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# Level Report

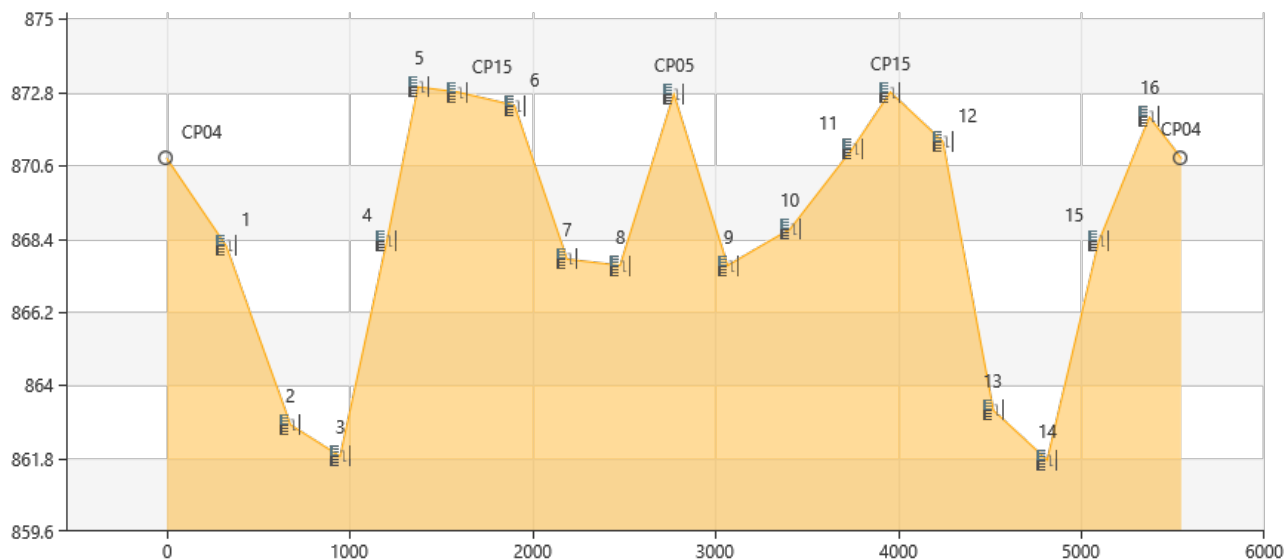
Report created: 01/07/2021 08:58:09

## Project Details

General		Customer Details		Master Coordinate System	
Project Name:	TUS-250-23.46 PID 102408	Customer Name:	-	Coordinate System Name:	OHIO NORTH
Owner:	-	Contact Person:	-	Transformation Type:	Classical 3D
Lead Surveyor:	Jon Penix	Number:	-	Residual Distribution:	None
Date Created:	08/24/2020 11:25:16	Email:	-	Ellipsoid:	GRS 1980
Last Accessed:	01/07/2021 08:43:28	Skype:	-	Projection Type:	Lambert two
Application Software:	Infinity 3.4.0	Website:	-	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	7/23/2021 10:16:17 AM	Instrument Type:	Dna3/10
Staff One Id:		Method:	BF
Staff Two Id:		Stations:	20
Start Point:	CP04	Observations:	40
End Point:	CP04		

Results			
Height Difference:	0.000 ftUS	Height Error / Point:	0.001 ftUS
Length:	5,545.822 ftUS	Total Distance Balance:	<b>-207.949 ftUS</b>
Misclosure:	0.011 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]
CP04	7/23/2021 10:16:19 AM	870.815	-	-
1	7/23/2021 10:19:45 AM	868.194	-2.621	0.000
2	7/23/2021 10:24:35 AM	862.804	-5.390	0.000
3	7/23/2021 10:28:34 AM	861.859	-0.944	0.000
4	7/23/2021 10:33:56 AM	868.333	6.474	0.000
5	7/23/2021 10:37:35 AM	872.967	4.634	0.000
CP15	7/23/2021 10:41:53 AM	872.809	-0.158	0.000
6	7/23/2021 10:46:29 AM	872.411	-0.398	0.000
7	7/23/2021 10:50:46 AM	867.783	-4.628	0.000
8	7/23/2021 10:55:51 AM	867.597	-0.186	0.000
CP05	7/23/2021 11:03:10 AM	872.743	5.146	0.000
9	7/23/2021 11:04:54 AM	867.597	-5.147	0.000
10	7/23/2021 11:10:04 AM	868.698	1.101	0.000
11	7/23/2021 11:15:22 AM	871.093	2.395	0.000
CP15	7/23/2021 11:19:14 AM	872.809	1.716	0.000
12	7/23/2021 11:25:47 AM	871.320	-1.489	0.000
13	7/23/2021 11:30:28 AM	863.241	-8.079	0.000
14	7/23/2021 11:34:37 AM	861.747	-1.493	0.000
15	7/23/2021 11:38:29 AM	868.317	6.570	0.000
16	7/23/2021 11:42:27 AM	872.059	3.741	0.000
CP04	7/23/2021 10:16:19 AM	870.815	-1.244	-

**Line Tolerances**

Allowable Misclosure E = a 0.028 ftUS  
 + b √ L:  
 a: 0.007 ftUS  
 b: 0.021 ftUS/√mi  
 L (Level Line Length): 1.050 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 Height: 0.033 ftUS

**Booking Sheet**

Point Id	Type	BS [ftUS]	IS [ftUS]	FS [ftUS]	Rise [ftUS]	Fall [ftUS]	Hz Dist. [ftUS]	ΔHeight [ftUS]	ΔHeight Corr. [ftUS]	Height [ftUS]	Remark
CP04		-	-	-	-	-	-	0.000	0.000	870.815	
CP04	BS1	6.515	-	-	-	-	149.633	-	-	-	
1	FS1	-	-	9.135	-	2.621	173.926	-	-	-	
1		-	-	-	-	-	-	-2.621	-0.001	868.194	
1	BS1	3.361	-	-	-	-	159.760	-	-	-	
2	FS1	-	-	8.750	-	5.389	193.094	-	-	-	
2		-	-	-	-	-	-	-5.389	-0.001	862.804	
2	BS1	3.448	-	-	-	-	134.891	-	-	-	
3	FS1	-	-	4.392	-	0.944	135.551	-	-	-	
3		-	-	-	-	-	-	-0.944	-0.001	861.859	
3	BS1	7.602	-	-	-	-	143.779	-	-	-	
4	FS1	-	-	1.128	6.474	-	111.823	-	-	-	
4		-	-	-	-	-	-	6.474	-0.001	868.333	
4	BS1	10.093	-	-	-	-	75.451	-	-	-	
5	FS1	-	-	5.458	4.634	-	95.311	-	-	-	
5		-	-	-	-	-	-	4.634	0.000	872.967	
5	BS1	4.375	-	-	-	-	94.404	-	-	-	
CP15	FS1	-	-	4.532	-	0.157	122.490	-	-	-	
CP15		-	-	-	-	-	-	-0.157	0.000	872.809	
CP15	BS1	3.963	-	-	-	-	138.743	-	-	-	
6	FS1	-	-	4.360	-	0.397	170.800	-	-	-	
6		-	-	-	-	-	-	-0.397	-0.001	872.411	
6	BS1	3.442	-	-	-	-	142.499	-	-	-	
7	FS1	-	-	8.069	-	4.628	146.309	-	-	-	
7		-	-	-	-	-	-	-4.628	-0.001	867.783	
7	BS1	4.232	-	-	-	-	145.693	-	-	-	
8	FS1	-	-	4.417	-	0.185	142.953	-	-	-	

8		-	-	-	-	-	-	-0.185	-0.001	867.597	
8	BS1	7.352	-	-	-	-	141.289	-	-	-	
CP05	FS1	-	-	2.205	5.147	-	152.916	-	-	-	
CP05		-	-	-	-	-	-	5.147	-0.001	872.743	
CP05	BS1	2.206	-	-	-	-	152.907	-	-	-	
9	FS1	-	-	7.352	-	5.146	141.396	-	-	-	
9		-	-	-	-	-	-	-5.146	-0.001	867.597	
9	BS1	3.899	-	-	-	-	156.037	-	-	-	
10	FS1	-	-	2.797	1.102	-	186.313	-	-	-	
10		-	-	-	-	-	-	1.102	-0.001	868.698	
10	BS1	7.896	-	-	-	-	178.660	-	-	-	
11	FS1	-	-	5.501	2.396	-	158.635	-	-	-	
11		-	-	-	-	-	-	2.396	-0.001	871.093	
11	BS1	5.883	-	-	-	-	99.260	-	-	-	
CP15	FS1	-	-	4.167	1.716	-	110.595	-	-	-	
CP15		-	-	-	-	-	-	1.716	0.000	872.809	
CP15	BS1	4.716	-	-	-	-	138.105	-	-	-	
12	FS1	-	-	6.205	-	1.488	149.086	-	-	-	
12		-	-	-	-	-	-	-1.488	-0.001	871.320	
12	BS1	2.415	-	-	-	-	96.798	-	-	-	
13	FS1	-	-	10.494	-	8.078	179.176	-	-	-	
13		-	-	-	-	-	-	-8.078	-0.001	863.241	
13	BS1	3.377	-	-	-	-	151.433	-	-	-	
14	FS1	-	-	4.870	-	1.493	142.181	-	-	-	
14		-	-	-	-	-	-	-1.493	-0.001	861.747	
14	BS1	8.193	-	-	-	-	156.428	-	-	-	
15	FS1	-	-	1.622	6.570	-	125.145	-	-	-	
15		-	-	-	-	-	-	6.570	-0.001	868.317	
15	BS1	8.842	-	-	-	-	135.574	-	-	-	
16	FS1	-	-	5.100	3.742	-	142.231	-	-	-	
16		-	-	-	-	-	-	3.742	-0.001	872.059	
16	BS1	5.500	-	-	-	-	77.593	-	-	-	
CP04	FS1	-	-	6.744	-	1.243	96.952	-	-	-	
CP04		-	-	-	-	-	-	-1.243	0.000	870.815	