From: Michael Van Henkelum <mikev@v2g-surveying.com>
Sent: Tuesday, March 31, 2020 7:12 AM
To: Lipsky, Thomas - DOT; Reeves, Todd - DOT; Anderson, Blaine - DOT
Cc: Krummel, Charles L - DOT; Larkin, Michael - DOT; Ostovich, Craig - DOT (DTSD Consultant); Zendek, Walter - DOT
Subject: RE: V2G new control: STH 11 2260-00-71 _ V2G site calibration-localization info

I used all the point numbers I called MON I may go re shoot #2 as the residuals on that one seem to be higher than the others .07' vs .03' but I don't see that changing the calibration all that much I will let you know if it does. As far as vertical goes when I occupied the leveled control I was seeing vertical differences of less than .05' on average vs Geoid 12A so as of now I am planning on leaving that alone.

From: Lipsky, Thomas - DOT <Thomas.Lipsky@dot.wi.gov>
Sent: Tuesday, March 31, 2020 6:55 AM
To: Michael Van Henkelum <mikev@v2g-surveying.com>; Reeves, Todd - DOT <Todd.Reeves@dot.wi.gov>; Anderson, Blaine - DOT <Blaine.Anderson@dot.wi.gov>
Cc: Krummel, Charles L - DOT <Charles.Krummel@dot.wi.gov>; Larkin, Michael - DOT <Michael.Larkin@dot.wi.gov>; Ostovich, Craig - DOT (DTSD Consultant) <craig.ostovich@dot.wi.gov>; Zendek, Walter - DOT <Walter.Zendek@dot.wi.gov>
Subject: V2G new control: STH 11 2260-00-71 _ V2G site calibration-localization info

Michael- Thanks for the info. Very glad to see the plan benchmarks checked well in your level run. Have you locked down your horizontal/vertical site calibration points? If so, could you please send a copy of your calibration report? Or at a minimum a point list showing which points you held for horizontal and which you held for vertical?

Blaine/Todd – I made a Trimble Job file with V2G's new leveled control points that you can copy into your data collector. You may want to copy these points into the main job file for WisDOT construction staff before giving them the files. We can discuss applying the site calibration after you shoot all the points and we hear back from Michael regarding which points he used.

Thanks.

Thomas Lipsky, PLS
Survey Coordinator
Wisconsin Dept. of Transportation
SE Region - **Survey**
(262)548-6737

From: Michael Van Henkelum <mikev@v2g-surveying.com>
Sent: Monday, March 30, 2020 4:05 PM
To: Lipsky, Thomas - DOT <Thomas.Lipsky@dot.wi.gov>
Cc: Reeves, Todd - DOT <Todd.Reeves@dot.wi.gov>; Anderson, Blaine - DOT <Blaine.Anderson@dot.wi.gov>; Krummel, Charles L - DOT <Charles.Krummel@dot.wi.gov>

Subject: RE: V2G section corner coordinates MON2 & MON3: STH 11 2260-00-71 _ V2G site calibration-localization info

Tom,

I changed those coordinates and it seemed to help the calibration a bit. I have attached the control we are going to be using and the level data. In the text file there's also a few of the ROW points I found so far.

From: Lipsky, Thomas - DOT <Thomas.Lipsky@dot.wi.gov>
Sent: Monday, March 30, 2020 7:03 AM
To: Michael Van Henkelum <mikev@v2g-surveying.com>
Cc: Reeves, Todd - DOT <Todd.Reeves@dot.wi.gov>; Anderson, Blaine - DOT <Blaine.Anderson@dot.wi.gov>; Krummel, Charles L - DOT <Charles.Krummel@dot.wi.gov>
Subject: V2G section corner coordinates MON2 & MON3: STH 11 2260-00-71 _ V2G site calibration-localization info

Michael – I have reviewed your spreadsheet from Wednesday and think I might have found a couple points with different coordinates than the RW Plat:

- V2G Pt# **MON2** _ WisDOT Pt#2007
  - V2G N-175101.83 E-623125.97
  - Plat N-175101.72 E-623126.09
  - Delta N-0.11 E-0.12

- V2G Pt# **MON3** _ WisDOT Pt# 2006
  - V2G N-175010.78 E-625772.19
  - Plat N-175010.77 E-625772.32
  - Delta N- 0.01 E-0.13

I do not think your spreadsheet showed any checks on the RW points from K Singh/EXP. I am glad to hear they weren't too far off.

Blaine Anderson & Todd Reeves will be coming down to the project early this week to set up the site calibration for WisDOT construction staff.

Blaine Anderson {WisDOT} (414)750-1751
Todd Reeves {WisDOT} (414)750-3036
Michael Van Henkelum (V2G) (262)206-0720

We can touch base regarding the site calibration later today or tomorrow morning.

Thanks!

Thomas Lipsky, PLS
Survey Coordinator

Wisconsin Dept. of Transportation
SE Region - **Survey**
(262)548-6737

From: Michael Van Henkelum <mikev@v2g-surveying.com>
Sent: Saturday, March 28, 2020 6:45 AM
To: Lipsky, Thomas - DOT <Thomas.Lipsky@dot.wi.gov>
Subject: Re: STH 11 2260-00-71 _ V2G site calibration-localization info _ section corner coordinates _ control point coordinates _ EXP RW info

Sorry Tom I meant to get back to you yesterday but I got a bit tied up. I hand entered the coordinates from the plat. The benchmarks all seemed to check really well .01' to .02'. I am going to be there Monday to shoot in the benchmark points that I can occupy after that's done I will send out a file with the control points. It would appear that K Singh used the section corners I checked some of the points on the list at the west end STH 31 to about Sta 25+00 everything I found seemed to be <.05' N/S I had a little more E/W around .10'. I think I sent a excel spreadsheet with what I had shot on Wednesday.

> On Mar 27, 2020, at 8:58 AM, Lipsky, Thomas - DOT <Thomas.Lipsky@dot.wi.gov> wrote:
>
> Michael,
>
> We am still waiting for information (section corner & control coordinate files) from the designers for STH 11. Did you hand-enter the coordinates for the section corners and control points from the plan into your data collector, or do you have a digital file with that information? If it is easy enough for you it might save us some time if you could send a digital file (xml, text, csv) of the plan section corners & control points so we don't have to wait for EXP to respond.
>
> We received the attached csv files from EXP yesterday which contain the RW plat points. I have attached the RW staking plat that show the point numbers. I think it would be a good idea for you to check a few of those points to see how they check with your site calibration. I am really hoping that K Singh used the section corners to stake the RW and not EXP's control points which you said don't seem to be fitting.
>
> Would it be possible for you to send a copy of your site calibration/localization report showing which points you held horizontally/vertically? I think the best way to approach this project is for our department staff to use the same calibration points and run some common checks.
>
> Please let us know how your level run went and how the benchmarks checked. If you set any new control, please share those files as well. Our staff will run checks to make sure everything is fitting.
>
> Thanks!

Thomas Lipsky, PLS
Survey Coordinator
Wisconsin Dept. of Transportation
SE Region - **Survey**
(262)548-6737

<2260-00-21-4-03.csv>
<2260-00-21-4-02.csv>
<2260-00-21-4-01.csv>
<2260-00-21-4-07.csv>
<2260-00-21-4-06.csv>
<2260-00-21-4-05.csv>
<2260-00-21-4-04.csv>
<EXP RW point info ID 2260-00-21.xml>
<ID 2260-00-21 STH 11 Field Staking Plat with Notes_2019-1-16 (K Singh).pdf>