Christopher M. Hannett

From: Rick Brooks <RBrooks@bnbpc.biz>
Sent: Wednesday, August 08, 2018 11:23 AM

To: Christopher M. Hannett
Cc: Gio Gagliardi; David Duffy

Subject: RE: Ashokan Rail Trail, Ulster County (8193)

Attachments: LocalCodinates GPS control.txt; Station Sketches.pdf; Station StatePlaneCoords.pdf;

COVER_SHEET.pdf

Good morning Chris,

I had to wait for the managers to get back from Vacations so I could check that I'm sending you the current info.

I am sending you four documents: The cover sheet with the 10 GPS static stations noted, The 10 Station tie sheets, the station State Plane Coordinates, the Station project datum coordinates. The individual traverse stations are embedded in the CAD .dwg on the V-SURVCTRL-TRV layer were along the railbed and are probably mostly wiped out.

The project datum is Grid North, the project coordinates are with horizontal ground distances (not Grid distances). We held station 2 as the insertion point, into the State Plane Coordinate system and station two for the rotation into Grid North. The elevations are derived from the static observations and were not tied to a NGS benchmark. An applied a project wide scale factor of 0.99988795375 to move the State Plane Coordinates into the project datum. There should be ample information for the surveyor to do a site calibration to work off of the project plans.

If any questions please feel free to contact us.

rick

Richard C. Brooks, LS Vice President Brooks & Brooks Land Surveyors 11 Main St. Highland NY 12528 845.691.7339 Rbrooks@bnbpc.biz

From: Christopher M. Hannett

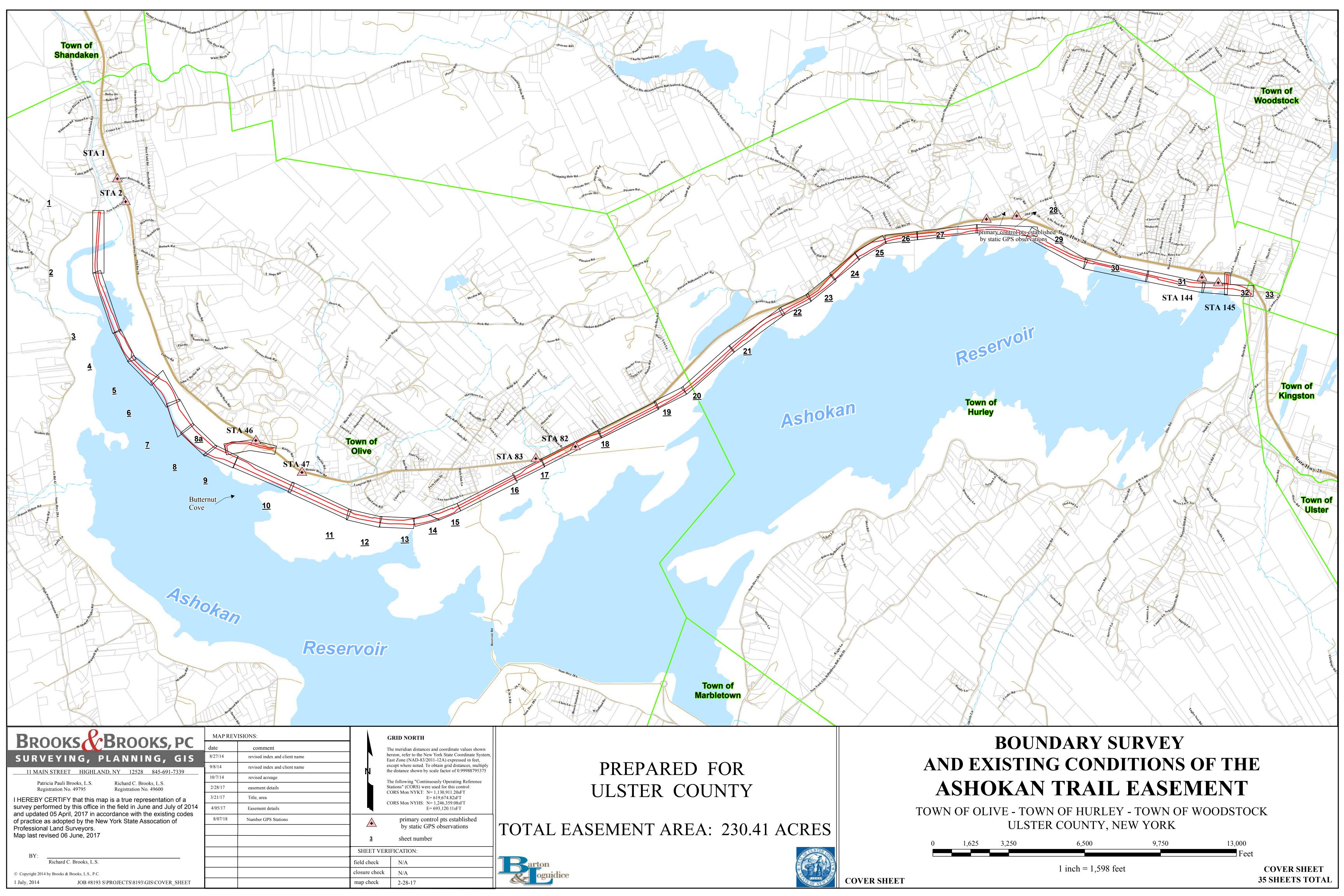
Sent: Friday, August 03, 2018 2:28 PM

To: Rick Brooks

Subject: RE: Ashokan Rail Trail, Ulster County (8193)

Thank you Rick. What the surveyor is looking for is baseline tie / control point tie details so he has some hard field points to tie into. It looks like your survey crews had a few points along Route 28 where they tied into specific locations so if there are any details of these locations showing mag nails, utility poles, fire hydrants, etc. that would be great.

Chris





VIEW NORTH

JOB #: 8193

DATE: 05/22/2014

DEP PROP ID:

FIELD CREW: BN & FA

COUNTY: Ulster CONDITIONS: TOWN: Olive

STATION #:



VIEW WEST



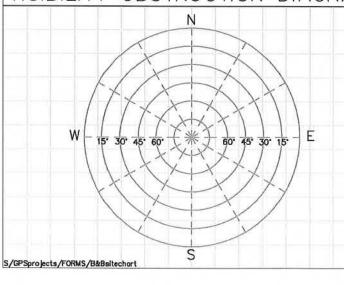
VIEW EAST

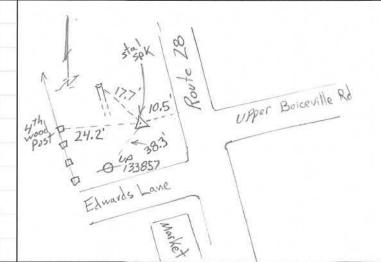


VISIBILITY OBSTRUCTION DIAGRAM



STATION TIES DIAGRAM







JOB #: 8193

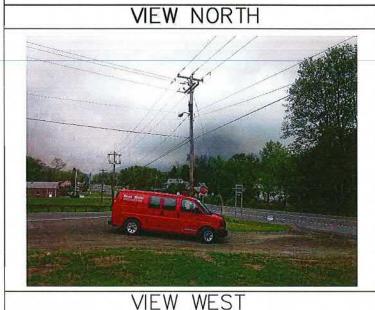
DEP PROP ID:

DATE: 05/22/2014

FIELD CREW: BN&EA.

COUNTY: Ulster TOWN: Olive

CONDITIONS: STATION #: 2





VIEW EAST







STATION TIES DIAGRAM



N E S S/GPSprojects/FORMS/B&Bsitechart



VIEW NORTH

JOB #: 8193

DEP PROP ID:

DATE: 05/22/2014 FIELD CREW: BN EA

COUNTY: U/ster

CONDITIONS:

STATION #: 46

TOWN: Olive



VIEW WEST



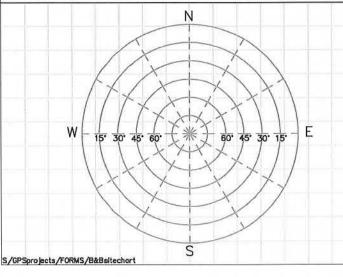
VIEW EAST



OBSTRUCTION DIAGRAM



STATION TIES DIAGRAM



Runge Rd.



VIEW NORTH

JOB #: 8193

DATE: 05/22/2014

FIELD CREW: BN EA

DEP PROP ID:

COUNTY: Ulster CONDITIONS:

TOWN: Olive

STATION #: 47



VIEW WEST



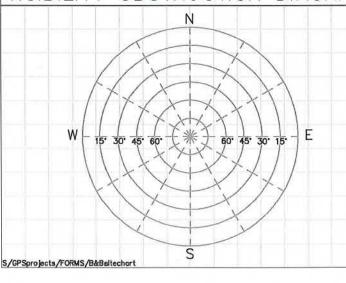
VIEW EAST



VISIBILITY OBSTRUCTION DIAGRAM



STATION TIES DIAGRAM



39.37' \$ 5.8 from Edge pavement

39.37' \$ 5.8 from Edge pavement

45 MPH

3rd bolt

4,5' high

8"Maple

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BROOKS AND BROOKS

11 MAIN STEET

Phone: 845 691 7339

Fax:

HIGHLAND NY 12528

Project file data

S:\PROJECTS\8193\GPS\8193.vce

Coordinate System

US State Plane 1983

Name:

Name:

Size:

329 KB

Datum:

NAD 1983 (Conus)

Modified:

6/10/2014 10:09:01 AM (UTC:-4)

Zone:

New York East 3101

Time zone:

Eastern Standard Time

Geoid:

GEOID12A (Conus)

Reference number:

Vertical datum:

Description:

Calibrated site:

Comment 1:

Comment 2:

Comment 3:

Point List

ID	Northing (US survey foot)	Easting (US survey foot)	Elevation (US survey foot)	Feature Code
Sta 1	1156336.3149	555370.6249	629.107	
Sta 2	1155283.4462	555718.2419	634.875	
Sta 46	1144688.9520	561986.8519	711.495	
Sta 47	1143761.1024	563307.0169	682.311	

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3/13/2018 10:25:12	S:\PROJECTS\8193\GPS\8193.vce	Trimble Business Center
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Coordinate System Project file data US State Plane 1983 Name: S:\PROJECTS\8193\GPS\6-23-14.vce Name: NAD 1983 (Conus) Size: 332 KB Datum: New York East 3101 Modified: 6/23/2014 10:30:56 AM (UTC:-4) Zone: GEOID12A (Conus) Geoid: Time zone: Eastern Standard Time 8193 Vertical datum: Reference number: Calibrated site: Description: Comment 1: Comment 2: Comment 3:

Point List

ID	Northing (US survey foot)	Easting (US survey foot)	Elevation (US survey foot)	Feature Code
82	1144516.2790	574286.1582	661.035	
83	1144242.9962	573209.3151	663.471	
121	1154539.2919	592504.3658	646.248	
122	1154670.5386	593722.8912	659.410	

3/13/2018 10:29:28	S:\PROJECTS\8193\GPS\6-23-14.vce	Trimble Business Center
AM		

BROOKS AND BROOKS

11 MAIN STEET

Phone: 845 691 7339

Fax:

HIGHLAND NY 12528

Project file data

S:\PROJECTS\8193\GPS\7-22-14.vce

Coordinate System

US-

US State Plane 1983

Size:

Name:

249 KB

Datum:

Name:

NAD 1983 (Conus)

Modified:

7/31/2014 2:57:18 PM (UTC:-4)

Zone:

New York East 3101

Time zone:

Eastern Standard Time

Geoid:

GEOID12A (Conus)

Reference number:

Vertical datum:

Description:

Calibrated site:

Comment 1:

Comment 2:

Comment 3:

Point List

ID	Northing (US survey foot)	Easting (US survey foot)	Elevation (US survey foot)	Feature Code
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STA145	1151626.6577	602714.7591	591.274	

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Christopher M. Hannett

From: Rick Brooks <RBrooks@bnbpc.biz>
Sent: Friday, August 17, 2018 11:07 AM

To: cconstantine@sykimls.com

Cc: tom@asibacc.com; Christopher M. Hannett

Subject: Ashokan Rail Trail

Ok, sorry for delay, it is a four year old survey, it had to be restored, re analyzed etc.

As explained, to reproduce our 2014 boundary line/ topographic coordinate system a site calibration needs to be performed to establish the relationship between the RTK derived GNSS coordinate and the local project datum. We have had good success with site calibrations on shorter corridor sites, but we are not sure how well it will work with such a long linear (13 miles) application with limited recoverable control.

Our final work product was generated using ground distances, therefore RTK State Plane Coordinates will only be common for the GNSS hold point (station 2) referenced below. Our work product was for design purposes and not intended to be utilized for RTK construction stakeout purposes, with that said we think we can get you through the immediate problem. And as offered we can meet on site to assist.

During the 2014 survey we established off site GPS control Points due to dense tree cover and desire to create a more permanent control network. Iisted in the below table are the network adjusted State Plane Coordinates for the offsite control stations and their associated project datum horizontal ground coordinate. From what I understand, the below stations are the surviving control stations

The GNSS point(Hold point) is station 2 and those Static XYZ coordinates are the hold for the project

Station	SPC North	SPC East	Project North	Project East	Elevation
2	1155283.446	555718.242	1155283.446	555718.242	634.88
1	1156336.315	555370.625	1156336.407	555370.5974	629.04
46	1144687.952	561986.852	1144687.652	561987.546	711.56
47	1143761.102	563307.017	1143759.694	563307.9442	682.31
82	1144516.279	574286.158	1144516.263	574286.700	660.95
83	1144242.996	573209.315	1144242.942	573210.676	663.47
121	1154539.292	592504.366	1154540.400	592508.004	646.22
122	1154670.539	593722.891	1154671.703	593726.650	659.41

Rickashokan

Richard C. Brooks, LS Vice President Brooks & Brooks Land Surveyors 11 Main St. Highland NY 12528 845.691.7339 Rbrooks@bnbpc.biz