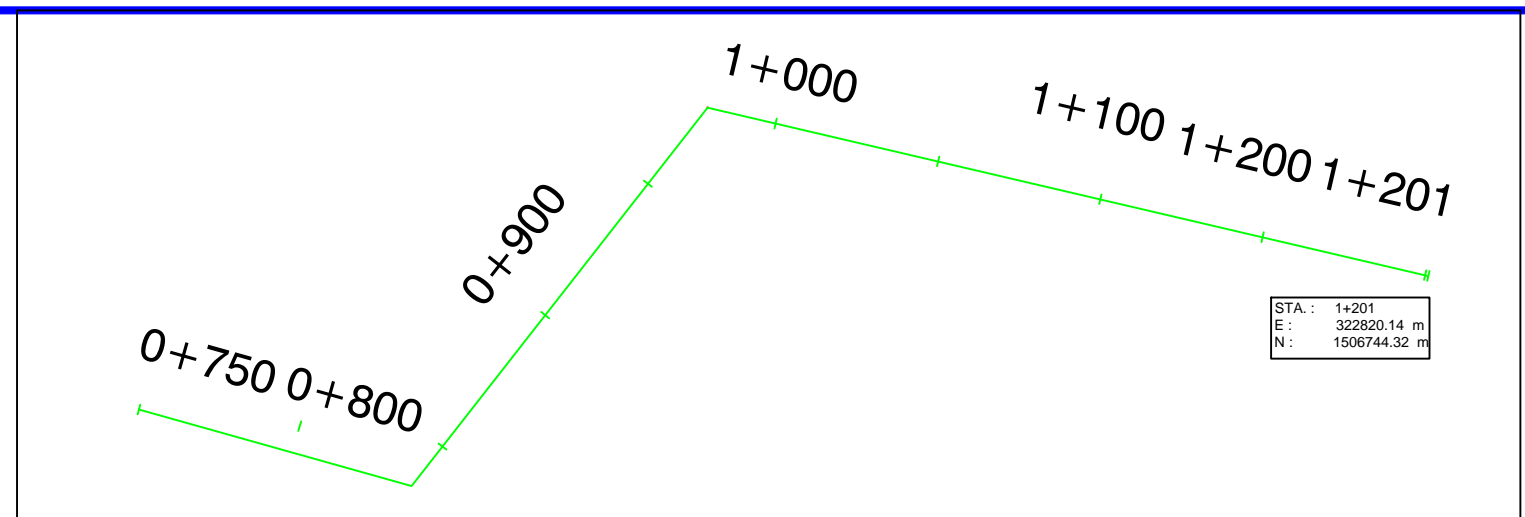
DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 450 mm (PROPOSED)			
DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019

SHEET
SCALE: AS SHOWN
DRAWING No: 450-1





Pipe No 1

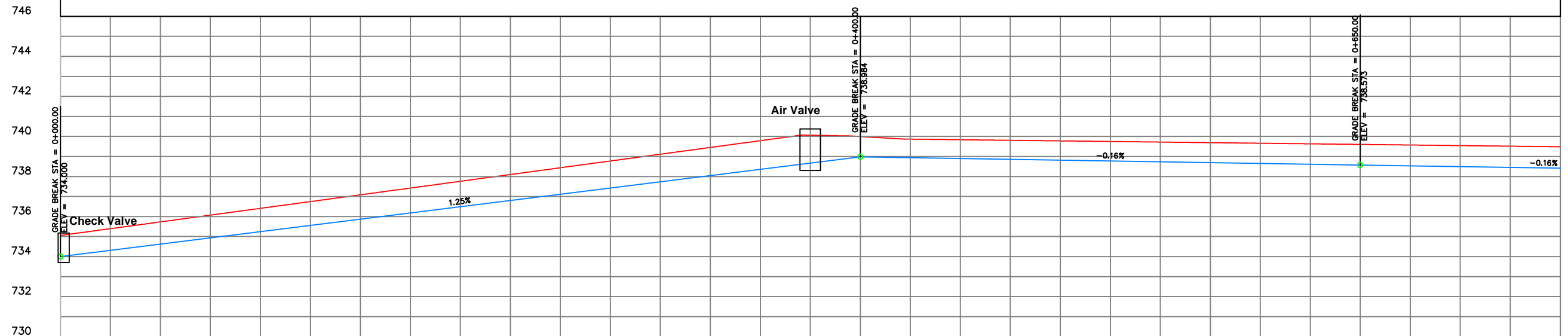
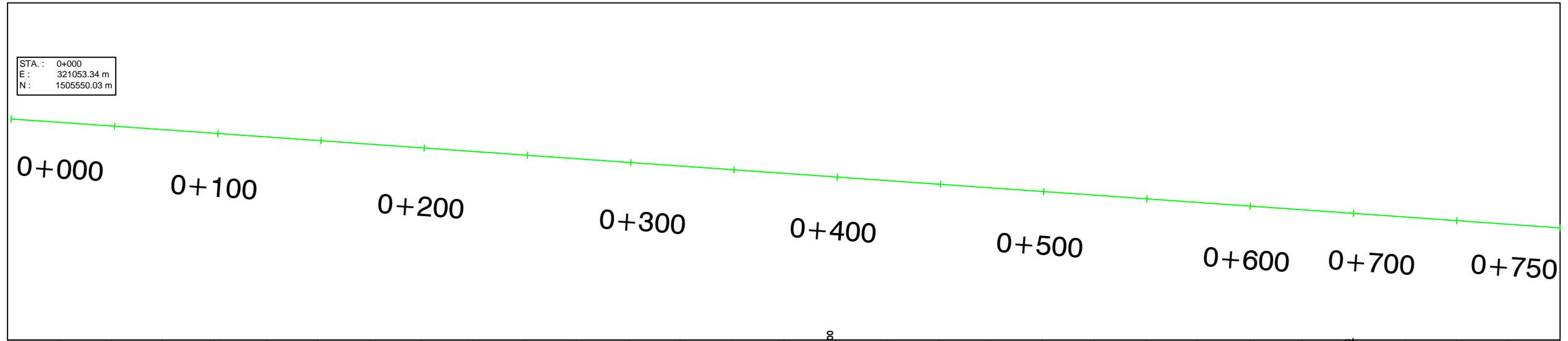
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV. DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 450 mm (PROPOSED)			SHEET SCALE: AS SHOWN DRAWING No: 450-2
			DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	
IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	 	CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	



PDL (M)
742.289
742.866
743.433
744.000
743.833
743.667
743.500
743.333
743.167
743.000
743.485
743.971
744.456
744.941
745.426
745.912
746.397
746.882
747.367
747.387




Check Valve Pipe No 1

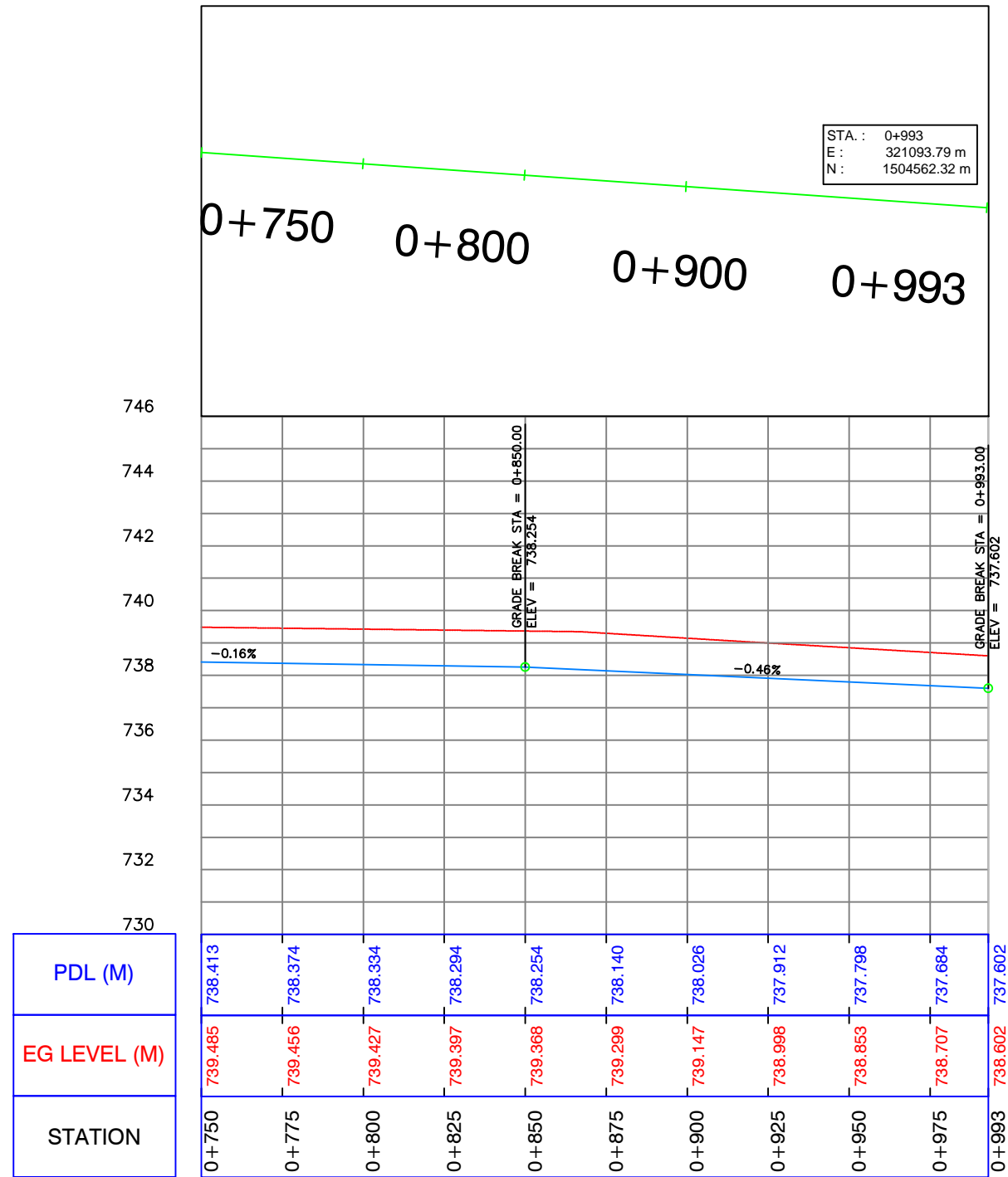
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 450 mm (PROPOSED)	SHEET
			DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:	SCALE: AS SHOWN		
			CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 450-3	








STATION	EG LEVEL (M)	PDL (M)
0+000	735.057	734.000
0+025	735.395	734.311
0+050	735.733	734.623
0+075	736.071	734.934
0+100	736.409	735.246
0+125	736.747	735.557
0+150	737.085	735.869
0+175	737.423	736.180
0+200	737.761	736.492
0+225	738.099	736.803
0+250	738.437	737.115
0+275	738.775	737.426
0+300	739.113	737.738
0+325	739.451	738.049
0+350	739.789	738.361
0+375	740.062	738.672
0+400	739.997	738.984
0+425	739.867	738.943
0+450	739.838	738.902
0+475	739.808	738.861
0+500	739.779	738.819
0+525	739.750	738.778
0+550	739.720	738.737
0+575	739.691	738.696
0+600	739.662	738.655
0+625	739.632	738.614
0+650	739.603	738.573
0+675	739.573	738.533
0+700	739.544	738.493
0+725	739.515	738.453
0+750	739.485	738.413

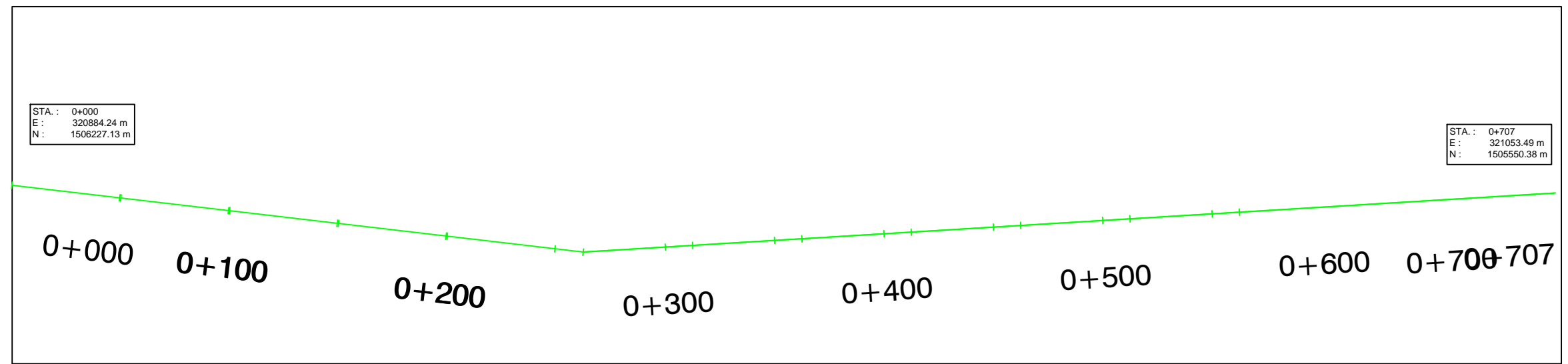
Pipe No 2

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES	  	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 450mm (PROPOSED)			SHEET
			DESIGNED:	Dr.Hashim M.H	DRAWN:	Nada S.A.	APPROVED FOR IMPLEMENTATION:	SCALE: AS SHOWN		
			CHECKED:	Prof.Siddig E.A	DRAFTING COORDINATION:	UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 450-4	



Pipe No 2

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 450 mm (PROPOSED)			SHEET	
		IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES   					DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:	
						CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 450-5



STA.: 0+000
E.: 320884.24 m
N.: 1506227.13 m

STA.: 0+707
E.: 321053.49 m
N.: 1505550.38 m

STATION	EG LEVEL (M)	PDL (M)
0+000	739.969	738.469
0+025	739.824	738.285
0+050	739.680	738.102
0+075	739.609	737.918
0+100	739.559	737.734
0+125	739.502	737.551
0+150	739.225	737.367
0+175	738.947	737.184
0+200	738.670	737.000
0+225	738.393	736.714
0+250	738.116	736.429
0+275	737.825	736.143
0+300	737.520	735.857
0+325	737.216	735.571
0+350	736.912	735.286
0+375	736.607	735.000
0+400	736.303	734.707
0+425	735.999	734.414
0+450	735.694	734.120
0+475	735.390	733.827
0+500	735.085	733.534
0+525	734.781	733.150
0+550	734.477	732.767
0+575	734.215	732.383
0+600	733.965	732.000
0+625	734.181	732.445
0+650	734.554	732.891
0+675	734.928	733.336
0+700	735.302	733.781
0+707	735.406	733.906

CLIENT: UWA – Urban Water Administration
SWC - STATE WATER CORPORATION

PROJECT:
DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
Urban Water Scheme**

FUNDED BY:
DID
DEPARTMENT FOR
INTERNATIONAL DEVELOPMENT




IMPLEMENTED BY:
UNOPS
UNITED NATIONS OFFICE
FOR PROJECT SERVICES



REV.	DESCRIPTION	DATE	SIGN.

DRAWN TITLE :
PLAN AND PROFILE FOR PIPE LINE 450 mm (PROPOSED)

DESIGNED :
Dr.Hashim M.H

DRAWN :
Nada S.A.

CHECKED :
Prof.Siddig E.A

DRAFTING COORDINATION :
UNOPS

APPROVED FOR IMPLEMENTATION :

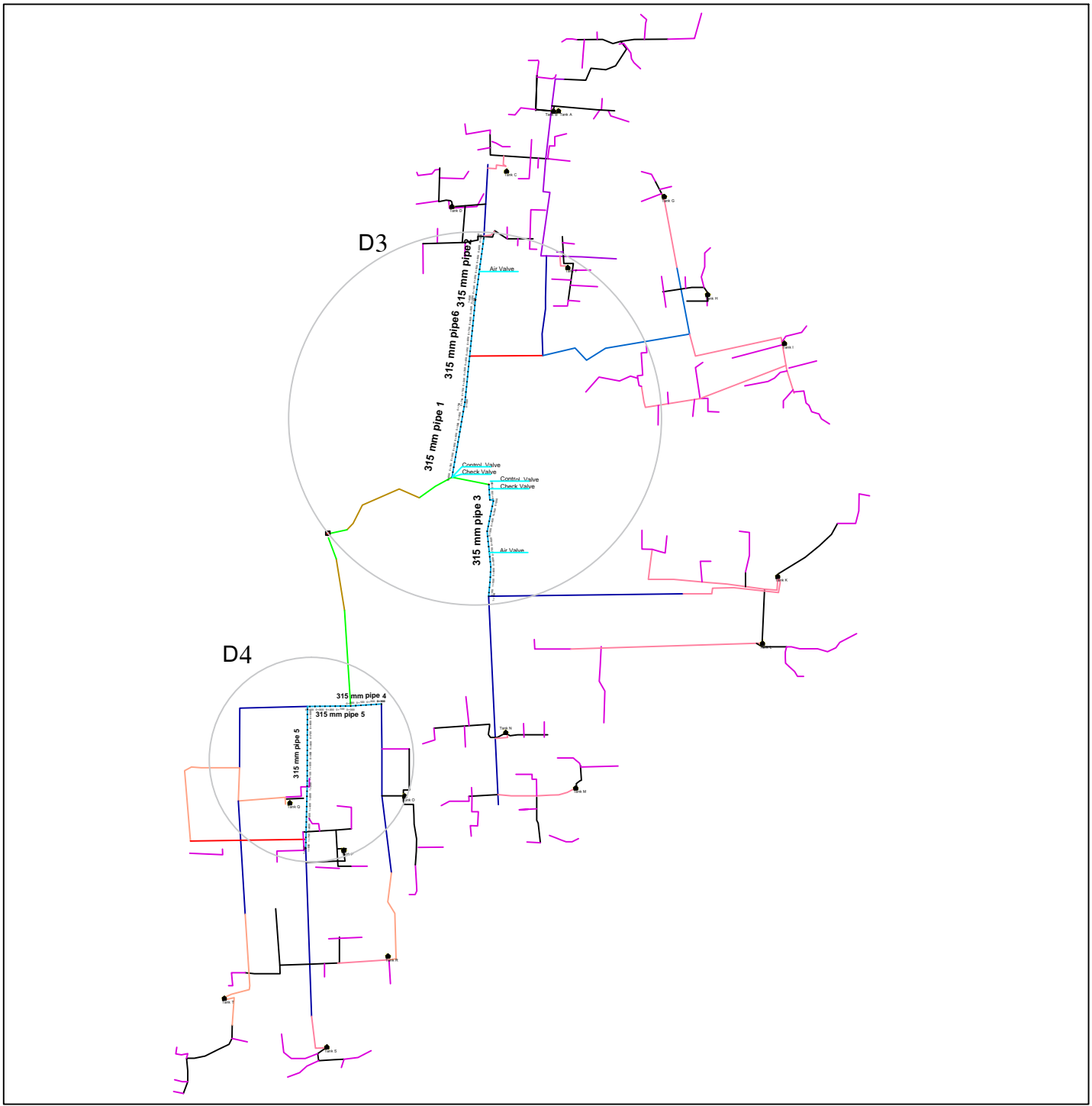
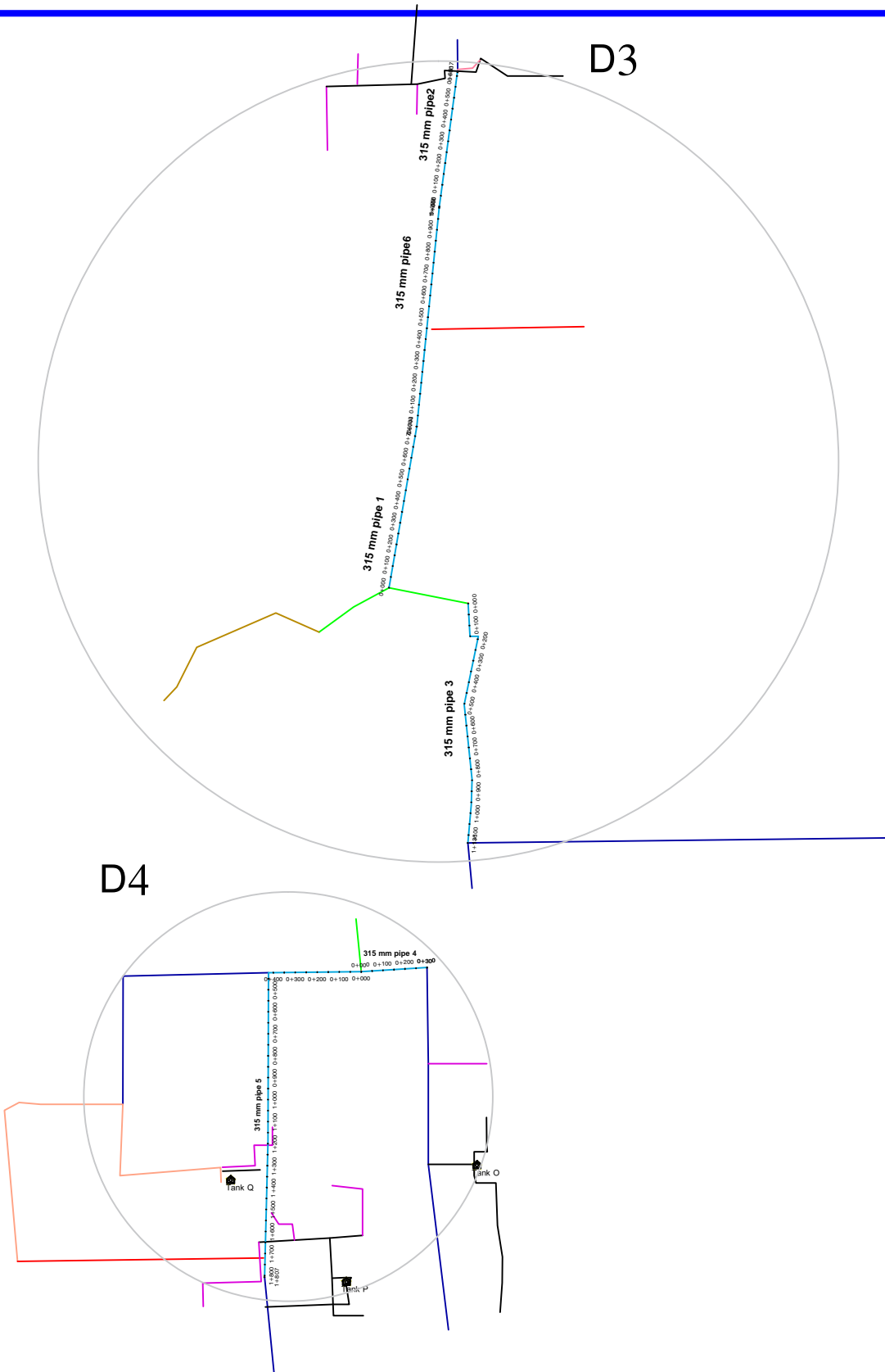
CONTRACT NUMBER

DATE:
JANUARY 2019




SHEET

SCALE:
AS SHOWN

DRAWING No:
450-6



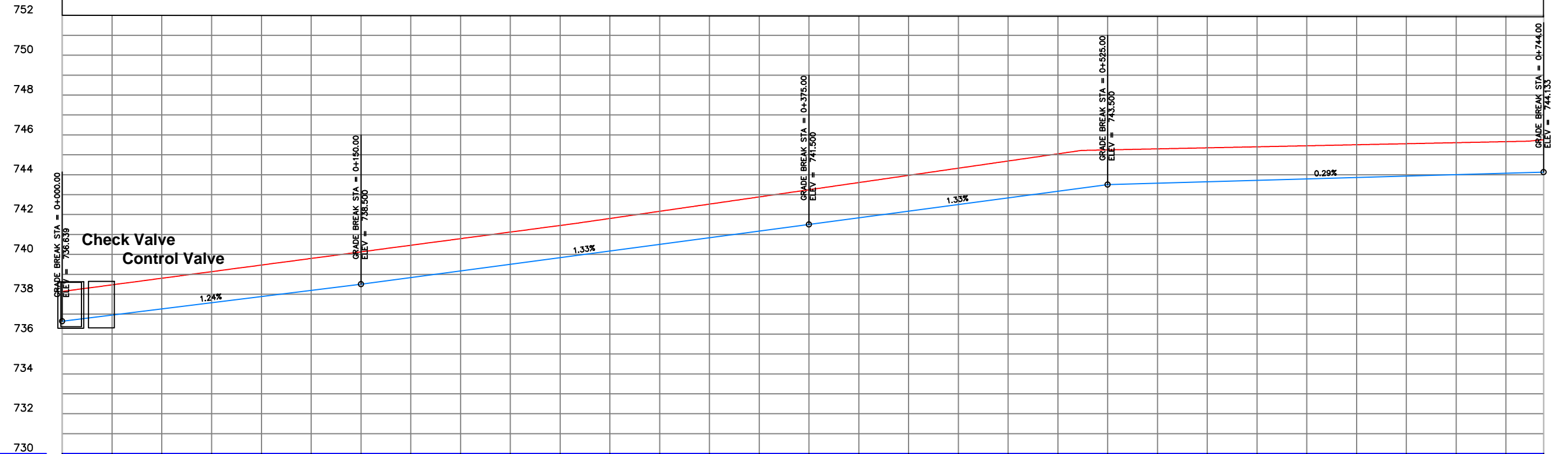
PLAN FOR PIPE LINE 315mm pipes 1-5-

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE :		SHEET	
			PLAN AND PROFILE FOR PIPE LINE 315mm (PROPOSED)							DESIGNED :
							Dr.Hashim M.H Nada S.A.		AS SHOWN	
							CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER DATE: JANUARY 2019	DRAWING No: 315-1

0+000 +100 0+200 0+300 0+400 0+500 0+600 +700 0+744

STA.: 0+000
E.: 322084.38 m
N.: 1506773.53 m

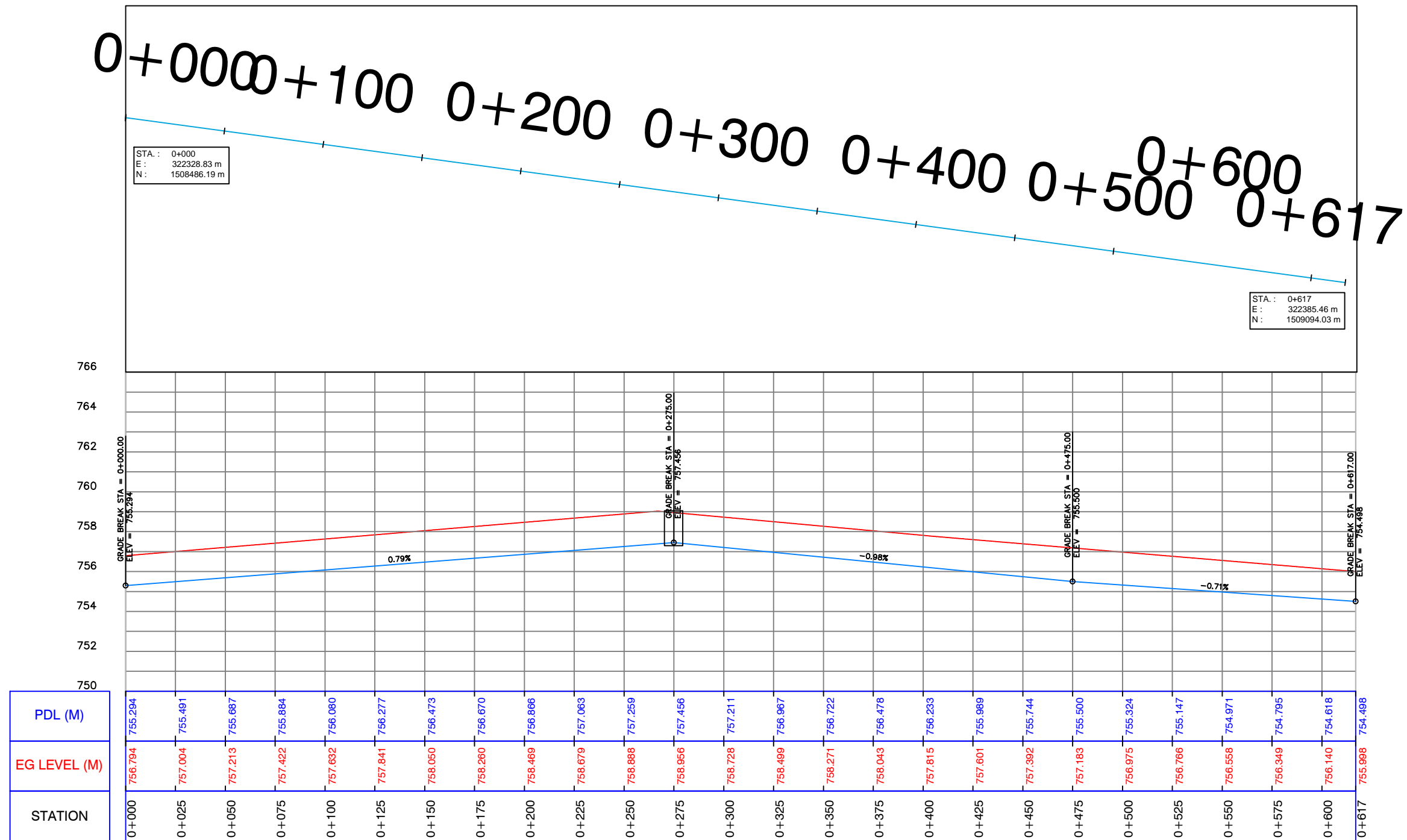
STA.: 0+744
E.: 322214.38 m
N.: 1507495.00 m






PDL (M)	EG LEVEL (M)	STATION
736.639	738.139	0+000
736.950	738.471	0+025
737.260	738.802	0+050
737.570	739.133	0+075
737.880	739.464	0+100
738.190	739.796	0+125
738.500	740.127	0+150
738.833	740.458	0+175
739.167	740.789	0+200
739.500	741.120	0+225
739.833	741.452	0+250
740.167	741.803	0+275
740.500	742.163	0+300
740.833	742.524	0+325
741.167	742.884	0+350
741.500	743.245	0+375
741.833	743.606	0+400
742.167	743.966	0+425
742.500	744.327	0+450
742.833	744.687	0+475
743.167	745.048	0+500
743.500	745.246	0+525
743.572	745.297	0+550
743.645	745.349	0+575
743.717	745.401	0+600
743.789	745.453	0+625
743.861	745.504	0+650
743.934	745.556	0+675
744.006	745.608	0+700
744.078	745.659	0+725
744.133	745.752	0+744

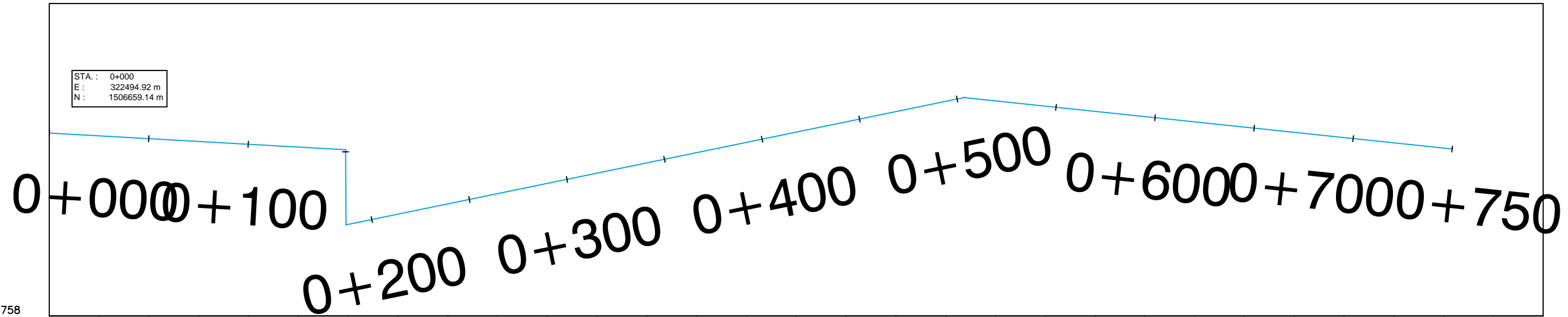
PLAN AND PROFILE FOR PIPE LINE 315mm pipe 1

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT 	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 315 mm (PROPOSED)			SHEET
						DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:		SCALE: AS SHOWN
			CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 315-2			






PLAN AND PROFILE FOR PIPE LINE 315mm pipe 2

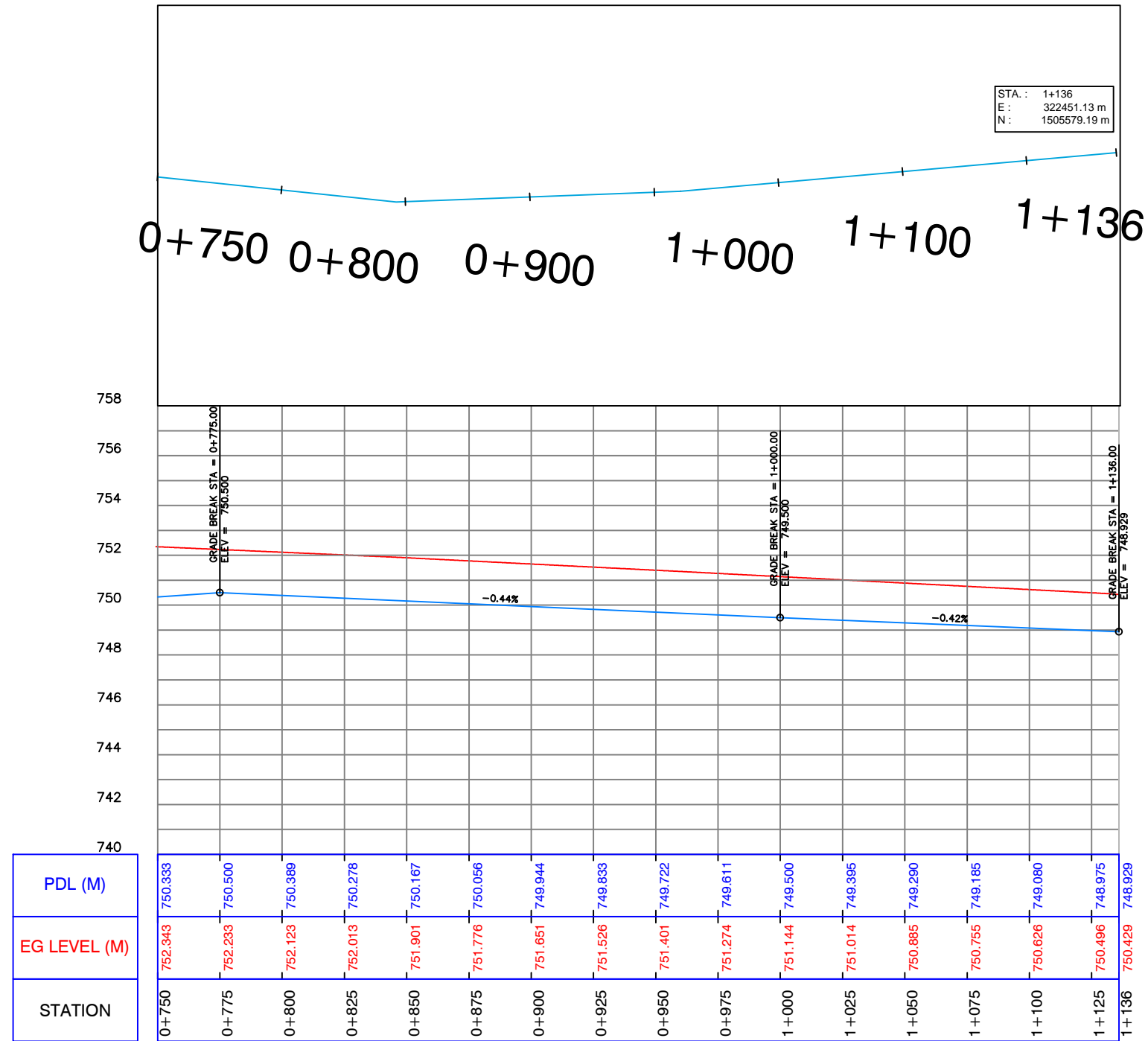
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 315mm (PROPOSED)	SHEET			
		IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 						DESIGNED: Dr.Hashim M.H.	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:
						CHECKED: Prof.Siddig E.A.	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 315-3






PDL (M)	743.936	742.436	742.944	743.452	743.960	744.468	744.976	745.484	745.992	746.500	746.882	746.864	747.045	747.227	747.409	747.591	747.773	747.955	748.136	748.318	748.500	748.667	748.833	749.000	749.167	749.333	749.500	749.667	749.833	750.000	750.167	750.333	750.500	750.667	750.833	751.000	751.167	751.333	751.500	751.667	751.833	752.000	752.167	752.333	752.500					
EG LEVEL (M)	743.936	744.523	745.109	745.695	746.282	746.868	747.402	747.818	748.177	748.484	748.792	748.959	749.080	749.220	749.350	749.481	749.611	749.741	749.872	749.992	750.132	750.342	750.564	750.786	751.009	751.231	751.453	751.677	751.902	752.126	752.343	752.500	752.667	752.833	753.000	753.167	753.333	753.500	753.667	753.833	754.000	754.167	754.333	754.500	754.667	754.833	755.000	755.167	755.333	755.500
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+250	0+275	0+300	0+325	0+350	0+375	0+400	0+425	0+450	0+475	0+500	0+525	0+550	0+575	0+600	0+625	0+650	0+675	0+700	0+725	0+750																			

PLAN AND PROFILE FOR PIPE LINE 315mm pipe 3

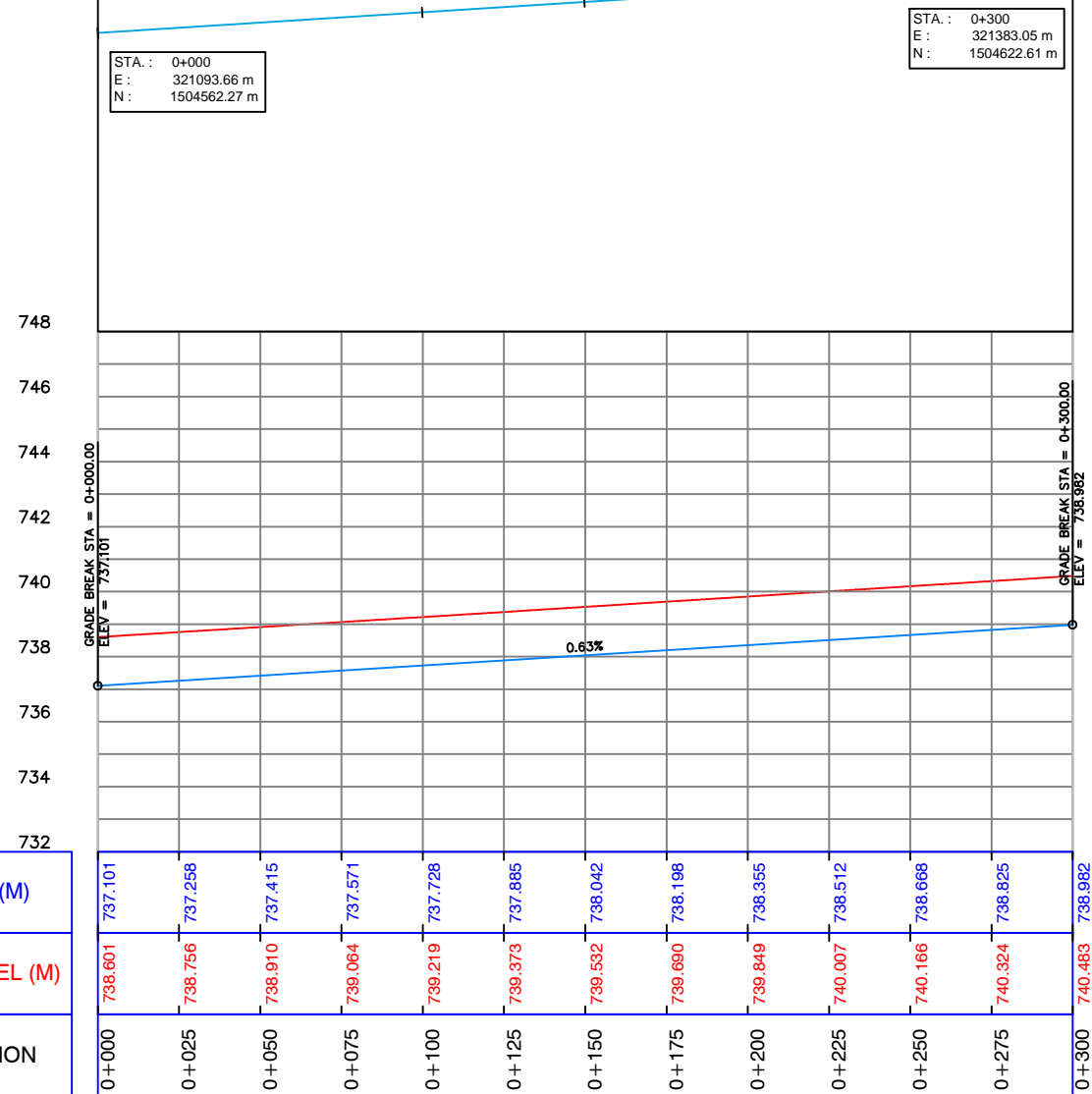
CLIENT : UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT : DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV. : DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 315mm (PROPOSED)	SHEET
		DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 315-4







PLAN AND PROFILE FOR PIPE LINE 315mm pipe 3

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 315mm (PROPOSED)			SHEET
		DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :		SCALE: AS SHOWN
		CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 315-5

0+000 0+100 0+200 0+300

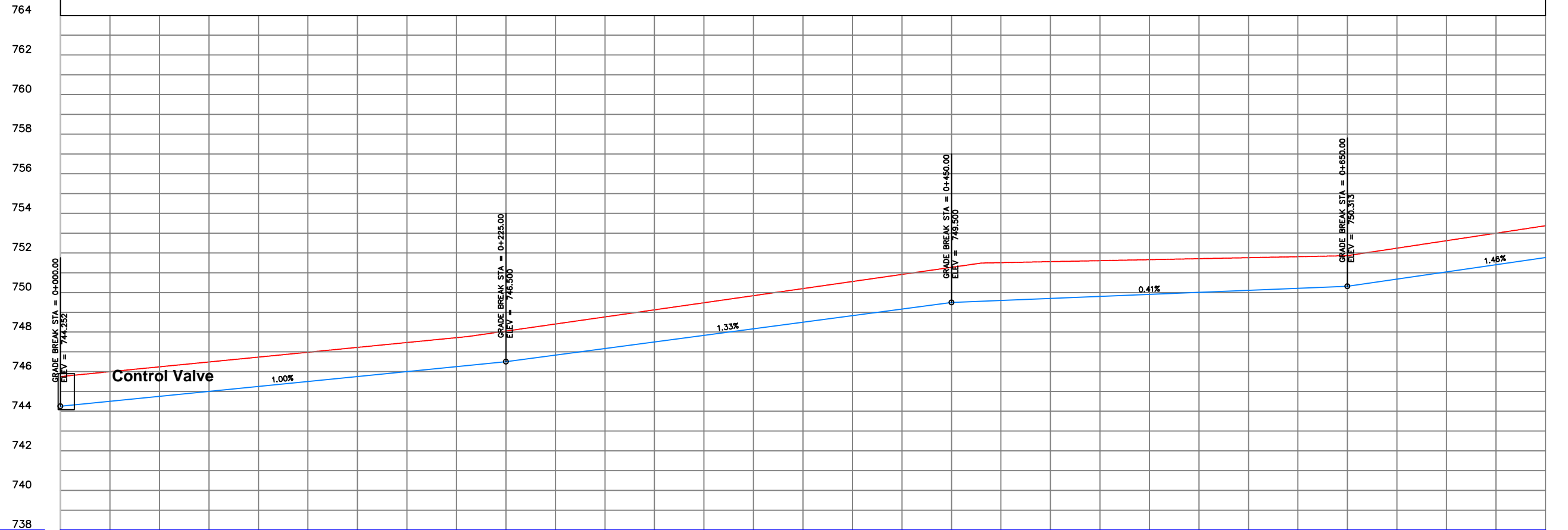


PLAN AND PROFILE FOR PIPE LINE 315mm pipe 4

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV. DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 315 mm (PROPOSED)			SHEET SCALE: AS SHOWN
			DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	
IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 		CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 315-6

0+0000+100 0+200 0+300 0+400 0+500 0+600 0+700 0+750

STA. : 0+000
E : 322214.38 m
N : 1507495.00 m



STATION	EG LEVEL (M)	PDL (M)
0+000	745.762	744.292
0+025	745.998	744.502
0+050	746.244	744.752
0+075	746.489	745.002
0+100	746.735	745.251
0+125	746.981	745.501
0+150	747.226	745.751
0+175	747.472	746.001
0+200	747.718	746.250
0+225	748.050	746.500
0+250	748.408	746.833
0+275	748.766	747.167
0+300	749.124	747.500
0+325	749.482	747.833
0+350	749.840	748.167
0+375	750.198	748.500
0+400	750.556	748.833
0+425	750.913	749.167
0+450	751.271	749.500
0+475	751.509	749.602
0+500	751.559	749.703
0+525	751.609	749.805
0+550	751.659	749.907
0+575	751.709	750.008
0+600	751.759	750.110
0+625	751.809	750.212
0+650	751.862	750.313
0+675	752.240	750.678
0+700	752.618	751.042
0+725	752.996	751.407
0+750	753.374	751.771

PLAN AND PROFILE FOR PIPE LINE 315mm pipe 6

CLIENT : UWA – Urban Water Administration
SWC - STATE WATER CORPORATION

PROJECT :
DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
Urban Water Scheme**

FUNDED BY:
DID
DEPARTMENT FOR
INTERNATIONAL DEVELOPMENT



IMPLEMENTED BY:
UNOPS
UNITED NATIONS OFFICE
FOR PROJECT SERVICES



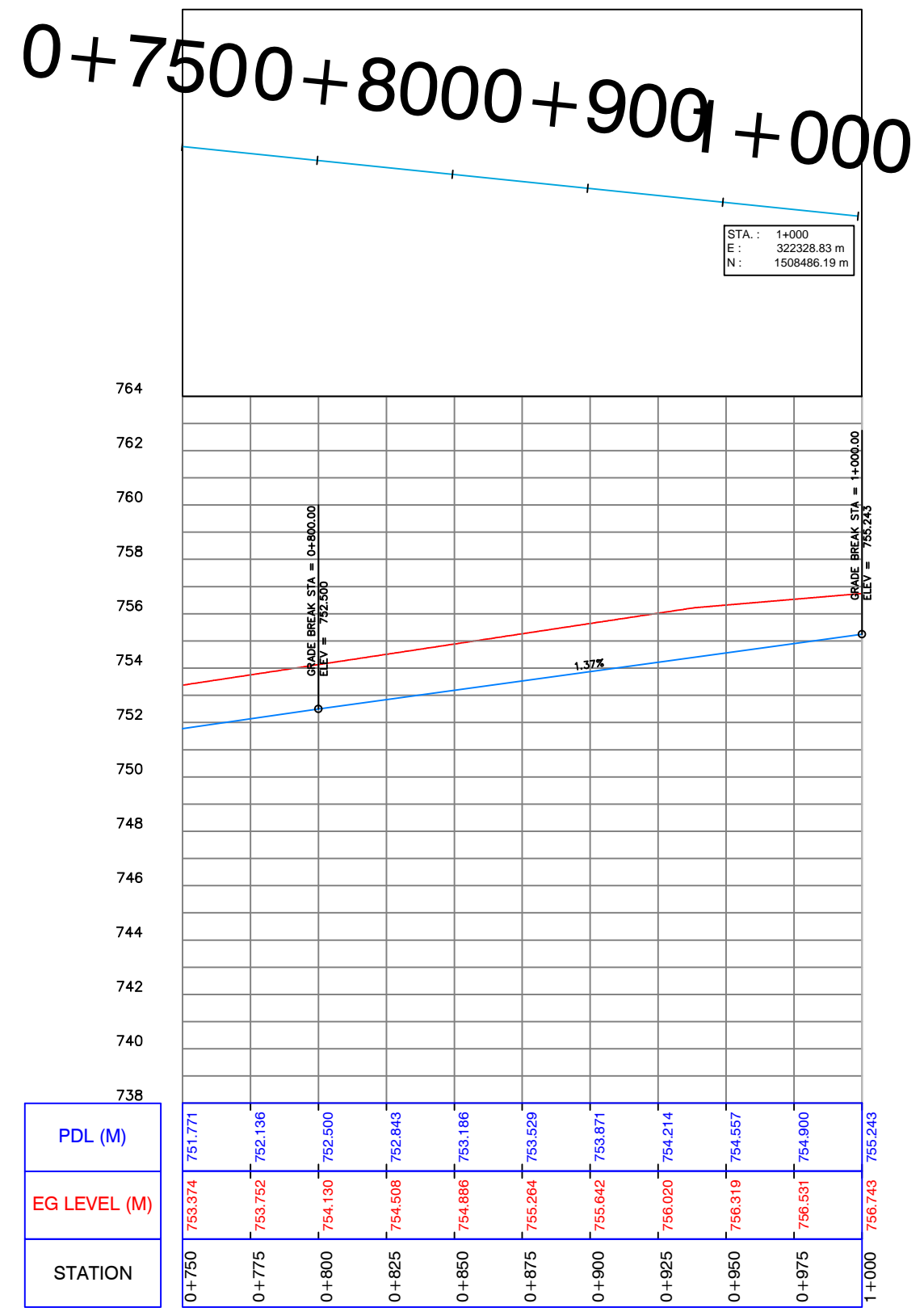
REV.	DESCRIPTION	DATE	SIGN.

DRAWN TITLE : **PLAN AND PROFILE FOR PIPE LINE 315mm (PROPOSED)**




DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER
DATE: JANUARY 2019		DRAWING No: 315-7

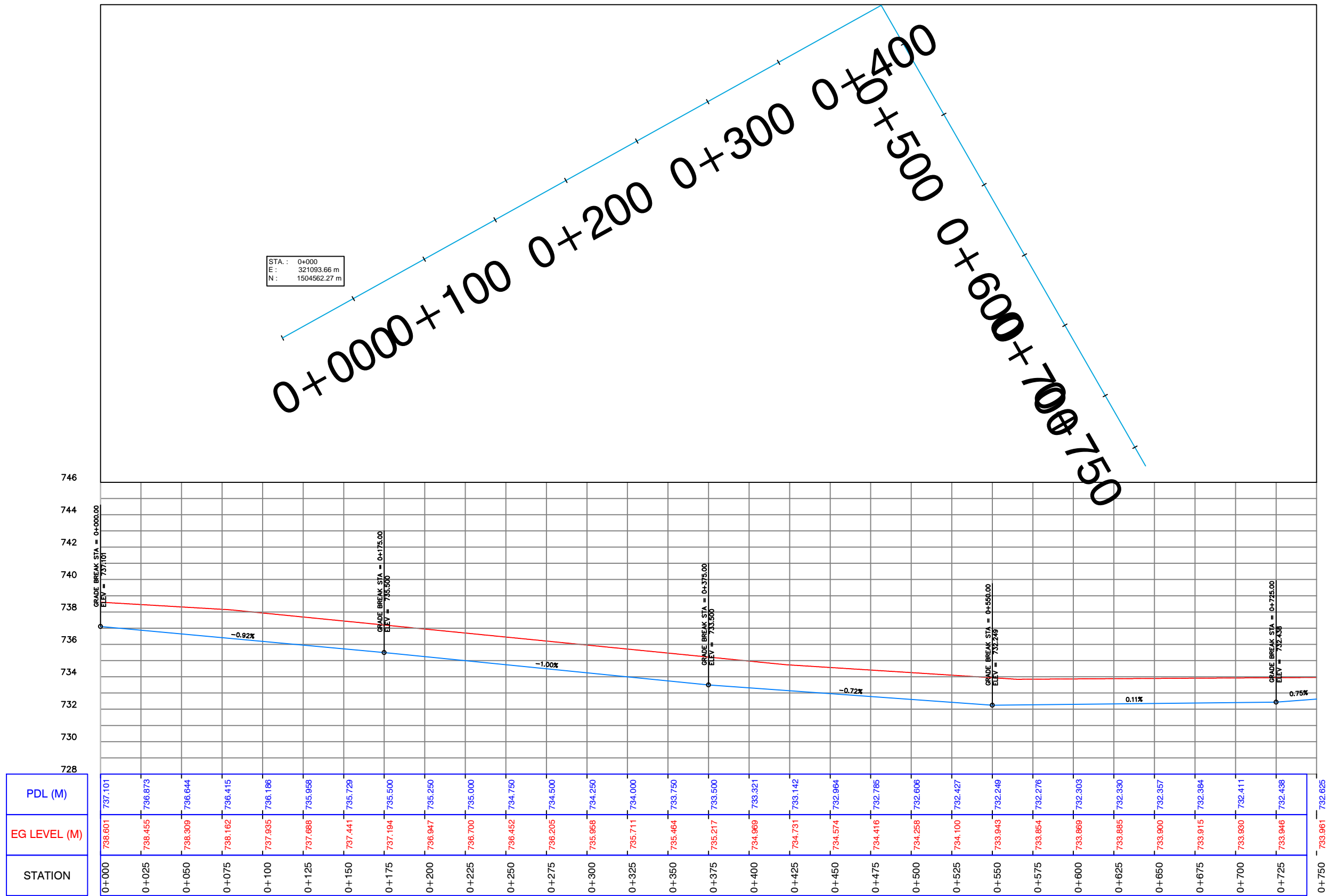
SHEET
SCALE: AS SHOWN
DRAWING No: 315-7

0+7500+8000+900+000






PLAN AND PROFILE FOR PIPE LINE 315mm pipe 6

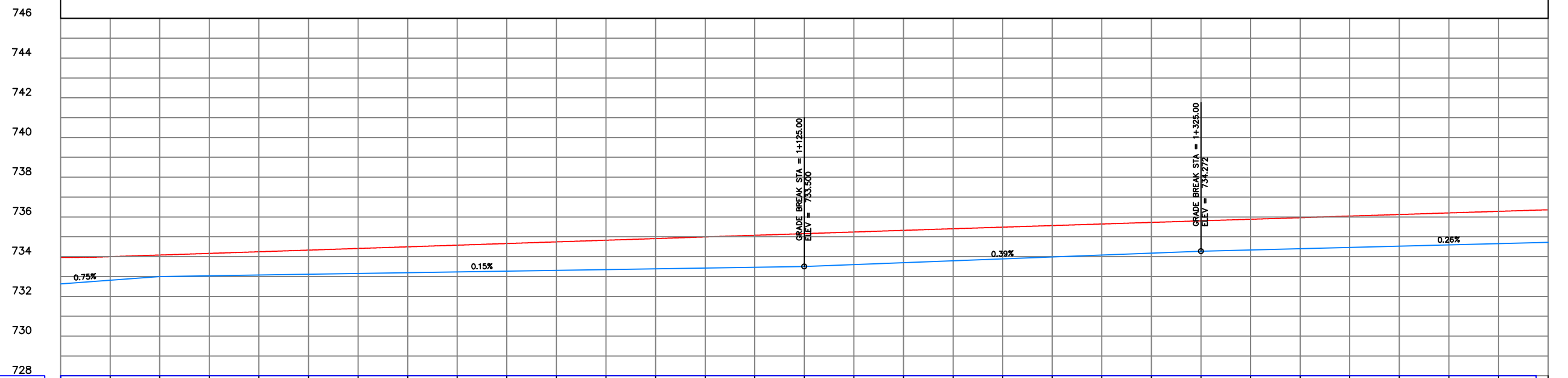
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 315mm (PROPOSED)	SHEET
		DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:
CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 315-8



PLAN AND PROFILE FOR PIPE LINE 315mm pipe 5




CLIENT : UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT : DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION: DATE: SIGN.:	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 315 mm (PROPOSED)	SHEET
		DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 315-9

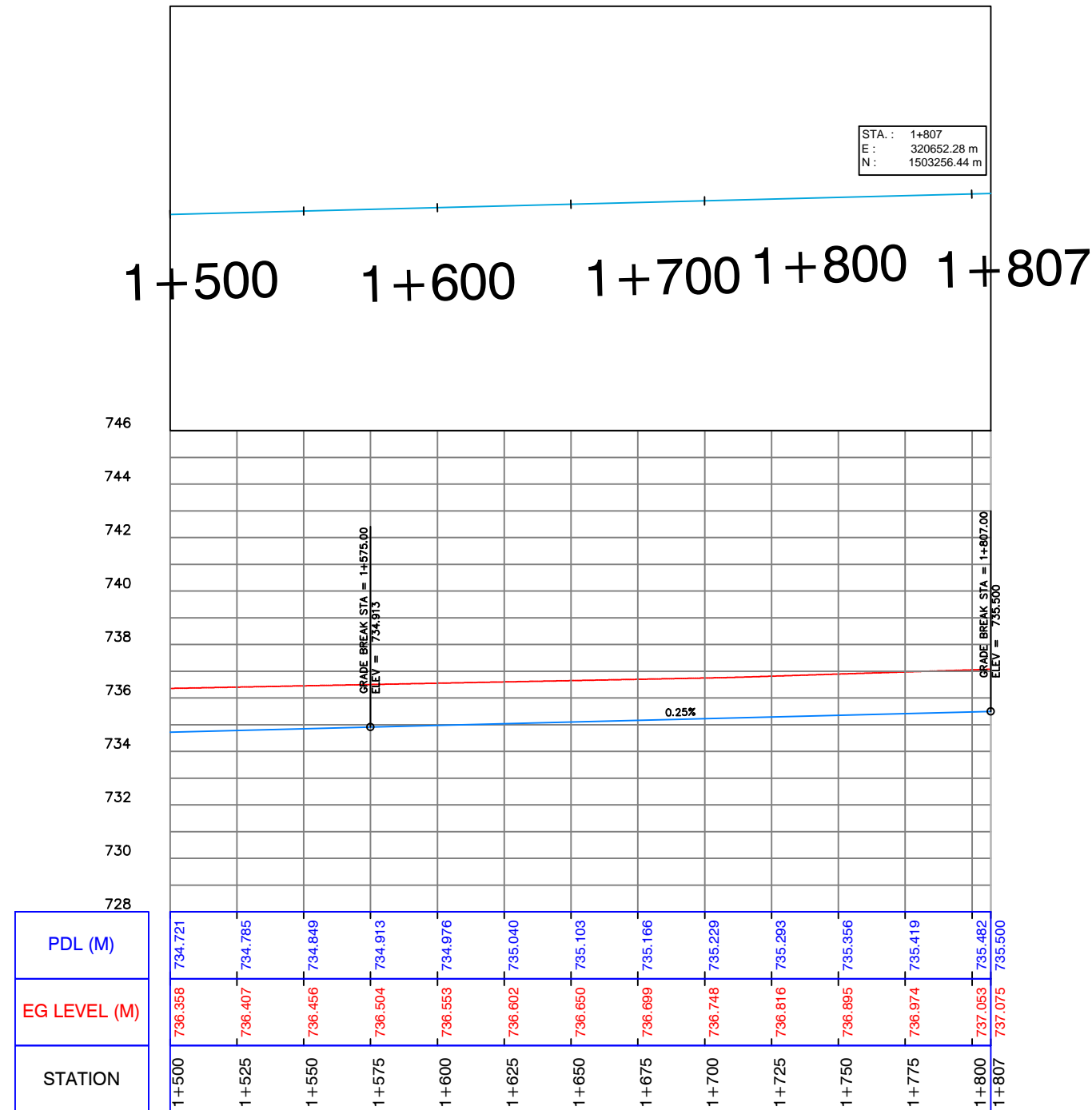
0+750 0+800 0+900 1+000 1+100 1+200 1+300 1+400 1+500






PDL (M)	EG LEVEL (M)	STATION
732.625	733.961	0+750
732.813	733.999	0+775
733.000	734.082	0+800
733.038	734.165	0+825
733.077	734.248	0+850
733.115	734.331	0+875
733.154	734.414	0+900
733.192	734.497	0+925
733.231	734.579	0+950
733.269	734.662	0+975
733.308	734.745	1+000
733.346	734.828	1+025
733.385	734.911	1+050
733.423	734.994	1+075
733.462	735.077	1+100
733.500	735.160	1+125
733.537	735.243	1+150
733.575	735.326	1+175
733.613	735.407	1+200
733.651	735.487	1+225
733.689	735.566	1+250
733.727	735.646	1+275
733.765	735.726	1+300
733.803	735.805	1+325
733.841	735.885	1+350
733.879	735.965	1+375
733.917	736.044	1+400
733.955	736.124	1+425
733.993	736.203	1+450
734.031	736.283	1+475
734.069	736.358	1+500

PLAN AND PROFILE FOR PIPE LINE 315mm pipe 5

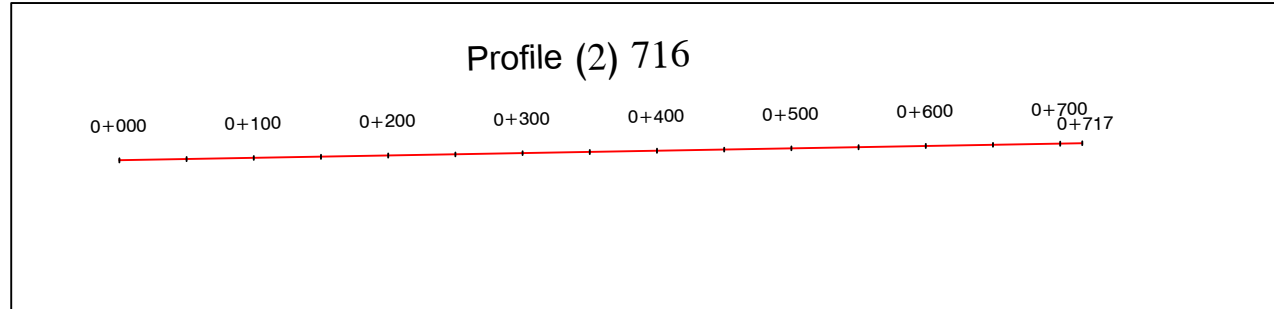
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 315 mm (PROPOSED)			SHEET
			DESIGNED: Dr.Hashim M.H CHECKED: Prof.Siddig E.A	DRAWN: Nada S.A. DRAFTING COORDINATION: UNOPS	APPROVED FOR IMPLEMENTATION:	CONTRACT NUMBER:
IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 						



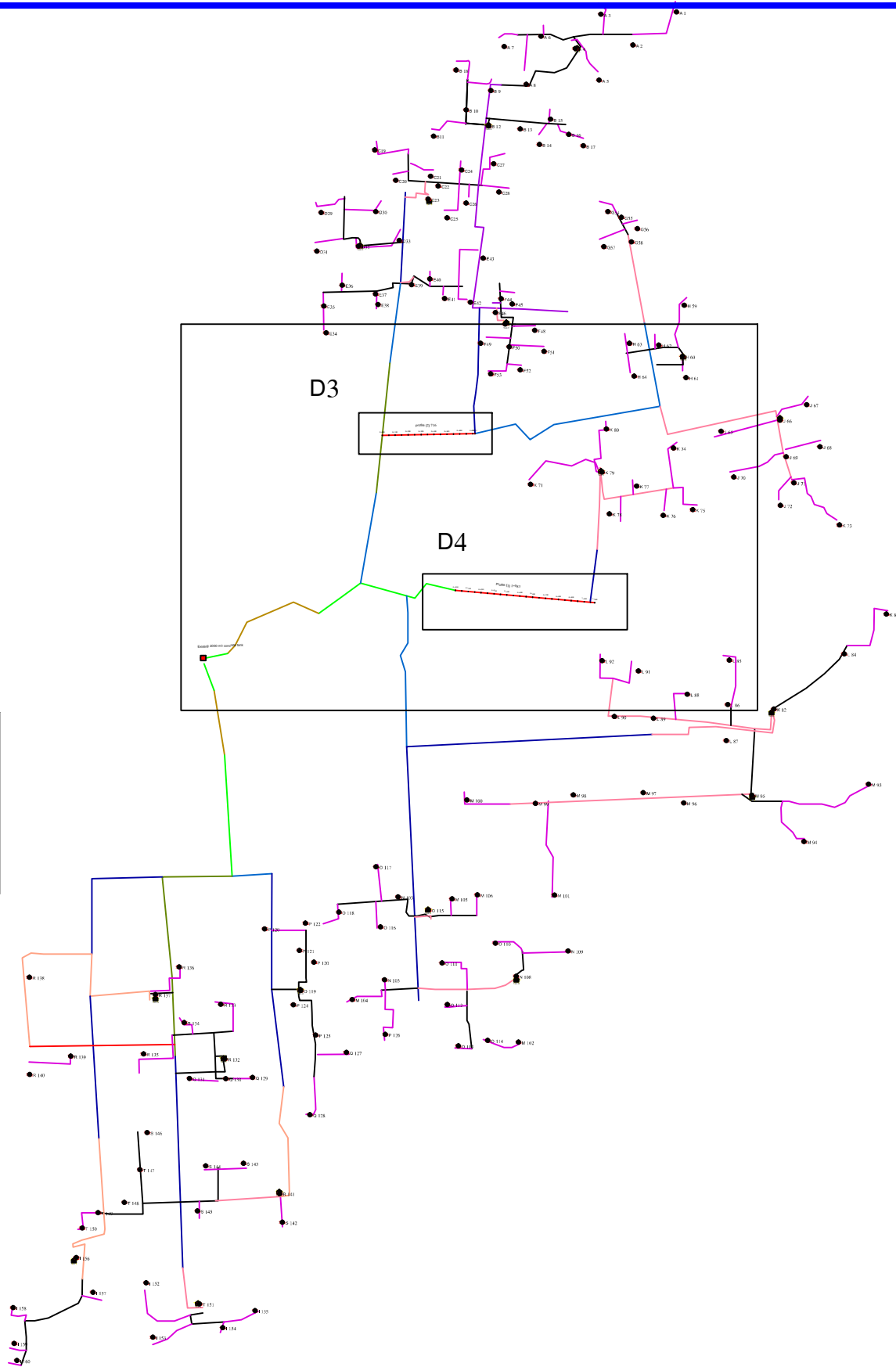
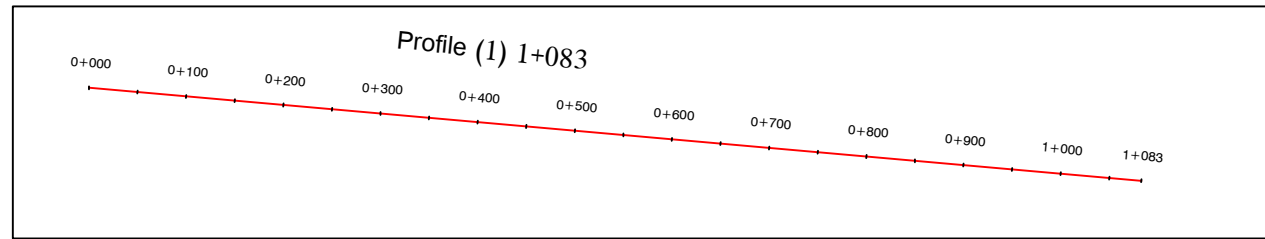
PLAN AND PROFILE FOR PIPE LINE 315mm pipe 5

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 315 mm (PROPOSED)	SHEET
		DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:
		CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER DATE: JANUARY 2019 DRAWING No: 315-11

D3



D4



CLIENT: UWA – Urban Water Administration
SWC - STATE WATER CORPORATION

PROJECT: DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
Urban Water Scheme**

FUNDED BY:
DID
DEPARTMENT FOR
INTERNATIONAL DEVELOPMENT



IMPLEMENTED BY:
UNOPS
UNITED NATIONS OFFICE
FOR PROJECT SERVICES



REV.:	DESCRIPTION	DATE	SIGN.

DRAWN TITLE: **PLAN AND PROFILE FOR PIPE LINE 250 mm (PROPOSED)**

DESIGNED :
Dr.Hashim M.H

DRAWN :
Nada S.A.

APPROVED FOR IMPLEMENTATION :

CHECKED :
Prof.Siddig E.A

DRAFTING COORDINATION :
UNOPS

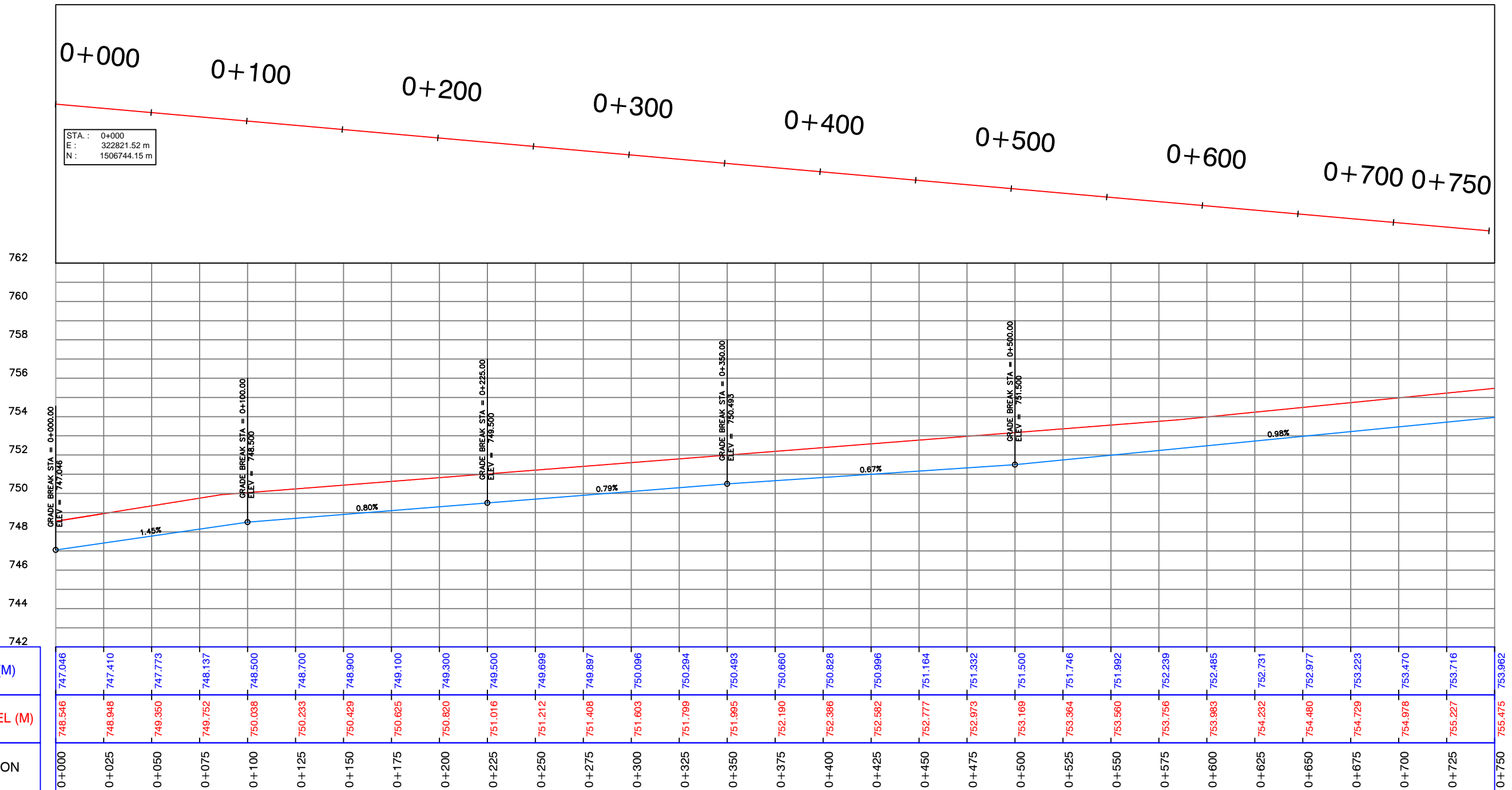
CONTRACT NUMBER

DATE:
JANUARY 2019

SHEET

SCALE:
AS SHOWN

DRAWING No: **250-1**



Profile (1-1)

CLIENT : UWA – Urban Water Administration
 SWC - STATE WATER CORPORATION

PROJECT :
 DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
 Urban Water Scheme**

FUNDED BY:
DID
 DEPARTMENT FOR
 INTERNATIONAL DEVELOPMENT

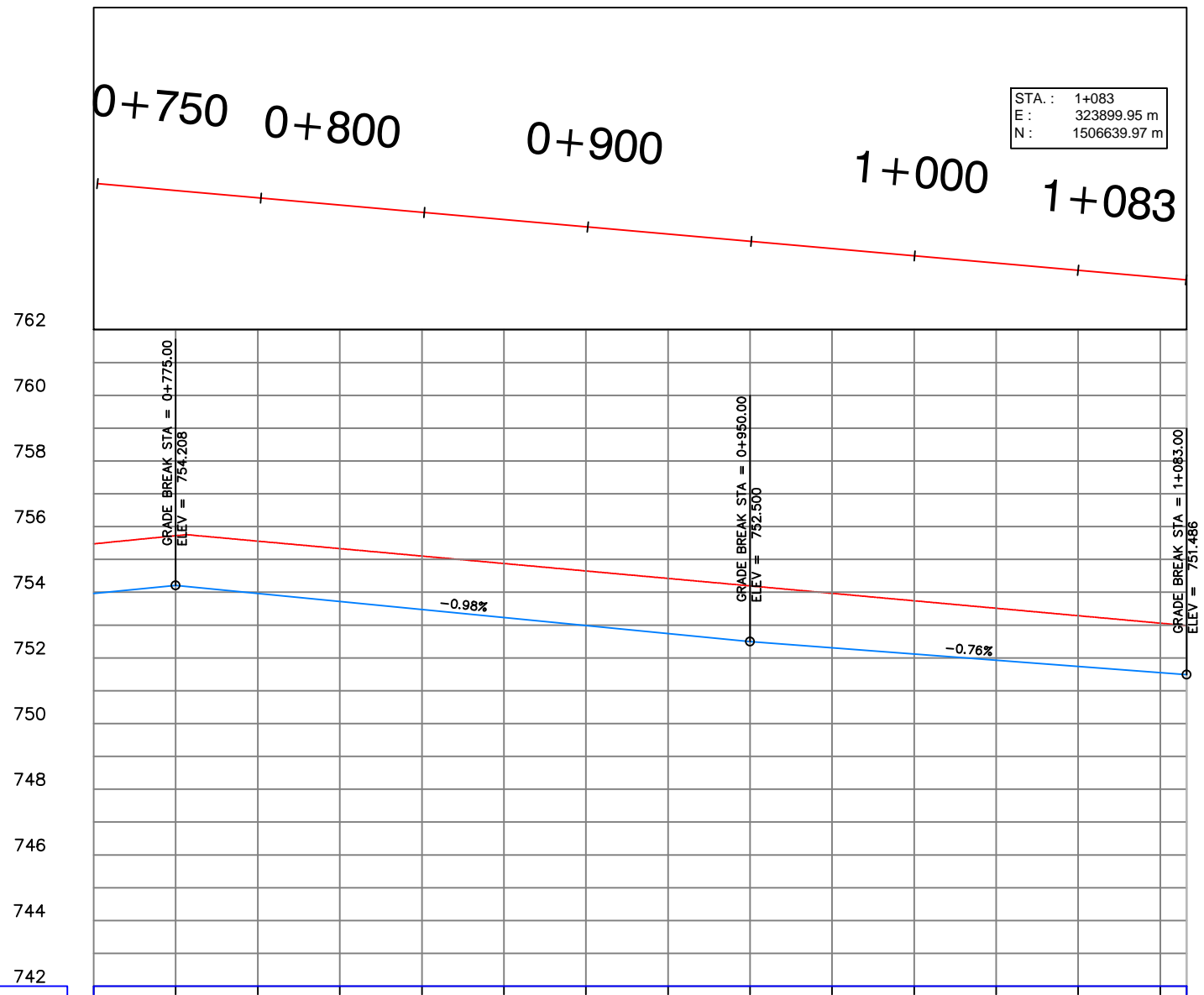



IMPLEMENTED BY:
UNOPS
 UNITED NATIONS OFFICE
 FOR PROJECT SERVICES






REV.	DESCRIPTION	DATE	SIGN.

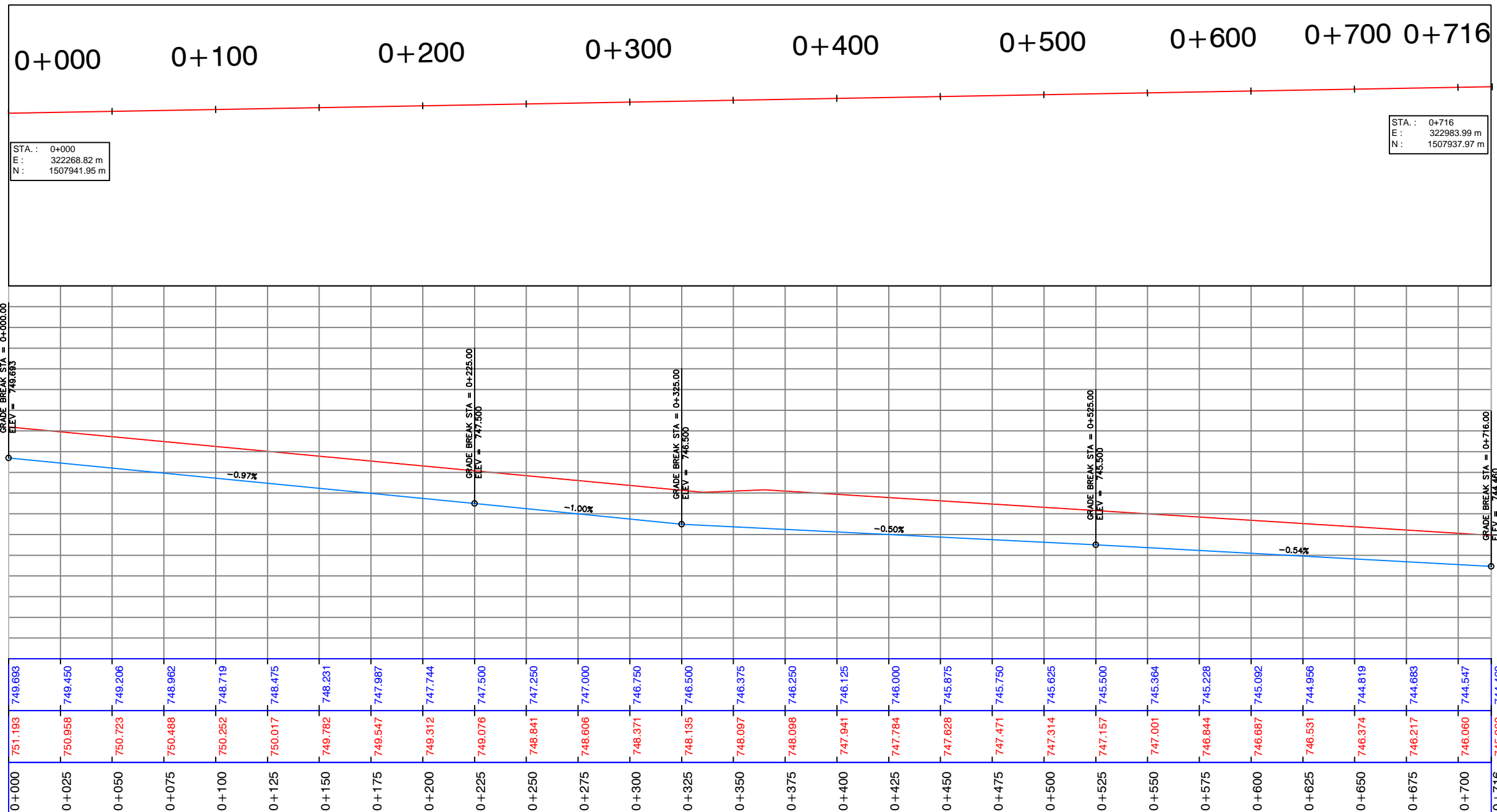
DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 250 mm (PROPOSED)				SHEET
DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :		SCALE: AS SHOWN
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 250-2







PDL (M)	753.962	754.208	753.964	753.720	753.476	753.232	752.988	752.744	752.500	752.309	752.119	751.928	751.738	751.547	751.486
EG LEVEL (M)	755.475	755.724	755.558	755.330	755.103	754.876	754.649	754.422	754.195	753.968	753.741	753.513	753.286	753.059	752.832
STATION	0+750	0+775	0+800	0+825	0+850	0+875	0+900	0+925	0+950	0+975	1+000	1+025	1+050	1+075	1+083

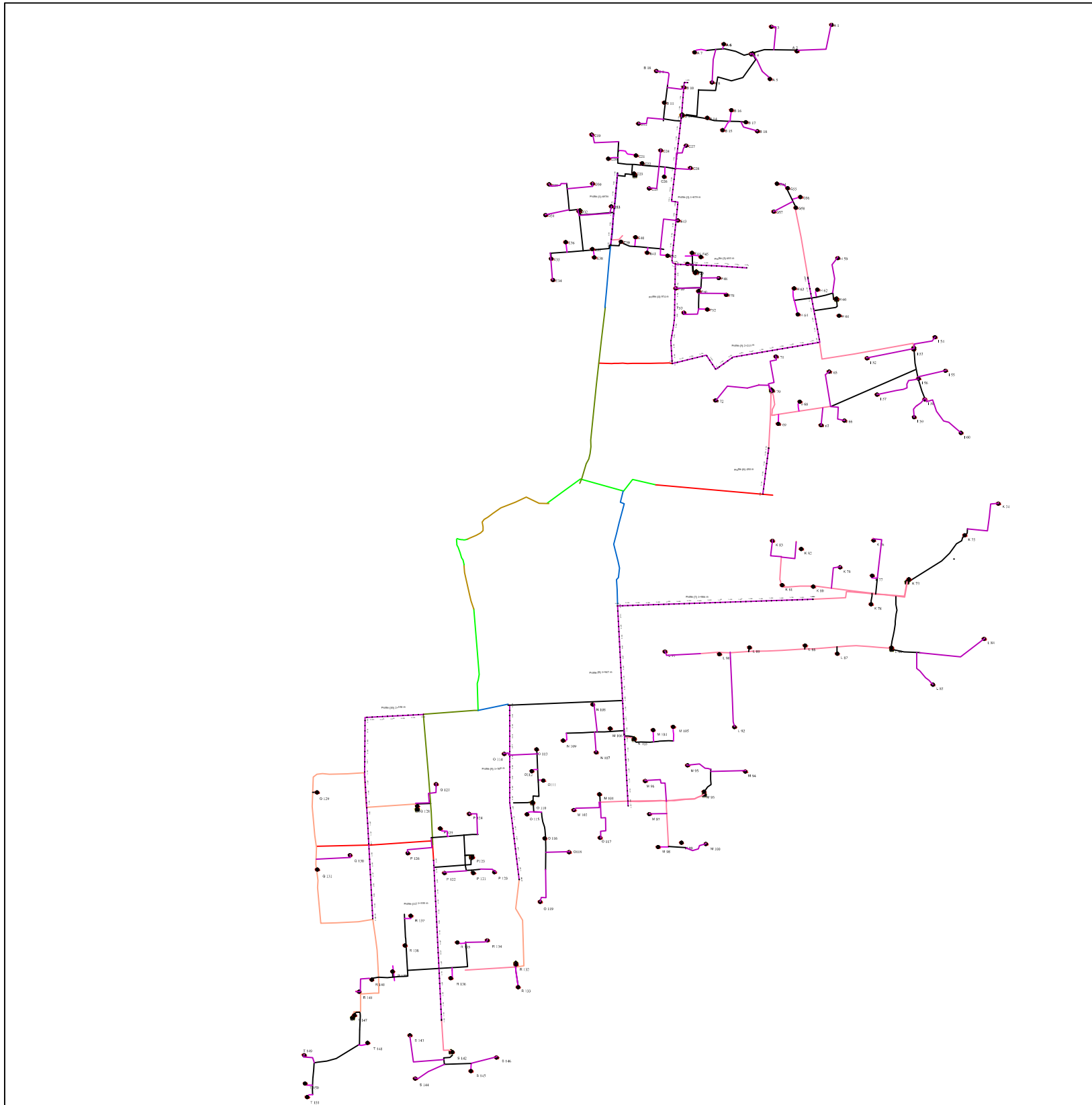
Profile (1-2)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT	 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 250 mm (PROPOSED)			SHEET
PROJECT : DARFUR URBAN WATER SUPPLY PROJECT	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES						DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
Design of El Fasher Urban Water Scheme							CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019
										DRAWING No: 250-3



Profile (2)

CLIENT : UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT : DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES  	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 250 mm (PROPOSED)	SHEET	
		DESIGNED :	Dr.Hashim M.H	DRAWN :	Nada S.A.		APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
		CHECKED :	Prof.Siddig E.A	DRAFTING COORDINATION :	UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 250-4



CLIENT: UWA – Urban Water Administration
SWC - STATE WATER CORPORATION

PROJECT :
DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
Urban Water Scheme**

FUNDED BY:
DID
DEPARTMENT FOR
INTERNATIONAL DEVELOPMENT



IMPLEMENTED BY:
UNOPS
UNITED NATIONS OFFICE
FOR PROJECT SERVICES



REV.:	DESCRIPTION	DATE	SIGN.

DRAWN TITLE : **PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)**

DESIGNED :
Dr.Hashim M.H

DRAWN :
Nada S.A.

APPROVED FOR IMPLEMENTATION :

CHECKED :
Prof.Siddig E.A

DRAFTING COORDINATION :
UNOPS

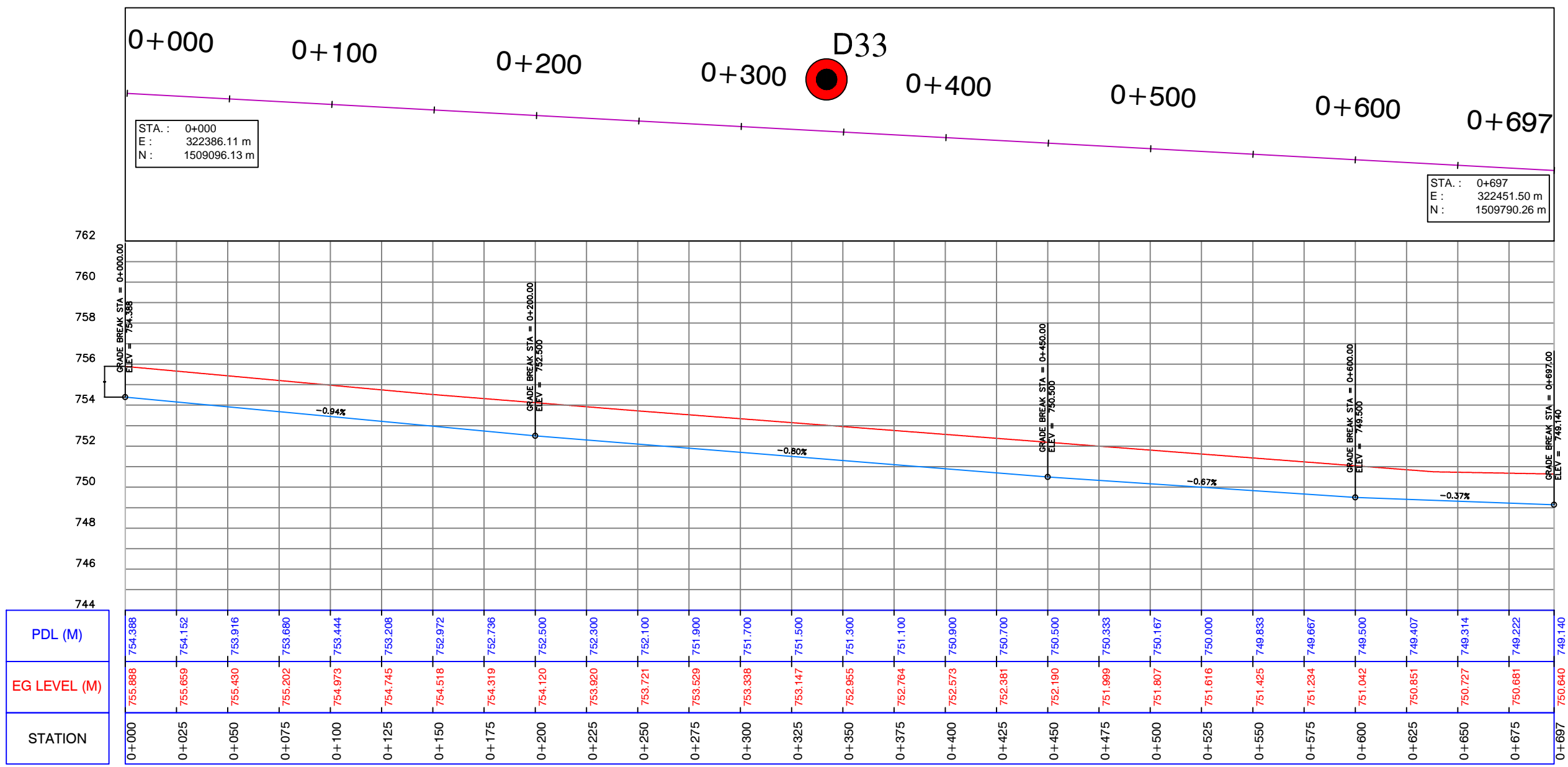
CONTRACT NUMBER

DATE:
JANUARY 2019




SHEET

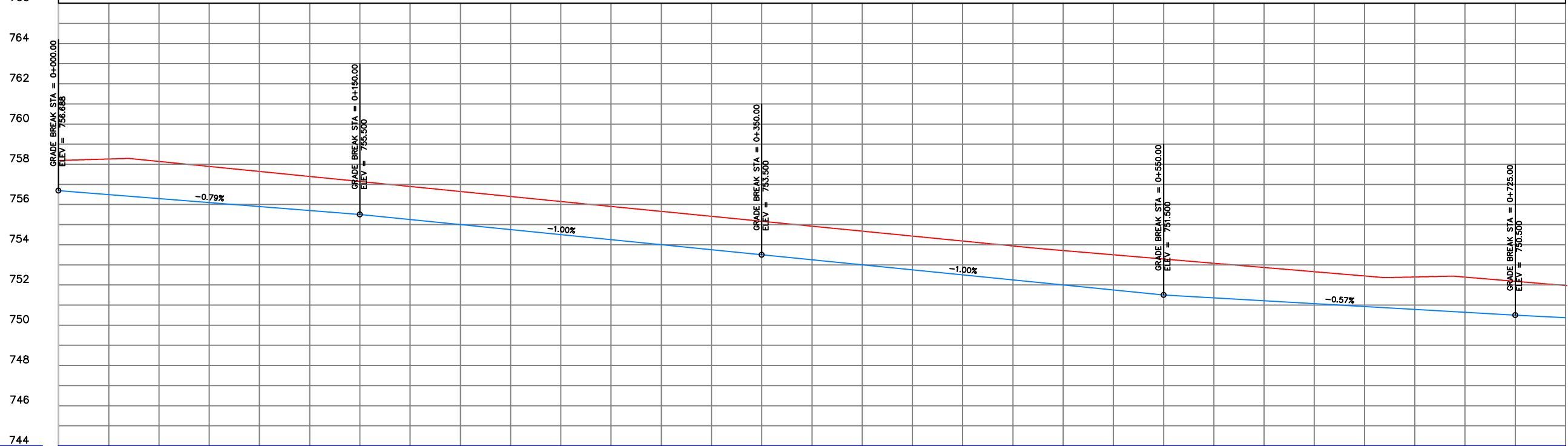
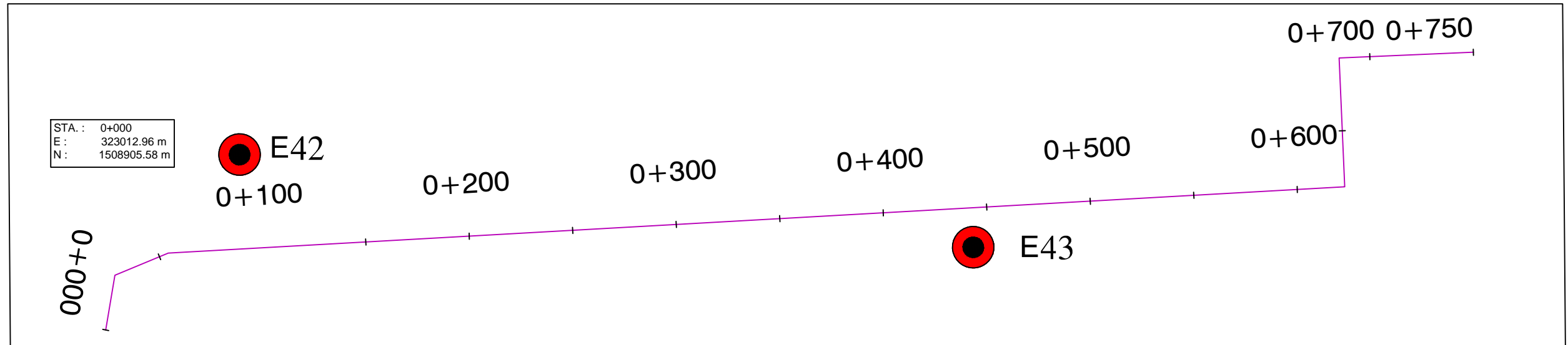
SCALE:
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DRAWING No: **200-1**



Profile (1)

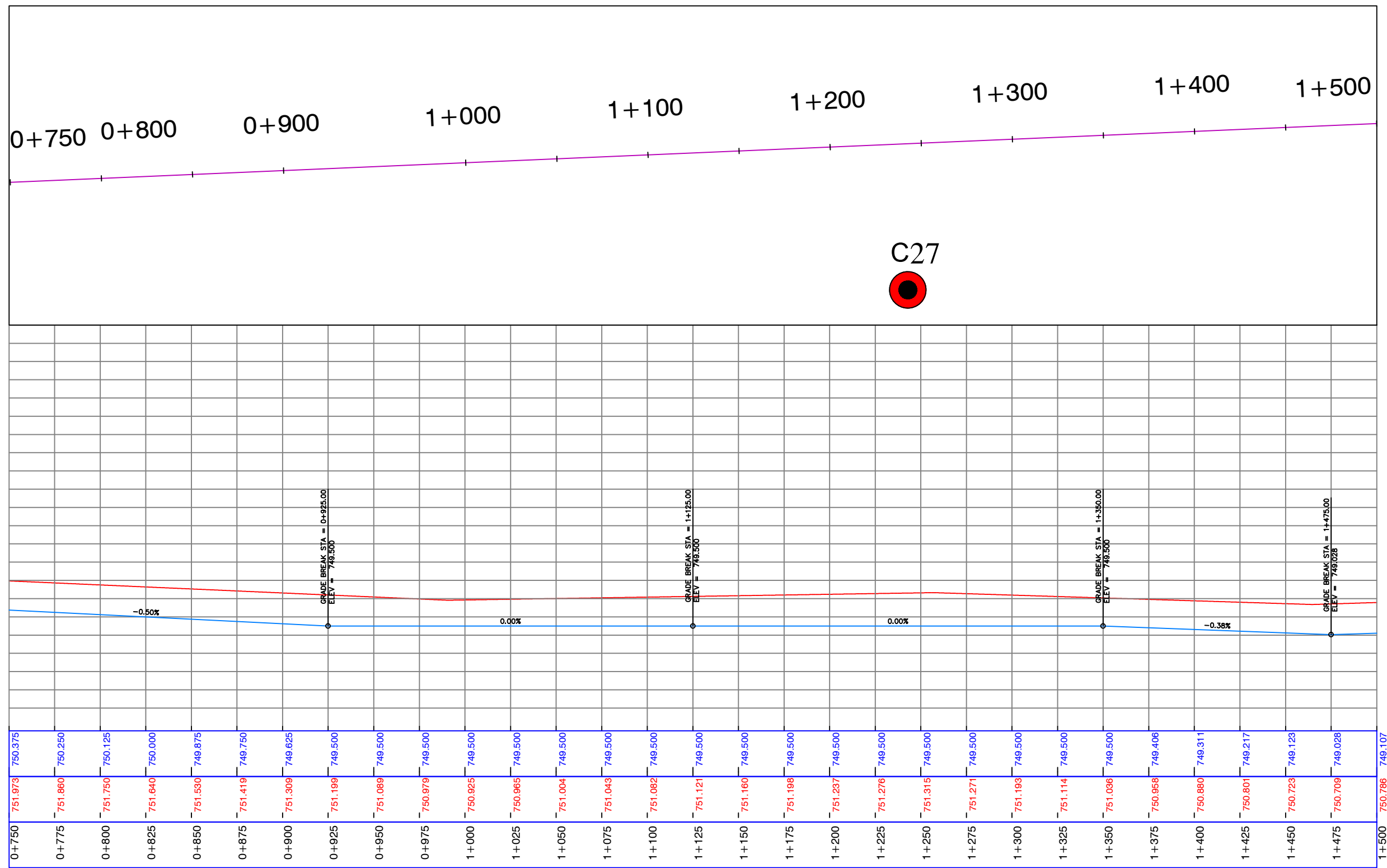
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 200mm (PROPOSED)	SHEET		
								DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.
IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 					CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 200-2



STATION	EG LEVEL (M)	PDL (M)
0+000	758.188	756.688
0+025	758.262	756.490
0+050	758.141	756.292
0+075	757.892	756.094
0+100	757.643	755.896
0+125	757.394	755.698
0+150	757.145	755.500
0+175	756.896	755.250
0+200	756.647	755.000
0+225	756.398	754.750
0+250	756.149	754.500
0+275	755.904	754.250
0+300	755.658	754.000
0+325	755.413	753.750
0+350	755.167	753.500
0+375	754.921	753.250
0+400	754.676	753.000
0+425	754.430	752.750
0+450	754.185	752.500
0+475	753.939	752.250
0+500	753.711	752.000
0+525	753.500	751.750
0+550	753.290	751.500
0+575	753.080	751.357
0+600	752.869	751.214
0+625	752.659	751.071
0+650	752.448	750.929
0+675	752.397	750.786
0+700	752.390	750.643
0+725	752.182	750.500
0+750	751.973	750.375

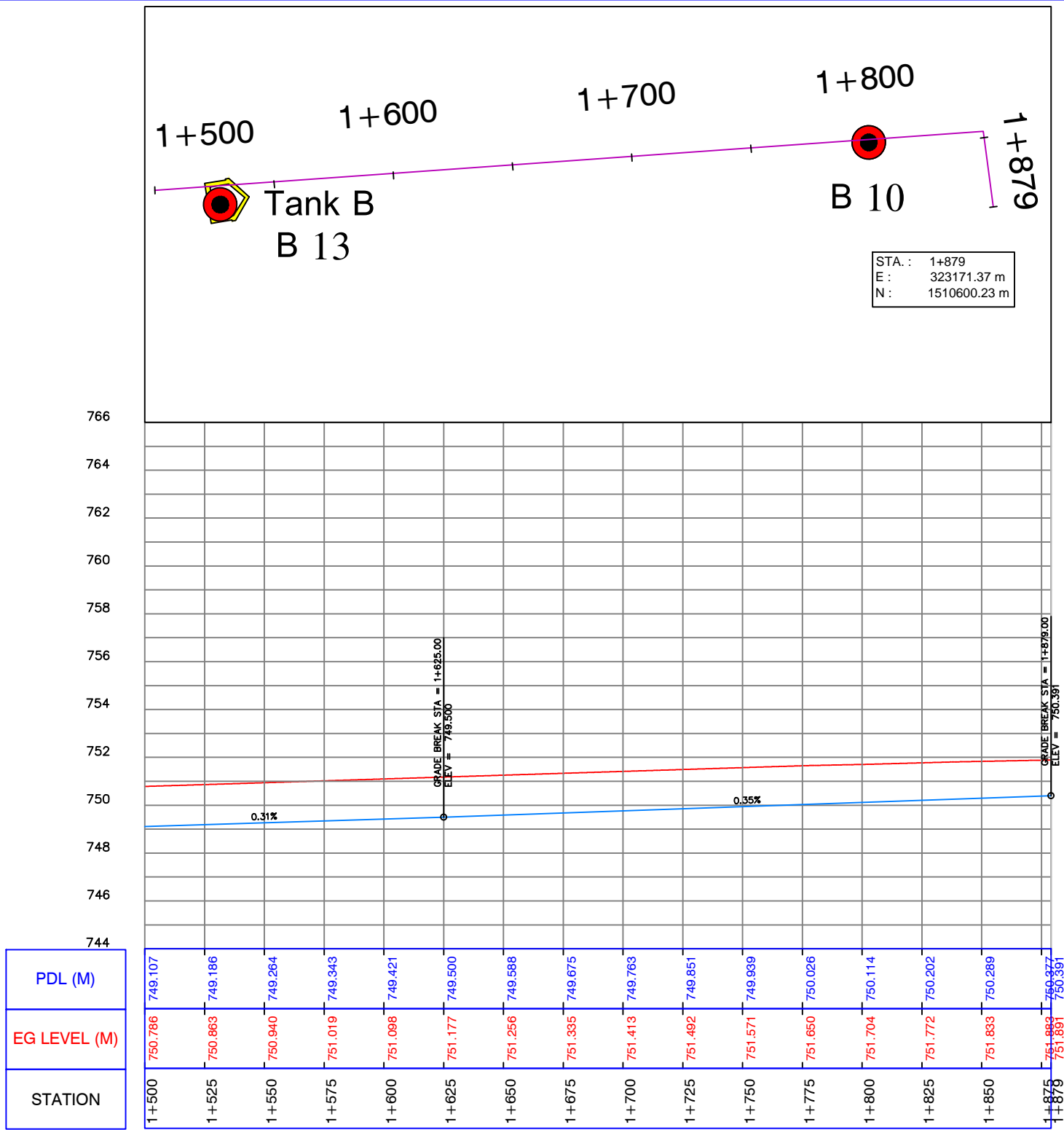
Profile (2-1) Existing

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>SIGN.</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	REV.	DESCRIPTION	DATE	SIGN.																	DRAWN TITLE: <h3 style="text-align: center;">PLAN AND PROFILE FOR PIPE LINE 200mm (PROPOSED)</h3> DESIGNED: Dr.Hashim M.H DRAWN: Nada S.A. CHECKED: Prof.Siddig E.A DRAFTING COORDINATION: UNOPS	SHEET SCALE: AS SHOWN DRAWING No: 200-3
REV.	DESCRIPTION	DATE	SIGN.																					
				APPROVED FOR IMPLEMENTATION : CONTRACT NUMBER DATE: JANUARY 2019																				



Profile (2-2) Existing

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT		REV. DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200mm (PROPOSED)			SHEET
	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES		DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :		SCALE: AS SHOWN
			CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 200-4



Profile (2-3) Existing

CLIENT : UWA – Urban Water Administration
 SWC - STATE WATER CORPORATION

PROJECT :
 DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
 Urban Water Scheme**

FUNDED BY:
DID
 DEPARTMENT FOR
 INTERNATIONAL DEVELOPMENT



Department
 for International
 Development

IMPLEMENTED BY:
UNOPS
 UNITED NATIONS OFFICE
 FOR PROJECT SERVICES



REV.	DESCRIPTION	DATE	SIGN.

DRAWN TITLE :
PLAN AND PROFILE FOR PIPE LINE 200mm (PROPOSED)

DESIGNED :
Dr.Hashim M.H

DRAWN :
Nada S.A.

CHECKED :
Prof.Siddig E.A

DRAFTING COORDINATION :
UNOPS

APPROVED FOR IMPLEMENTATION :

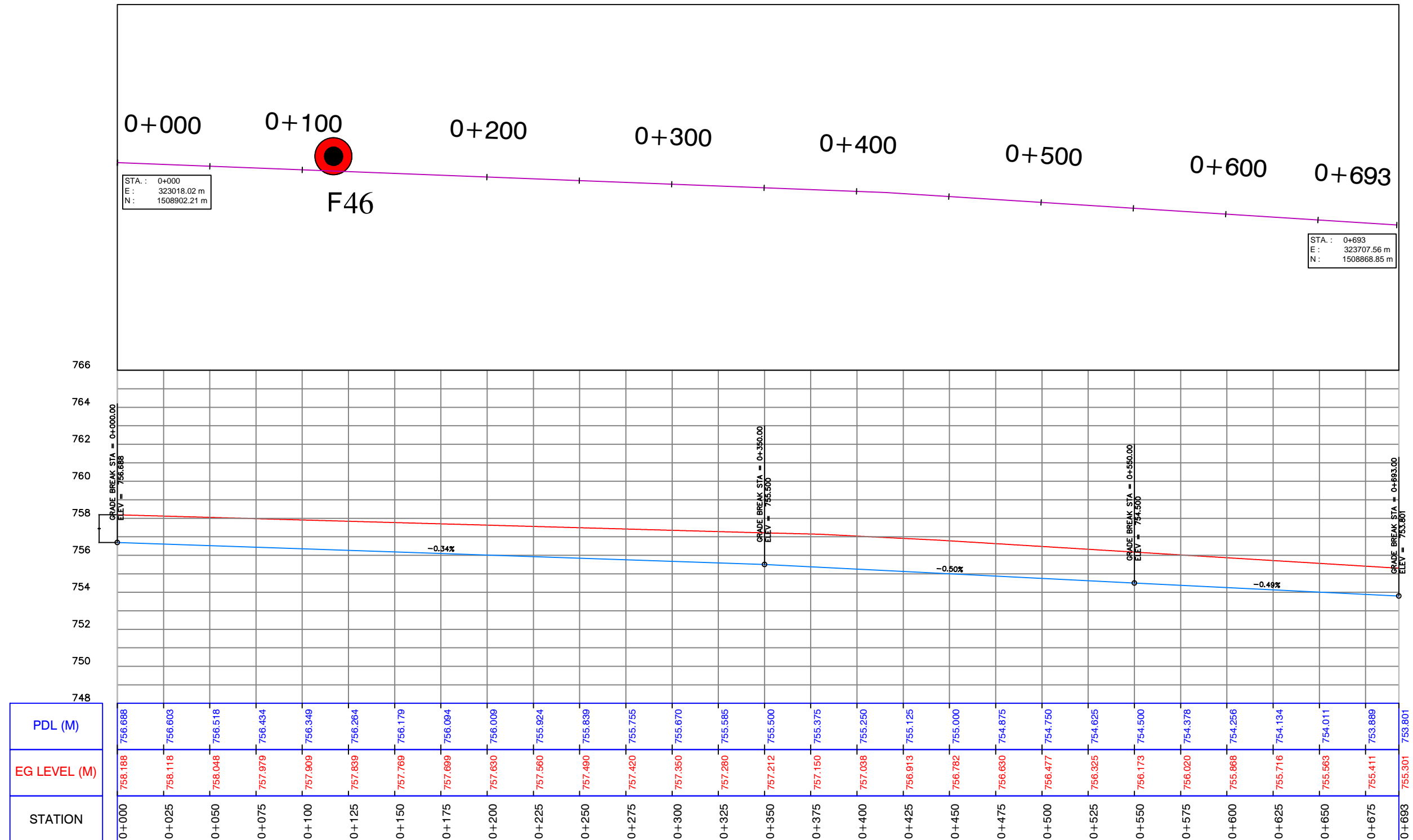
CONTRACT NUMBER

DATE:
JANUARY 2019




SHEET

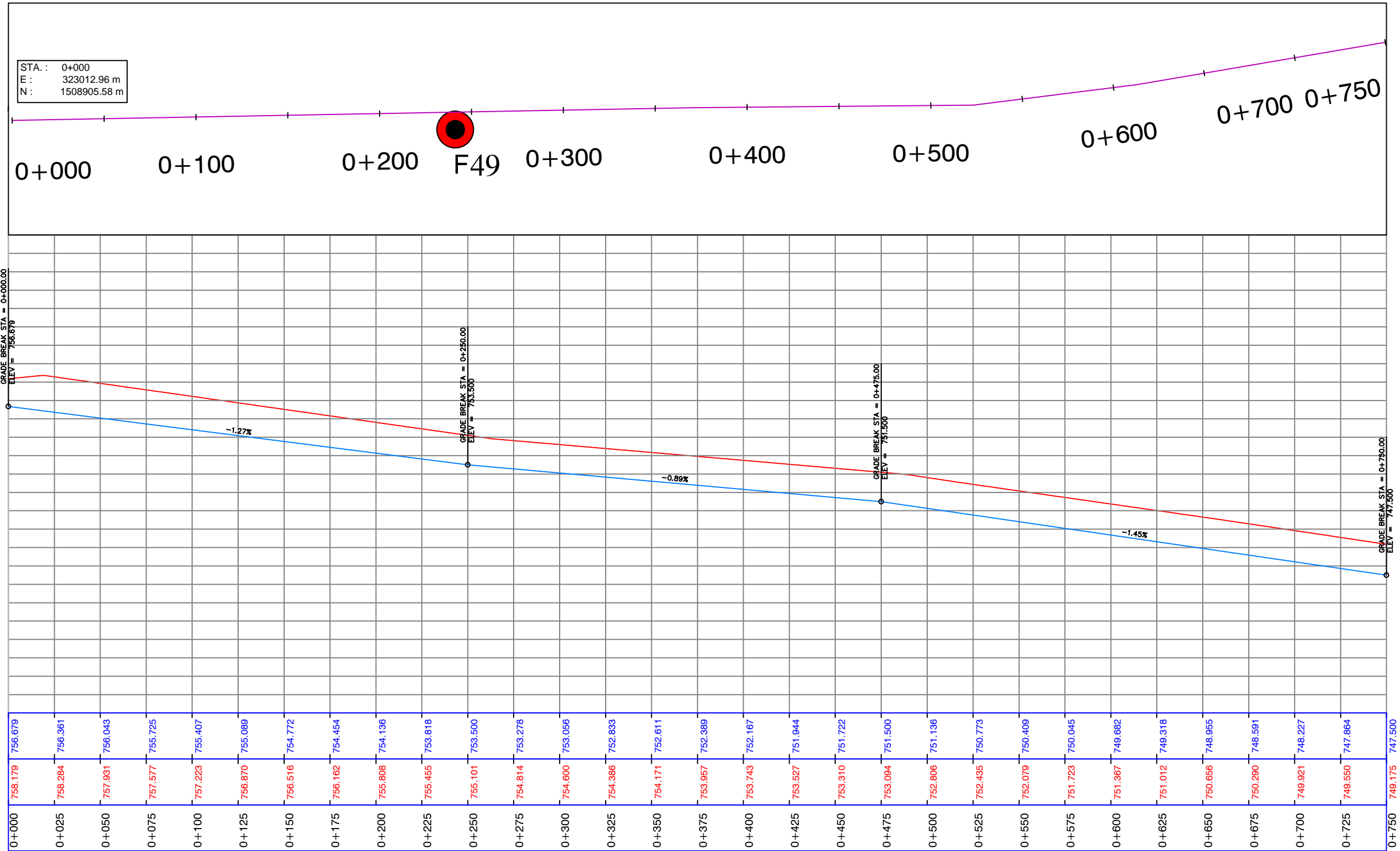
SCALE:
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DRAWING No:
200-5






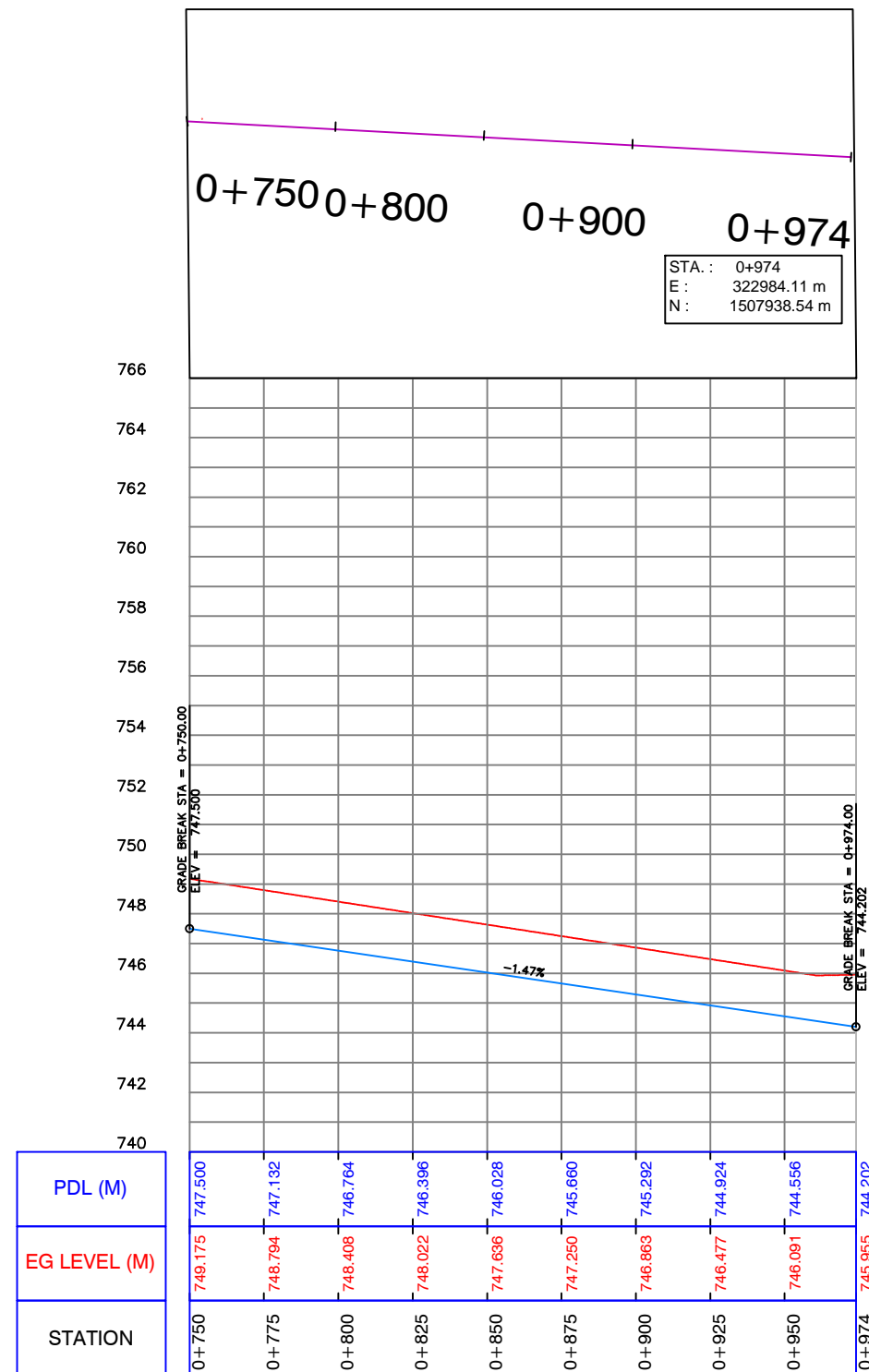
Profile (3)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV. DESCRIPTION DATE SIGN. 	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200mm (PROPOSED)			SHEET SCALE: AS SHOWN
			DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	
IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 		CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 200-6





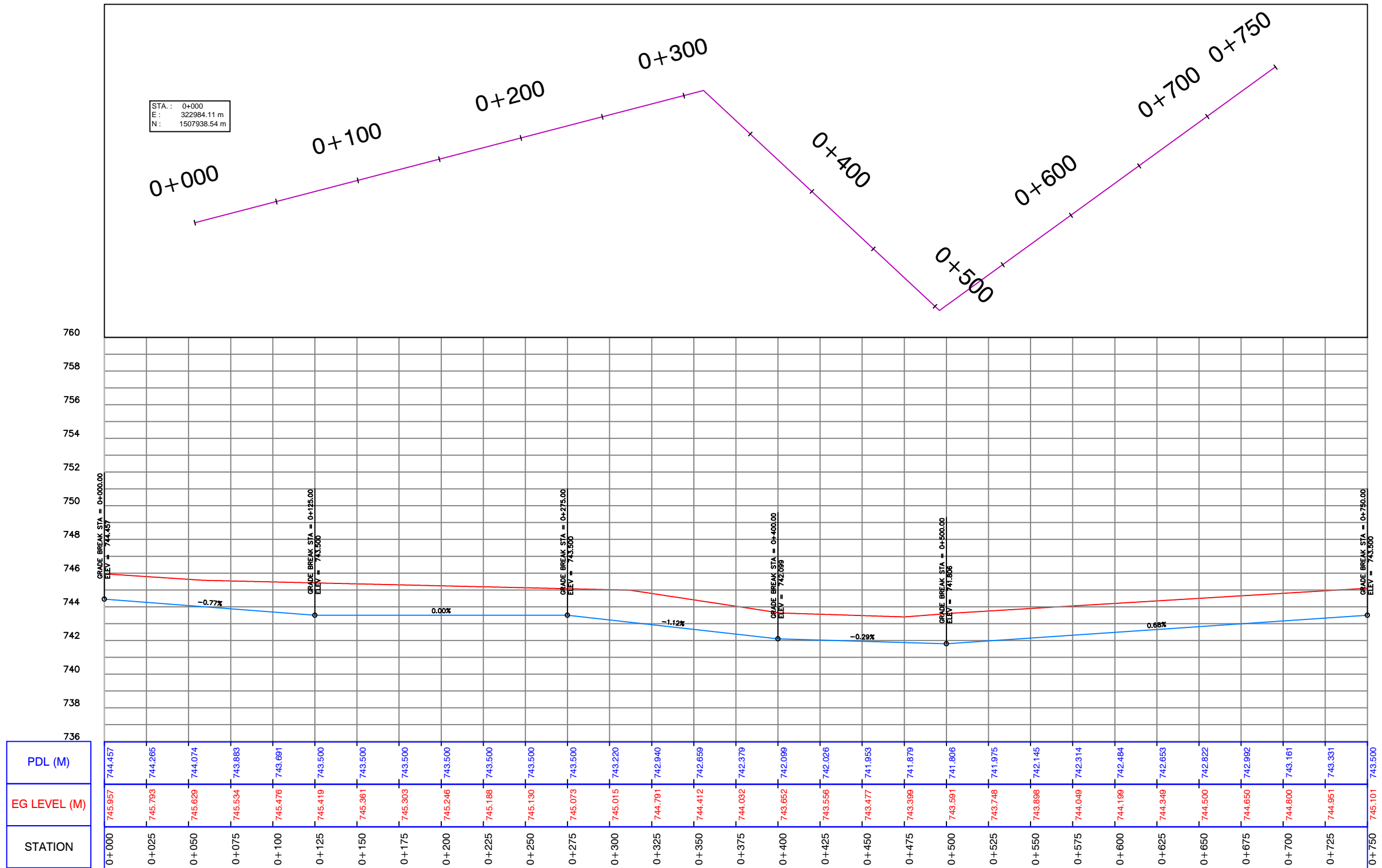
Profile (4-1)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION		FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT		 		REV. DESCRIPTION DATE SIGN.		DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 200mm (PROPOSED)		SHEET	
PROJECT: DARFUR URBAN WATER SUPPLY PROJECT		IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES						DESIGNED: Dr.Hashim M.H		DRAWN: Nada S.A.	
Design of El Fasher Urban Water Scheme								APPROVED FOR IMPLEMENTATION :		SCALE: AS SHOWN	
								CHECKED: Prof.Siddig E.A		DRAFTING COORDINATION : UNOPS	
								CONTRACT NUMBER		DATE: JANUARY 2019	
										DRAWING No: 200-7	






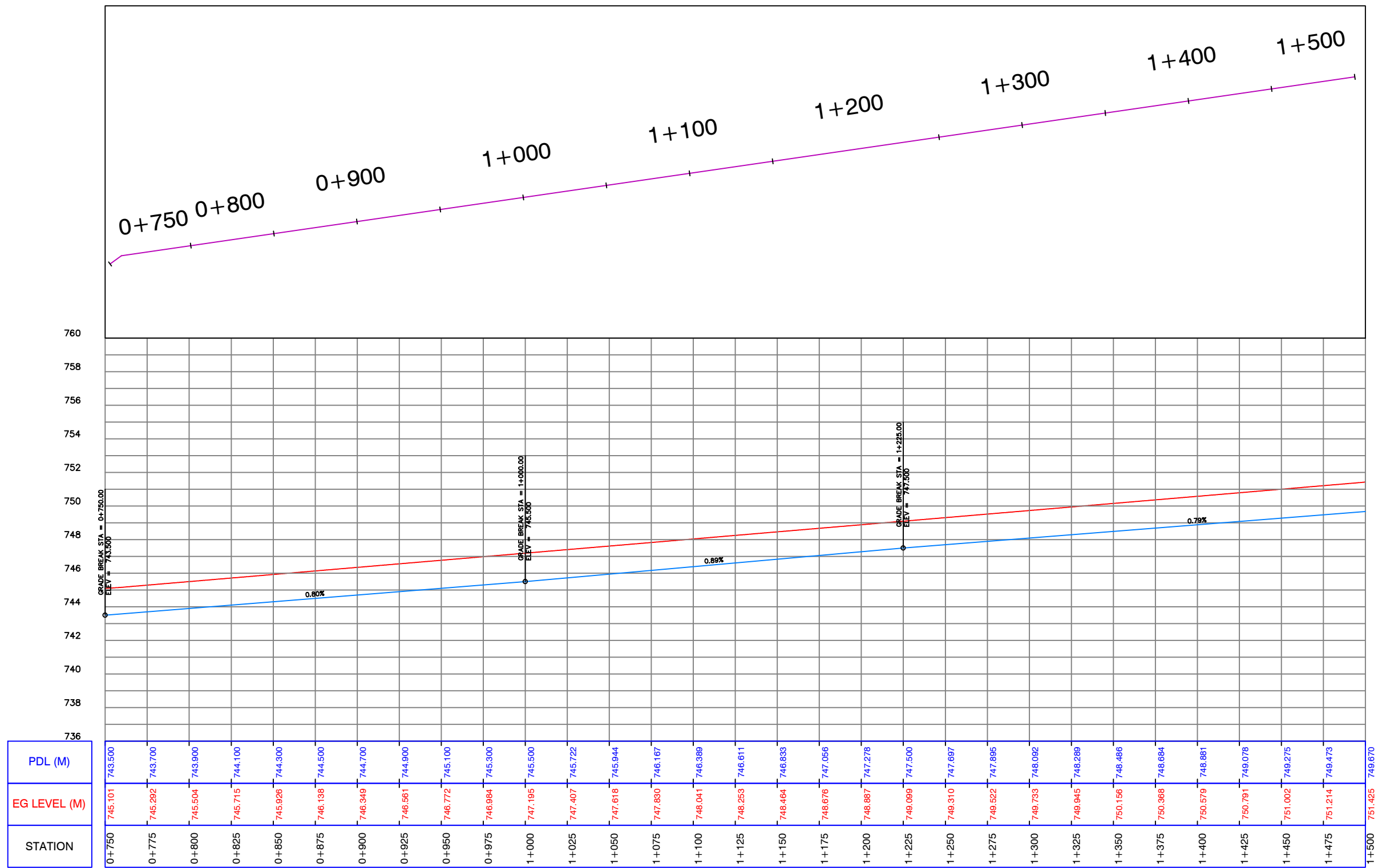
Profile (4-2)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 200mm (PROPOSED)			SHEET
		IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:	
		CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 200-8






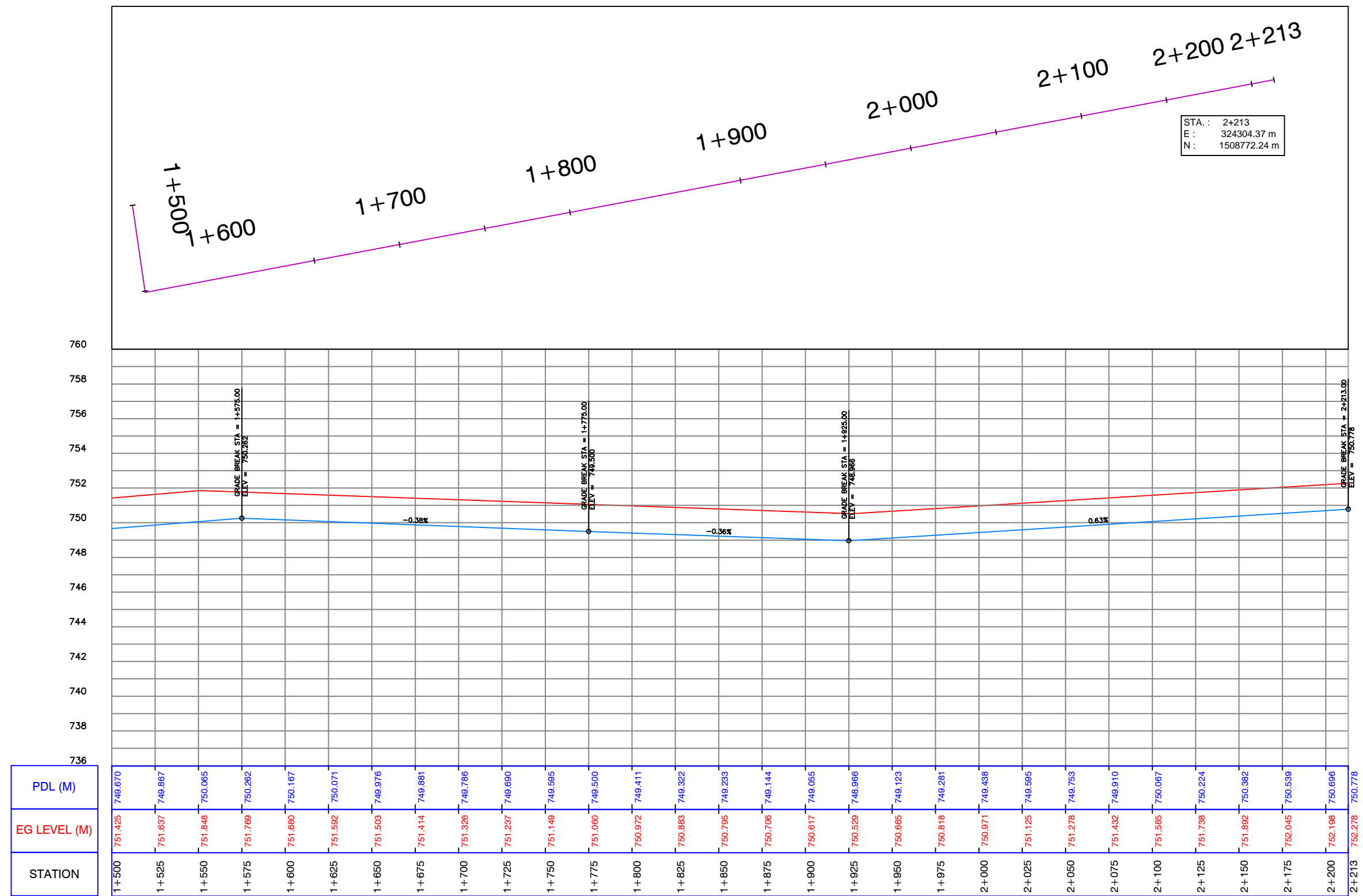
Profile (5-1)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200mm (PROPOSED)			SHEET	
		IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 					DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	
						CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 200-9



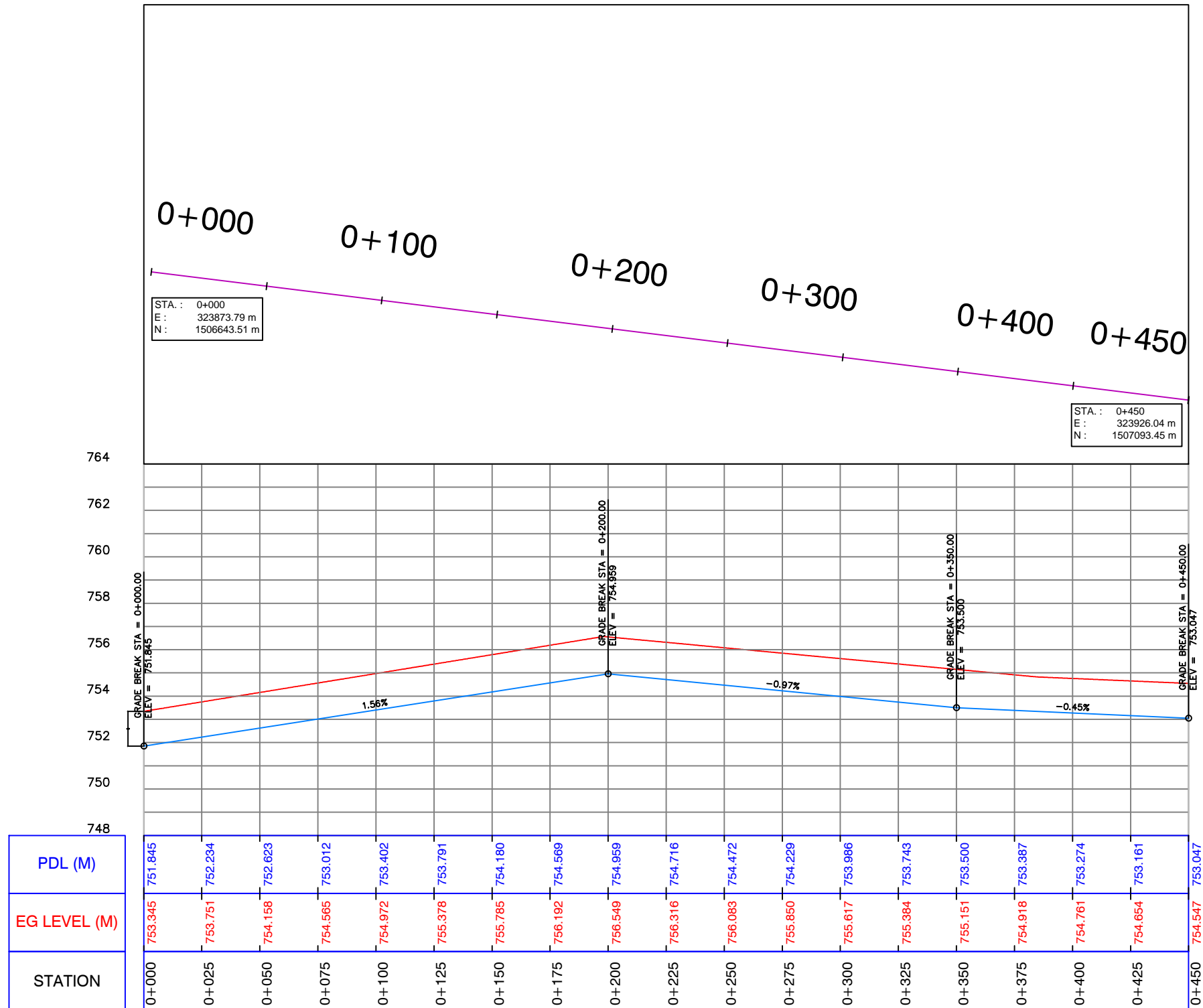
Profile (5-2)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 200mm (PROPOSED)	SHEET			
		IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 						DESIGNED: Dr.Hashim M.H.	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:
						CHECKED: Prof.Siddig E.A.	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 200-10






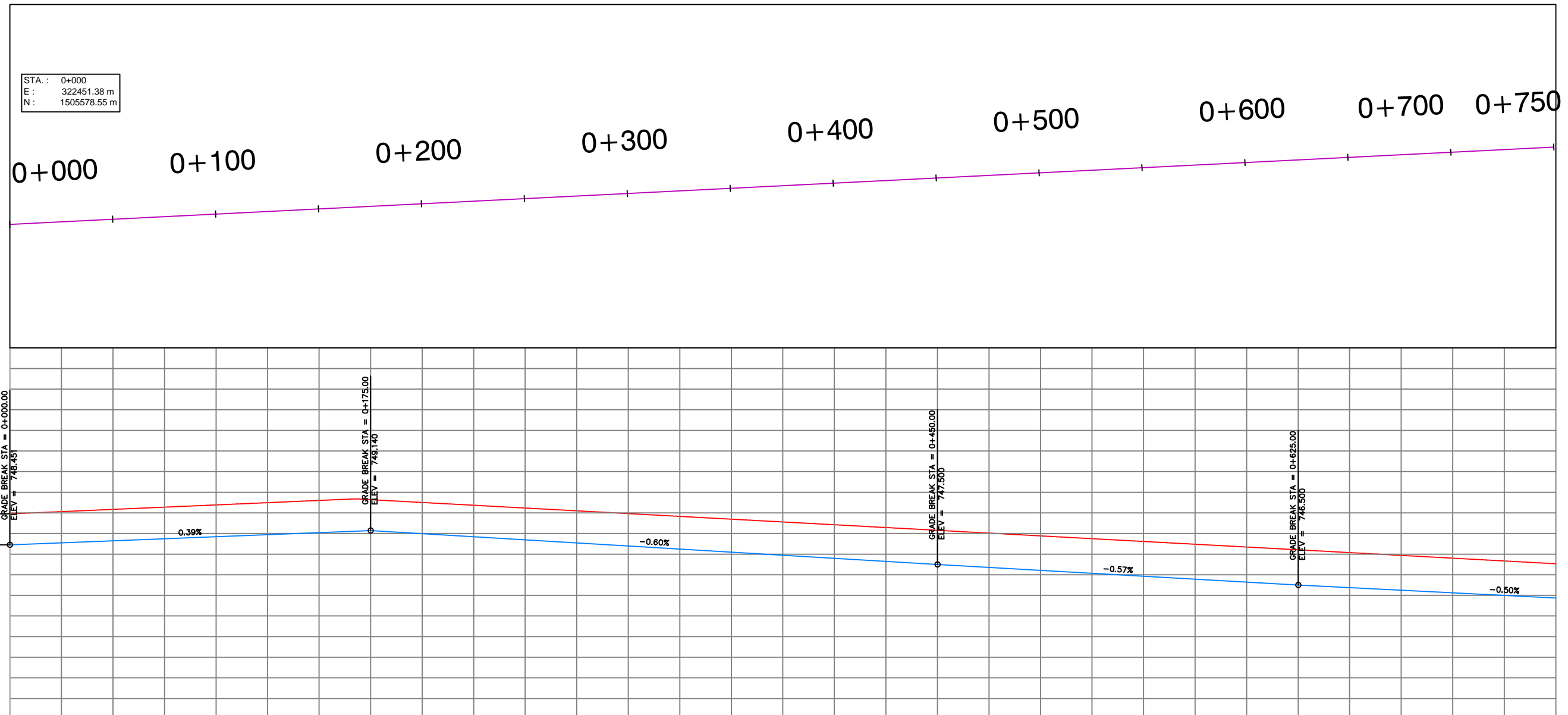
Profile (5-3)

CLIENT : UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT : DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT		REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 20mm (PROPOSED)	SHEET	
	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES		DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
			CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER DATE: JANUARY 2019	DRAWING No: 200-11





Profile (6)

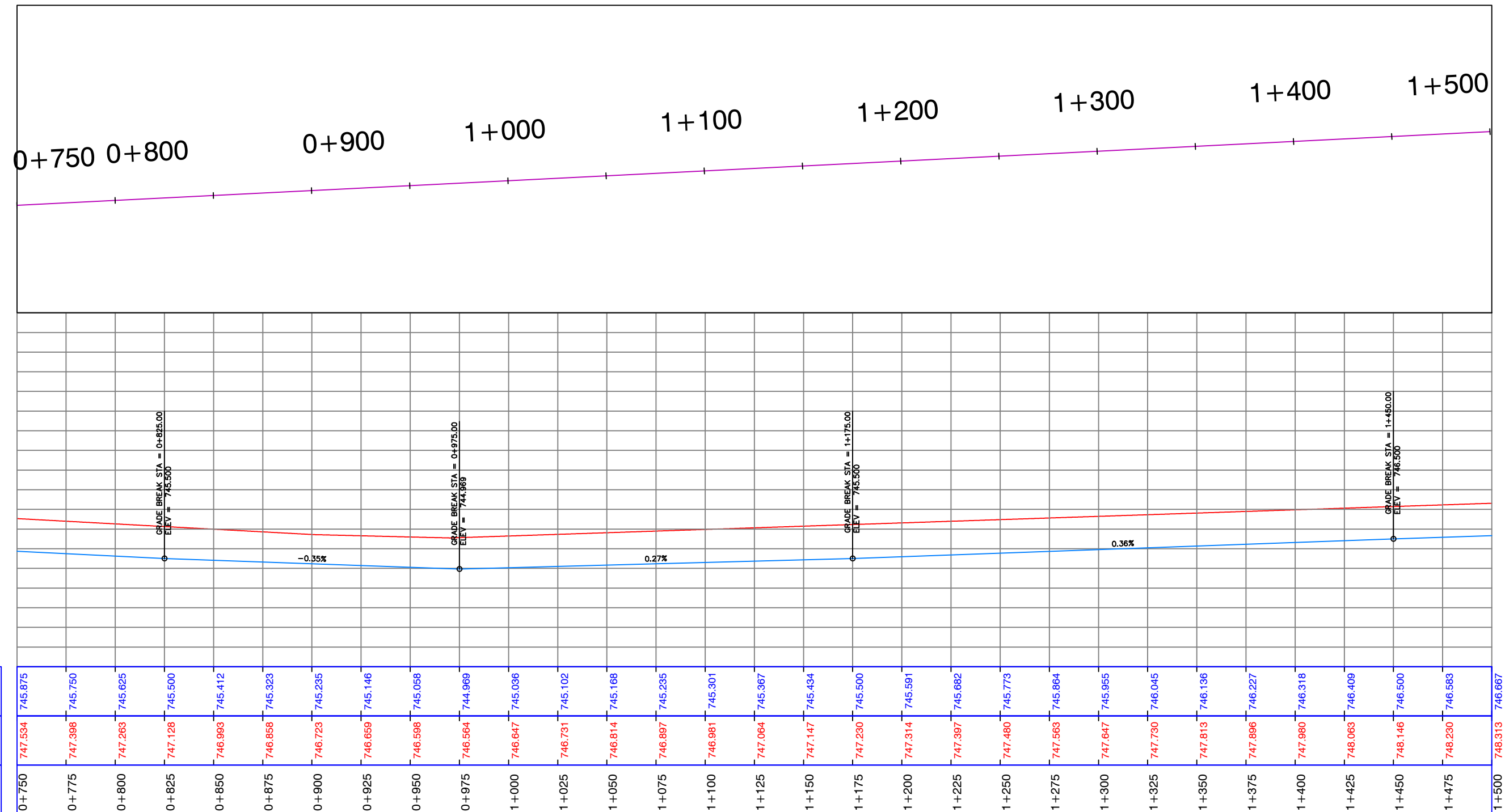
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PROJECT: DARFUR URBAN WATER SUPPLY PROJECT		IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES						DESIGNED : Dr.Hashim M.H Tumushabi K.I	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :		
Design of El Fasher Urban Water Scheme								CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	SCALE: AS SHOWN
											DRAWING No: 200-12	





STATION	EG LEVEL (M)	PDL (M)
0+000	749.951	748.451
0+025	750.060	748.550
0+050	750.169	748.648
0+075	750.277	748.746
0+100	750.386	748.845
0+125	750.495	748.943
0+150	750.603	749.041
0+175	750.640	749.140
0+200	750.505	748.991
0+225	750.369	748.841
0+250	750.234	748.692
0+275	750.099	748.543
0+300	749.964	748.394
0+325	749.829	748.245
0+350	749.694	748.096
0+375	749.559	747.947
0+400	749.424	747.798
0+425	749.289	747.649
0+450	749.154	747.500
0+475	749.019	747.357
0+500	748.884	747.214
0+525	748.749	747.071
0+550	748.614	746.929
0+575	748.479	746.786
0+600	748.344	746.643
0+625	748.209	746.500
0+650	748.074	746.375
0+675	747.939	746.250
0+700	747.804	746.125
0+725	747.669	746.000
0+750	747.534	745.875

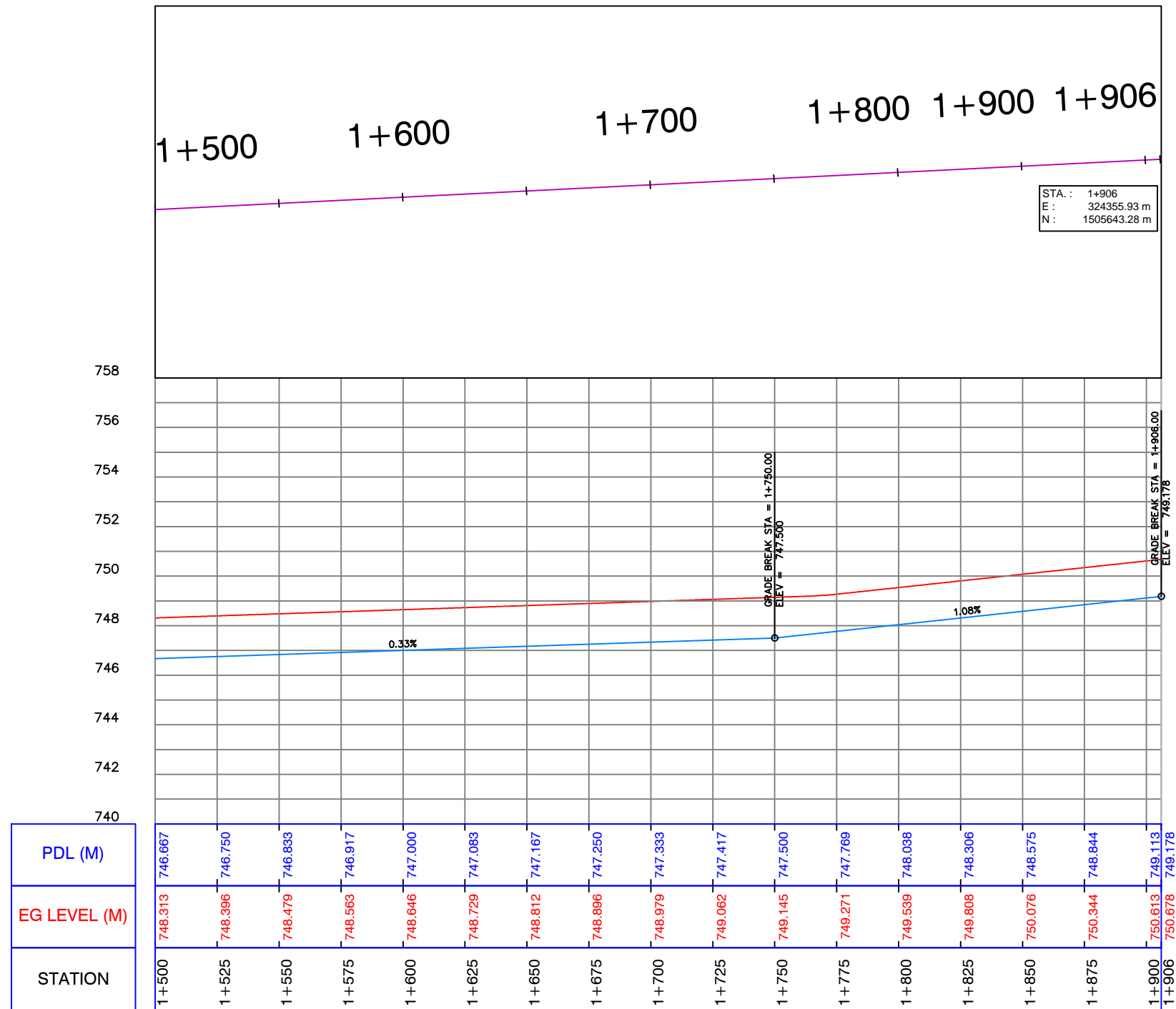
Profile (7-1)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)	SHEET
							DESIGNED : Dr.Hashim M.H Tumushabi K.I CHECKED : Prof.Siddig E.A





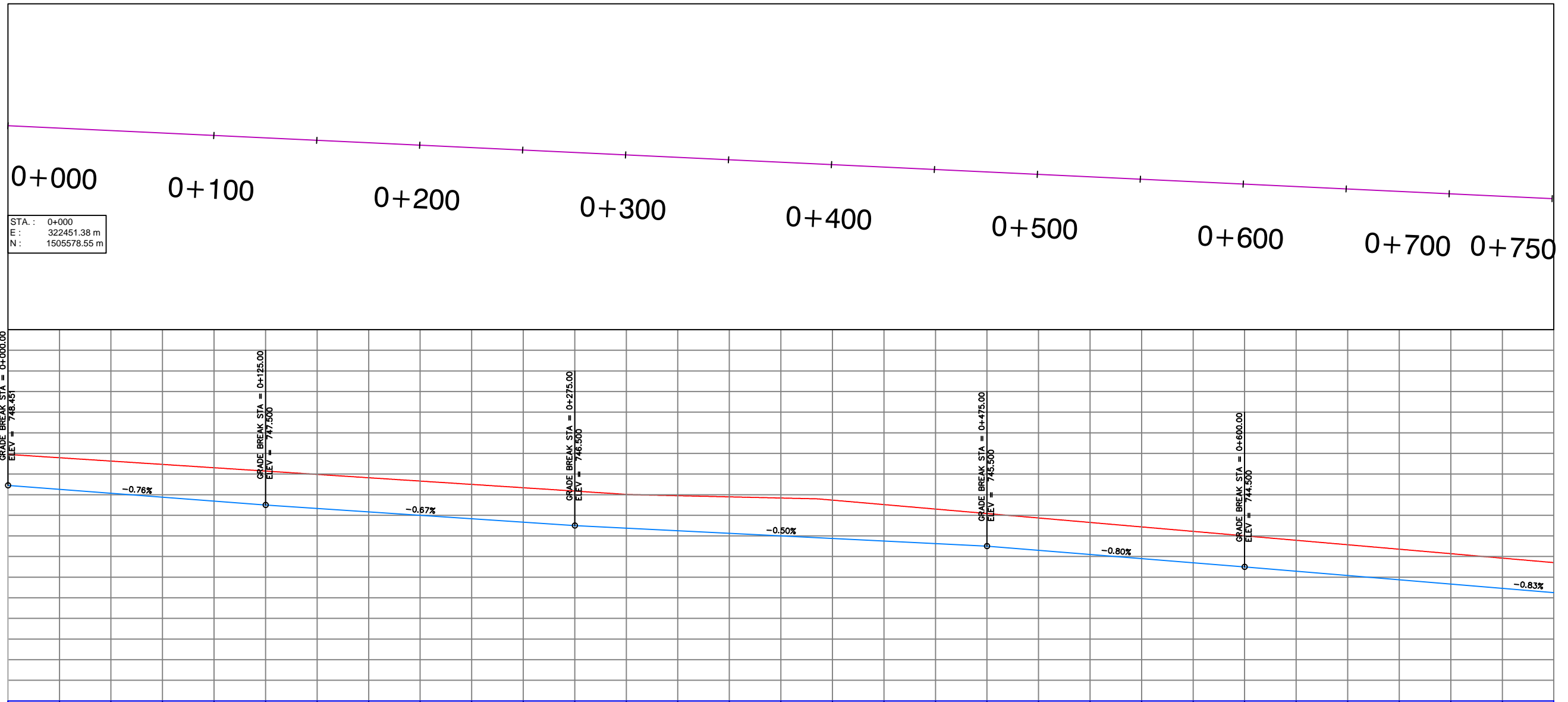
Profile (7-2)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)	SHEET	
		DESIGNED :	Dr.Hashim M.H Tumushabi K.I	DRAWN :	Nada S.A.		APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
		CHECKED :	Prof.Siddig E.A	DRAFTING COORDINATION :	UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 200-14





Profile (7-3)

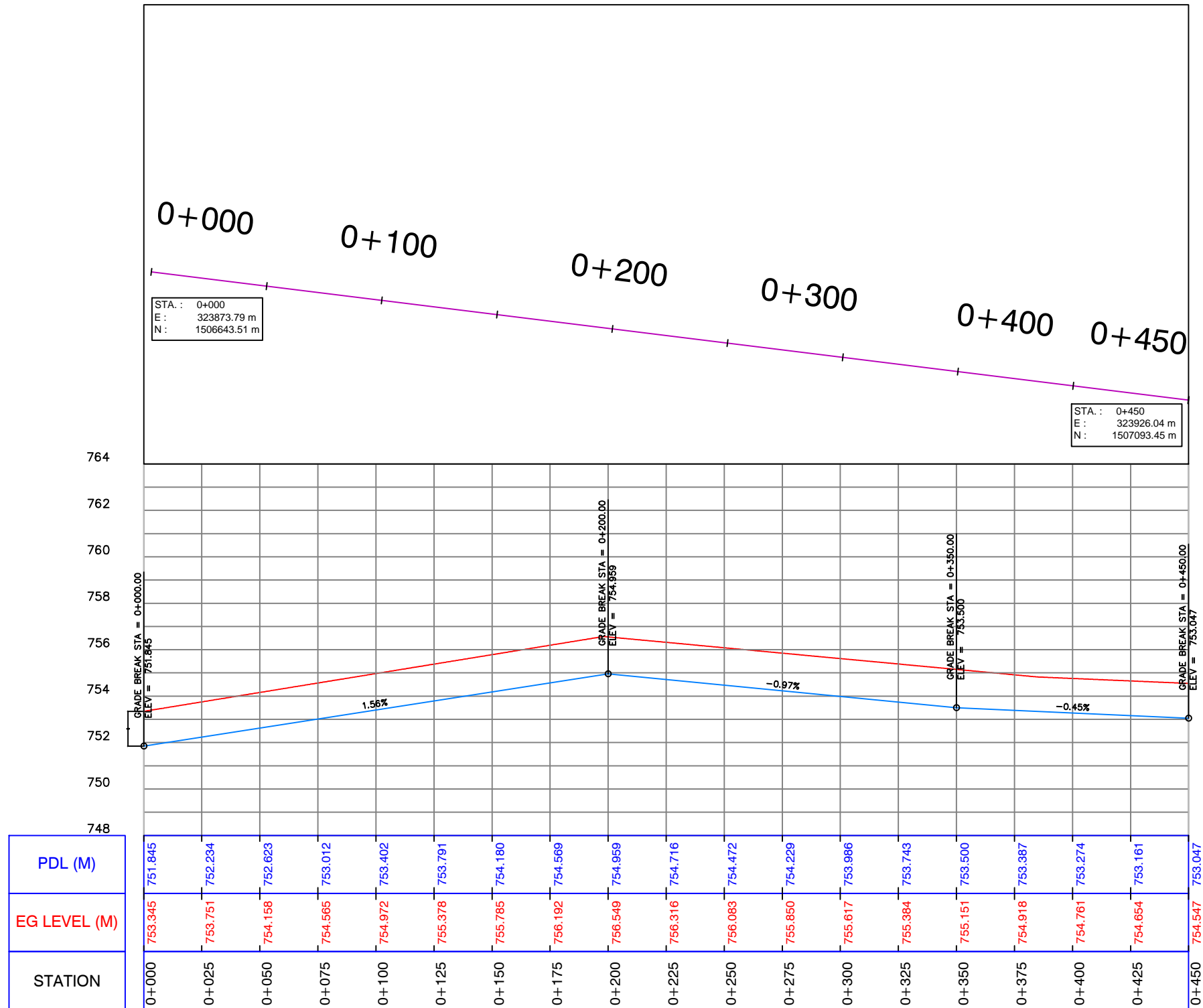
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)		SHEET
		DESIGNED : Dr.Hashim M.H Tumushabi K.I CHECKED : Prof.Siddig E.A	DRAWN : Nada S.A. DRAFTING COORDINATION : UNOPS	APPROVED FOR IMPLEMENTATION : CONTRACT NUMBER DATE: JANUARY 2019	SCALE: AS SHOWN DRAWING No: 200-15



STATION	EG LEVEL (M)	PDL (M)
0+000	749.951	748.151
0+025	749.790	748.261
0+050	749.628	748.071
0+075	749.467	747.881
0+100	749.305	747.690
0+125	749.144	747.500
0+150	748.982	747.333
0+175	748.821	747.167
0+200	748.659	747.000
0+225	748.497	746.833
0+250	748.336	746.667
0+275	748.174	746.500
0+300	748.013	746.375
0+325	747.850	746.250
0+350	747.689	746.125
0+375	747.527	746.000
0+400	747.365	745.875
0+425	747.203	745.750
0+450	747.041	745.625
0+475	746.879	745.500
0+500	746.717	745.375
0+525	746.555	745.250
0+550	746.393	745.125
0+575	746.231	745.000
0+600	746.069	744.875
0+625	745.907	744.750
0+650	745.745	744.625
0+675	745.583	744.500
0+700	745.421	744.375
0+725	745.259	744.250
0+750	745.097	744.125

Profile (8-1)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)	SHEET
		DESIGNED : Dr.Hashim M.H Tumushabi K.I CHECKED : Prof.Siddig E.A	DRAWN : Nada S.A. DRAFTING COORDINATION : UNOPS	APPROVED FOR IMPLEMENTATION : CONTRACT NUMBER DATE: JANUARY 2019



Profile (6)

CLIENT: UWA – Urban Water Administration
SWC - STATE WATER CORPORATION

PROJECT:
DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
Urban Water Scheme**

FUNDED BY:
DID
DEPARTMENT FOR
INTERNATIONAL DEVELOPMENT




IMPLEMENTED BY:
UNOPS
UNITED NATIONS OFFICE
FOR PROJECT SERVICES



REV.	DESCRIPTION	DATE	SIGN.

DRAWN TITLE : **PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)**

DESIGNED :
Dr.Hashim M.H
Tumushabi K.I

DRAWN :
Nada S.A.

CHECKED :
Prof.Siddig E.A

DRAFTING COORDINATION :
UNOPS

APPROVED FOR IMPLEMENTATION :

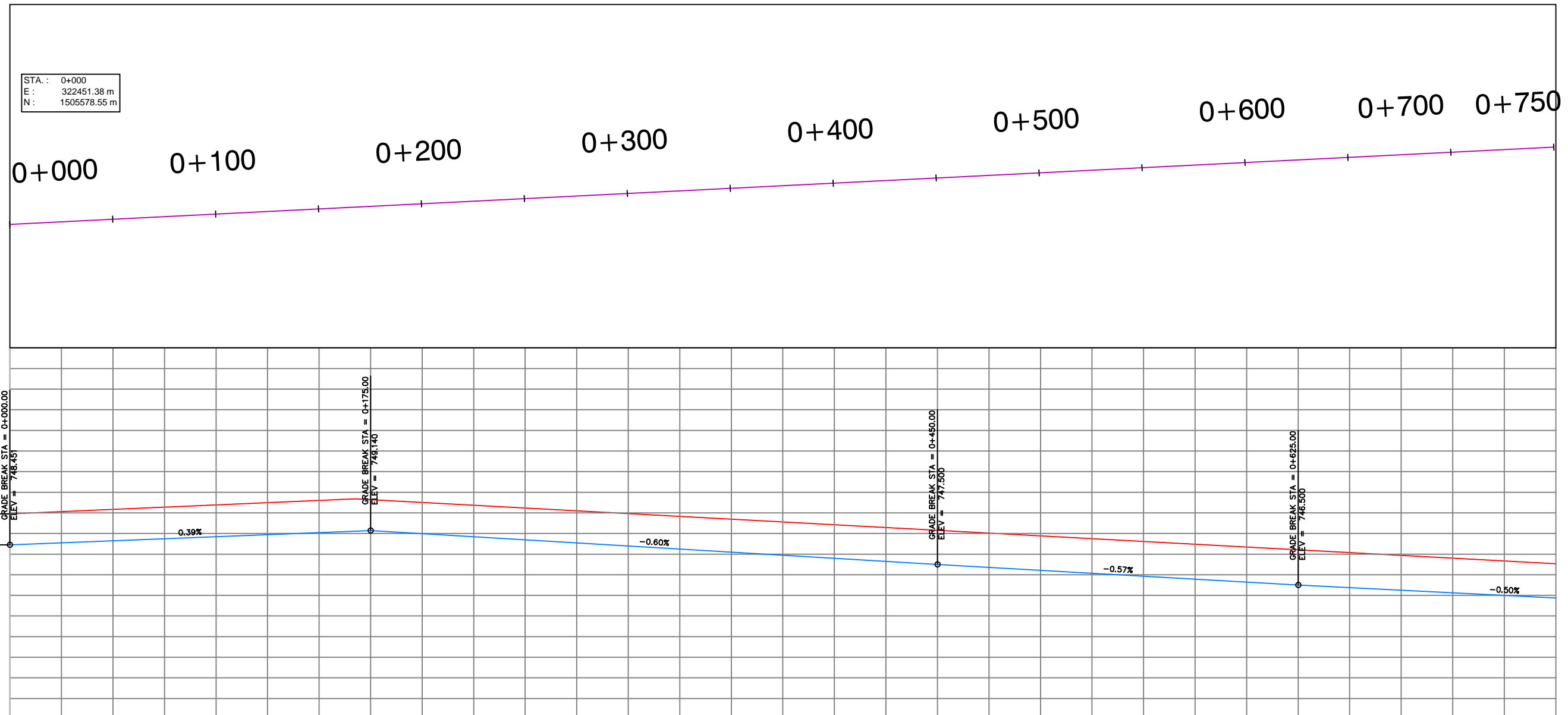
CONTRACT NUMBER

DATE:
JANUARY 2019

SHEET



SCALE:
AS SHOWN

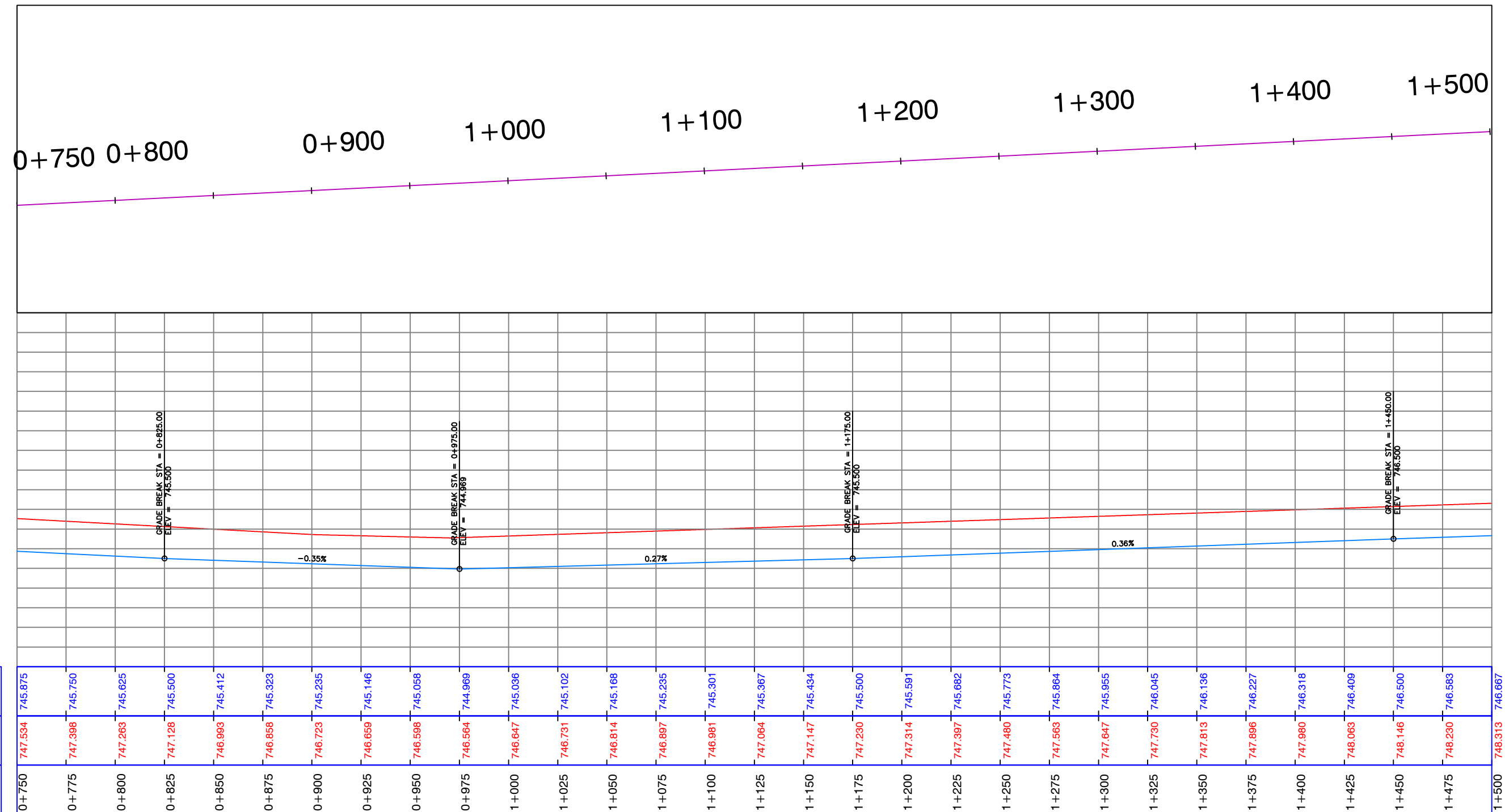
DRAWING No:
200-17





PDL (M)	EG LEVEL (M)	STATION
748.451	749.951	0+000
748.550	750.060	0+025
748.648	750.169	0+050
748.746	750.277	0+075
748.845	750.386	0+100
748.943	750.495	0+125
749.041	750.603	0+150
749.140	750.640	0+175
748.991	750.505	0+200
748.841	750.369	0+225
748.692	750.234	0+250
748.543	750.099	0+275
748.394	749.964	0+300
748.245	749.829	0+325
748.096	749.694	0+350
747.947	749.559	0+375
747.798	749.424	0+400
747.649	749.289	0+425
747.500	749.154	0+450
747.357	749.019	0+475
747.214	748.884	0+500
747.071	748.749	0+525
746.929	748.614	0+550
746.786	748.479	0+575
746.643	748.344	0+600
746.500	748.209	0+625
746.375	748.074	0+650
746.250	747.939	0+675
746.125	747.804	0+700
746.000	747.669	0+725
745.875	747.534	0+750

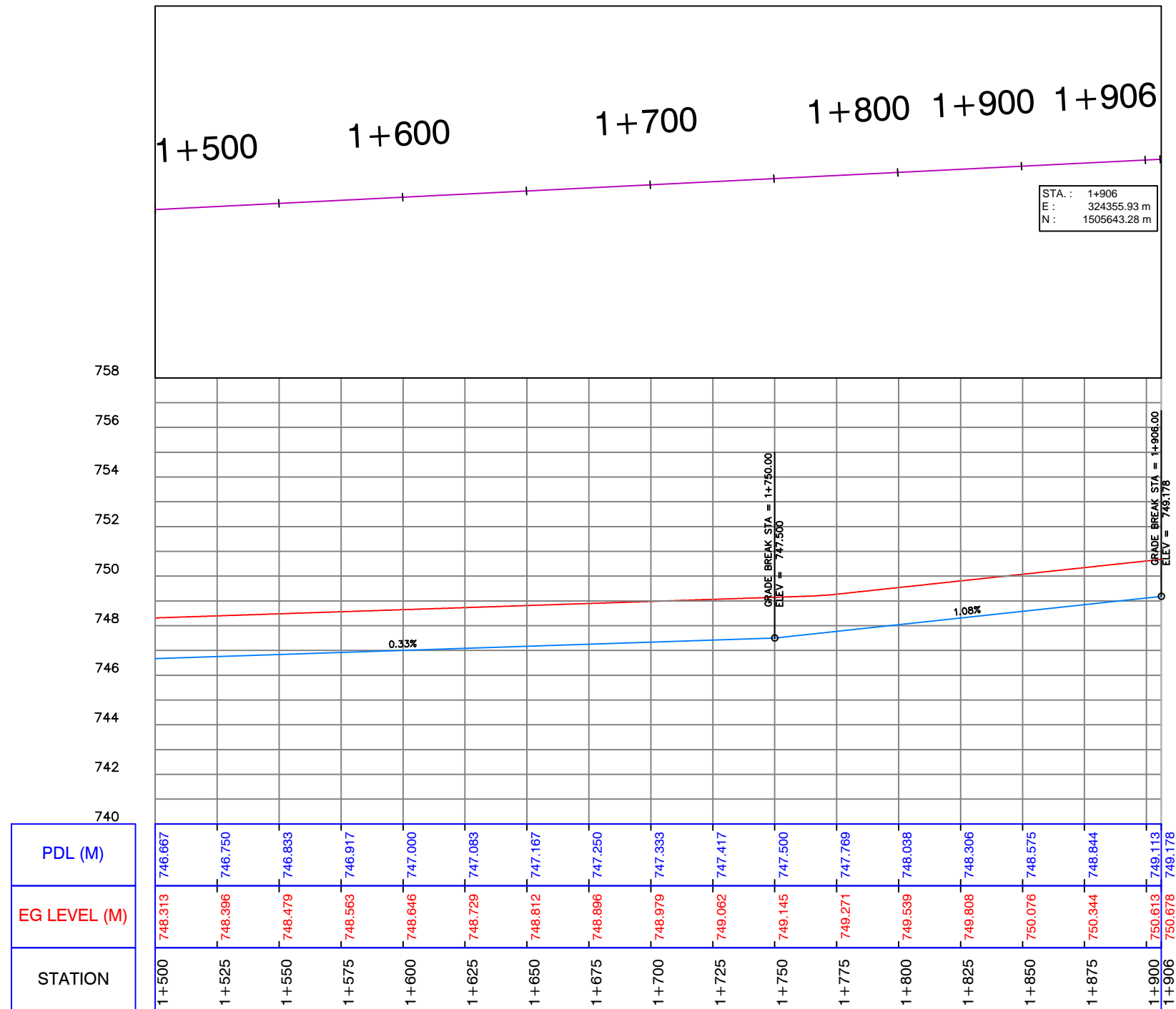
Profile (7-1)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)	SHEET	
		DESIGNED :	Dr.Hashim M.H Tumushabi K.I	DRAWN :	Nada S.A.		APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
		CHECKED :	Prof.Siddig E.A	DRAFTING COORDINATION :	UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 200-18





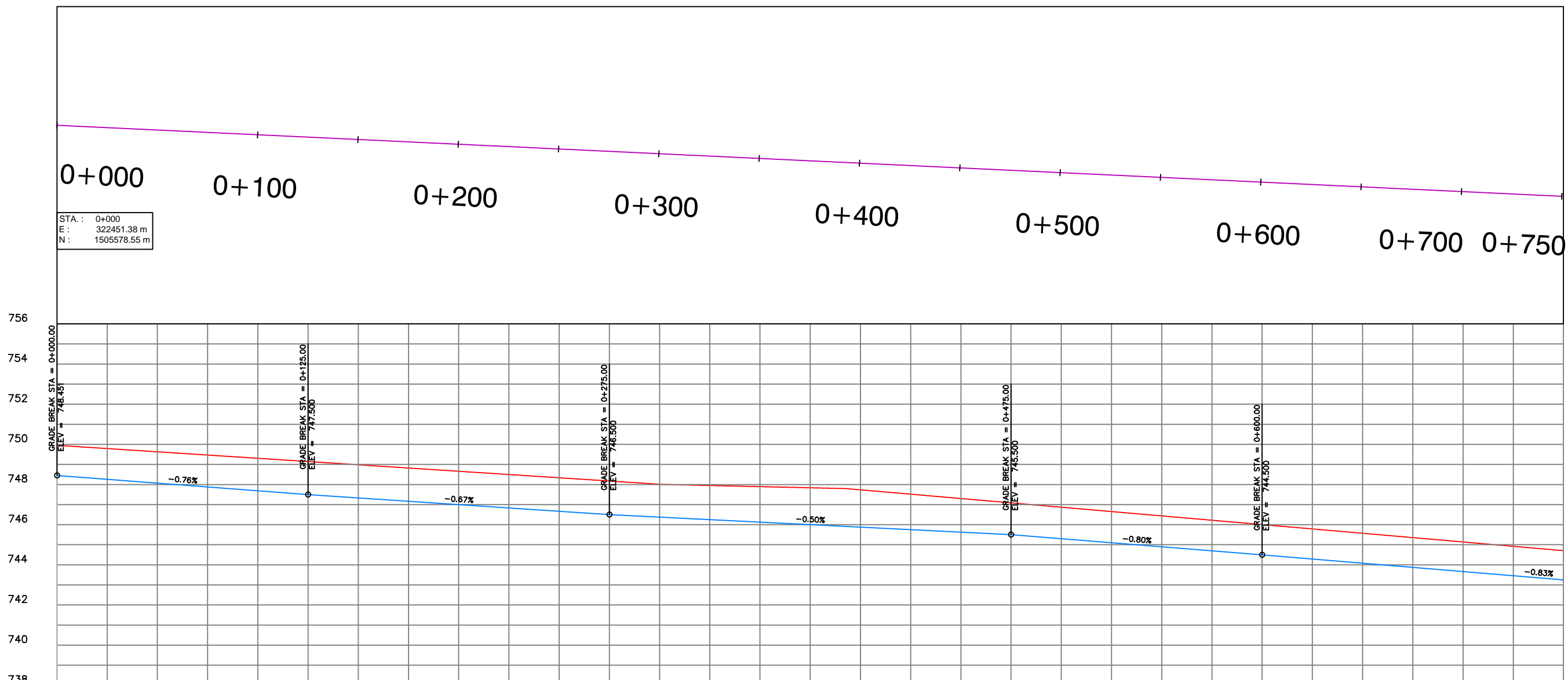
Profile (7-2)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)	SHEET
						CHECKED : Prof.Siddig E.A DRAFTING COORDINATION : UNOPS CONTRACT NUMBER DATE: JANUARY 2019	DRAWING No: 200-19






Profile (7-3)

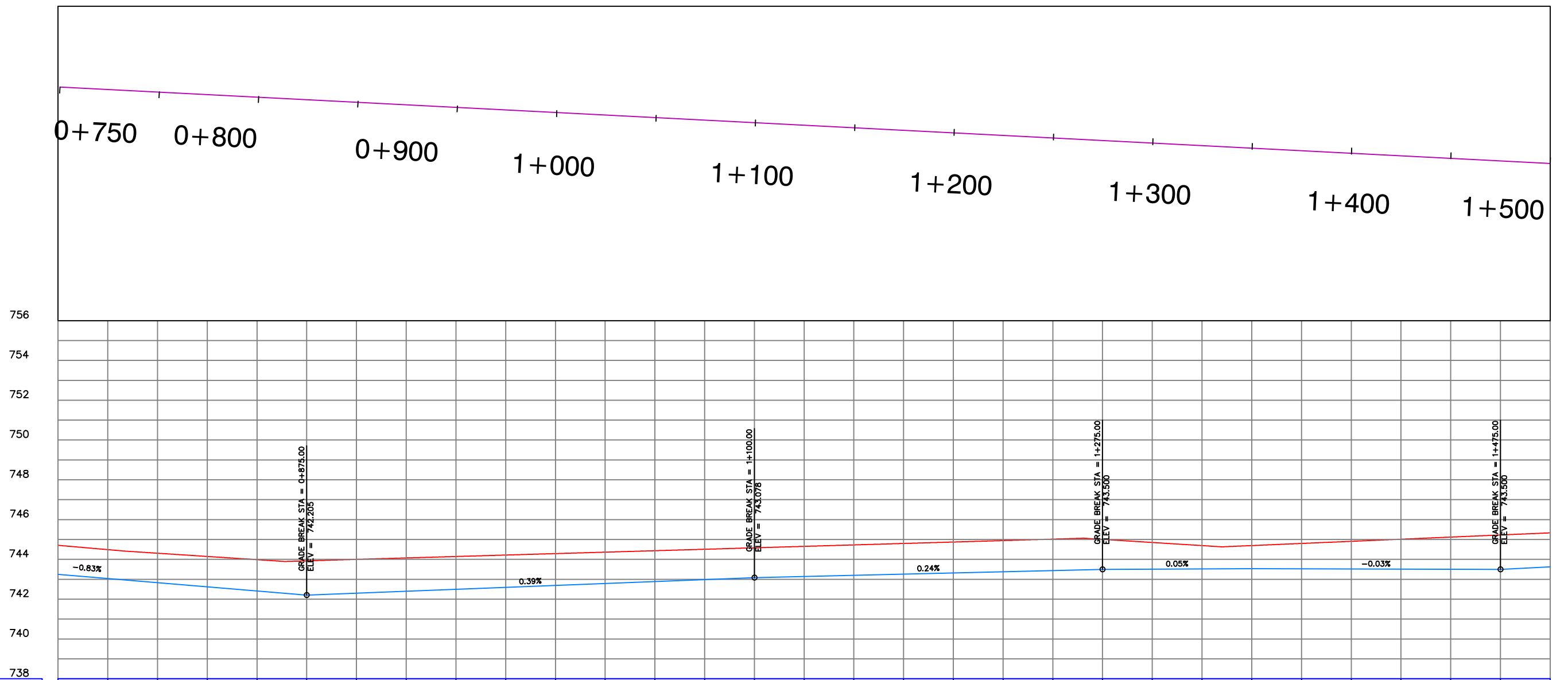
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)	SHEET	
		DESIGNED :	Dr.Hashim M.H Tumushabi K.I	DRAWN :	Nada S.A.		APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
		CHECKED :	Prof.Siddig E.A	DRAFTING COORDINATION :	UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 200-20



PDL (M)	748.451	748.261	748.071	747.881	747.690	747.500	747.333	747.167	747.000	746.833	746.667	746.500	746.375	746.250	746.125	746.000	745.875	745.750	745.625	745.500	745.300	745.100	744.900	744.700	744.500	744.291	744.083	743.874	743.665	743.457	743.248		
EG LEVEL (M)	749.951	749.790	749.628	749.467	749.305	749.144	748.982	748.821	748.659	748.497	748.336	748.174	748.013	747.850	747.689	747.527	747.365	747.203	747.041	746.879	746.717	746.555	746.393	746.231	746.069	745.907	745.745	745.583	745.421	745.259	745.097	744.935	744.773
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+250	0+275	0+300	0+325	0+350	0+375	0+400	0+425	0+450	0+475	0+500	0+525	0+550	0+575	0+600	0+625	0+650	0+675	0+700	0+725	0+750		



Profile (8-1)

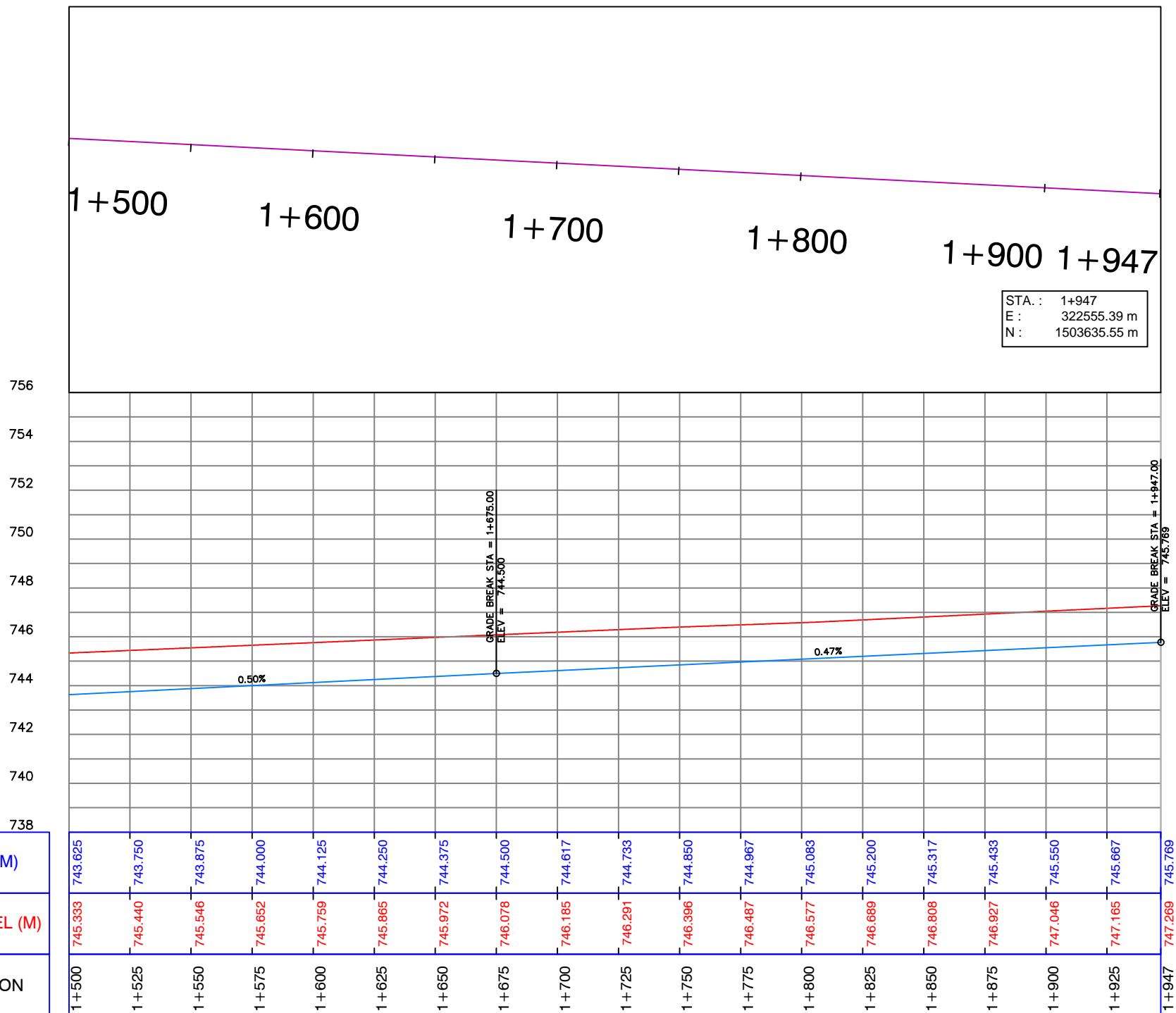
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)	SHEET	
		IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 						DESIGNED : Dr.Hashim M.H Tumushabi K.I CHECKED : Prof.Siddig E.A





STATION	EG LEVEL (M)	PDL (M)
0+750	744.706	743.248
0+775	744.490	743.039
0+800	744.309	742.831
0+825	744.147	742.622
0+850	743.985	742.414
0+875	743.926	742.205
0+900	743.999	742.302
0+925	744.072	742.399
0+950	744.144	742.496
0+975	744.217	742.593
1+000	744.290	742.690
1+025	744.363	742.787
1+050	744.435	742.884
1+075	744.508	742.981
1+100	744.581	743.078
1+125	744.654	743.138
1+150	744.727	743.199
1+175	744.799	743.259
1+200	744.872	743.319
1+225	744.945	743.379
1+250	745.018	743.440
1+275	745.005	743.500
1+300	744.849	743.512
1+325	744.693	743.524
1+350	744.694	743.536
1+375	744.801	743.529
1+400	744.907	743.522
1+425	745.014	743.515
1+450	745.120	743.507
1+475	745.227	743.500
1+500	745.333	743.625

Profile (8-2)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)	SHEET 5	
		DESIGNED :	Dr.Hashim M.H Tumushabi K.I	DRAWN :	Nada S.A.			APPROVED FOR IMPLEMENTATION :
		CHECKED :	Prof.Siddig E.A	DRAFTING COORDINATION :	UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 200-22



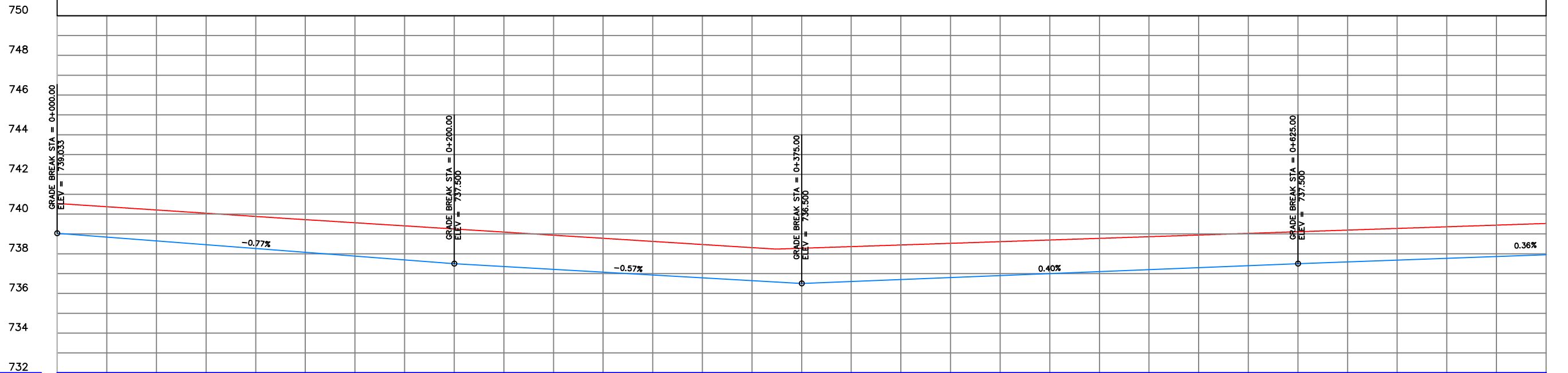
Profile (8-3)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT	 Department for International Development	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)	SHEET			
PROJECT : DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES			DESIGNED : Dr.Hashim M.H Tumushabi K.I	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN	
				CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 200-23

STA.: 0+000
 E.: 321382.72 m
 N.: 1504631.39 m

O 114

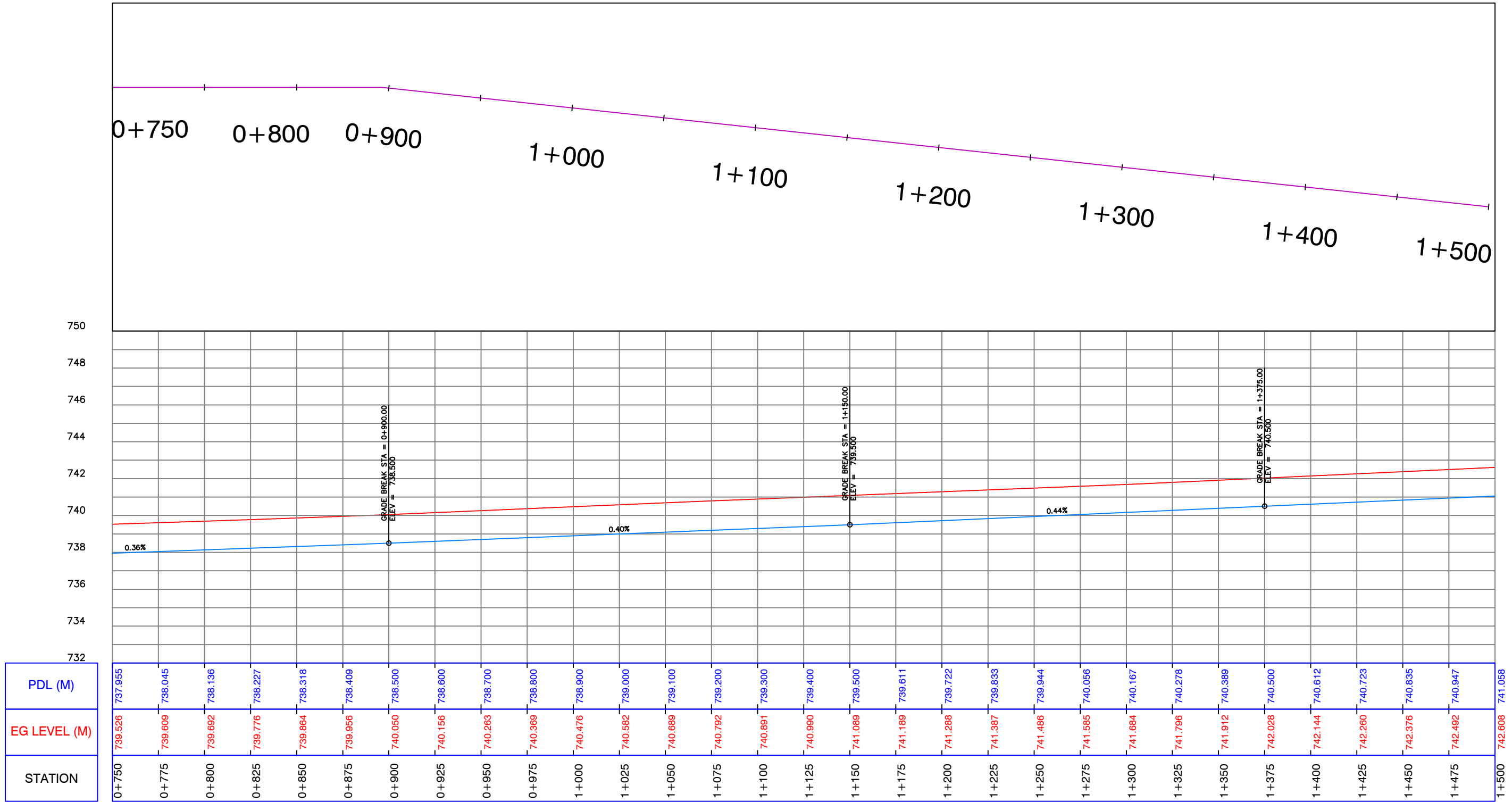
0+000 0+100 0+200 0+300 0+400 0+500 0+600 0+700 0+750





PDL (M)	739.033	738.842	738.650	738.458	738.267	738.075	737.883	737.692	737.500	737.357	737.214	737.071	736.929	736.786	736.643	736.500	736.600	736.700	736.800	736.900	737.000	737.100	737.200	737.300	737.400	737.500	737.591	737.682	737.773	737.864	737.955
EG LEVEL (M)	740.533	740.370	740.207	740.044	739.880	739.719	739.562	739.406	739.249	739.092	738.935	738.779	738.622	738.465	738.308	738.276	738.359	738.442	738.525	738.609	738.692	738.775	738.859	738.942	739.025	739.109	739.192	739.275	739.359	739.442	739.526
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+250	0+275	0+300	0+325	0+350	0+375	0+400	0+425	0+450	0+475	0+500	0+525	0+550	0+575	0+600	0+625	0+650	0+675	0+700	0+725	0+750

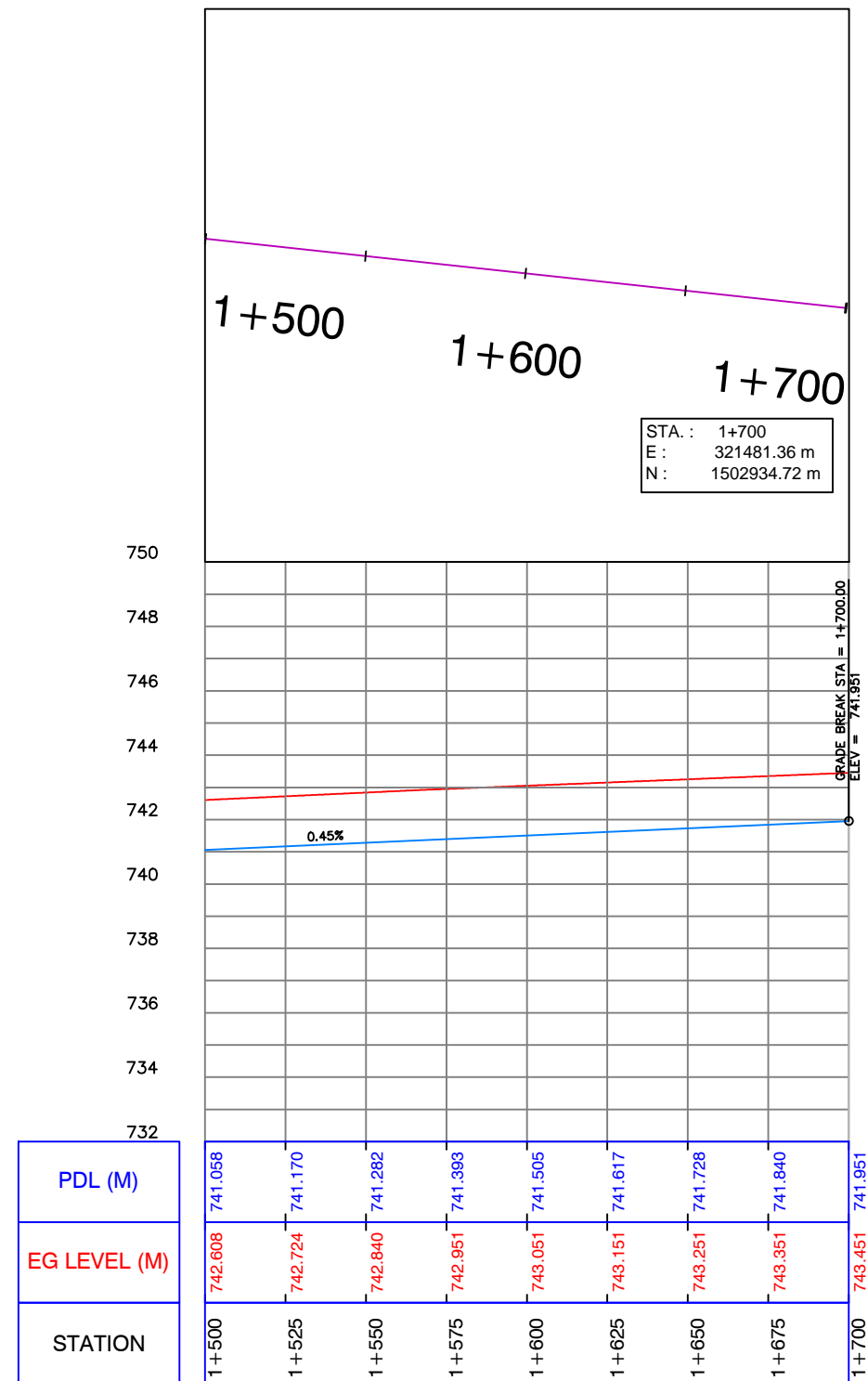
Profile (9-1)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION		FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT		 Department for International Development		REV.: DESCRIPTION DATE SIGN.		DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)				SHEET	
PROJECT: DARFUR URBAN WATER SUPPLY PROJECT		IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES				DESIGNED : Dr.Hashim M.H Tumushabi K.I		DRAWN : Nada S.A.		APPROVED FOR IMPLEMENTATION :		SCALE: AS SHOWN	
Design of El Fasher Urban Water Scheme						CHECKED : Prof.Siddig E.A		DRAFTING COORDINATION : UNOPS		CONTRACT NUMBER		DATE: JANUARY 2019	
										DRAWING No:		200-24	






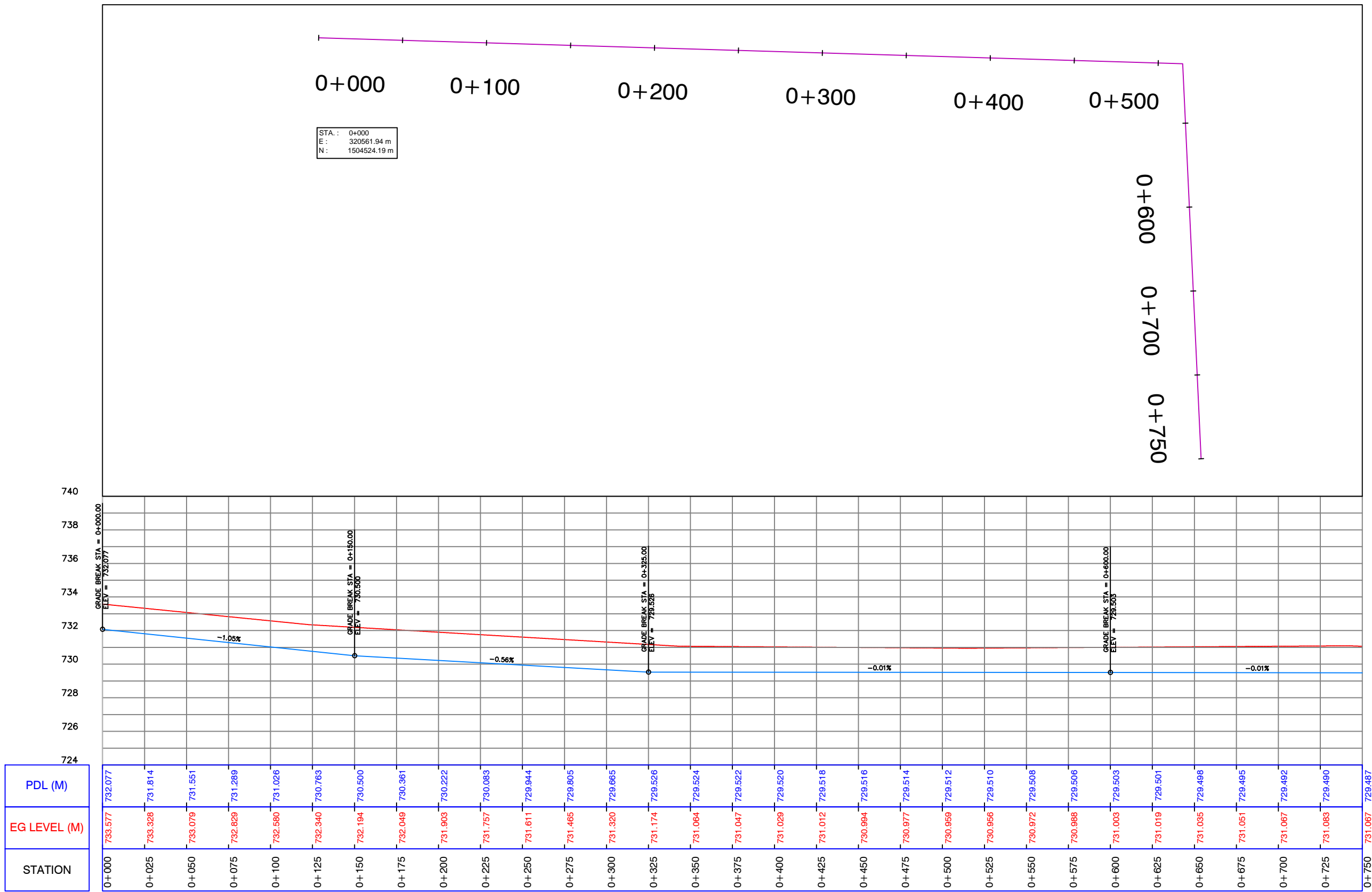
Profile (9-2)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)	SHEET	
		DESIGNED :	Dr.Hashim M.H Tumushabi K.I	DRAWN :	Nada S.A.		APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
		CHECKED :	Prof.Siddig E.A	DRAFTING COORDINATION :	UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 200-25





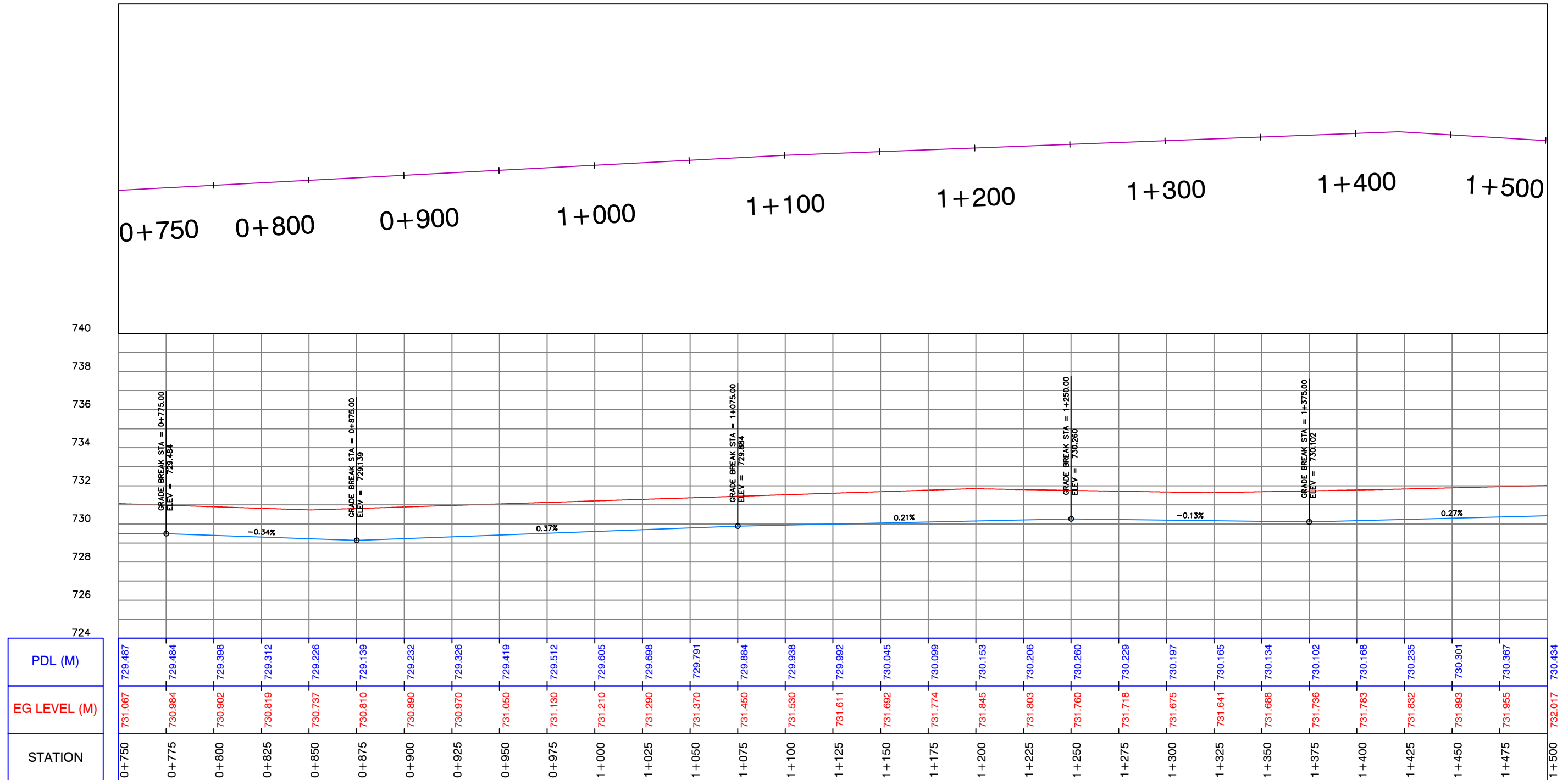
Profile (9-3)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)	SHEET
		DESIGNED : Dr.Hashim M.H Tumushabi K.I CHECKED : Prof.Siddig E.A	DRAWN : Nada S.A. DRAFTING COORDINATION : UNOPS	APPROVED FOR IMPLEMENTATION : CONTRACT NUMBER DATE: JANUARY 2019






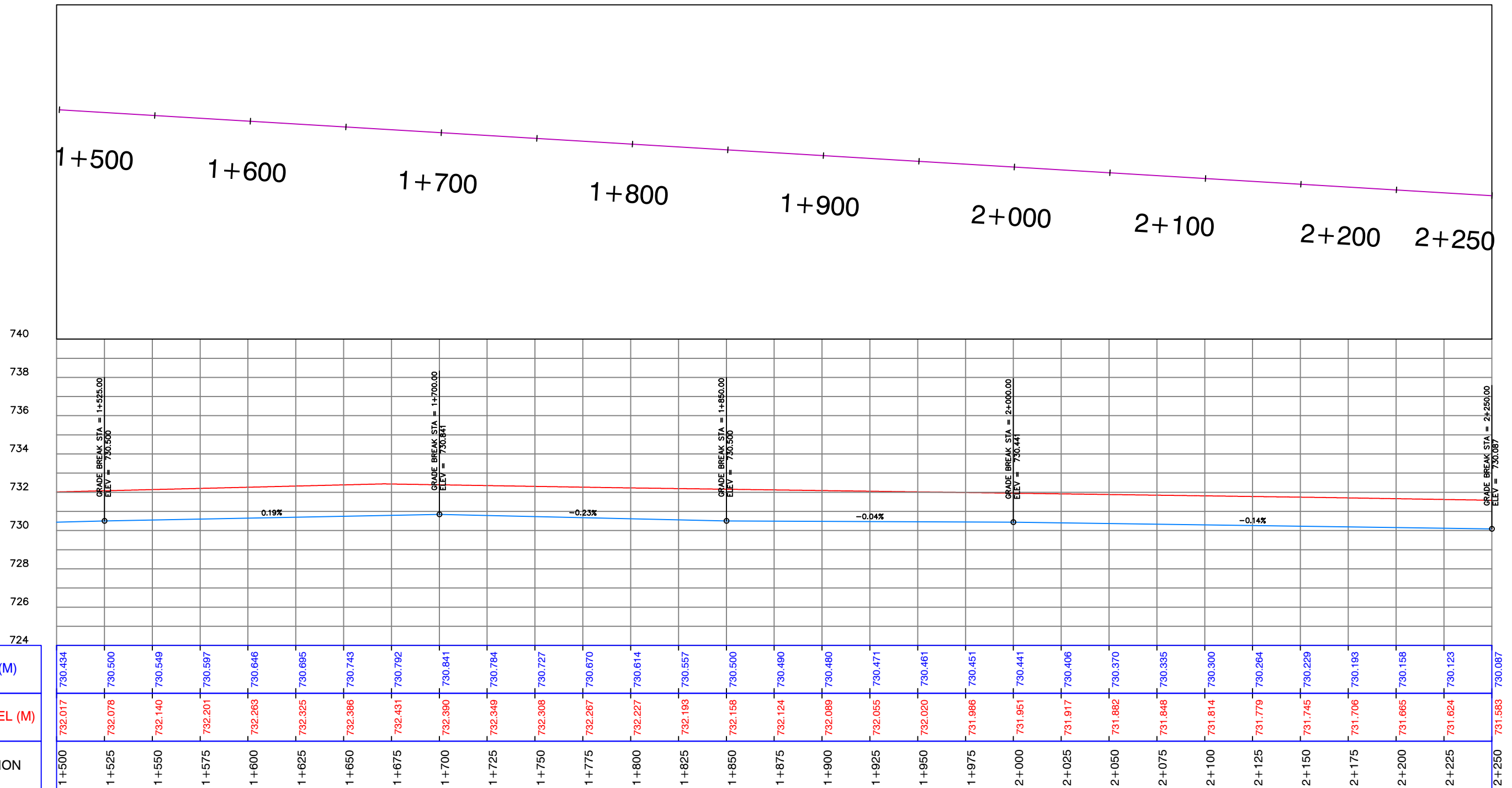
Profile (10-1)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)	SHEET	
		DESIGNED : Dr.Hashim M.H Tumushabi K.I	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
		CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER DATE: JANUARY 2019	DRAWING No: 200-27





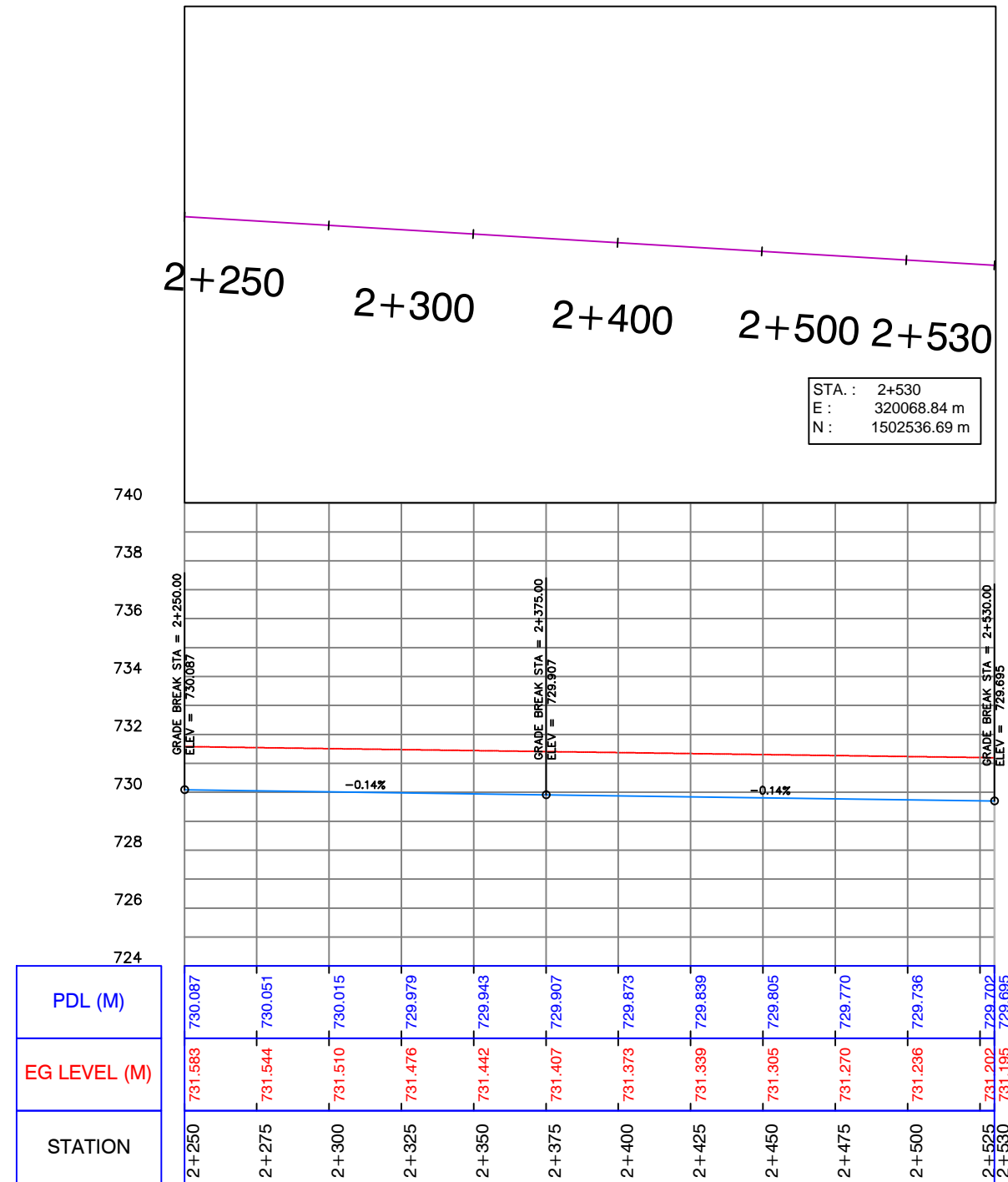
Profile (10-2)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)	SHEET
		DESIGNED : Dr.Hashim M.H Tumushabi K.I	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 200-28






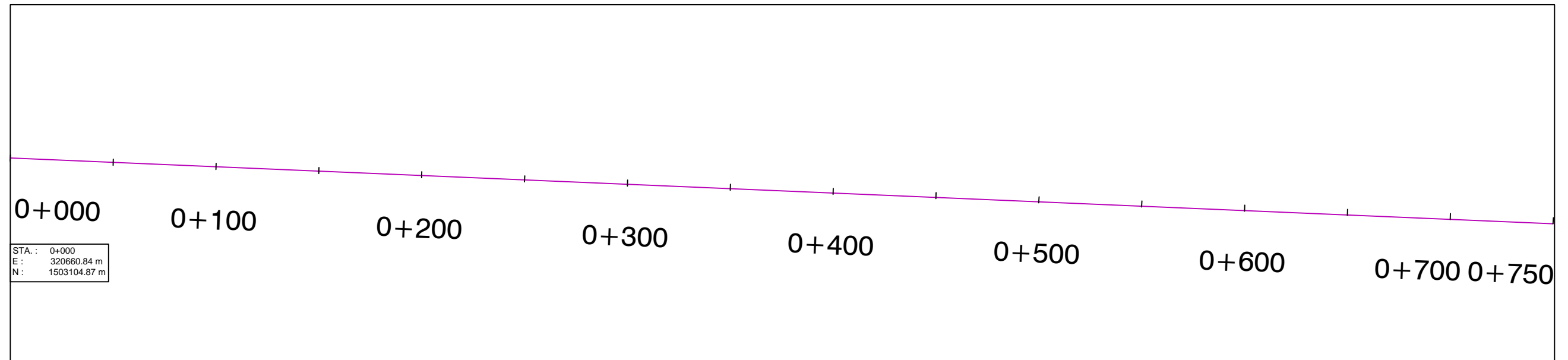
Profile (10-3)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)	SHEET	
		DESIGNED :	Dr.Hashim M.H Tumushabi K.I	DRAWN :	Nada S.A.		APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
		CHECKED :	Prof.Siddig E.A	DRAFTING COORDINATION :	UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 200-29



Profile (10-4)



CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)	SHEET			
									SCALE: AS SHOWN	
						DESIGNED : Dr.Hashim M.H Tumushabi K.I	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :		
						CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 200-30

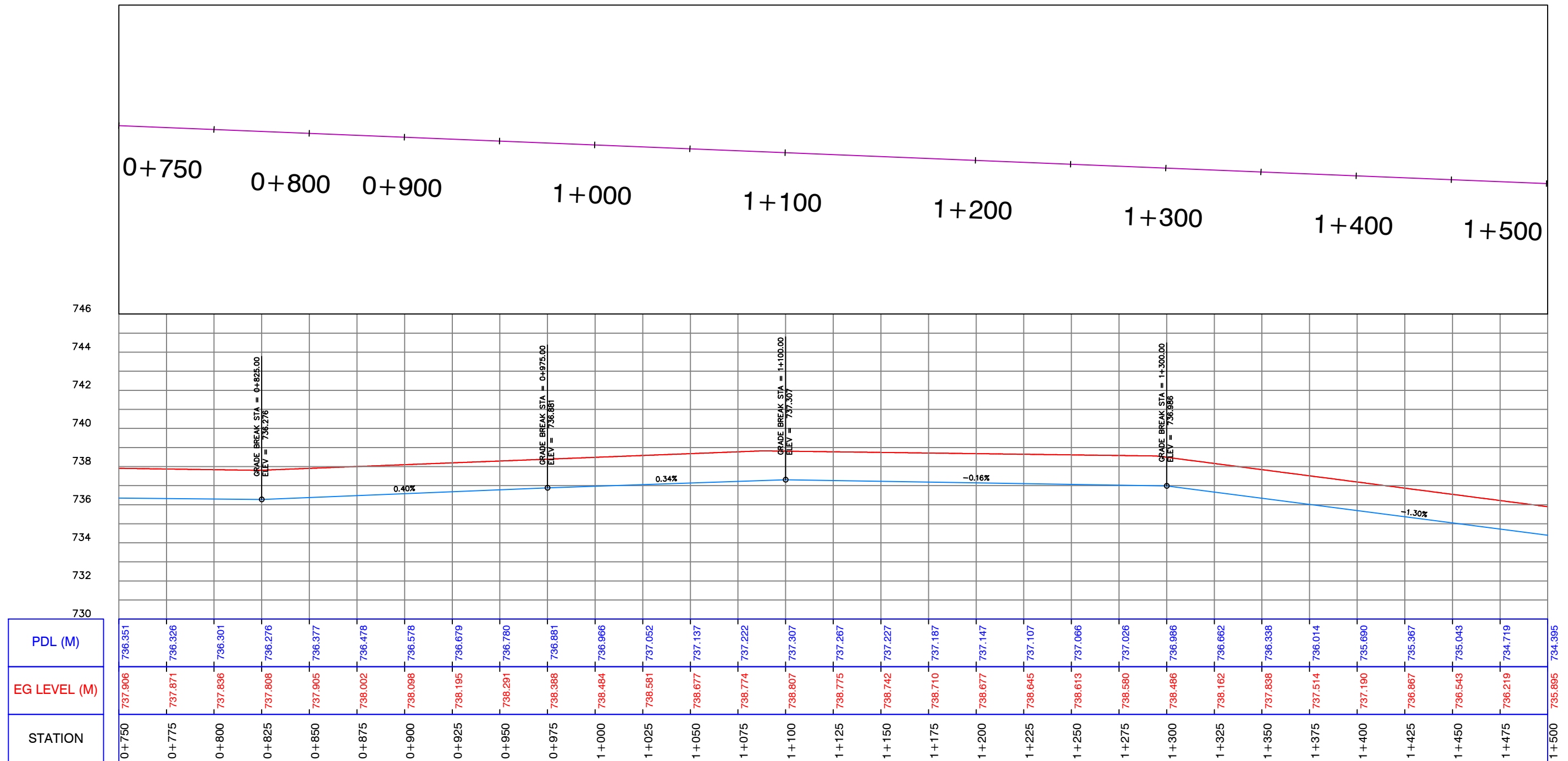


STA. : 0+000
 E : 320660.84 m
 N : 1503104.87 m




PDL (M)	735.500	735.577	735.654	735.730	735.807	735.884	735.961	735.903	735.845	735.788	735.730	735.673	735.615	735.558	735.500	735.600	735.700	735.800	735.900	736.000	736.100	736.200	736.300	736.400	736.500	736.475	736.450	736.425	736.400	736.375	736.351
EG LEVEL (M)	737.042	737.132	737.222	737.312	737.402	737.491	737.467	737.430	737.392	737.355	737.317	737.280	737.243	737.205	737.168	737.247	737.339	737.431	737.523	737.616	737.708	737.800	737.892	737.985	738.077	738.081	738.046	738.011	737.976	737.941	737.906
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+250	0+275	0+300	0+325	0+350	0+375	0+400	0+425	0+450	0+475	0+500	0+525	0+550	0+575	0+600	0+625	0+650	0+675	0+700	0+725	0+750

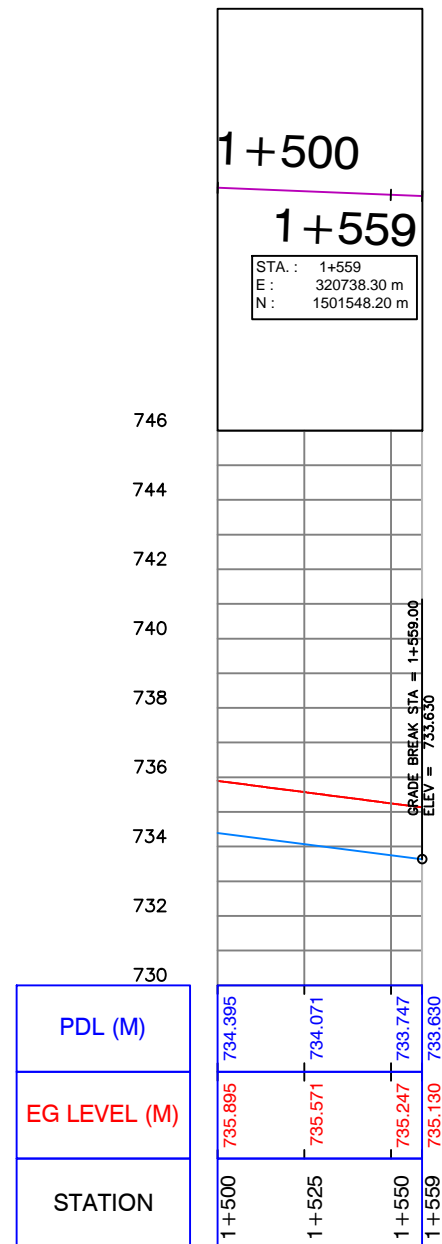
Profile (11-1)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)	SHEET	
			DESIGNED :	Dr.Hashim M.H Tumushabi K.I	DRAWN :	Nada S.A.		APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
			CHECKED :	Prof.Siddig E.A	DRAFTING COORDINATION :	UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 200-31






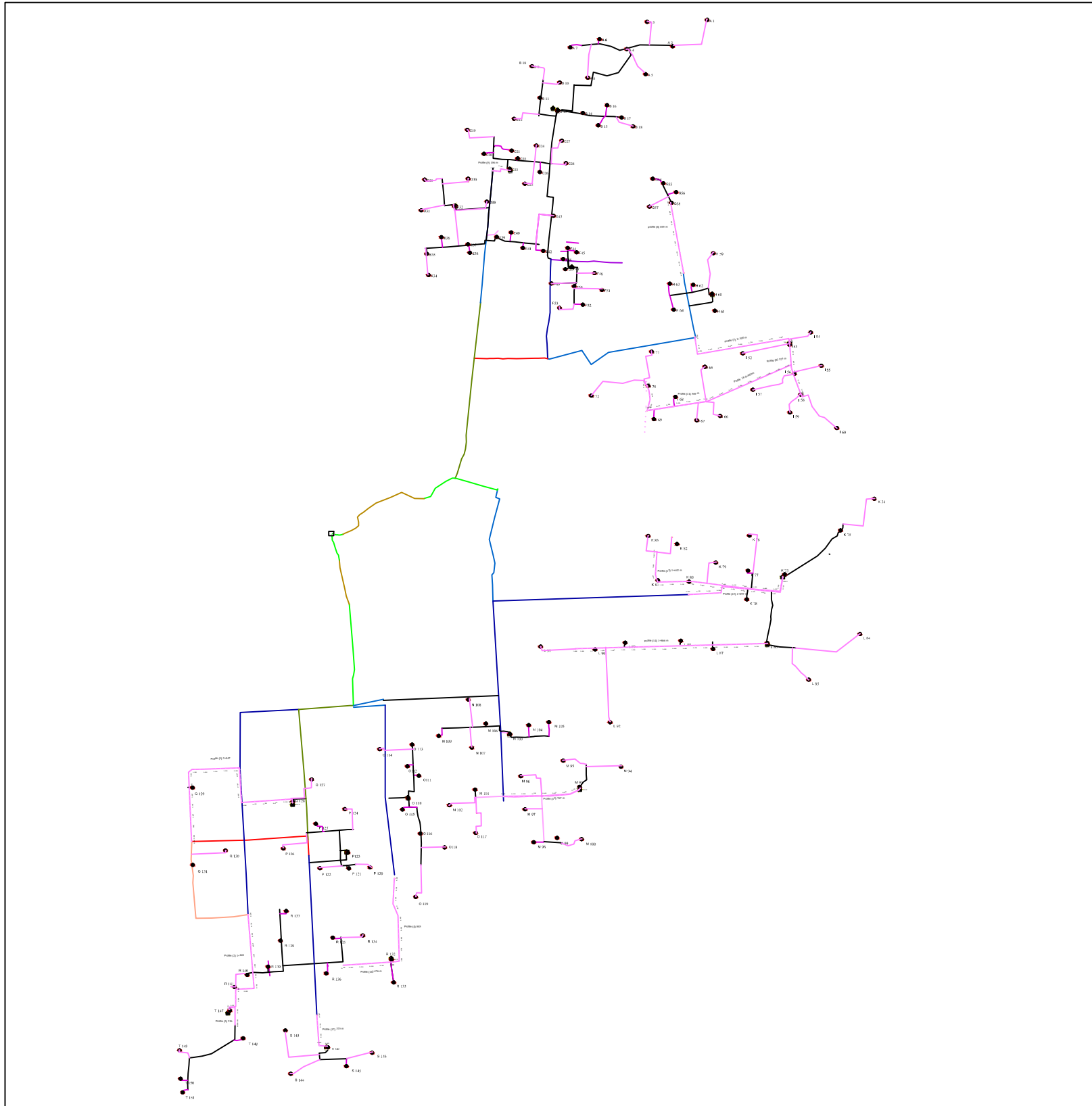
Profile (11-2)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION		FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT		 		REV.:		DESCRIPTION		DATE		SIGN.		DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)		SHEET							
PROJECT: DARFUR URBAN WATER SUPPLY PROJECT		IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES												DESIGNED : Dr.Hashim M.H Tumushabi K.I		DRAWN : Nada S.A.		APPROVED FOR IMPLEMENTATION :		SCALE: AS SHOWN			
Design of El Fasher Urban Water Scheme														CHECKED : Prof.Siddig E.A		DRAFTING COORDINATION : UNOPS		CONTRACT NUMBER		DATE: JANUARY 2019		DRAWING No: 200-32	



Profile (11-3)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 200 mm (PROPOSED)	SHEET	
		DESIGNED :	Dr.Hashim M.H Tumushabi K.I	DRAWN :	Nada S.A.		APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
		CHECKED :	Prof.Siddig E.A	DRAFTING COORDINATION :	UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 200-33



CLIENT: UWA – Urban Water Administration
SWC - STATE WATER CORPORATION

PROJECT :
DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
Urban Water Scheme**

FUNDED BY:
DID
DEPARTMENT FOR
INTERNATIONAL DEVELOPMENT



Department
for International
Development

IMPLEMENTED BY:
UNOPS
UNITED NATIONS OFFICE
FOR PROJECT SERVICES



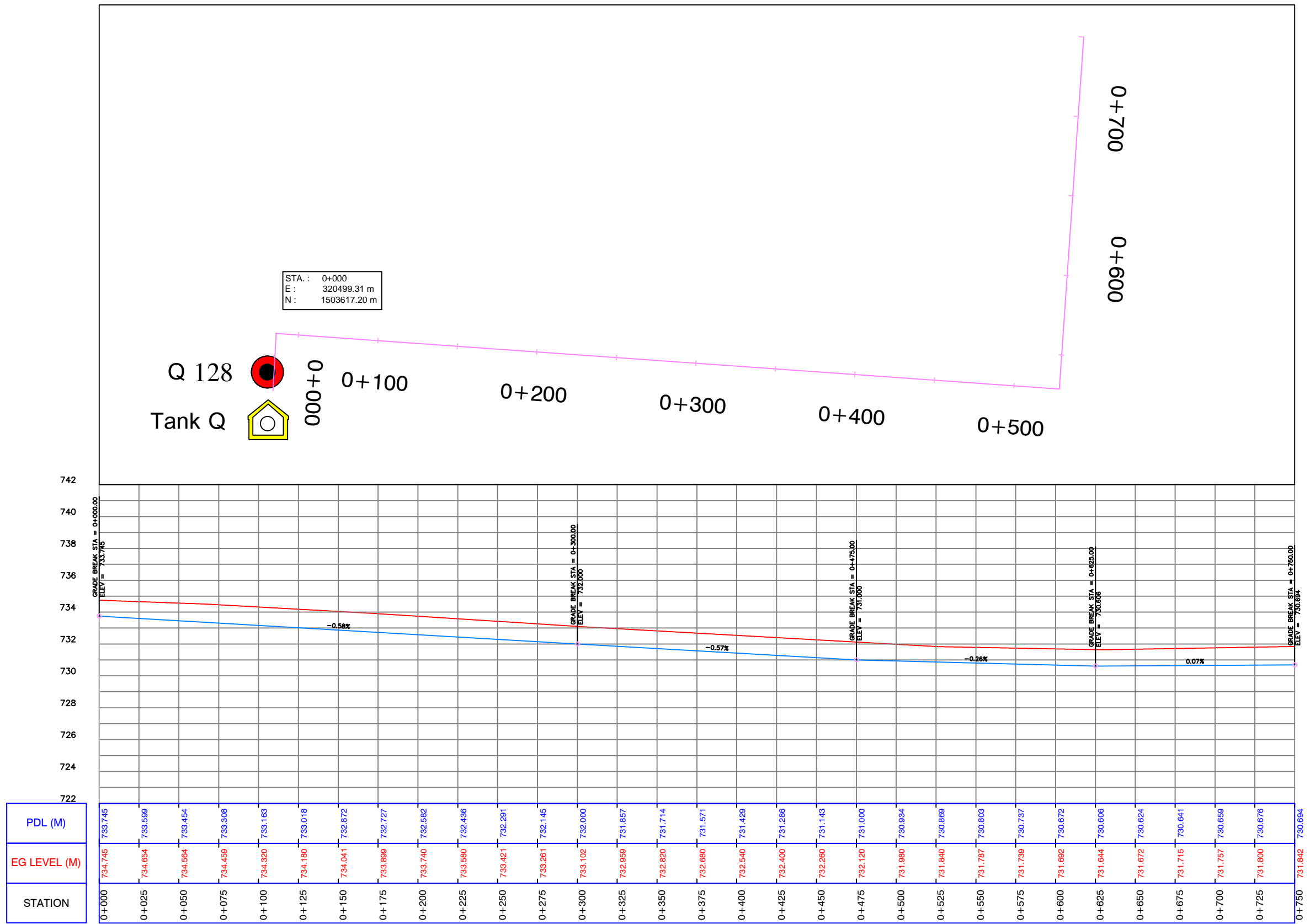
REV.:	DESCRIPTION	DATE	SIGN.

DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)			
DESIGNED : Dr.Hashim M.H Tumushabi K.I	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019



SHEET

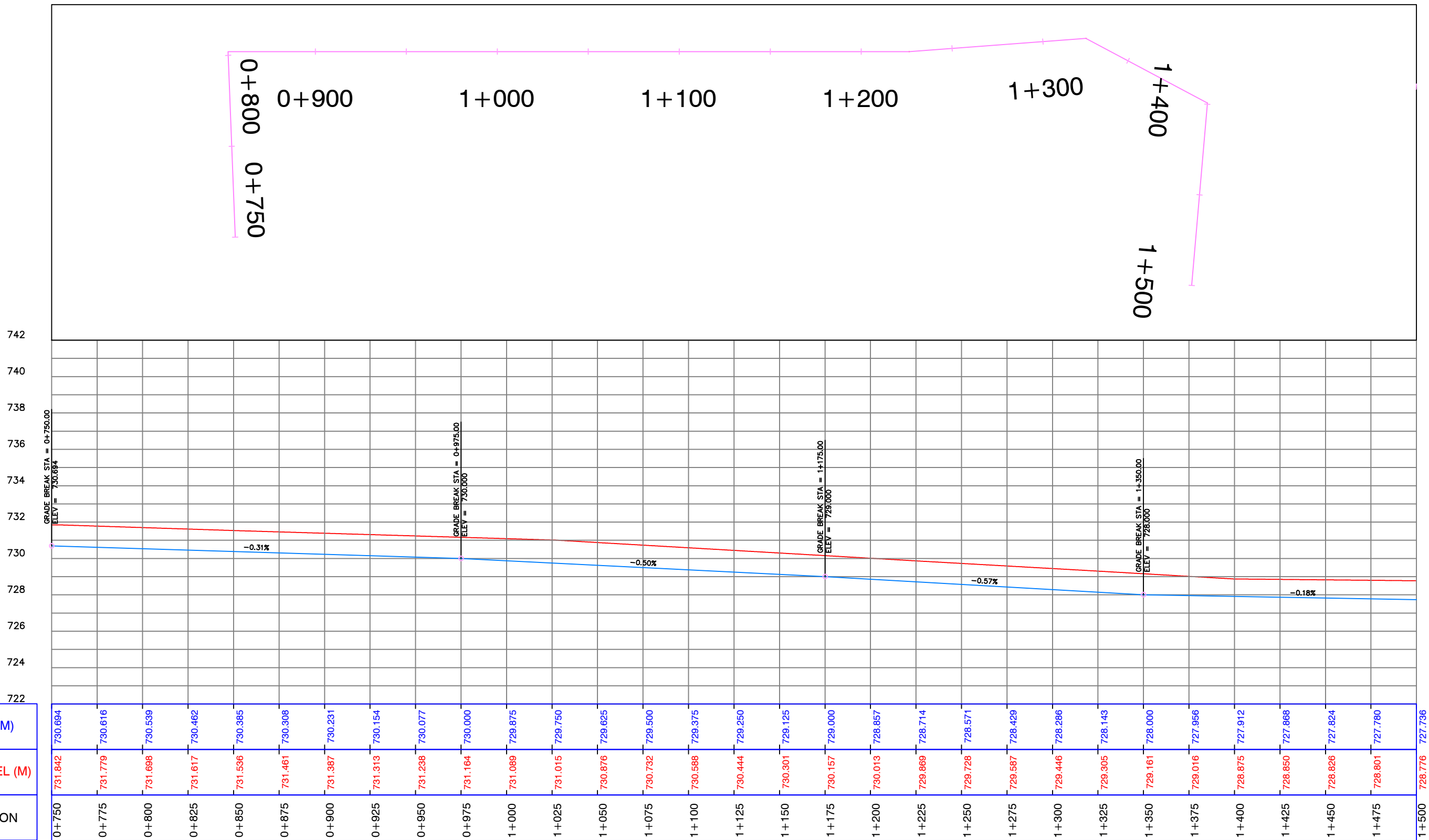
SCALE:
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DRAWING No:
160-1





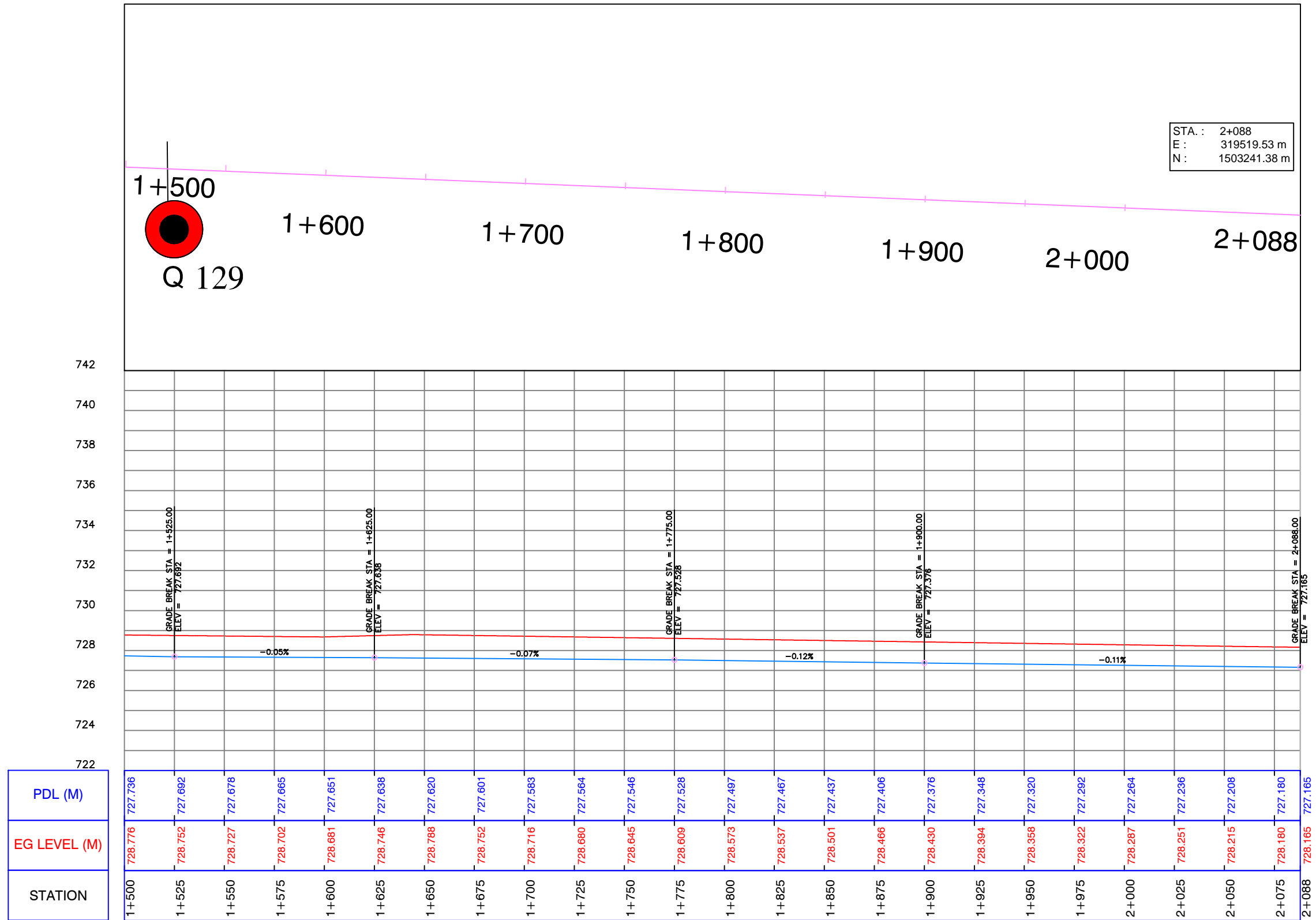
Profile (1-1)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)	SHEET	
		DESIGNED :	Dr.Hashim M.H Tumushabi K.I	DRAWN :	Nada S.A.		APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
		CHECKED :	Prof.Siddig E.A	DRAFTING COORDINATION :	UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 160-2



Profile (1-2)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)		SHEET
		DESIGNED : Dr.Hashim M.H Tumushabi K.I	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	
		CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019 DRAWING No: 160-3



Profile (1-3)

CLIENT: UWA – Urban Water Administration
SWC - STATE WATER CORPORATION

PROJECT:
DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
Urban Water Scheme**

FUNDED BY:
DID
DEPARTMENT FOR
INTERNATIONAL DEVELOPMENT



Department
for International
Development

IMPLEMENTED BY:
UNOPS
UNITED NATIONS OFFICE
FOR PROJECT SERVICES



REV.	DESCRIPTION	DATE	SIGN.

DRAWN TITLE :
PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)

DESIGNED :
Dr.Hashim M.H
Tumushabi K.I

DRAWN :
Nada S.A.

CHECKED :
Prof.Siddig E.A

DRAFTING COORDINATION :
UNOPS

APPROVED FOR IMPLEMENTATION :

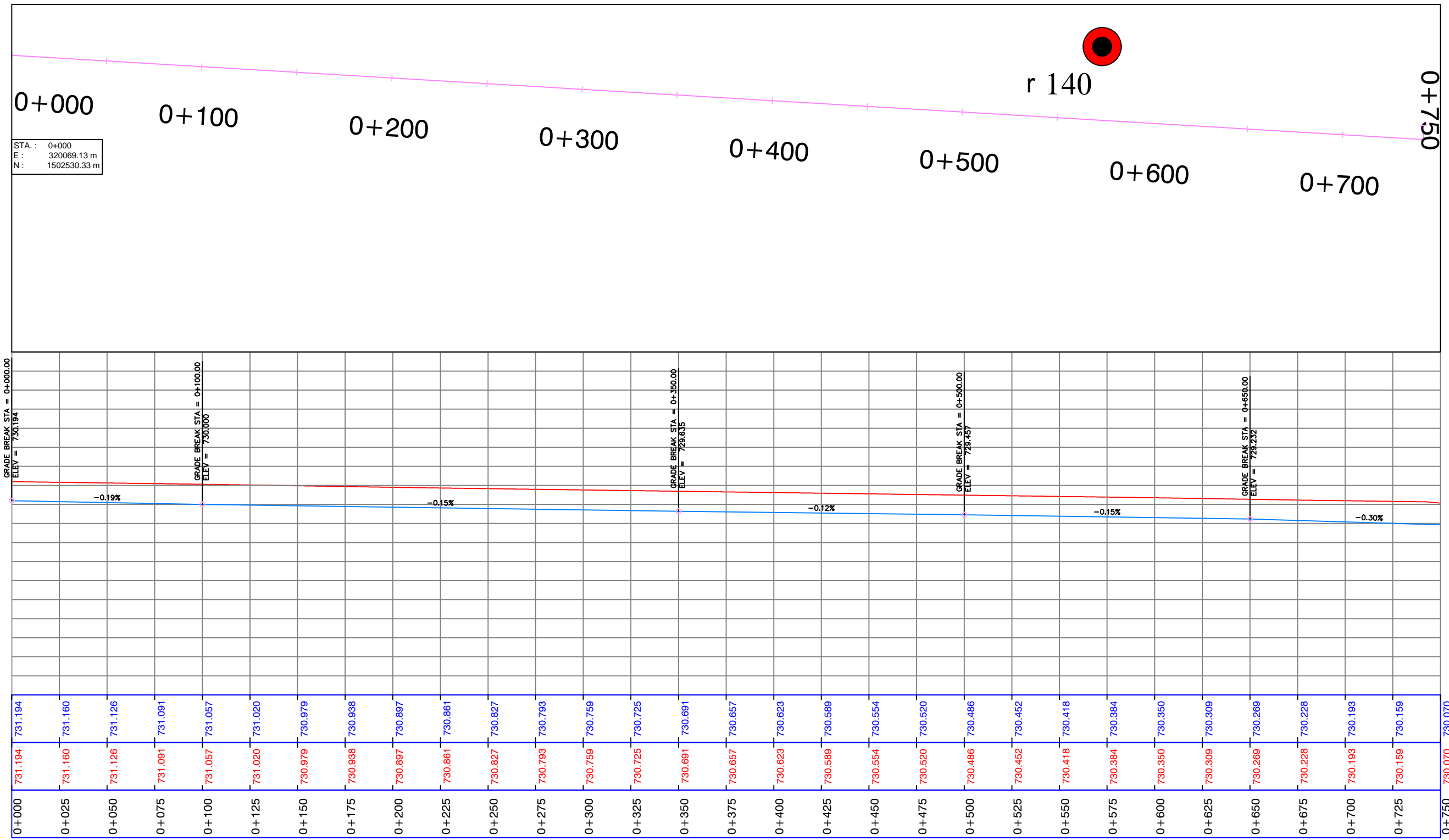
CONTRACT NUMBER

DATE:
JANUARY 2019



SHEET

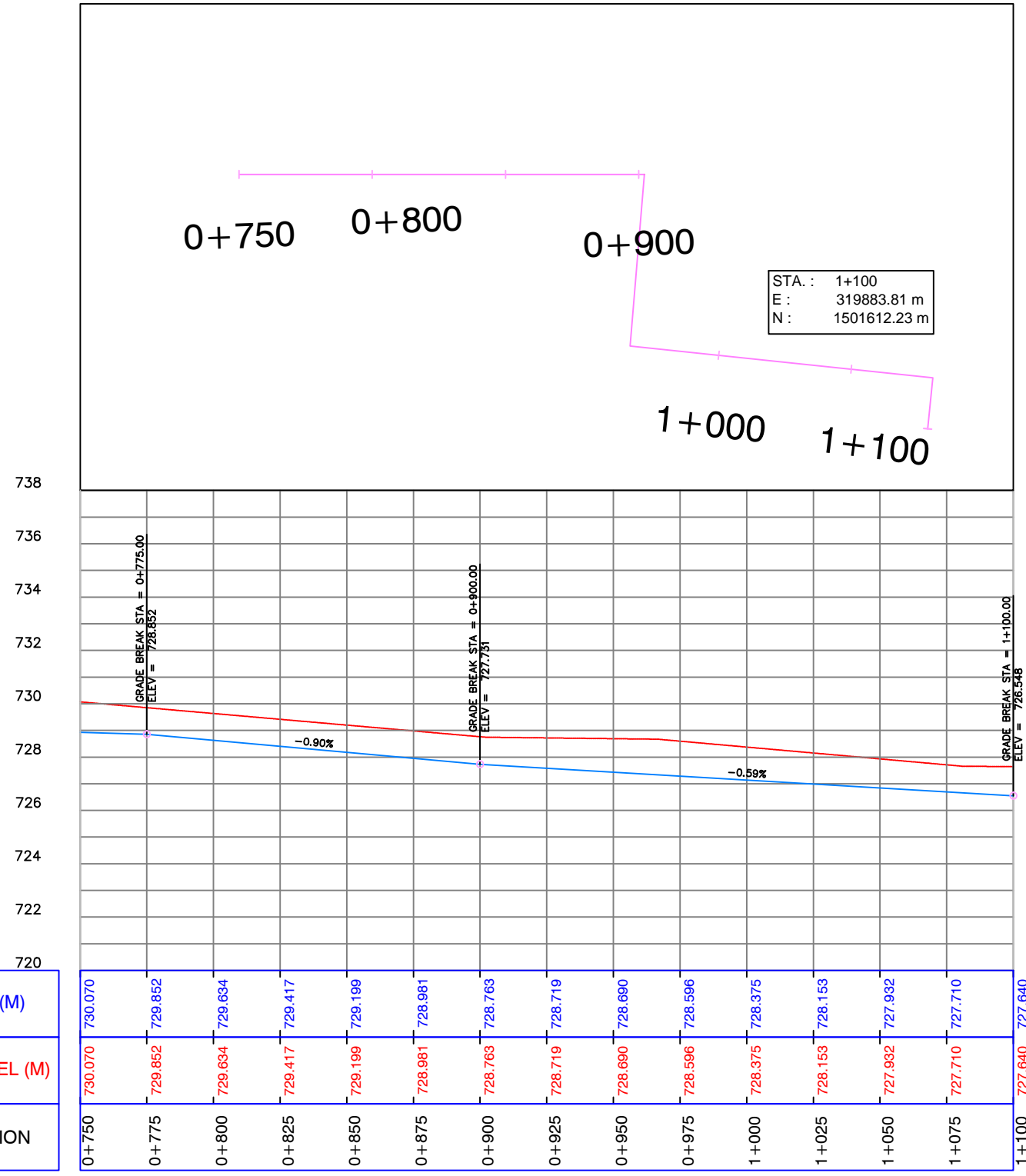
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DRAWING No:
160-4





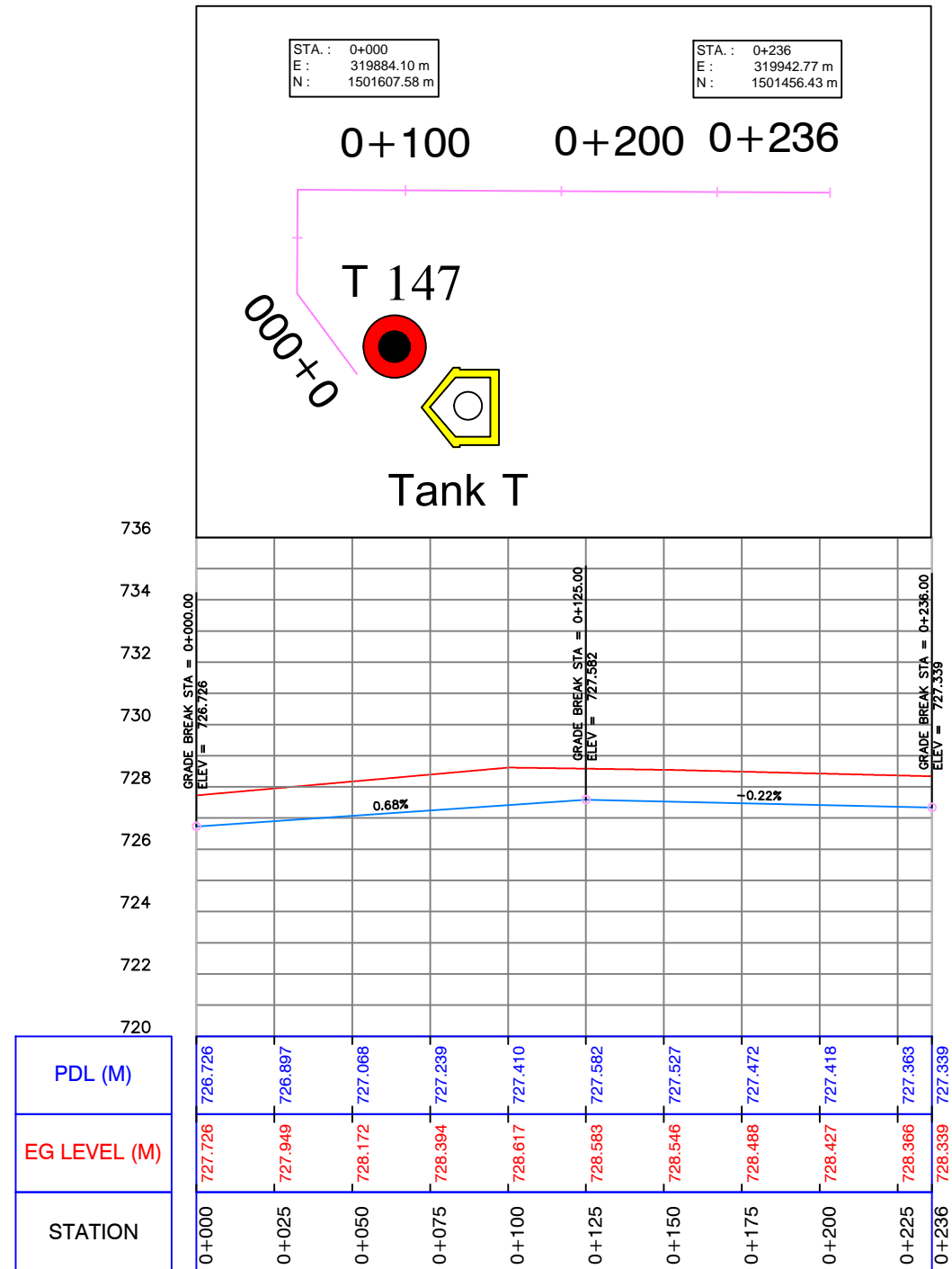
Profile (2-1)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)	SHEET
		DESIGNED : Dr.Hashim M.H Tumushabi K.I CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	APPROVED FOR IMPLEMENTATION : CONTRACT NUMBER DATE: JANUARY 2019






Profile (2-2)

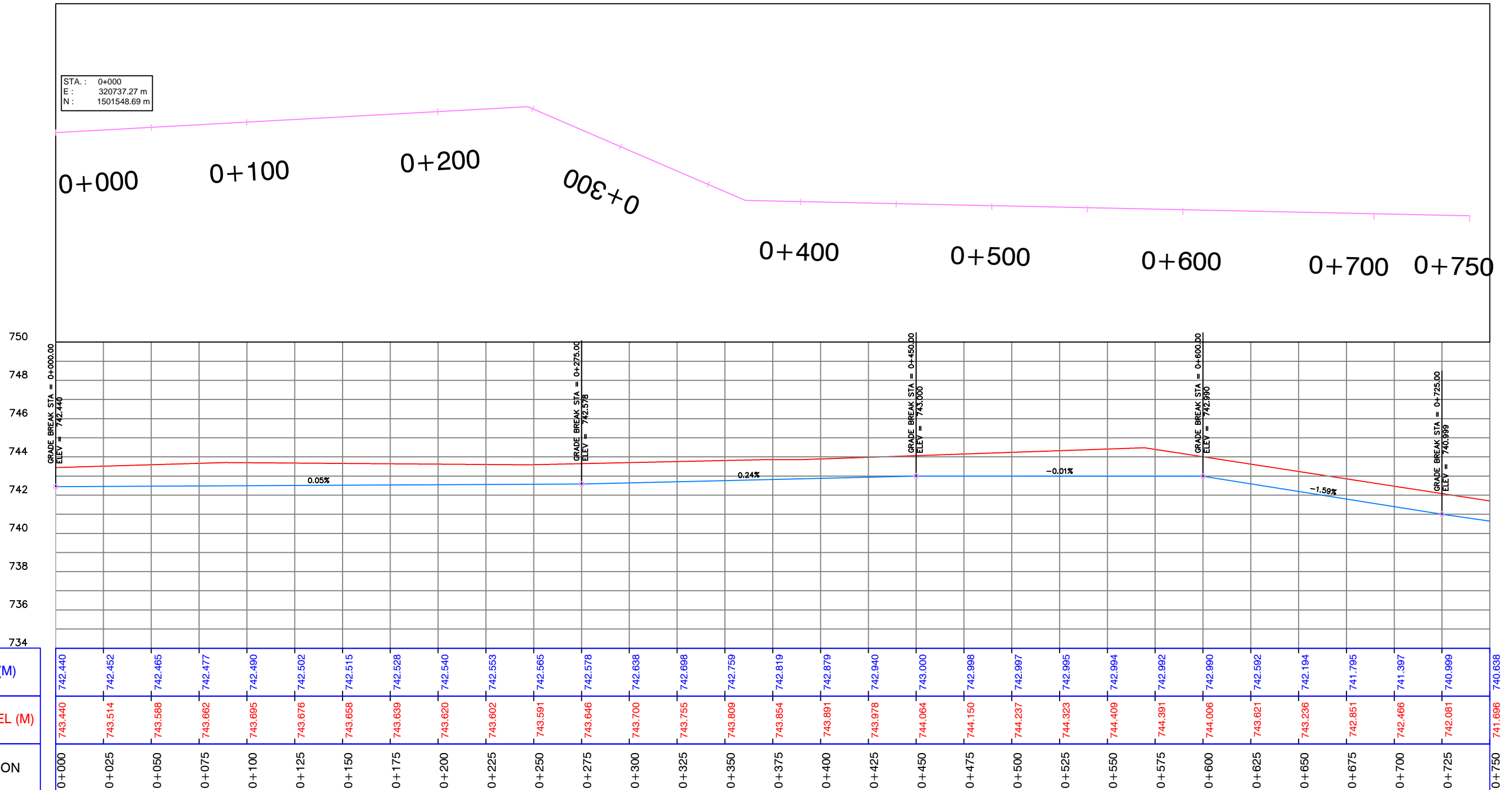
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)	SHEET		
							DESIGNED : Dr.Hashim M.H Tumushabi K.I DRAWN : Nada S.A. APPROVED FOR IMPLEMENTATION :		SCALE: AS SHOWN
						CHECKED : Prof.Siddig E.A DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 160-6






Profile (3)

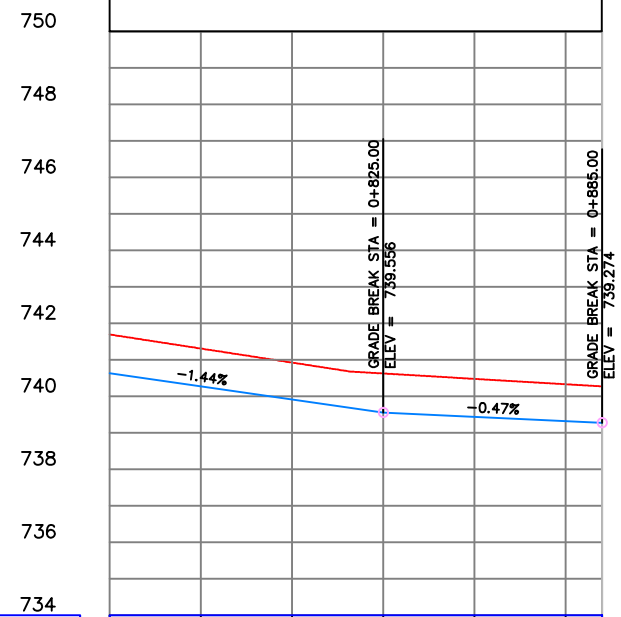
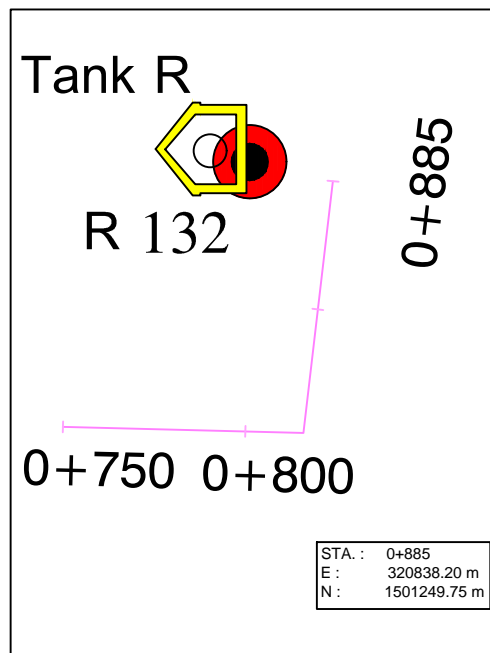
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION		FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT		 		REV.: DESCRIPTION DATE SIGN.		DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)			SHEET
PROJECT : DARFUR URBAN WATER SUPPLY PROJECT		IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES						DESIGNED : Dr.Hashim M.H Tumushabi K.I	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	
Design of El Fasher Urban Water Scheme								CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019
											SCALE: AS SHOWN
											DRAWING No: 160-7

STA.: 0+000
E.: 320737.27 m
N.: 1501548.69 m






Profile (4-1) Existing

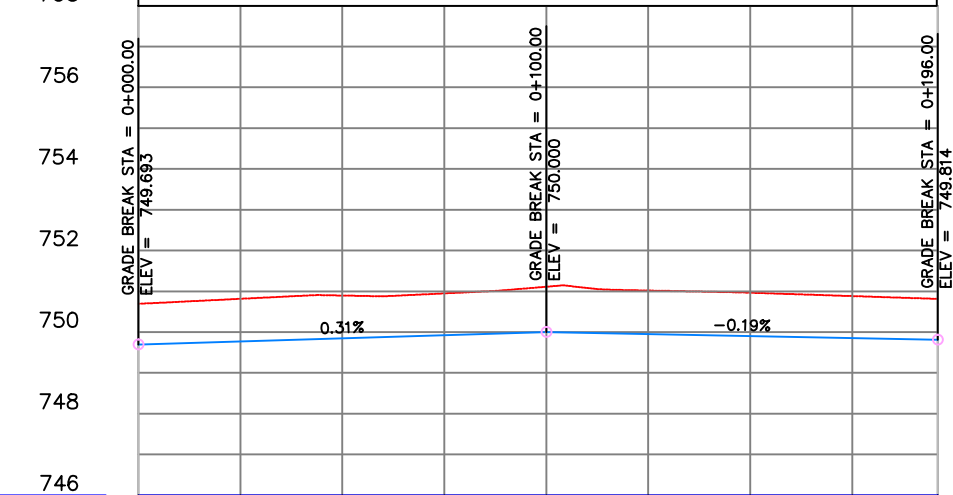
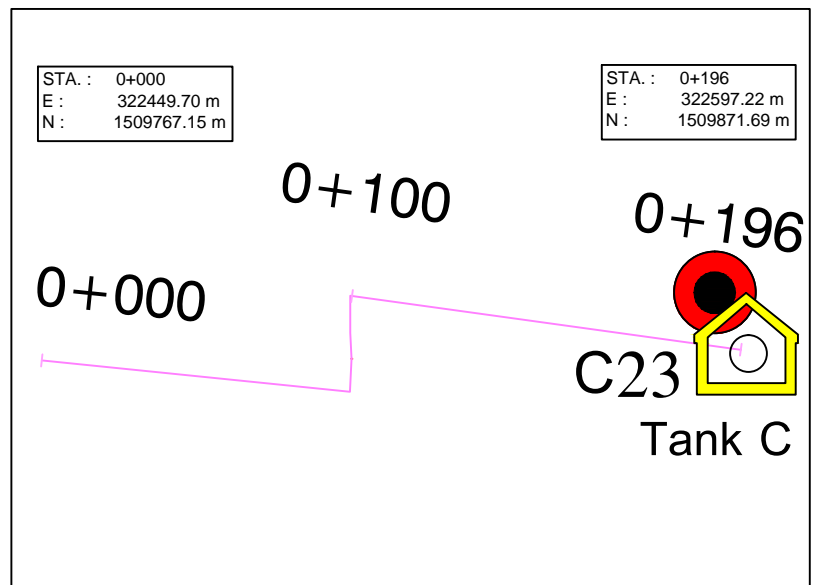
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)	SHEET	
		DESIGNED :	Dr.Hashim M.H Tumushabi K.I	DRAWN :	Nada S.A.		APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
		CHECKED :	Prof.Siddig E.A	DRAFTING COORDINATION :	UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 160-8



PDL (M)	740.638	740.277	739.917	739.556	739.439	739.321	739.274
EG LEVEL (M)	741.696	741.311	740.926	740.627	740.480	740.333	740.274
STATION	0+750	0+775	0+800	0+825	0+850	0+875	0+885



Profile (4-2) Existing

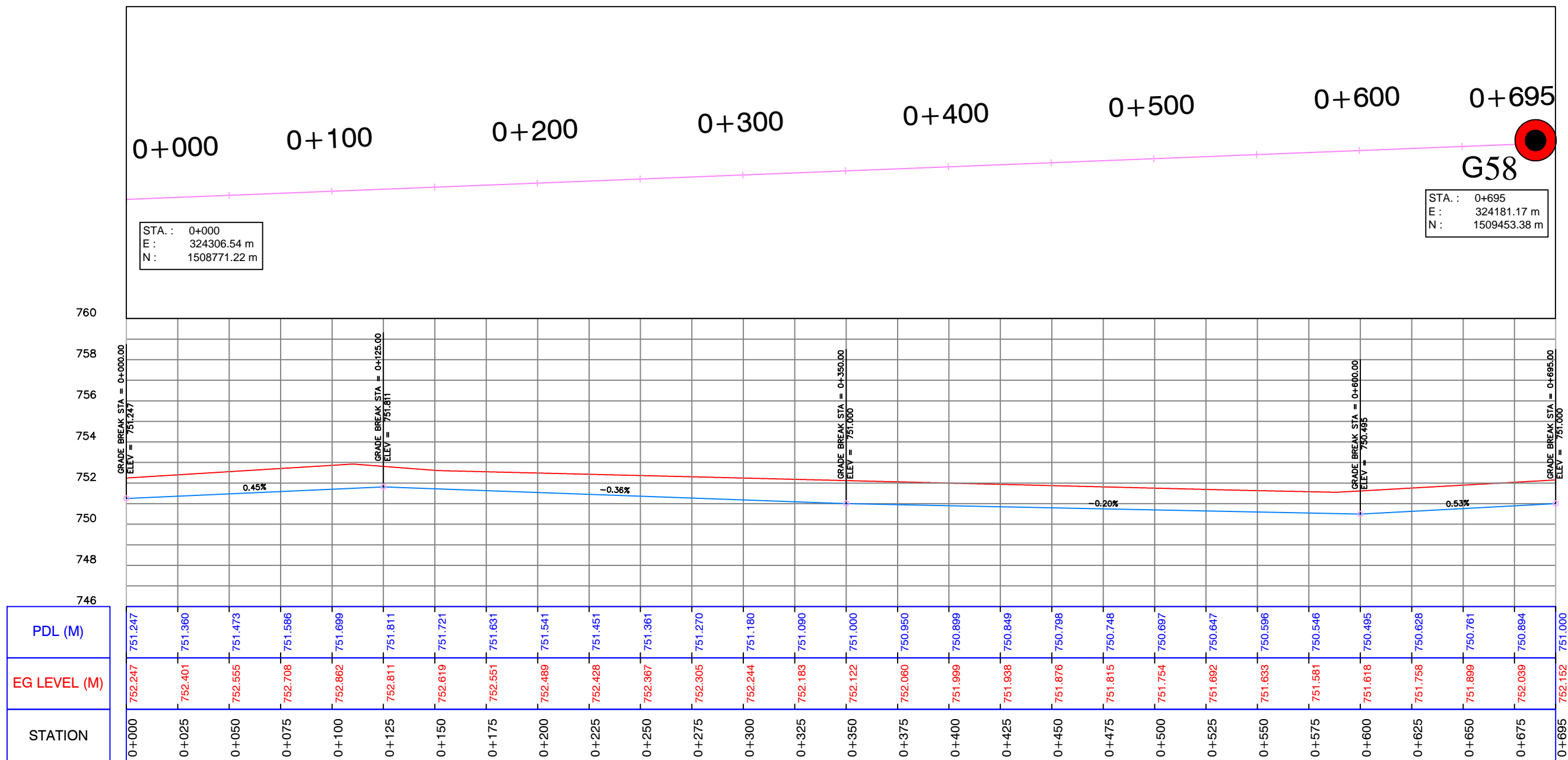
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)	SHEET		
							DESIGNED : Dr.Hashim M.H Tumushabi K.I DRAWN : Nada S.A. APPROVED FOR IMPLEMENTATION :		SCALE: AS SHOWN
						CHECKED : Prof.Siddig E.A. DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 160-9






PDL (M)	749.693	749.770	749.847	749.923	750.000	749.951	749.903	749.854	749.814
EG LEVEL (M)	750.693	750.816	750.896	750.948	751.112	751.019	750.965	750.883	750.814
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+196

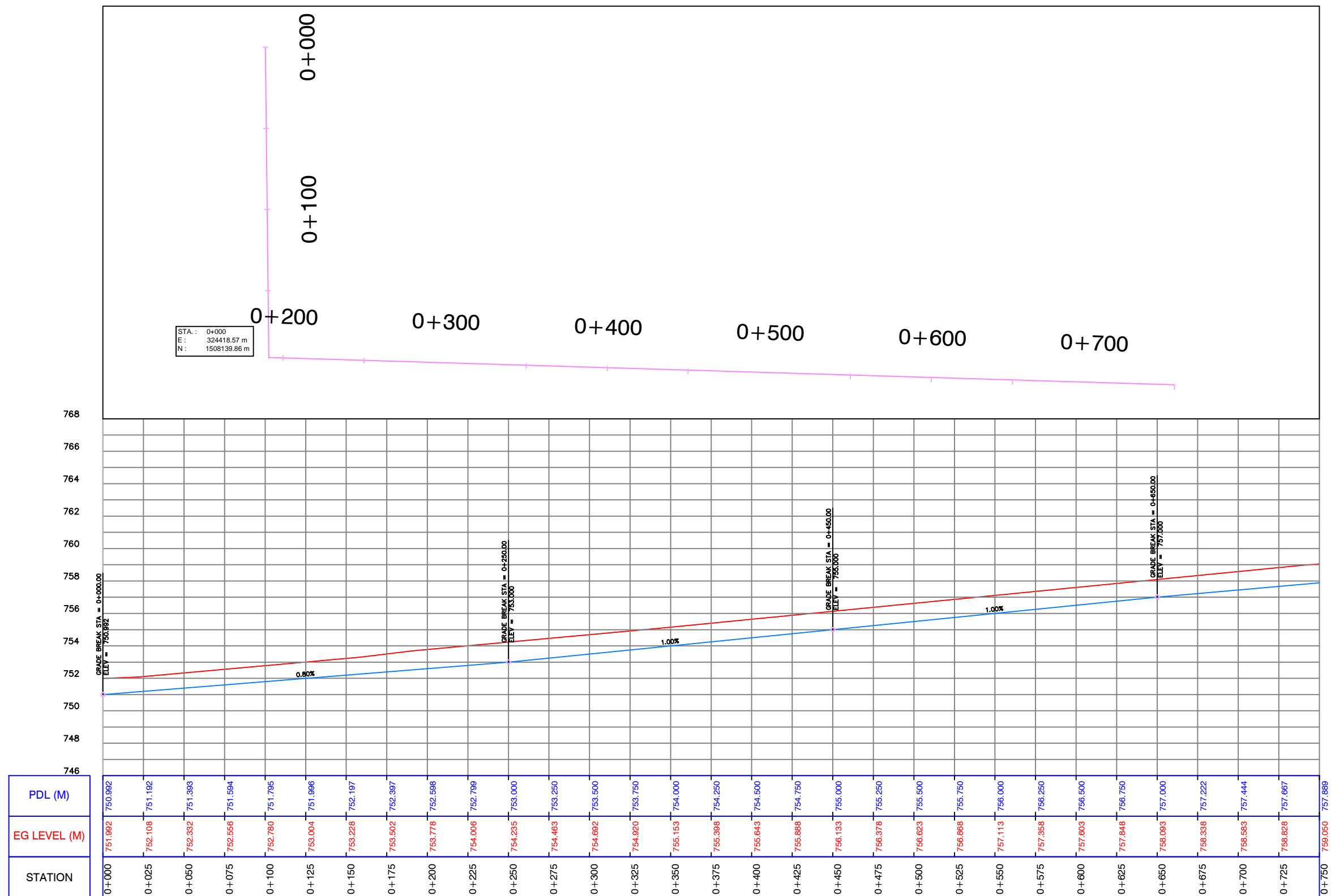
Profile (5)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)	SHEET	
							DESIGNED : Dr.Hashim M.H Tumushabi K.I DRAWN : Nada S.A. APPROVED FOR IMPLEMENTATION :	
						CHECKED : Prof.Siddig E.A. DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER DATE: JANUARY 2019	DRAWING No: 160-110






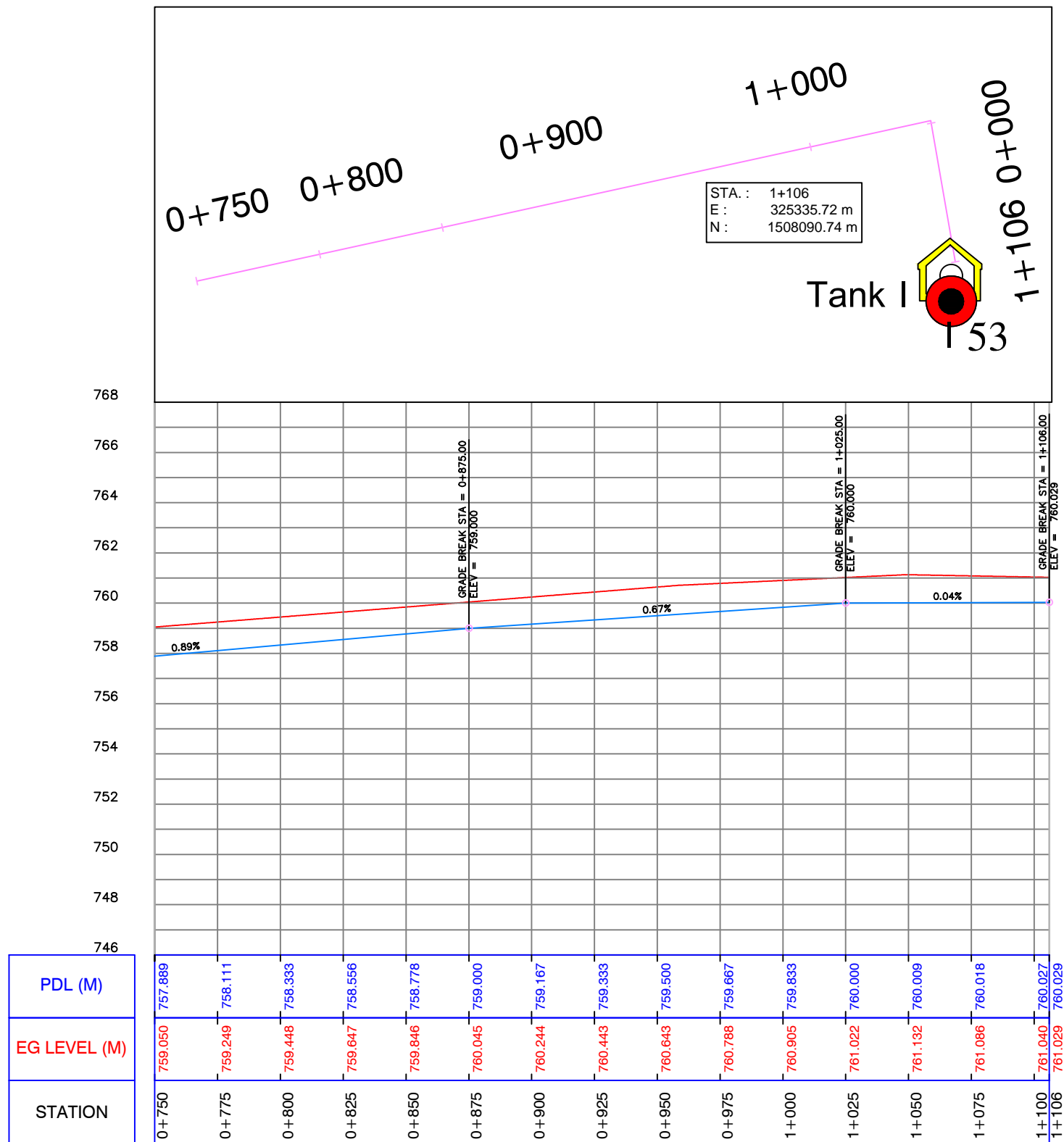
Profile (6)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT	 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)	SHEET		
PROJECT : DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES			DESIGNED : Dr.Hashim M.H Tumushabi K.I CHECKED : Prof.Siddig E.A	DRAWN : Nada S.A. DRAFTING COORDINATION : UNOPS	APPROVED FOR IMPLEMENTATION : CONTRACT NUMBER DATE: JANUARY 2019	SCALE: AS SHOWN DRAWING No: 116-11






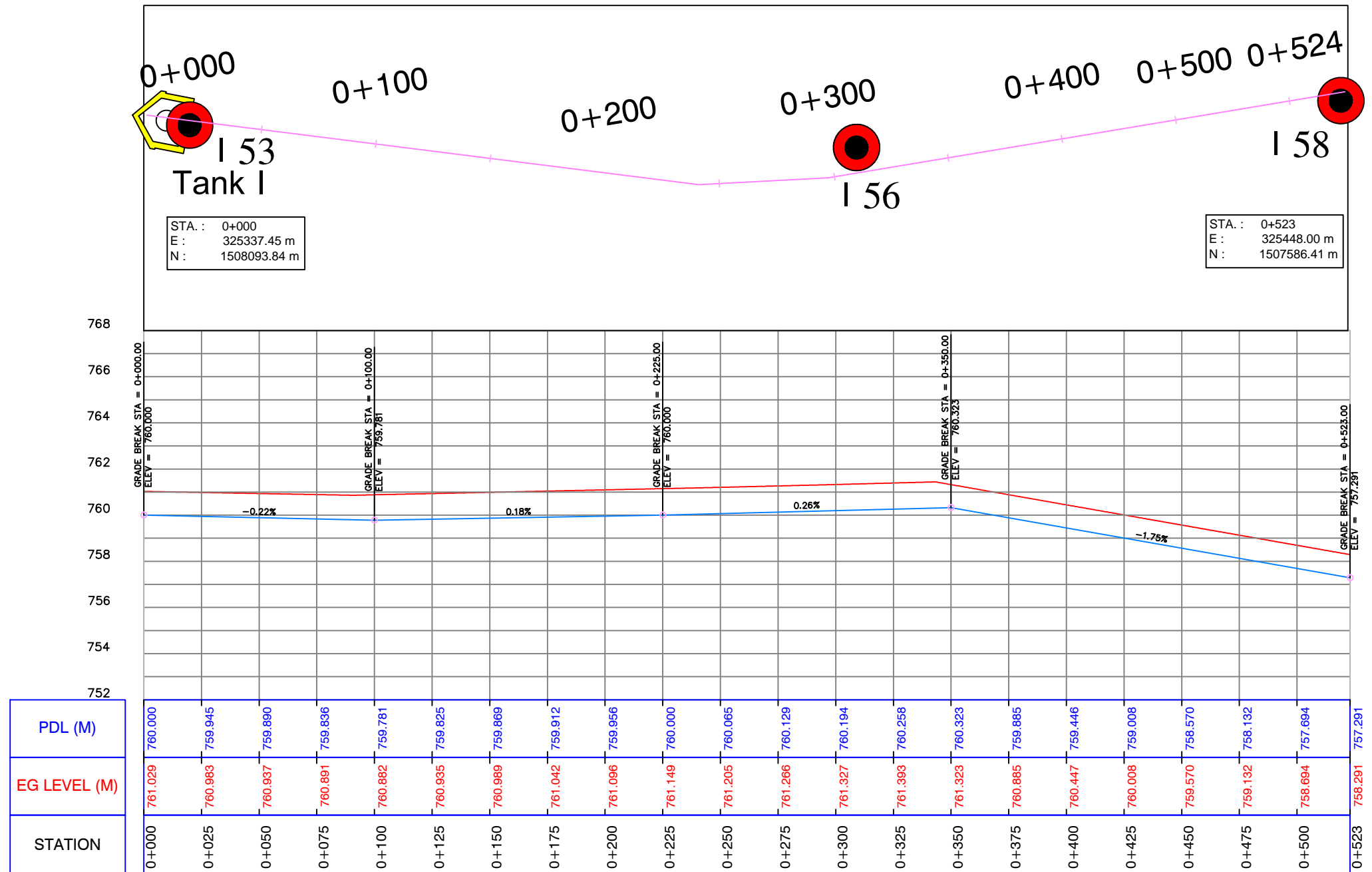
Profile (7-1)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION		FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT		 		REV.: DESCRIPTION DATE SIGN.		DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)			SHEET
PROJECT: DARFUR URBAN WATER SUPPLY PROJECT		IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES				DESIGNED : Dr.Hashim M.H Tumushabi K.I		DRAWN : Nada S.A.		APPROVED FOR IMPLEMENTATION :	
Design of El Fasher Urban Water Scheme				CHECKED : Prof.Siddig E.A		DRAFTING COORDINATION : UNOPS		CONTRACT NUMBER		DATE: JANUARY 2019	
										SCALE: AS SHOWN	
										DRAWING No: 160-12	






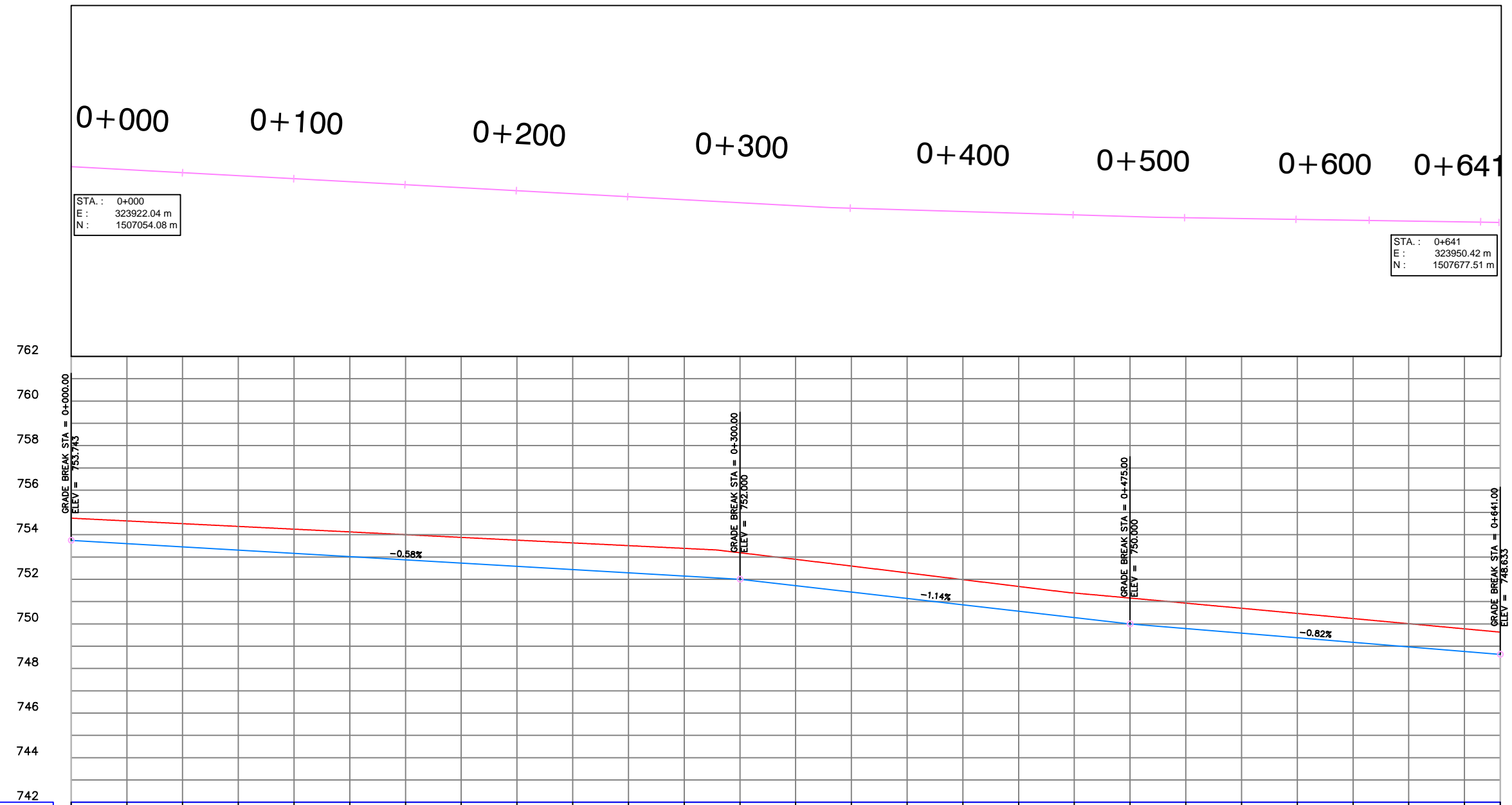
Profile (7-2)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)	SHEET
		DESIGNED : Dr.Hashim M.H Tumushabi K.I CHECKED : Prof.Siddig E.A	DRAWN : Nada S.A. DRAFTING COORDINATION : UNOPS	APPROVED FOR IMPLEMENTATION : CONTRACT NUMBER DATE: JANUARY 2019






Profile (8)

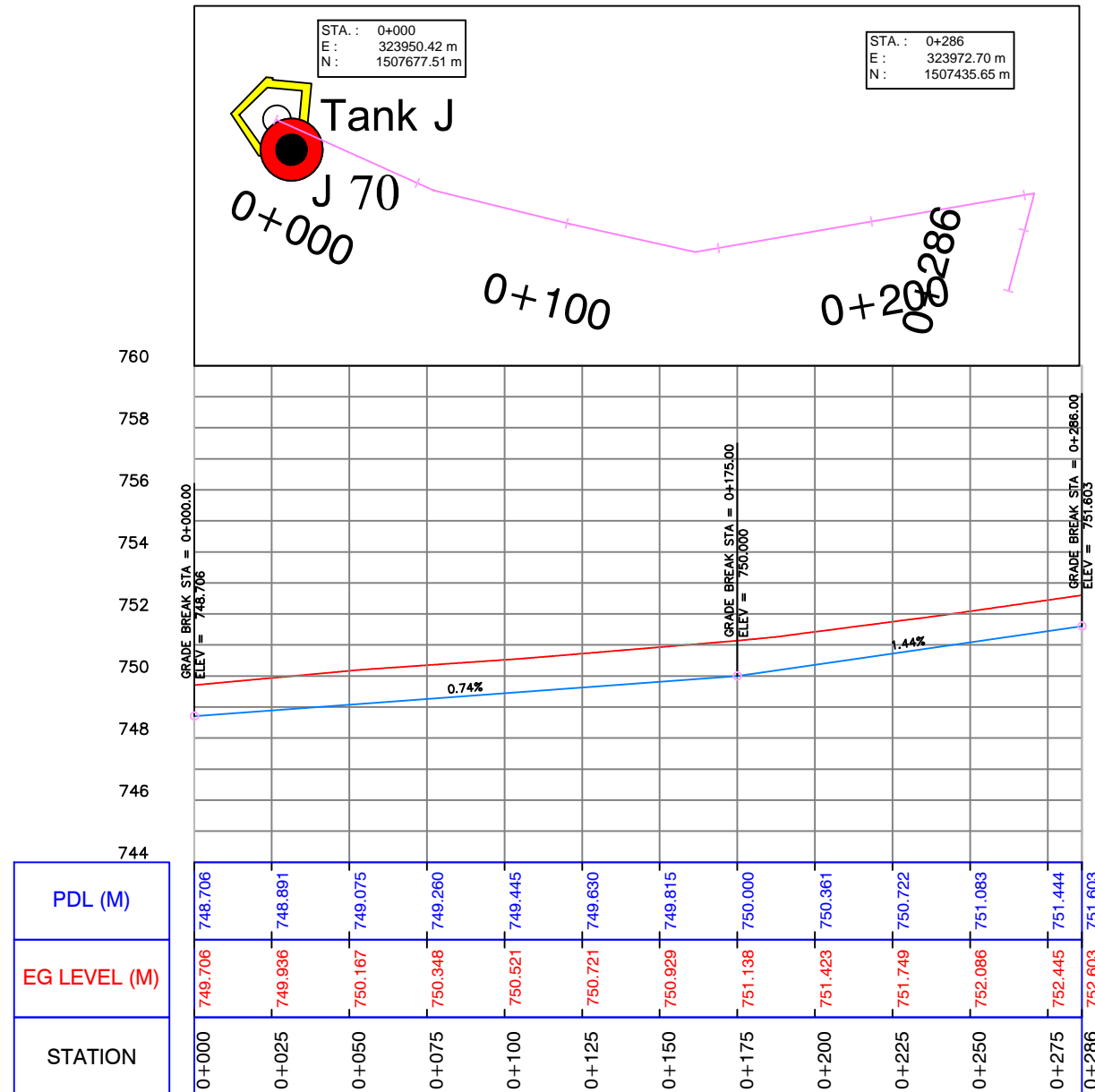
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)	SHEET	
		DESIGNED : Dr.Hashim M.H Tumushabi K.I	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
		CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER DATE: JANUARY 2019	DRAWING No: 160-14





PDL (M)	753.743	753.598	753.453	753.307	753.162	753.017	752.872	752.726	752.581	752.436	752.291	752.145	752.000	751.854	751.709	751.563	751.418	751.272	751.127	749.981	749.836	749.690	749.545	749.400	749.254	749.109	748.963	748.818	748.673	748.527	748.382	748.236	748.091	747.945	747.800	748.633																																																																																					
EG LEVEL (M)	754.743	754.620	754.497	754.374	754.250	754.127	754.004	753.881	753.758	753.635	753.511	753.388	753.265	753.142	753.019	752.896	752.773	752.650	752.527	752.404	752.281	752.158	752.035	751.912	751.789	751.666	751.543	751.420	751.297	751.174	751.051	750.928	750.805	750.682	750.559	750.436	750.313	750.190	750.067	749.944	749.821	749.698	749.575	749.452	749.329	749.206	749.083	748.960	748.837	748.714	748.591	748.468	748.345	748.222	748.099	747.976	747.853	747.730	747.607	747.484	747.361	747.238	747.115	746.992	746.869	746.746	746.623	746.500	746.377	746.254	746.131	746.008	745.885	745.762	745.639	745.516	745.393	745.270	745.147	745.024	744.901	744.778	744.655	744.532	744.409	744.286	744.163	744.040	743.917	743.794	743.671	743.548	743.425	743.302	743.179	743.056	742.933	742.810	742.687	742.564	742.441	742.318	742.195	742.072	741.949	741.826	741.703	741.580	741.457	741.334	741.211	741.088	740.965	740.842	740.719	740.596	740.473	740.350	740.227	740.104	740.000
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+250	0+275	0+300	0+325	0+350	0+375	0+400	0+425	0+450	0+475	0+500	0+525	0+550	0+575	0+600	0+625	0+641																																																																																														

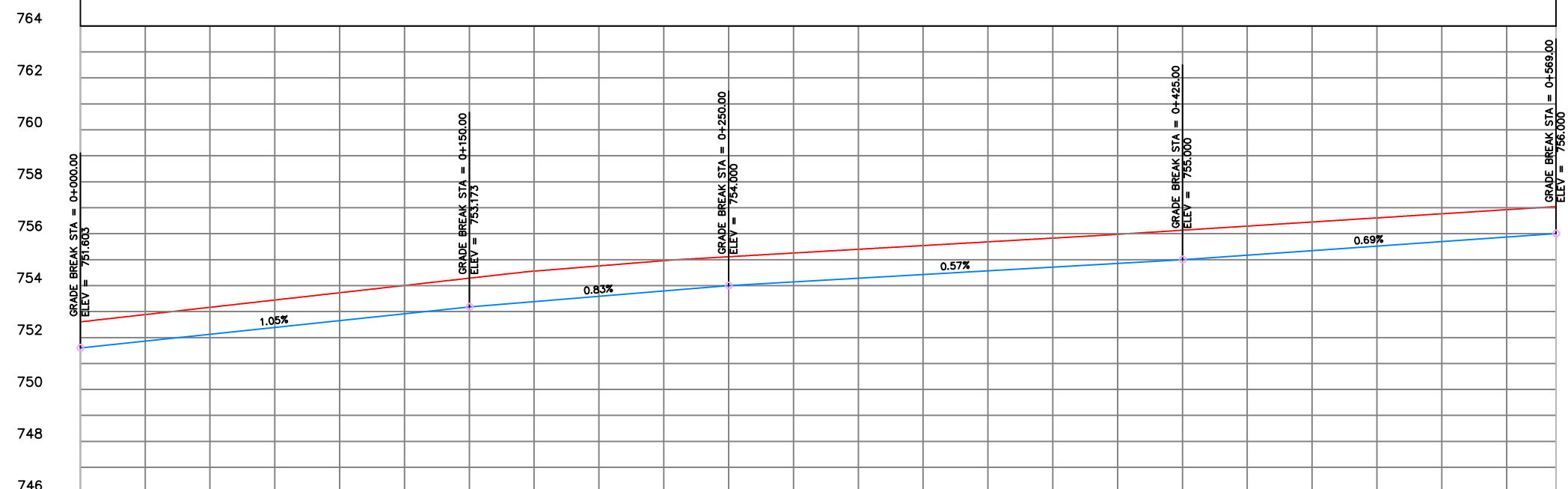
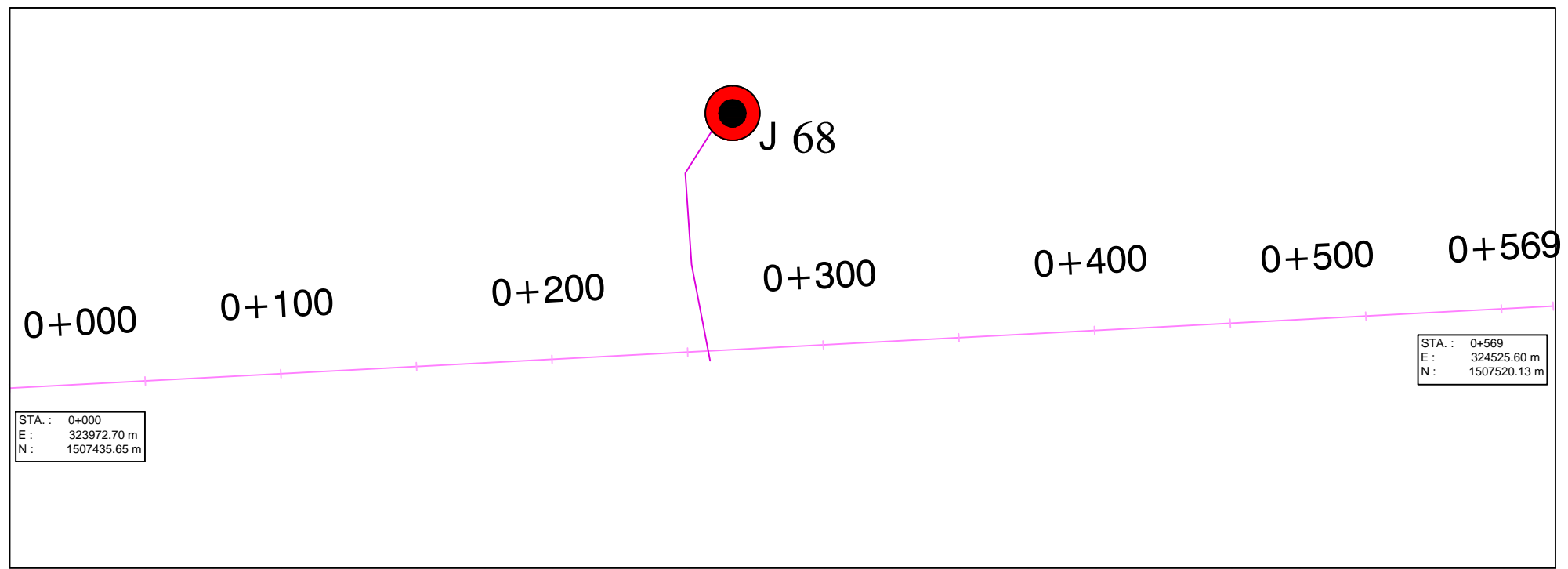
Profile (9)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT	 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)				SHEET
PROJECT: DARFUR URBAN WATER SUPPLY PROJECT	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES						DESIGNED : Dr.Hashim M.H Tumushabi K.I	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :		SCALE: AS SHOWN
Design of El Fasher Urban Water Scheme							CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 160-15






Profile (10)

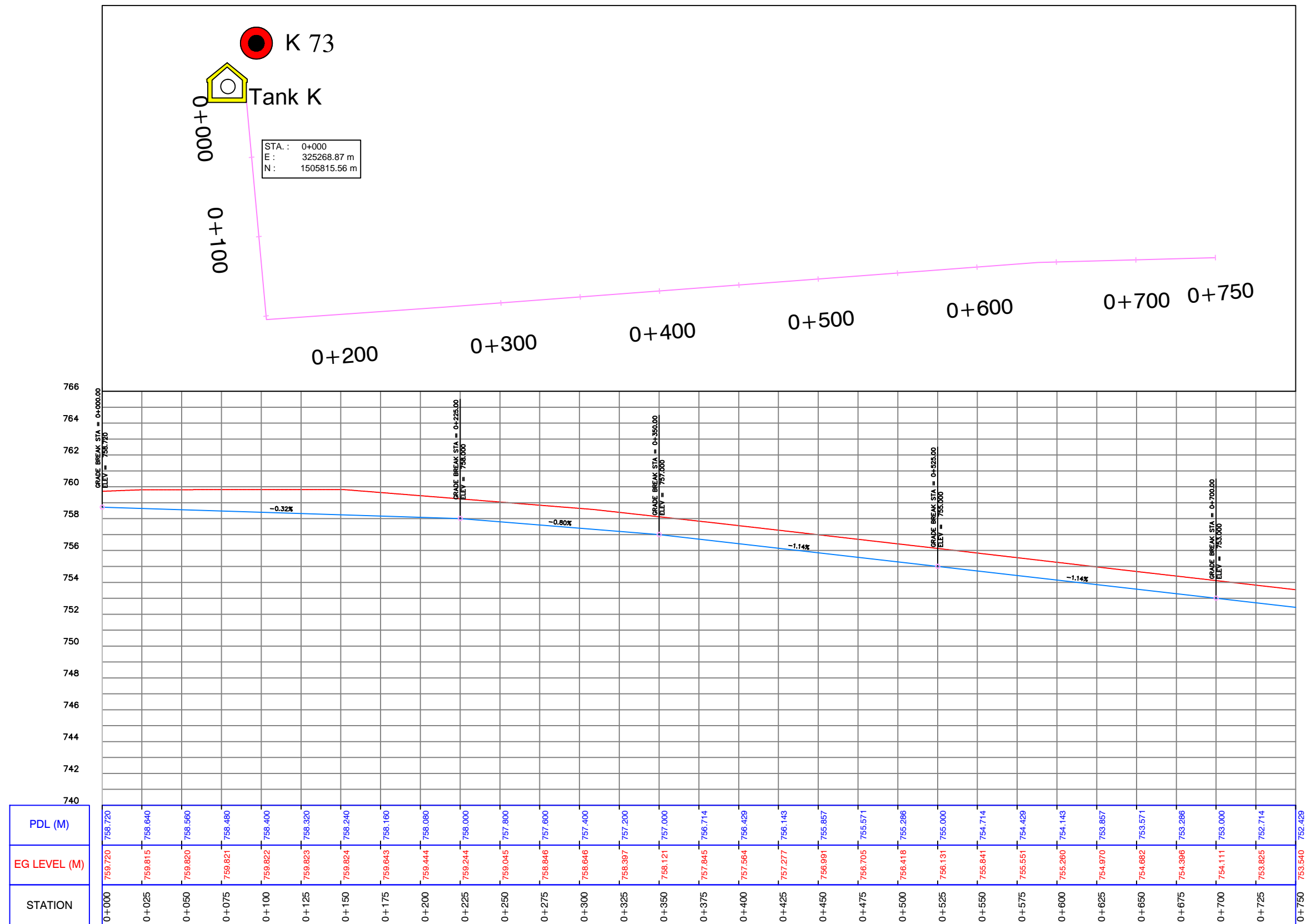
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)	SHEET
		DESIGNED : Dr.Hashim M.H Tumushabi K.I CHECKED : Prof.Siddig E.A	DRAWN : Nada S.A. DRAFTING COORDINATION : UNOPS	APPROVED FOR IMPLEMENTATION : CONTRACT NUMBER DATE: JANUARY 2019





PDL (M)	751.603	751.865	752.127	752.388	752.650	752.912	753.173	753.360	753.567	753.793	754.000	754.143	754.286	754.429	754.571	754.714	754.857	755.000	755.174	755.347	755.521	755.694	755.868	756.000	
EG LEVEL (M)	752.603	752.884	753.164	753.445	753.725	754.005	754.286	754.557	754.759	754.960	755.111	755.255	755.398	755.542	755.685	755.829	755.975	756.133	756.291	756.450	756.608	756.766	756.924	757.044	756.000
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+250	0+275	0+300	0+325	0+350	0+375	0+400	0+425	0+450	0+475	0+500	0+525	0+550	0+569	

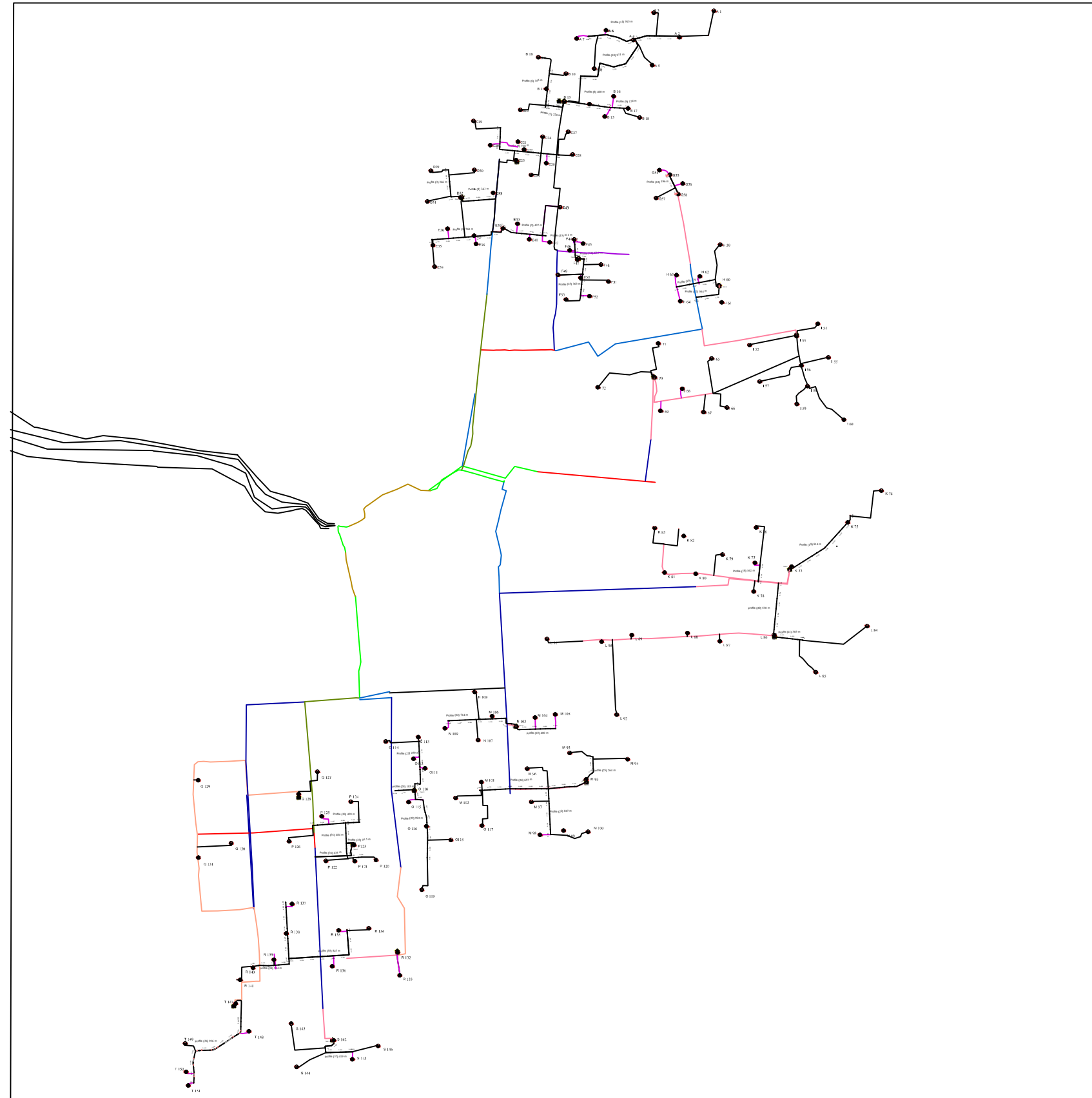
Profile (11)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT	 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)	SHEET
PROJECT: DARFUR URBAN WATER SUPPLY PROJECT	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES		DESIGNED: Dr.Hashim M.H Tumushabi K.I	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:
Design of El Fasher Urban Water Scheme			CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER DATE: JANUARY 2019
					SCALE: AS SHOWN DRAWING No: 160-17



Profile (12-1)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)	SHEET
		DESIGNED : Dr.Hashim M.H Tumushabi K.I CHECKED : Prof.Siddig E.A	DRAWN : Nada S.A. DRAFTING COORDINATION : UNOPS	APPROVED FOR IMPLEMENTATION : CONTRACT NUMBER DATE: JANUARY 2019



CLIENT: UWA – Urban Water Administration
SWC - STATE WATER CORPORATION

PROJECT:
DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
Urban Water Scheme**

FUNDED BY:
DID
DEPARTMENT FOR
INTERNATIONAL DEVELOPMENT



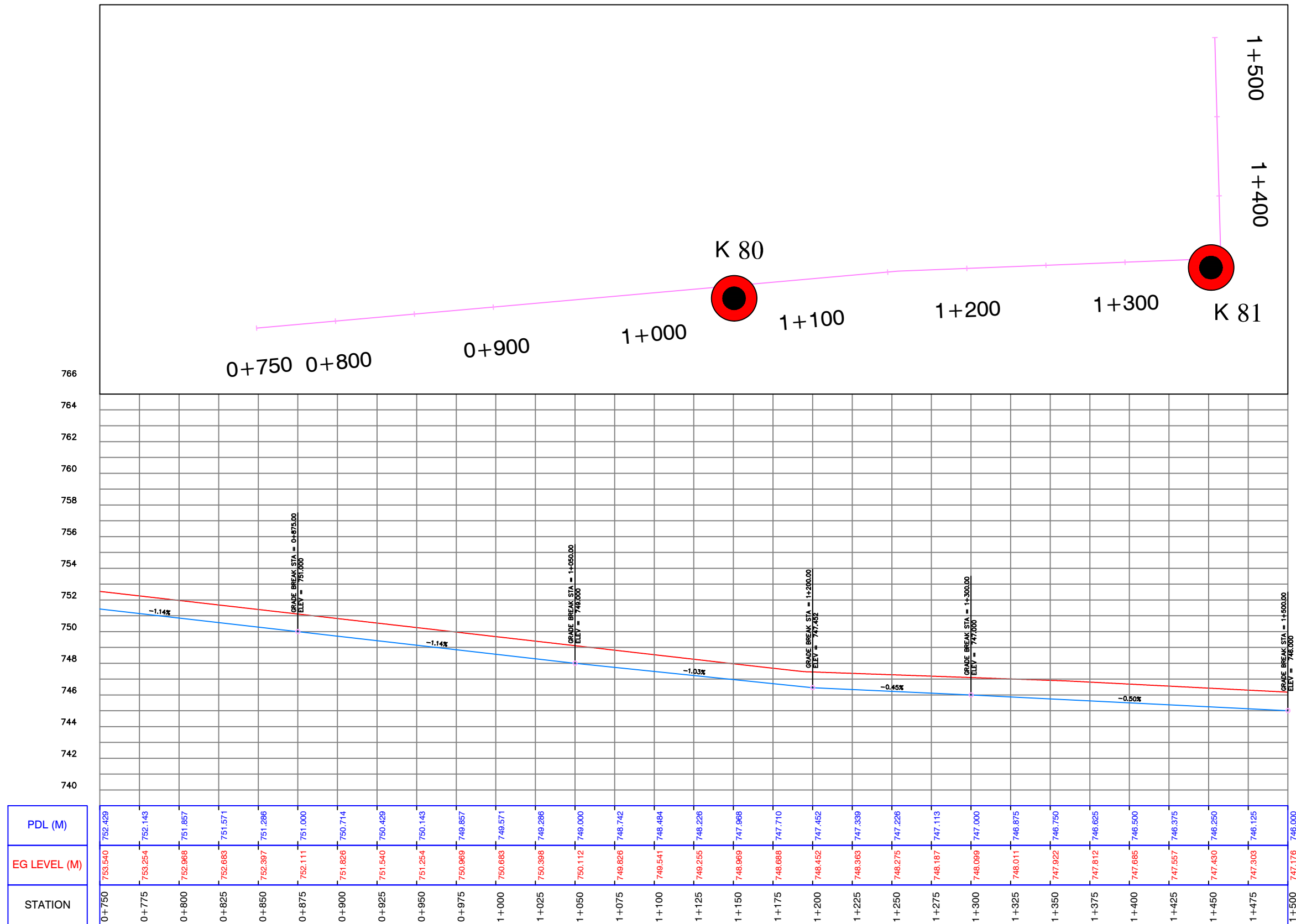
IMPLEMENTED BY:
UNOPS
UNITED NATIONS OFFICE
FOR PROJECT SERVICES

REV.	DESCRIPTION	DATE	SIGN.

DRAWN TITLE : **PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)**

DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER
DATE: JANUARY 2019		DRAWING No: 110-1

SHEET
SCALE: AS SHOWN
DRAWING No: 110-1



Profile (12-2)

CLIENT: UWA – Urban Water Administration
 SWC - STATE WATER CORPORATION

PROJECT:
 DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
 Urban Water Scheme**

FUNDED BY:
DID
 DEPARTMENT FOR
 INTERNATIONAL DEVELOPMENT




IMPLEMENTED BY:
UNOPS
 UNITED NATIONS OFFICE
 FOR PROJECT SERVICES



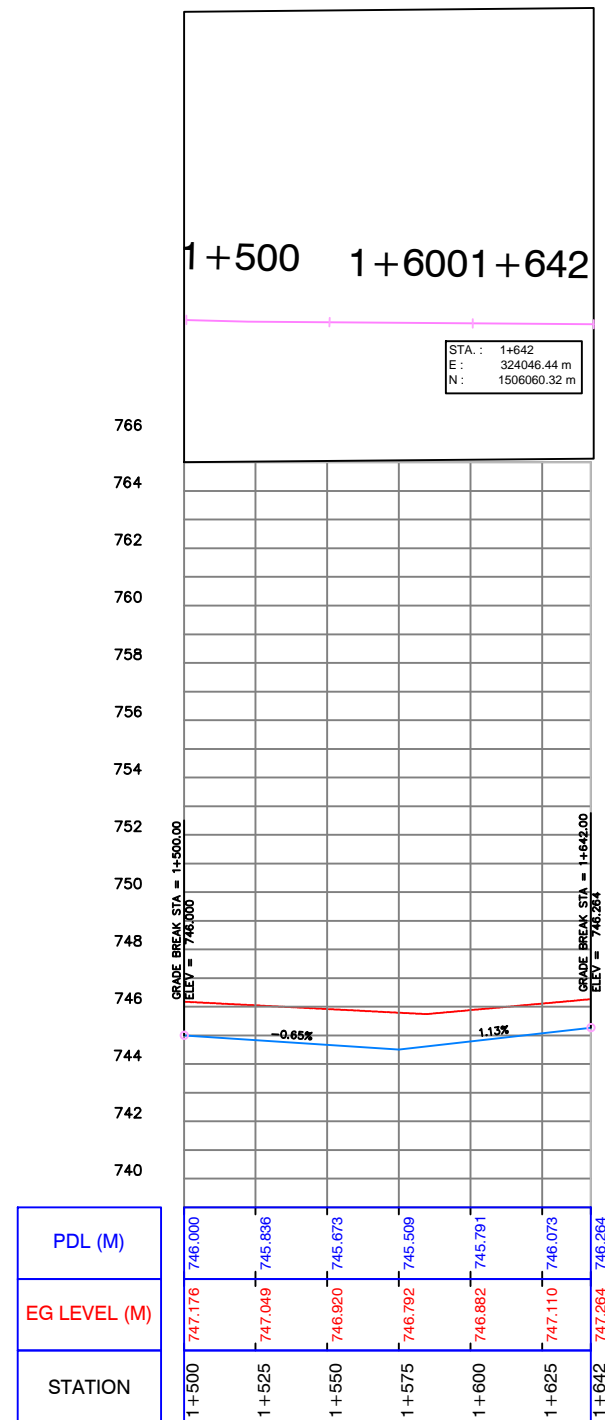
REV.:	DESCRIPTION	DATE	SIGN.

DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)			
DESIGNED : Dr.Hashim M.H Tumushabi K.I	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019




SHEET

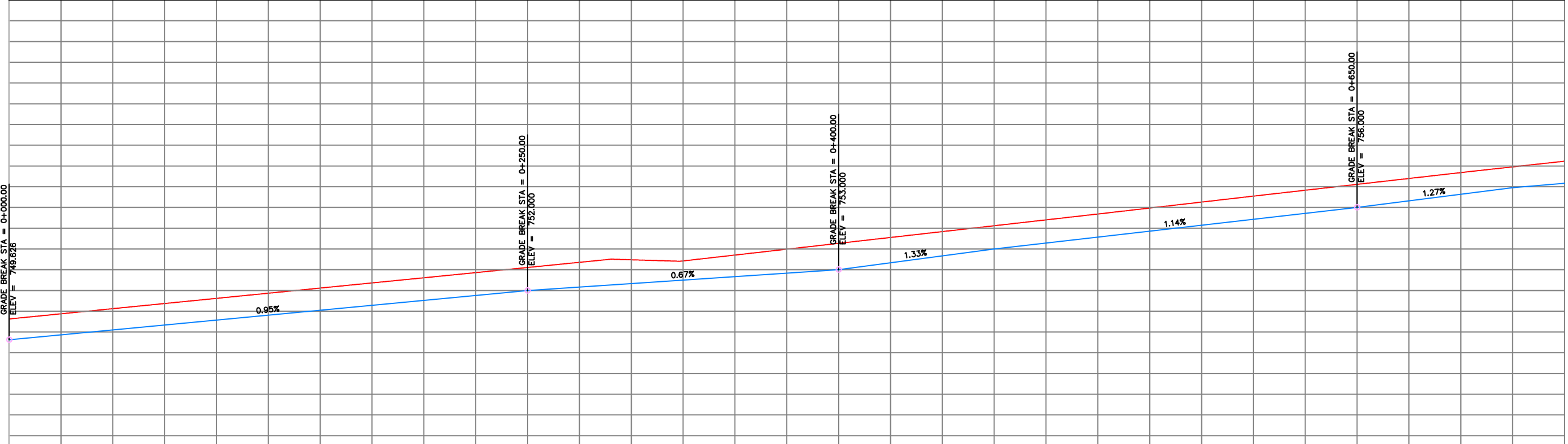
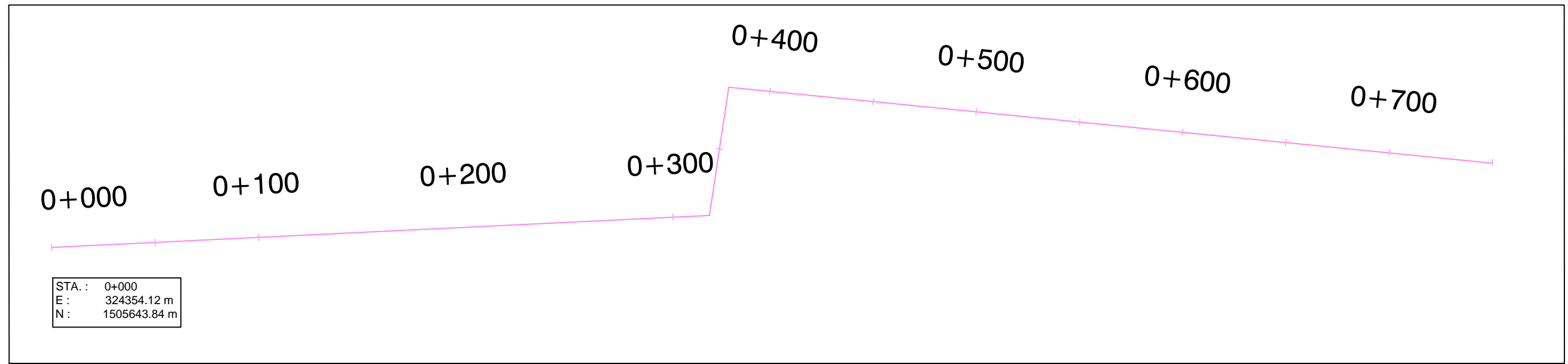
SCALE:
AS SHOWN

DRAWING No:
160-19





Profile (12-3)

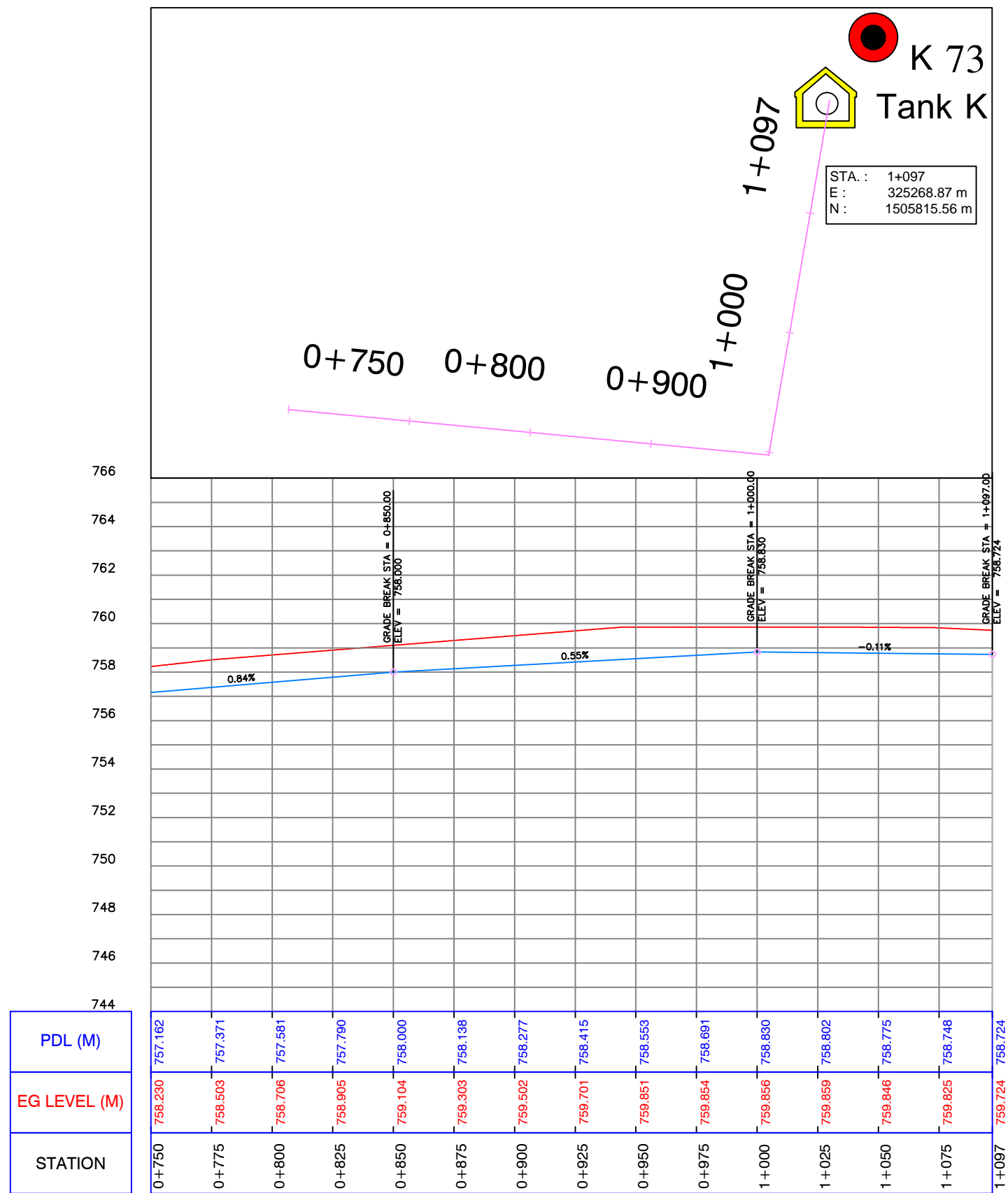
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)	SHEET 5			
								DESIGNED : Dr.Hashim M.H Tumushabi K.I	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :
						CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 6-19






PDL (M)	749.826	749.864	750.101	750.398	750.576	750.813	751.051	751.288	751.525	751.763	752.000	752.167	752.333	752.500	752.667	752.833	753.000	753.333	753.667	754.000	754.286	754.571	754.857	755.143	755.429	755.714	756.000	756.317	756.635	756.952	757.162
EG LEVEL (M)	750.826	750.875	751.123	751.371	751.619	751.867	752.115	752.364	752.612	752.860	753.108	753.356	753.479	753.424	753.707	753.989	754.272	754.555	754.837	755.120	755.402	755.685	755.972	756.260	756.547	756.831	757.114	757.398	757.681	757.957	758.230
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+250	0+275	0+300	0+325	0+350	0+375	0+400	0+425	0+450	0+475	0+500	0+525	0+550	0+575	0+600	0+625	0+650	0+675	0+700	0+725	0+750

Profile (13-1)

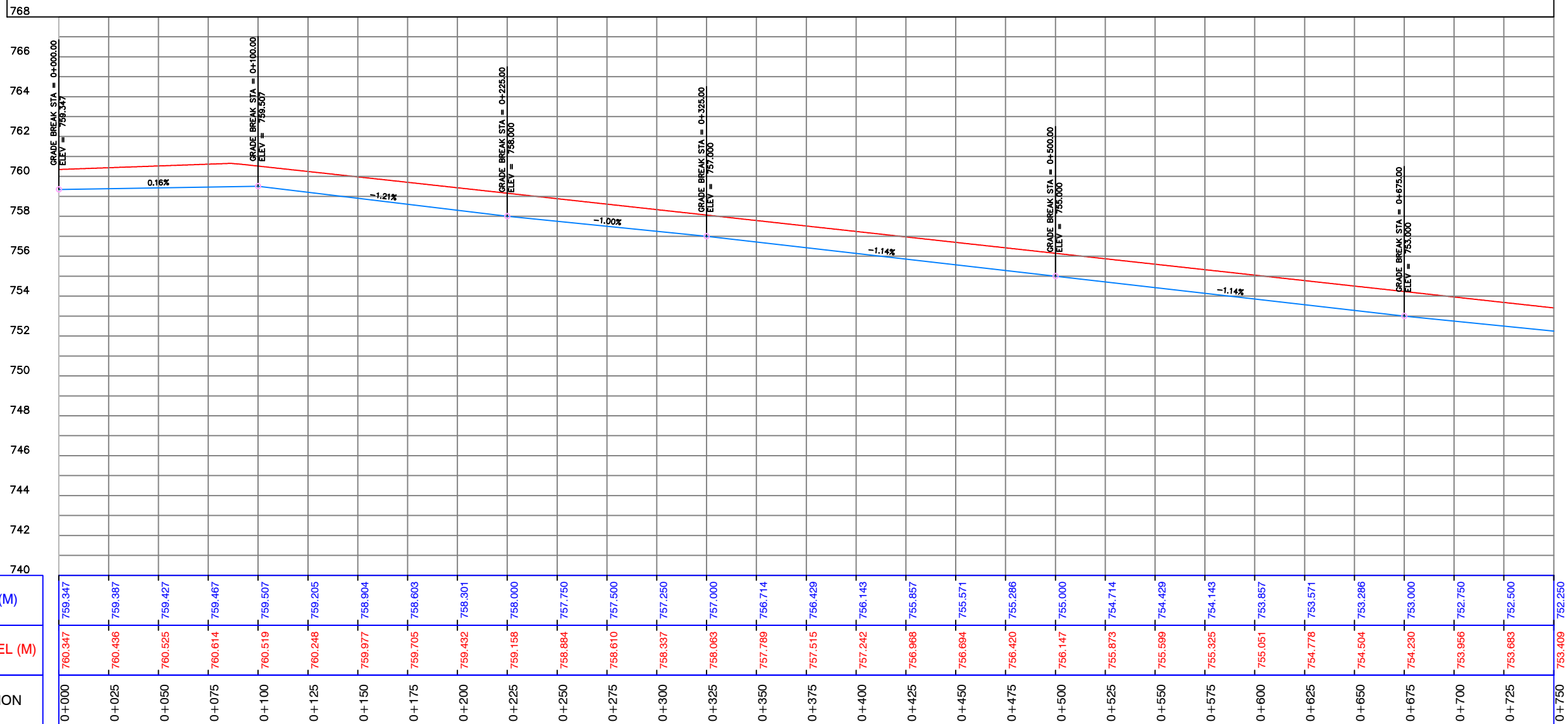
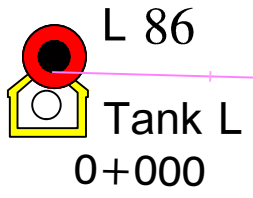
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT	 Department for International Development	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)	SHEET SCALE: AS SHOWN
PROJECT : DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES		DESIGNED : Dr.Hashim M.H Tumushabi K.I	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION : CONTRACT NUMBER DATE: JANUARY 2019
			CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	DRAWING No: 160-21



Profile (13-2)



CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)			SHEET
		DESIGNED : Dr.Hashim M.H Tumushabi K.I	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :		SCALE: AS SHOWN
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 160-22		

STA. : 0+000
 E : 325118.64 m
 N : 1505166.91 m



STATION	EG LEVEL (M)	PDL (M)
0+000	760.347	759.347
0+025	760.436	759.387
0+050	760.525	759.427
0+075	760.614	759.467
0+100	760.703	759.507
0+125	760.792	759.547
0+150	760.881	759.587
0+175	760.970	759.627
0+200	761.059	759.667
0+225	761.148	759.707
0+250	761.237	759.747
0+275	761.326	759.787
0+300	761.415	759.827
0+325	761.504	759.867
0+350	761.593	759.907
0+375	761.682	759.947
0+400	761.771	759.987
0+425	761.860	760.027
0+450	761.949	760.067
0+475	762.038	760.107
0+500	762.127	760.147
0+525	762.216	760.187
0+550	762.305	760.227
0+575	762.394	760.267
0+600	762.483	760.307
0+625	762.572	760.347
0+650	762.661	760.387
0+675	762.750	760.427
0+700	762.839	760.467
0+725	762.928	760.507
0+750	763.017	760.547

Profile (14-1)

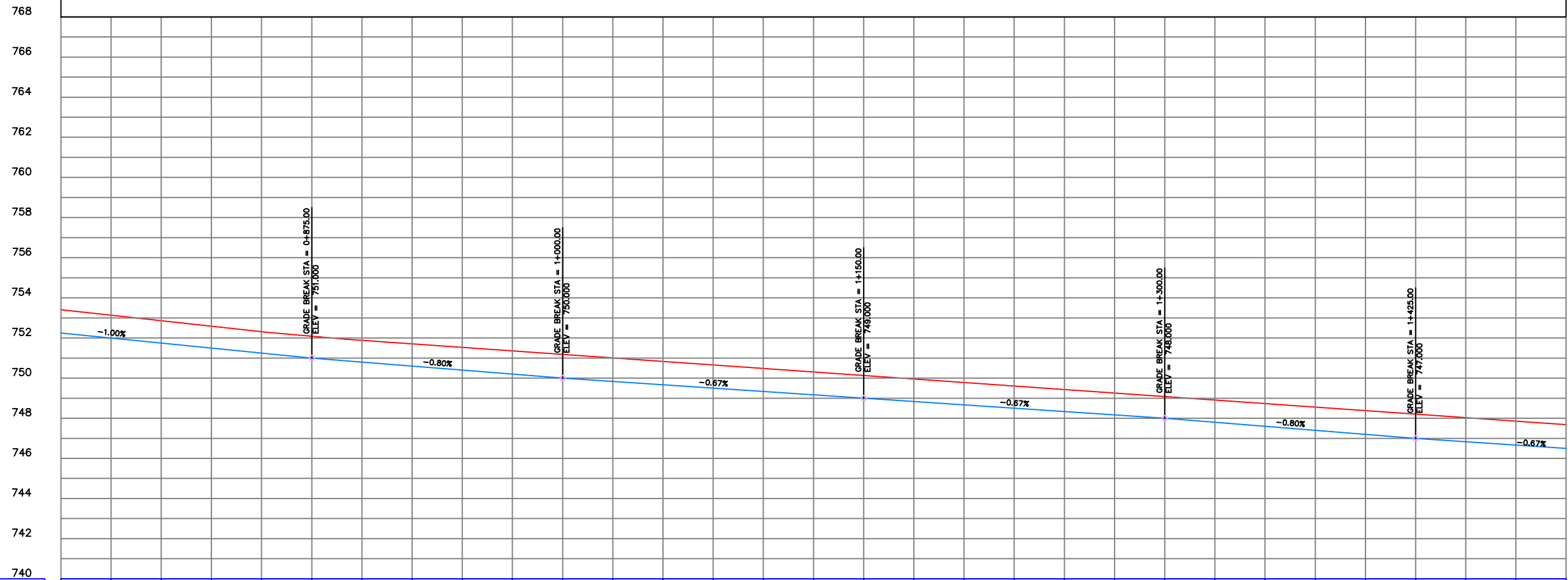
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)	SHEET	
		DESIGNED : Dr.Hashim M.H Tumushabi K.I	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
		CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER DATE: JANUARY 2019	DRAWING No: 160-23

Profile (14) 1+866 m

L 88




L 89

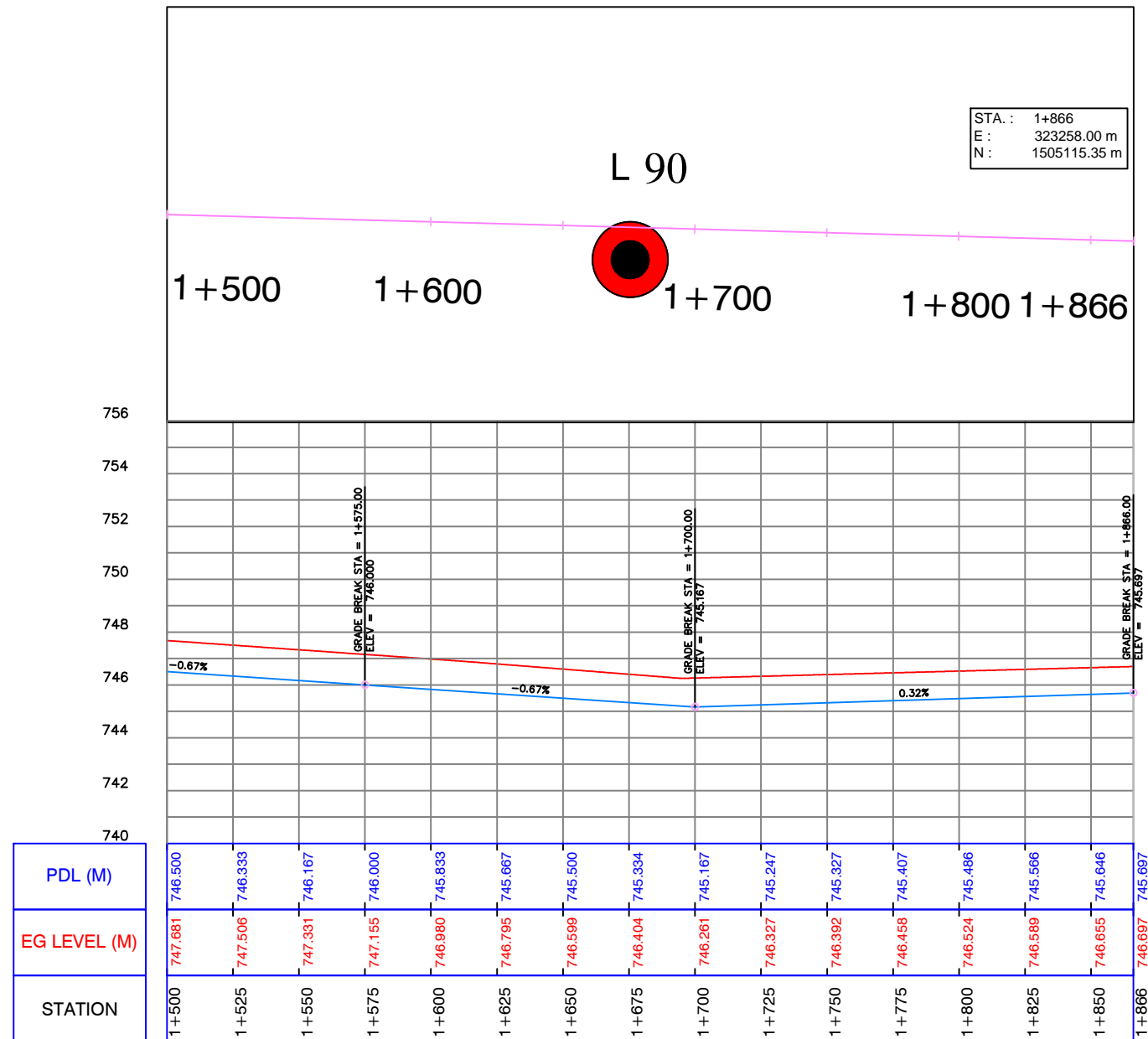
0+750 0+800 0+900 1+000 1+100 1+200 1+300 1+400 1+500






STATION	EG LEVEL (M)	PDL (M)
0+750	753.409	752.250
0+775	753.135	752.000
0+800	752.861	751.750
0+825	752.588	751.500
0+850	752.314	751.250
0+875	752.088	751.000
0+900	751.862	750.800
0+925	751.707	750.600
0+950	751.532	750.400
0+975	751.357	750.200
1+000	751.182	750.000
1+025	751.007	749.833
1+050	750.832	749.667
1+075	750.657	749.500
1+100	750.482	749.333
1+125	750.307	749.167
1+150	750.132	749.000
1+175	749.956	748.833
1+200	749.781	748.667
1+225	749.606	748.500
1+250	749.431	748.333
1+275	749.256	748.167
1+300	749.081	748.000
1+325	748.906	747.800
1+350	748.731	747.600
1+375	748.556	747.400
1+400	748.381	747.200
1+425	748.206	747.000
1+450	748.031	746.833
1+475	747.856	746.667
1+500	747.681	746.500

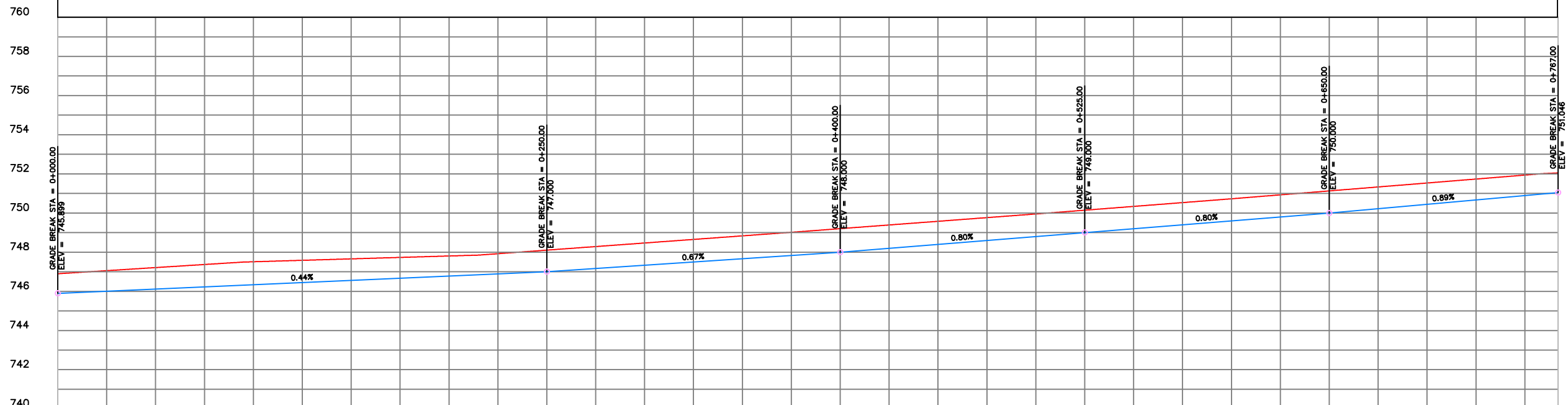
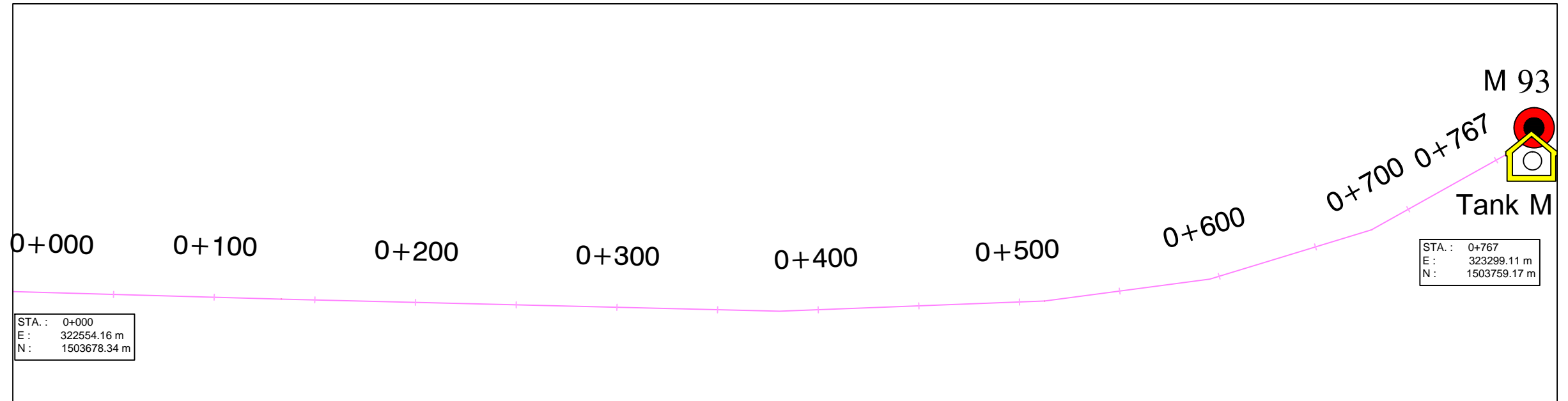
Profile (14-2)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION		FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT		 		REV.: DESCRIPTION DATE SIGN.		DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)		SHEET	
PROJECT : DARFUR URBAN WATER SUPPLY PROJECT		IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES				DESIGNED : Dr.Hashim M.H Tumushabi K.I		DRAWN : Nada S.A.		APPROVED FOR IMPLEMENTATION :	
Design of El Fasher Urban Water Scheme				CHECKED : Prof.Siddig E.A		DRAFTING COORDINATION : UNOPS		CONTRACT NUMBER		DATE: JANUARY 2019	
										SCALE: AS SHOWN	
										DRAWING No: 160-24	



Profile (14-3)

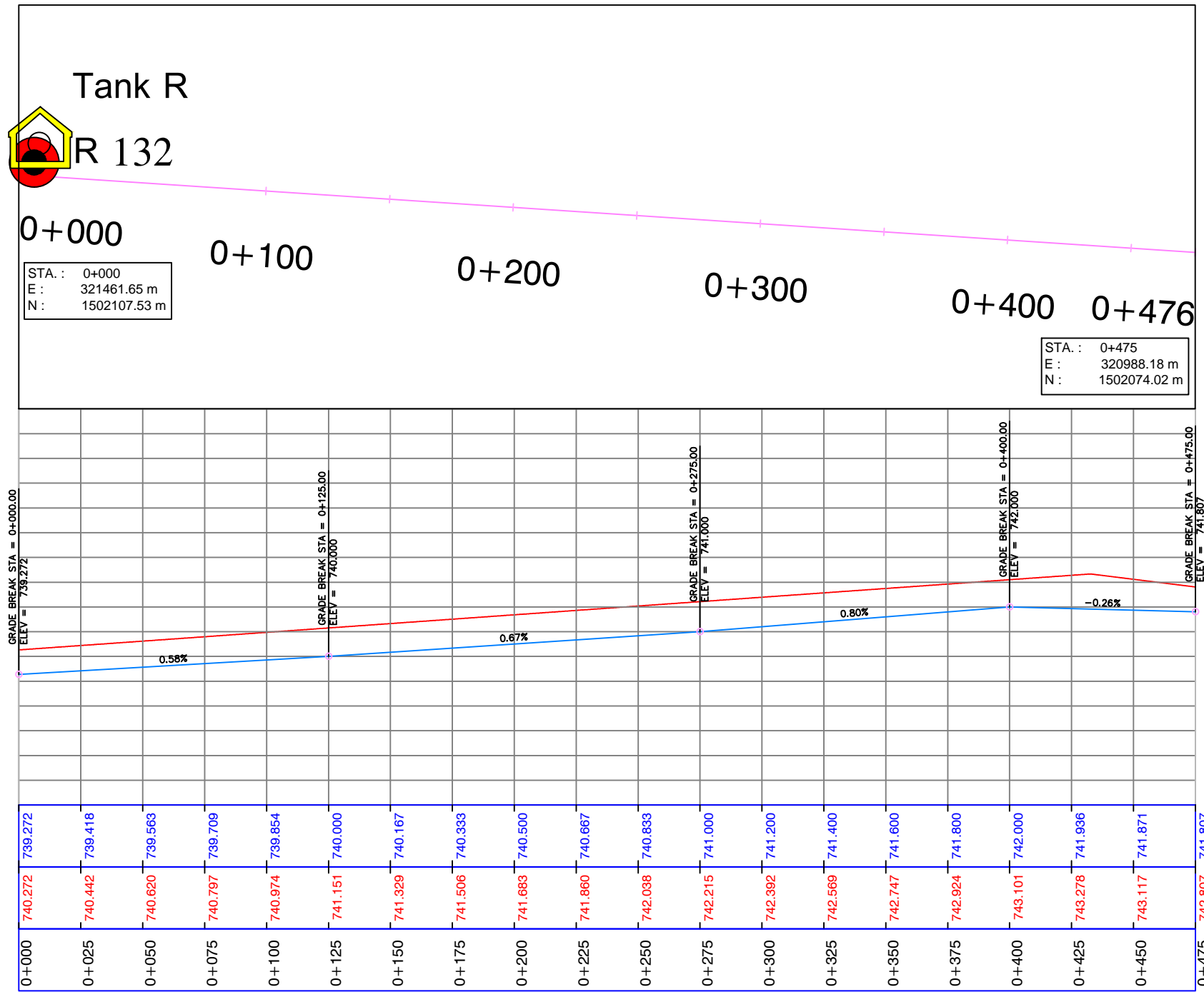
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)		SHEET
		DESIGNED : Dr.Hashim M.H Tumushabi K.I	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	
		CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019
				DRAWING No: 160-25	





STATION	EG LEVEL (M)	PDL (M)
0+000	746.889	745.899
0+025	747.056	746.009
0+050	747.213	746.119
0+075	747.371	746.229
0+100	747.511	746.339
0+125	747.585	746.450
0+150	747.659	746.560
0+175	747.732	746.670
0+200	747.806	746.780
0+225	747.922	746.890
0+250	748.105	747.000
0+275	748.287	747.167
0+300	748.469	747.333
0+325	748.652	747.500
0+350	748.834	747.667
0+375	749.016	747.833
0+400	749.203	748.000
0+425	749.390	748.200
0+450	749.578	748.400
0+475	749.765	748.600
0+500	749.953	748.800
0+525	750.144	749.000
0+550	750.338	749.200
0+575	750.532	749.400
0+600	750.727	749.600
0+625	750.928	749.800
0+650	751.130	750.000
0+675	751.331	750.224
0+700	751.533	750.447
0+725	751.736	750.671
0+750	751.938	750.894
0+767	752.046	751.046

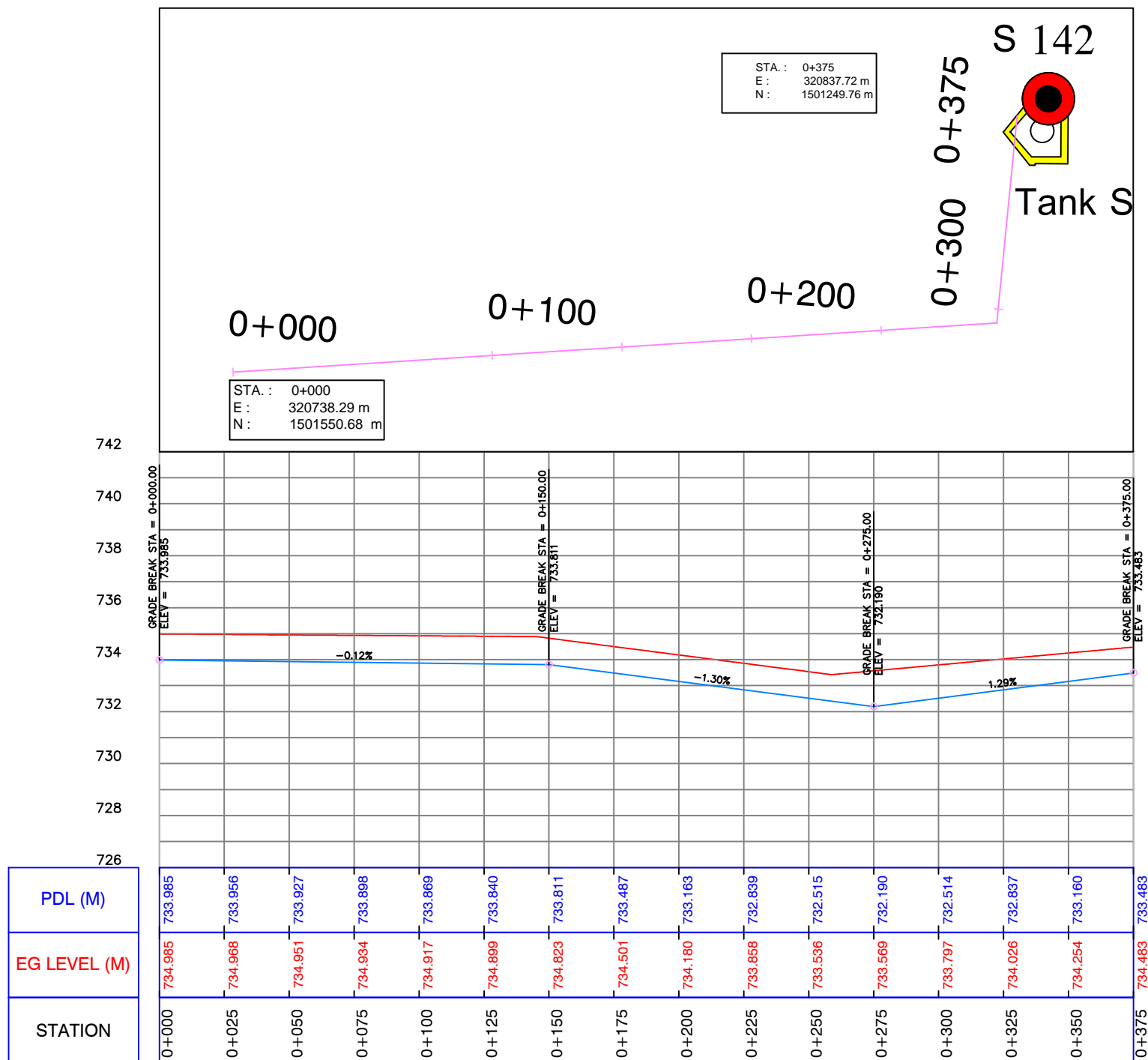
Profile (15)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES		REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)	SHEET	
								DESIGNED :	DRAWN :
							DESIGNED : Dr.Hashim M.H Tumushabi K.I	DRAWN : Nada S.A.	AS SHOWN DRAWING No: 160-26
							CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	






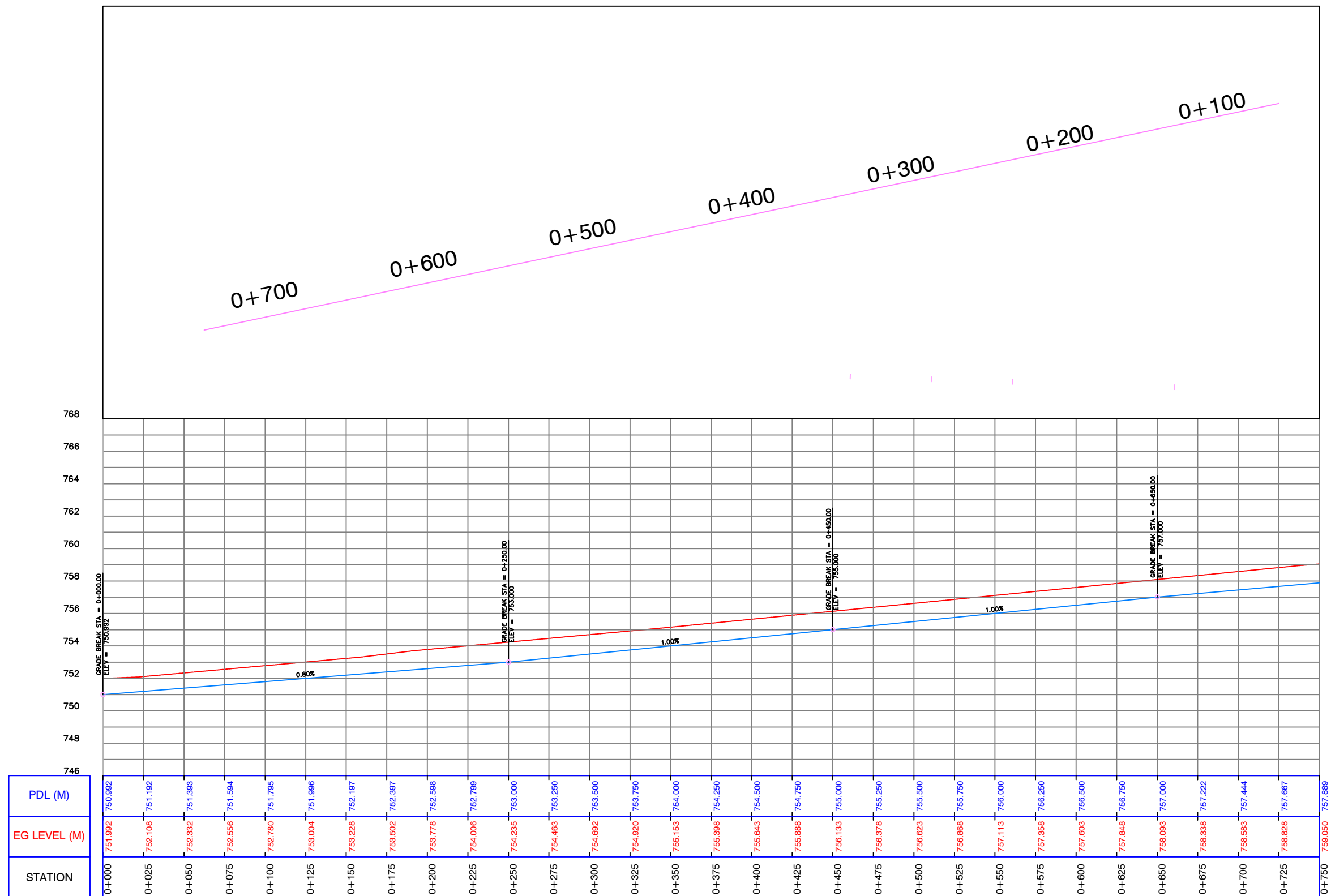
Profile (16)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)			SHEET
		DESIGNED : Dr.Hashim M.H Tumushabi K.I CHECKED : Prof.Siddig E.A	DRAWN : Nada S.A. DRAFTING COORDINATION : UNOPS	APPROVED FOR IMPLEMENTATION : CONTRACT NUMBER DATE: JANUARY 2019	SCALE: AS SHOWN DRAWING No: 160-27	






Profile (17)

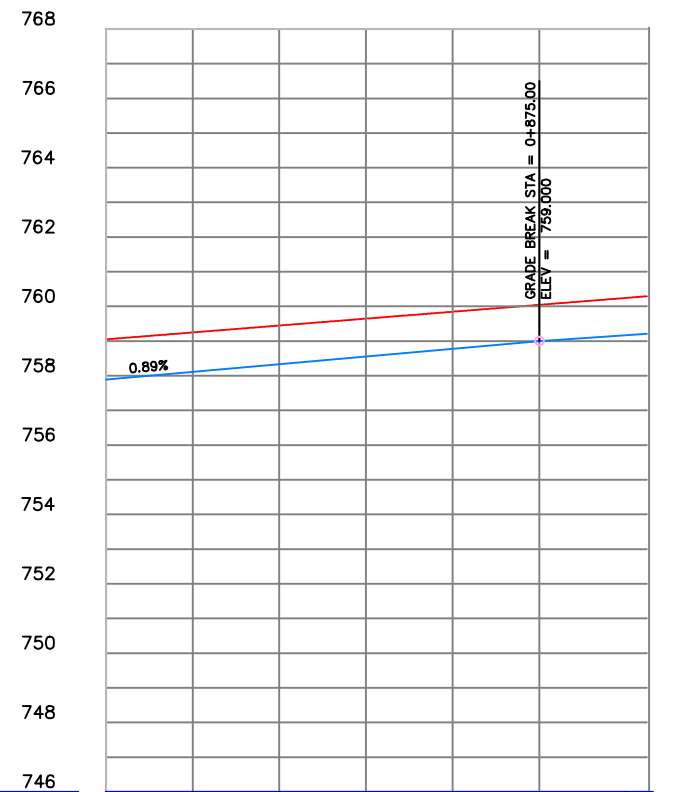
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)	SHEET
		DESIGNED : Dr.Hashim M.H Tumushabi K.I CHECKED : Prof.Siddig E.A	DRAWN : Nada S.A. DRAFTING COORDINATION : UNOPS	APPROVED FOR IMPLEMENTATION : CONTRACT NUMBER DATE: JANUARY 2019



Profile (18-1)




CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION		FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT		 		REV.: DESCRIPTION DATE SIGN.		DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)				SHEET			
PROJECT : DARFUR URBAN WATER SUPPLY PROJECT		IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES						DESIGNED : Dr.Hashim M.H Tumushabi K.I		DRAWN : Nada S.A.		APPROVED FOR IMPLEMENTATION :		SCALE: AS SHOWN	
Design of El Fasher Urban Water Scheme								CHECKED : Prof.Siddig E.A		DRAFTING COORDINATION : UNOPS		CONTRACT NUMBER		DATE: JANUARY 2019	
												DRAWING No: 160-29			

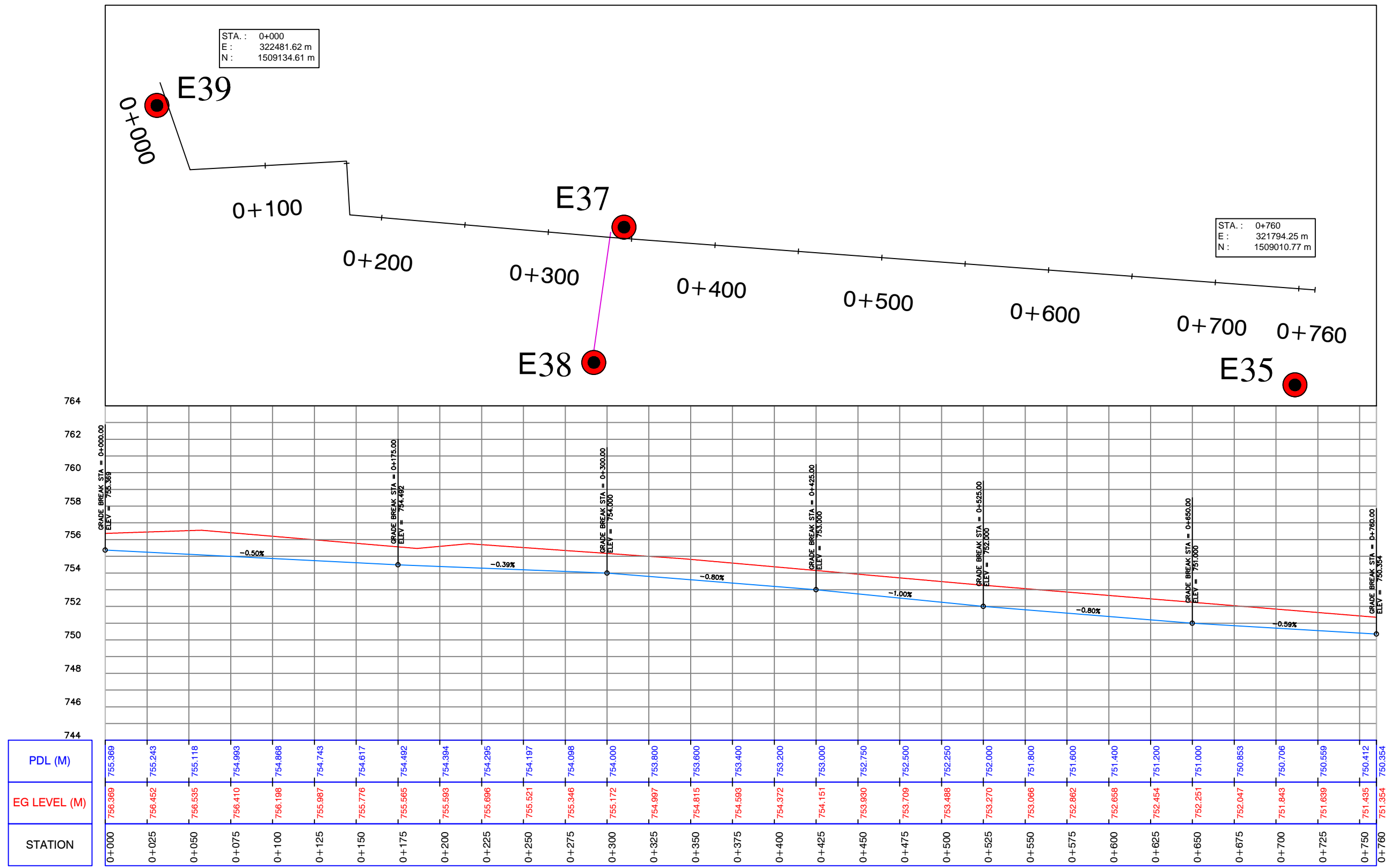
0+750 0+800 0+900



PDL (M)	757.889	758.111	758.333	758.556	758.778	759.000	759.167
EG LEVEL (M)	759.060	759.249	759.448	759.647	759.846	760.045	760.244
STATION	0+750	0+775	0+800	0+825	0+850	0+875	0+900

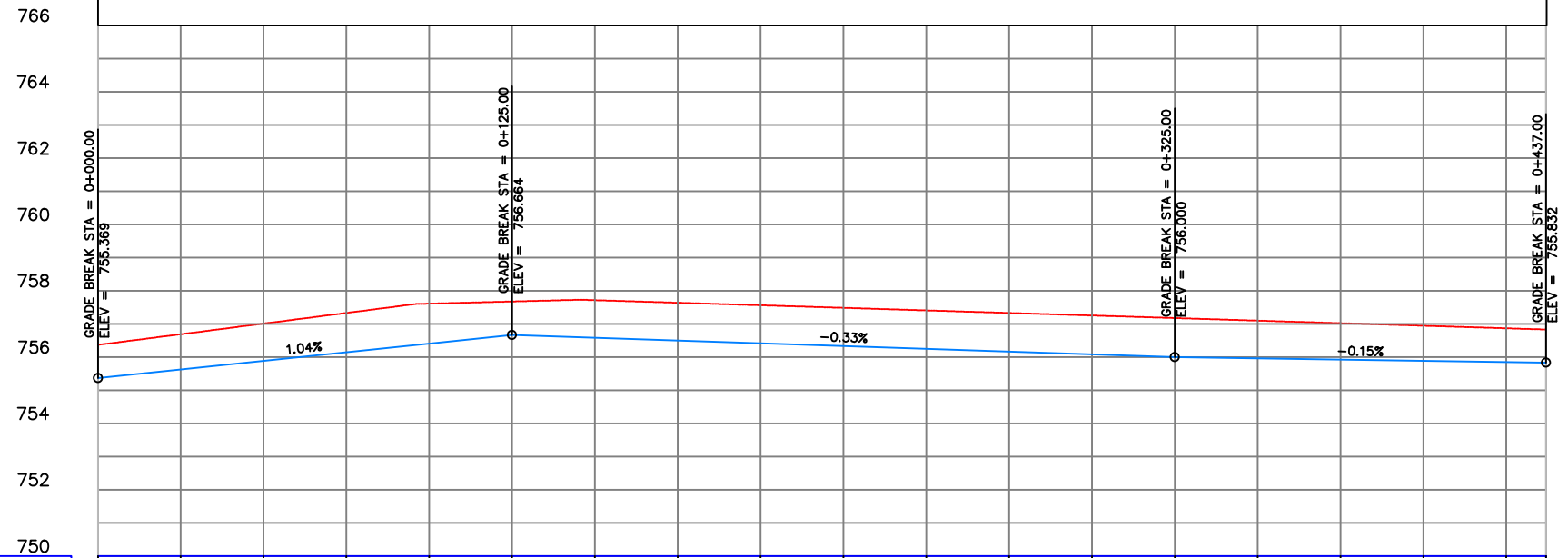
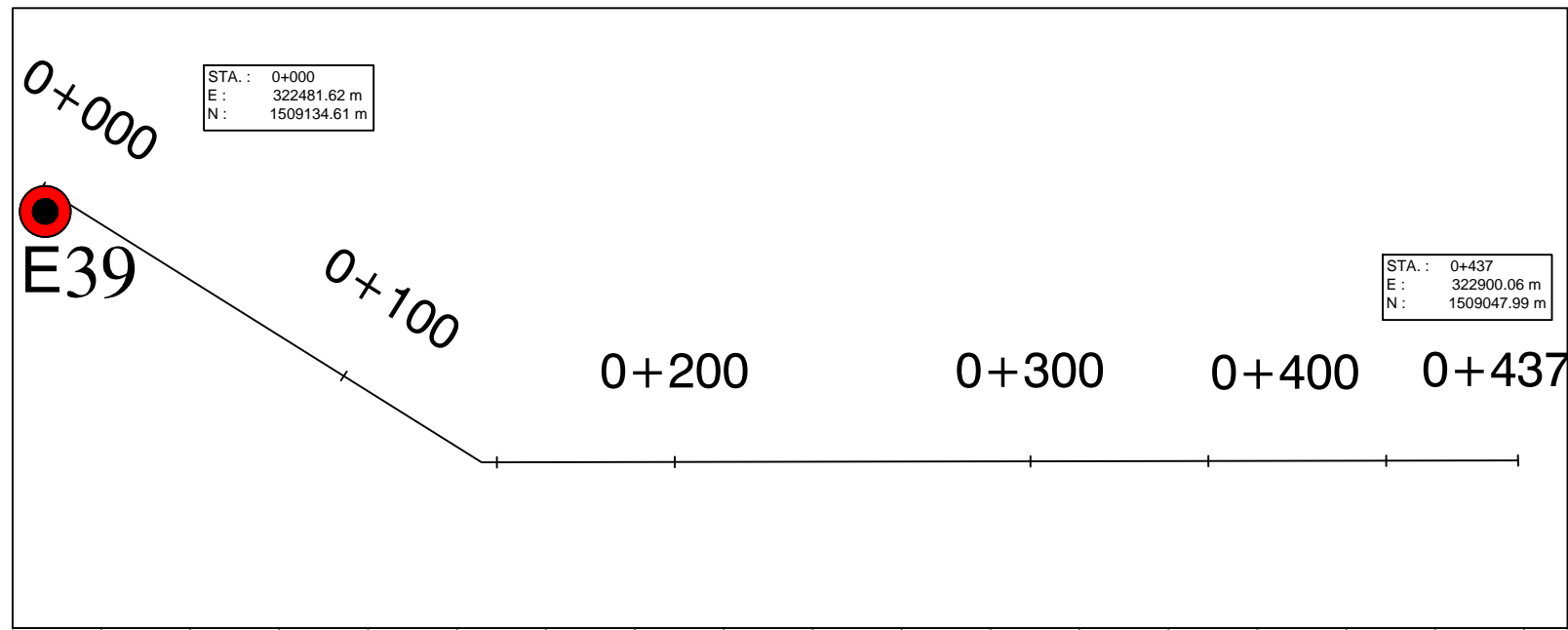
Profile (18-2)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 160 mm (PROPOSED)	SHEET	
		DESIGNED :	Dr.Hashim M.H Tumushabi K.I	DRAWN :	Nada S.A.		APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
		CHECKED :	Prof.Siddig E.A	DRAFTING COORDINATION :	UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 16-30







Profile (1)

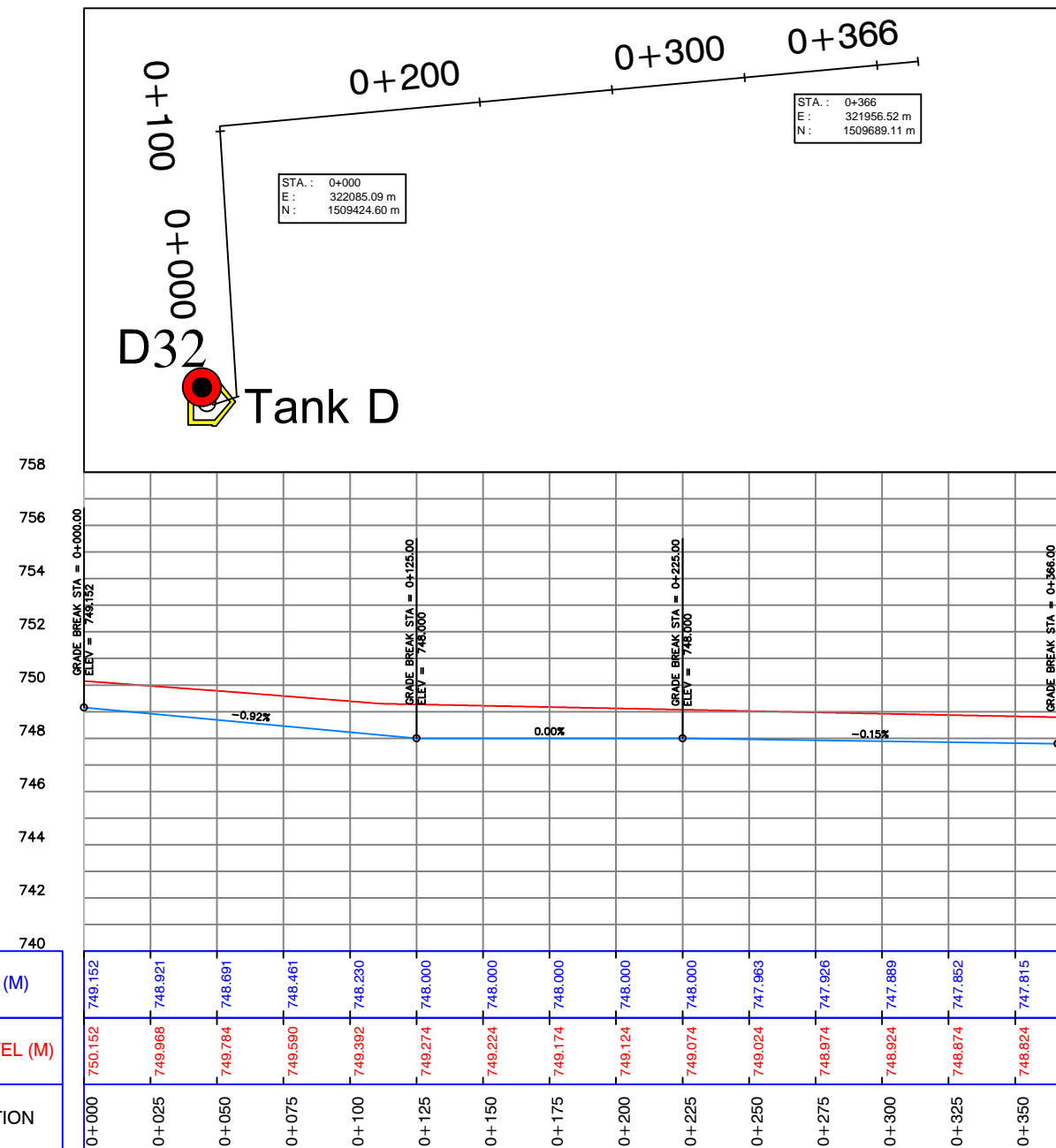
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT 	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)	SHEET
								DESIGNED: Dr.Hashim M.H
			CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-2	



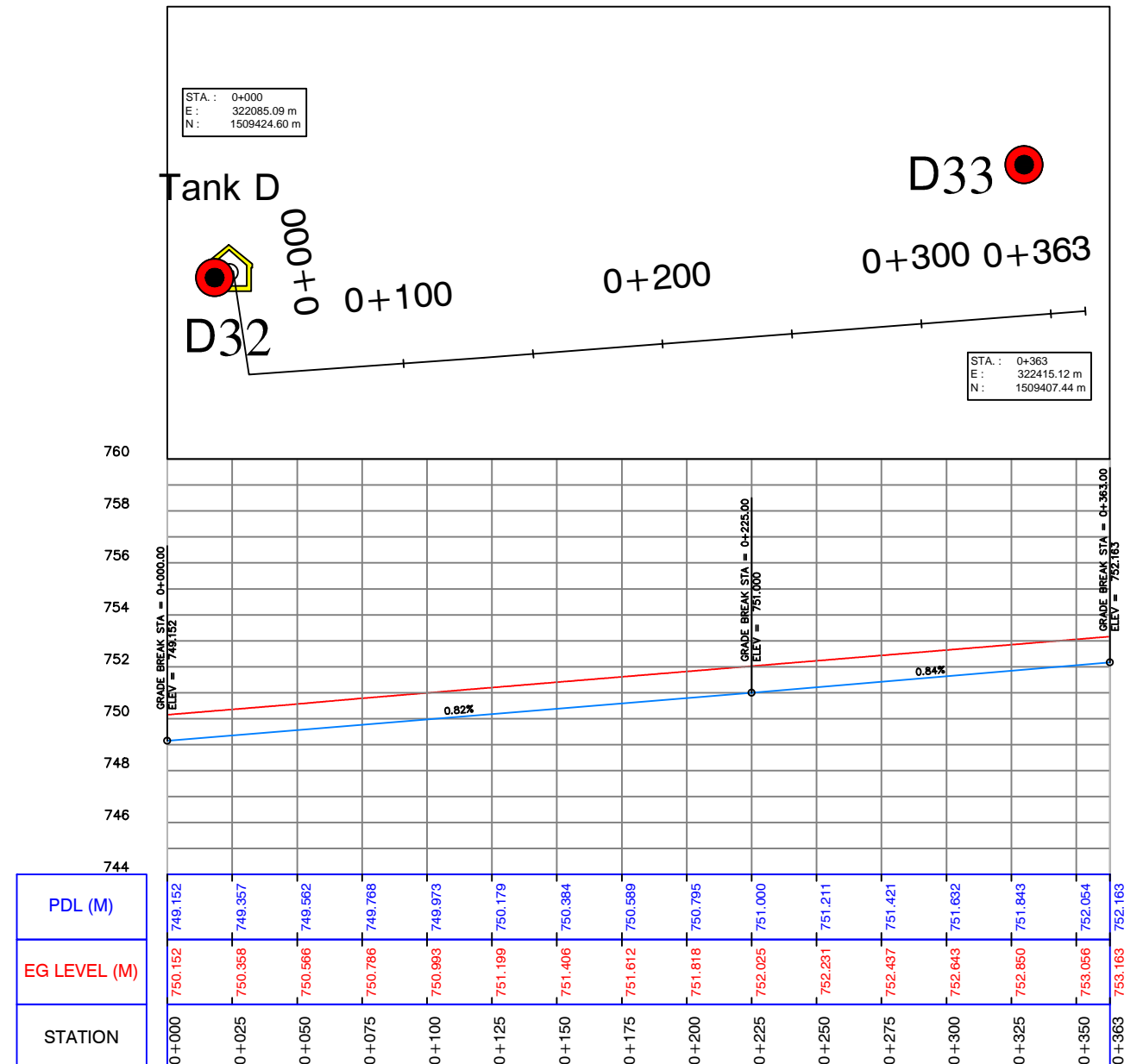
PDL (M)	756.369	756.628	755.887	756.146	756.405	756.664	756.581	756.498	756.415	756.332	756.249	756.166	756.083	756.000	755.962	755.925	755.887	755.850	755.832
EG LEVEL (M)	756.369	756.690	757.011	757.332	757.612	757.677	757.717	757.640	757.563	757.486	757.408	757.331	757.254	757.177	757.100	757.023	756.946	756.869	756.832
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+250	0+275	0+300	0+325	0+350	0+375	0+400	0+425	0+437

Profile (2)




CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES  	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)			SHEET
						DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:		SCALE: AS SHOWN
			CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-3			

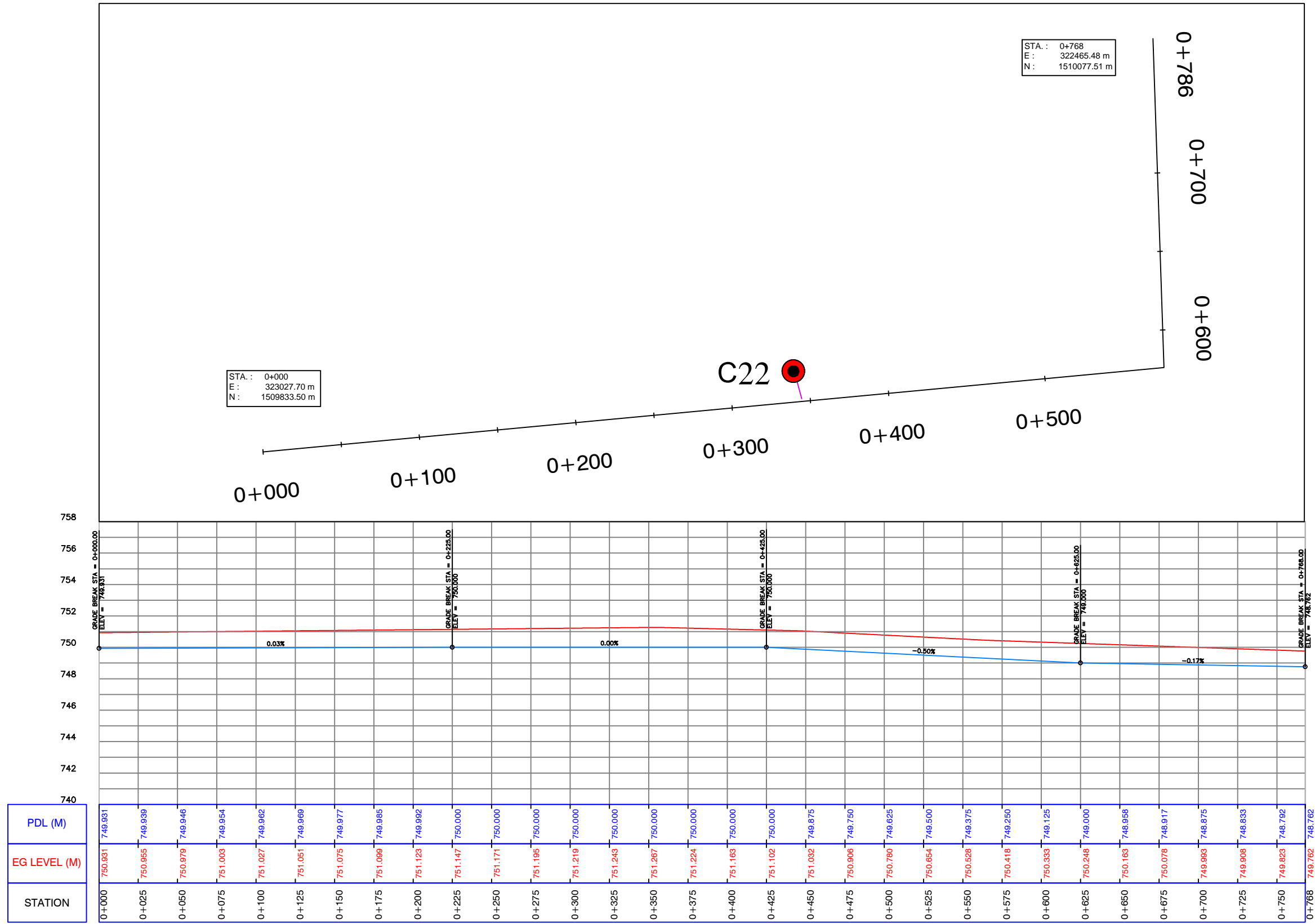


Profile (3)






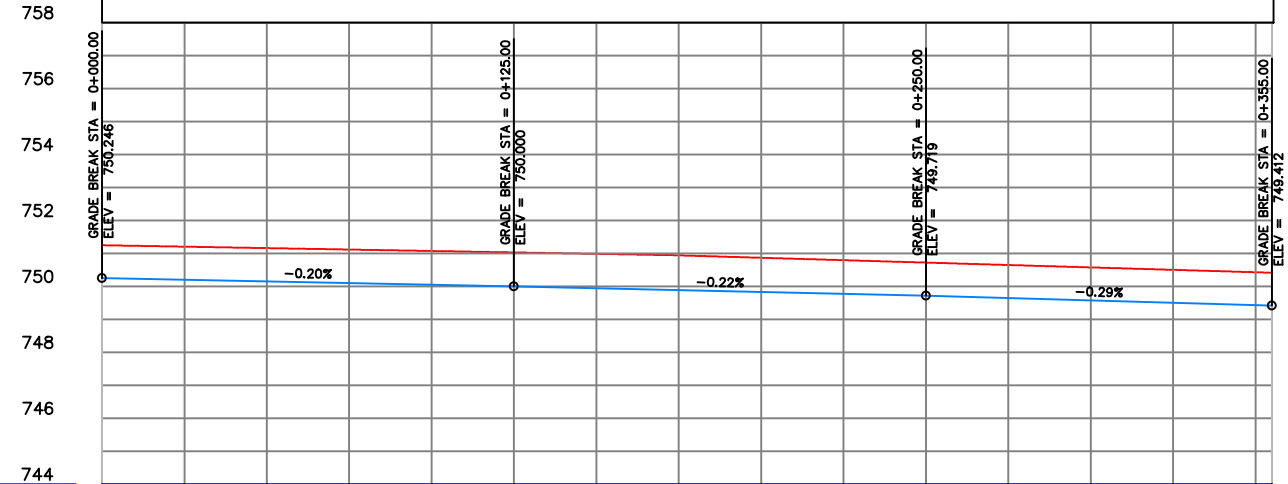
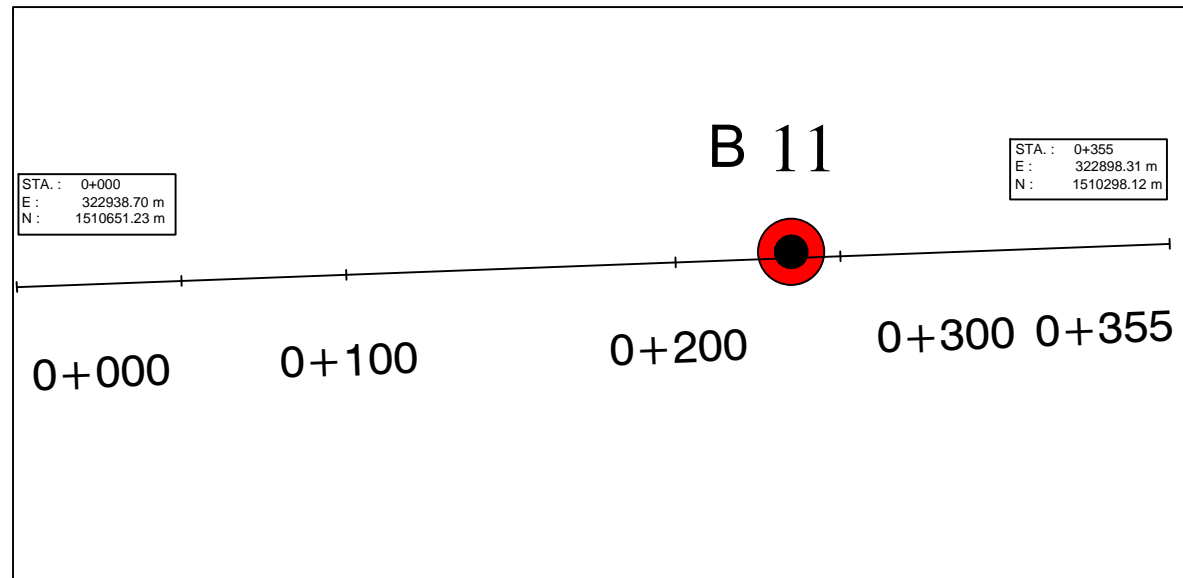
Profile (4)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)	SHEET
		DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-4



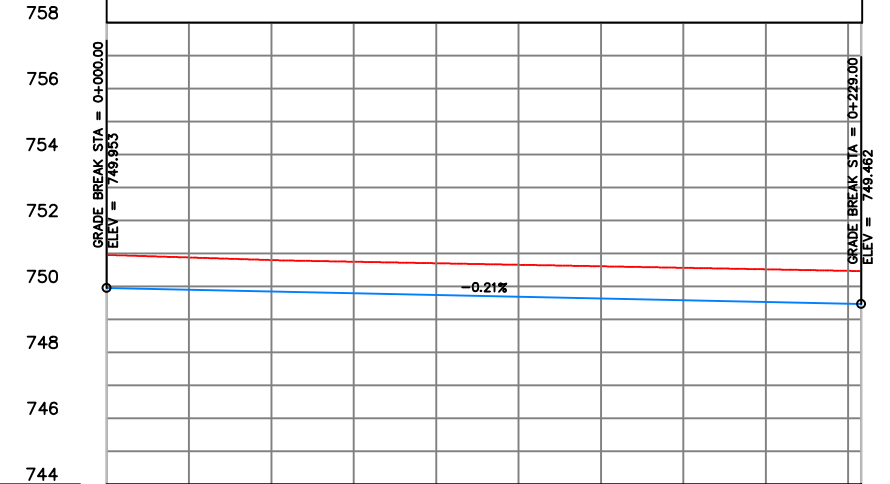
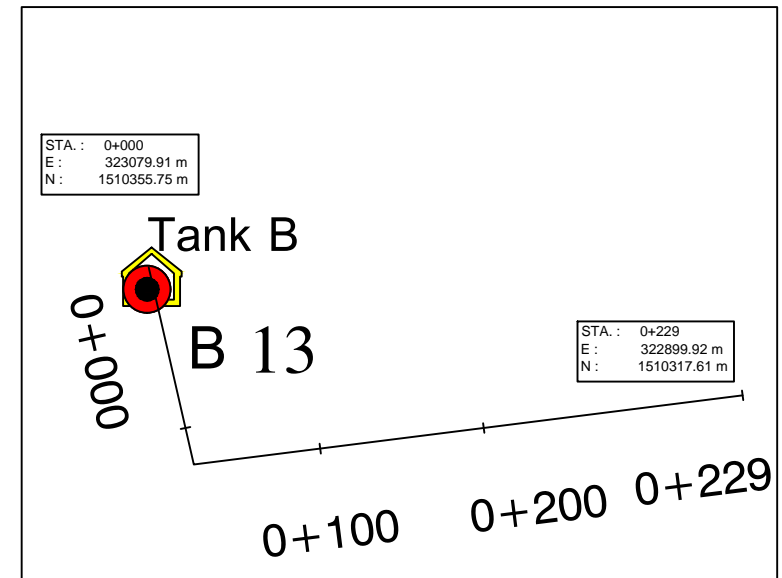
Profile (5)

CLIENT : UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT : DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)	SHEET
		DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-5







PDL (M)	750.246	750.197	750.148	750.099	750.049	750.000	749.944	749.888	749.831	749.775	749.719	749.646	749.573	749.500	749.427	749.412
EG LEVEL (M)	751.246	751.203	751.159	751.115	751.072	751.028	750.985	750.939	750.866	750.793	750.720	750.647	750.573	750.500	750.427	750.412
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+250	0+275	0+300	0+325	0+350	0+355

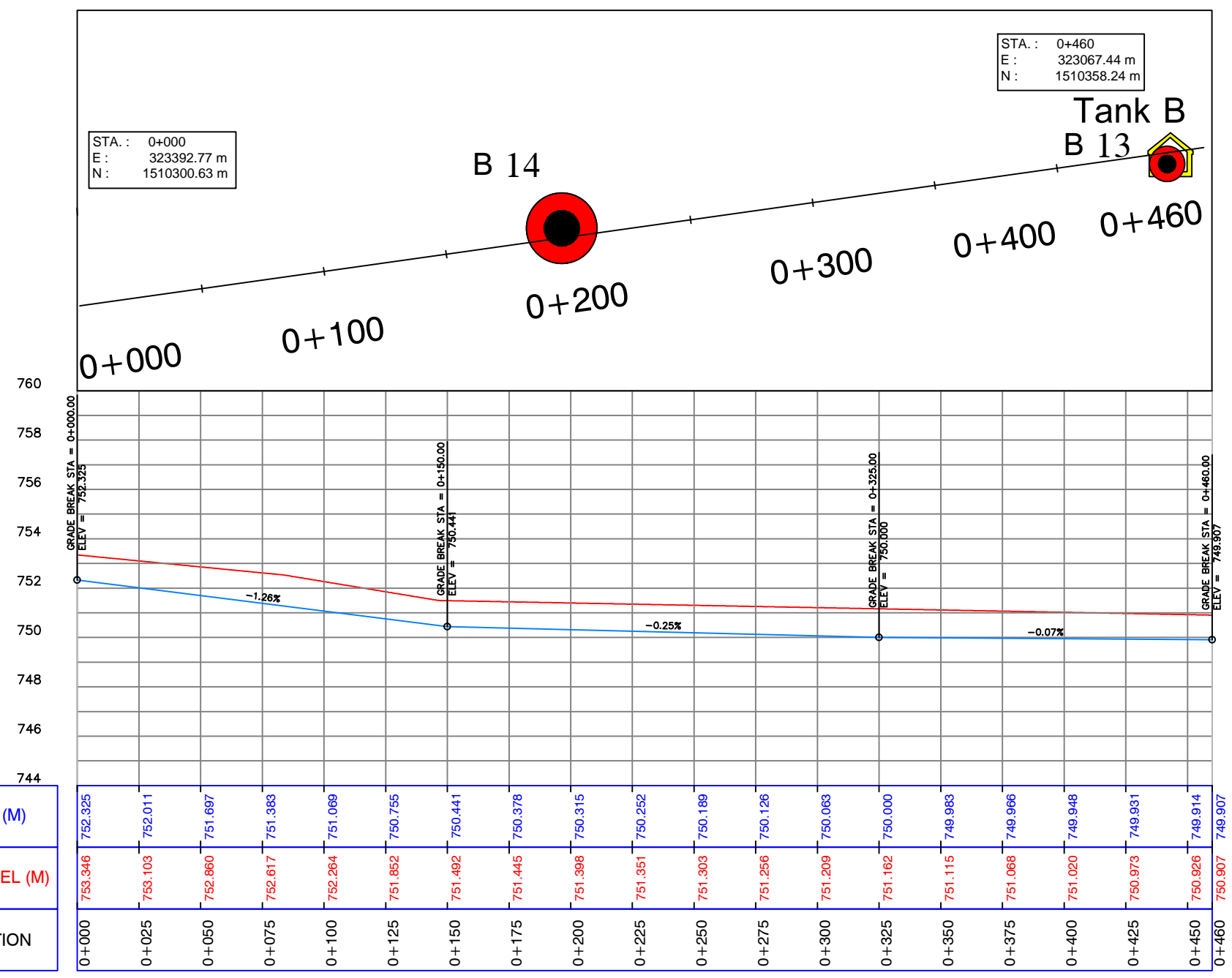
Profile (6)



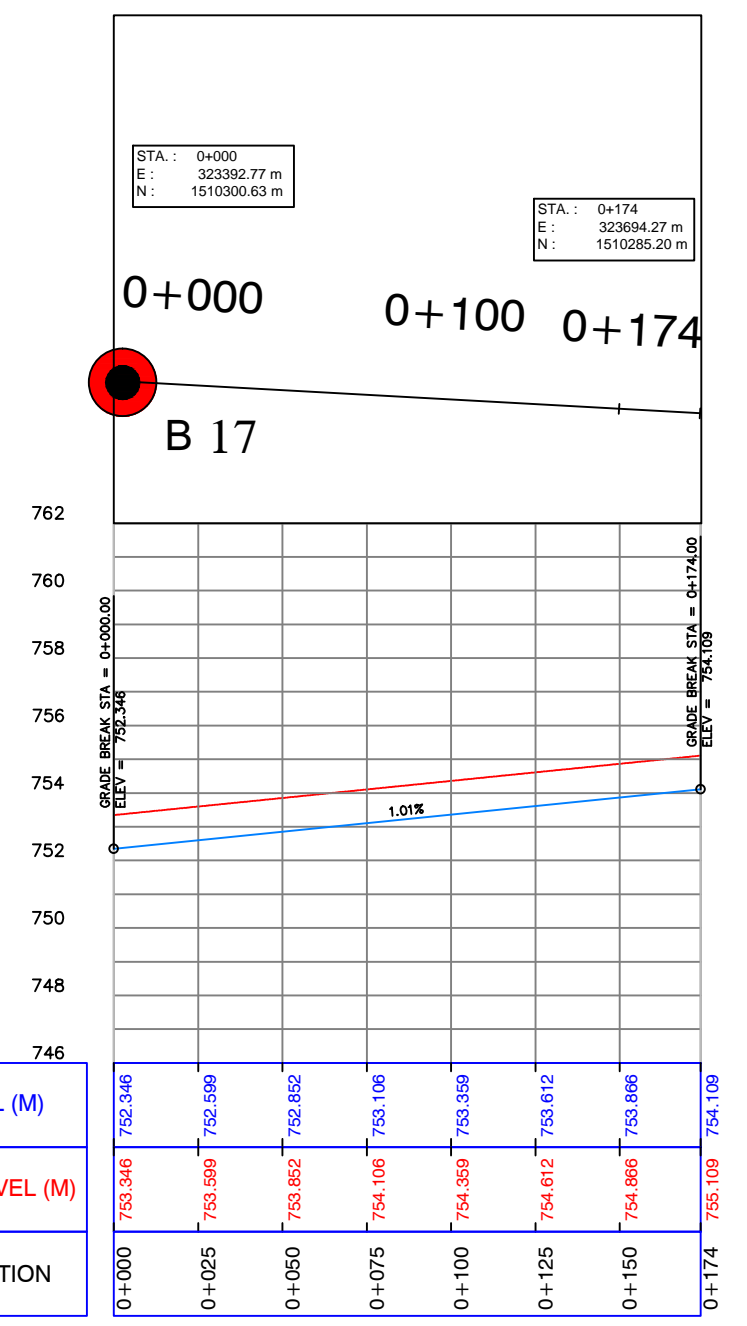
PDL (M)	749.953	749.900	749.846	749.792	749.739	749.685	749.631	749.578	749.524	749.471	749.462
EG LEVEL (M)	750.953	750.875	750.796	750.746	750.700	750.654	750.608	750.562	750.516	750.470	750.462
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+229

Profile (7)




CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV.: DESCRIPTION DATE SIGN. 	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)			SHEET
			DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:	SCALE: AS SHOWN
IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 		CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	
					DRAWING No: 110-6	

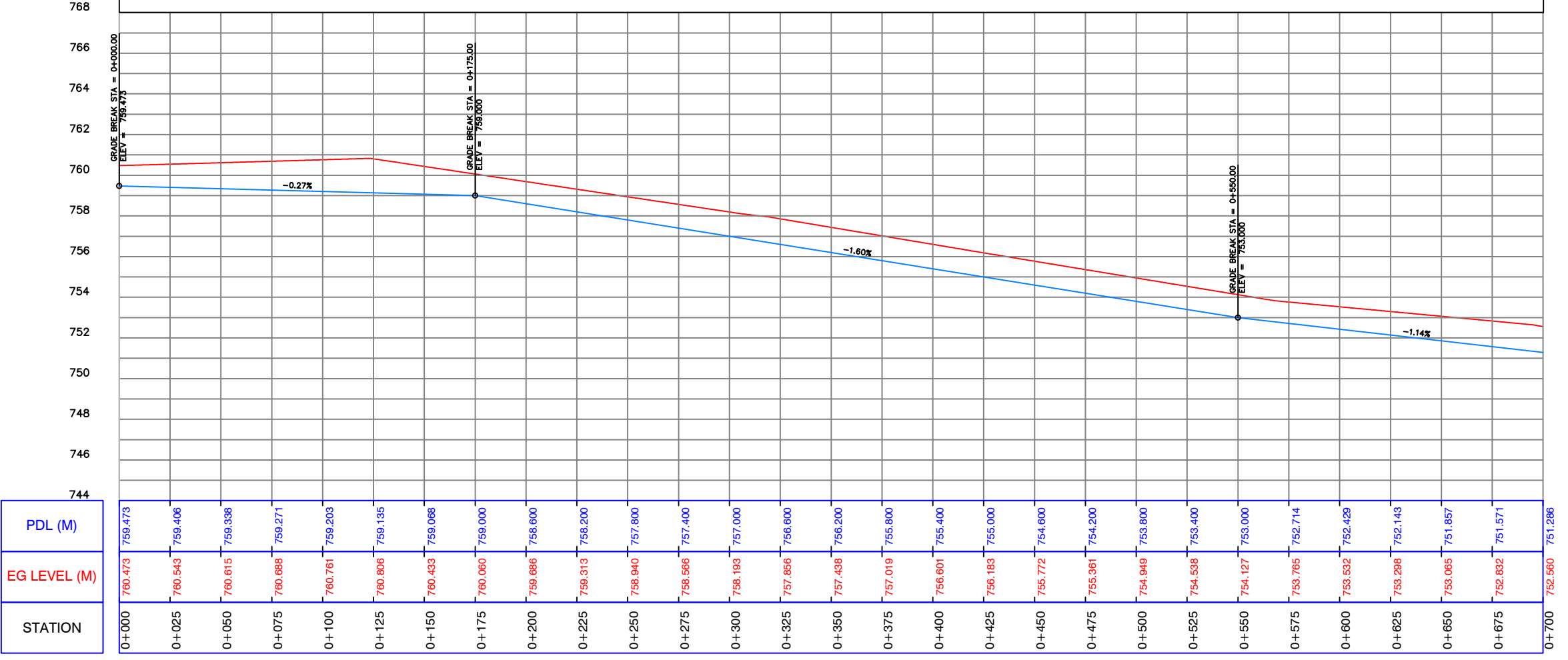
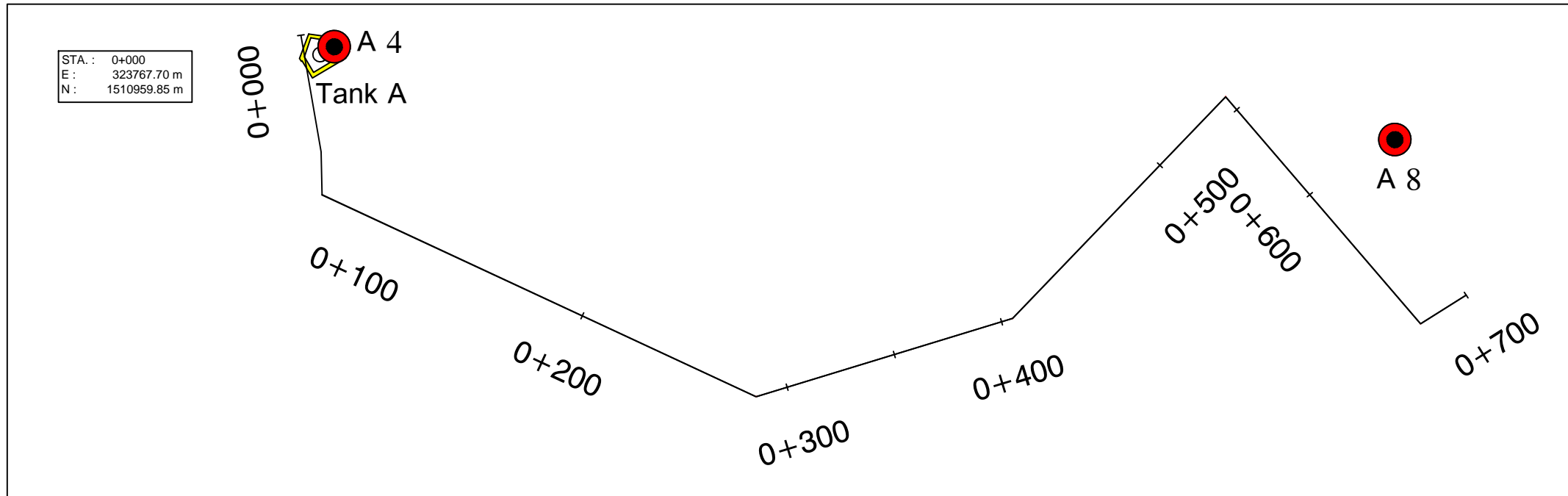


Profile (8)






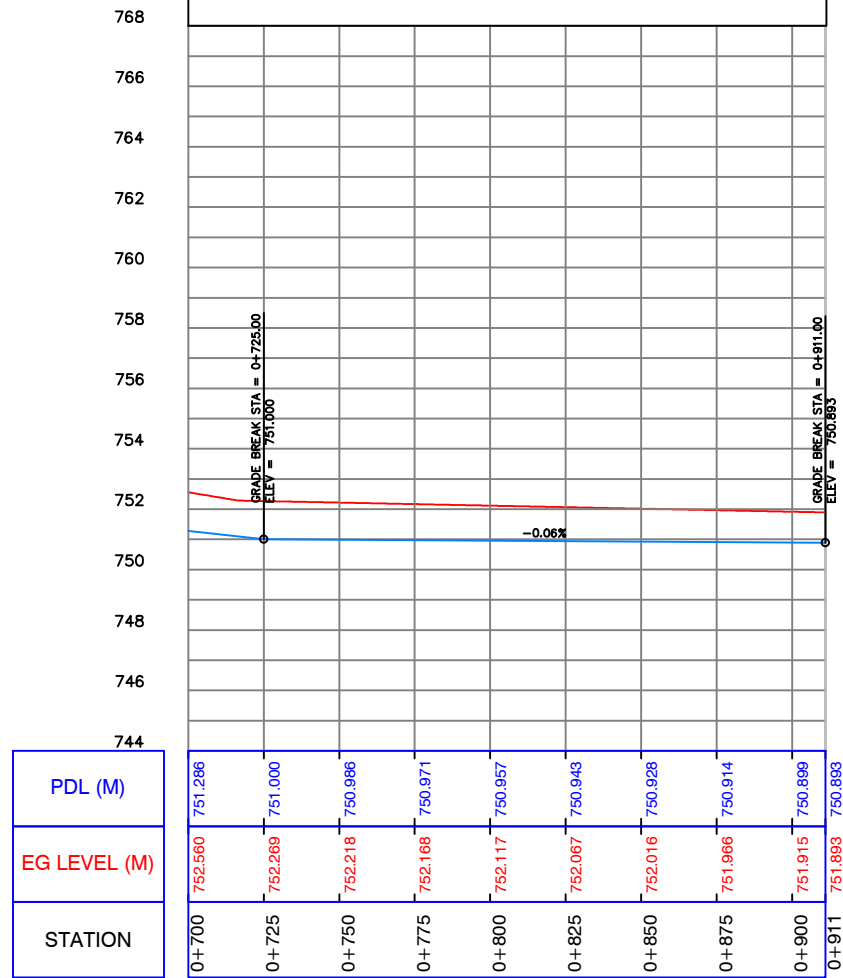
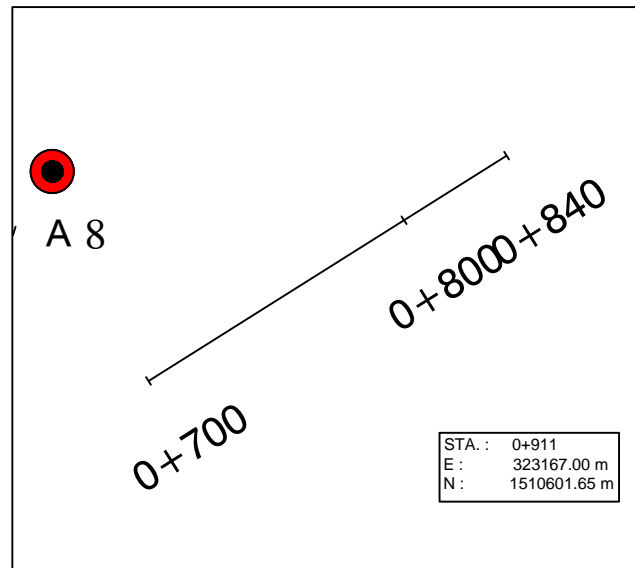
Profile (9)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)	SHEET			
									DESIGNED:	DRAWN:
						CHECKED:	DRAFTING COORDINATION:	CONTRACT NUMBER	DATE:	DRAWING No:
						Dr.Hashim M.H	Nada S.A.		JANUARY 2019	AS SHOWN 110-7



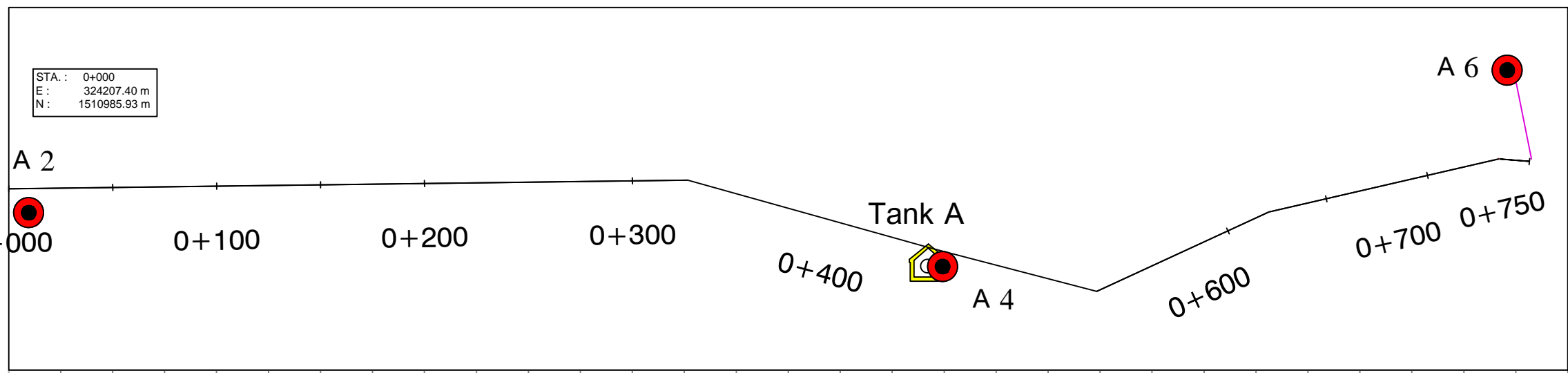
Profile (10-1)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV. DESCRIPTION DATE SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)	SHEET		
		DESIGNED: Dr.Hashim M.H			DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:
		CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-8

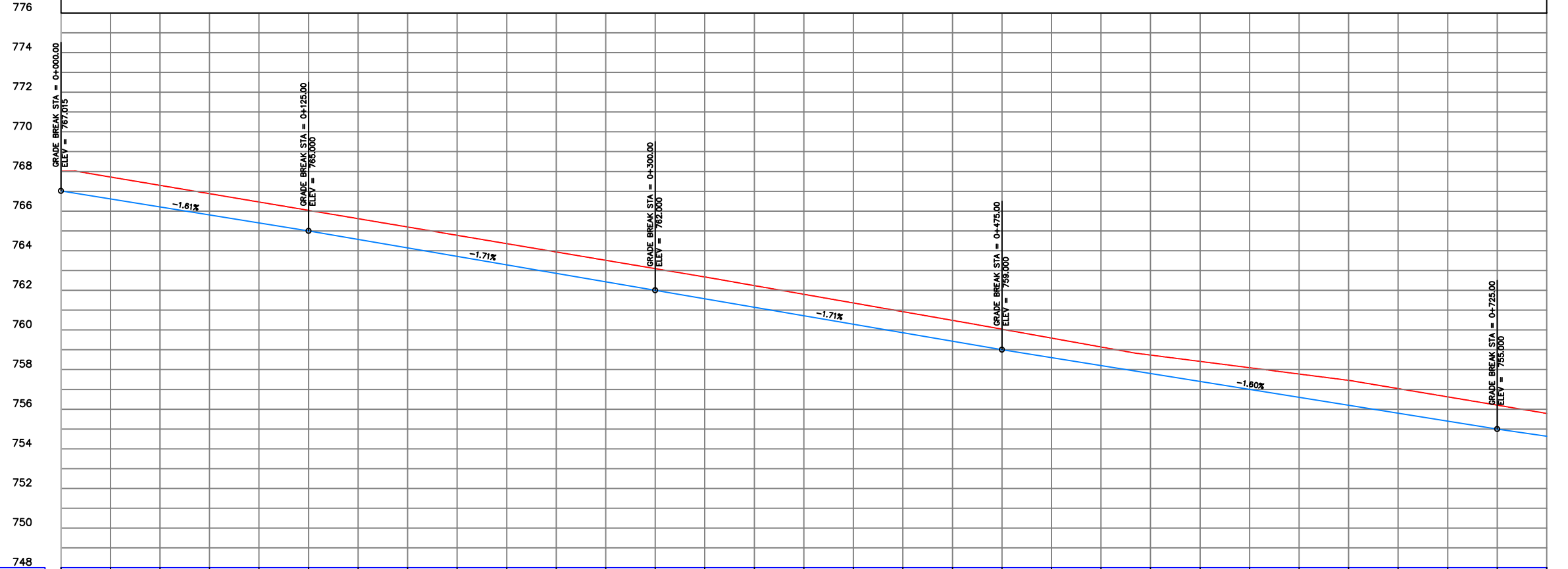


Profile (10-2)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES		REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)	SHEET	
			DESIGNED : Dr.Hashim M.H		DRAWN : Nada S.A.			APPROVED FOR IMPLEMENTATION :	
			CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS		CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-9	






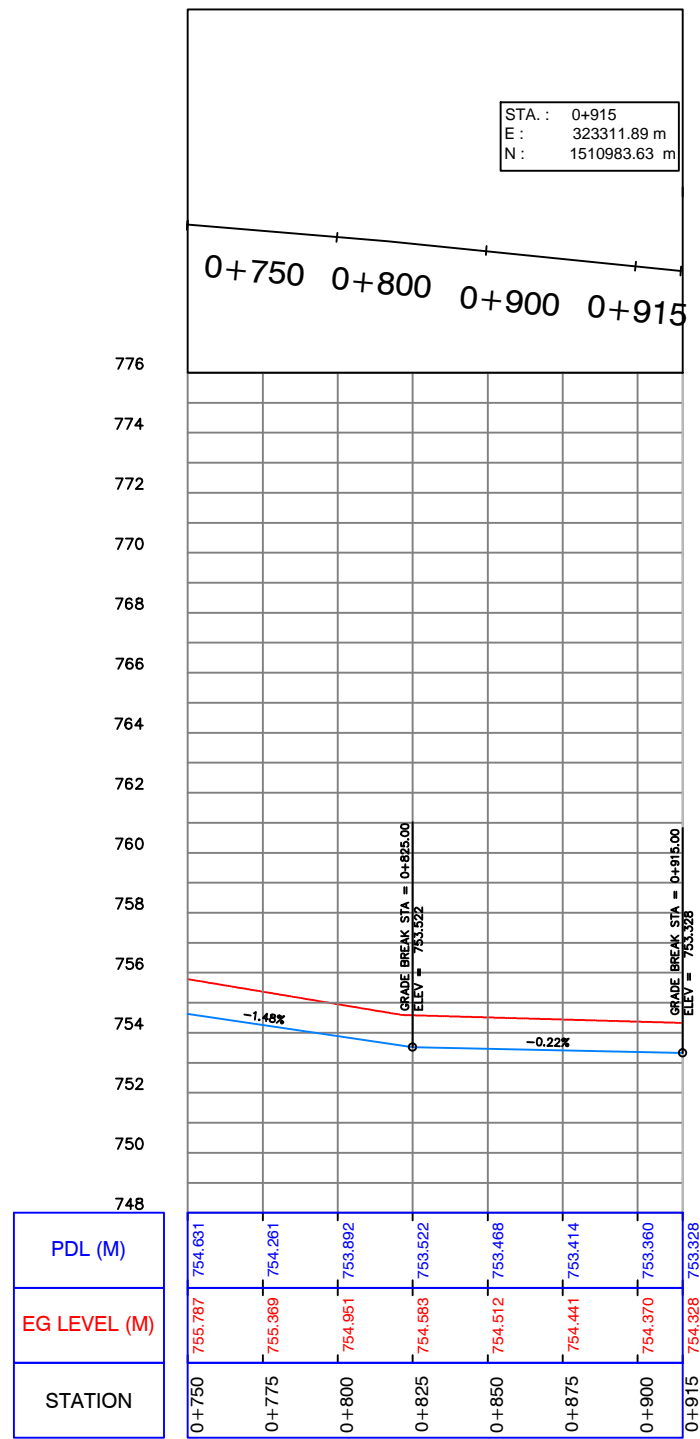
STA.: 0+000
 E.: 324207.40 m
 N.: 1510985.93 m







STATION	EG LEVEL (M)	PDL (M)
0+000	768.015	767.015
0+025	767.720	766.612
0+050	767.300	766.209
0+075	766.880	765.806
0+100	766.459	765.403
0+125	766.039	765.000
0+150	765.618	764.571
0+175	765.198	764.143
0+200	764.778	763.714
0+225	764.357	763.286
0+250	763.937	762.857
0+275	763.516	762.429
0+300	763.096	762.000
0+325	762.676	761.571
0+350	762.259	761.143
0+375	761.801	760.714
0+400	761.362	760.286
0+425	760.924	759.857
0+450	760.485	759.429
0+475	760.041	759.000
0+500	759.591	758.600
0+525	759.141	758.200
0+550	758.733	757.800
0+575	758.414	757.400
0+600	758.095	757.000
0+625	757.776	756.600
0+650	757.456	756.200
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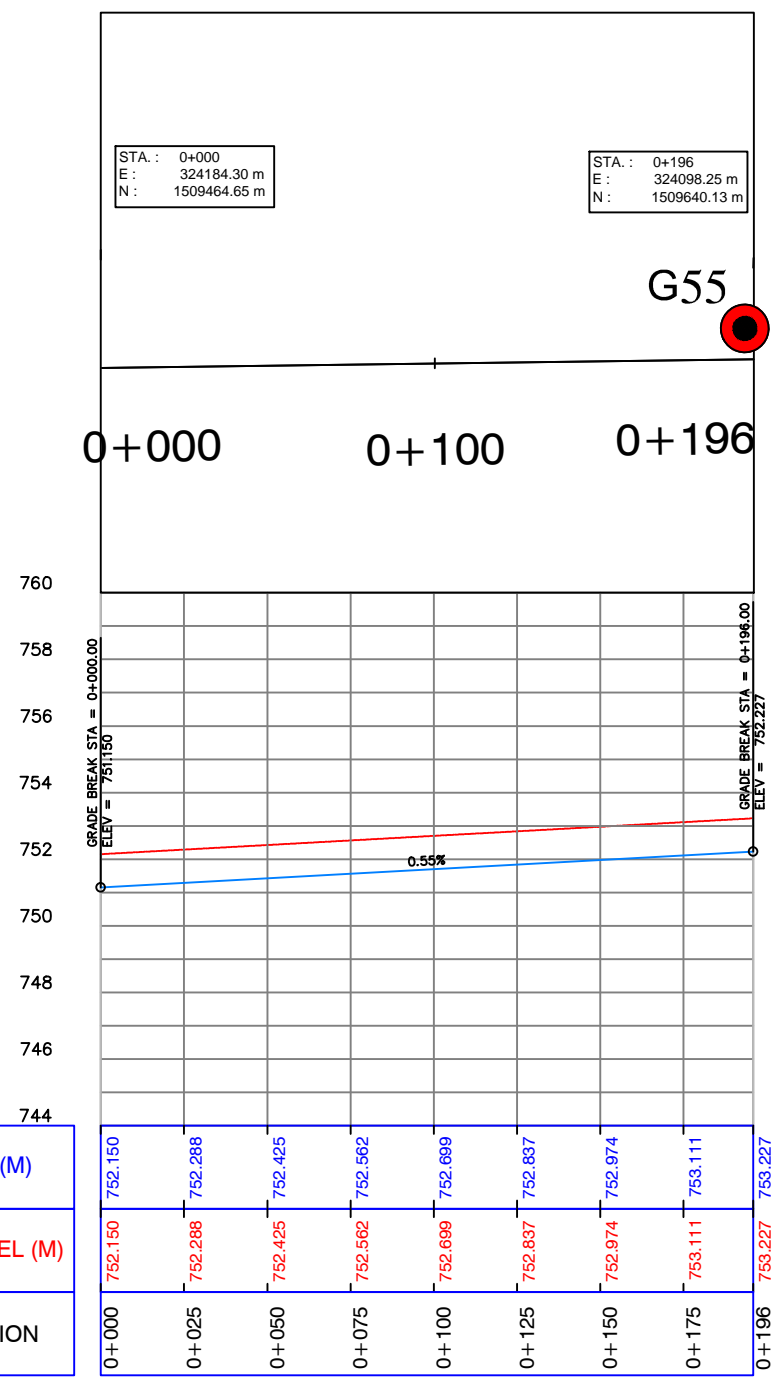
Profile (11-1)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)	SHEET
		DESIGNED: Dr.Hashim M.H.	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:
CHECKED: Prof.Siddig E.A.	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-10

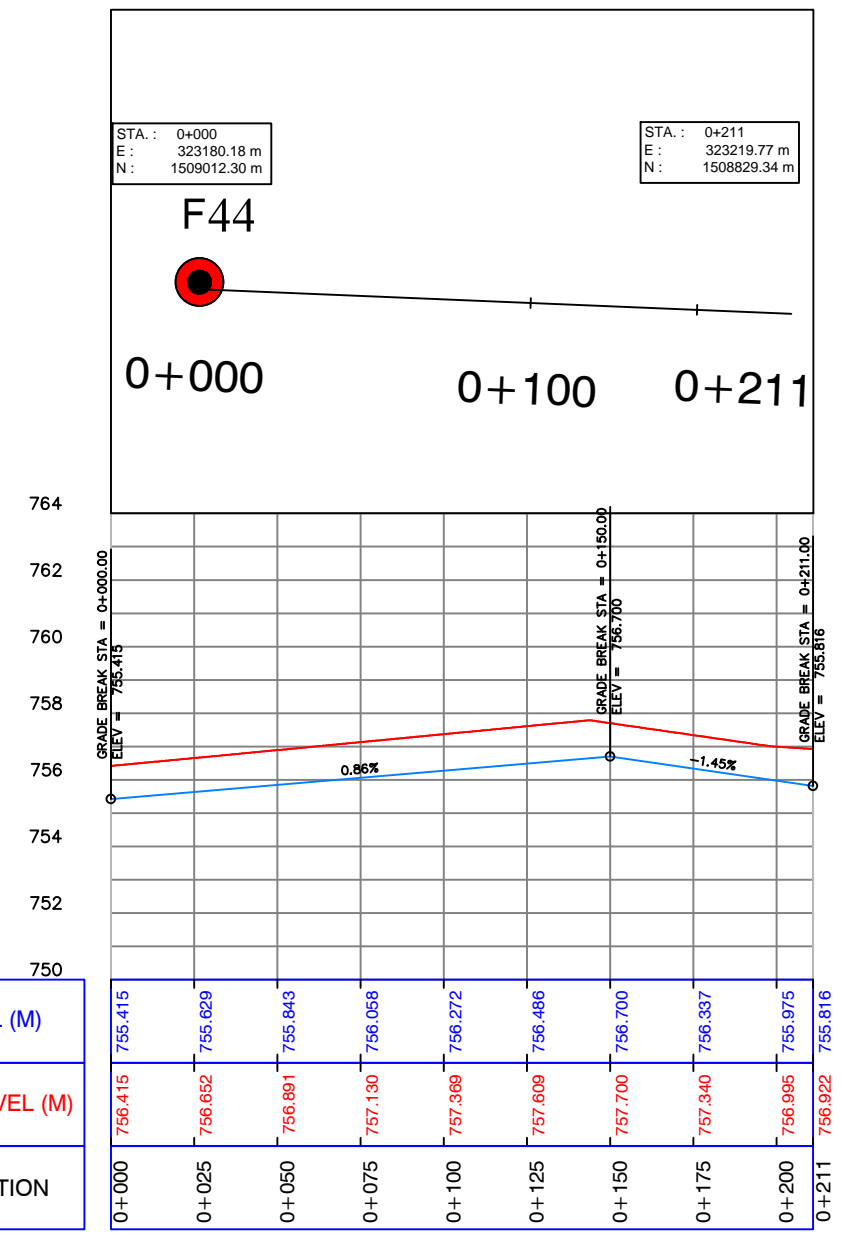


Profile (11-2)

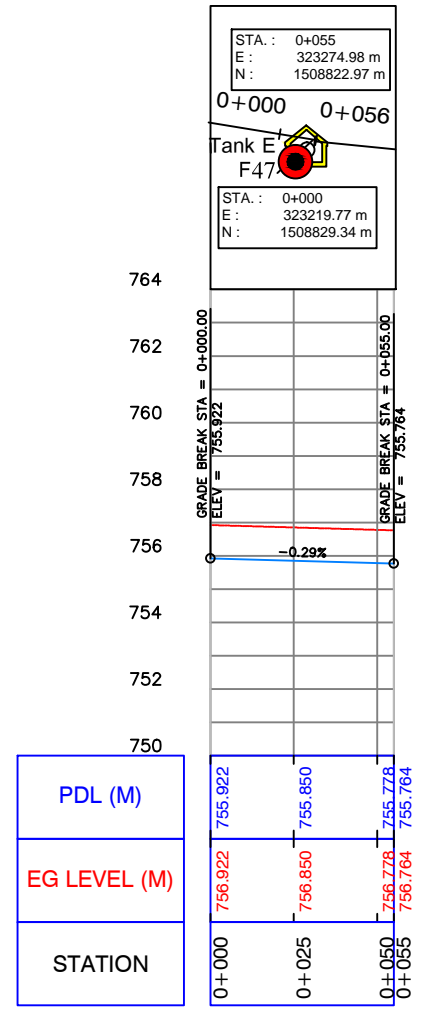
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)			SHEET	
		IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES  						DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :
						CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-11






Profile (12)

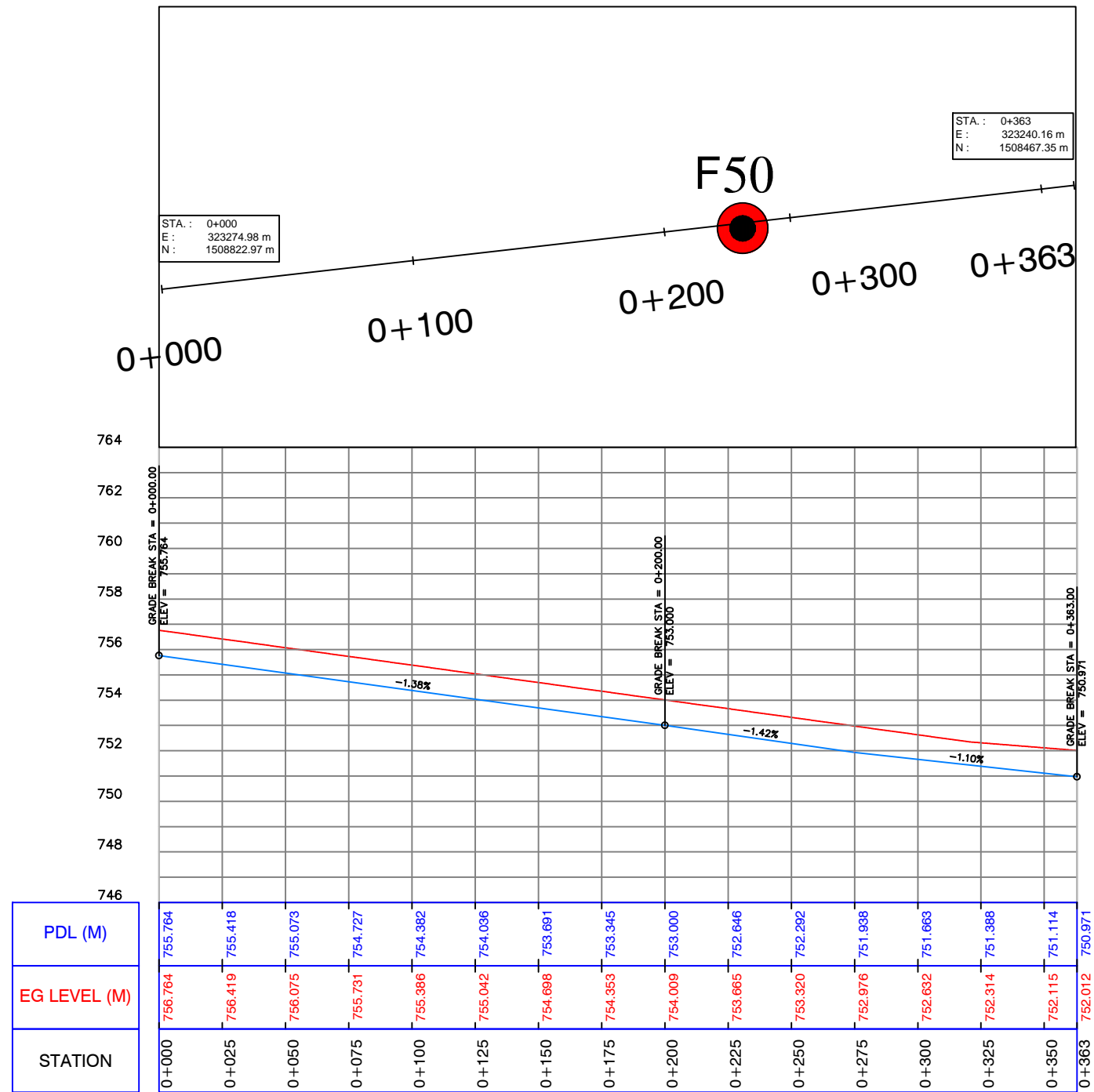


Profile (13)






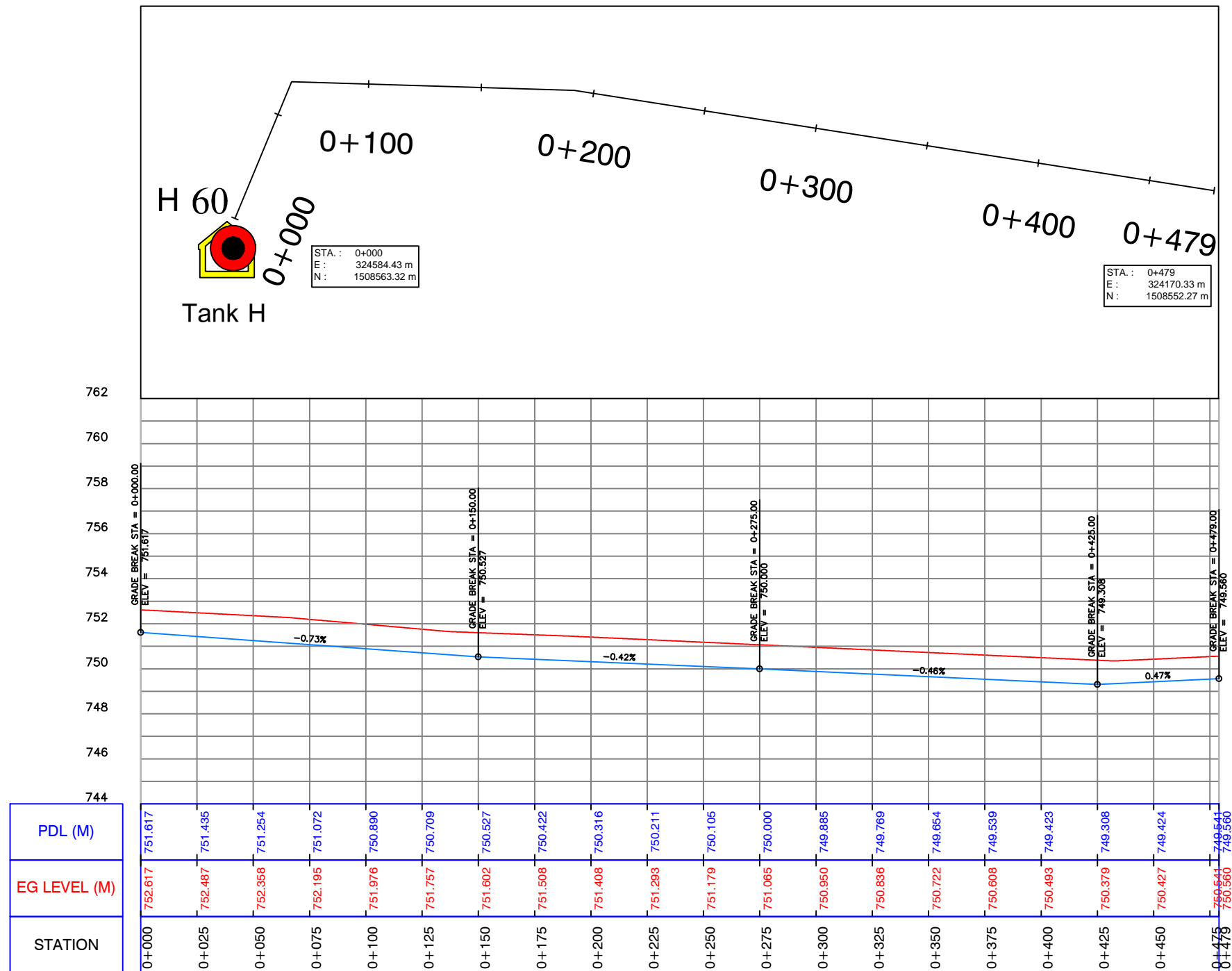
Profile (14)

CLIENT : UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT : DARFUR URBAN WATER SUPPLY PROJECT Design of EI Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY:  UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)		SHEET
		DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-12	






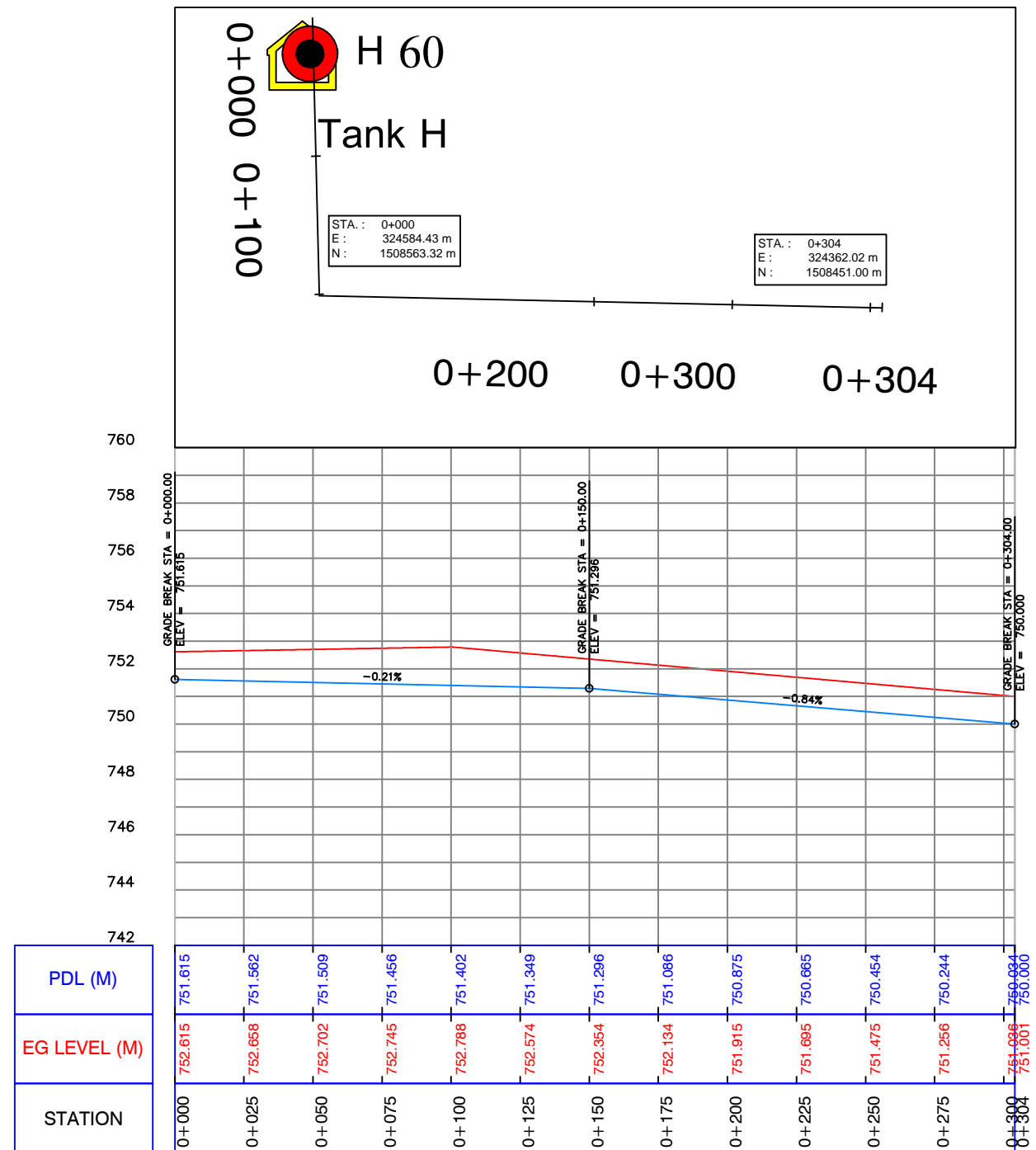
Profile (15)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV. DESCRIPTION DATE SIGN. 	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)			SHEET SCALE: AS SHOWN
			DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	
IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 		CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-13

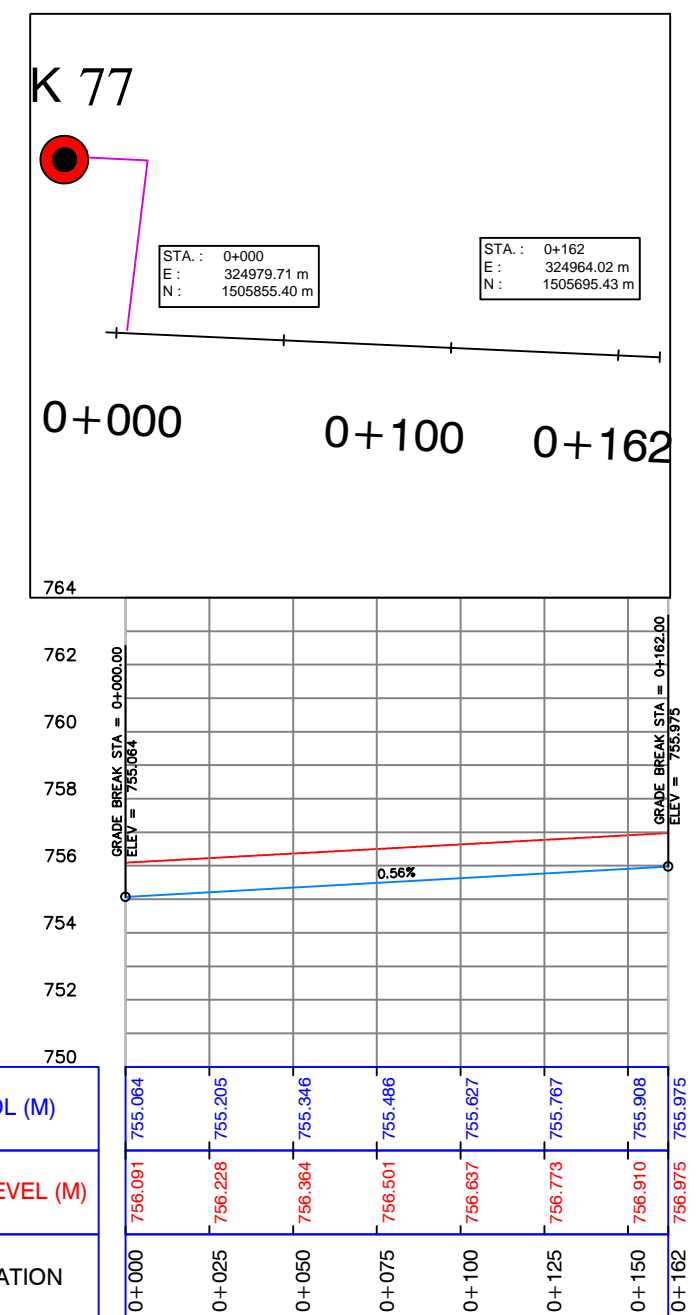


Profile (16)




CLIENT : UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT : DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)	SHEET	
			DESIGNED :	Dr.Hashim M.H	DRAWN :	Nada S.A.		APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
			CHECKED :	Prof.Siddig E.A	DRAFTING COORDINATION :	UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-14

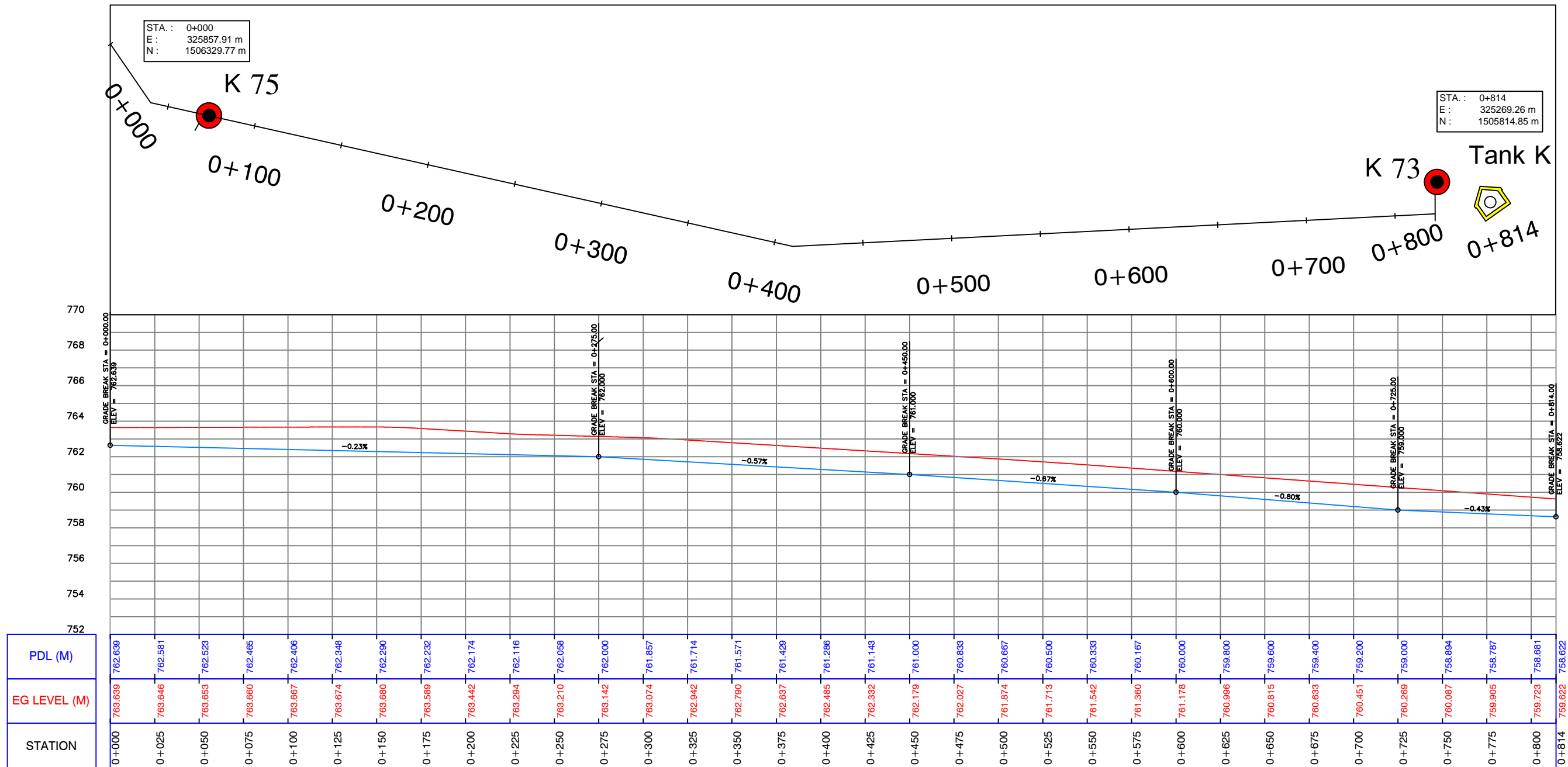


Profile (17)



Profile (18)

CLIENT : UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT : DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY:  UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES	REV.: DESCRIPTION DATE SIGN:	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)	SHEET
		DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-15



Profile (19)

CLIENT: UWA – Urban Water Administration
SWC - STATE WATER CORPORATION

PROJECT :
DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
Urban Water Scheme**

FUNDED BY:
DID
DEPARTMENT FOR
INTERNATIONAL DEVELOPMENT



IMPLEMENTED BY:
UNOPS
UNITED NATIONS OFFICE
FOR PROJECT SERVICES

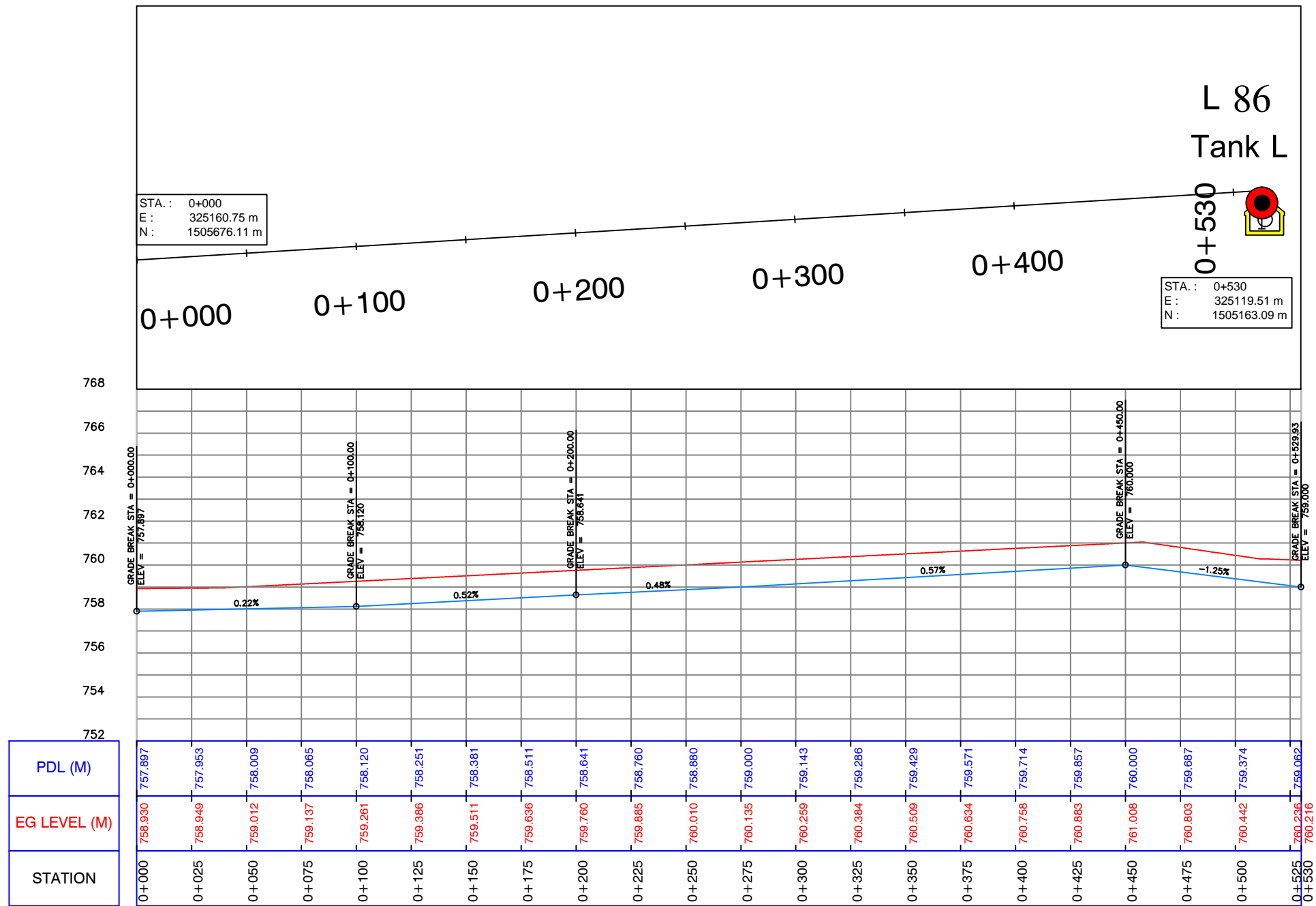


REV.	DESCRIPTION	DATE	SIGN.




DRAWN TITLE : **PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)**

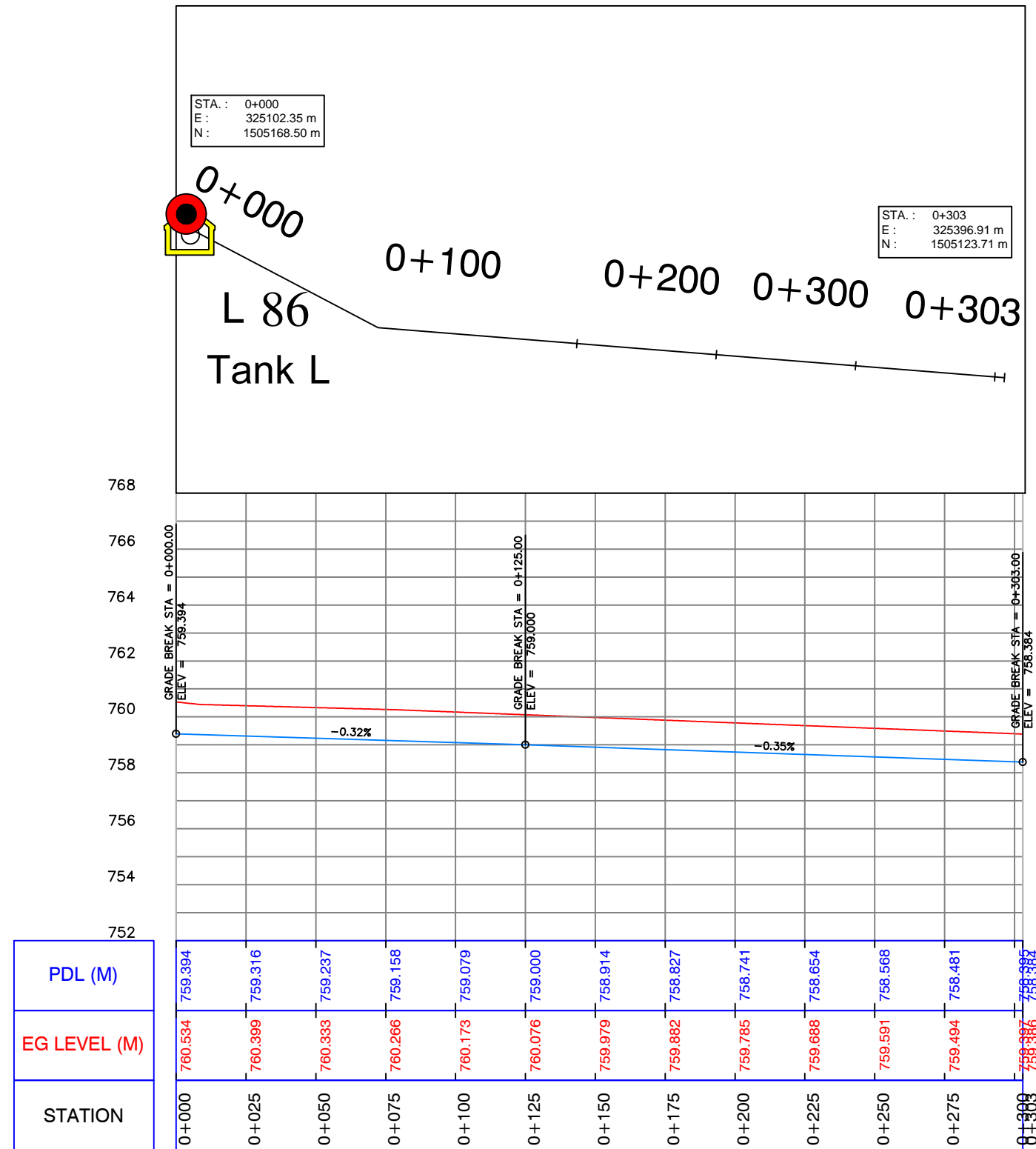
DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER
DATE: JANUARY 2019		DRAWING No: 110-16

SHEET
SCALE: AS SHOWN
DRAWING No: 110-16






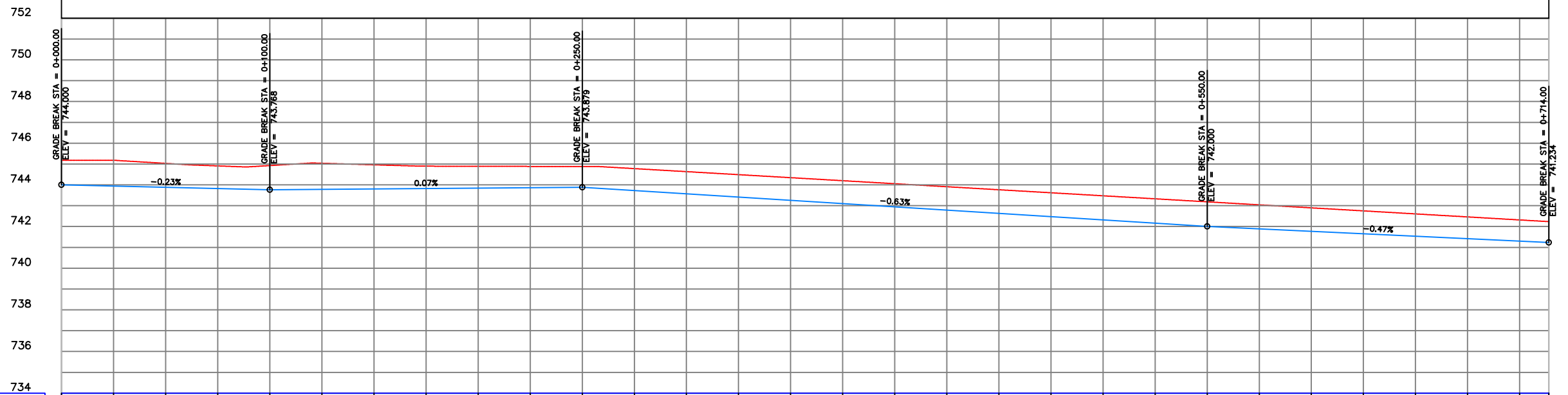
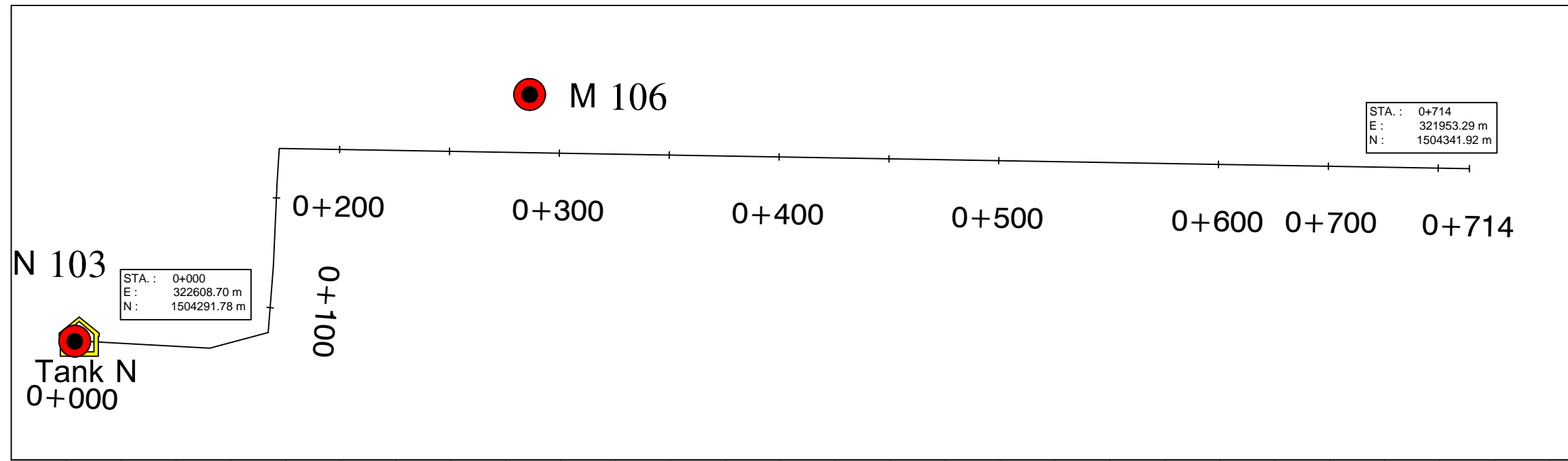
Profile (20)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT	 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)		SHEET	
PROJECT: DARFUR URBAN WATER SUPPLY PROJECT	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES						DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:	SCALE: AS SHOWN
Design of El Fasher Urban Water Scheme							CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019
										DRAWING No: 110-17







Profile (21)

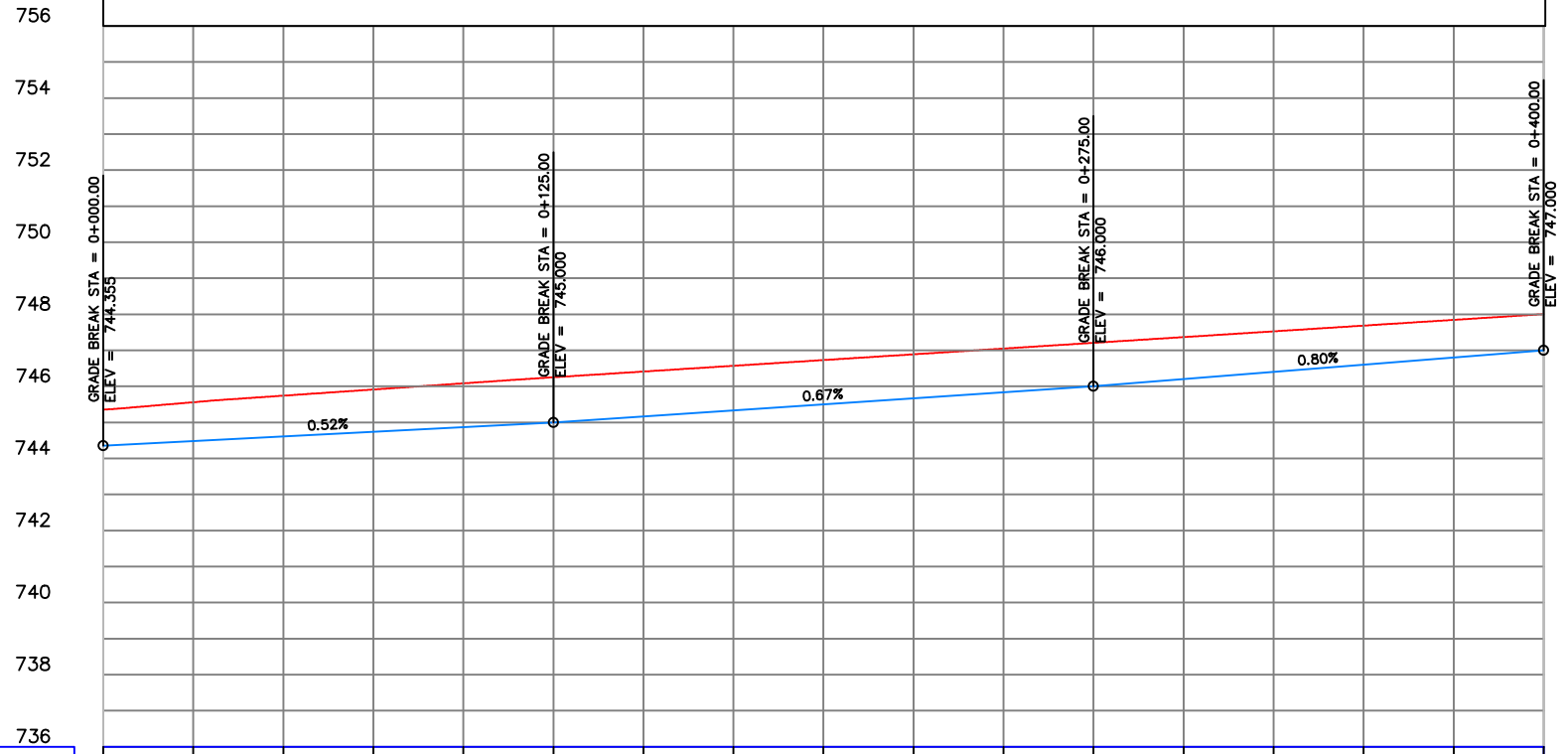
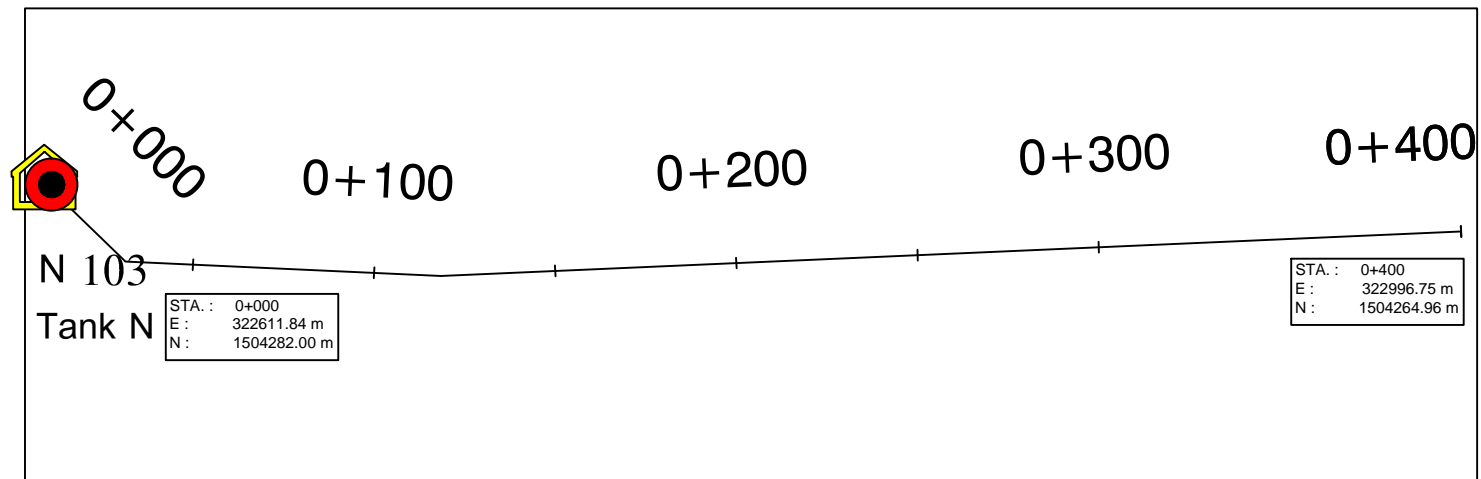
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV. DESCRIPTION DATE SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)			SHEET
			DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:	SCALE: AS SHOWN
IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 		CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-18



PDL (M)	744.000	743.942	743.884	743.826	743.788	743.786	743.805	743.823	743.842	743.861	743.879	743.723	743.586	743.409	743.253	743.096	742.940	742.783	742.626	742.470	742.313	742.157	742.000	741.883	741.767	741.650	741.533	741.417	741.300	741.234
EG LEVEL (M)	745.175	745.172	745.029	744.909	744.926	745.085	744.962	744.896	744.890	744.886	744.879	744.779	744.634	744.489	744.344	744.199	744.054	743.909	743.765	743.620	743.475	743.330	743.185	743.040	742.895	742.750	742.605	742.461	742.316	742.234
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+250	0+275	0+300	0+325	0+350	0+375	0+400	0+425	0+450	0+475	0+500	0+525	0+550	0+575	0+600	0+625	0+650	0+675	0+700	0+714

Profile (22)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT	 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)	SHEET
PROJECT: DARFUR URBAN WATER SUPPLY PROJECT	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES	  UNOPS	DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:
Design of El Fasher Urban Water Scheme			CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER
					DATE: JANUARY 2019
					DRAWING No: 110-19



PDL (M)	744.355	744.484	744.613	744.742	744.871	745.000	745.167	745.333	745.500	745.667	745.833	746.000	746.200	746.400	746.600	746.800	747.000
EG LEVEL (M)	745.355	745.560	745.742	745.913	746.085	746.253	746.412	746.571	746.731	746.890	747.049	747.209	747.368	747.527	747.687	747.846	748.005
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+250	0+275	0+300	0+325	0+350	0+375	0+400

Profile (23)

CLIENT: UWA – Urban Water Administration
SWC - STATE WATER CORPORATION

PROJECT:
DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
Urban Water Scheme**

FUNDED BY:
DID
DEPARTMENT FOR
INTERNATIONAL DEVELOPMENT

IMPLEMENTED BY:
UNOPS
UNITED NATIONS OFFICE
FOR PROJECT SERVICES

REV.	DESCRIPTION	DATE	SIGN.

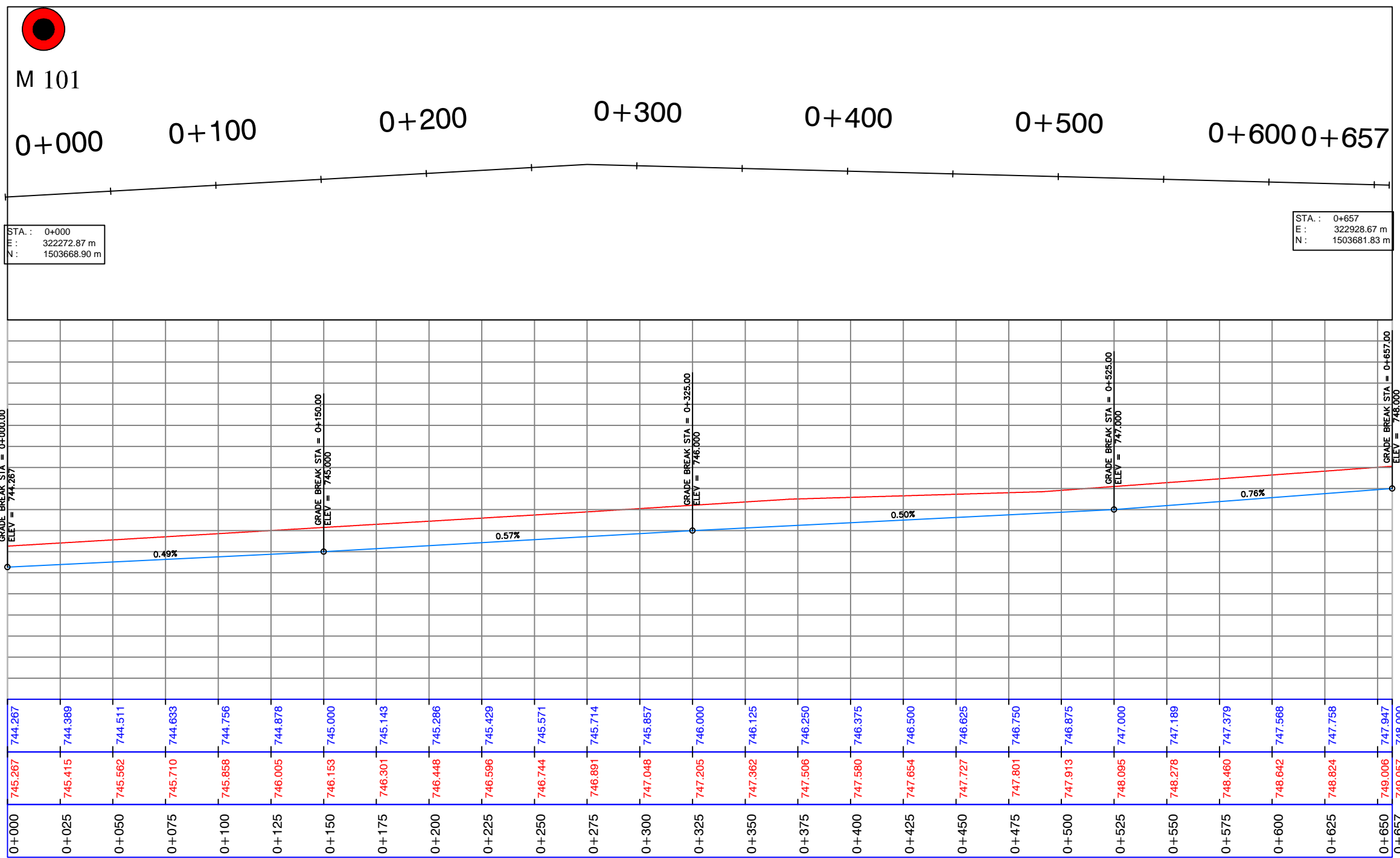
DRAWN TITLE : **PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)**

DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER
DATE: JANUARY 2019		DRAWING No: 110-20




SHEET

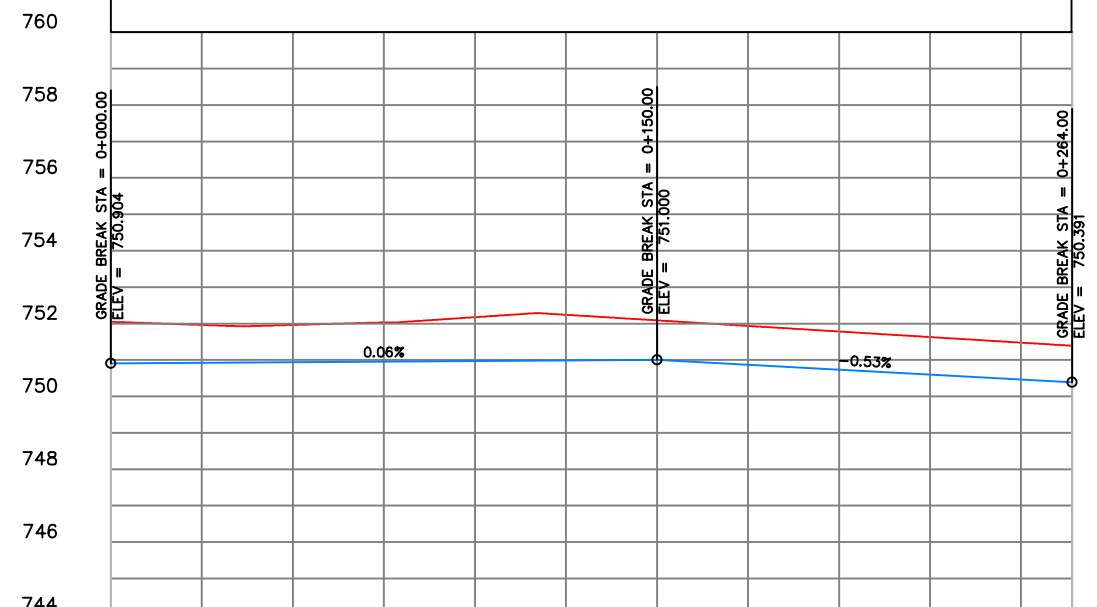
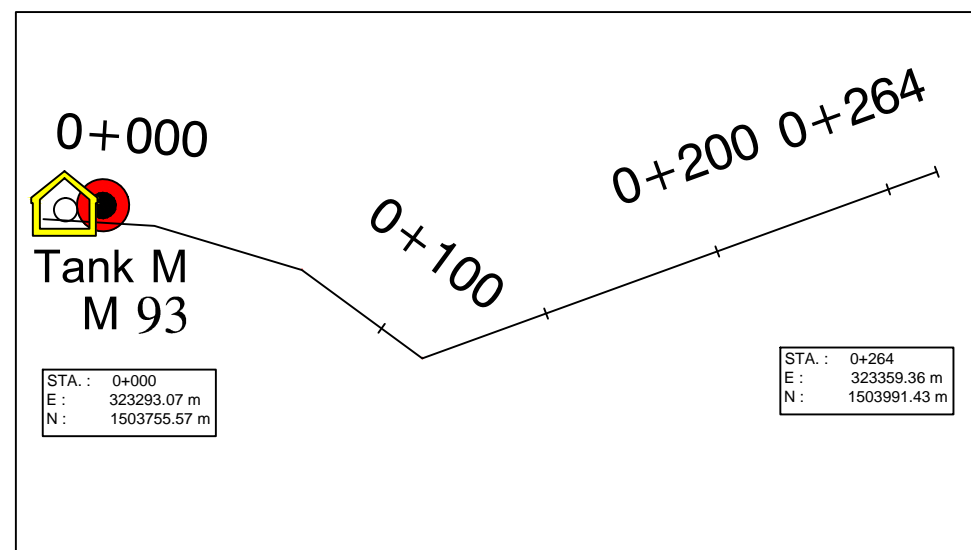
SCALE:
AS SHOWN

DRAWING No:
110-20





Profile (24)

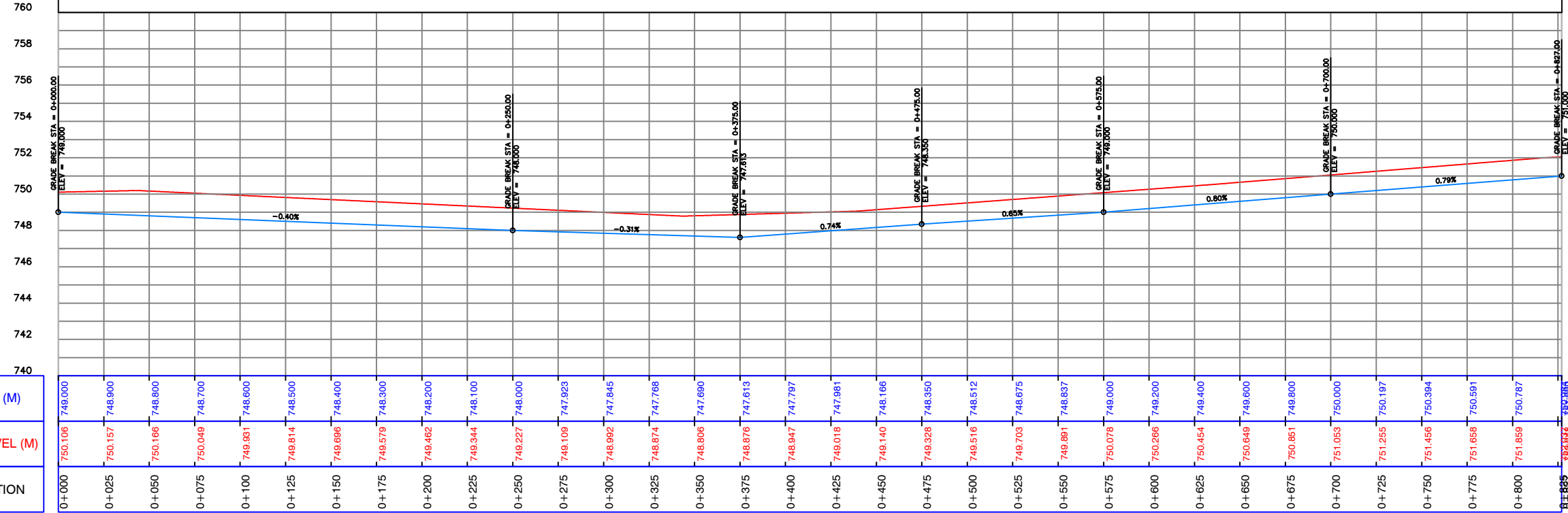
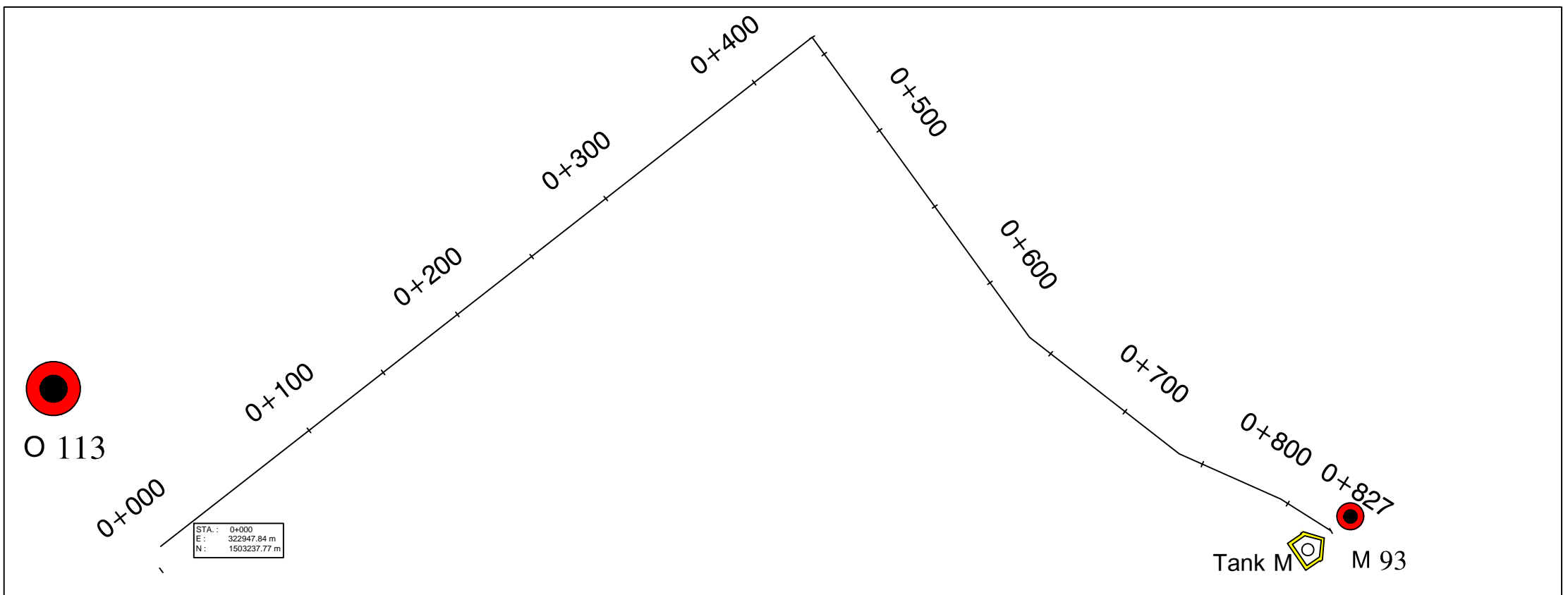
CLIENT : UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT : DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)	SHEET 5			
		IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 							DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.
						CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-21



PDL (M)	750.904	750.920	750.936	750.952	750.968	750.984	751.000	750.866	750.733	750.599	750.466	750.391
EG LEVEL (M)	752.049	751.962	751.962	752.031	752.175	752.241	752.088	751.935	751.782	751.629	751.476	751.391
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+250	0+264

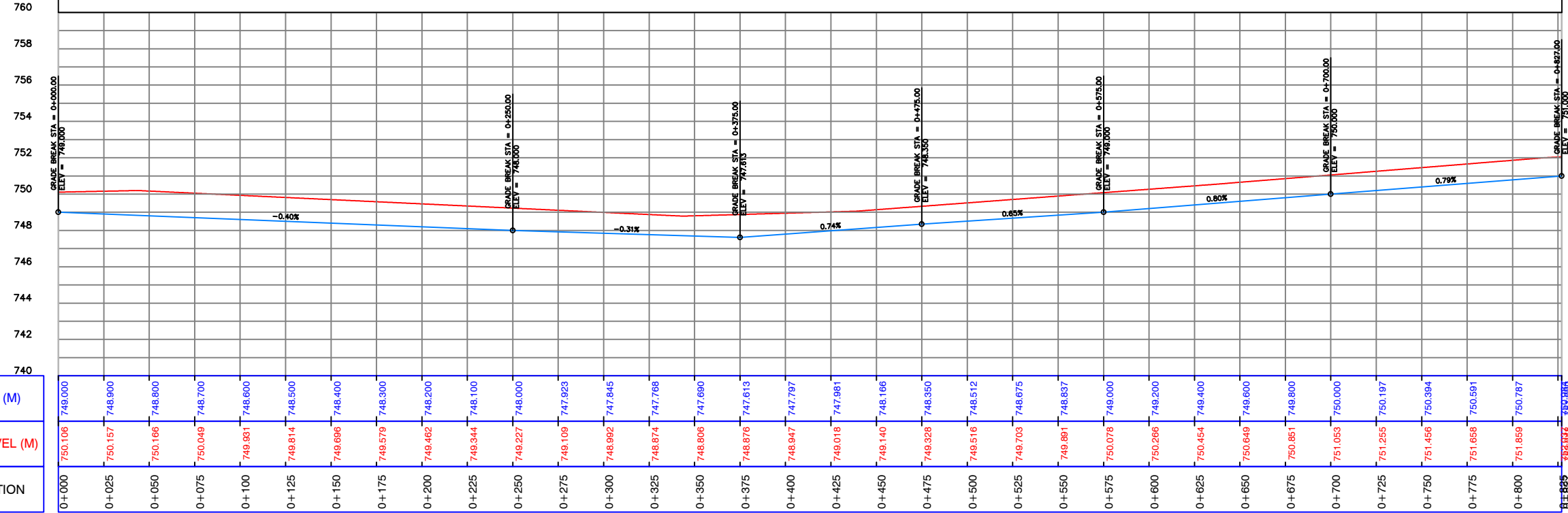
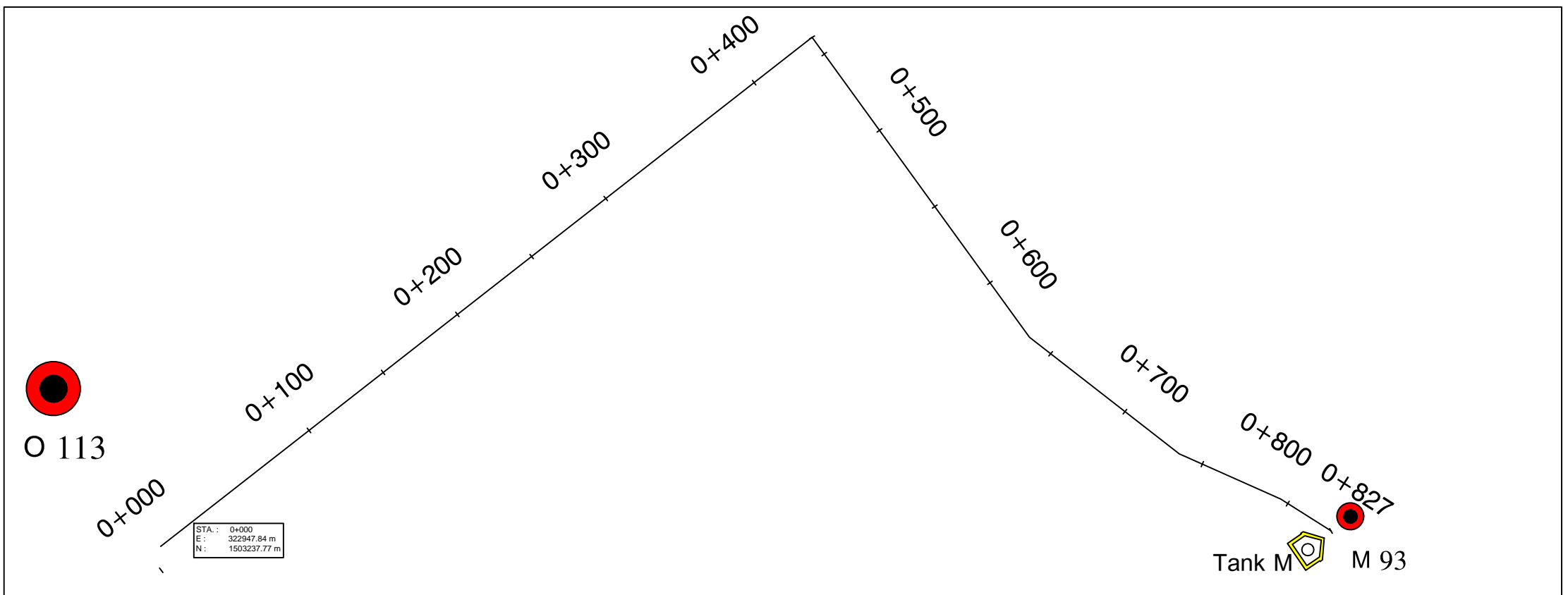
Profile (25)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT : DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES	 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)			SHEET
						DESIGNED :				DRAWN :
						Prof.Siddig E.A	UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-22



Profile (26)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES		REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)		SHEET
			DESIGNED: Dr.Hashim M.H		DRAWN: Nada S.A.		APPROVED FOR IMPLEMENTATION:		SCALE: AS SHOWN
UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES			CHECKED: Prof.Siddig E.A		DRAFTING COORDINATION: UNOPS		CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-23



Profile (26)

CLIENT: UWA – Urban Water Administration
SWC - STATE WATER CORPORATION

PROJECT :
DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
Urban Water Scheme**

FUNDED BY:
DID
DEPARTMENT FOR
INTERNATIONAL DEVELOPMENT




IMPLEMENTED BY:
UNOPS
UNITED NATIONS OFFICE
FOR PROJECT SERVICES



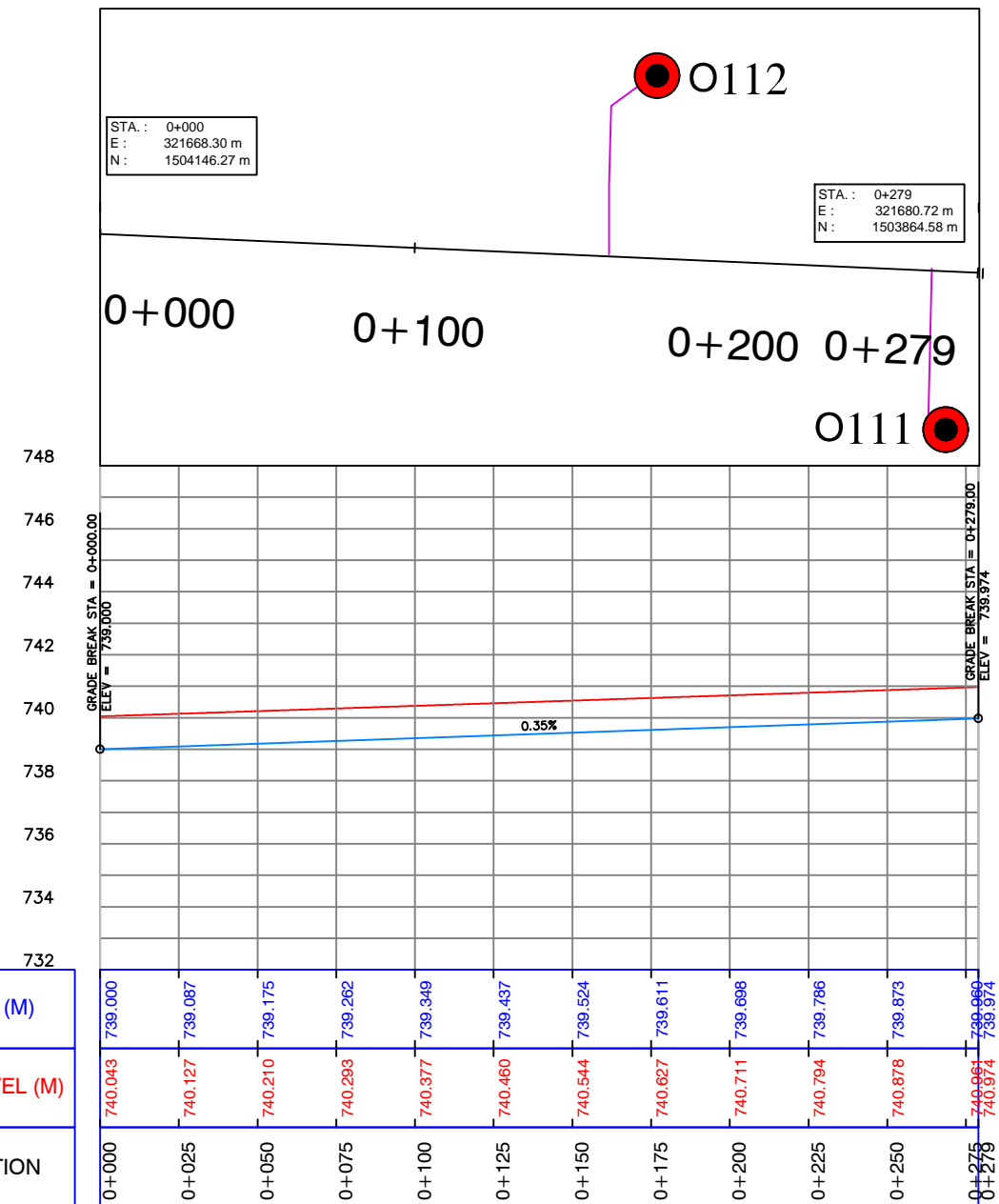
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DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)			
DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019

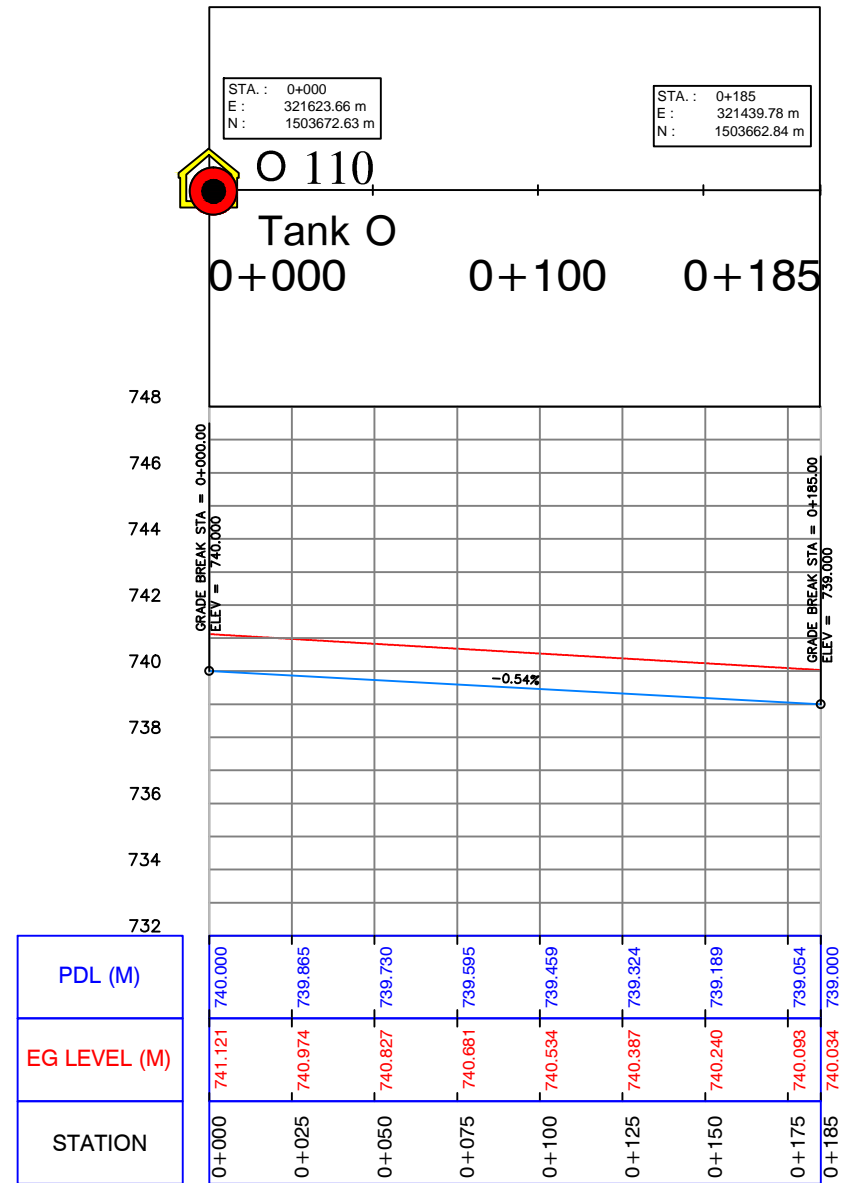
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SCALE:
AS SHOWN




DRAWING No.:
110-23

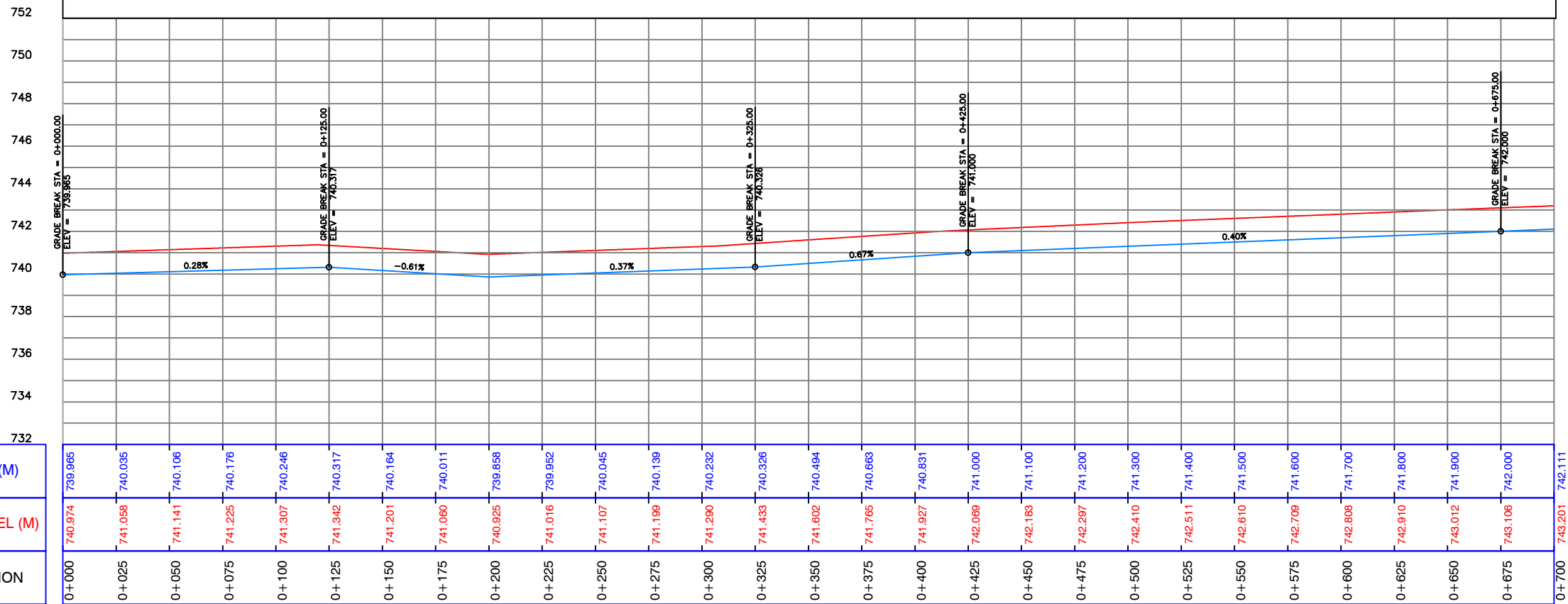
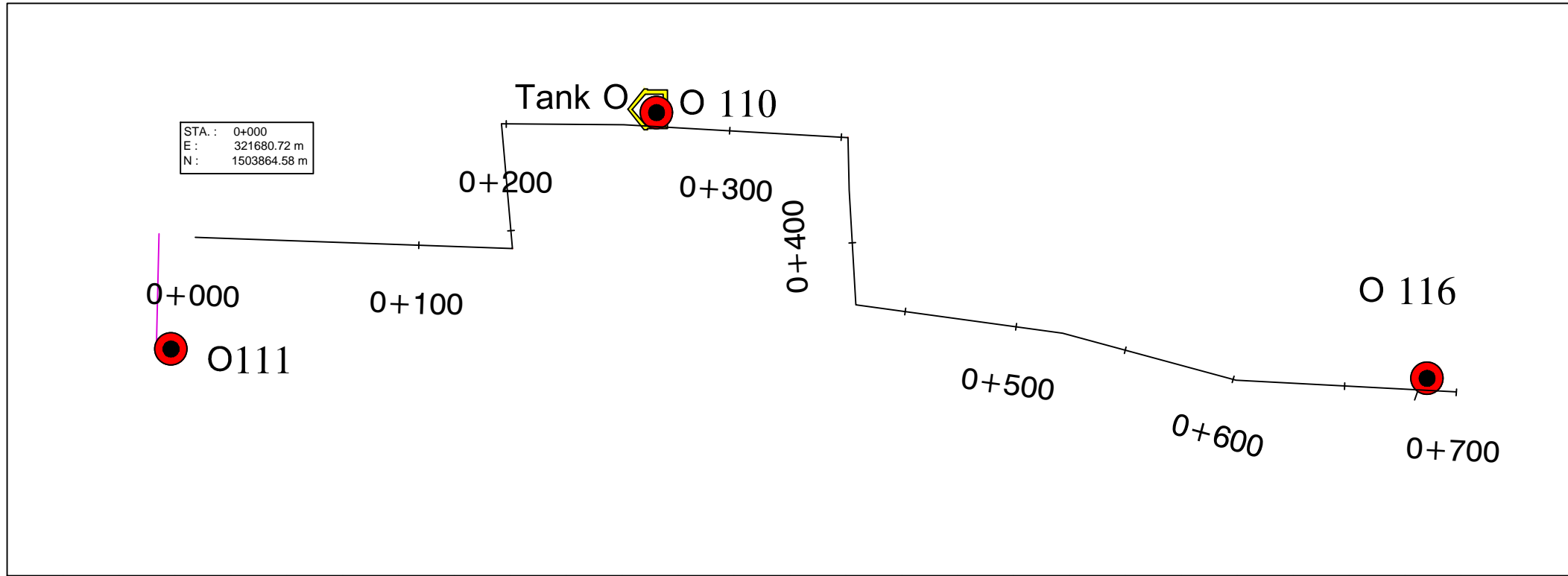


Profile (27)



Profile (28)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)	SHEET	
			DESIGNED:		DRAWN:			APPROVED FOR IMPLEMENTATION:	
			CHECKED:		DRAFTING COORDINATION:		CONTRACT NUMBER	DATE:	DRAWING No:
			Prof.Siddig E.A		UNOPS			JANUARY 2019	110-24



Profile (29-1)

CLIENT: UWA – Urban Water Administration
SWC - STATE WATER CORPORATION

PROJECT:
DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
Urban Water Scheme**

FUNDED BY:
DID
DEPARTMENT FOR
INTERNATIONAL DEVELOPMENT

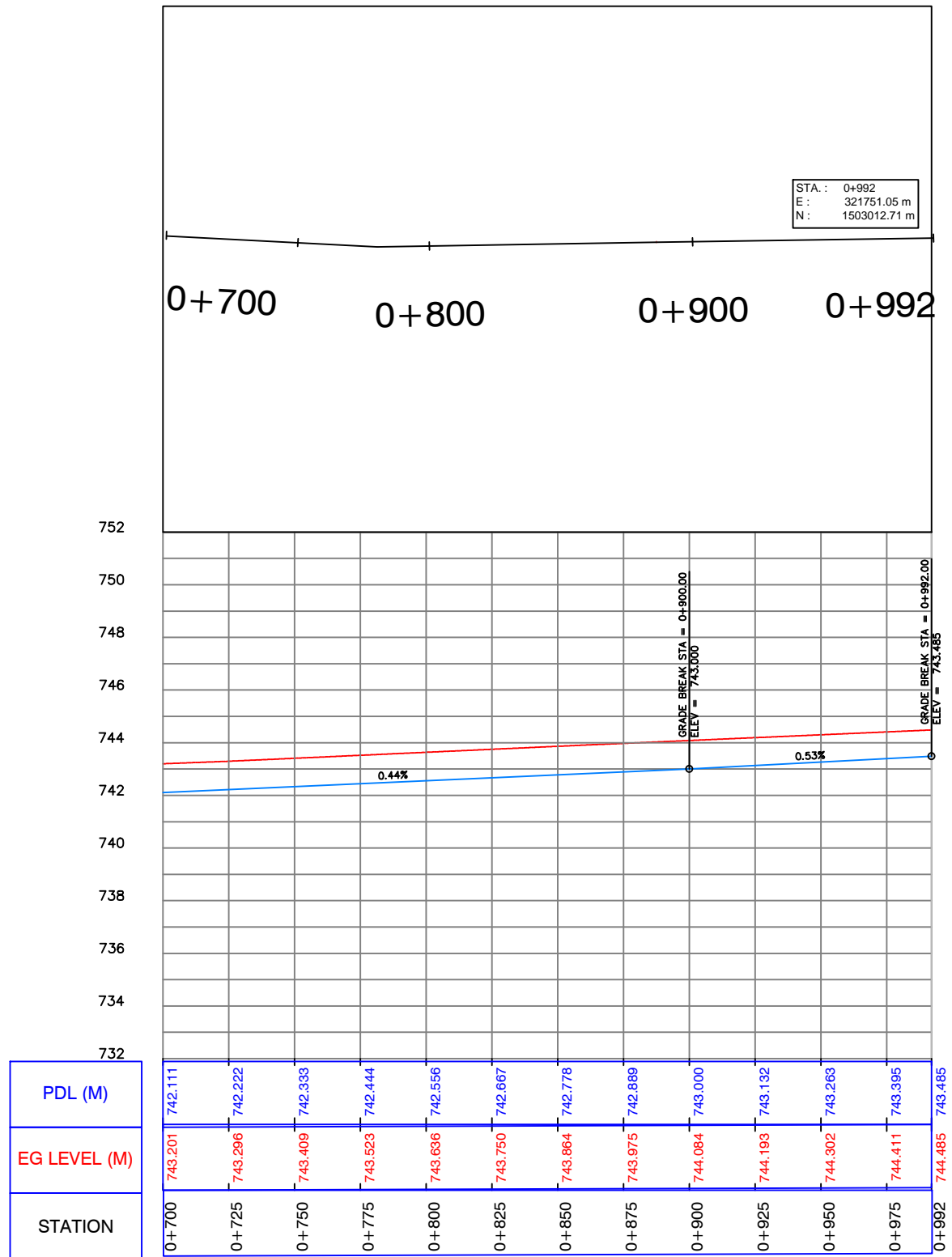



IMPLEMENTED BY:
UNOPS
UNITED NATIONS OFFICE
FOR PROJECT SERVICES



REV.	DESCRIPTION	DATE	SIGN.

DRAWN TITLE :			
PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)			
DESIGNED :	DRAWN :	APPROVED FOR IMPLEMENTATION :	SHEET
Dr.Hashim M.H	Nada S.A.		SCALE: AS SHOWN
CHECKED :	DRAFTING COORDINATION :	CONTRACT NUMBER	DATE: JANUARY 2019
Prof.Siddig E.A	UNOPS		DRAWING No: 110-25



Profile (29-2)

CLIENT: UWA – Urban Water Administration
SWC - STATE WATER CORPORATION

PROJECT: DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
Urban Water Scheme**

FUNDED BY:
DID
DEPARTMENT FOR
INTERNATIONAL DEVELOPMENT



Department
for International
Development

IMPLEMENTED BY:
UNOPS
UNITED NATIONS OFFICE
FOR PROJECT SERVICES



UNOPS

REV.	DESCRIPTION	DATE	SIGN.

DRAWN TITLE: **PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)**

DESIGNED: **Dr.Hashim M.H**

DRAWN: **Nada S.A.**

APPROVED FOR IMPLEMENTATION:

CHECKED: **Prof.Siddig E.A**

DRAFTING COORDINATION:
UNOPS

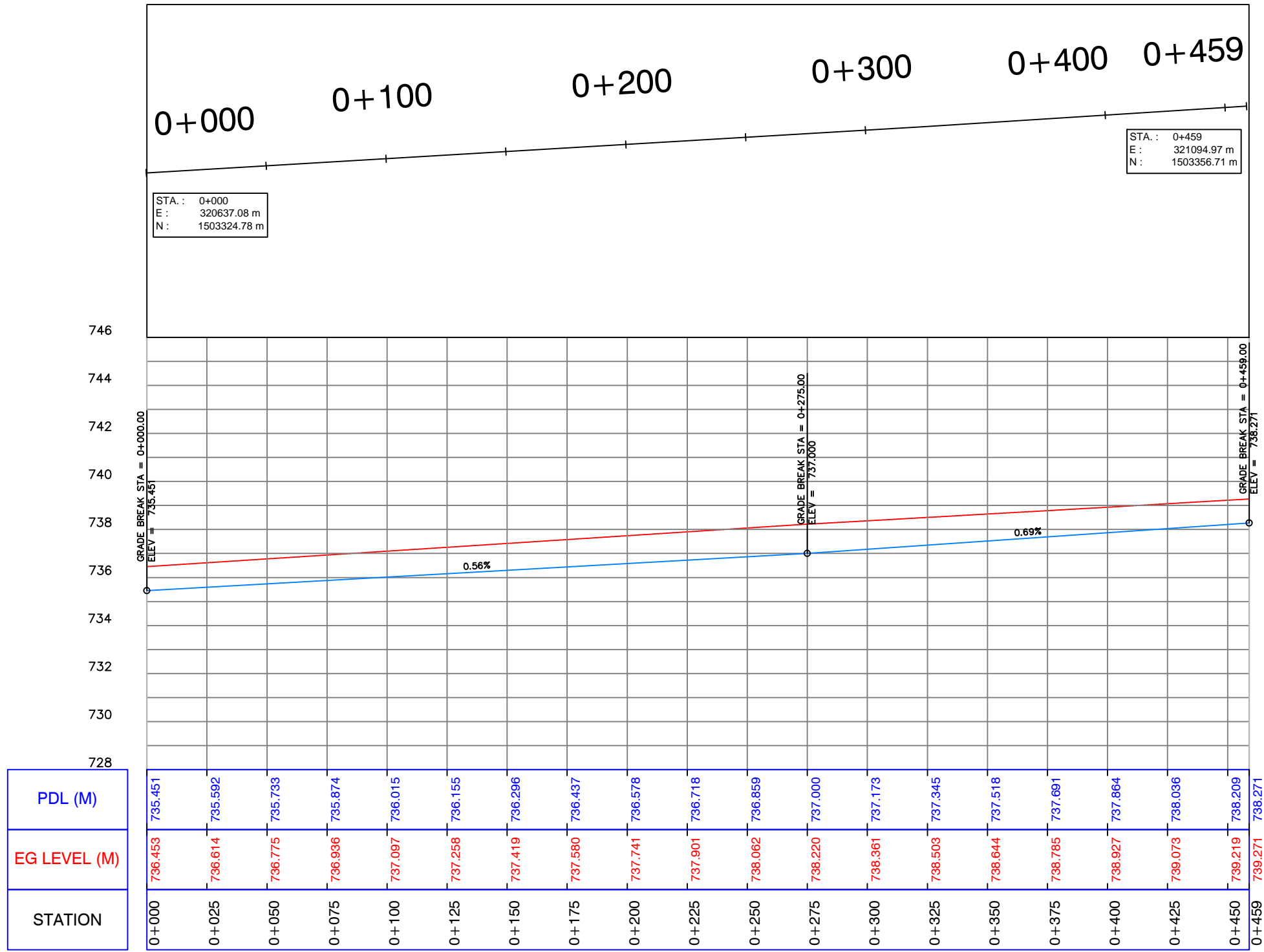
CONTRACT NUMBER

DATE:
JANUARY 2019




SHEET

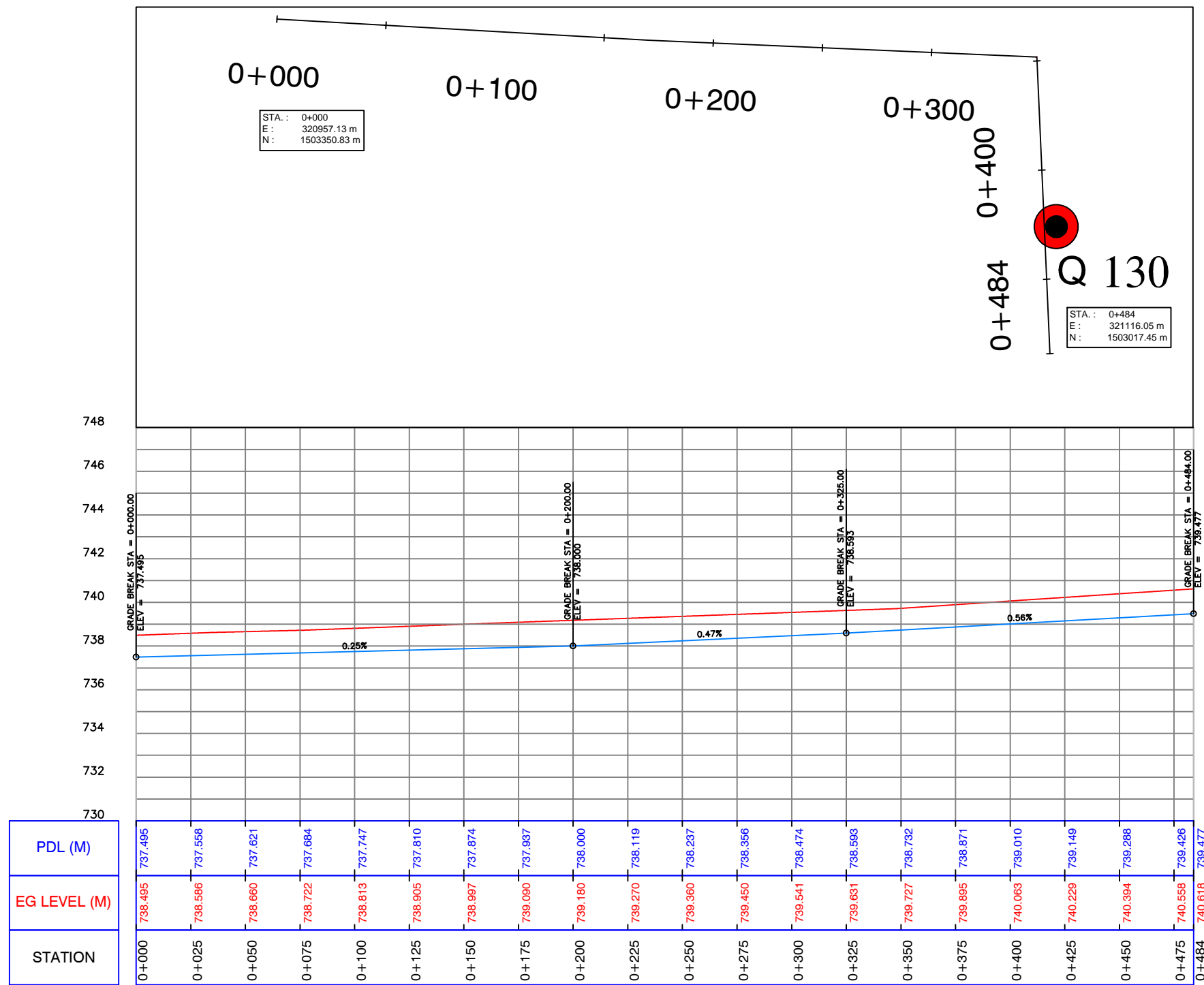
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DRAWING No: **110-26**






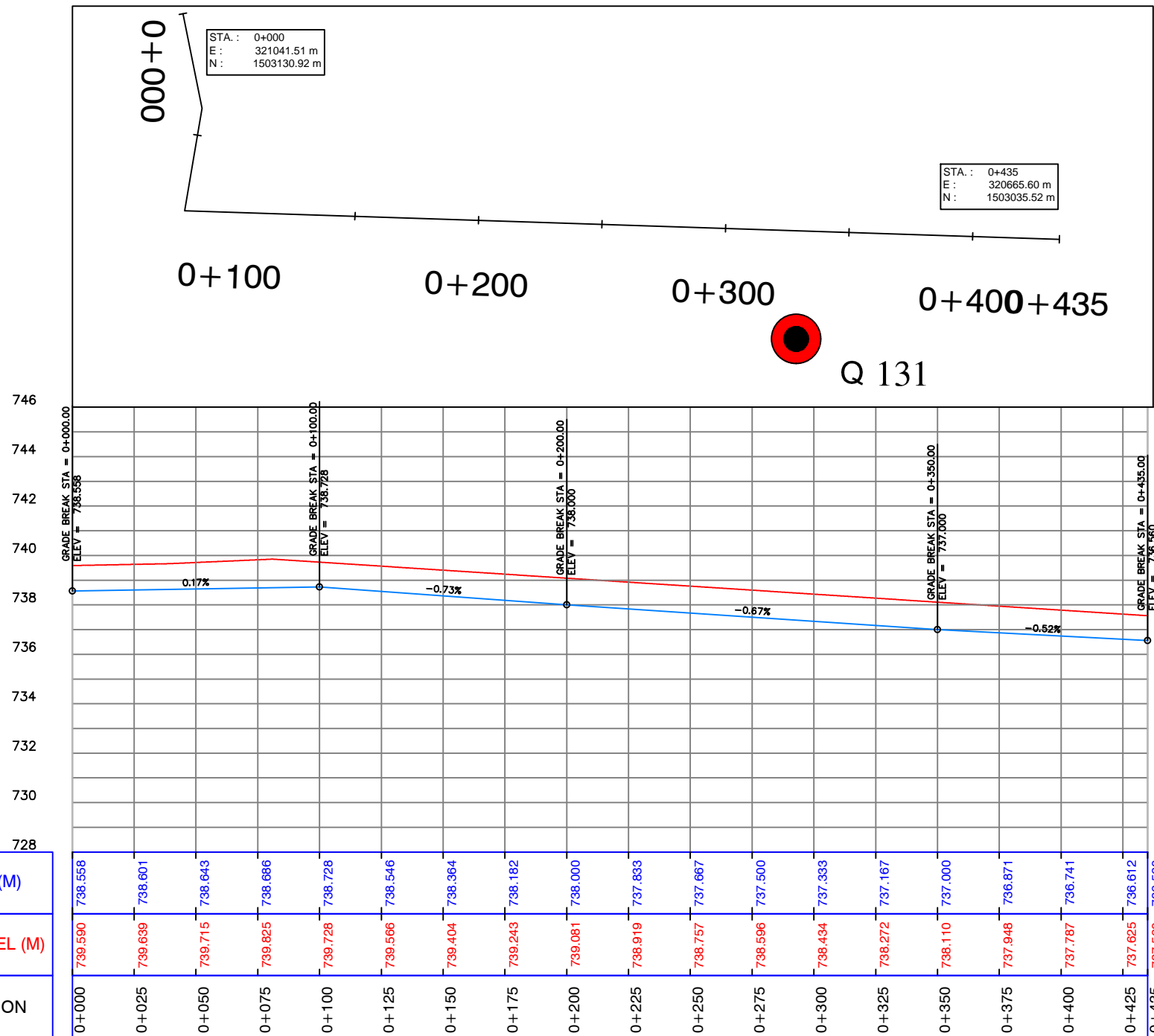
Profile (30)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)	SHEET			
		IMPLEMENTED BY:  UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES						DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:
						CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-27

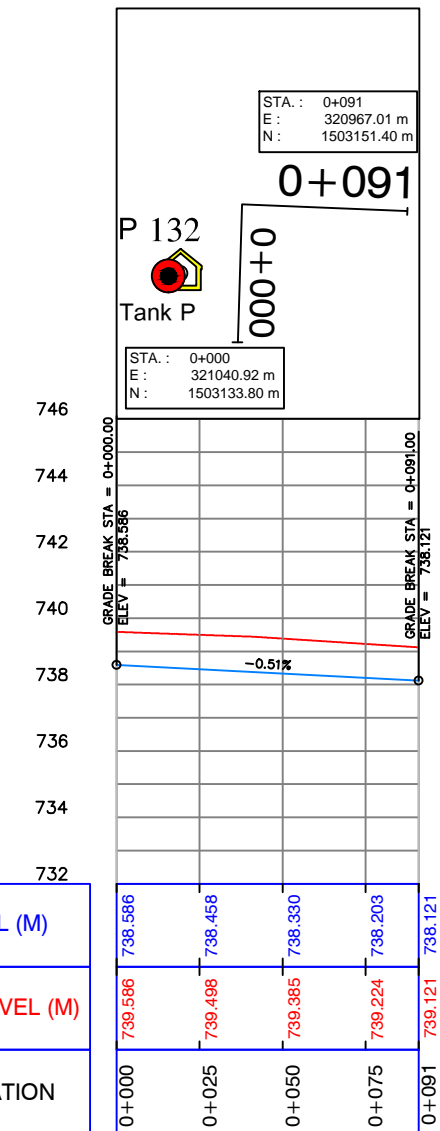


Profile (31)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV.: DESCRIPTION DATE SIGN. DRAWN TITLE:	PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)			SHEET
			DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:	
IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 		CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-28

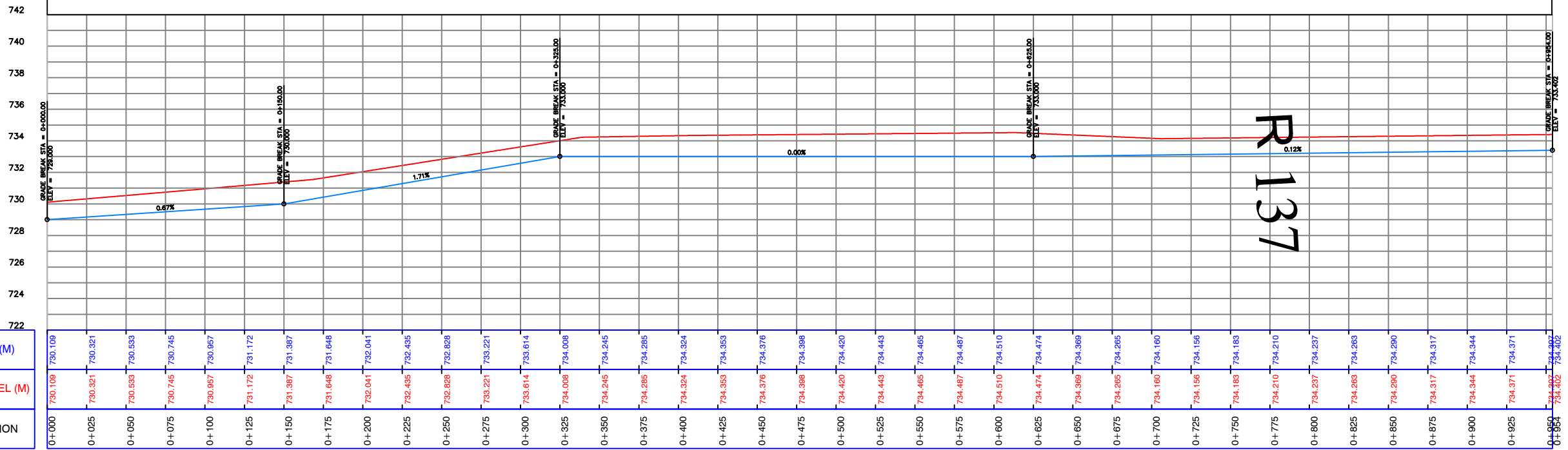
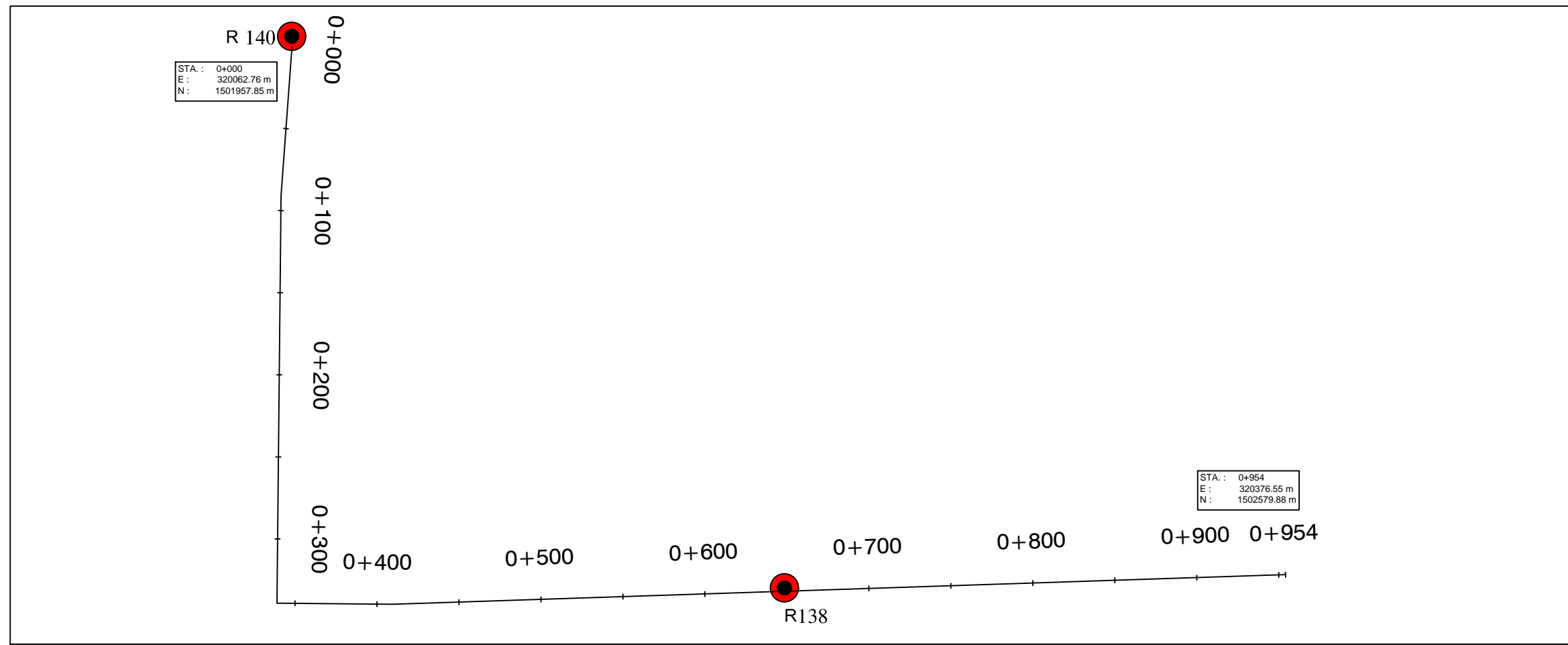


Profile (32)





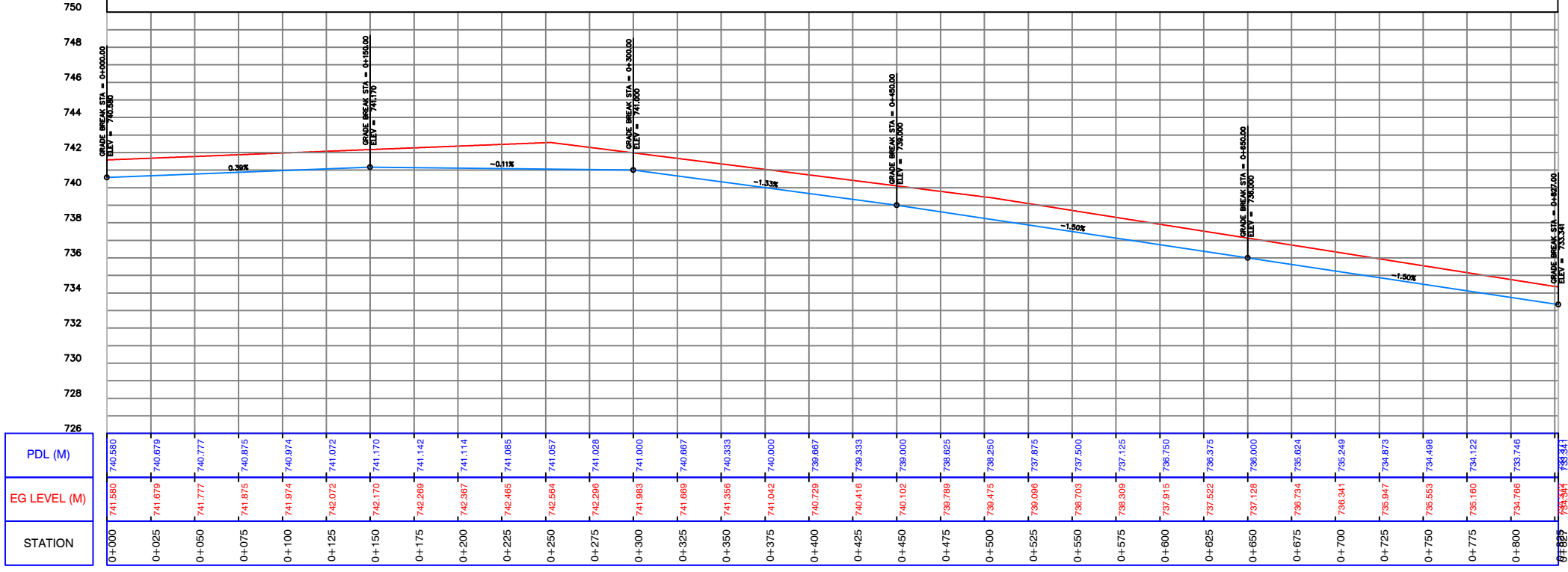
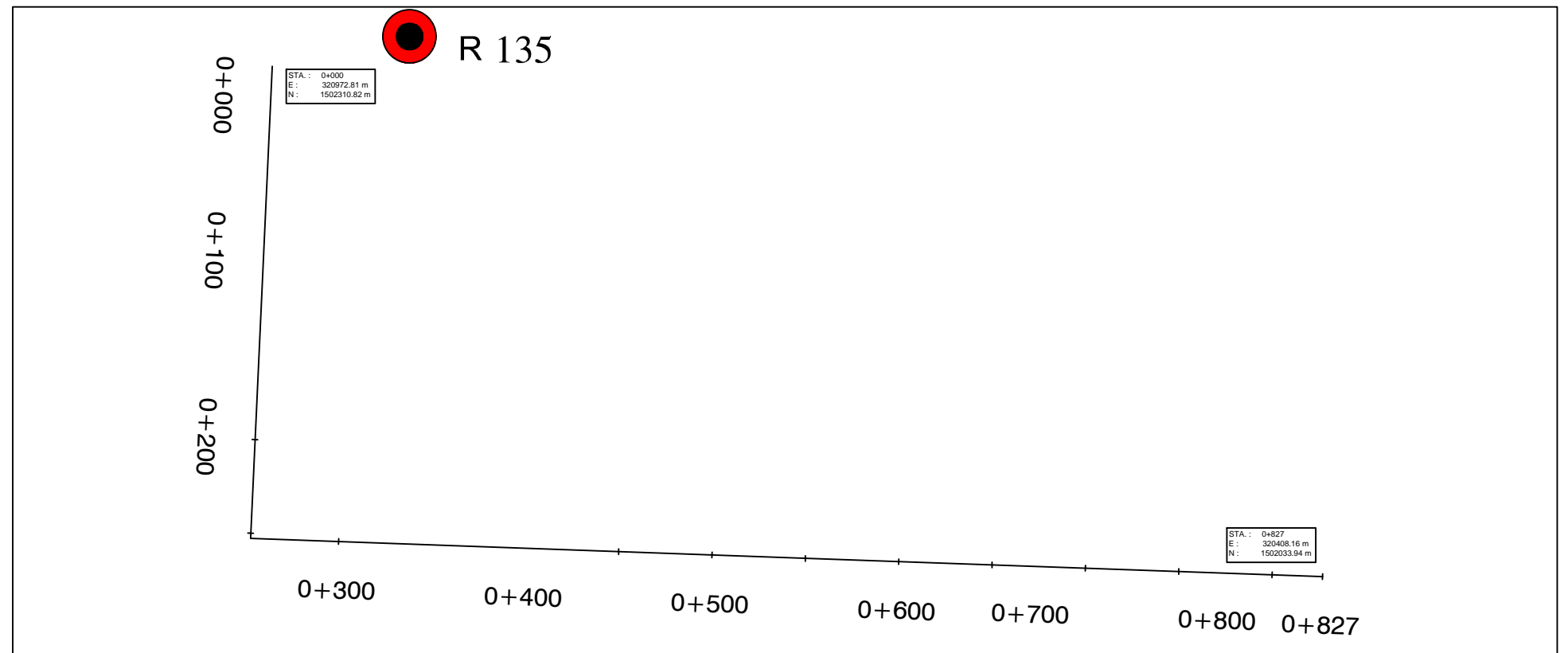
Profile (33)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT 	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)	SHEET			
									DESIGNED BY: Dr.Hashim M.H	DRAWN BY: Nada S.A.	APPROVED FOR IMPLEMENTATION:
							CHECKED BY: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-29





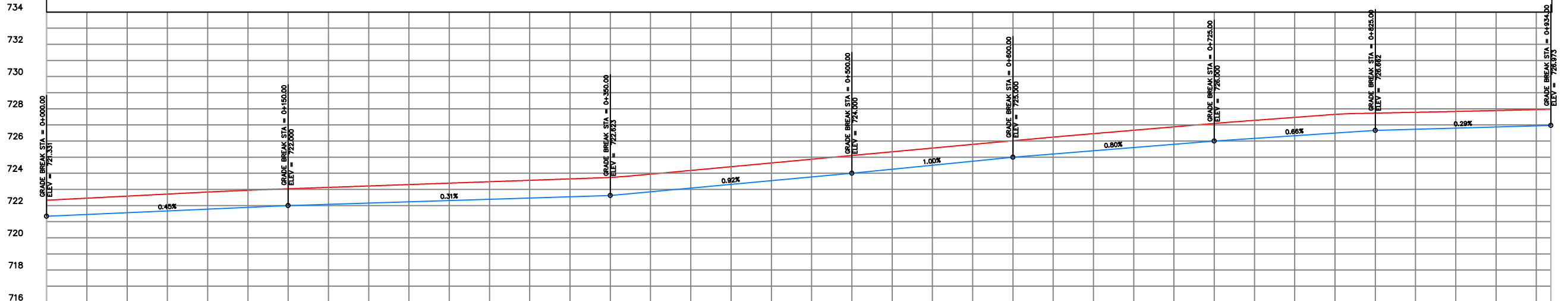
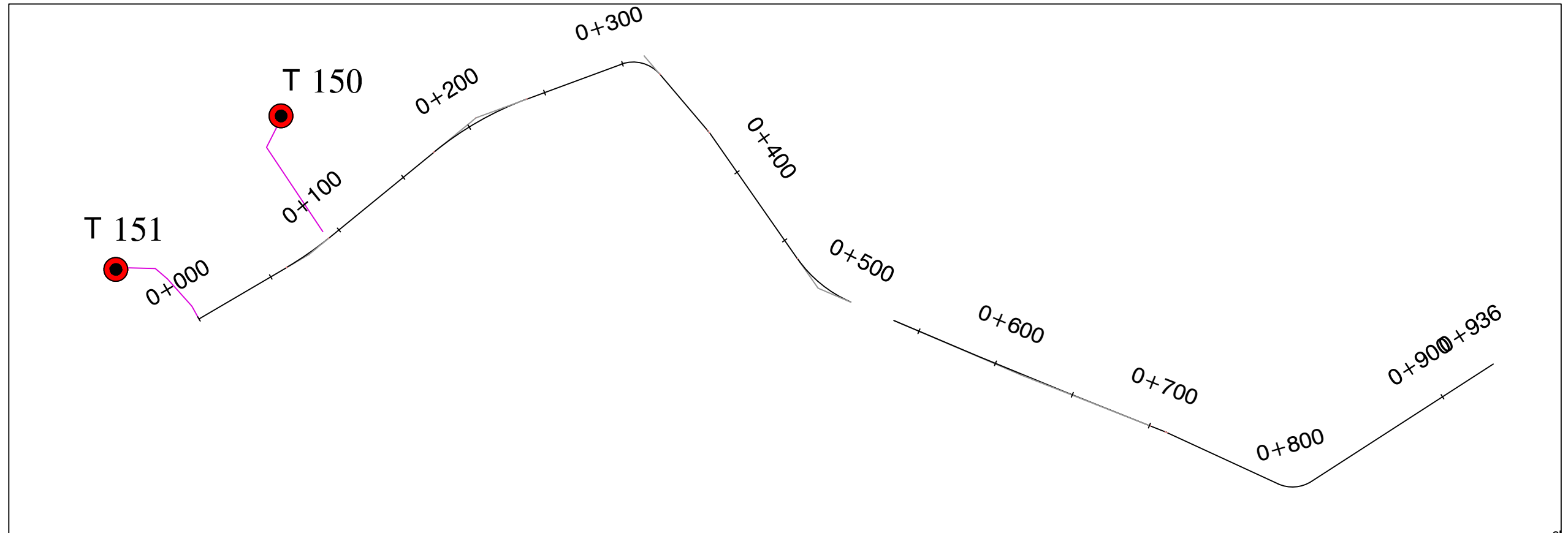
Profile (34)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)	SHEET			
							DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
						CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-30





Profile (35)

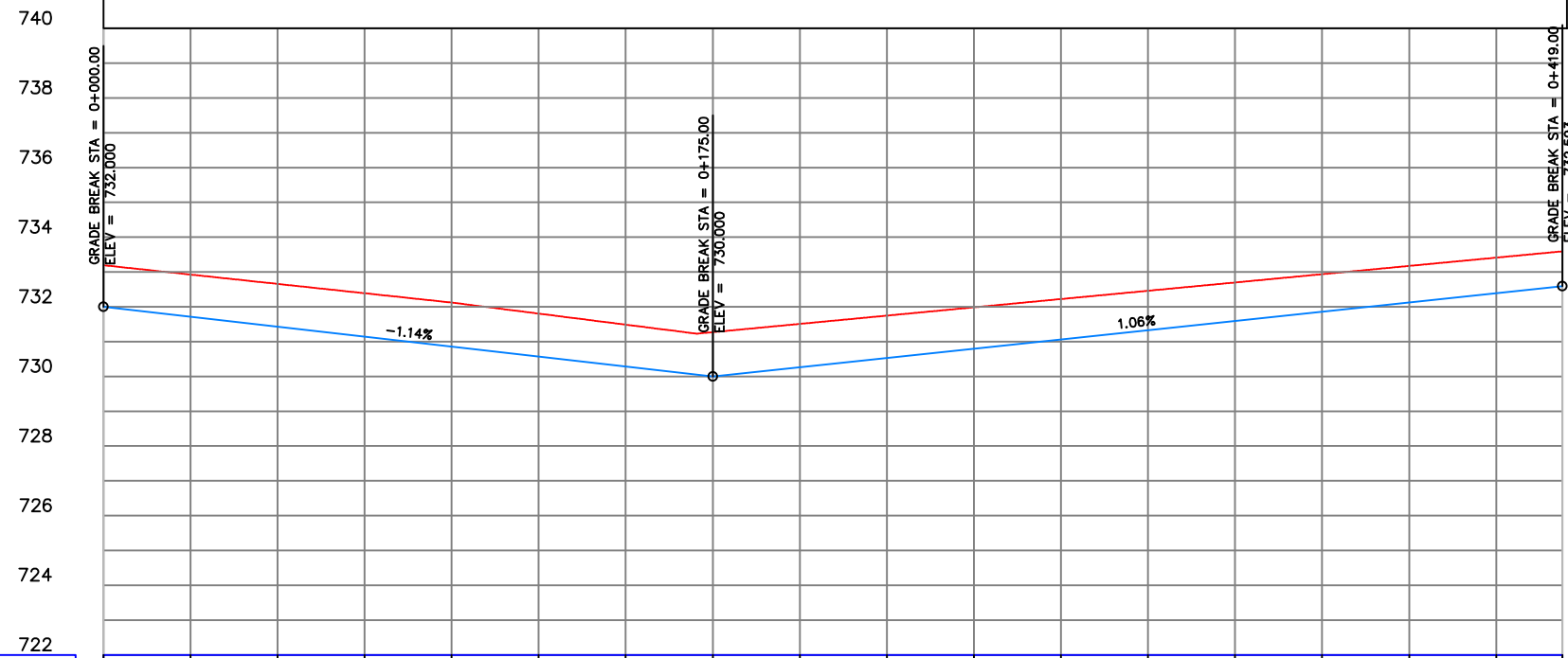
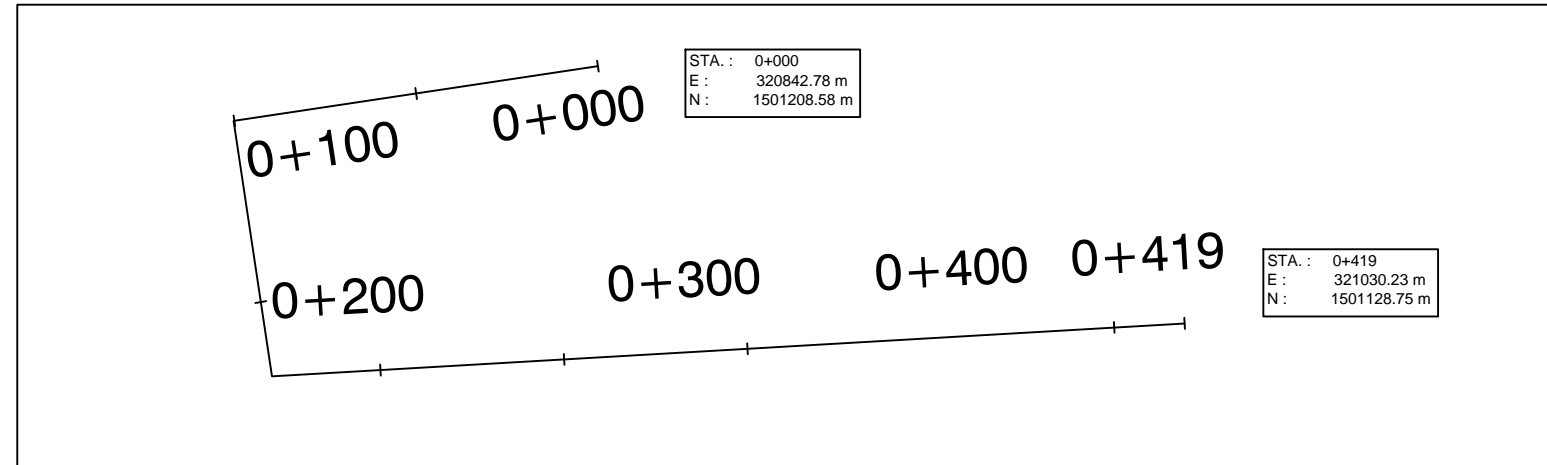
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)			SHEET SCALE: AS SHOWN DRAWING No: 110-31
			DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	
IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 			CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019



STATION	EG LEVEL (M)	PDL (M)
0+000	722.331	721.331
0+025	722.458	721.442
0+050	722.585	721.554
0+075	722.712	721.665
0+100	722.838	721.777
0+125	722.964	721.888
0+150	723.040	722.000
0+175	723.128	722.078
0+200	723.215	722.156
0+225	723.302	722.234
0+250	723.380	722.312
0+275	723.478	722.380
0+300	723.566	722.468
0+325	723.654	722.545
0+350	723.746	722.623
0+375	723.947	722.853
0+400	724.178	723.082
0+425	724.409	723.312
0+450	724.641	723.541
0+475	724.873	723.771
0+500	725.105	724.000
0+525	725.335	724.250
0+550	725.565	724.500
0+575	725.795	724.750
0+600	726.021	725.000
0+625	726.245	725.200
0+650	726.460	725.400
0+675	726.671	725.600
0+700	726.881	725.800
0+725	727.092	726.000
0+750	727.285	726.166
0+775	727.470	726.331
0+800	727.654	726.497
0+825	727.733	726.662
0+850	727.784	726.734
0+875	727.837	726.805
0+900	727.885	726.876
0+925	727.953	726.948
0+936	727.973	726.973




Profile (36)

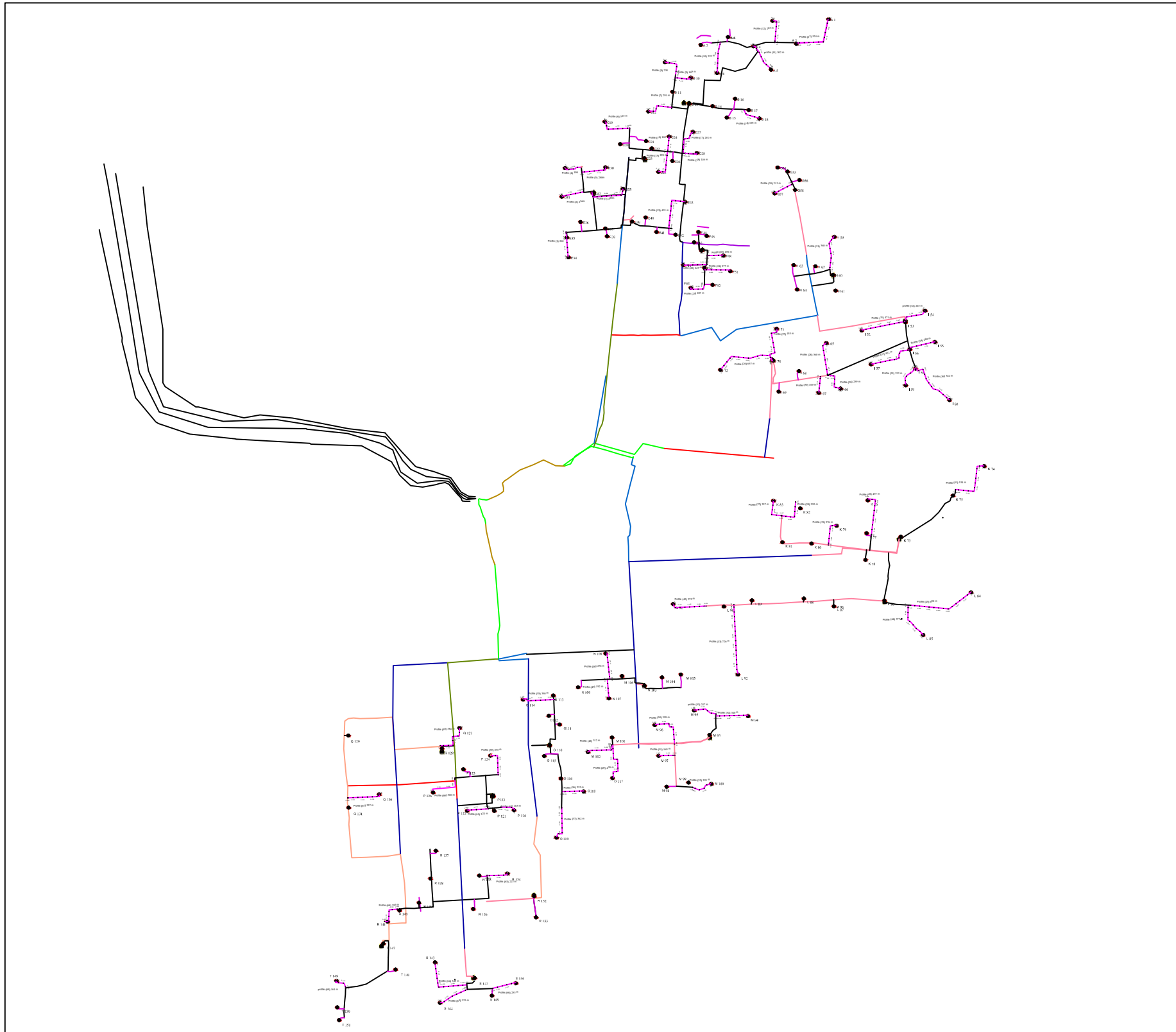
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES	 	REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)			SHEET
						DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:		
			CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-32			



PDL (M)	EG LEVEL (M)	STATION
732.000	733.194	0+000
731.714	732.926	0+025
731.429	732.658	0+050
731.143	732.390	0+075
730.857	732.122	0+100
730.571	731.804	0+125
730.286	731.487	0+150
730.000	731.270	0+175
730.286	731.508	0+200
730.531	731.746	0+225
730.797	731.984	0+250
731.063	732.222	0+275
731.328	732.460	0+300
731.594	732.698	0+325
731.860	732.936	0+350
732.125	733.174	0+375
732.391	733.412	0+400
732.593	733.593	0+419

Profile (37)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY:  UNITED NATIONS OFFICE FOR PROJECT SERVICES	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 110mm (PROPOSED)	SHEET
		DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:
CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 110-33



CLIENT : UWA – Urban Water Administration
SWC - STATE WATER CORPORATION

PROJECT :
DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
Urban Water Scheme**

FUNDED BY:
DID
DEPARTMENT FOR
INTERNATIONAL DEVELOPMENT

IMPLEMENTED BY:
UNOPS
UNITED NATIONS OFFICE
FOR PROJECT SERVICES



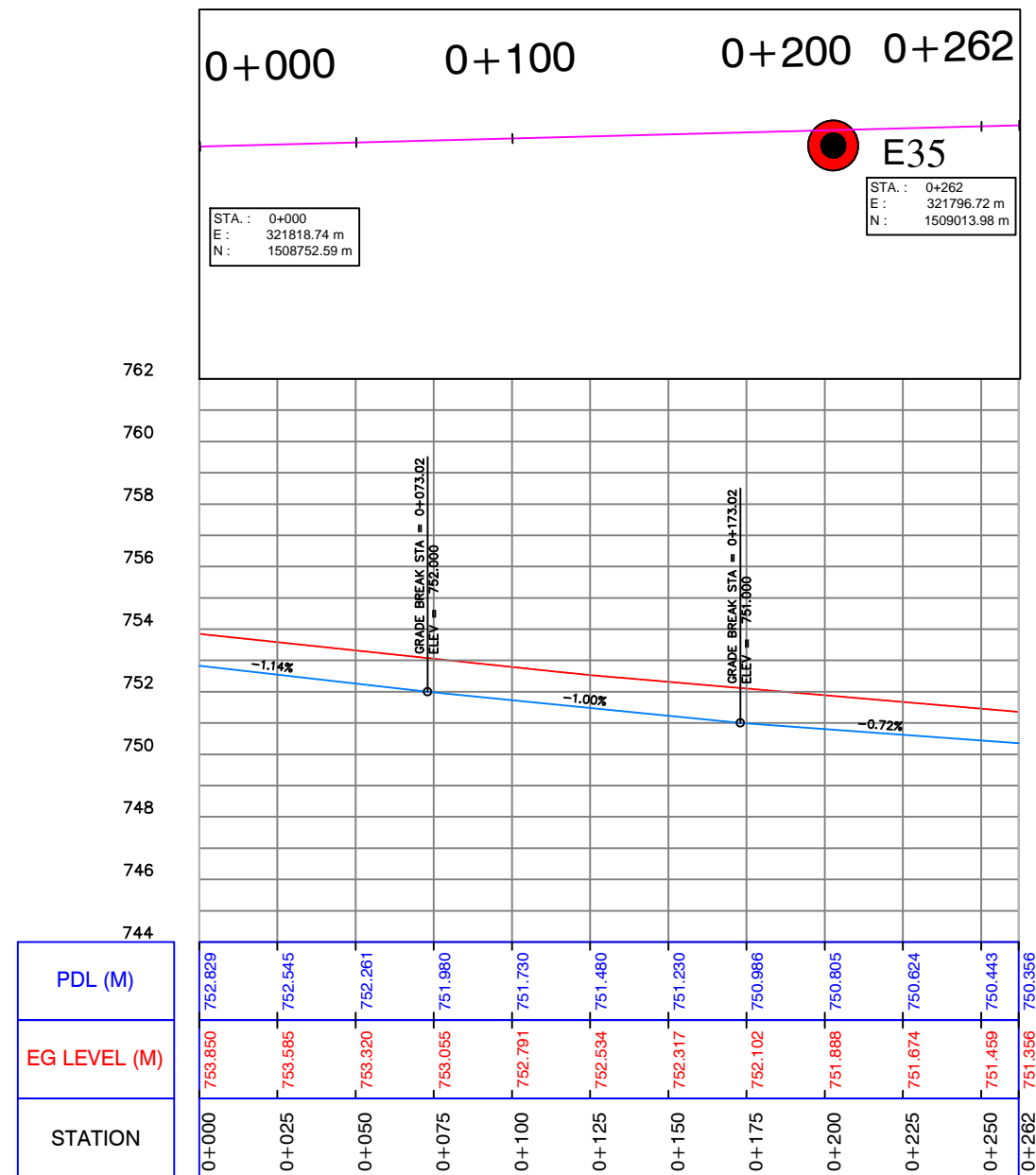
REV.	DESCRIPTION	DATE	SIGN.

DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)			
DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019

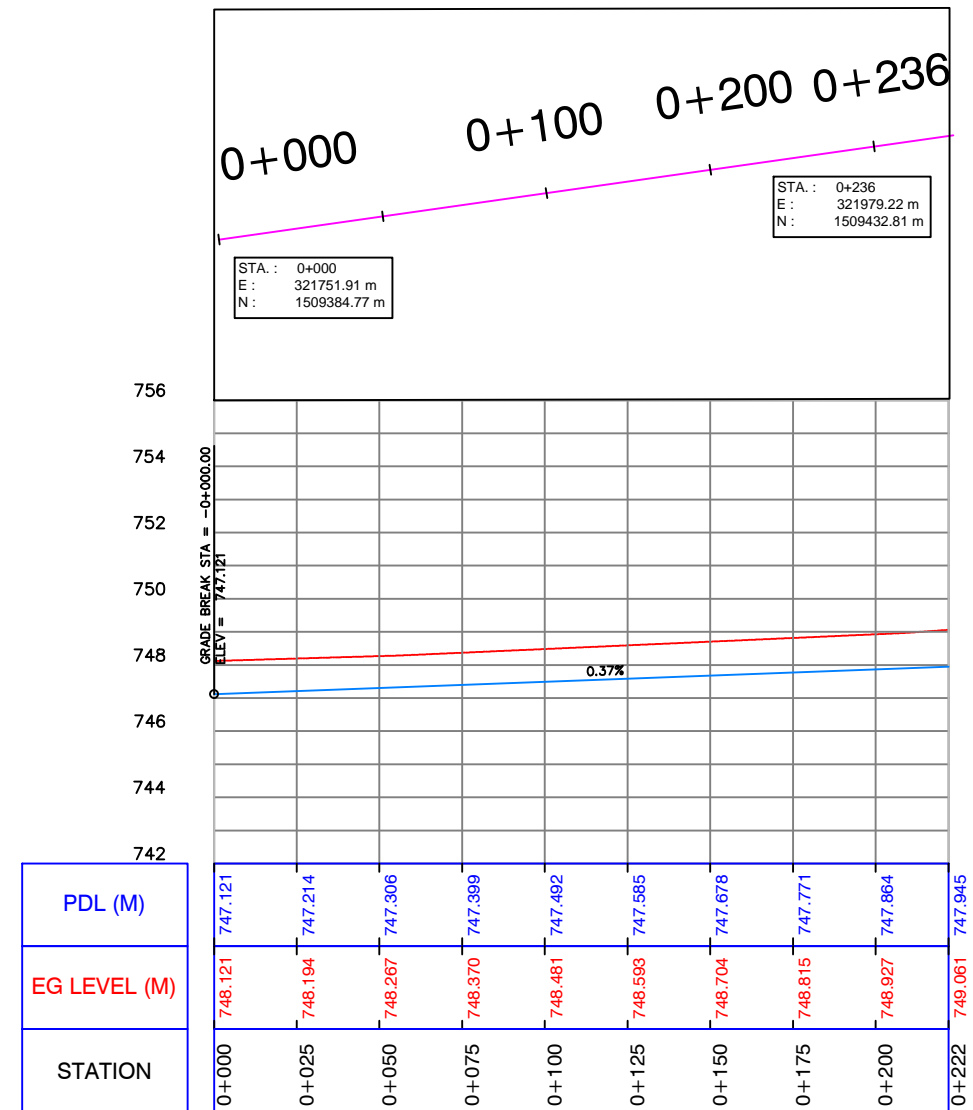
SHEET

SCALE:
AS SHOWN




DRAWING No:
63-1

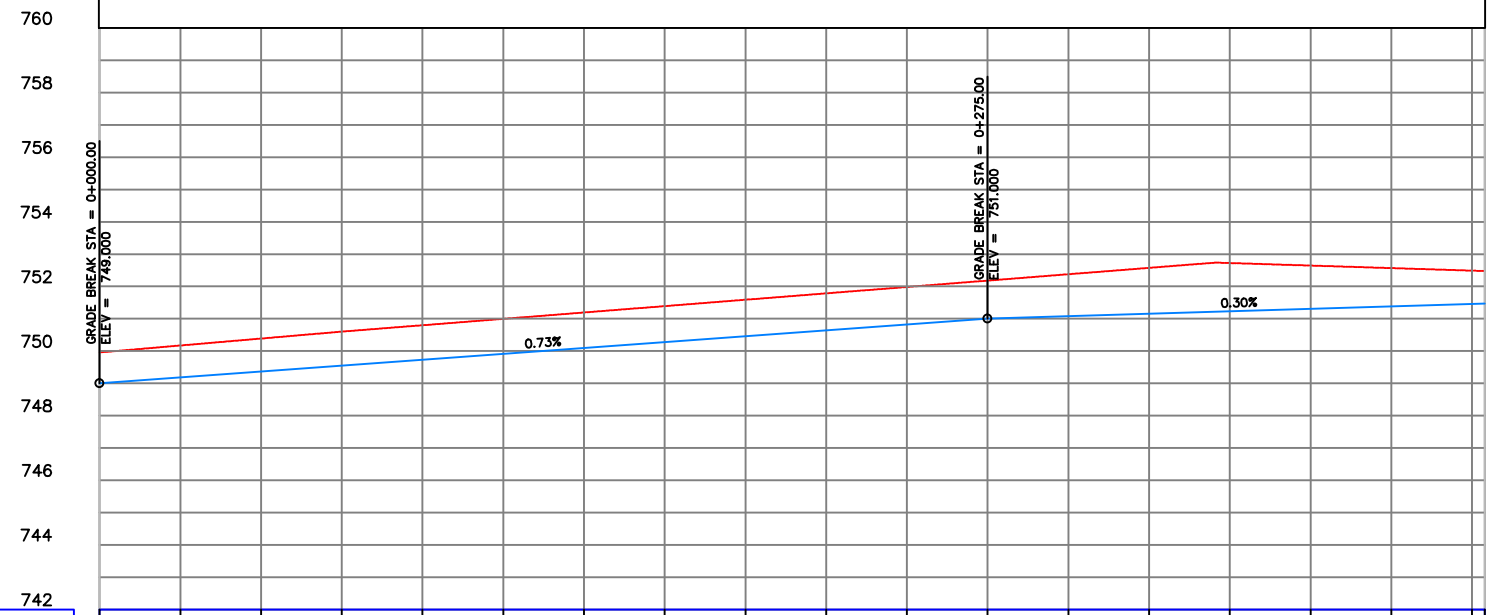
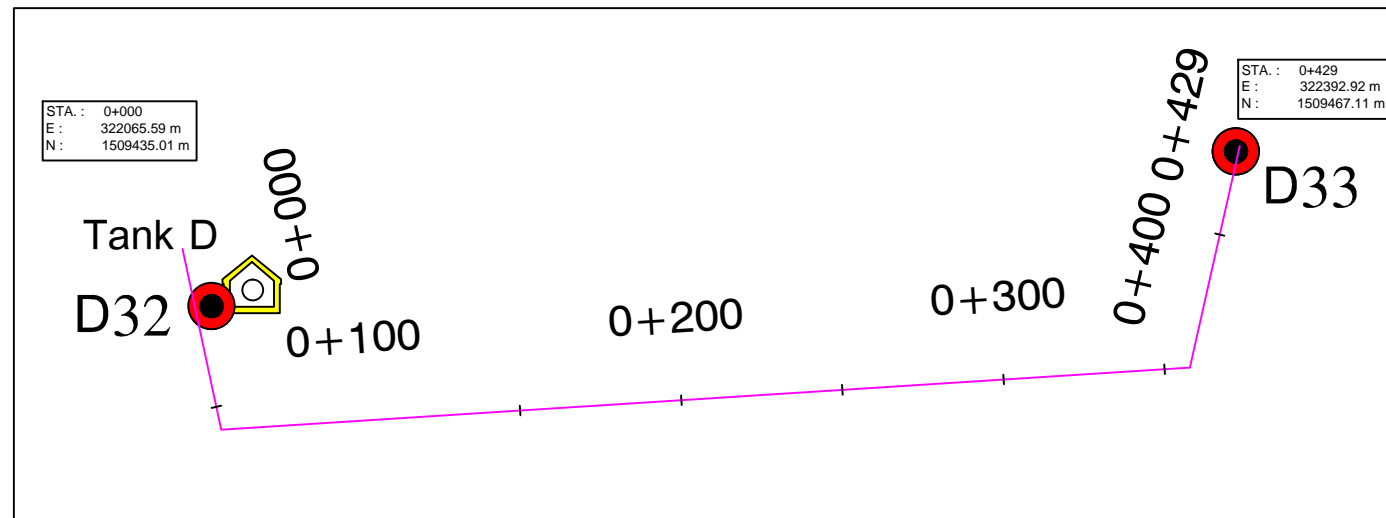


Profile (1)



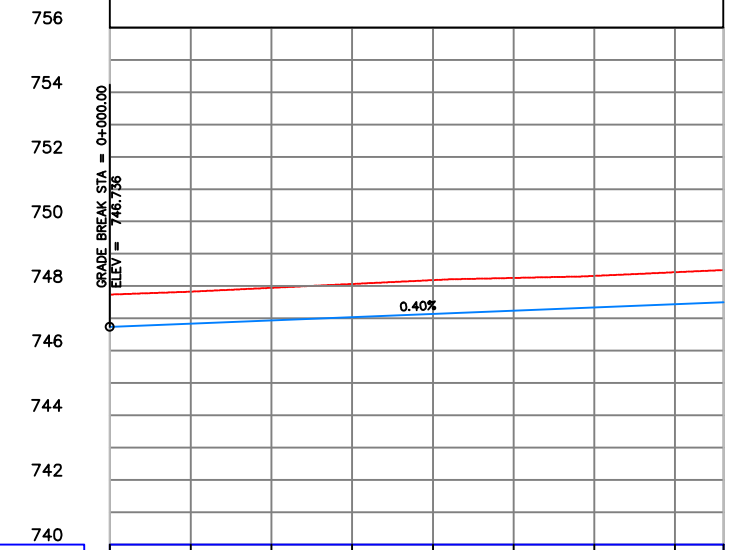
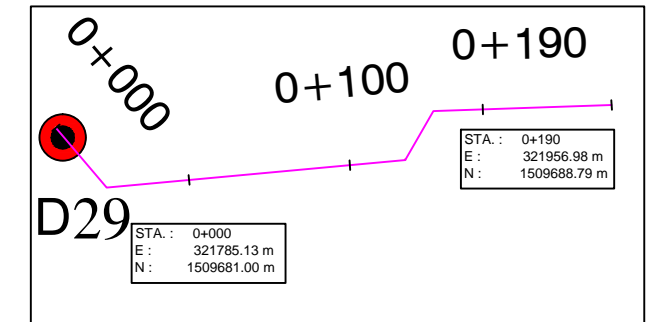
Profile (2)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)	SHEET	
			DESIGNED :	Dr.Hashim M.H	DRAWN :	Nada S.A.		APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
			CHECKED :	Prof.Siddig E.A	DRAFTING COORDINATION :	UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-2







PDL (M)	749.000	749.182	749.364	749.545	749.727	749.909	750.091	750.273	750.455	750.636	750.818	751.000	751.227	751.302	751.378	751.453	751.463		
EG LEVEL (M)	749.957	750.171	750.386	750.601	750.798	750.986	751.193	751.391	751.588	751.785	751.983	752.190	752.377	752.575	752.668	752.777	752.889		
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+250	0+275	0+300	0+325	0+350	0+375	0+400	0+425	0+429

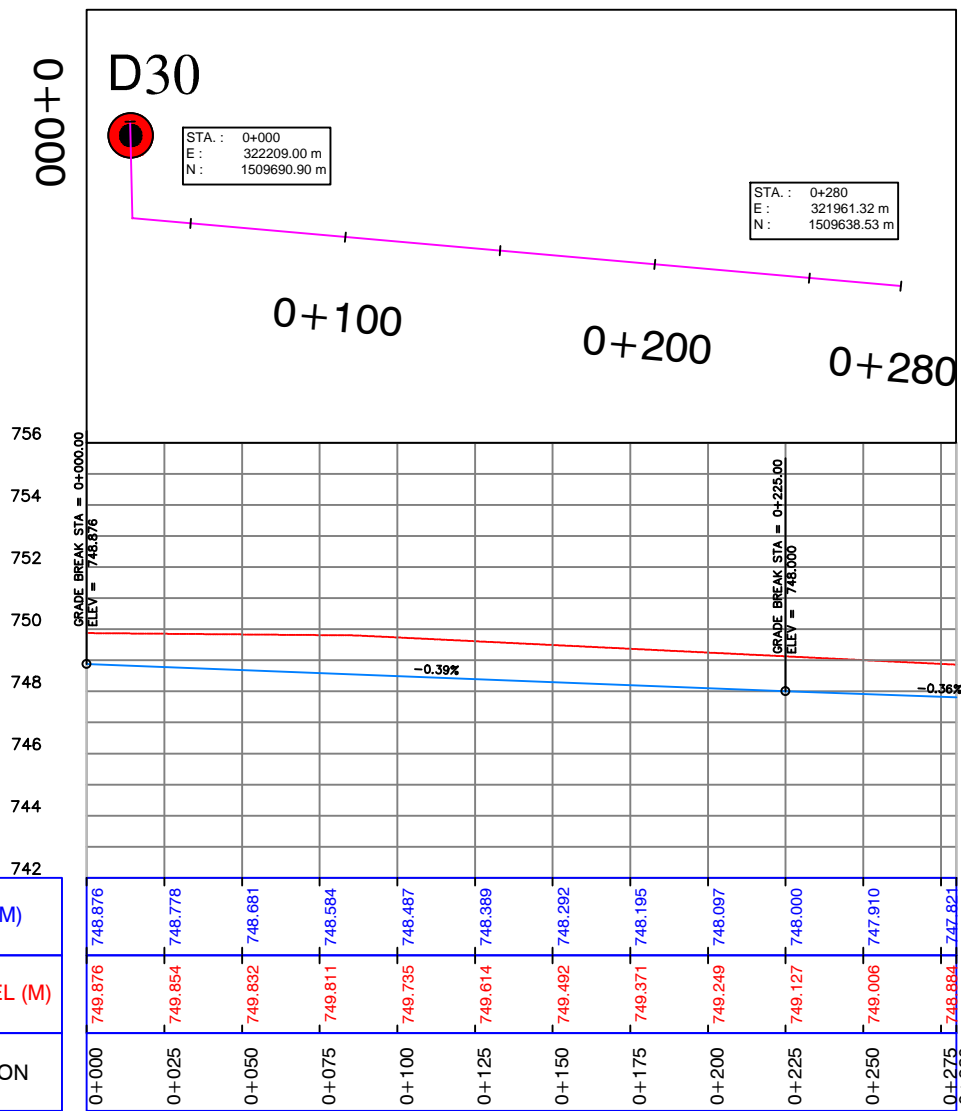
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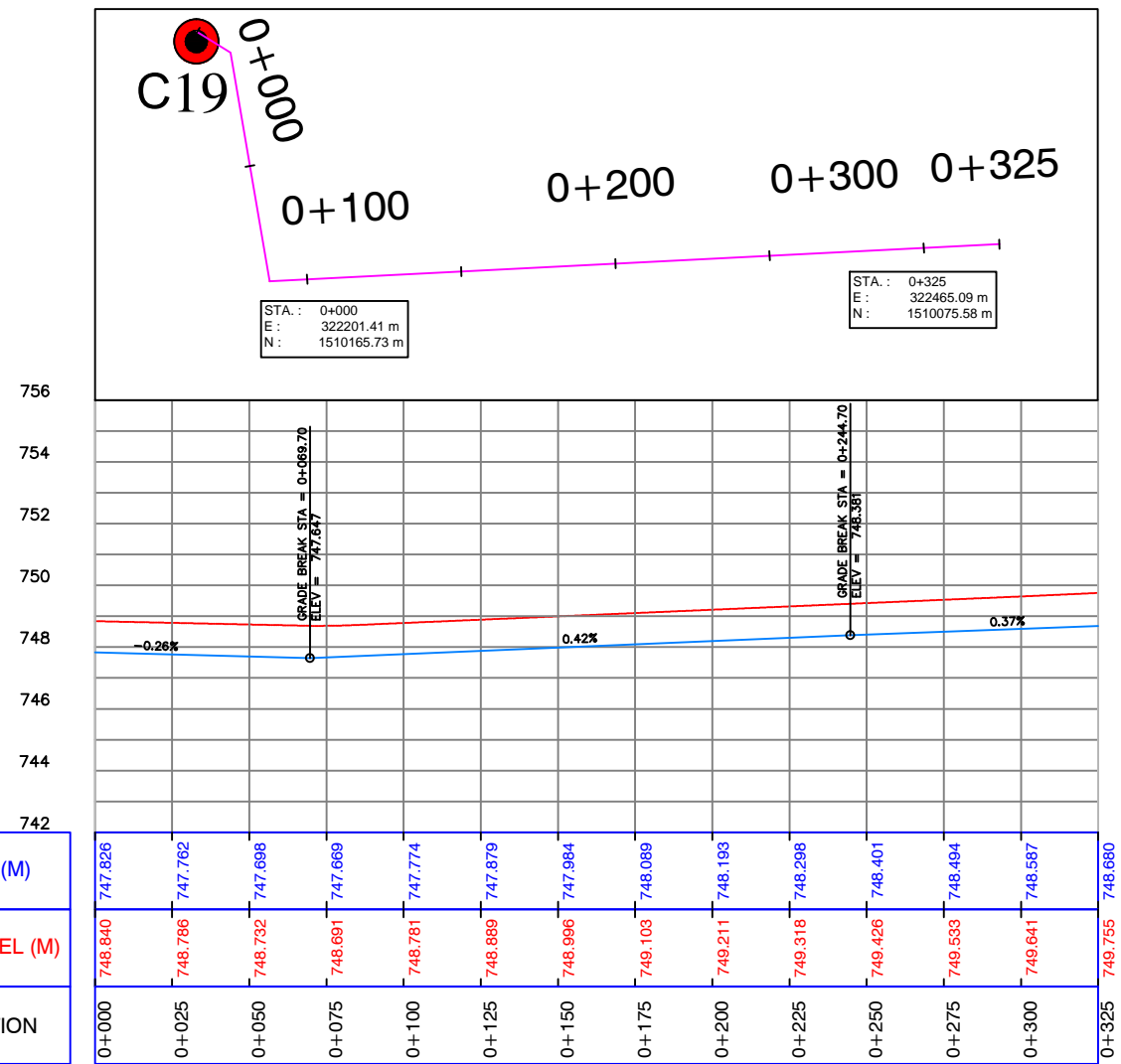
PDL (M)	746.736	746.836	746.936	747.036	747.136	747.236	747.336	747.436	747.496
EG LEVEL (M)	747.796	747.826	747.945	748.064	748.183	748.251	748.314	748.427	748.496
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+190

Profile (4)



CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT	 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)			SHEET
PROJECT: DARFUR URBAN WATER SUPPLY PROJECT	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES	 					DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
Design of El Fasher Urban Water Scheme							CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019
										DRAWING No: 63-3

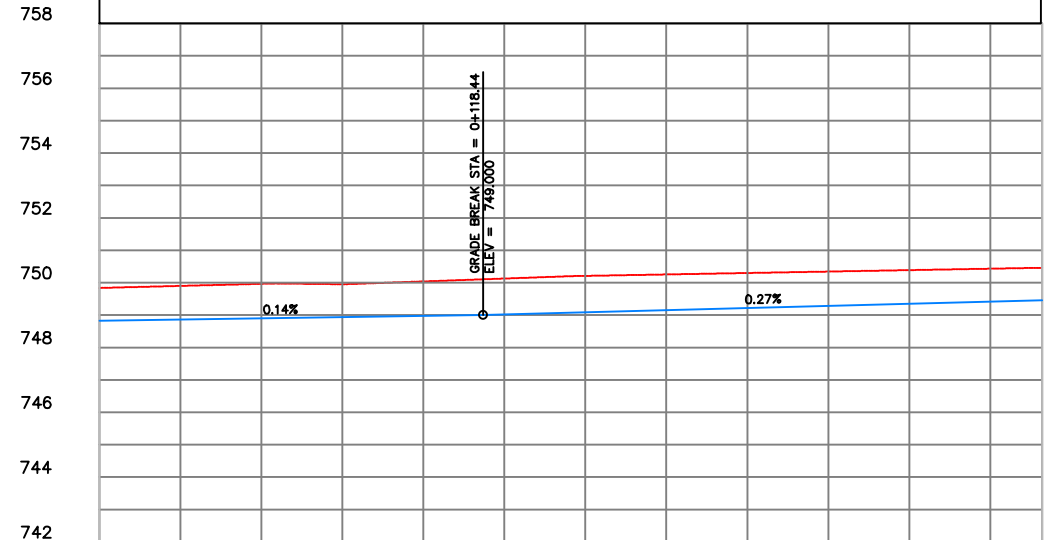
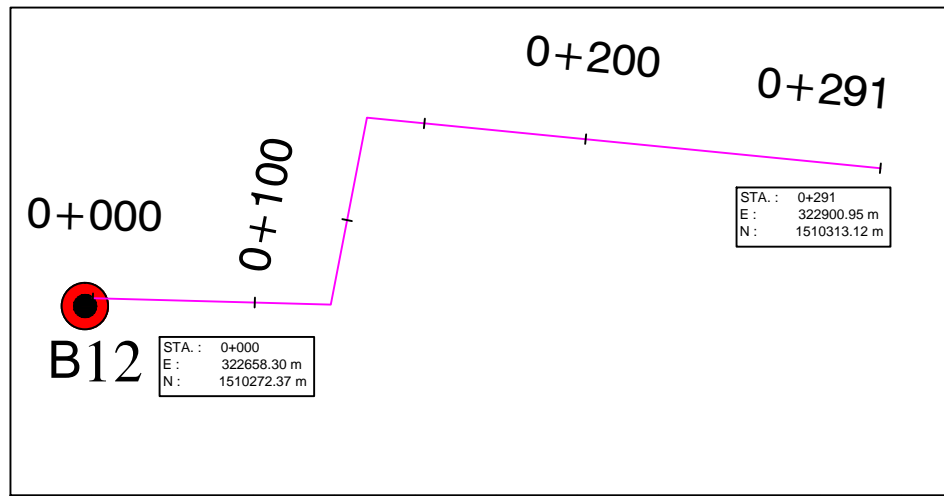


Profile (5)



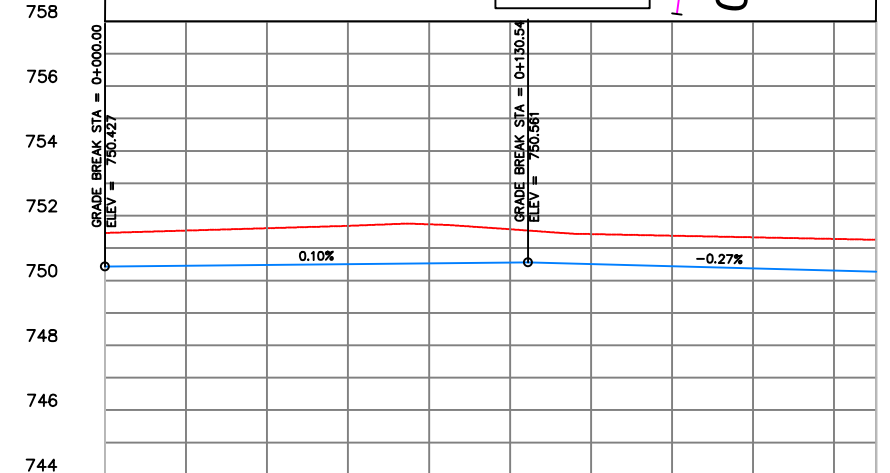
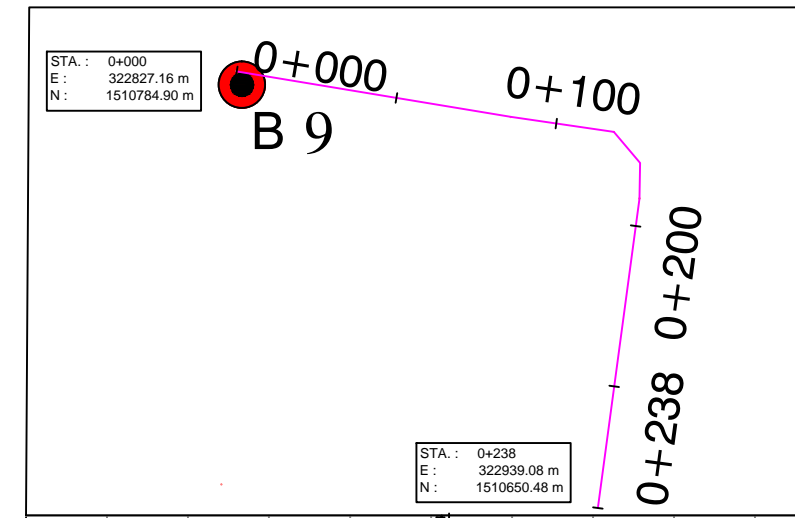
Profile (6)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)	SHEET	
		DESIGNED :	Dr.Hashim M.H	DRAWN :	Nada S.A.			APPROVED FOR IMPLEMENTATION :
		CHECKED :	Prof.Siddig E.A	DRAFTING COORDINATION :	UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-4







PDL (M)	748.830	748.866	748.902	748.938	748.974	749.017	749.084	749.151	749.218	749.284	749.351	749.418	749.460
EG LEVEL (M)	749.838	749.901	749.965	749.982	750.039	750.128	750.210	750.255	750.299	750.343	750.388	750.432	750.461
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+250	0+275	0+291

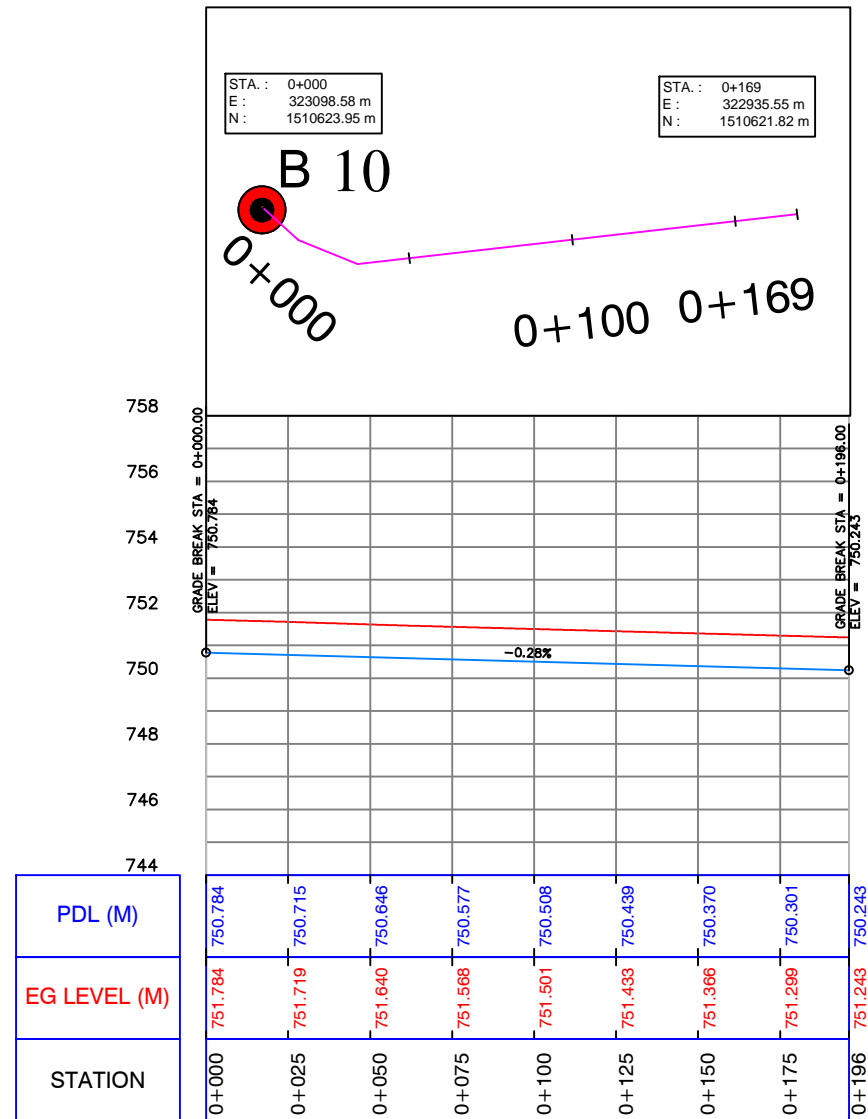
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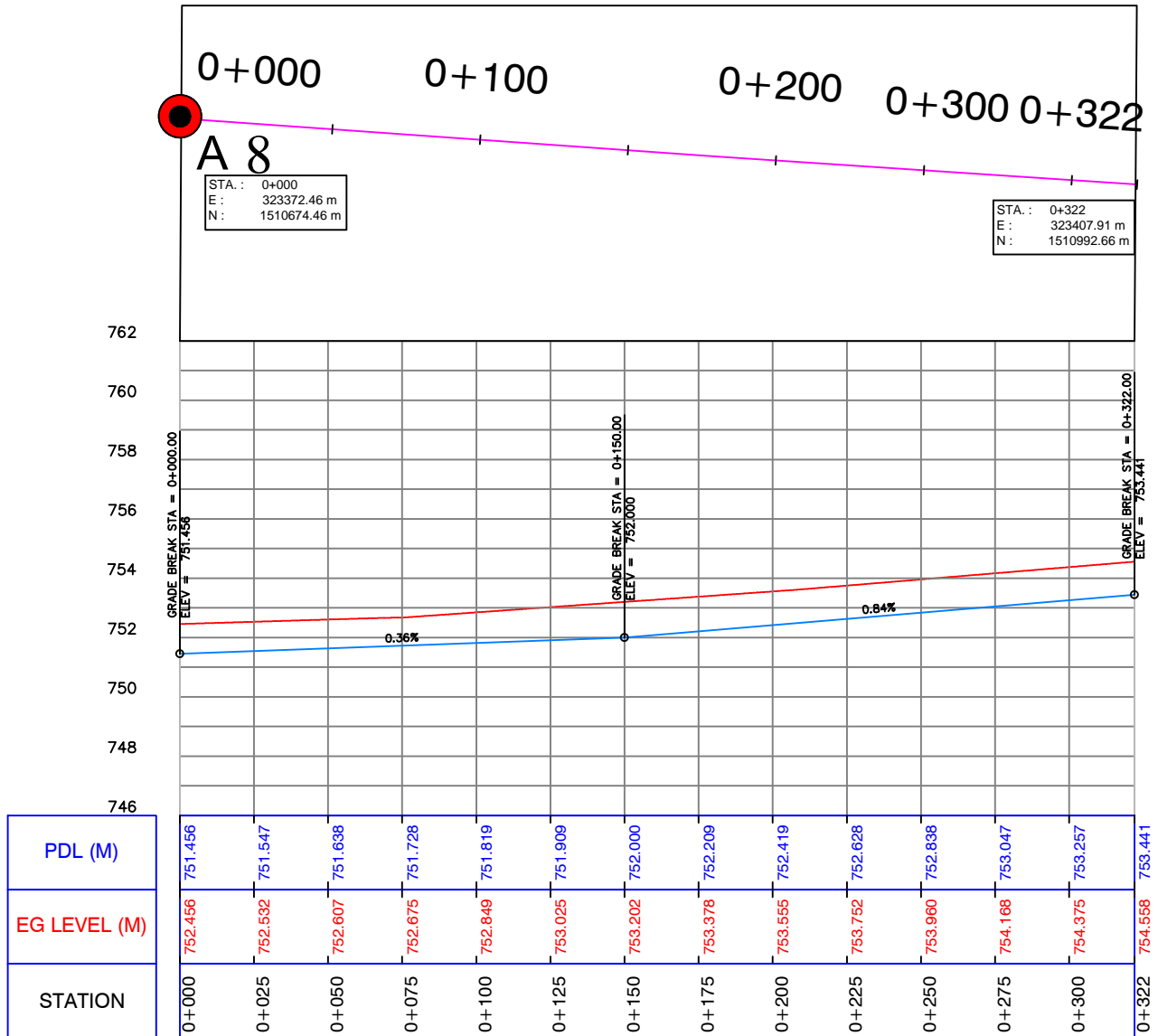
PDL (M)	750.427	750.453	750.478	750.504	750.529	750.555	750.509	750.442	750.376	750.309	
EG LEVEL (M)	751.468	751.541	751.613	751.686	751.734	751.581	751.432	751.382	751.333	751.283	
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+238

Profile (8)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES  	REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)	SHEET							
										DESIGNED:	DRAWN:	APPROVED FOR IMPLEMENTATION:	SCALE:		
			CHECKED:		Prof.Siddig E.A.		DRAFTING COORDINATION:		UNOPS		CONTRACT NUMBER:	DATE:	JANUARY 2019	DRAWING No:	63-5



Profile (9)



Profile (10)

CLIENT: UWA – Urban Water Administration
SWC - STATE WATER CORPORATION

PROJECT:
DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
Urban Water Scheme**

FUNDED BY:
DID
DEPARTMENT FOR
INTERNATIONAL DEVELOPMENT




IMPLEMENTED BY:
UNOPS
UNITED NATIONS OFFICE
FOR PROJECT SERVICES



REV.	DESCRIPTION	DATE	SIGN.

DRAWN TITLE:
PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)

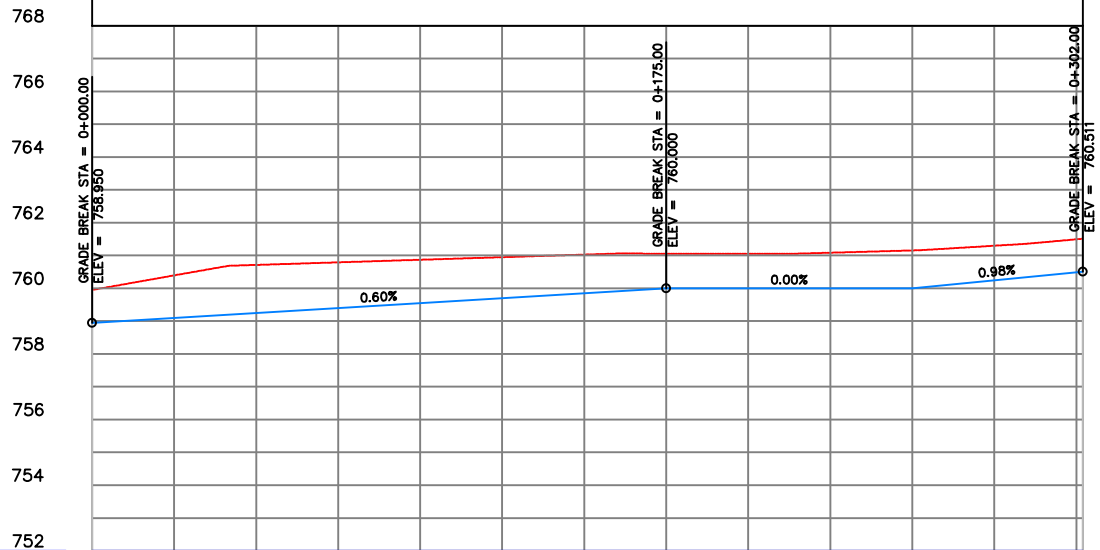
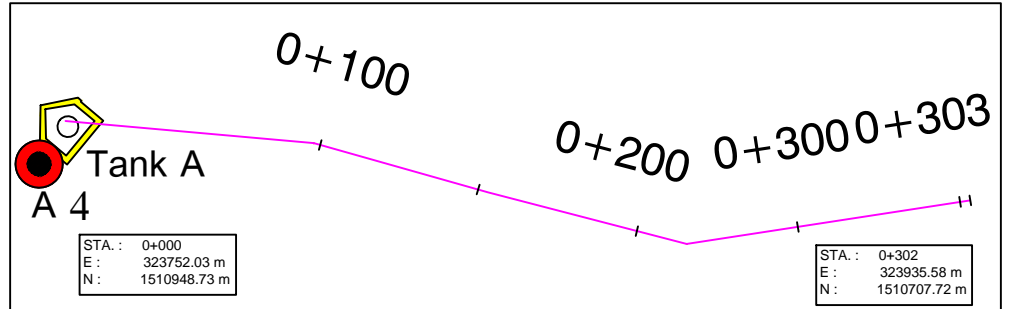
DESIGNED: **Dr.Hashim M.H** DRAWN: **Nada S.A.** APPROVED FOR IMPLEMENTATION:

CHECKED: **Prof.Siddig E.A** DRAFTING COORDINATION: **UNOPS** CONTRACT NUMBER: DATE: **JANUARY 2019**

SHEET

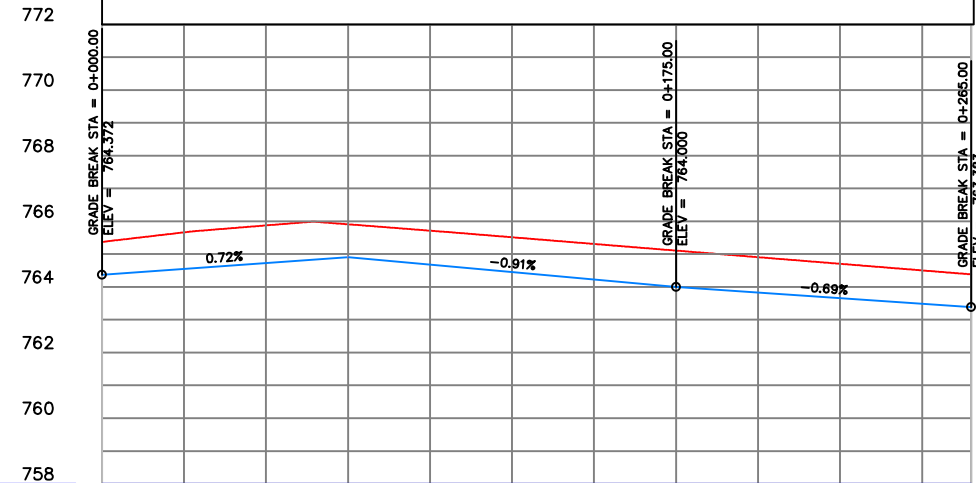
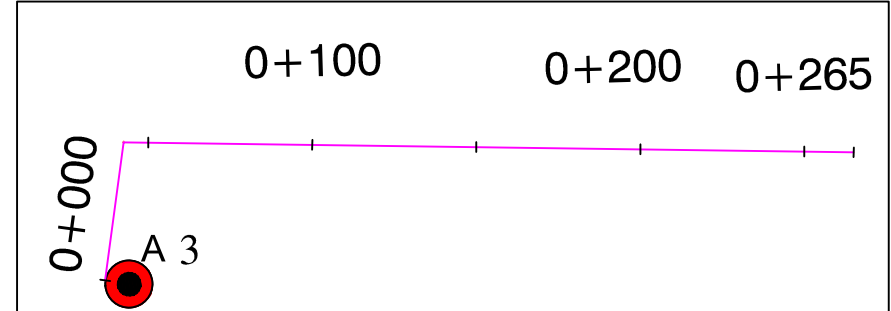
SCALE:
AS SHOWN

DRAWING No: **63-6**







PDL (M)	758.950	759.100	759.250	759.400	759.550	759.700	759.850	760.000	760.000	760.000	760.000	760.245	760.511
EG LEVEL (M)	759.950	760.393	760.712	760.791	760.870	760.948	761.027	761.057	761.055	761.084	761.153	761.297	761.344
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+250	0+275	0+302

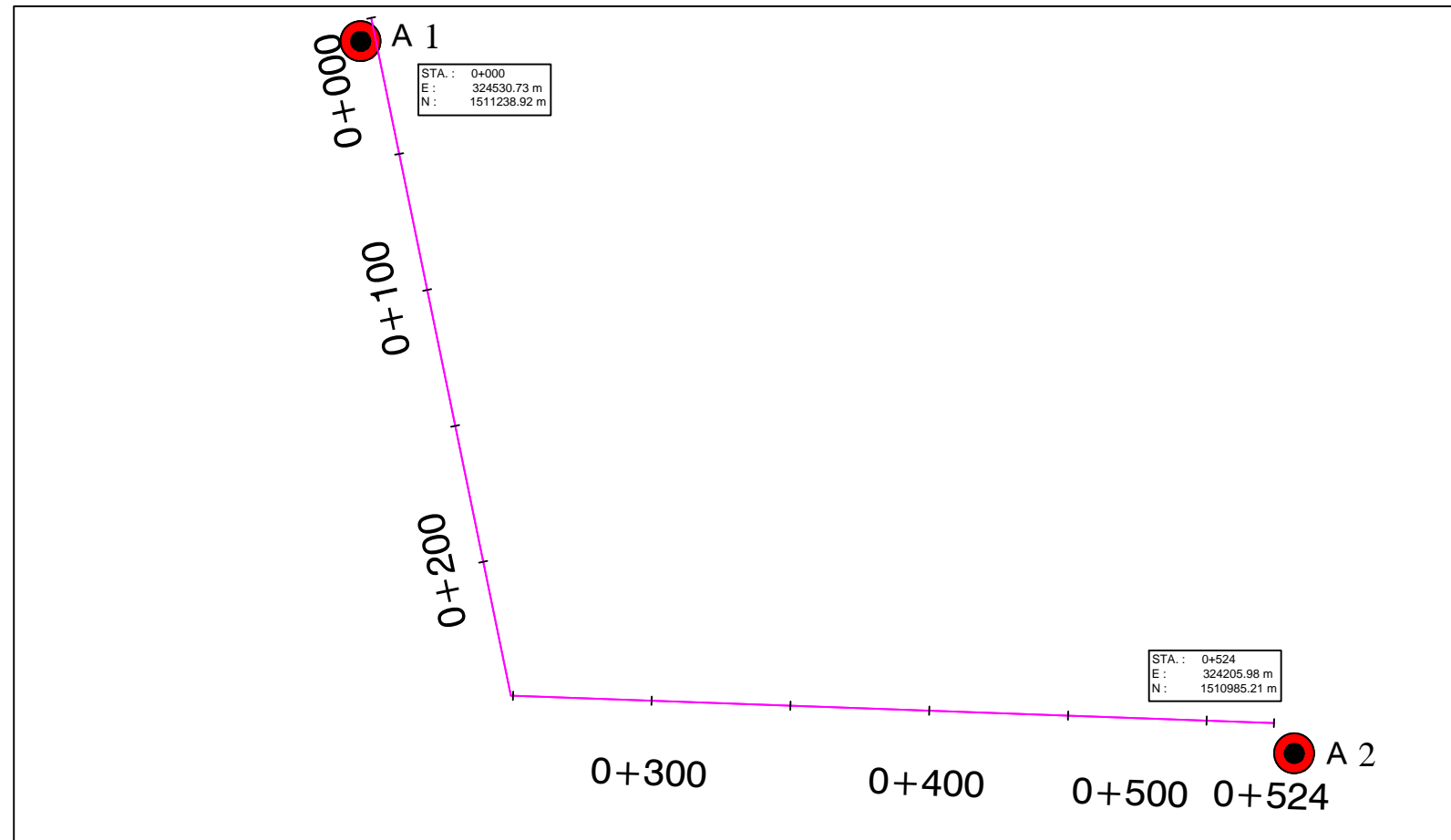
Profile (11)



PDL (M)	764.372	764.551	764.730	764.909	764.682	764.454	764.227	764.000	763.829	763.657	763.486	763.383
EG LEVEL (M)	765.372	765.663	765.875	765.909	765.715	765.513	765.309	765.108	764.906	764.705	764.504	764.383
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+250	0+265

Profile (12)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY:   UNITED NATIONS OFFICE FOR PROJECT SERVICES	REV. DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)			SHEET
		DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :		SCALE: AS SHOWN
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-7		



STATION	EG LEVEL (M)	PDL (M)
0+000	768.989	767.989
0+025	768.961	767.824
0+050	768.813	767.659
0+075	768.658	767.494
0+100	768.502	767.330
0+125	768.347	767.165
0+150	768.192	767.000
0+175	768.036	766.835
0+200	767.881	766.671
0+225	767.726	766.508
0+250	767.570	766.444
0+275	767.538	766.465
0+300	767.564	766.489
0+325	767.591	766.513
0+350	767.617	766.537
0+375	767.643	766.561
0+400	767.670	766.586
0+425	767.696	766.629
0+450	767.723	766.672
0+475	767.749	766.716
0+500	767.776	766.759
0+524	767.801	766.801

Profile (13)

CLIENT: UWA – Urban Water Administration
SWC - STATE WATER CORPORATION

PROJECT:
DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
Urban Water Scheme**

FUNDED BY:
DID
DEPARTMENT FOR
INTERNATIONAL DEVELOPMENT



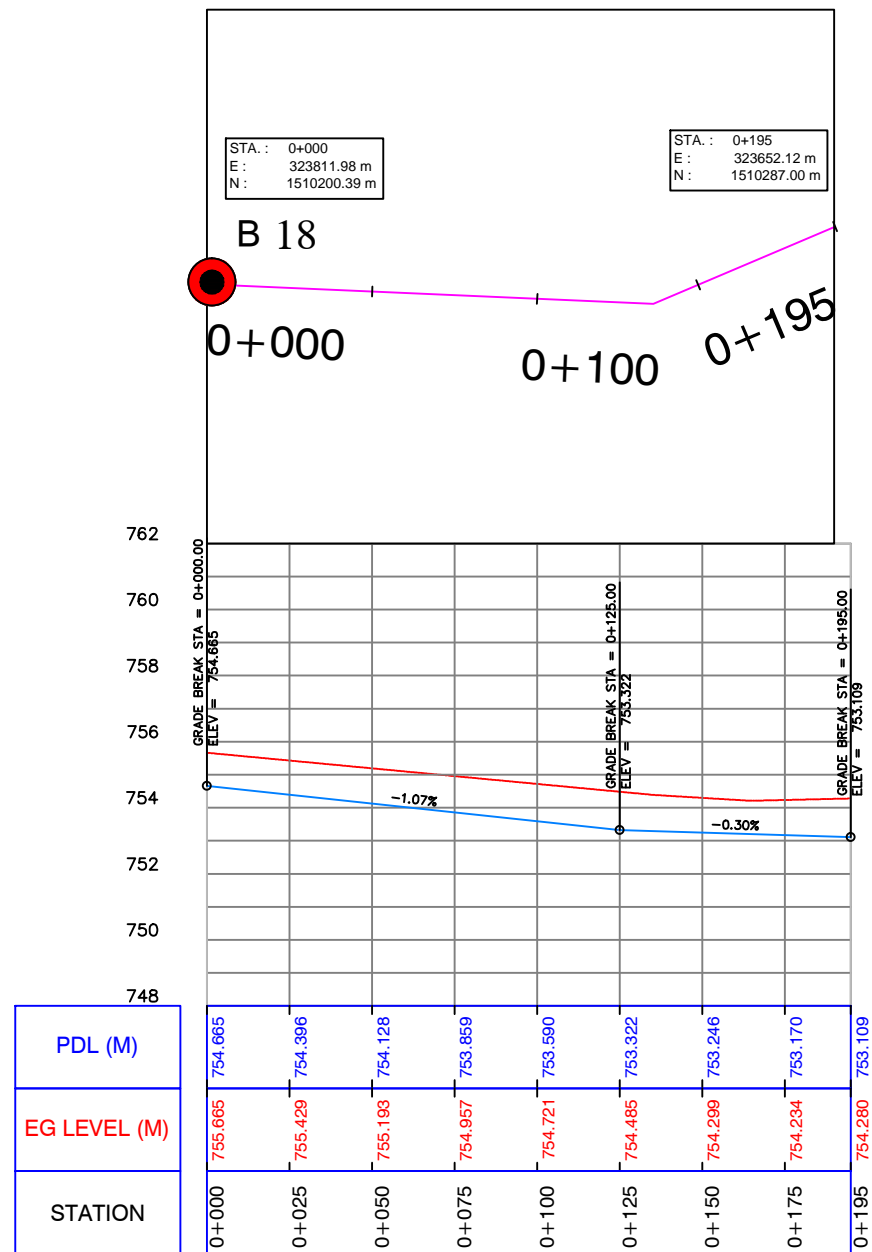

IMPLEMENTED BY:
UNOPS
UNITED NATIONS OFFICE
FOR PROJECT SERVICES



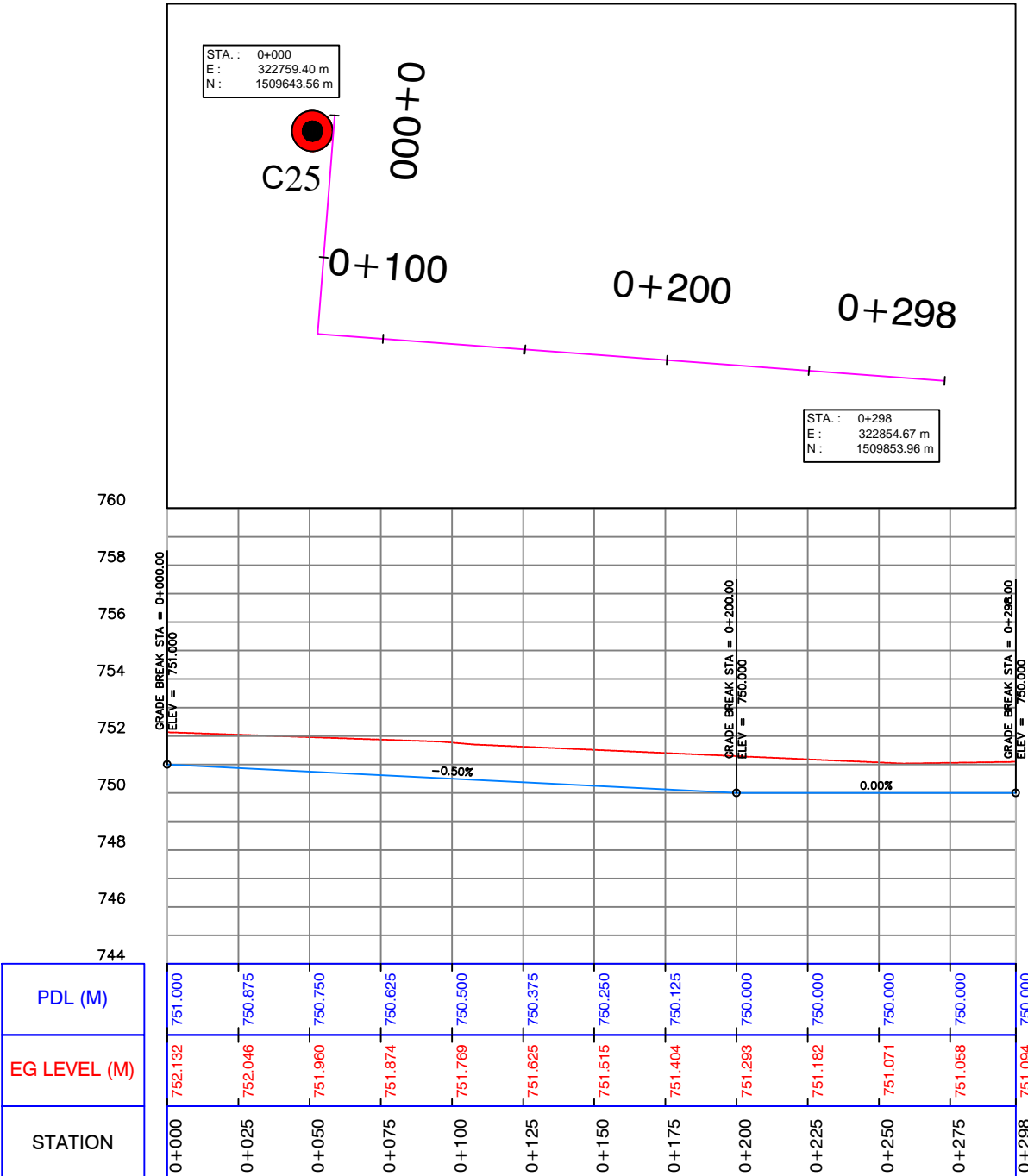
REV.	DESCRIPTION	DATE	SIGN.

DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)			
DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019




SHEET
SCALE: AS SHOWN
DRAWING No: 63-8

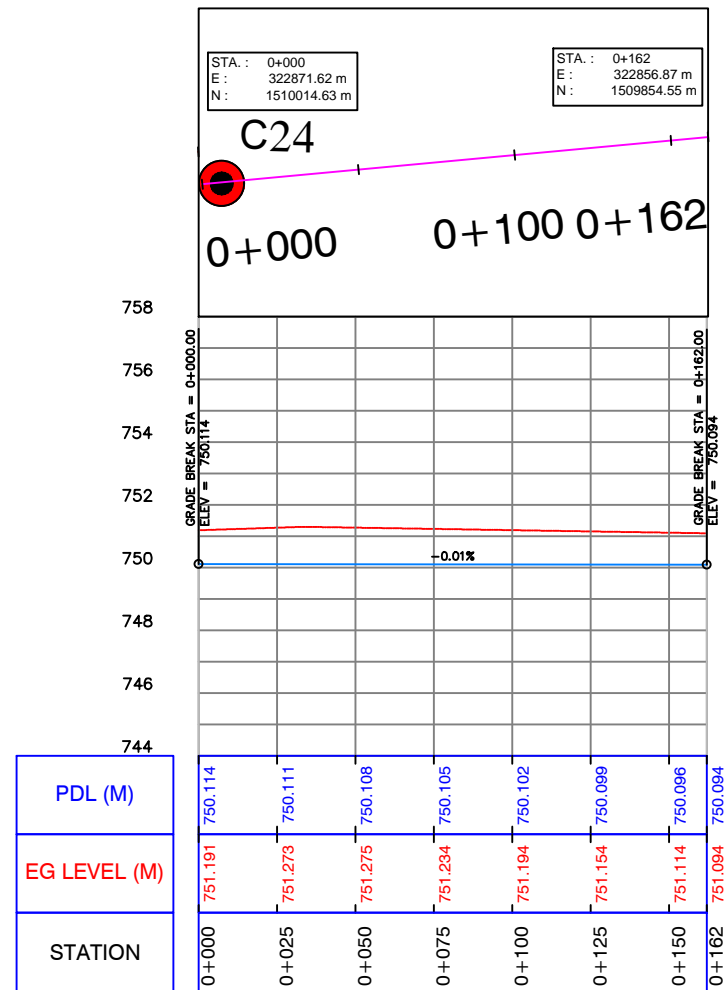


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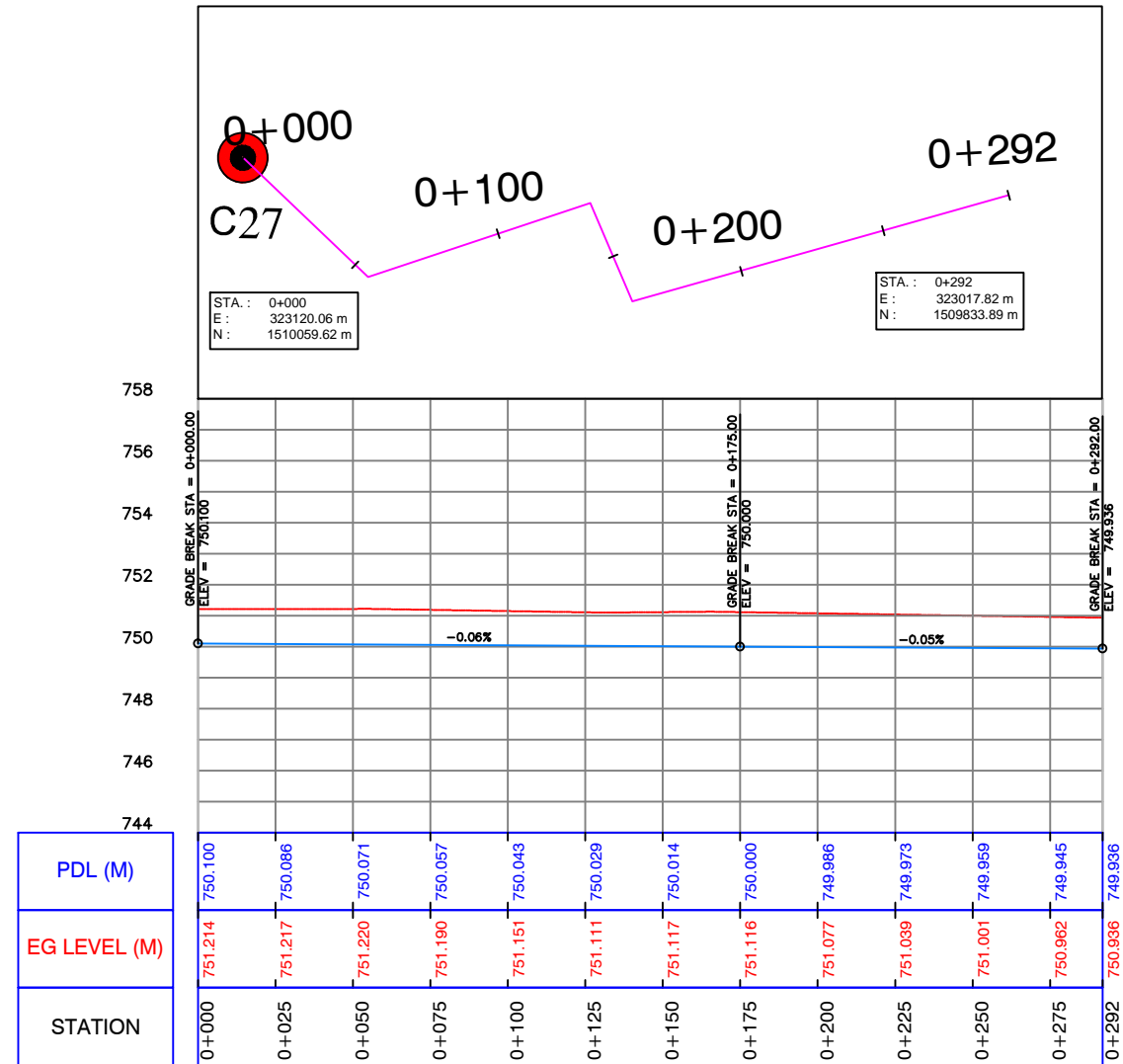


Profile (15)




CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION: DATE: SIGN:	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)	SHEET
		DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:
CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER:	DATE: JANUARY 2019	DRAWING No: 63-9

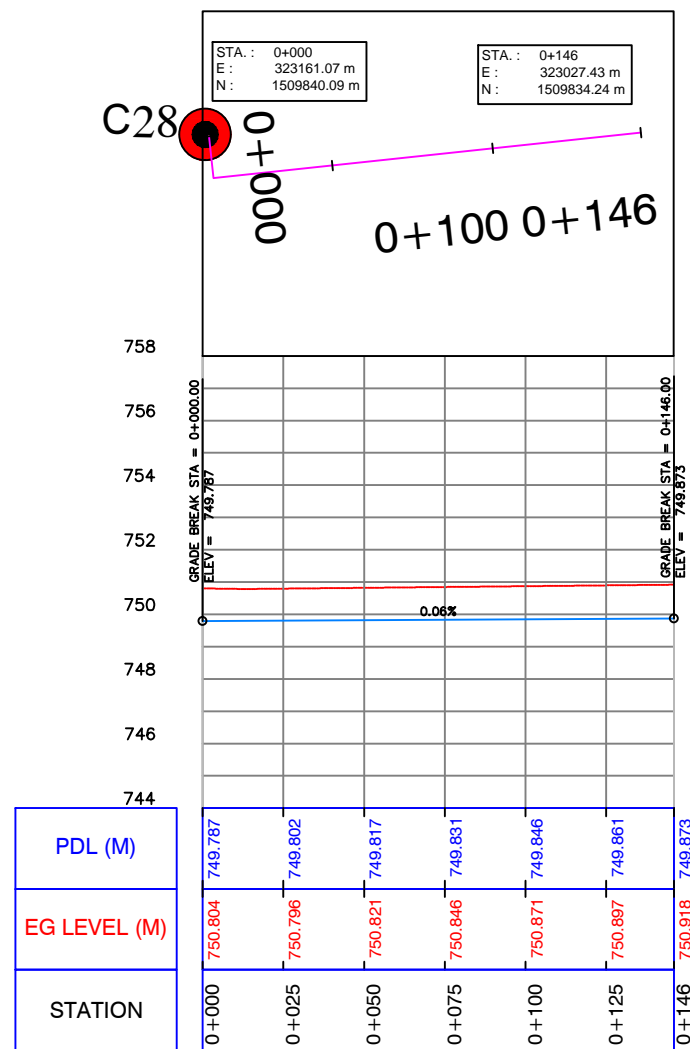


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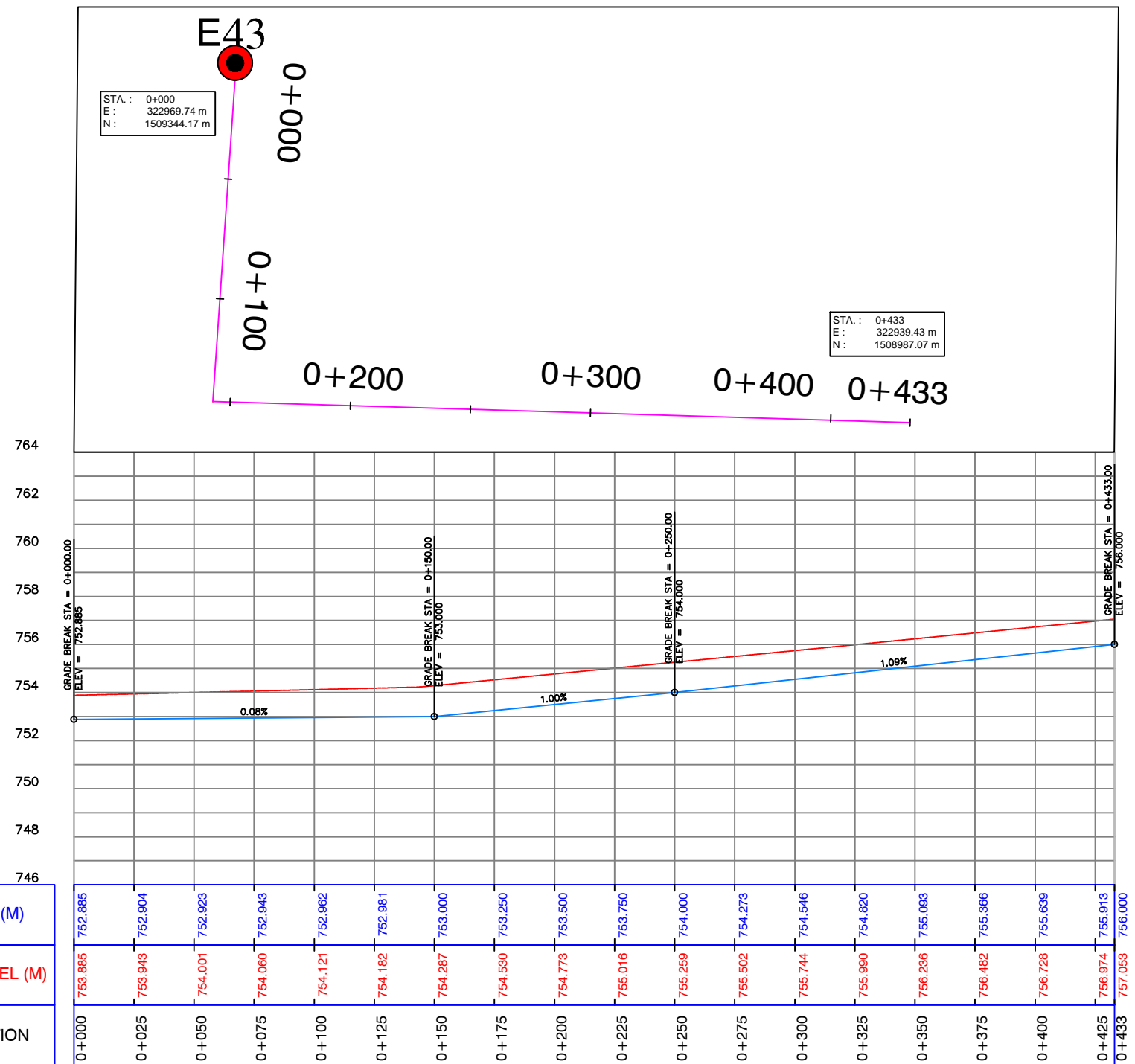


Profile (17)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)	SHEET	
		DESIGNED :	Dr.Hashim M.H	DRAWN :	Nada S.A.			APPROVED FOR IMPLEMENTATION :
		CHECKED :	Prof.Siddig E.A	DRAFTING COORDINATION :	UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-10



Profile (18)



Profile (19)

CLIENT : UWA – Urban Water Administration
SWC - STATE WATER CORPORATION

PROJECT :
DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
Urban Water Scheme**

FUNDED BY:
DID
DEPARTMENT FOR
INTERNATIONAL DEVELOPMENT

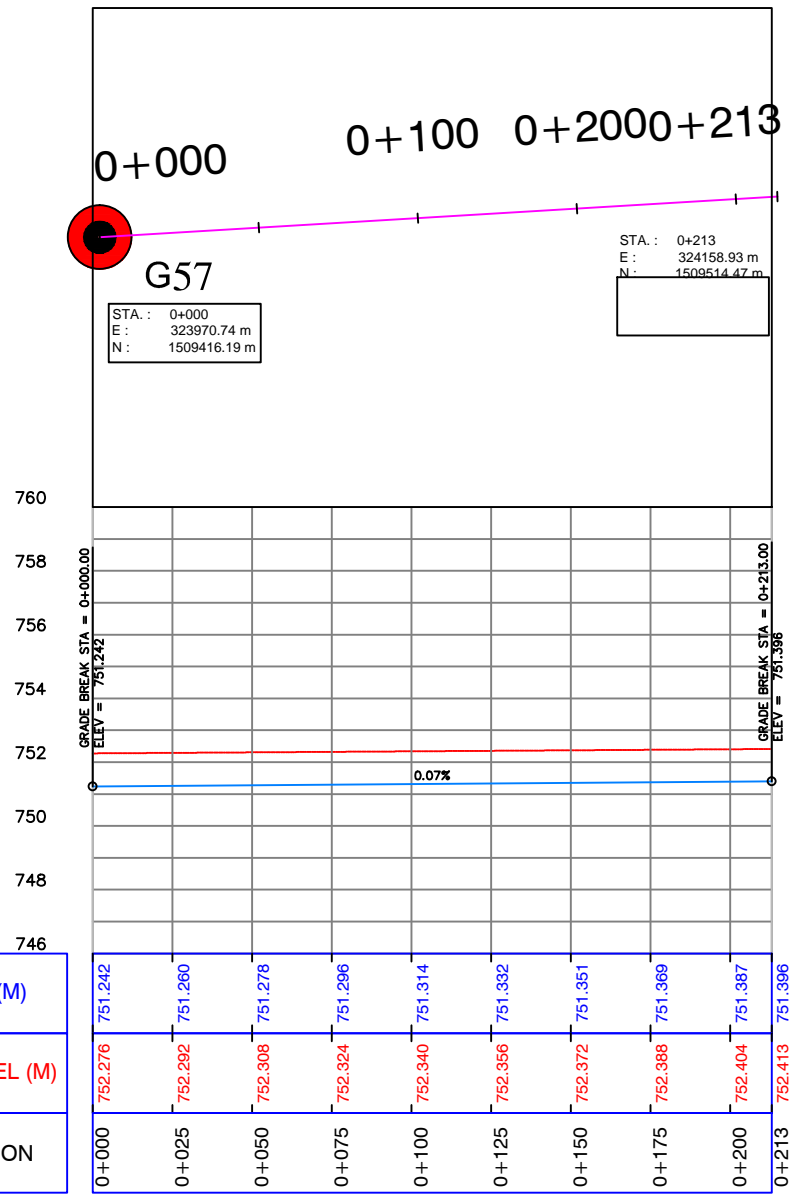
IMPLEMENTED BY:
UNOPS
UNITED NATIONS OFFICE
FOR PROJECT SERVICES

REV.	DESCRIPTION	DATE	SIGN.

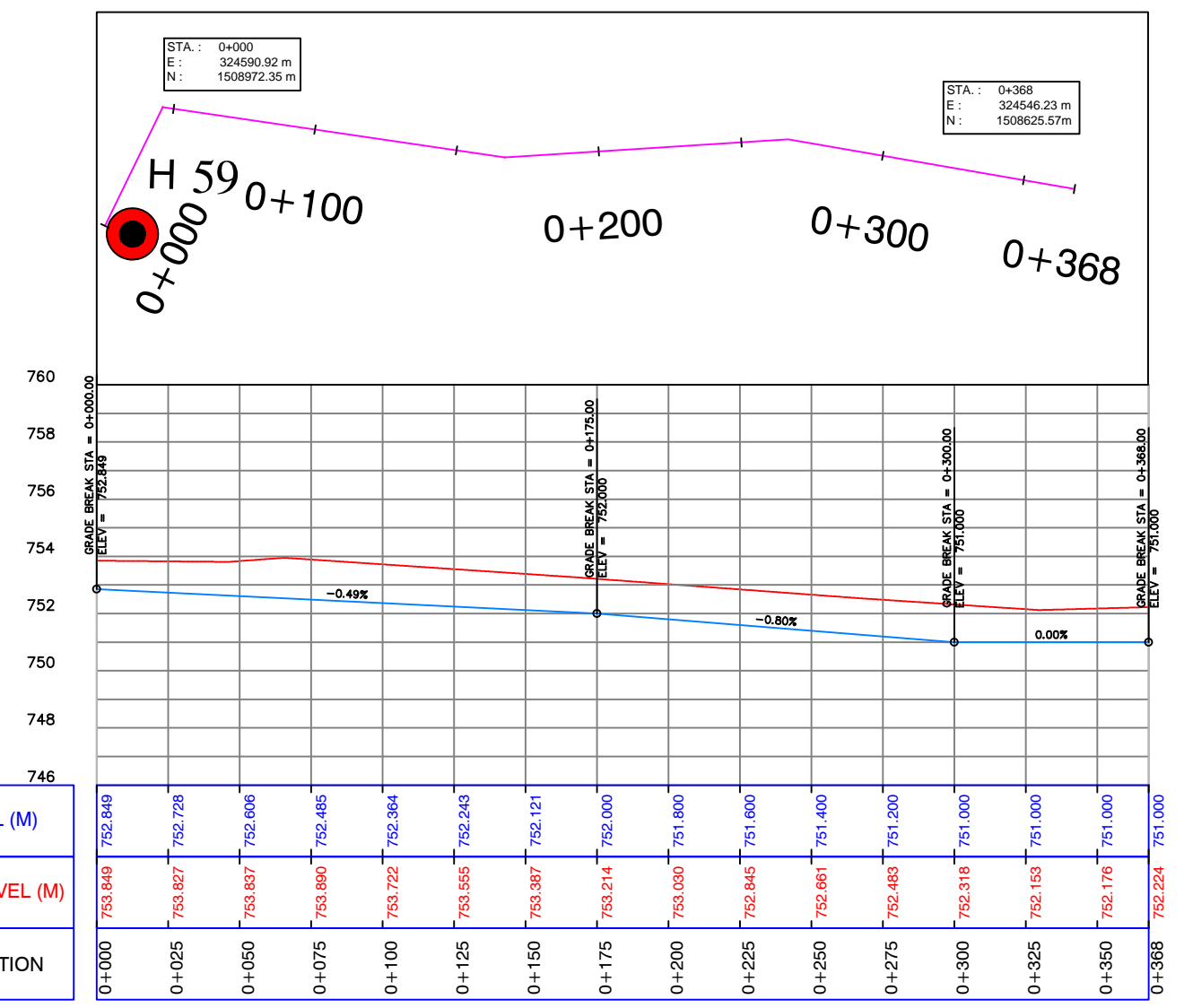
DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)			
DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019

SHEET
SCALE: AS SHOWN
DRAWING No: 63-11





Profile (19) 433 m

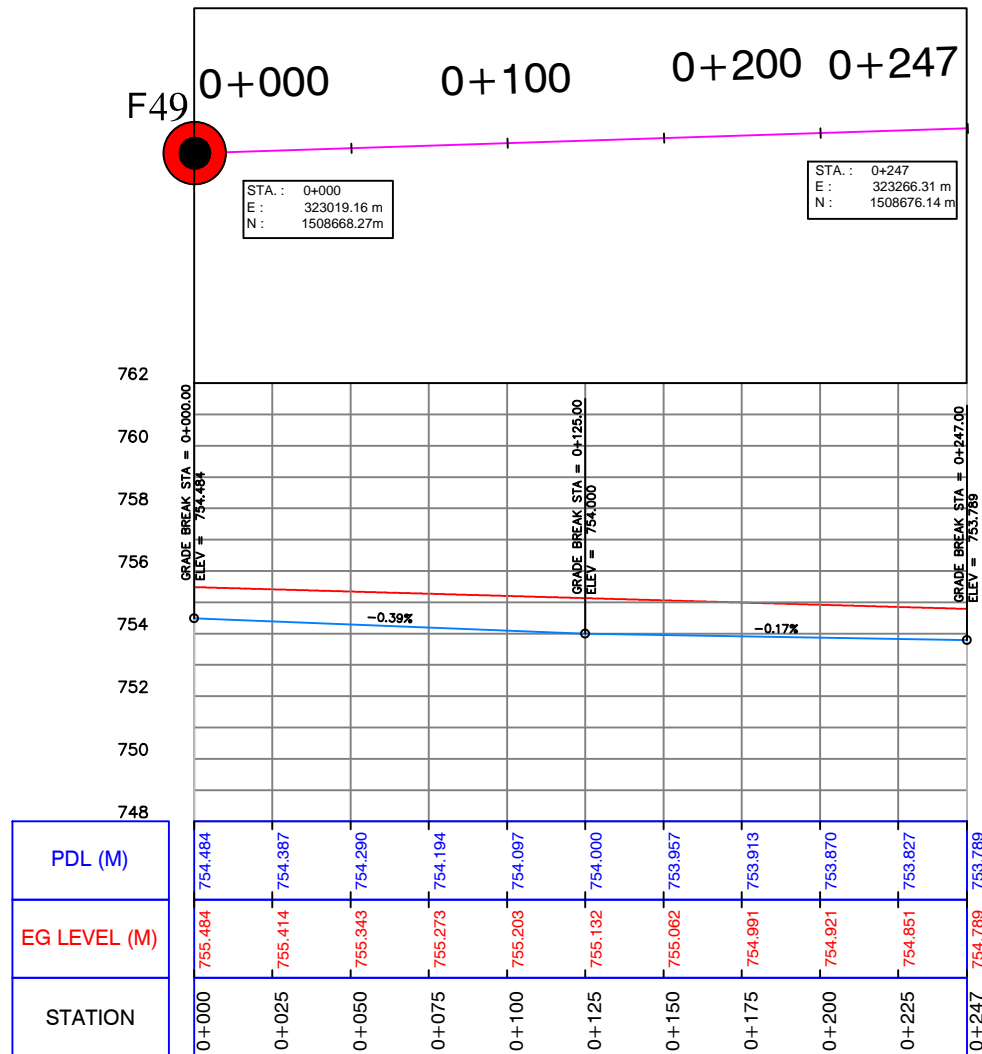


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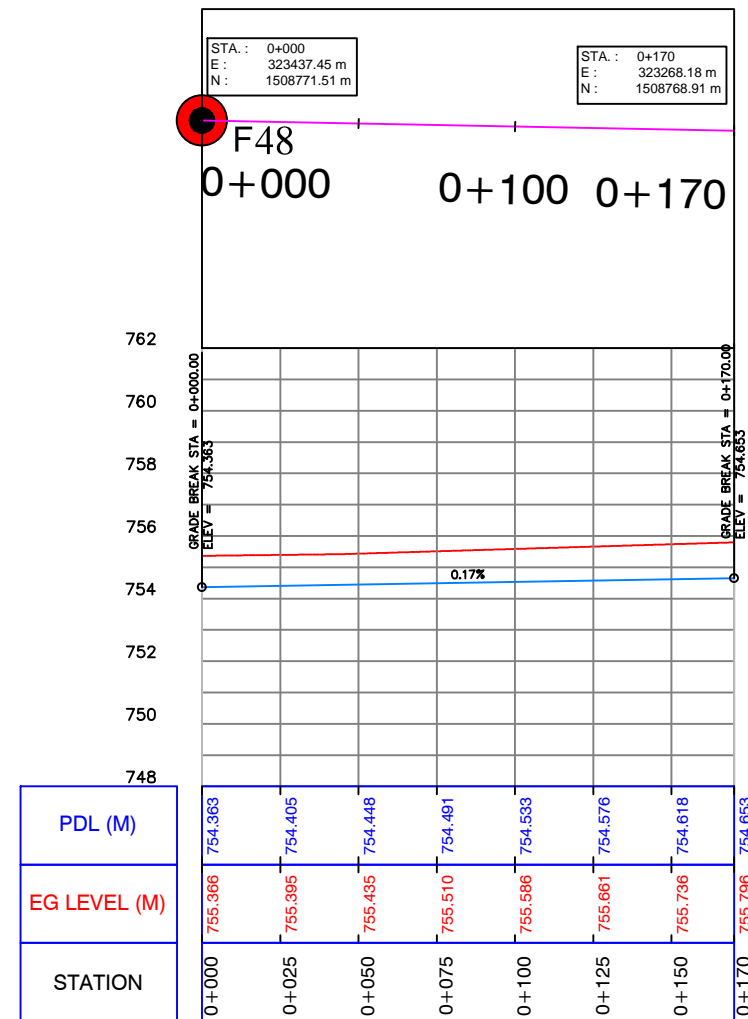


Profile (21)



CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES  	REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)	SHEET			
										DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.
							CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-12

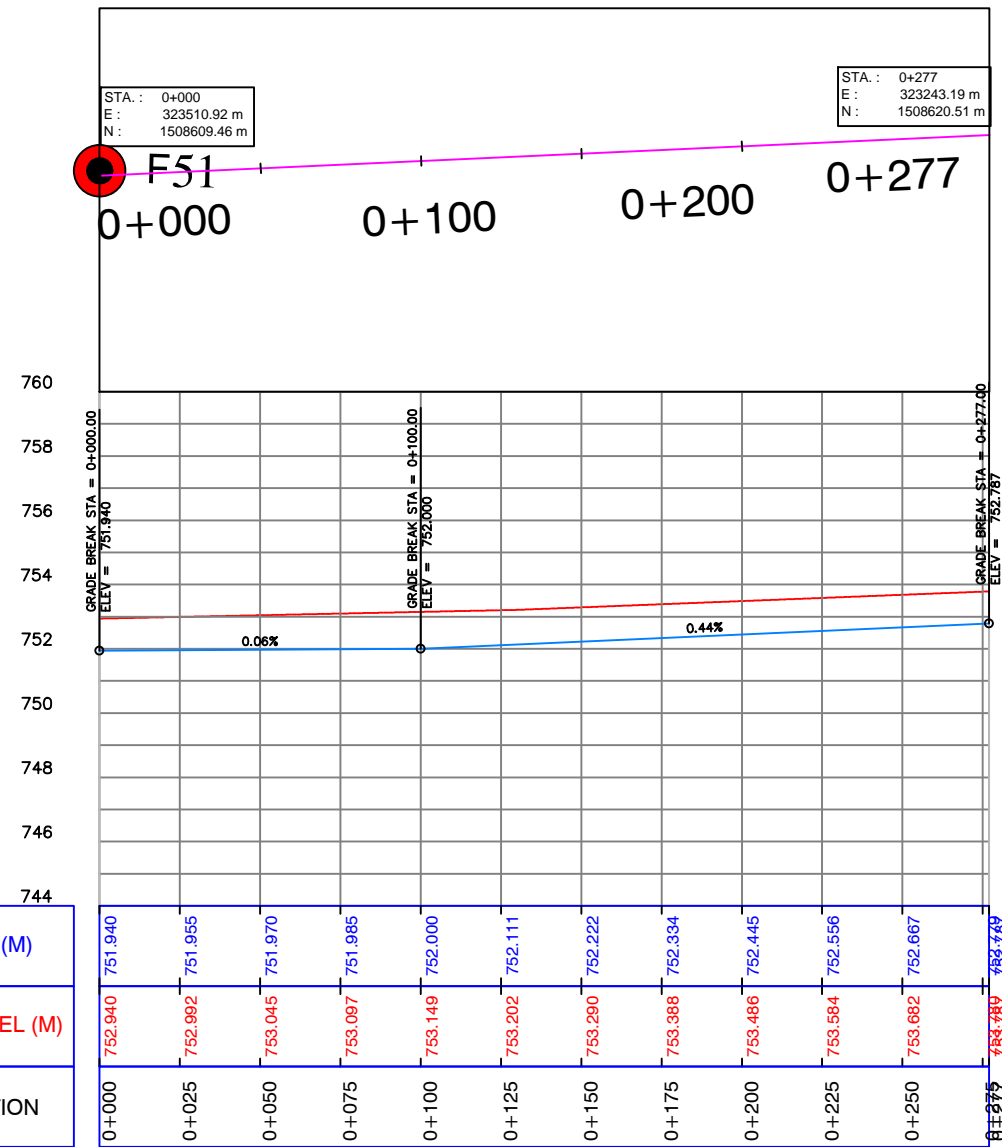


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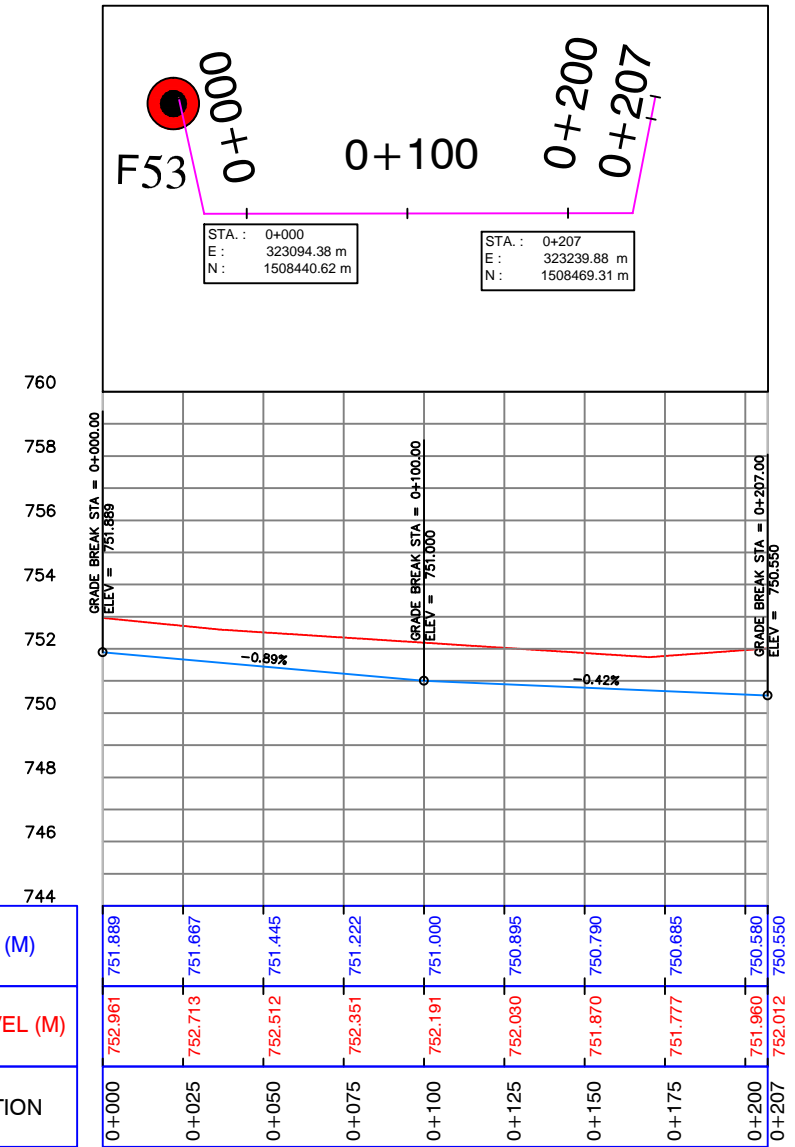


Profile (23)




CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES	 	REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)			SHEET
			DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:			SCALE: AS SHOWN		
			CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-13			

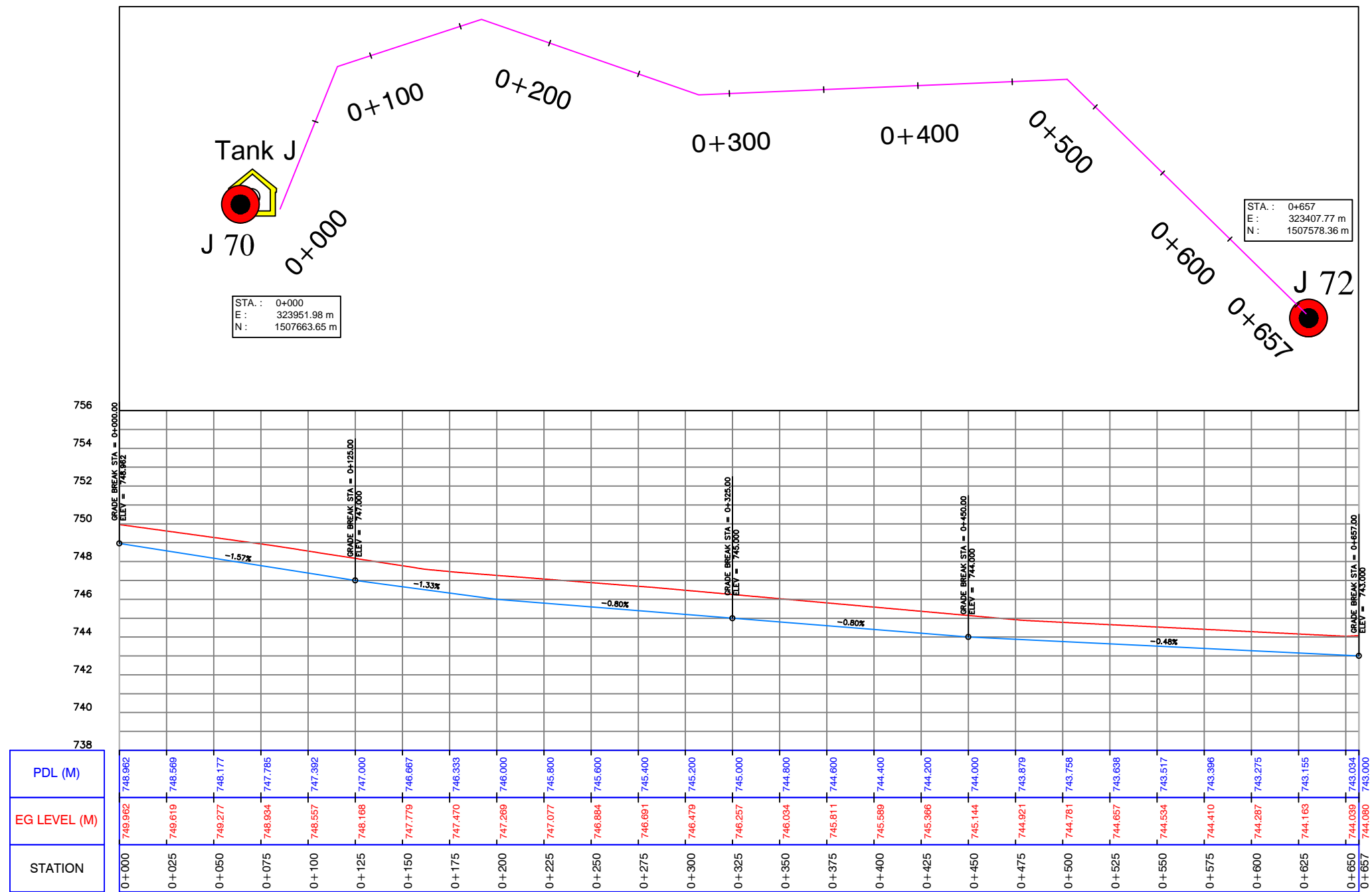


Profile (24)






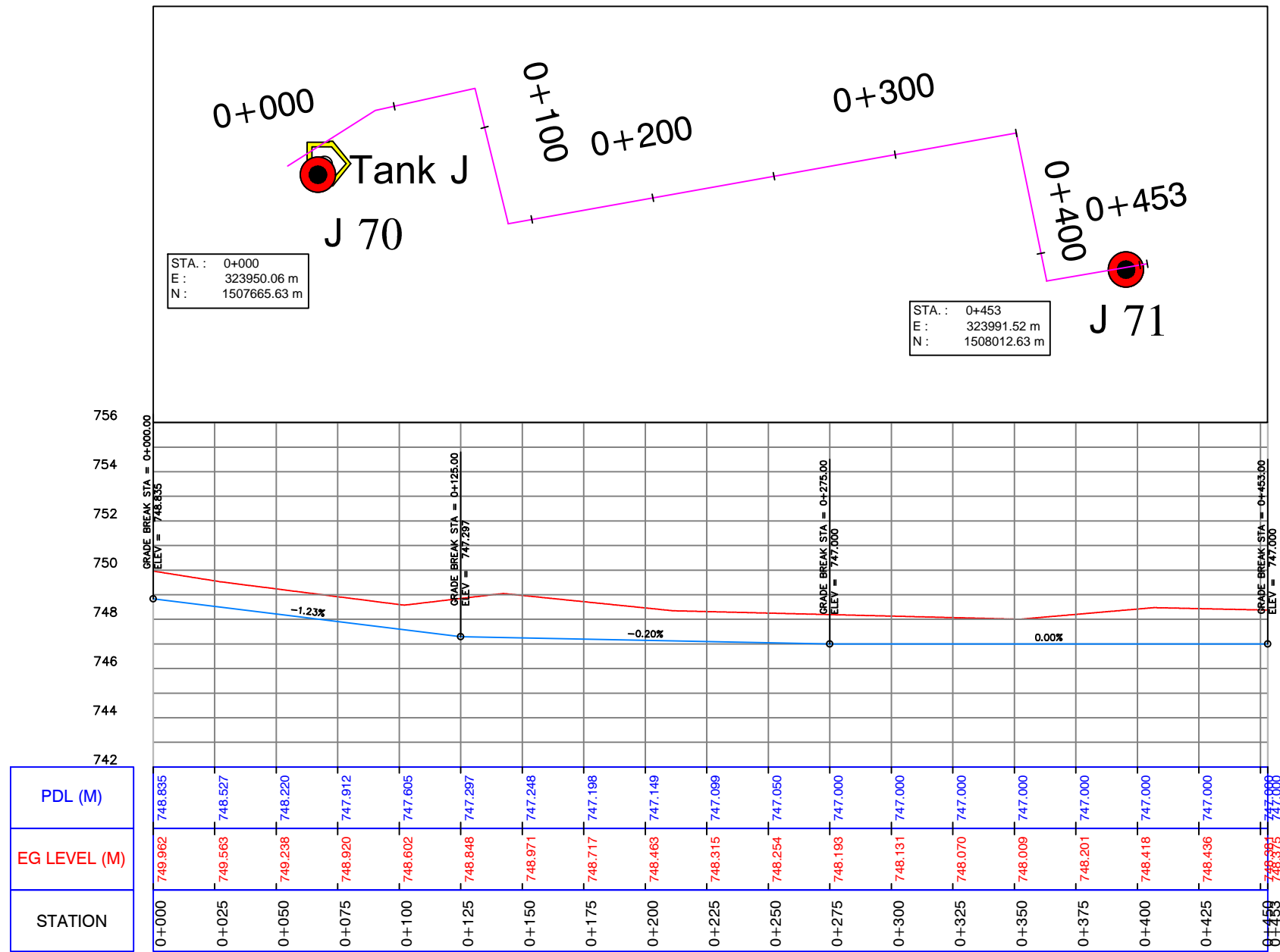
Profile (25)

CLIENT : UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT : DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)		SHEET
			DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :		SCALE: AS SHOWN		
			CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-14		






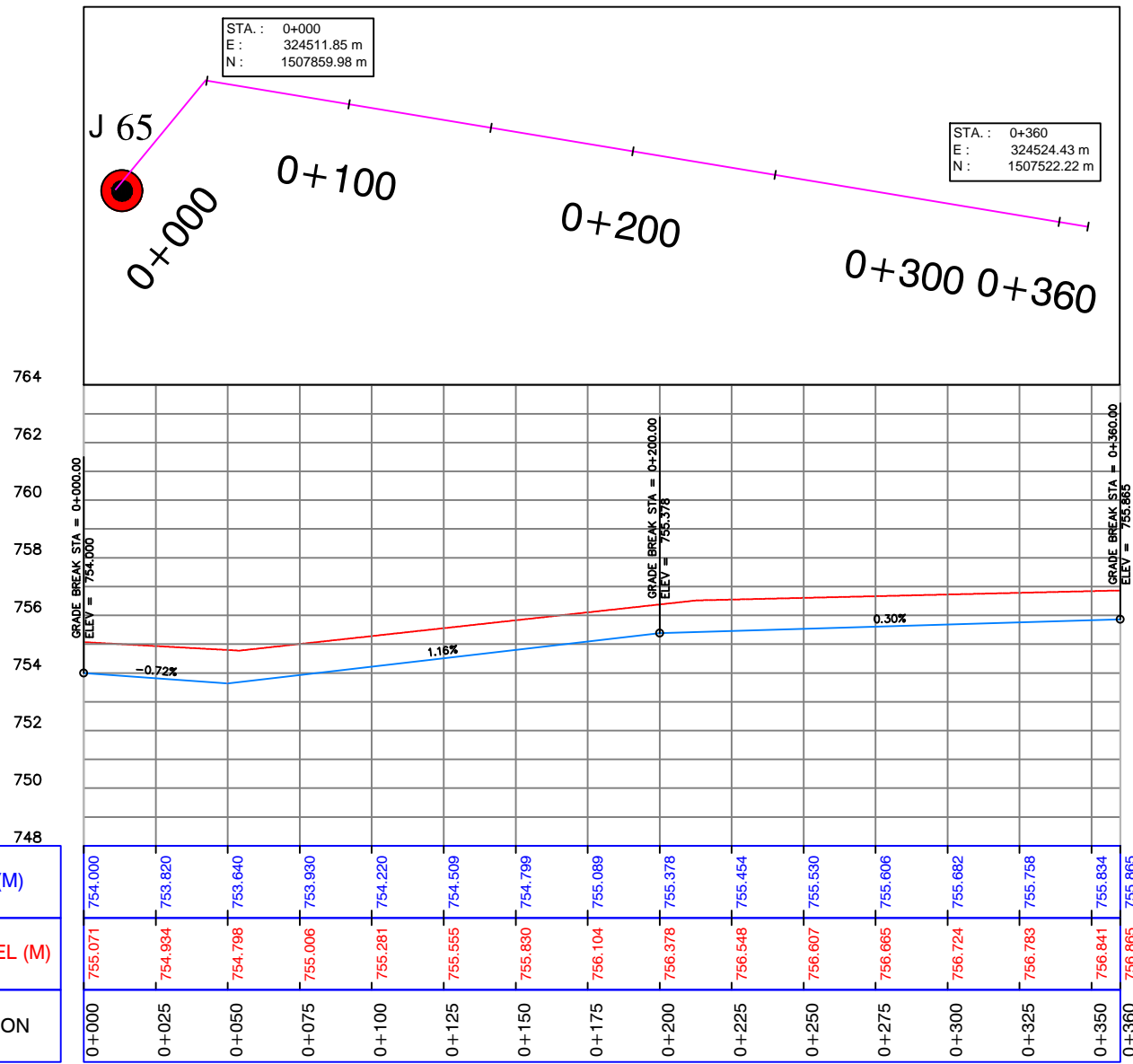
Profile (26)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)	SHEET			
		IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 						DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:
						CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-15

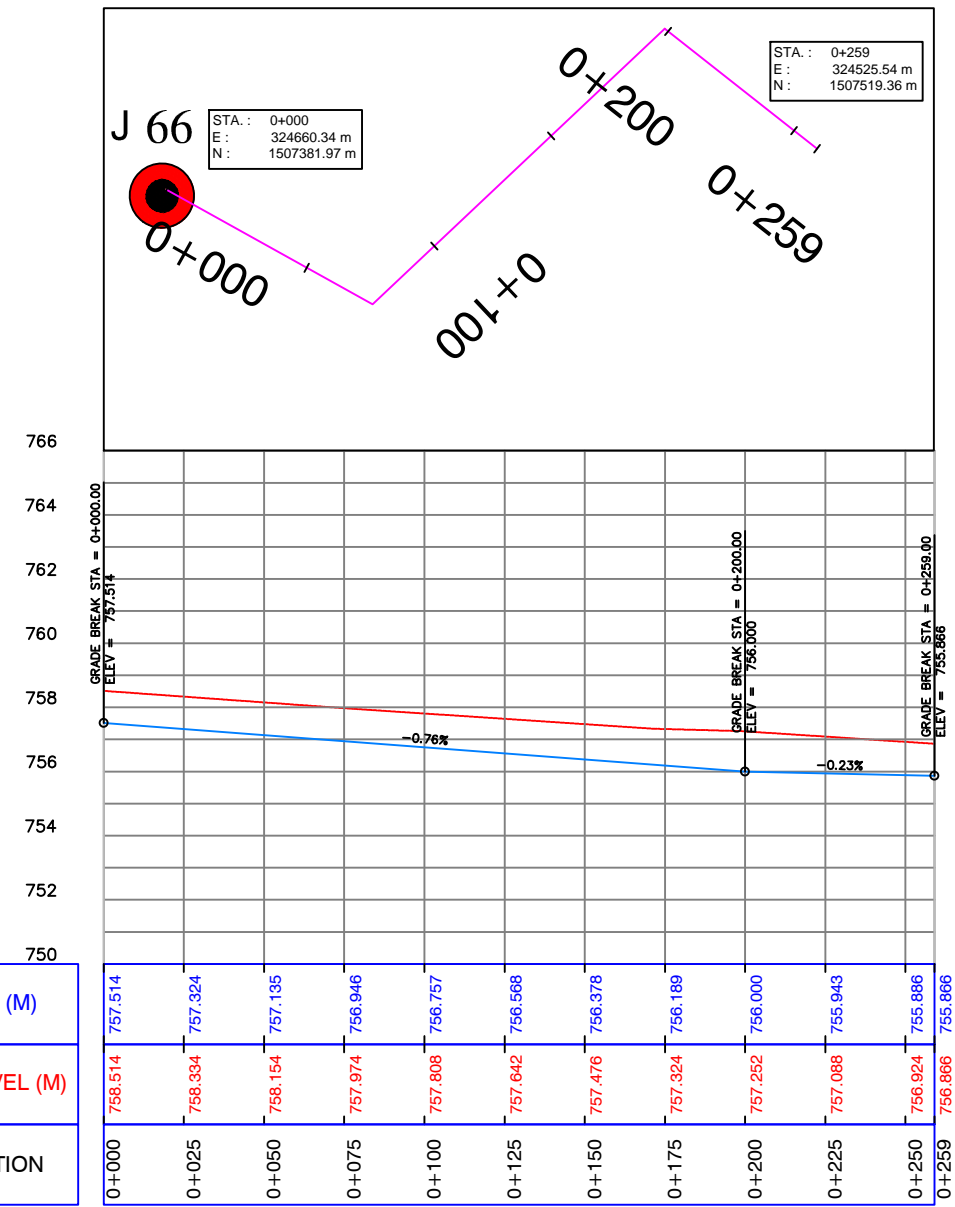


Profile (27)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)	SHEET			
		IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 						DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :
						CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-16



Profile (28)



Profile (29)

CLIENT: UWA – Urban Water Administration
SWC - STATE WATER CORPORATION

PROJECT:
DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
Urban Water Scheme**

FUNDED BY:
DID
DEPARTMENT FOR
INTERNATIONAL DEVELOPMENT

IMPLEMENTED BY:
UNOPS
UNITED NATIONS OFFICE
FOR PROJECT SERVICES

REV.	DESCRIPTION	DATE	SIGN.

DRAWN TITLE :
PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)

DESIGNED :
Dr.Hashim M.H

DRAWN :
Nada S.A.

CHECKED :
Prof.Siddig E.A

DRAFTING COORDINATION :
UNOPS

APPROVED FOR IMPLEMENTATION :

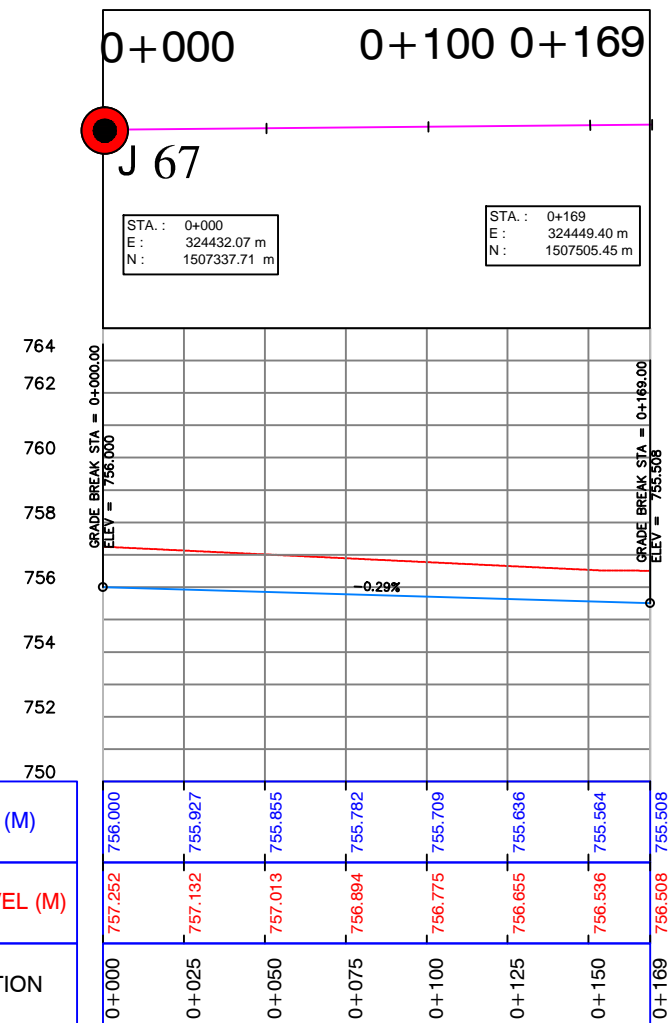
CONTRACT NUMBER

DATE:
JANUARY 2019

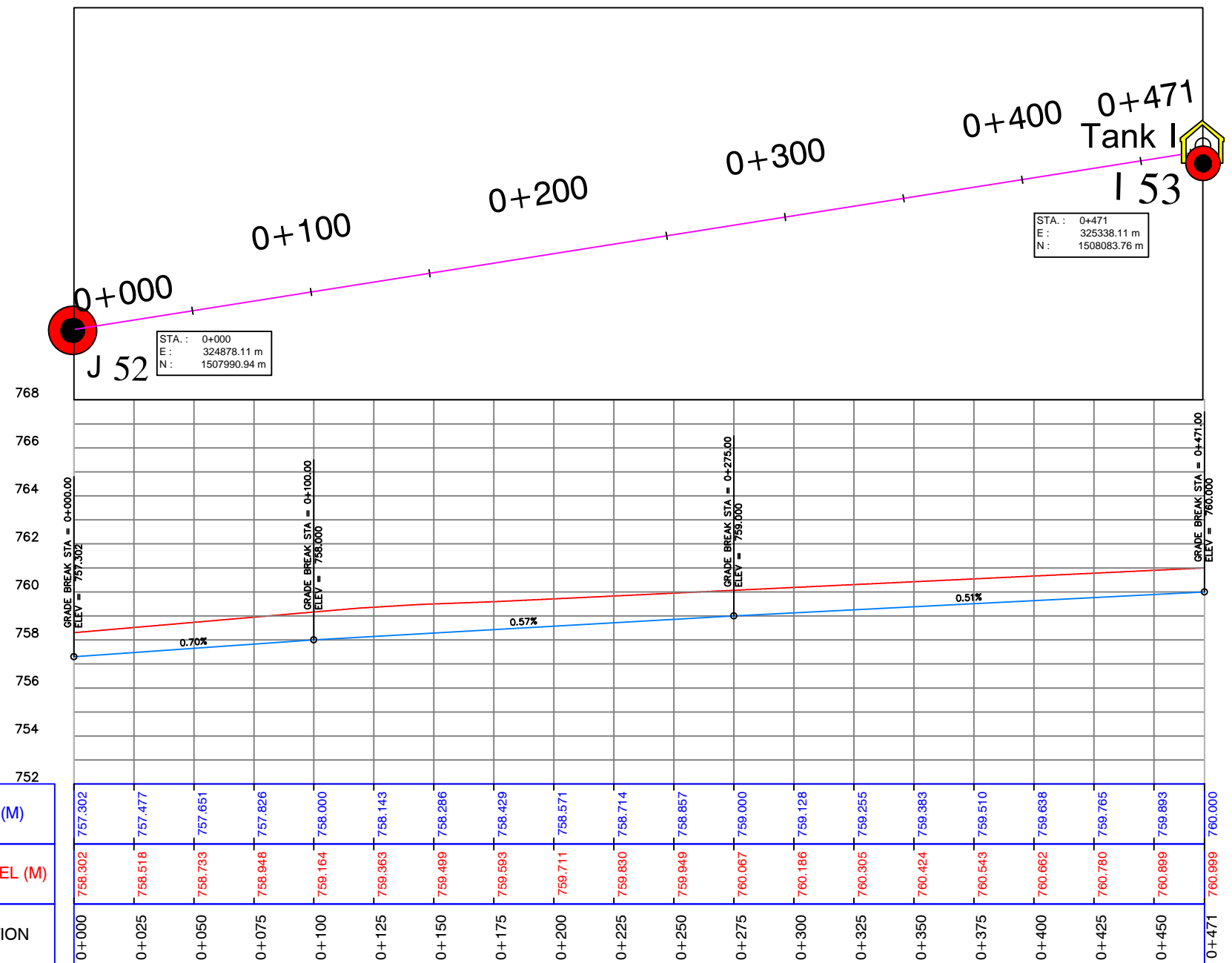
SHEET

SCALE:
AS SHOWN



DRAWING No:
63-17

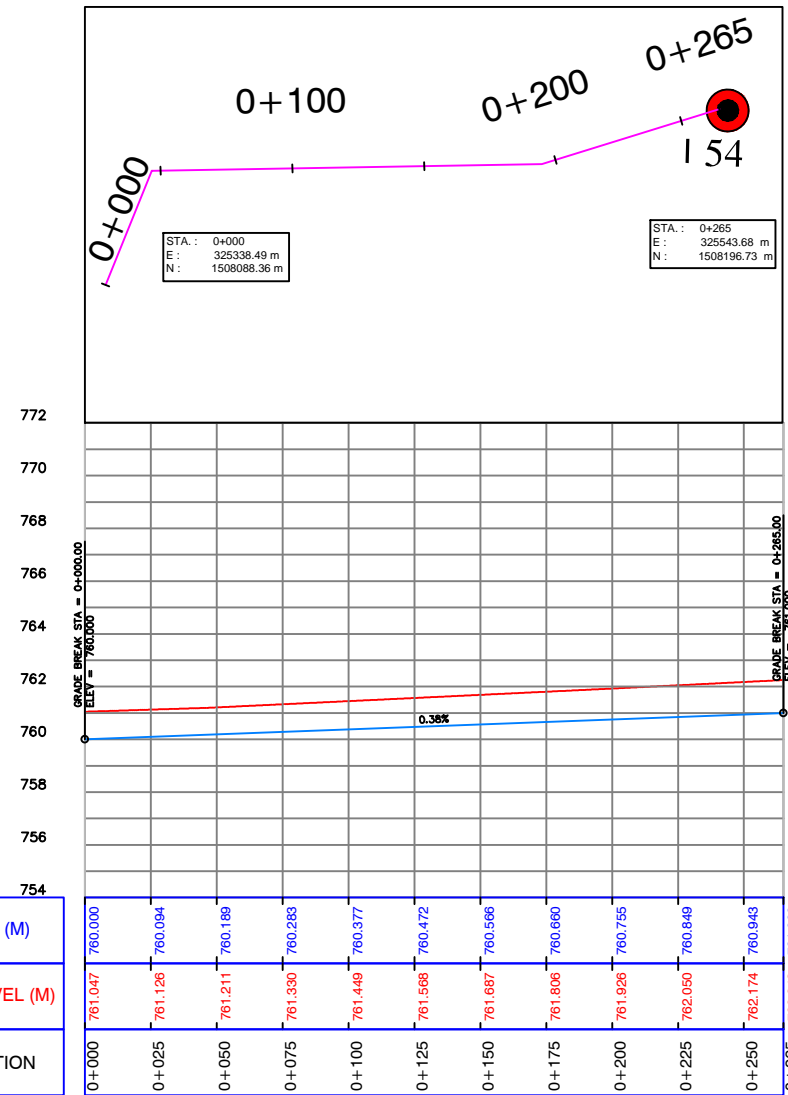


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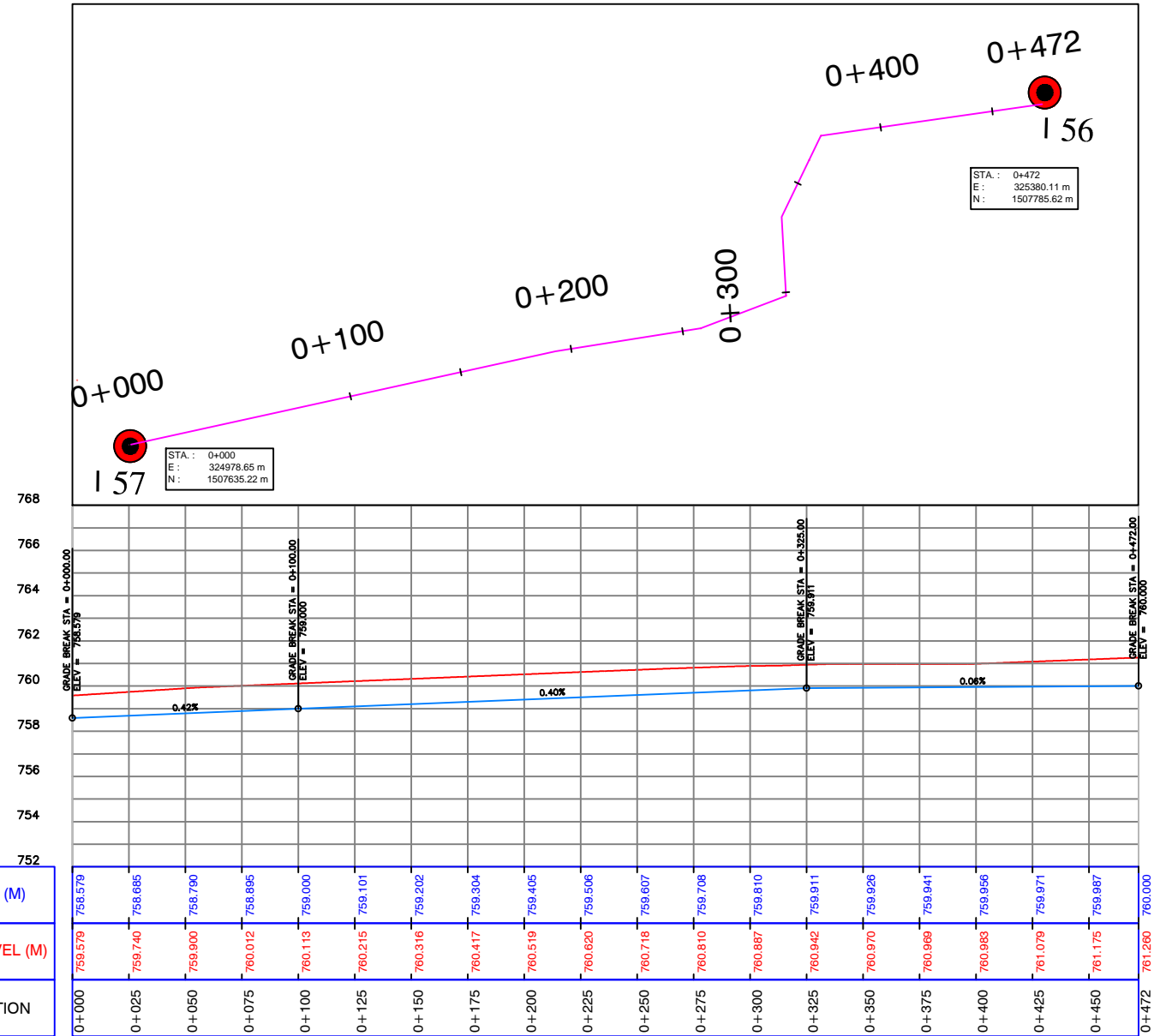


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CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)	SHEET			
		DESIGNED :	Dr.Hashim M.H	DRAWN :	Nada S.A.		APPROVED FOR IMPLEMENTATION :	SCALE:	AS SHOWN	
		CHECKED :	Prof.Siddig E.A	DRAFTING COORDINATION :	UNOPS	CONTRACT NUMBER	DATE:	JANUARY 2019	DRAWING No:	63-18

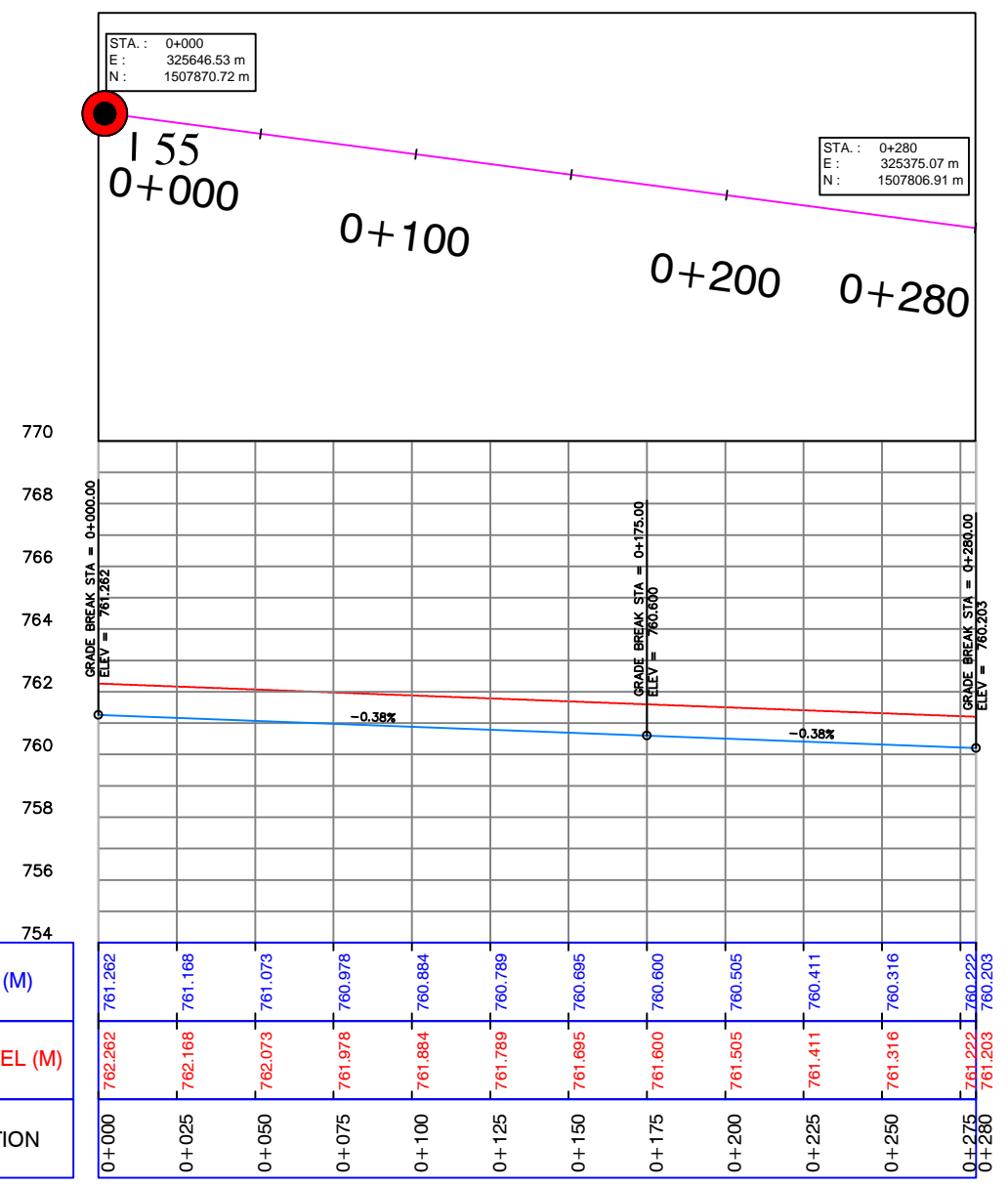


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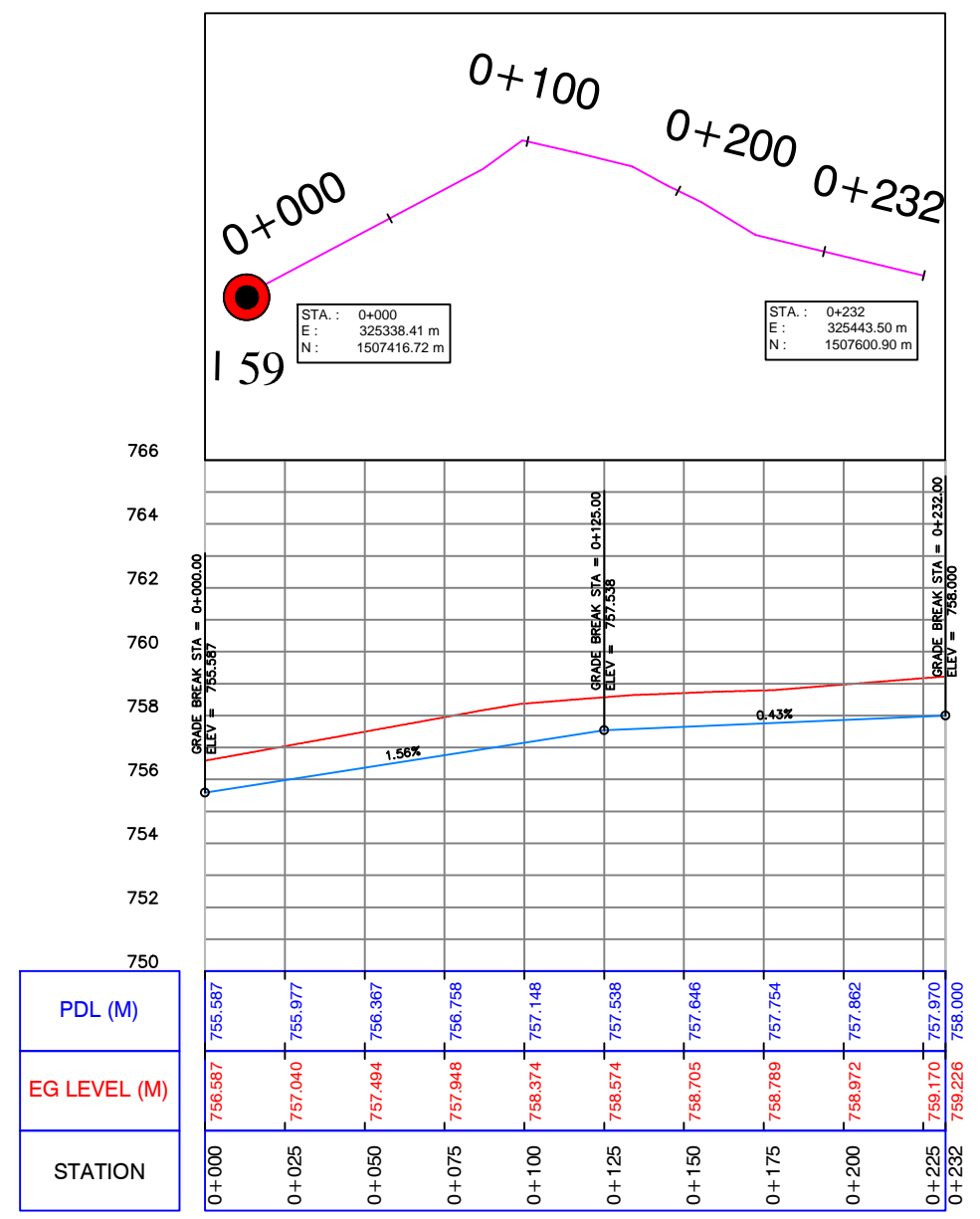


Profile (33)




CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)			SHEET
PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES					DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
						CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019
									DRAWING No: 63-19

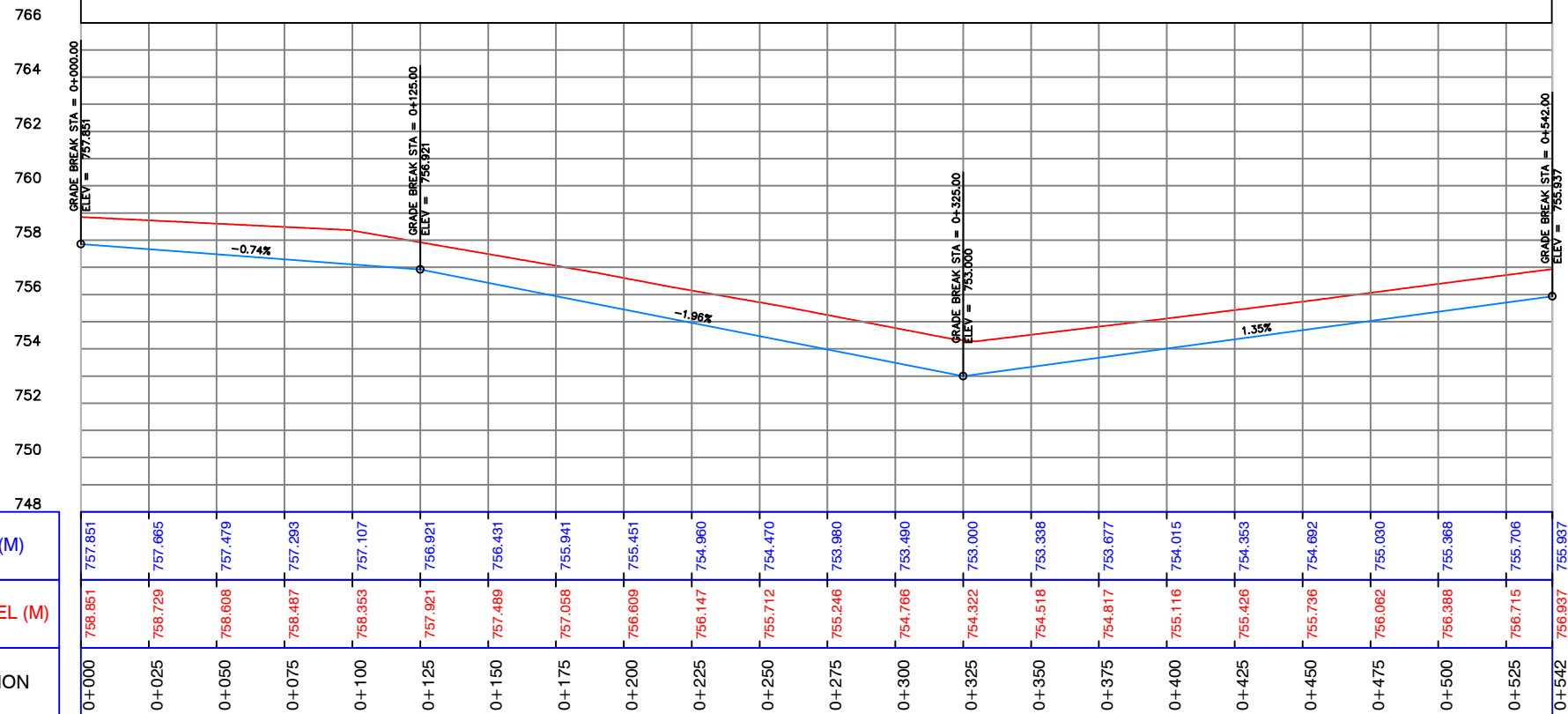
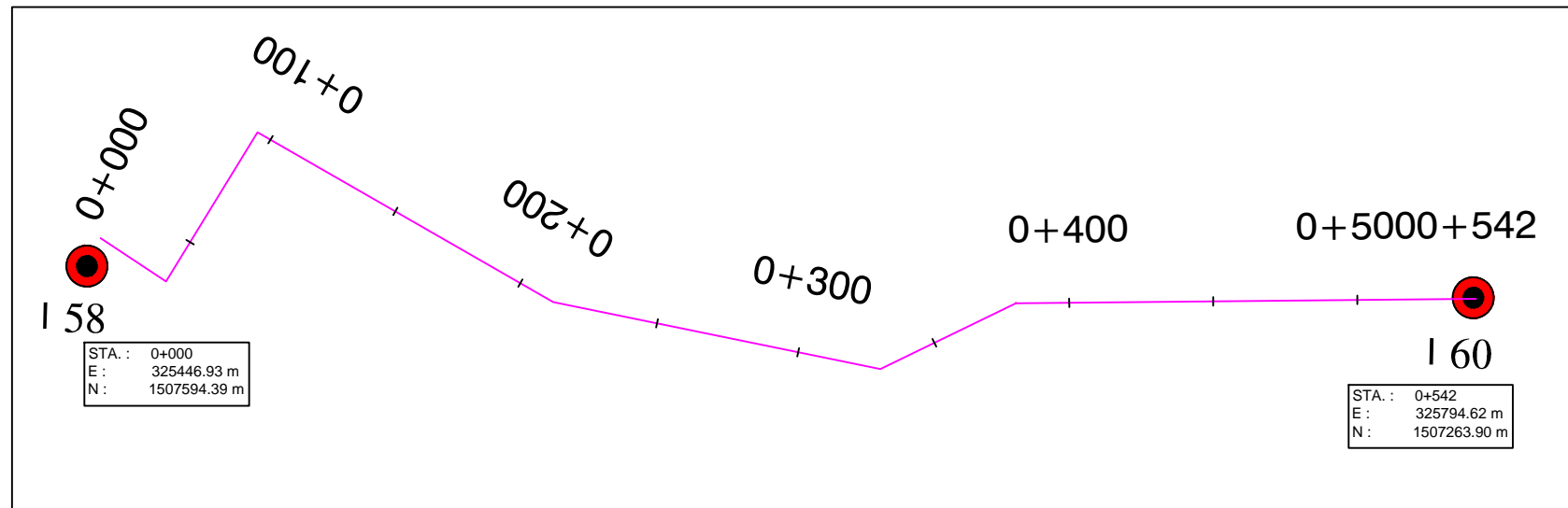


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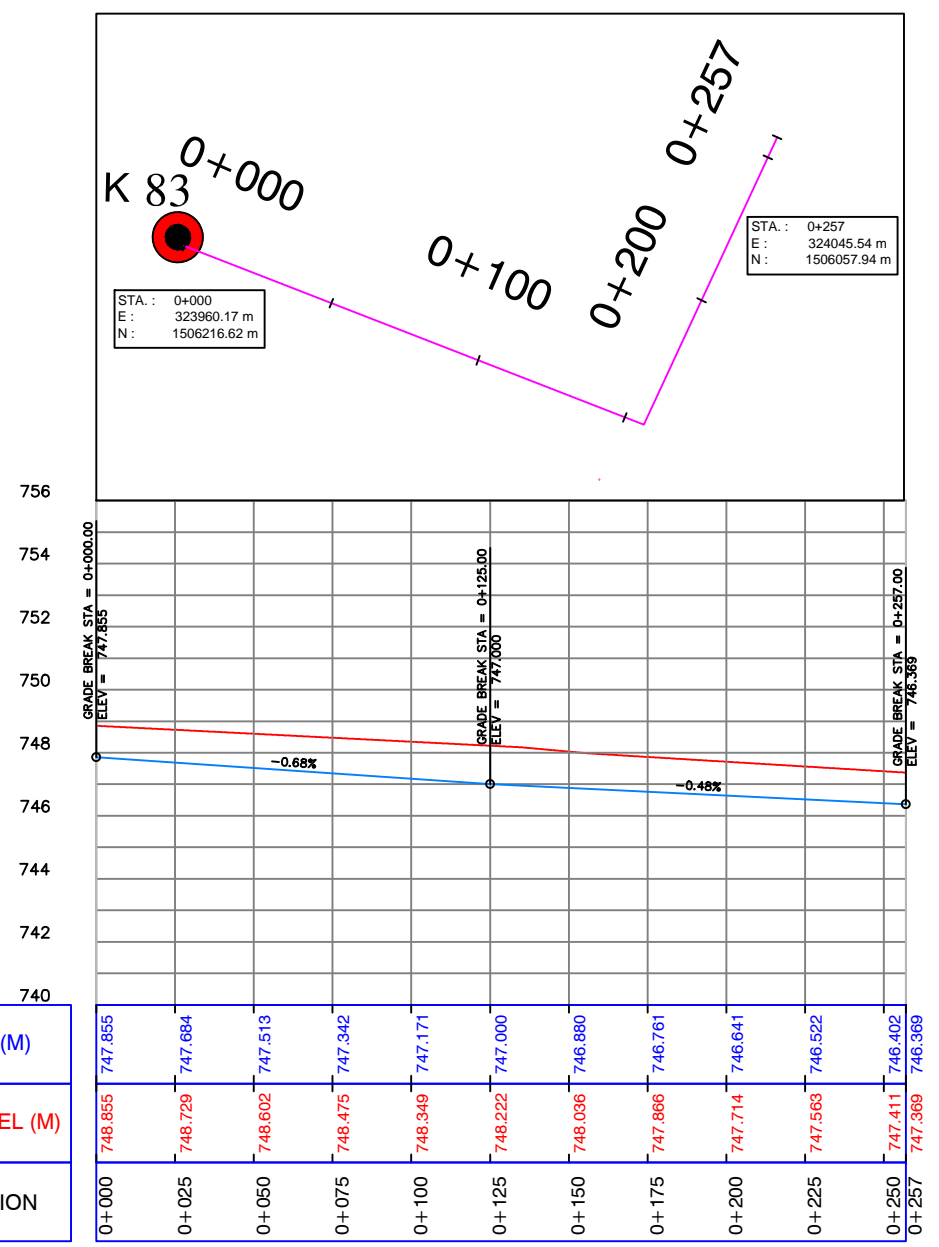
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CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)	SHEET			
		IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 						DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:
						CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-20

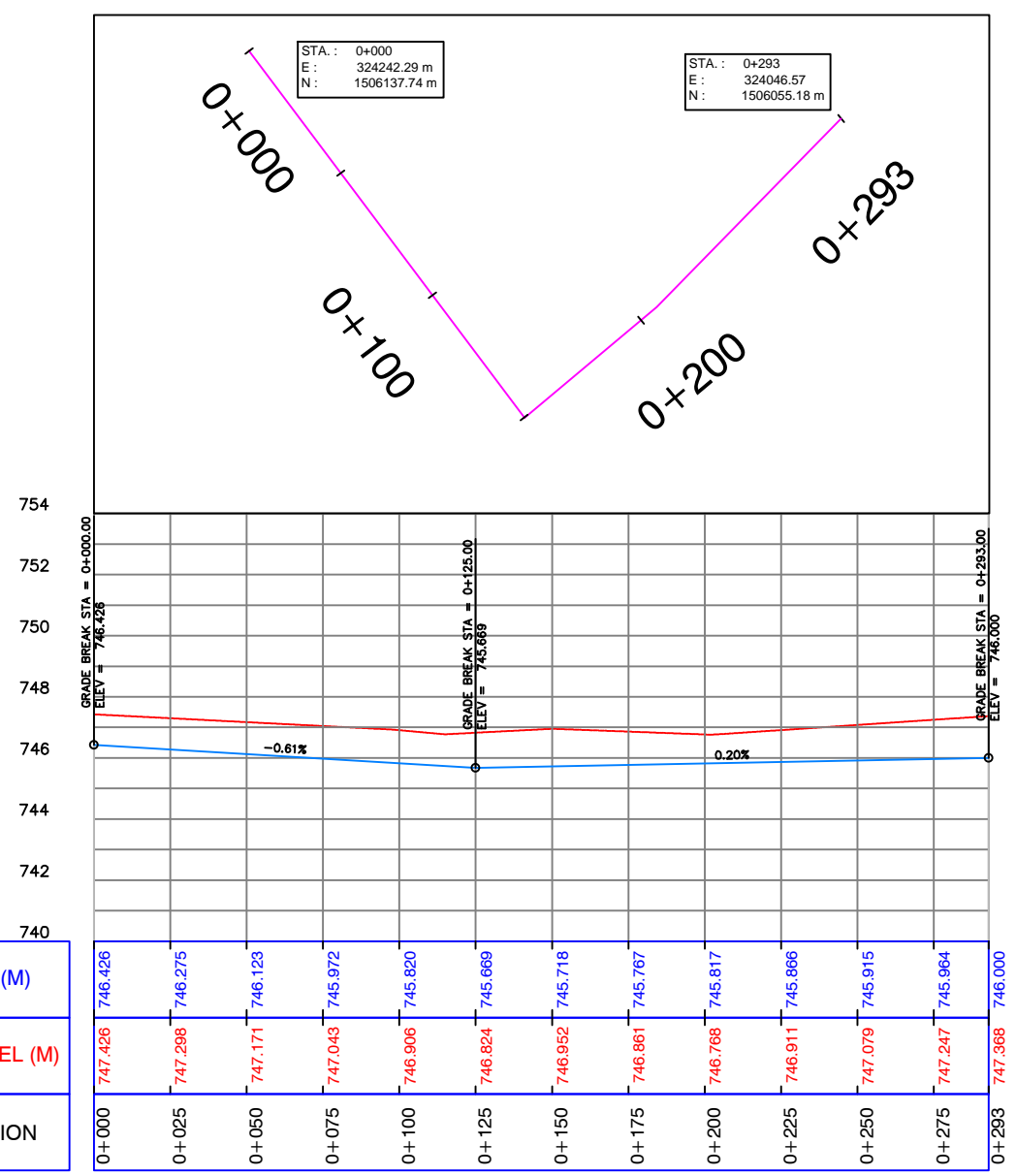


Profile (36)

CLIENT: UWA – Urban Water Administration <small>SWC - STATE WATER CORPORATION</small>	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>SIGN.</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	REV.	DESCRIPTION	DATE	SIGN.																																									DRAWN TITLE : <p style="text-align: center;">PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)</p>	SHEET
REV.	DESCRIPTION	DATE	SIGN.																																														
PROJECT : DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES		DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN																																											
			CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-21																																										



Profile (37)



Profile (38)

CLIENT: UWA – Urban Water Administration
SWC - STATE WATER CORPORATION

PROJECT:
DARFUR URBAN WATER SUPPLY PROJECT

**Design of El Fasher
Urban Water Scheme**

FUNDED BY:
DID
DEPARTMENT FOR
INTERNATIONAL DEVELOPMENT




IMPLEMENTED BY:
UNOPS
UNITED NATIONS OFFICE
FOR PROJECT SERVICES



REV.	DESCRIPTION	DATE	SIGN.

DRAWN TITLE:
PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)

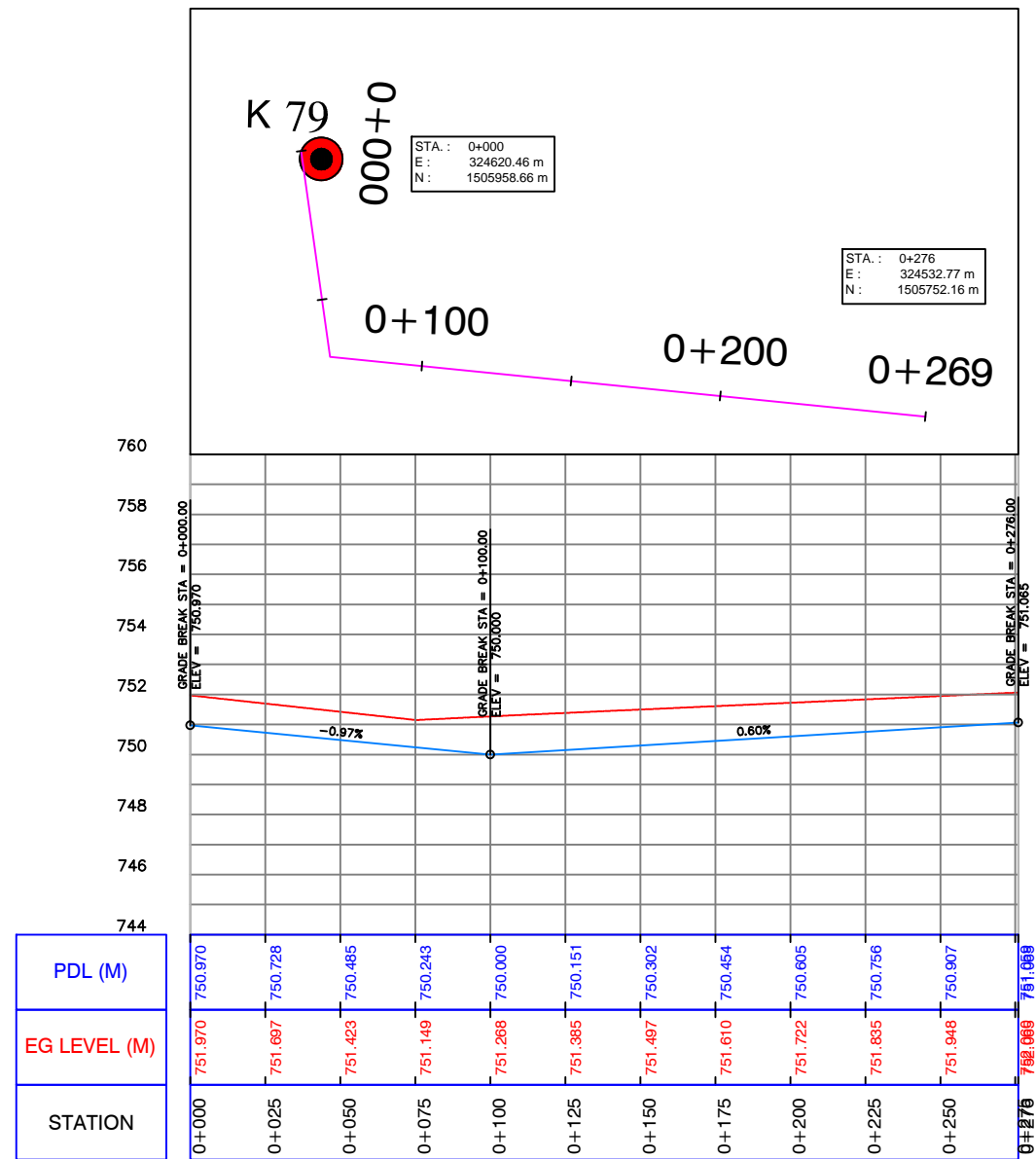
DESIGNED: **Dr.Hashim M.H** DRAWN: **Nada S.A.** APPROVED FOR IMPLEMENTATION:

CHECKED: **Prof.Siddig E.A** DRAFTING COORDINATION: **UNOPS** CONTRACT NUMBER: DATE: **JANUARY 2019**




SHEET

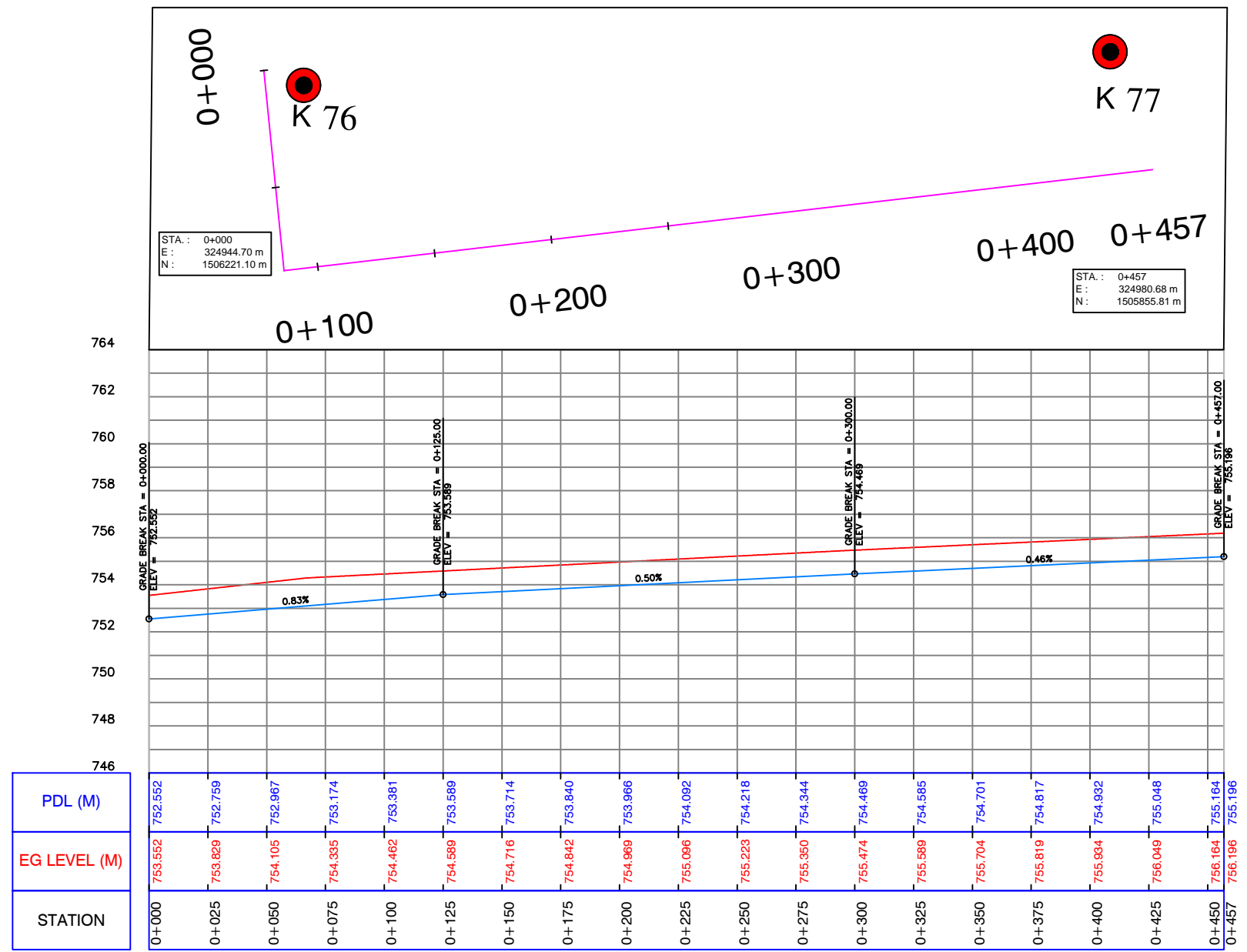
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DRAWING No: **63-22**






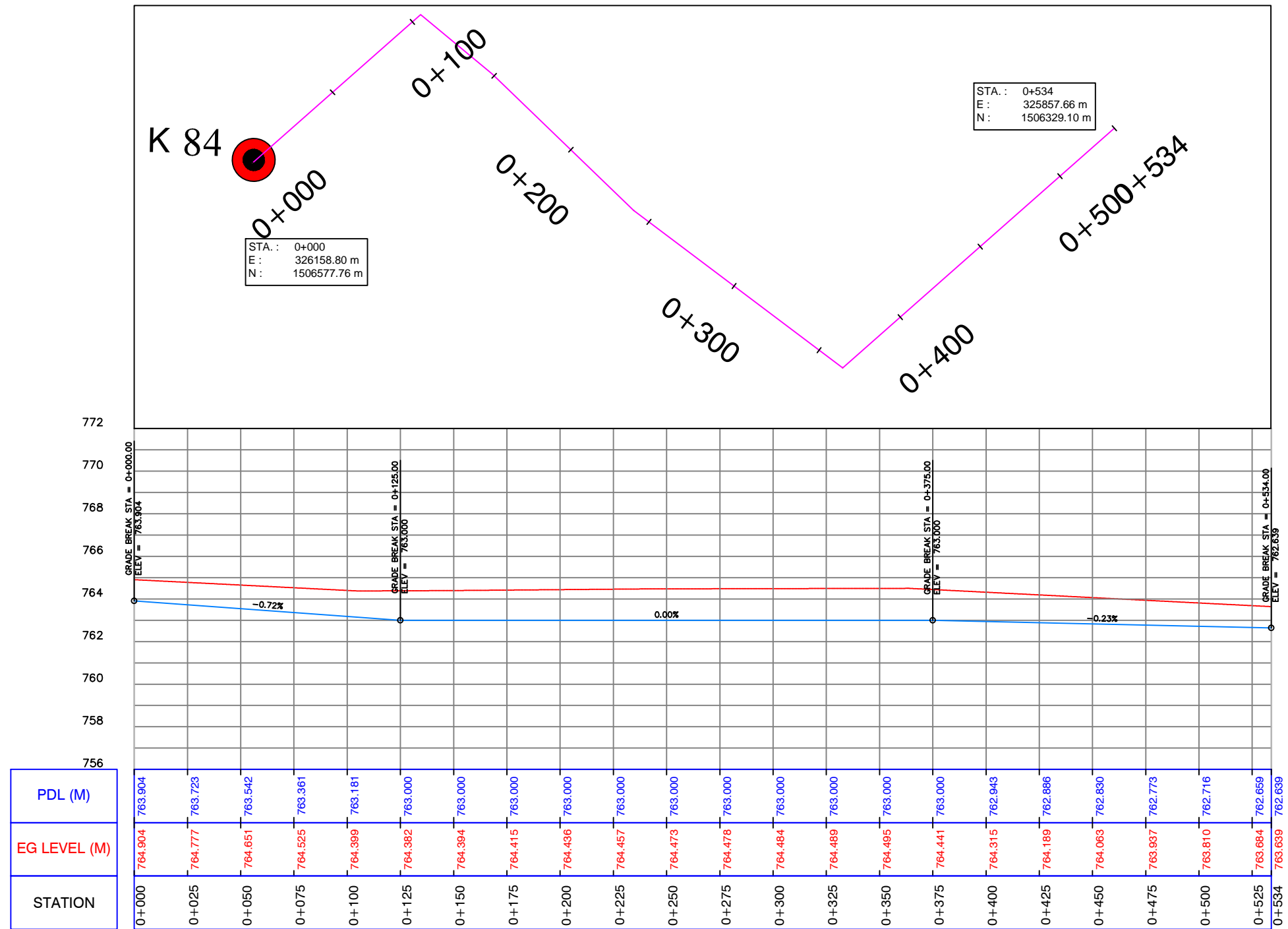
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CLIENT : UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT : DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV. : DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)	SHEET		
		IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
		CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-23





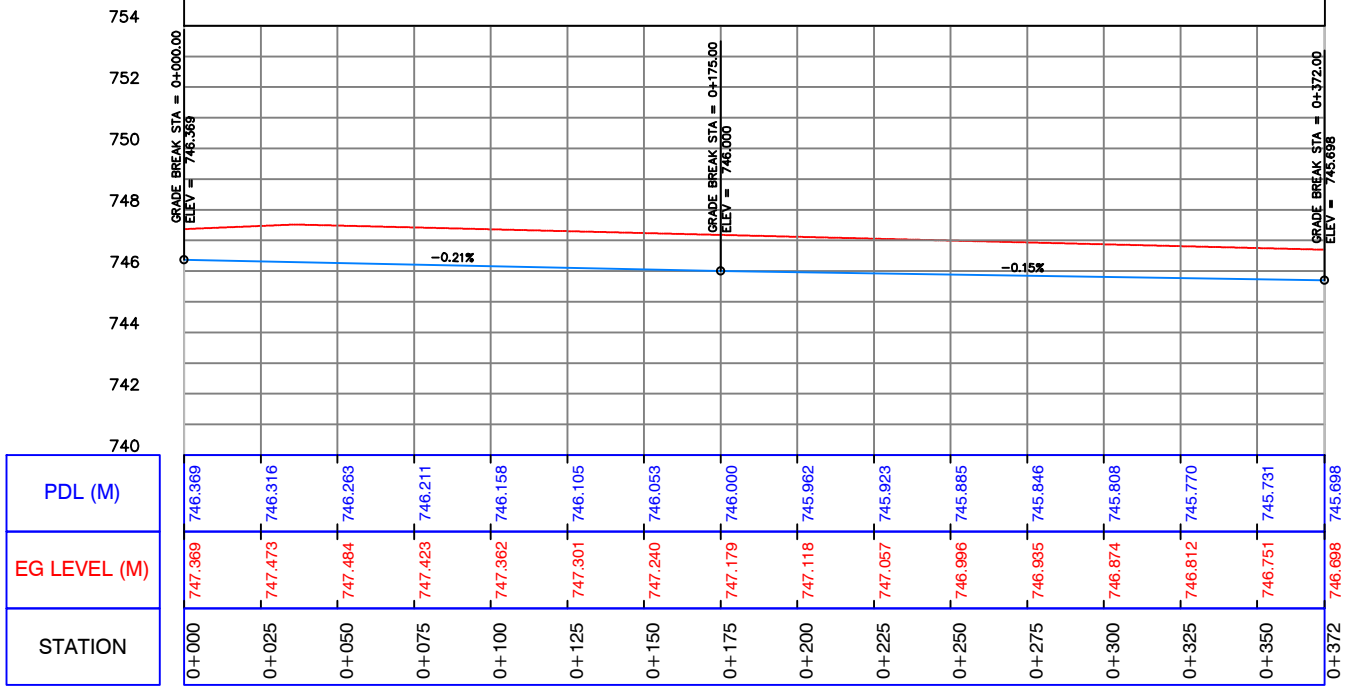
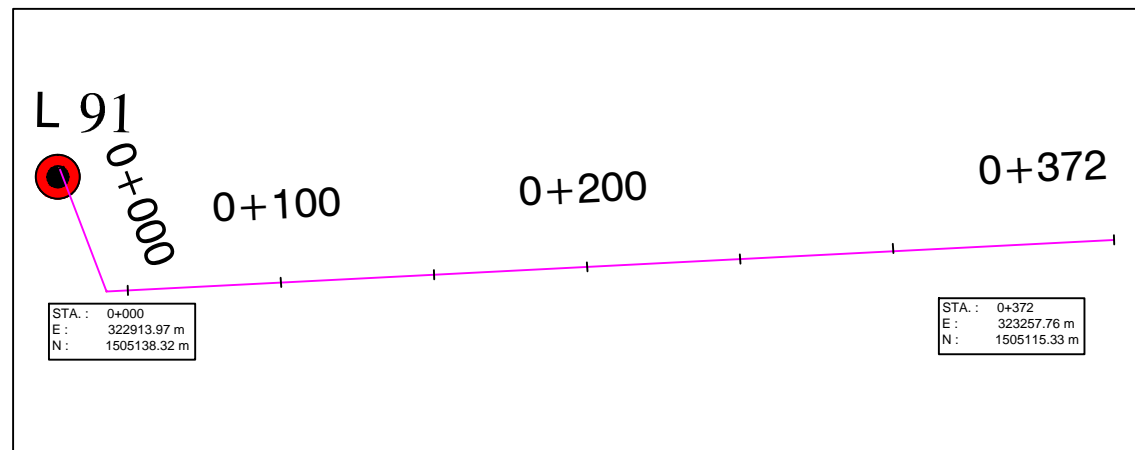
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CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV. DESCRIPTION DATE SIGN. 	DRAWN TITLE:		SHEET
			PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)		
IMPLEMENTED BY:  UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES	DESIGNED: Dr.Hashim M.H DRAWN: Nada S.A. CHECKED: Prof.Siddig E.A DRAFTING COORDINATION: UNOPS	APPROVED FOR IMPLEMENTATION:		AS SHOWN	
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				JANUARY 2019	63-24







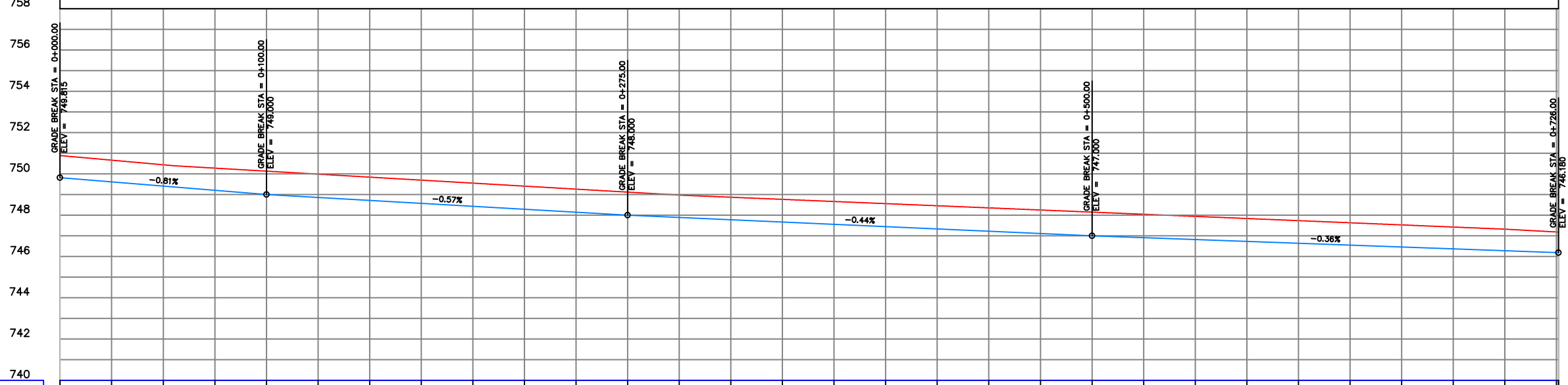
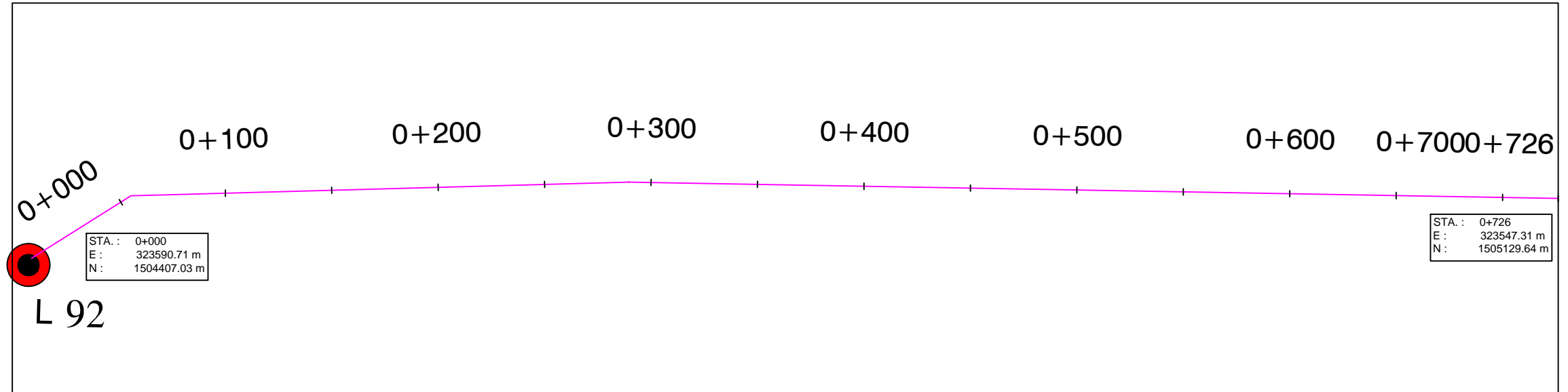
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CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)	SHEET
		DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-25









Profile (42)

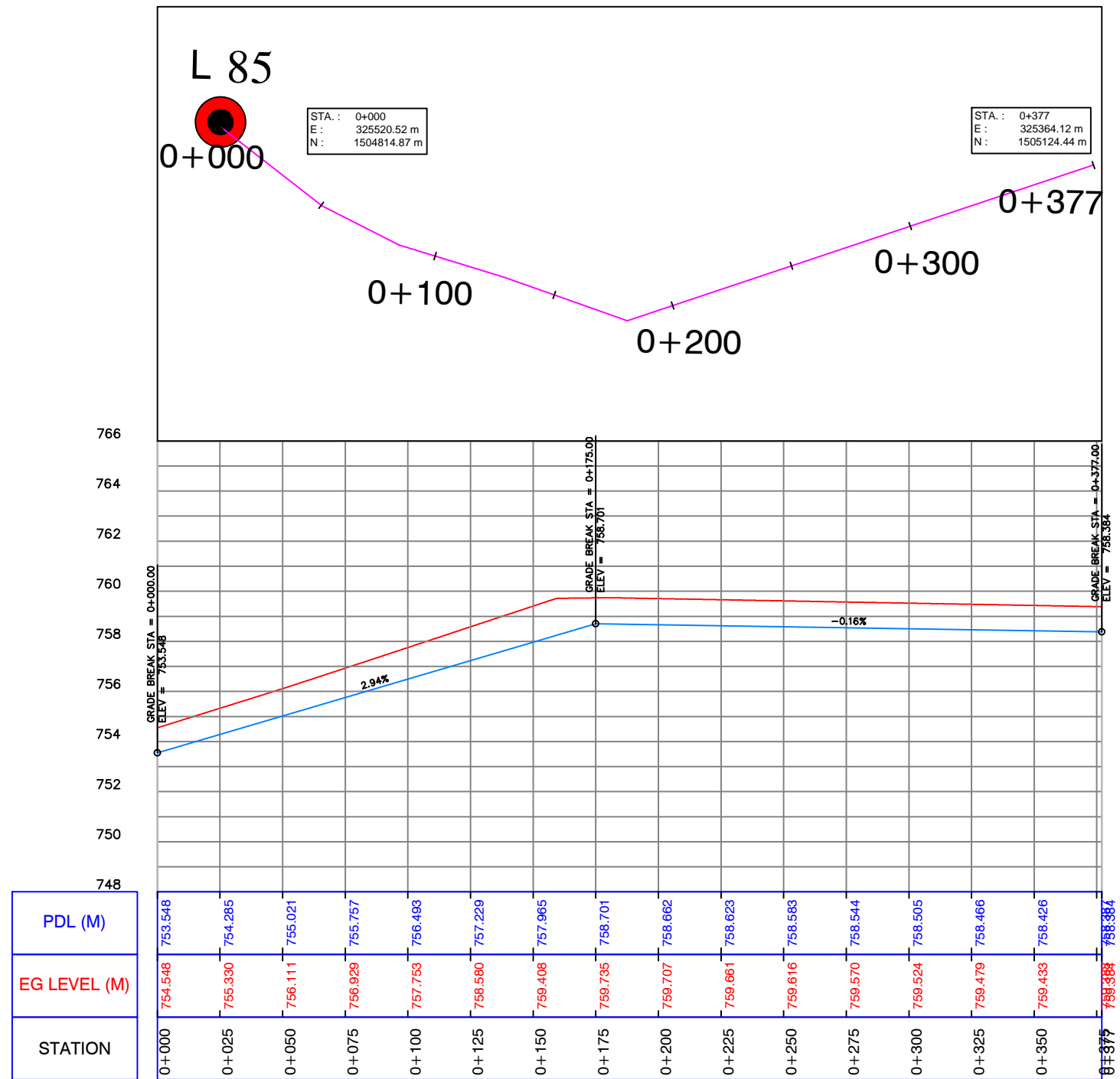
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			DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	
IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 		CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-26






PD L (M)	749.815	749.811	749.407	749.204	749.000	748.857	748.714	748.571	748.429	748.286	748.143	748.000	747.889	747.778	747.667	747.556	747.444	747.333	747.222	747.111	747.000	746.909	746.819	746.728	746.637	746.547	746.456	746.365	746.274	746.183
EG LEVEL (M)	750.885	750.662	750.439	750.276	750.131	749.986	749.840	749.695	749.550	749.405	749.260	749.115	748.973	748.867	748.764	748.661	748.558	748.455	748.352	748.249	748.146	748.043	747.940	747.836	747.733	747.630	747.527	747.424	747.321	747.186
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+250	0+275	0+300	0+325	0+350	0+375	0+400	0+425	0+450	0+475	0+500	0+525	0+550	0+575	0+600	0+625	0+650	0+675	0+700	0+726

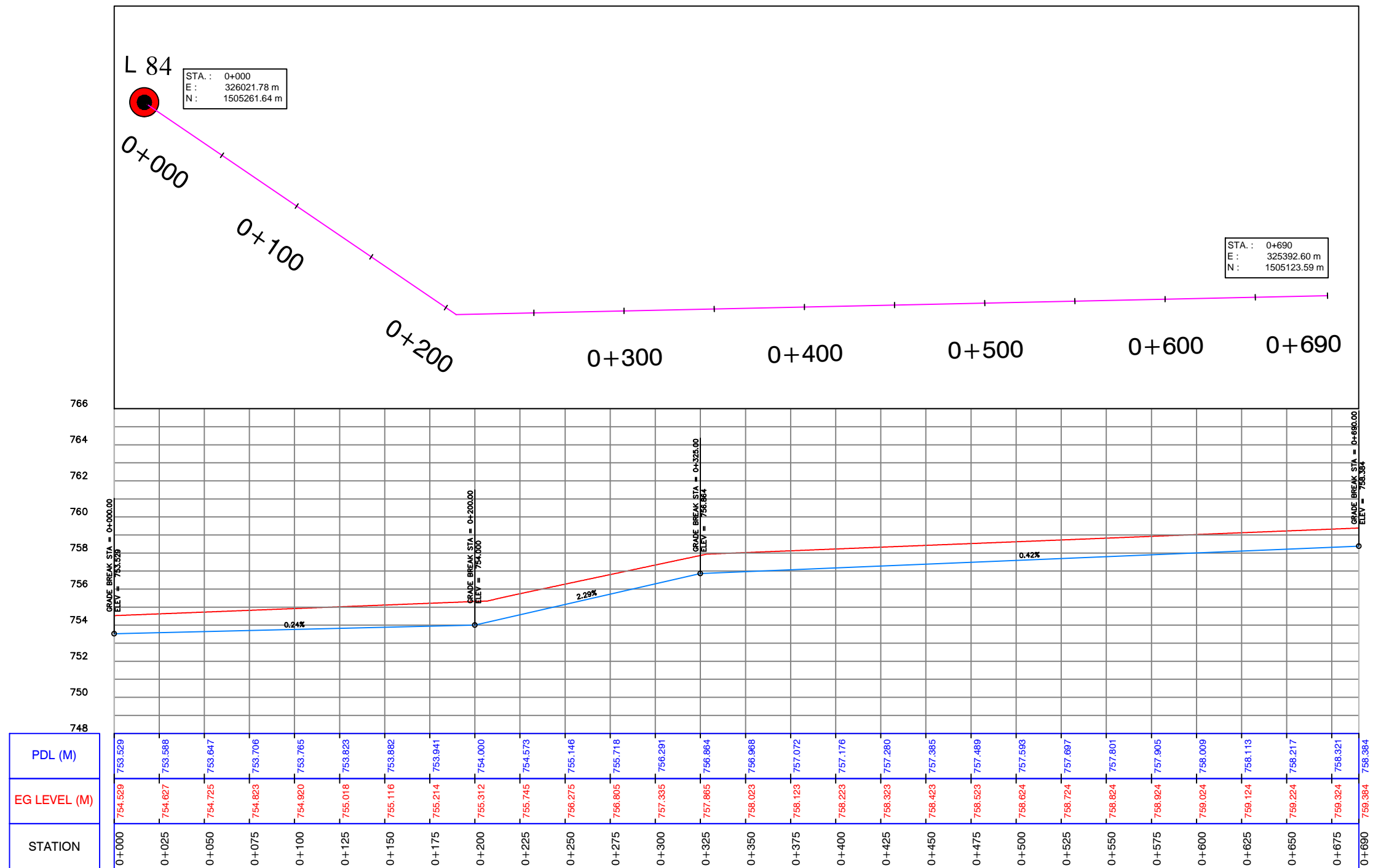
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CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)			SHEET
			DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	
IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES  	 	CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-27






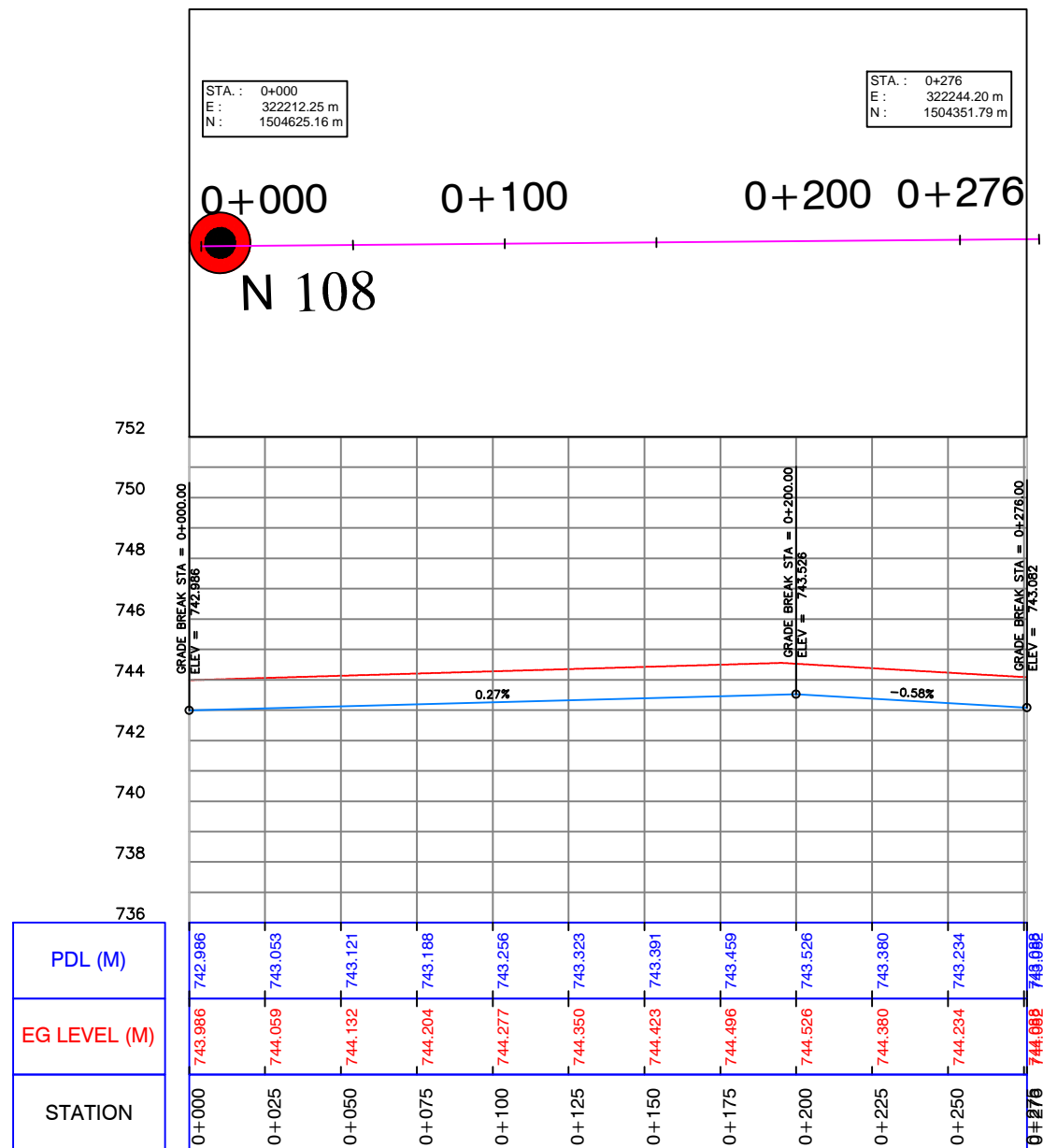
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CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)				SHEET SCALE: AS SHOWN
			DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :		
IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 		CHECKED : Prof.Siddig E.A		DRAFTING COORDINATION : UNOPS			

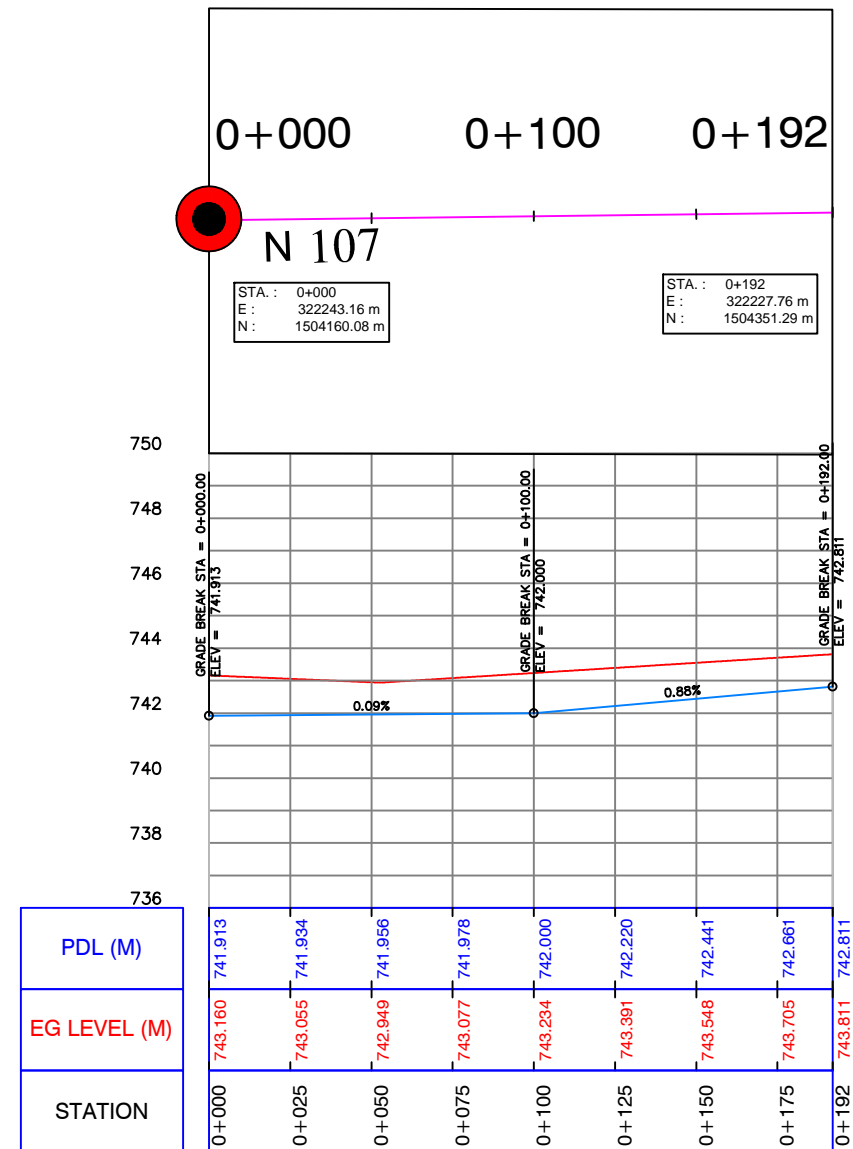


Profile (45)





CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)	SHEET
		DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:
CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-29

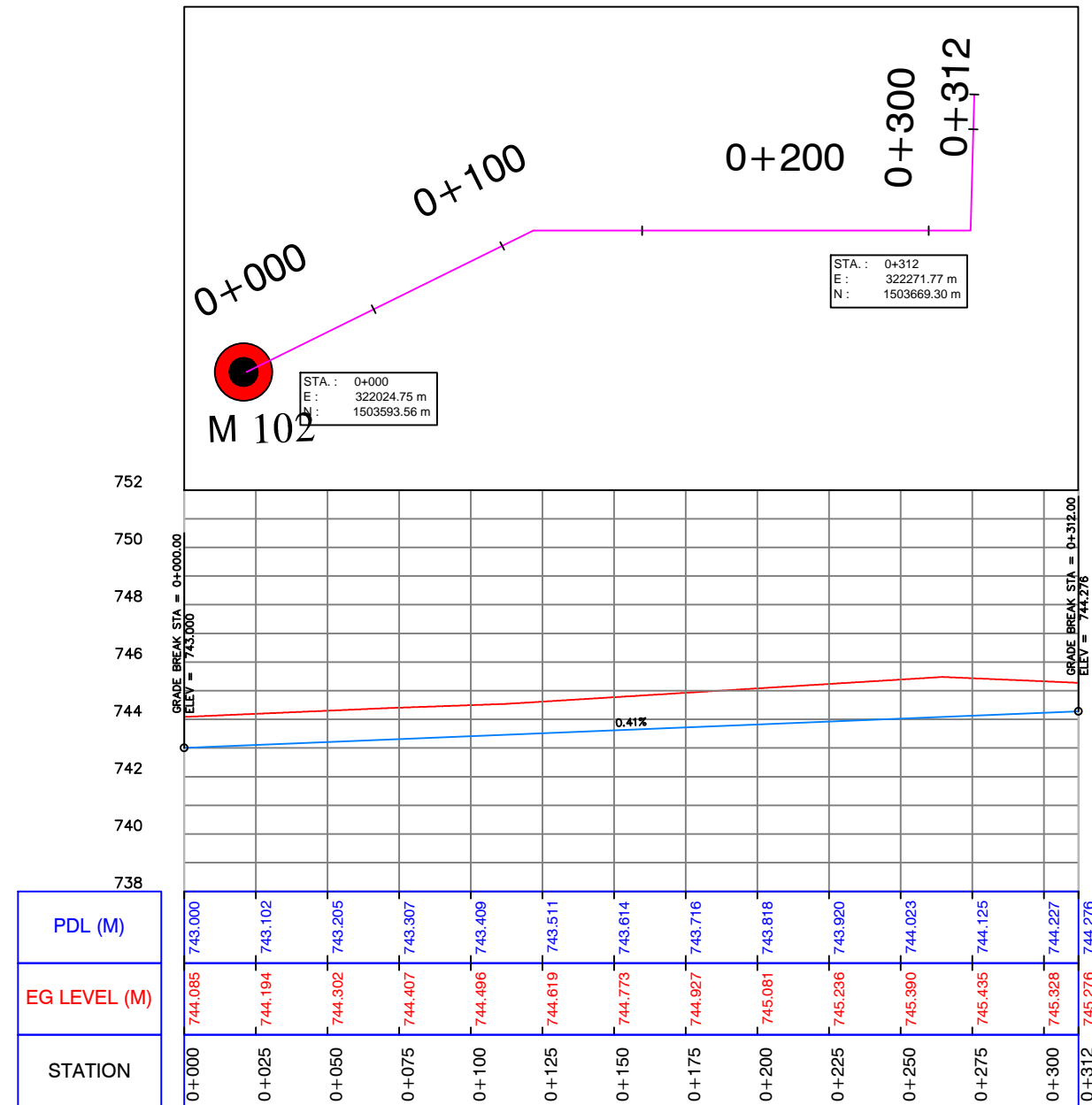


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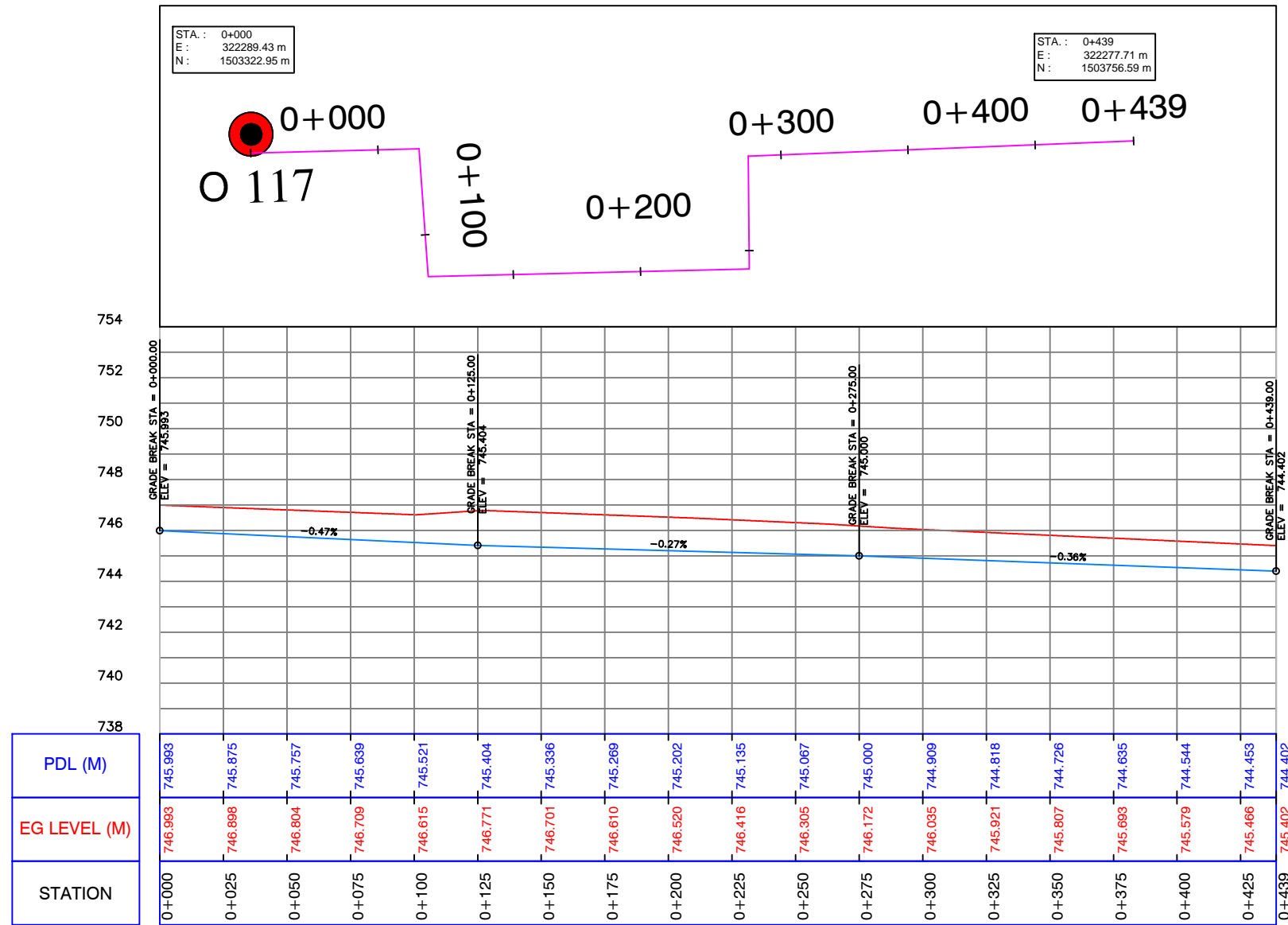
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CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES  	REV. DESCRIPTION DATE SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)	SHEET AS SHOWN DRAWING No: 63-30	
		DESIGNED: Dr.Hashim M.H			DRAWN: Nada S.A.
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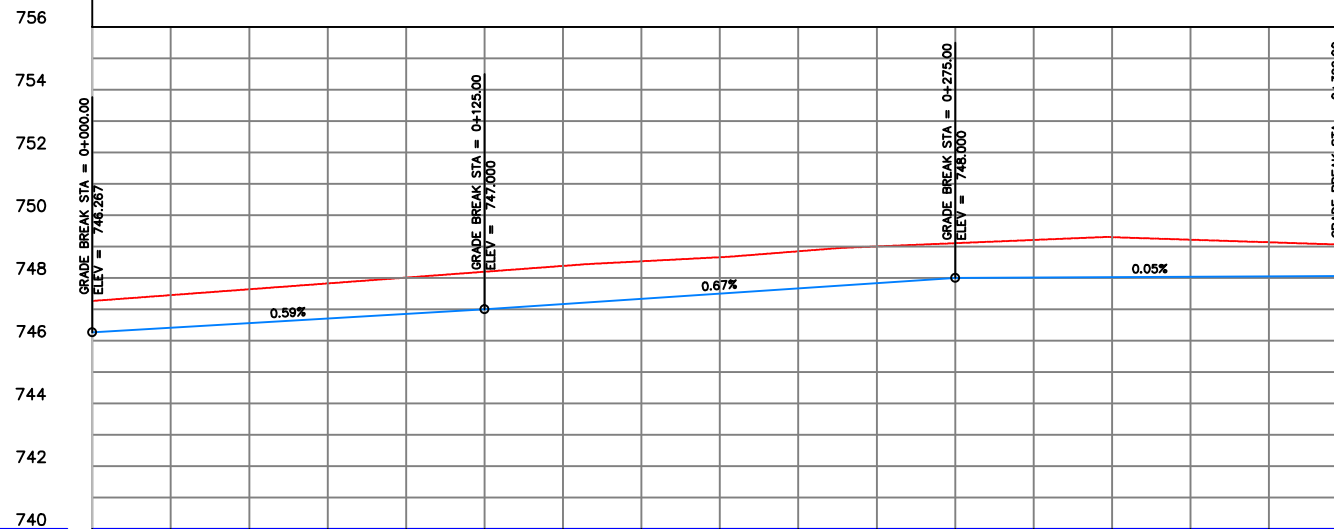
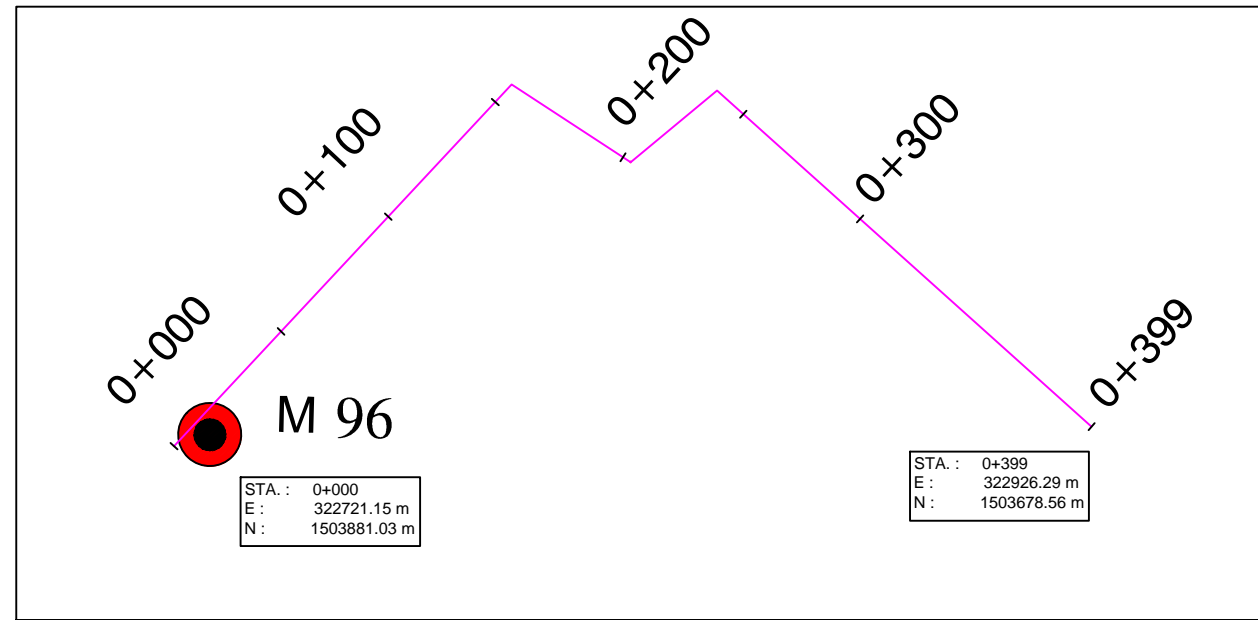
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CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES  	REV. DESCRIPTION DATE SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)		SHEET
		DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:	
CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-31	



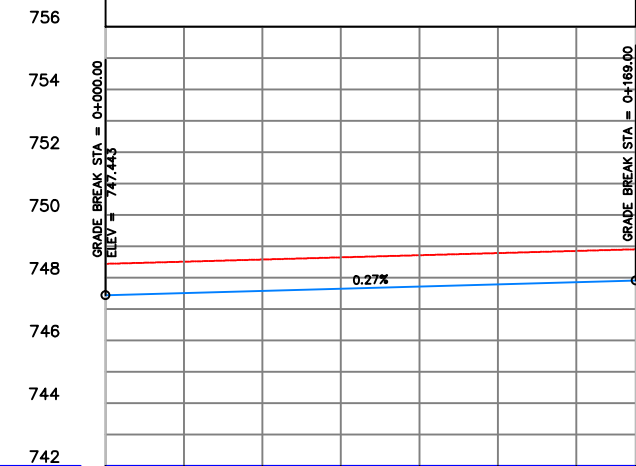
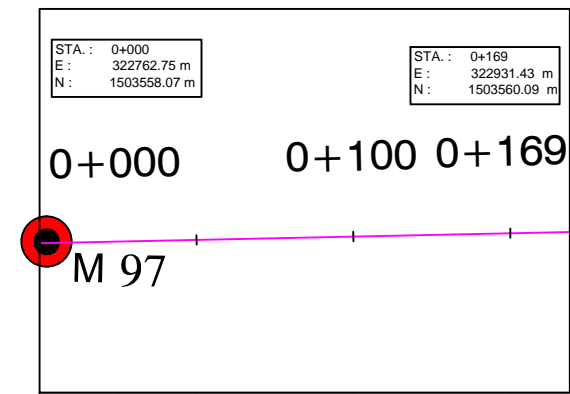
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CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)		SHEET		
		DESIGNED : Dr.Hashim M.H		DRAWN : Nada S.A.				APPROVED FOR IMPLEMENTATION :		SCALE: AS SHOWN
IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 						CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-32






PDL (M)	746.267	746.414	746.560	746.707	746.853	747.000	747.167	747.333	747.500	747.667	747.833	748.000	748.012	748.024	748.035	748.047	748.058
EG LEVEL (M)	747.267	747.453	747.639	747.825	748.011	748.197	748.384	748.531	748.660	748.850	749.005	749.108	749.211	749.299	749.218	749.136	748.047
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+250	0+275	0+300	0+325	0+350	0+375	0+399

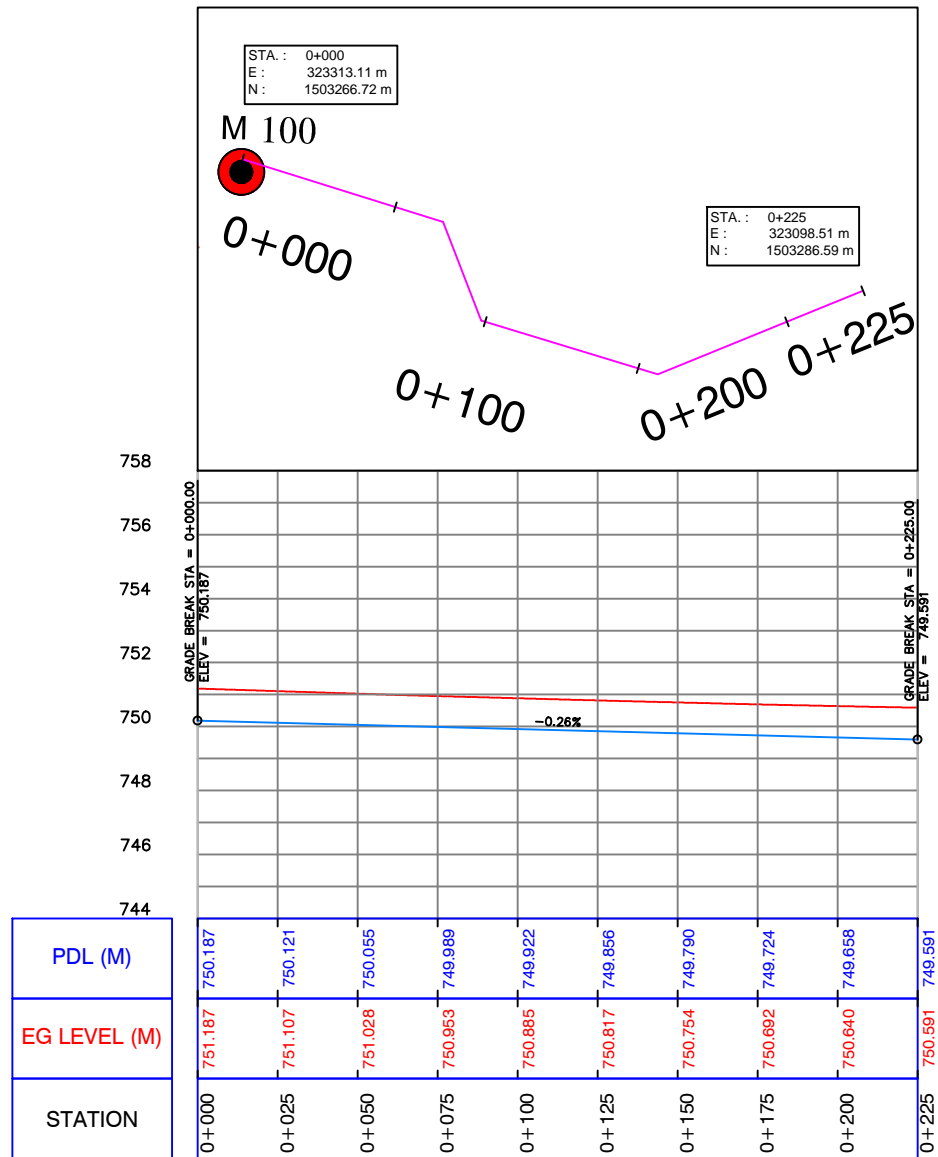
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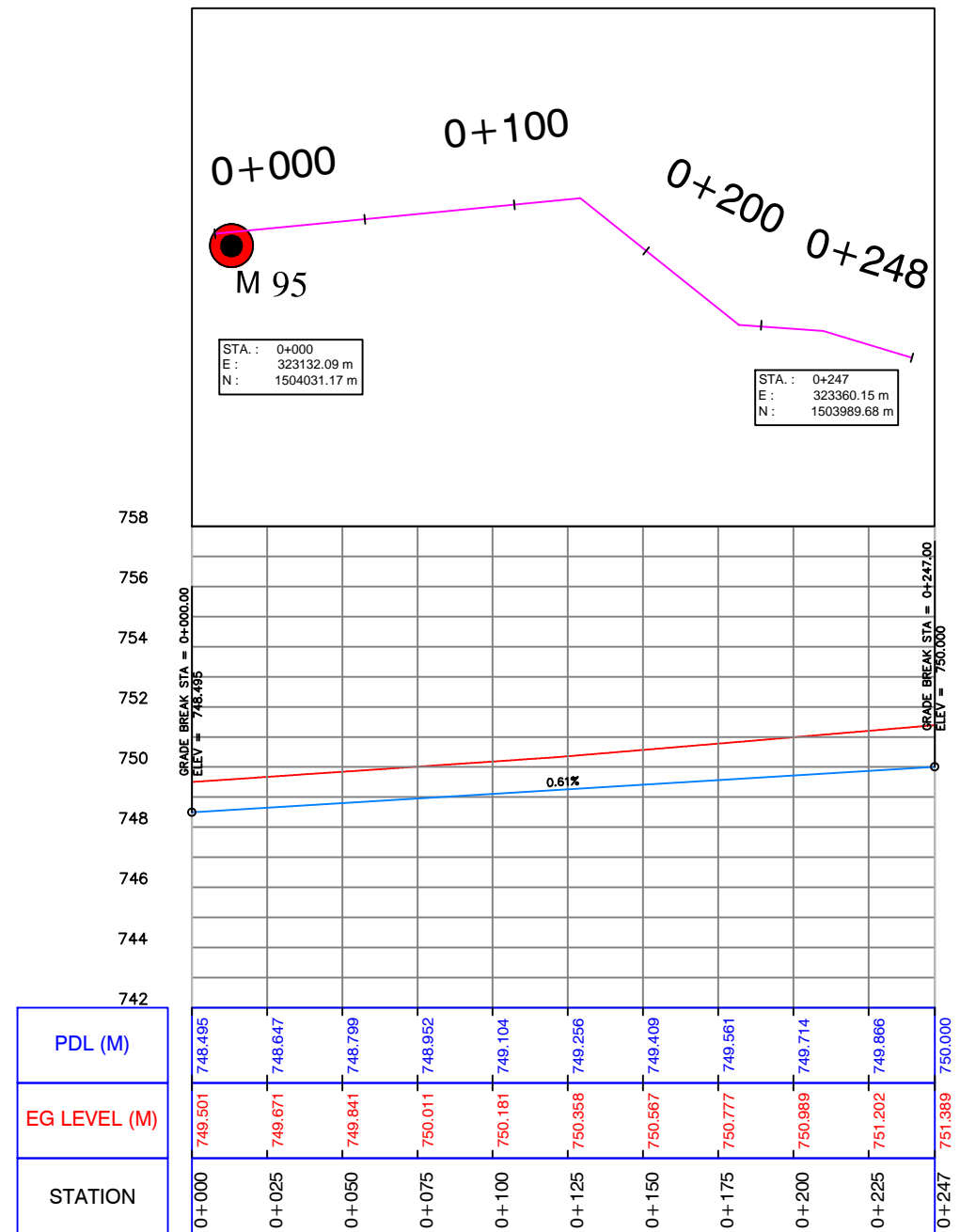
PDL (M)	747.443	747.511	747.580	747.648	747.717	747.785	747.854	747.906
EG LEVEL (M)	748.443	748.511	748.580	748.648	748.717	748.785	748.854	748.906
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+169

Profile (51)

CLIENT : UWA – Urban Water Administration SWC - STATE WATER CORPORATION	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)			SHEET
PROJECT : DARFUR URBAN WATER SUPPLY PROJECT	 					DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
Design of El Fasher Urban Water Scheme	IMPLEMENTED BY:  UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES					CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019
									DRAWING No: 63-33

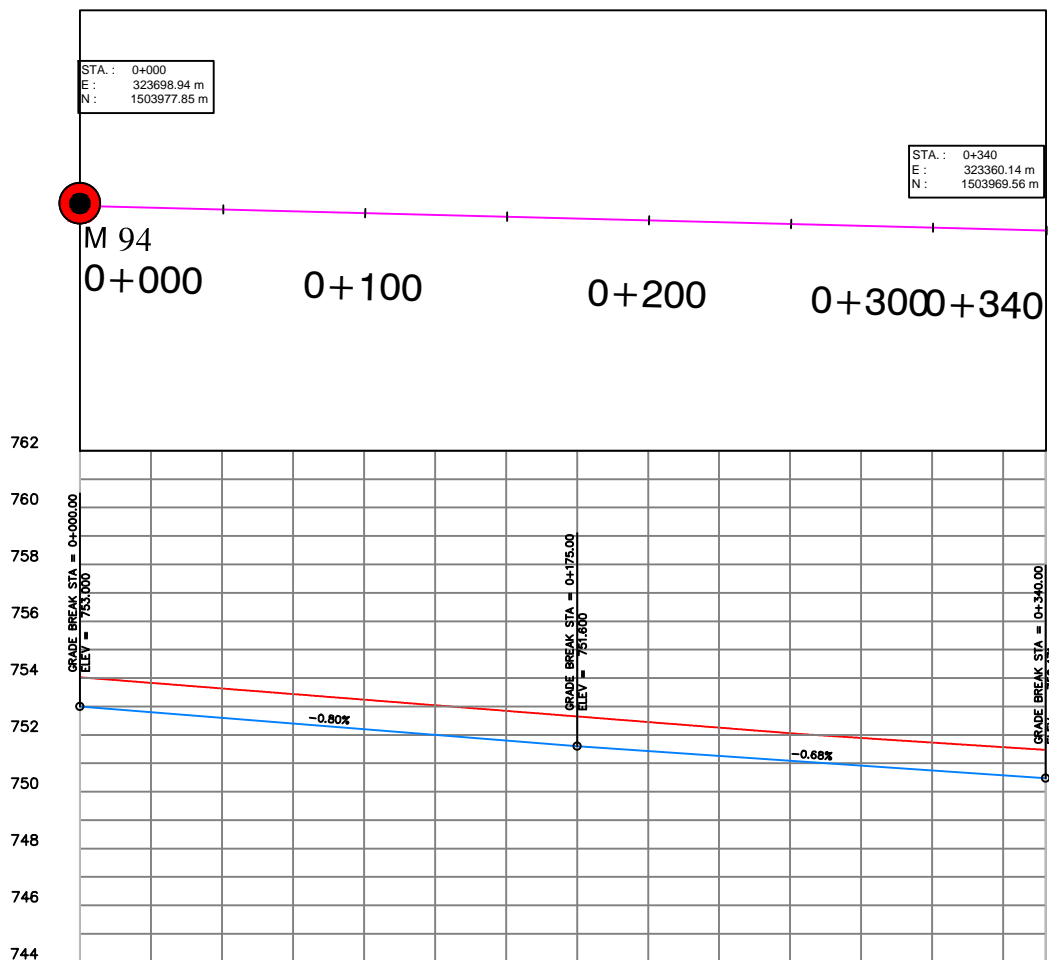


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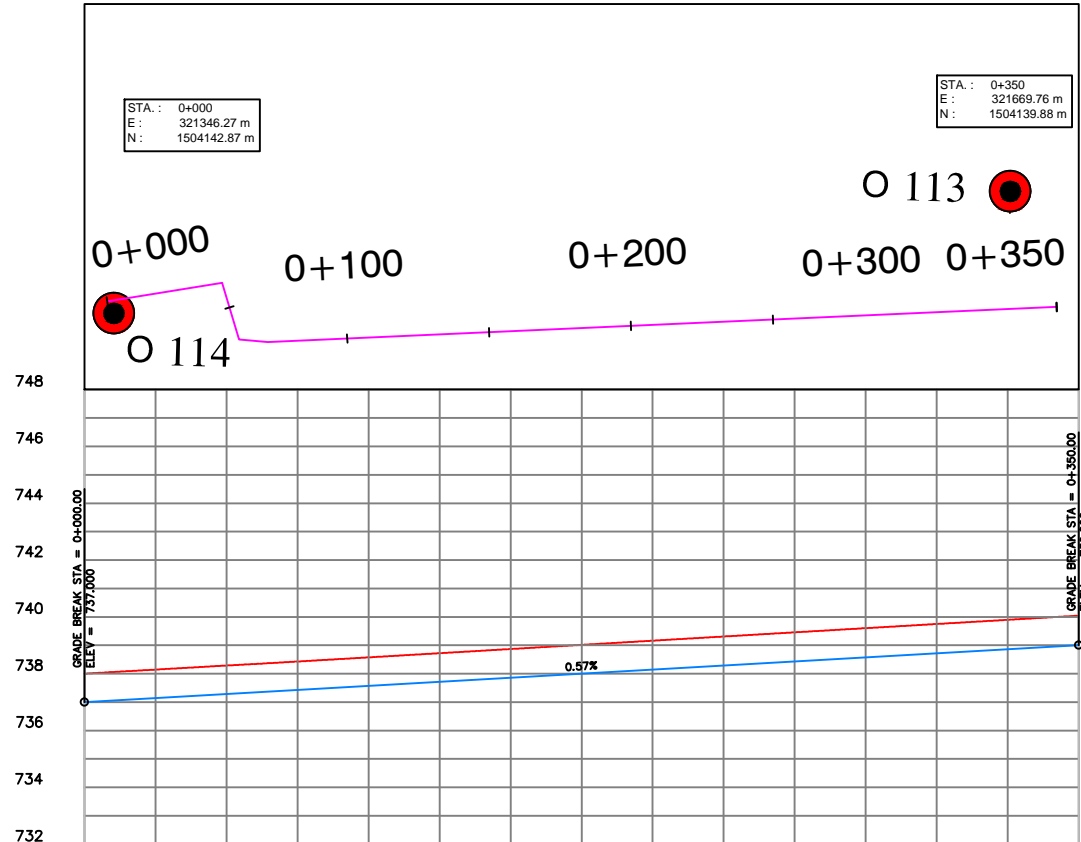
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CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT		REV. DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)	SHEET
	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES		DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :
			CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER
				DATE: JANUARY 2019	DRAWING No: 63-34






PDL (M)	753.000	752.800	752.600	752.400	752.200	752.000	751.800	751.600	751.429	751.258	751.087	750.915	750.744	750.573	750.471
EG LEVEL (M)	754.027	753.830	753.633	753.436	753.239	753.043	752.846	752.649	752.452	752.255	752.058	751.891	751.729	751.568	751.471
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+250	0+275	0+300	0+325	0+340

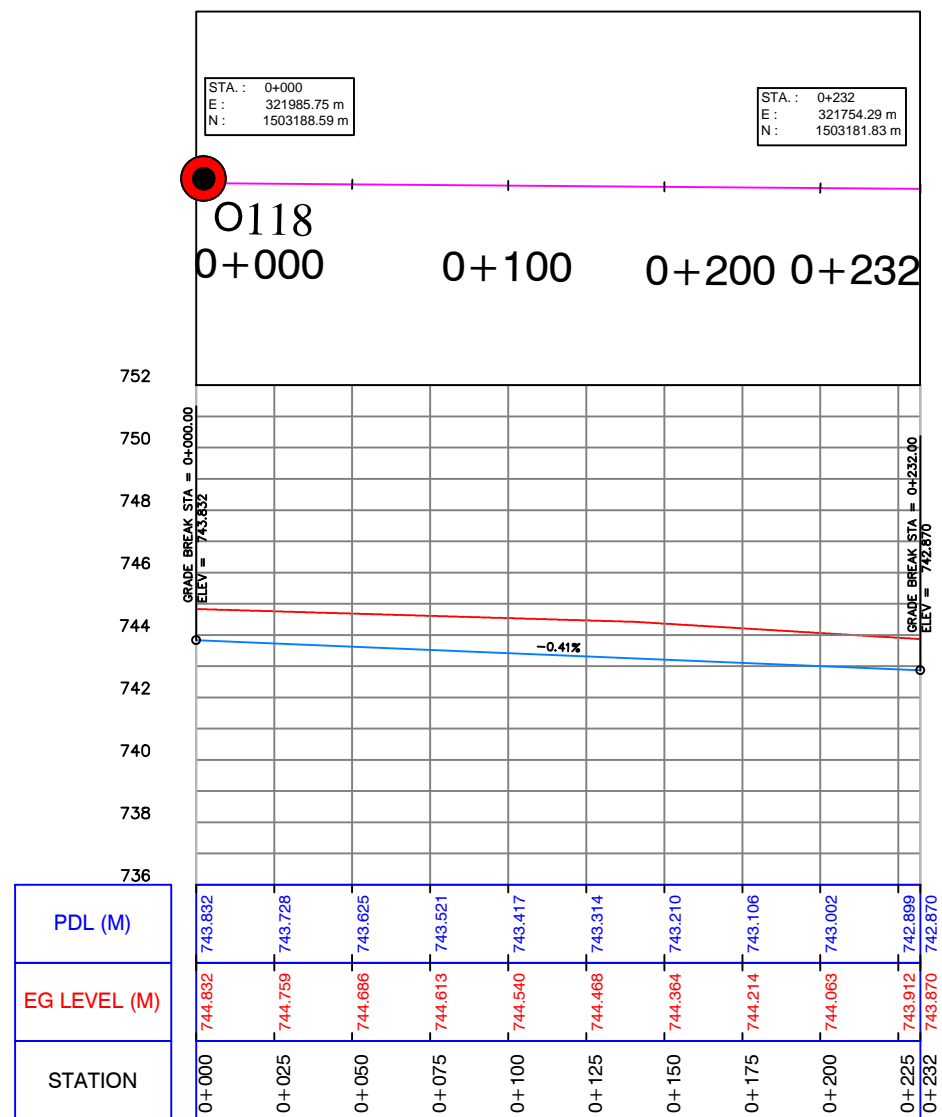
Profile (54)



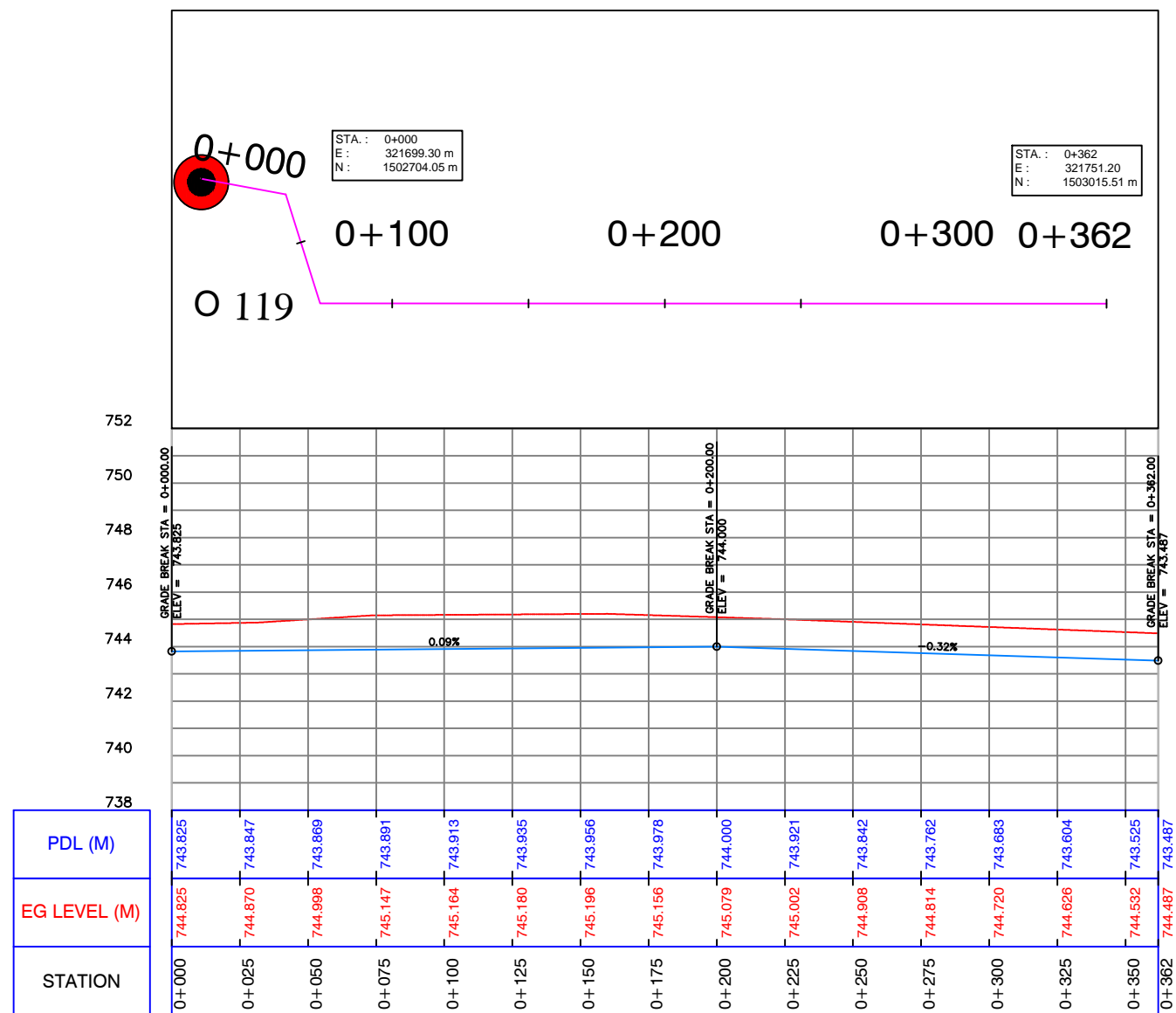
PDL (M)	737.000	737.143	737.286	737.429	737.571	737.714	737.857	738.000	738.143	738.286	738.429	738.571	738.714	738.857	739.000
EG LEVEL (M)	738.002	738.145	738.287	738.429	738.575	738.722	738.868	739.015	739.162	739.309	739.456	739.603	739.749	739.896	740.043
STATION	0+000	0+025	0+050	0+075	0+100	0+125	0+150	0+175	0+200	0+225	0+250	0+275	0+300	0+325	0+350

Profile (55)




CLIENT : UWA – Urban Water Administration SWC - STATE WATER CORPORATION	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT	 	REV. : DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)			SHEET
PROJECT : DARFUR URBAN WATER SUPPLY PROJECT	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES			DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
Design of El Fasher Urban Water Scheme				CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019
							DRAWING No: 63-35

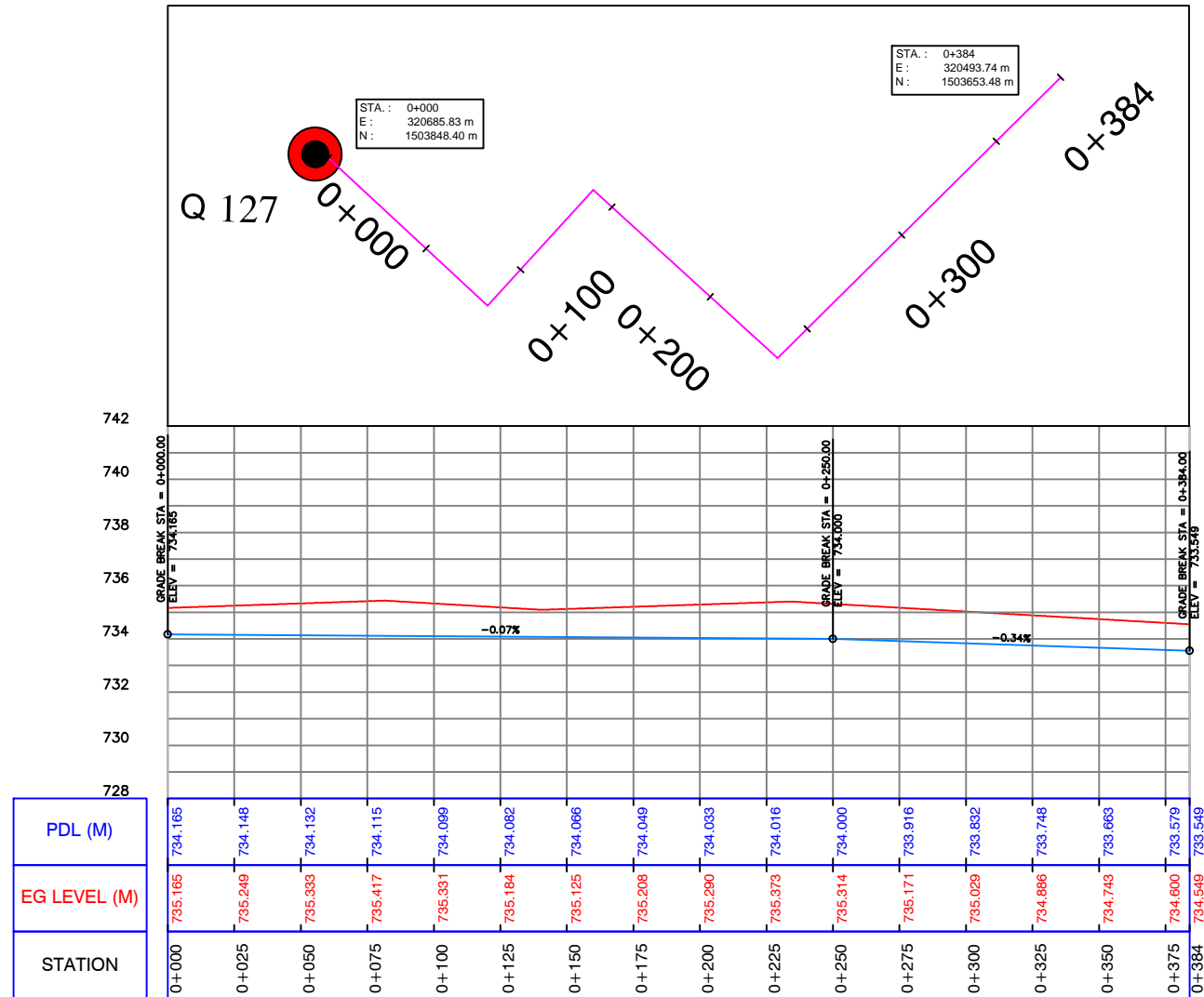


Profile (56)

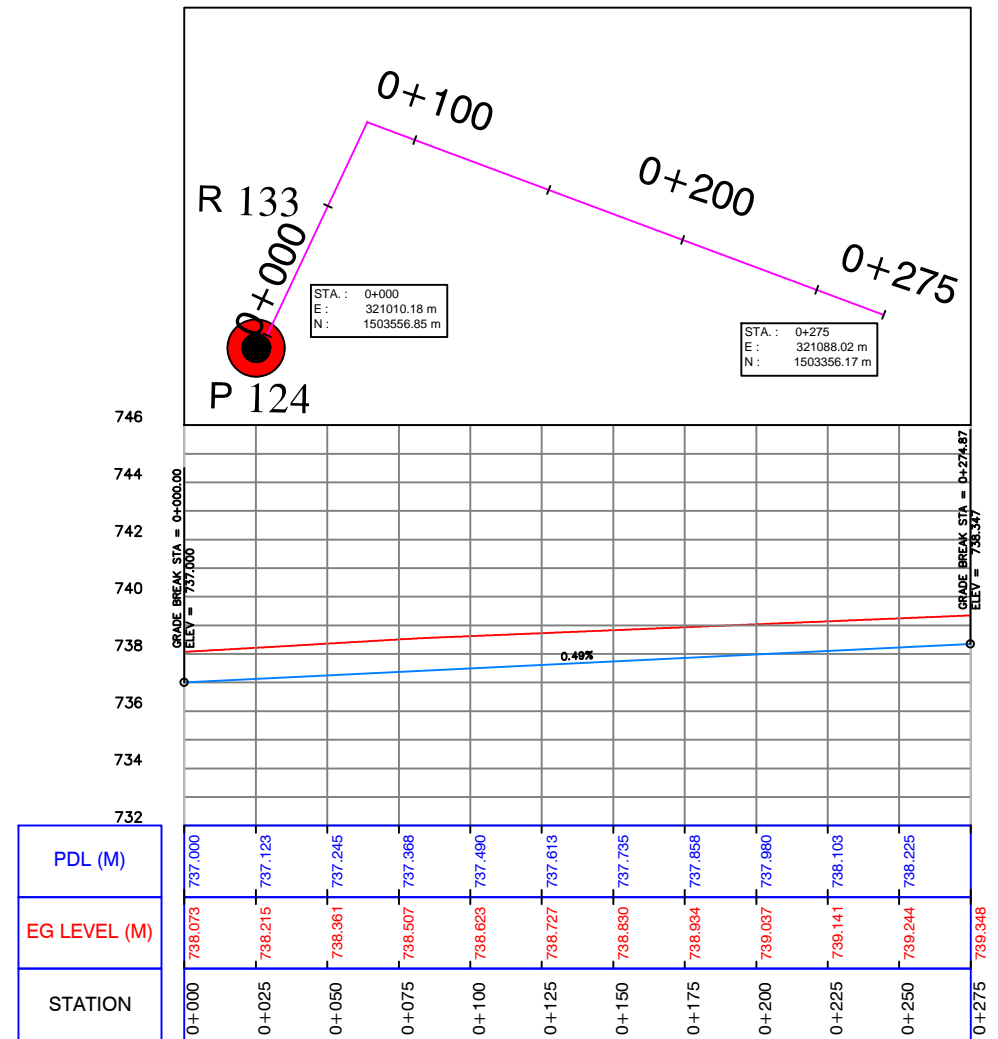


Profile (57)



CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.	DESCRIPTION	DATE	SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)	SHEET			
								DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:
						CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-36

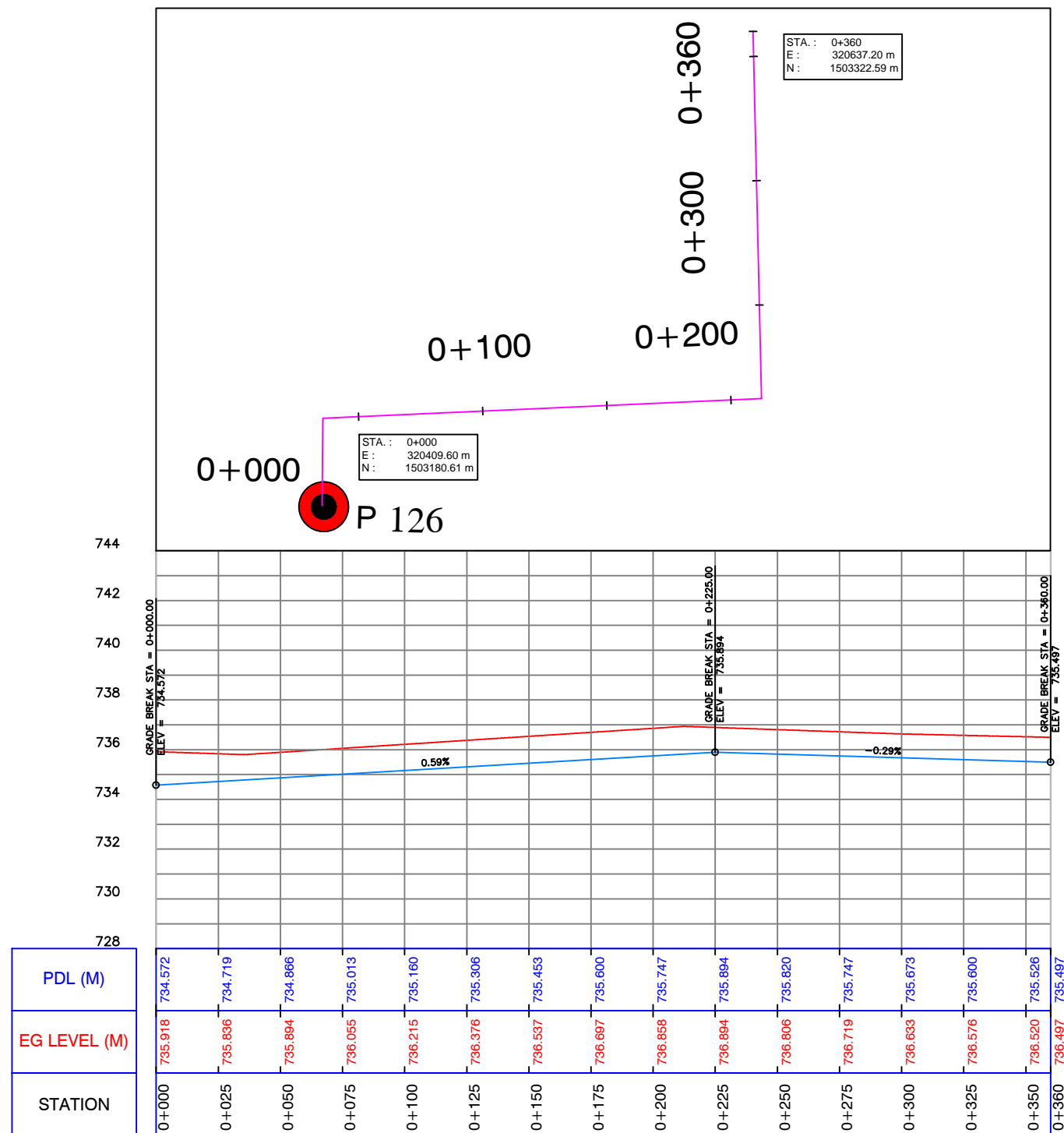


Profile (58)






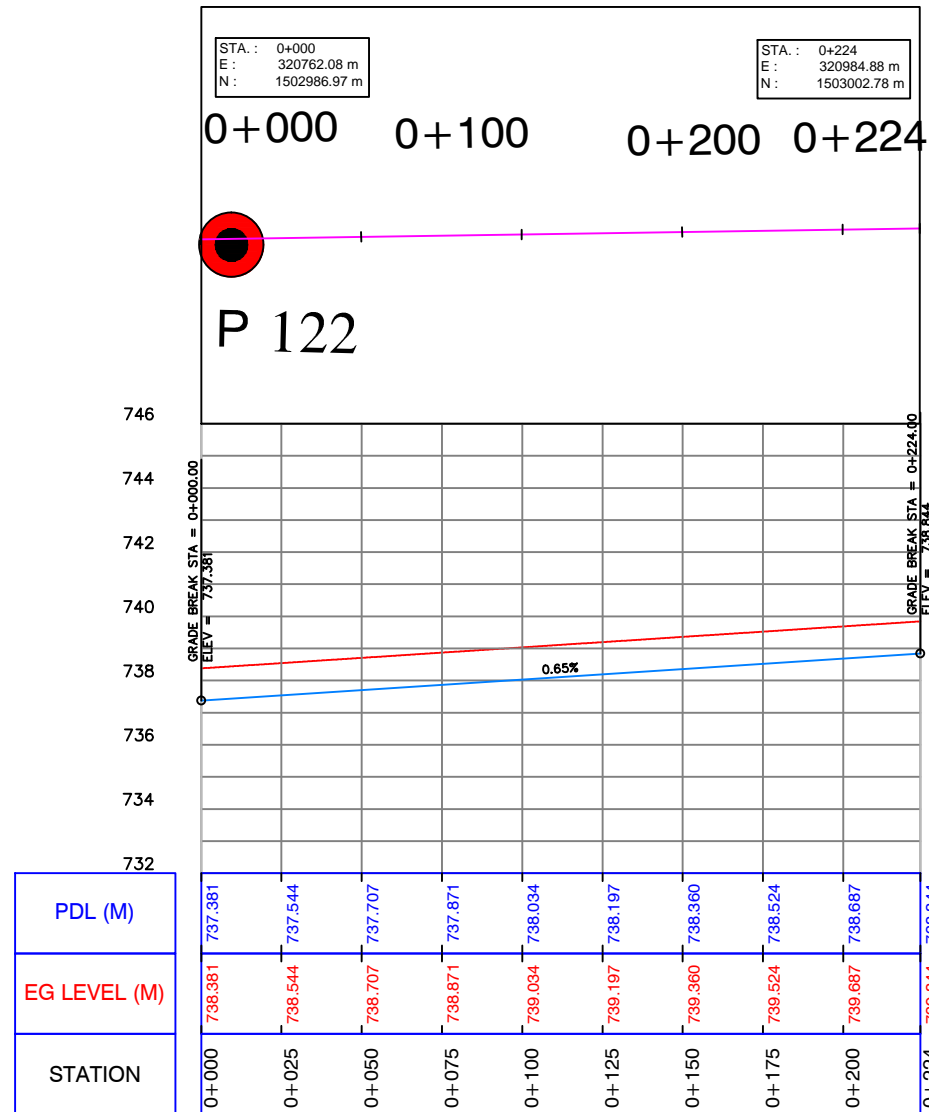
Profile (59)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  Department for International Development	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)	SHEET	
			DESIGNED :	Dr.Hashim M.H	DRAWN :	Nada S.A.		APPROVED FOR IMPLEMENTATION :	SCALE: AS SHOWN
			CHECKED :	Prof.Siddig E.A	DRAFTING COORDINATION :	UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-37

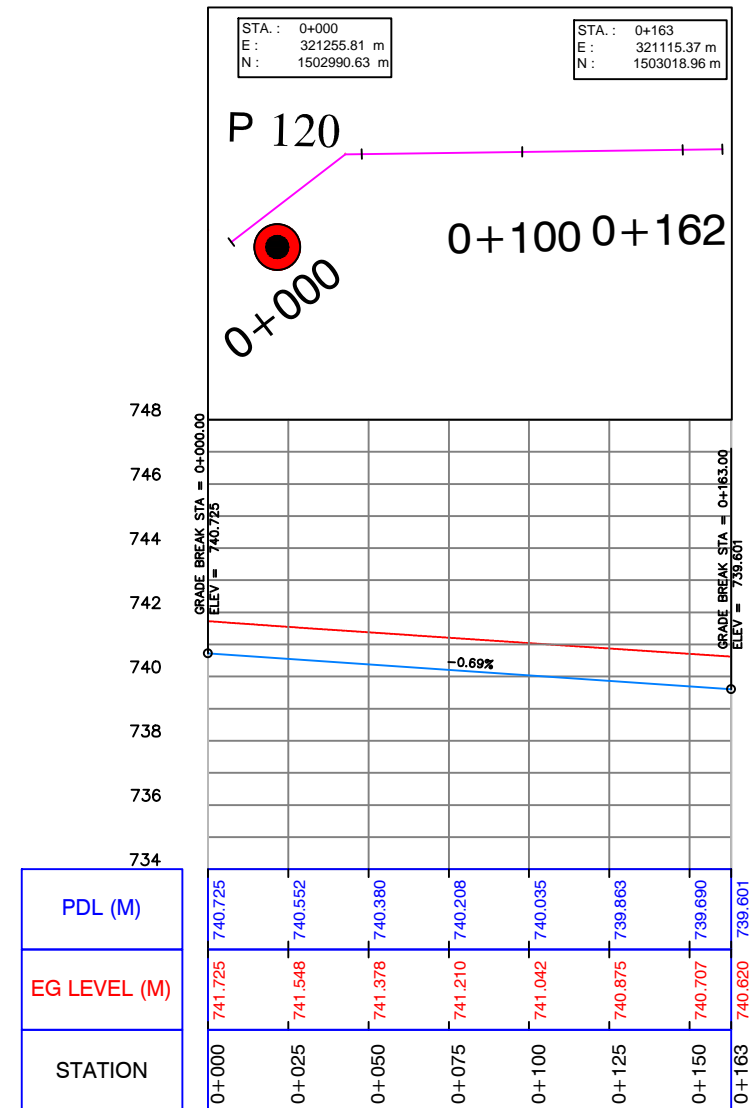


Profile (60)




CLIENT : UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT : DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.:	DESCRIPTION	DATE	SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)	SHEET	
			CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-38		

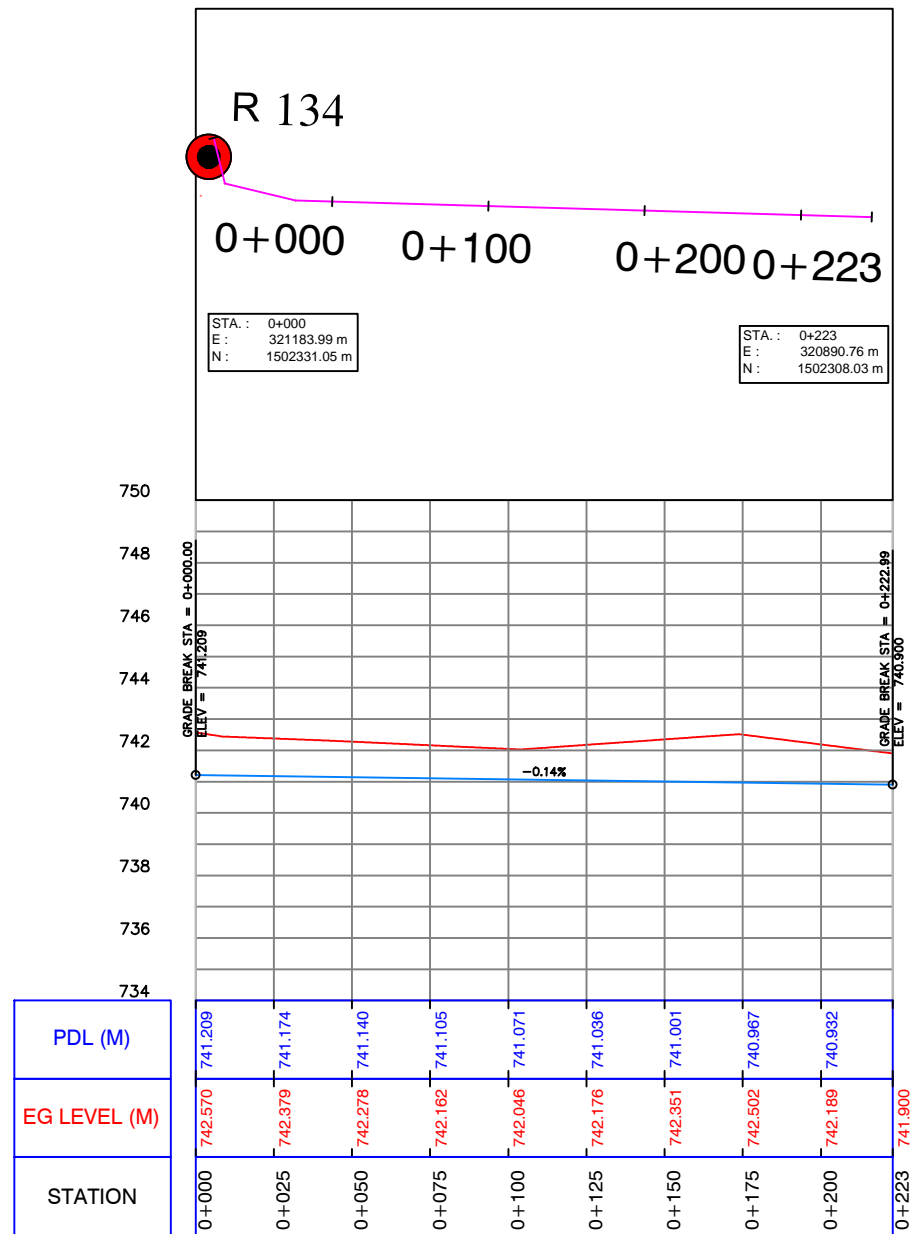


Profile (61)

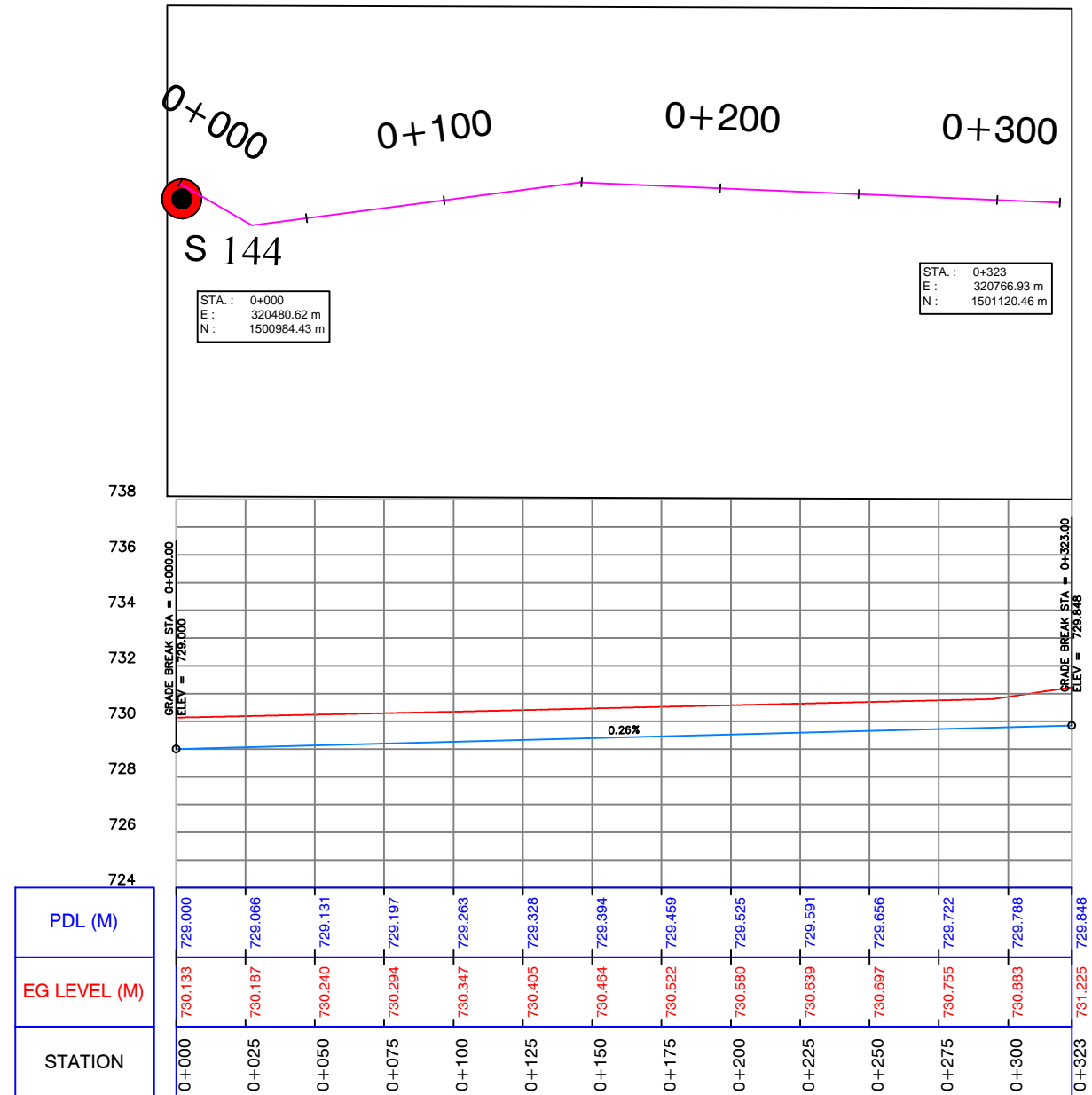


Profile (62)




CLIENT : UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT : DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV. : DESCRIPTION DATE SIGN.	DRAWN TITLE : PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)	SHEET
		DESIGNED : Dr.Hashim M.H	DRAWN : Nada S.A.	APPROVED FOR IMPLEMENTATION :
CHECKED : Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63-39

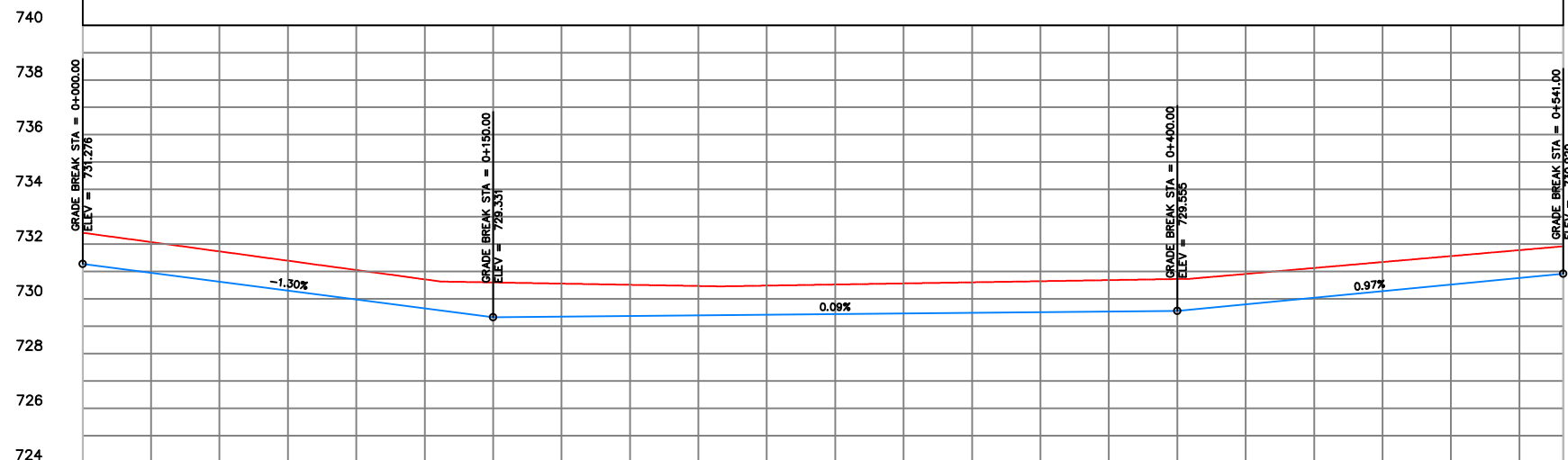
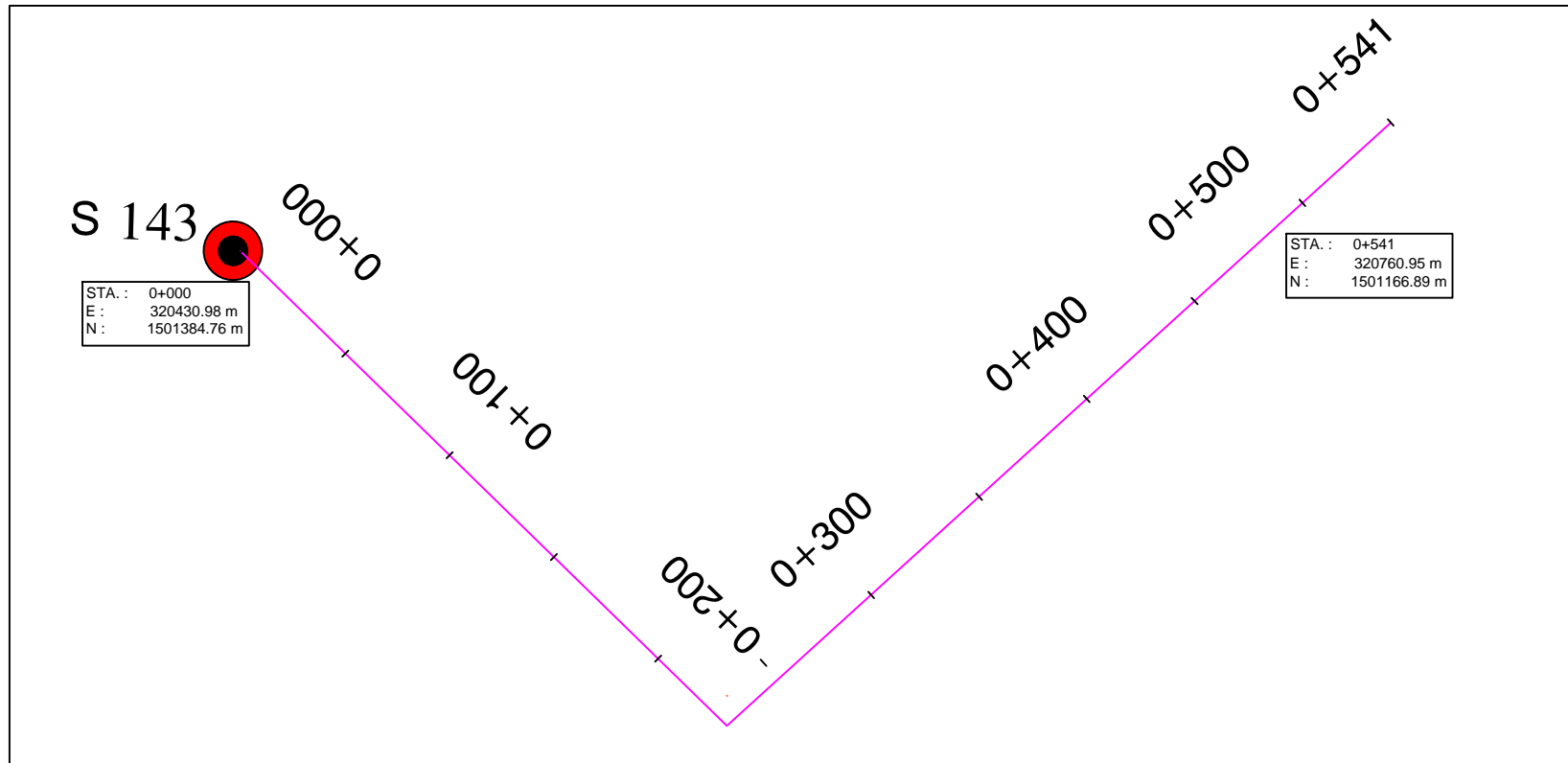


Profile (63)






Profile (65)

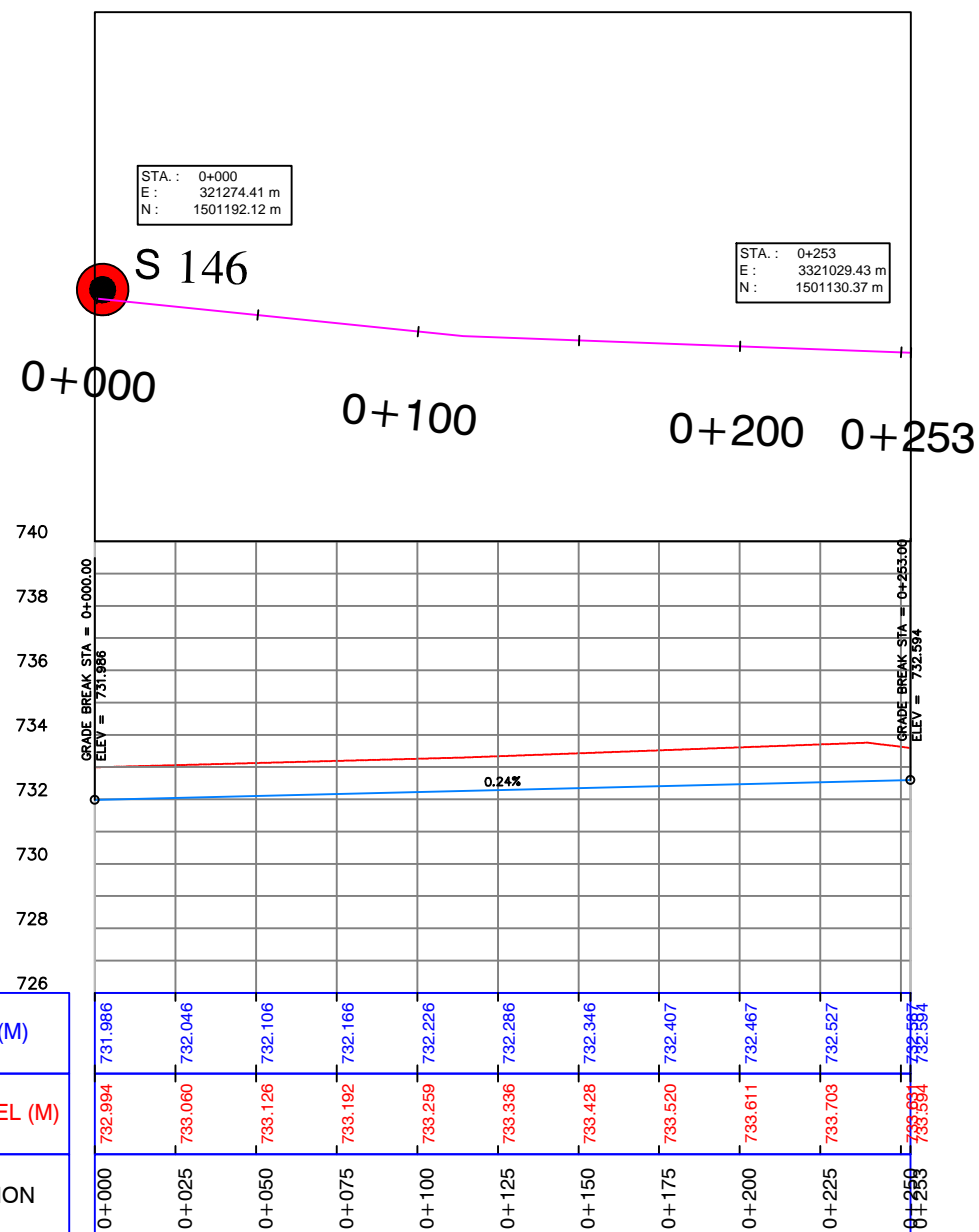
CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT   IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	REV.: DESCRIPTION: DATE: SIGN.:	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)	SHEET
		DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:
CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER:	DATE: JANUARY 2019	DRAWING No: 63-40



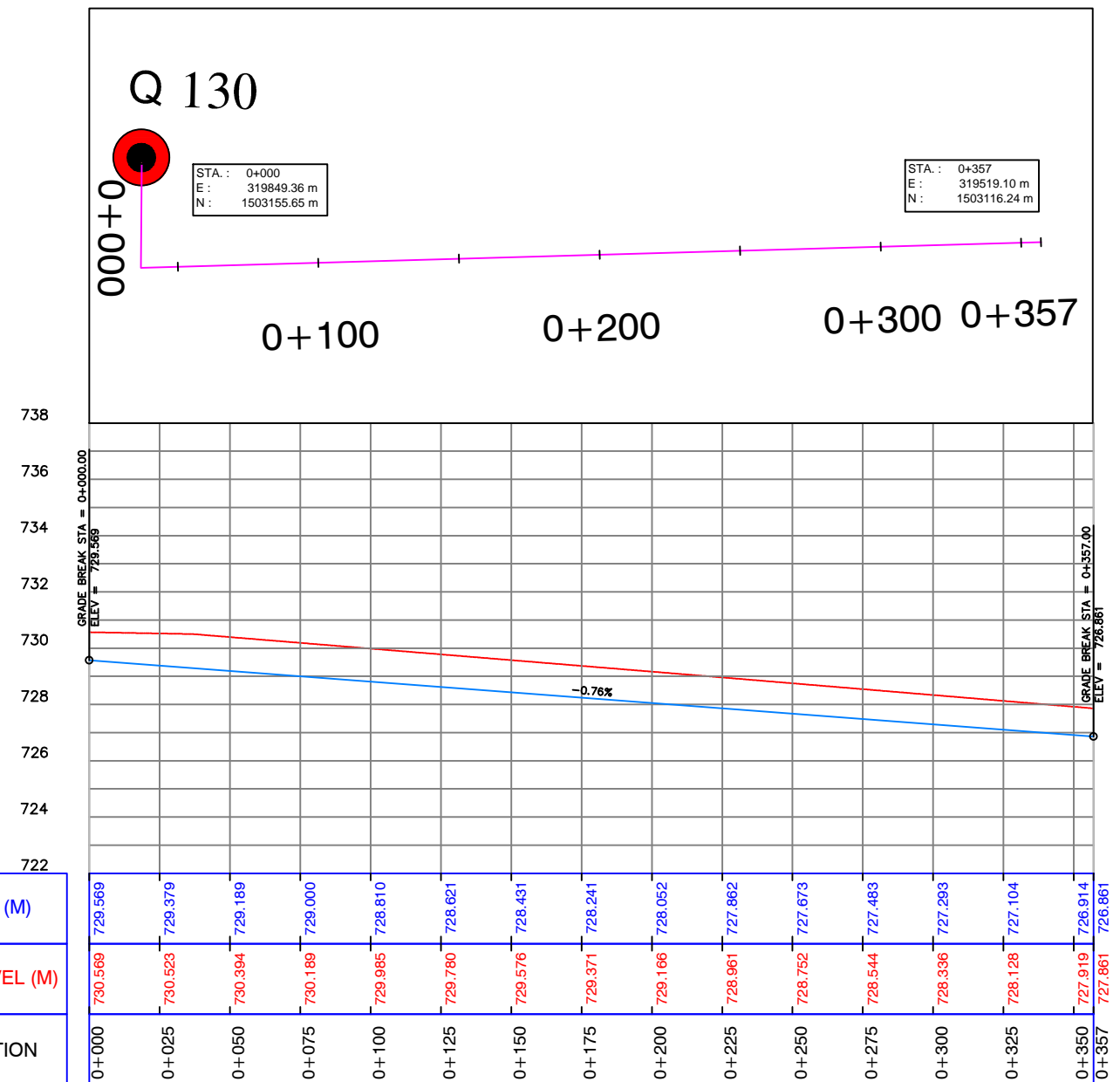
STATION	EG LEVEL (M)	PDL (M)
0+000	732.409	731.276
0+025	732.076	730.952
0+050	731.736	730.628
0+075	731.395	730.304
0+100	731.055	729.980
0+125	730.714	729.655
0+150	730.601	729.331
0+175	730.558	729.354
0+200	730.515	729.376
0+225	730.471	729.398
0+250	730.465	729.421
0+275	730.525	729.443
0+300	730.565	729.465
0+325	730.605	729.488
0+350	730.646	729.510
0+375	730.686	729.533
0+400	730.726	729.555
0+425	730.911	729.797
0+450	731.129	730.039
0+475	731.346	730.281
0+500	731.564	730.523
0+525	731.781	730.765
0+541	731.920	730.920

Profile (64)




CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV.: DESCRIPTION DATE SIGN.	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)	SHEET	
	IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 	DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION:	SCALE: AS SHOWN
		CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION: UNOPS	CONTRACT NUMBER DATE: JANUARY 2019	DRAWING No: 63-41

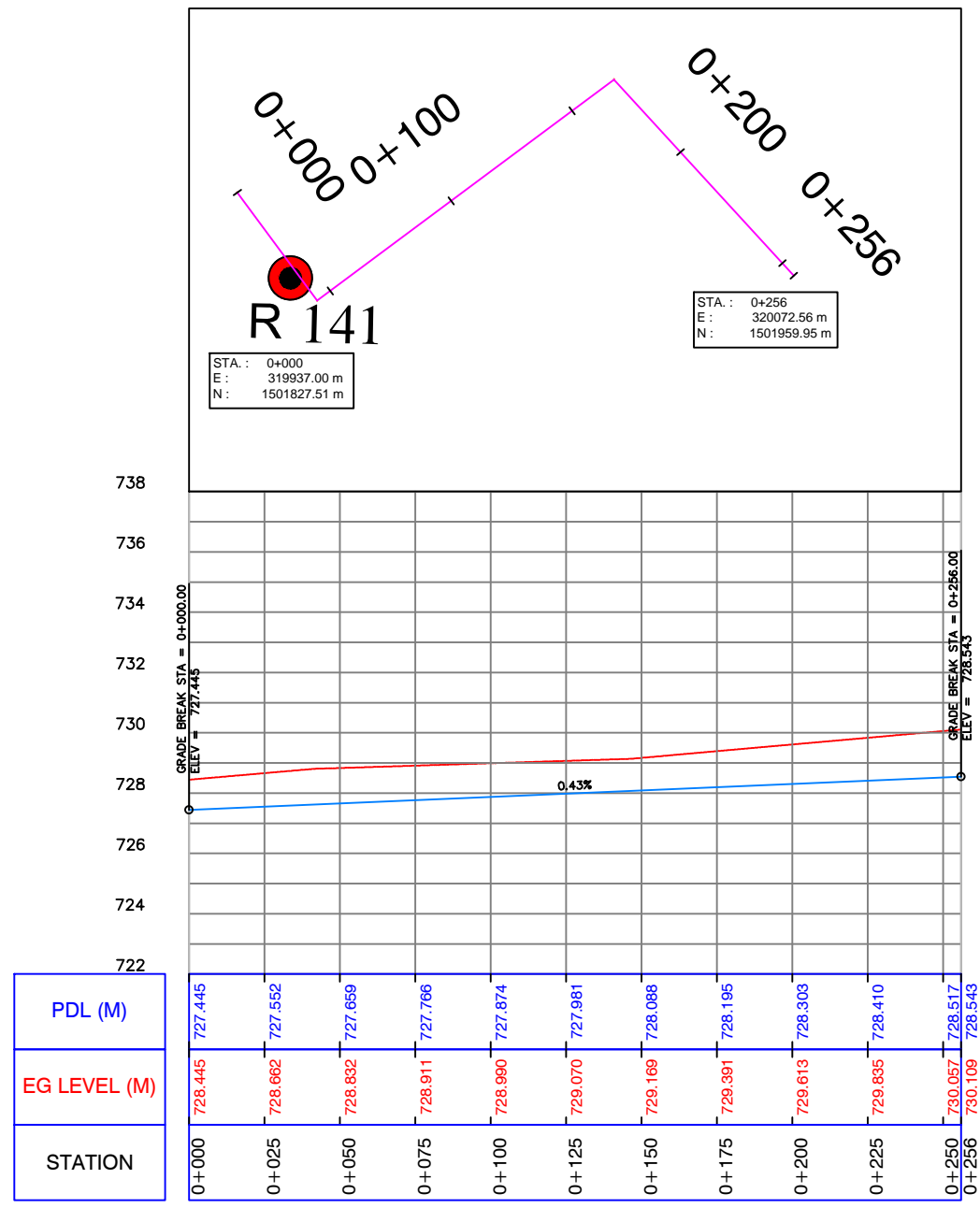


Profile (66)

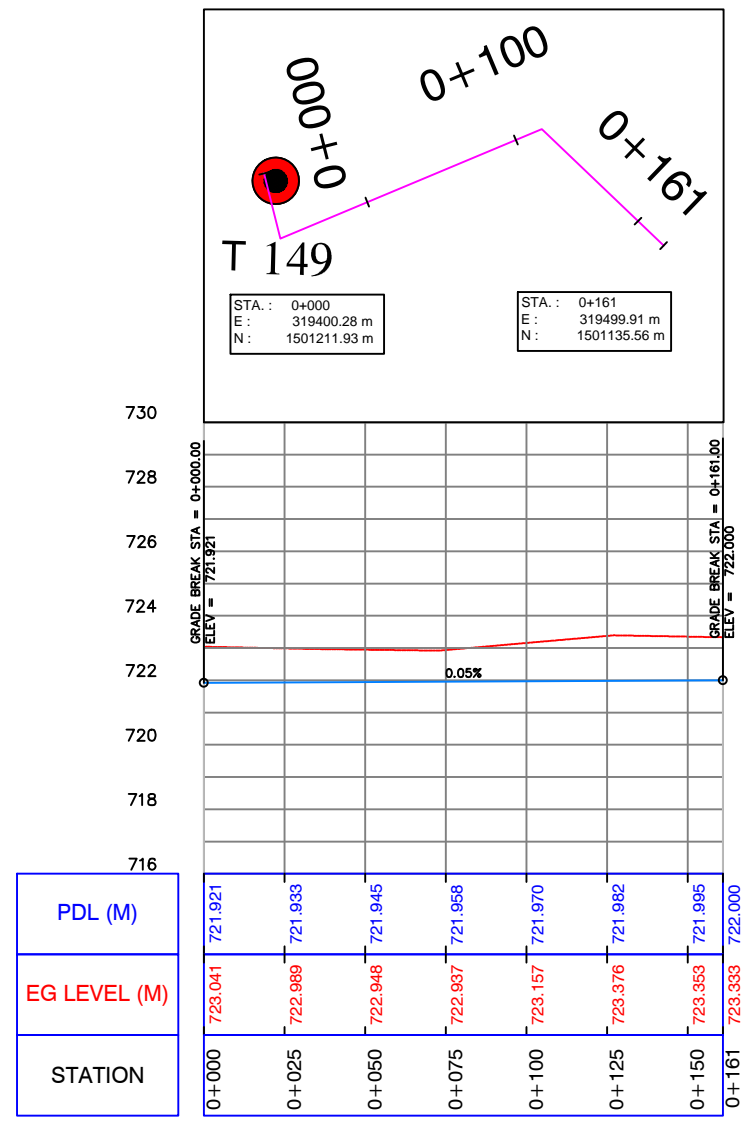


Profile (67)




CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV. DESCRIPTION DATE SIGN. 	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)			SHEET SCALE: AS SHOWN
			DESIGNED: Dr.Hashim M.H.	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION :	
IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 		CHECKED: Prof.Siddig E.A.	DRAFTING COORDINATION : UNOPS	DATE: JANUARY 2019	DRAWING No: 63- 42	



Profile (68)



Profile (69)

CLIENT: UWA – Urban Water Administration SWC - STATE WATER CORPORATION PROJECT: DARFUR URBAN WATER SUPPLY PROJECT Design of El Fasher Urban Water Scheme	FUNDED BY: DID DEPARTMENT FOR INTERNATIONAL DEVELOPMENT  	REV. DESCRIPTION DATE SIGN. 	DRAWN TITLE: PLAN AND PROFILE FOR PIPE LINE 63mm (PROPOSED)			SHEET
			DESIGNED: Dr.Hashim M.H	DRAWN: Nada S.A.	APPROVED FOR IMPLEMENTATION :	
IMPLEMENTED BY: UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 		CHECKED: Prof.Siddig E.A	DRAFTING COORDINATION : UNOPS	CONTRACT NUMBER	DATE: JANUARY 2019	DRAWING No: 63- 43