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- when it has to be **right**



Level Report

Report created: 01/07/2021 08:55:43

Project Details

General

Project Name: TUS-250-23.46 PID 102408
 Owner: -
 Lead Surveyor: Jon Penix
 Date Created: 08/24/2020 11:25:16
 Last Accessed: 01/07/2021 08:43:28
 Application Software: Infinity 3.4.0

Customer Details

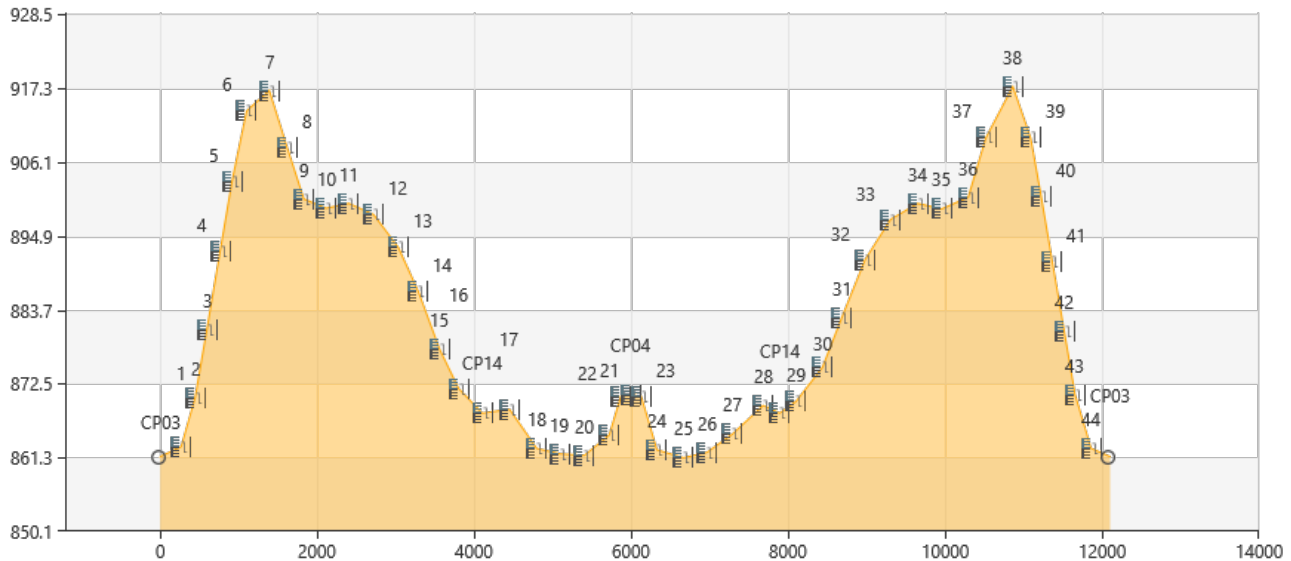
Customer Name: -
 Contact Person: -
 Number: -
 Email: -
 Skype: -
 Website: -

Master Coordinate System

Coordinate System Name: OHIO NORTH
 Transformation Type: Classical 3D
 Residual Distribution: None
 Ellipsoid: GRS 1980
 Projection Type: Lambert two
 Geoid Model: OH G18 GRS80
 CSCS Model: -

Path: I:\ProjectData\102408\Design\Survey\RawData\Level\Infinity\TUS-250-23.46 PID 102408\TUS-250-23.46 PID 102408.iprj
 Size: 207.8 MB
 Comments: -

Level Line Id: LINE00001



General

Date/Time: 7/24/2021 9:13:36 AM
 Staff One Id:
 Staff Two Id:
 Start Point: CP03
 End Point: CP03
 Instrument Type: Dna3/10
 Method: BF
 Stations: 48
 Observations: 96

Results

Height Difference: 0.000 ftUS
 Length: 12,103.149 ftUS
 Misclosure: **0.050 ftUS**
 Height Error / Point: 0.001 ftUS
 Total Distance Balance: **-411.559 ftUS**
 Total Station Difference: -

Processing Parameters

Adjustment Method: By Distance
 Staff Corrections: Not Applied

Points

Point Id	Date/Time	Height [ftUS]	ΔHeight [ftUS]	SD [ftUS]
CP03	7/24/2021 9:13:38 AM	861.448	-	-
1	7/24/2021 9:15:02 AM	862.966	1.518	0.000
2	7/24/2021 9:18:55 AM	870.272	7.305	0.000
3	7/24/2021 9:22:02 AM	880.754	10.482	0.000
4	7/24/2021 9:26:06 AM	892.535	11.782	0.000
5	7/24/2021 9:29:18 AM	903.188	10.652	0.000
6	7/24/2021 9:32:26 AM	913.887	10.699	0.000
7	7/24/2021 9:36:07 AM	916.981	3.093	0.000
8	7/24/2021 9:40:24 AM	908.279	-8.702	0.000
9	7/24/2021 9:44:33 AM	900.529	-7.750	0.000
10	7/24/2021 9:48:35 AM	899.124	-1.405	0.000
11	7/24/2021 9:52:52 AM	899.862	0.738	0.000
12	7/24/2021 9:57:47 AM	898.162	-1.700	0.000
13	7/24/2021 10:02:09 AM	893.210	-4.953	0.000
14	7/24/2021 10:06:51 AM	886.461	-6.748	0.000
15	7/24/2021 10:11:19 AM	877.697	-8.764	0.000
16	7/24/2021 10:16:35 AM	871.779	-5.918	0.000
CP14	7/24/2021 10:20:45 AM	868.050	-3.730	0.000
17	7/24/2021 10:25:15 AM	868.625	0.575	0.000
18	7/24/2021 10:30:47 AM	862.691	-5.934	0.000
19	7/24/2021 10:35:30 AM	861.877	-0.814	0.000
20	7/24/2021 10:40:02 AM	861.640	-0.237	0.000
21	7/24/2021 10:44:47 AM	864.715	3.075	0.000
22	7/24/2021 10:48:35 AM	870.594	5.878	0.000
CP04	7/24/2021 10:51:31 AM	870.815	0.221	0.000
23	7/24/2021 10:52:41 AM	870.593	-0.221	0.000
24	7/24/2021 10:56:12 AM	862.490	-8.104	0.000
25	7/24/2021 11:00:52 AM	861.282	-1.207	0.000
26	7/24/2021 11:05:11 AM	862.106	0.824	0.000
27	7/24/2021 11:09:42 AM	864.860	2.754	0.000
28	7/24/2021 11:14:51 AM	869.200	4.340	0.000
CP14	7/24/2021 11:19:20 AM	868.049	-1.151	0.000
29	7/24/2021 11:20:35 AM	869.795	1.746	0.000
30	7/24/2021 11:25:05 AM	874.988	5.193	0.000
31	7/24/2021 11:31:26 AM	882.510	7.522	0.000
32	7/24/2021 11:35:50 AM	891.321	8.811	0.000
33	7/24/2021 11:40:55 AM	897.426	6.105	0.000
34	7/24/2021 11:45:39 AM	899.854	2.427	0.000
35	7/24/2021 11:49:46 AM	899.024	-0.830	0.000
36	7/24/2021 11:54:39 AM	900.785	1.761	0.000
37	7/24/2021 11:59:38 AM	909.820	9.035	0.000
38	7/24/2021 12:04:01 PM	917.571	7.751	0.000
39	7/24/2021 12:08:12 PM	909.844	-7.727	0.000
40	7/24/2021 12:11:57 PM	900.954	-8.890	0.000
41	7/24/2021 12:15:15 PM	890.916	-10.038	0.000
42	7/24/2021 12:17:57 PM	880.356	-10.560	0.000
43	7/24/2021 12:21:21 PM	870.843	-9.513	0.000
44	7/24/2021 12:24:55 PM	862.708	-8.134	0.000
CP03	7/24/2021 9:13:38 AM	861.448	-1.260	-

Line Tolerances

Allowable Misclosure E = a 0.038 ftUS
 + b √ L:
 a: 0.007 ftUS
 b: 0.021 ftUS/√mi
 L (Level Line Length): 2.292 mi
 Height Error / Point: 0.002 ftUS
 Total Distance Balance: 30.000 ftUS

Observation Tolerances

Double Observation Check: 0.003 ftUS
 Station Difference: 0.001 ftUS
 Max. Sight Distance: 130.000 ftUS
 Min. Ground Clearance: 1.600 ftUS

Point Height Tolerances

Height Spread: 0.066 ftUS
 Max. Difference From Fixed: 0.033 ftUS
 Height:

Booking Sheet

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Point Id	Type	BS [ftUS]	IS [ftUS]	FS [ftUS]	Rise [ftUS]	Fall [ftUS]	Hz Dist. [ftUS]	ΔHeight [ftUS]	ΔHeight Corr. [ftUS]	Height [ftUS]	Remark
CP03		-	-	-	-	-	-	0.000	0.000	861.448	
CP03	BS1	6.026	-	-	-	-	81.285	-	-	-	
1	FS1	-	-	4.507	1.519	-	185.596	-	-	-	
1		-	-	-	-	-	-	1.519	-0.001	862.966	
1	BS1	8.761	-	-	-	-	102.911	-	-	-	
2	FS1	-	-	1.455	7.306	-	72.242	-	-	-	
2		-	-	-	-	-	-	7.306	-0.001	870.272	
2	BS1	11.428	-	-	-	-	100.880	-	-	-	
3	FS1	-	-	0.945	10.483	-	51.737	-	-	-	
3		-	-	-	-	-	-	10.483	-0.001	880.754	
3	BS1	12.452	-	-	-	-	110.640	-	-	-	
4	FS1	-	-	0.670	11.782	-	56.745	-	-	-	
4		-	-	-	-	-	-	11.782	-0.001	892.535	
4	BS1	11.987	-	-	-	-	102.920	-	-	-	
5	FS1	-	-	1.334	10.653	-	49.076	-	-	-	
5		-	-	-	-	-	-	10.653	-0.001	903.188	
5	BS1	11.950	-	-	-	-	111.493	-	-	-	
6	FS1	-	-	1.250	10.700	-	74.748	-	-	-	
6		-	-	-	-	-	-	10.700	-0.001	913.887	
6	BS1	9.193	-	-	-	-	146.005	-	-	-	
7	FS1	-	-	6.099	3.095	-	143.269	-	-	-	
7		-	-	-	-	-	-	3.095	-0.001	916.981	
7	BS1	2.711	-	-	-	-	105.945	-	-	-	
8	FS1	-	-	11.412	-	8.701	123.032	-	-	-	
8		-	-	-	-	-	-	-8.701	-0.001	908.279	
8	BS1	1.768	-	-	-	-	67.200	-	-	-	
9	FS1	-	-	9.517	-	7.749	144.438	-	-	-	
9		-	-	-	-	-	-	-7.749	-0.001	900.529	
9	BS1	4.312	-	-	-	-	142.312	-	-	-	
10	FS1	-	-	5.716	-	1.404	139.770	-	-	-	
10		-	-	-	-	-	-	-1.404	-0.001	899.124	
10	BS1	4.755	-	-	-	-	138.966	-	-	-	
11	FS1	-	-	4.016	0.739	-	151.604	-	-	-	
11		-	-	-	-	-	-	0.739	-0.001	899.862	
11	BS1	4.641	-	-	-	-	148.462	-	-	-	
12	FS1	-	-	6.339	-	1.699	167.804	-	-	-	
12		-	-	-	-	-	-	-1.699	-0.001	898.162	
12	BS1	3.737	-	-	-	-	144.606	-	-	-	
13	FS1	-	-	8.688	-	4.951	168.435	-	-	-	
13		-	-	-	-	-	-	-4.951	-0.001	893.210	
13	BS1	2.311	-	-	-	-	118.215	-	-	-	
14	FS1	-	-	9.059	-	6.747	139.140	-	-	-	
14		-	-	-	-	-	-	-6.747	-0.001	886.461	
14	BS1	0.971	-	-	-	-	123.013	-	-	-	
15	FS1	-	-	9.733	-	8.763	148.605	-	-	-	
15		-	-	-	-	-	-	-8.763	-0.001	877.697	
15	BS1	0.905	-	-	-	-	147.986	-	-	-	
16	FS1	-	-	6.822	-	5.917	92.894	-	-	-	
16		-	-	-	-	-	-	-5.917	-0.001	871.779	
16	BS1	3.653	-	-	-	-	137.762	-	-	-	
CP14	FS1	-	-	7.381	-	3.728	163.187	-	-	-	
CP14		-	-	-	-	-	-	-3.728	-0.001	868.050	
CP14	BS1	6.420	-	-	-	-	153.194	-	-	-	
17	FS1	-	-	5.844	0.577	-	193.987	-	-	-	
17		-	-	-	-	-	-	0.577	-0.001	868.625	
17	BS1	3.344	-	-	-	-	183.494	-	-	-	
18	FS1	-	-	9.277	-	5.933	164.237	-	-	-	
18		-	-	-	-	-	-	-5.933	-0.001	862.691	
18	BS1	5.176	-	-	-	-	134.755	-	-	-	
19	FS1	-	-	5.989	-	0.811	157.831	-	-	-	
19		-	-	-	-	-	-	-0.812	-0.001	861.877	
19	BS1	5.258	-	-	-	-	150.167	-	-	-	
20	FS1	-	-	5.494	-	0.236	162.374	-	-	-	
20		-	-	-	-	-	-	-0.236	-0.001	861.640	

20	BS1	5.416	-	-	-	-	147.721	-	-	-
21	FS1	-	-	2.340	3.077	-	169.404	-	-	-
21		-	-	-	-	-	-	3.077	-0.001	864.715
21	BS1	7.030	-	-	-	-	64.647	-	-	-
22	FS1	-	-	1.152	5.879	-	84.087	-	-	-
22		-	-	-	-	-	-	5.879	-0.001	870.594
22	BS1	5.280	-	-	-	-	55.089	-	-	-
CP04	FS1	-	-	5.058	0.222	-	74.414	-	-	-
CP04		-	-	-	-	-	-	0.222	-0.001	870.815
CP04	BS1	5.058	-	-	-	-	74.448	-	-	-
23	FS1	-	-	5.279	-	0.221	55.053	-	-	-
23		-	-	-	-	-	-	-0.221	-0.001	870.593
23	BS1	1.162	-	-	-	-	84.174	-	-	-
24	FS1	-	-	9.265	-	8.103	115.646	-	-	-
24		-	-	-	-	-	-	-8.103	-0.001	862.490
24	BS1	4.423	-	-	-	-	154.522	-	-	-
25	FS1	-	-	5.629	-	1.206	183.096	-	-	-
25		-	-	-	-	-	-	-1.206	-0.001	861.282
25	BS1	5.792	-	-	-	-	153.738	-	-	-
26	FS1	-	-	4.967	0.825	-	149.062	-	-	-
26		-	-	-	-	-	-	0.825	-0.001	862.106
26	BS1	6.714	-	-	-	-	154.246	-	-	-
27	FS1	-	-	3.959	2.755	-	166.646	-	-	-
27		-	-	-	-	-	-	2.755	-0.001	864.860
27	BS1	8.578	-	-	-	-	197.729	-	-	-
28	FS1	-	-	4.236	4.342	-	194.876	-	-	-
28		-	-	-	-	-	-	4.342	-0.002	869.200
28	BS1	5.435	-	-	-	-	152.724	-	-	-
CP14	FS1	-	-	6.585	-	1.150	58.524	-	-	-
CP14		-	-	-	-	-	-	-1.150	-0.001	868.049
CP14	BS1	6.585	-	-	-	-	58.558	-	-	-
29	FS1	-	-	4.839	1.747	-	146.723	-	-	-
29		-	-	-	-	-	-	1.747	-0.001	869.795
29	BS1	6.614	-	-	-	-	157.359	-	-	-
30	FS1	-	-	1.420	5.194	-	181.787	-	-	-
30		-	-	-	-	-	-	5.194	-0.001	874.988
30	BS1	8.834	-	-	-	-	137.648	-	-	-
31	FS1	-	-	1.312	7.523	-	107.939	-	-	-
31		-	-	-	-	-	-	7.523	-0.001	882.510
31	BS1	9.726	-	-	-	-	147.487	-	-	-
32	FS1	-	-	0.914	8.812	-	150.750	-	-	-
32		-	-	-	-	-	-	8.812	-0.001	891.321
32	BS1	8.226	-	-	-	-	156.232	-	-	-
33	FS1	-	-	2.119	6.107	-	167.731	-	-	-
33		-	-	-	-	-	-	6.107	-0.001	897.426
33	BS1	6.837	-	-	-	-	152.658	-	-	-
34	FS1	-	-	4.408	2.429	-	192.869	-	-	-
34		-	-	-	-	-	-	2.429	-0.001	899.854
34	BS1	4.430	-	-	-	-	153.054	-	-	-
35	FS1	-	-	5.258	-	0.828	155.049	-	-	-
35		-	-	-	-	-	-	-0.828	-0.001	899.024
35	BS1	5.698	-	-	-	-	169.458	-	-	-
36	FS1	-	-	3.936	1.762	-	166.287	-	-	-
36		-	-	-	-	-	-	1.762	-0.001	900.785
36	BS1	9.544	-	-	-	-	134.644	-	-	-
37	FS1	-	-	0.508	9.036	-	91.195	-	-	-
37		-	-	-	-	-	-	9.036	-0.001	909.820
37	BS1	10.979	-	-	-	-	145.024	-	-	-
38	FS1	-	-	3.227	7.752	-	197.504	-	-	-
38		-	-	-	-	-	-	7.752	-0.001	917.571
38	BS1	2.873	-	-	-	-	108.603	-	-	-
39	FS1	-	-	10.599	-	7.726	117.603	-	-	-
39		-	-	-	-	-	-	-7.726	-0.001	909.844
39	BS1	0.881	-	-	-	-	66.847	-	-	-
40	FS1	-	-	9.771	-	8.889	68.005	-	-	-

40		-	-	-	-	-	-	-8.889	-0.001	900.954	
40	BS1	0.824	-	-	-	-	61.256	-	-	-	
41	FS1	-	-	10.861	-	10.037	82.131	-	-	-	
41		-	-	-	-	-	-	-10.037	-0.001	890.916	
41	BS1	0.680	-	-	-	-	65.102	-	-	-	
42	FS1	-	-	11.240	-	10.560	87.154	-	-	-	
42		-	-	-	-	-	-	-10.560	-0.001	880.356	
42	BS1	0.470	-	-	-	-	60.241	-	-	-	
43	FS1	-	-	9.982	-	9.513	76.927	-	-	-	
43		-	-	-	-	-	-	-9.513	-0.001	870.843	
43	BS1	1.302	-	-	-	-	76.726	-	-	-	
44	FS1	-	-	9.435	-	8.133	126.352	-	-	-	
44		-	-	-	-	-	-	-8.133	-0.001	862.708	
44	BS1	4.397	-	-	-	-	103.648	-	-	-	
CP03	FS1	-	-	5.656	-	1.259	139.789	-	-	-	
CP03		-	-	-	-	-	-	-1.259	-0.001	861.448	