



Figure 1	-	Monitoring Plan Locations
Figure 2	-	Monitoring Results from BHC
Table 1	-	Monitoring Point Displacement Summary

* * * * *

We appreciate the opportunity to provide geotechnical services for this project. If you have a question regarding this letter, or if we may be of additional service to you, please contact the undersigned.

Respectfully submitted,

GEOTECHNOLOGY, LLC

Tanner N. Merz, E.I.
Engineer

TNM/ALP:dwg/tnm



Andrea Prince, P.G.
Senior Project Manager



April 28, 2022

Mr. David Olson
Streets of West Pryor, LLC
7200 W 132nd Street, #150
Overland Park, Kansas 66213

Re: Long-Term Monitoring Plan Survey Points
Lots 7A (Area A) and 7C (Area B)
Mine Remediation at Streets of West Pryor
Lee's Summit, Missouri
Geotechnology Project No. J035637.02

Dear Mr. Olson,

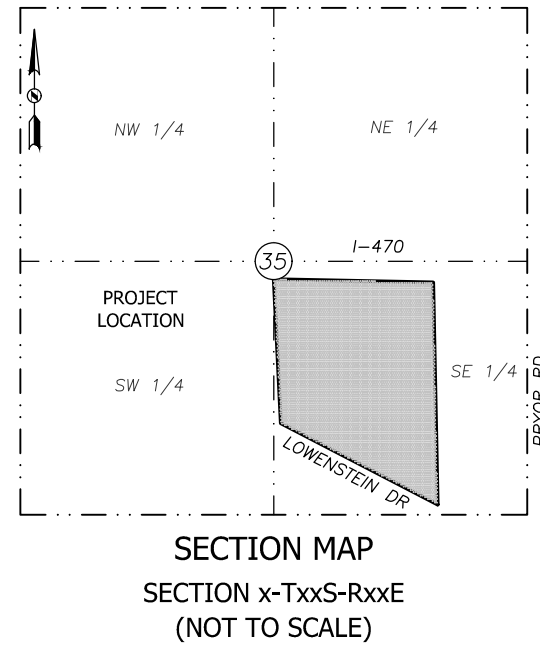
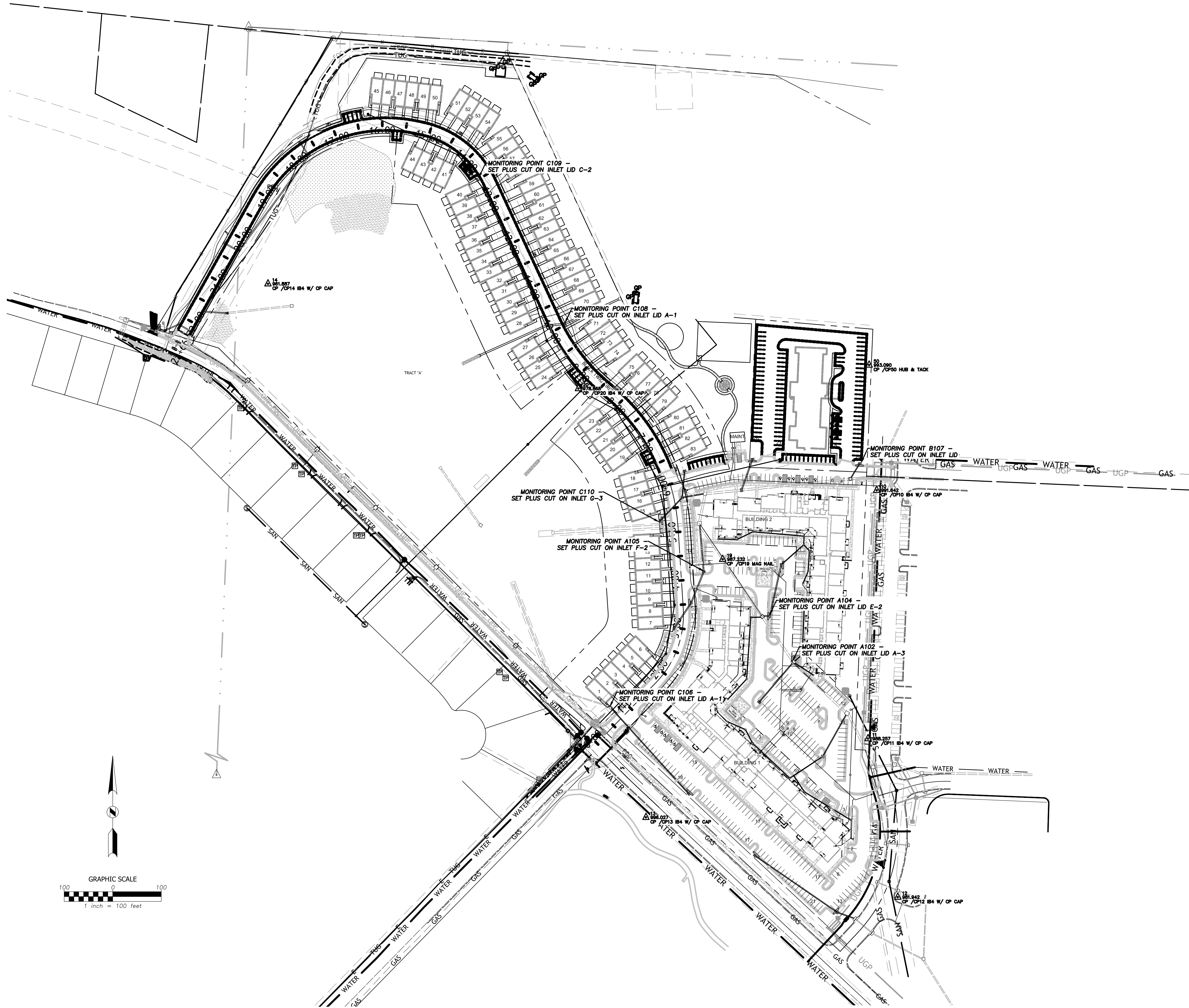
This letter transmits the settlement monitoring performed on the portions of the Streets West of Pryor for April 2022. Monitoring of potential ground movements have been accomplished using a combination of surface monitoring points (SMPs) and survey points established on sanitary and storm sewer inlets and/or manholes. These points continue to be surveyed by BHC, Inc. The network data has been and will continue to be stored, reviewed, and analyzed for potential vertical and differential settlement of infrastructure as related to the mine space. Graphic plots will be provided after a sufficient amount of data is recorded.

Attached to this letter is monitoring data for Monitoring Points as shown on the attached Table 1. Survey reading were obtained on the following dates: October 12, 2021, December 12, 2021, and February 4, 2022 in general accordance with the LTMP. Monitoring Points A101 and A102 were adjusted in the December survey. Monitoring Points A104, A105, and C106 were installed and added to the array in the February survey. Per the LTMP, planned movement of survey monitoring points requires an additional, interim survey. This additional survey was conducted on March 7, 2022. The fifth and most current survey was conducted on April 8, 2022. This event included removing Monitoring Points A100 and A101 and the installation of Monitoring Points B107, C108, C109, and C110. Monitoring Point A102 (Inlet A-3) was adjusted during this monitoring period and a new baseline was established.

At the moment, readings, including new baseline reading, do not indicate that settlement criteria have exceeded the limits established in the LTMP. Therefore, the planned readings will continue every two months for the duration of surface construction. It is anticipated that as earthwork nears completion on the site, sleeved rod monitoring points will be installed and incorporated in the array. The following attachments are included for the current results of the LTMP.

Apr 12, 2022 - 12:56pm Plotted by: matthew.scheppmann I:\028440_Streets of West Pryor Mine Scan\DWG\Survey\028440-SRVY-MONITOR-DXHBT.dwg

STREETS OF WEST PRYOR MONITORING EXHIBIT



GENERAL NOTES

1. Basis of Bearings: Initial Monitoring control was derived from GPS Static data collected on several of the Monitoring Control Points and submitted to OPUS for data processing. The OPUS provided data was referenced to the Missouri State Plane Coordinate System, West Zone (NAD83). The coordinates derived from this OPUS solutions were then adjusted to ground using the CAF from the Final Plat of "Streets of West Pryor Lots 1 thru 14, Tracts "A", "B", "C", & "D". Using the CAF from the above mentioned plat allows the monitoring points to be on a similar datum to the proposed site design. The ground coordinates were scaled from zero using the CAF of 0.999990084.
2. The monitoring control and the initial monitoring points were then traversed using a Trimble SX10 instrument and subsequently adjusted using MicroSurvey StarNet Version 9 software. A level run was run through control points 10 thru 13 to assist in establishing the initial monitoring control.
3. Base Line Control Points were intentionally placed off of the site in order to avoid placing them over areas of the mine that are currently being remediated.
4. This monitoring survey is based on field work completed on the date shown in the title block.
5. Monitoring points are labeled to indicate which section of mine remediation zone that they are closest to and a point number to assist in the survey monitoring. Example A100 = "A" indicates the "A" remediation zone and "100" is the survey point used while monitoring.
6. It has been indicated that some of the inlet lids will be moved during the progress of the construction. It has been requested that when the inlets are being adjusted that monitoring will be taken before and after the inlet has been adjusted in order to maintain a viable monitoring point that will be maintained through the monitoring term.

Project No: 028440.00.01		Field Crew: MS, DH		Field Date: 10/13/2021		Drawn By: MS		Issue Date: 10/15/2021		Sheet: 1 OF 1	
Project: Streets of West Pryor Monitoring Exhibit		Client: Monarch Acquisitions LLC		Dave Olson		P.O. Box 24302		Overlaon Park, KS 66283		Description	
Section 35, Township 48, Range 32		Lee's Summit, Jackson County, Missouri		04/12/2022 Updated Monitoring Points and Placement of Additional Monuments		12/16/2021 Second Monitoring & Placement of Additional Monitoring Points		Rev.		Date	
										Drawn	
										Checked	

Streets of West Pryor Monitoring Spreadsheet

Initial Monitoring Point Locations Points Set Oct. 12, 2021

First Monitoring Results Dec. 12, 2021 Note: Differences Below Between Oct. 12, 2021 & Dec. 12, 2021

Point #	Northing	Easting	Elevation	Location
100	1006796.43	2812899.00	992.88	Inlet
101	1006763.01	2812554.02	982.86	Inlet B-1
102	1006414.57	2812733.04	987.35	Inlet A-3
103	1006322.29	2812351.55	988.07	Inlet A-1

Point #	Northing Difference	Easting Difference	Elevation Difference	Observed Elevation	Location
2100	-0.03	0.01	0.04	992.84	
2101	-2.90	-2.00	0.01	982.87	
2102	1.55	-5.17	-0.02	987.33	
See Note Below					
104	1006511.50	2812680.58	987.40		Inlet E-2
105	1006601.94	2812547.13	986.35		Inlet F-2
106	1006319.59	2812353.76	988.24		Inlet A-1

Value Greater than 0.08'

Value Greater than 0.04'

Value Greater than 0.02'

Note: Lid replaced and mark removed on Inlet A-1 after initial monitoring. Point's 104-106 above are new or replacement monitoring points on the site.

Inlet Lids on Structures B-1 and A-3 have been adjusted since the initial monitoring. The new location of points will now be monitored.

Note: Point's 10-14 on previous exhibits are Control Point's for monitoring and have been removed to simplify exhibit. Point's 100-103 are monitoring points as shown on the exhibit. Monitoring Point #100 is on an Inlet @ NE Corner of Site

Note: The certification on this exhibit is to verify that the horizontal and vertical positions shown hereon were collected under my direct supervision. This certification does not intend to show anything other what is shown on the exhibit. We are not certifying any reason or cause for the differences in the locations or elevations.



Streets of West Pryor Monitoring Spreadsheet

Second Monitoring Results

Feb. 4, 2022

Note: Differences Below Between

Oct. 12, 2021 & Feb. 4, 2022 (Point 100)

Dec. 12, 2021 & Feb. 4, 2022 (Points 101, 102, & 104-106)

Point #	Northings Difference	Easting Difference	Elevation Difference	Observed Elevation	Location
3100	-0.04	-0.01	0.01	992.89	Inlet
3101	-0.03	-0.06	0.06	982.92	Inlet B-1
3102	-0.02	-0.03	0.02	987.37	Inlet A-3
3104	0.00	-0.04	0.04	987.44	Inlet E-2
3105	-0.04	-0.05	0.06	986.41	Inlet F-2
3106	0.02	-0.17	0.04	988.28	Inlet A-1

Note: Differences Below Between

Dec. 12, 2021 & Feb. 4, 2022

3100	-0.01	-0.02	0.05	992.89
3101	-0.03	-0.06	0.05	982.92
3102	-0.02	-0.03	0.04	987.37

Third Monitoring Results

2-Mar-22

Note: Differences Below Between

Oct. 12, 2021 & March 2, 2022 (Point 100)

Dec. 12, 2021 & March 2, 2022 (Points 101, 102, & 104-106)

Point #	Northings Difference	Easting Difference	Elevation Difference	Observed Elevation	Location
4100	-0.03	-0.01	-0.04	992.84	Inlet
4101	-0.01	-0.39	0.00	982.87	Inlet B-1
4102	-0.02	-0.01	0.00	987.33	Inlet A-3
4104	0.01	-0.08	0.00	987.40	Inlet E-2
4105	0.00	0.01	0.01	986.36	Inlet F-2
4106	0.04	-0.10	-0.03	988.21	Inlet A-1

Note: Differences Below Between

Feb. 4, 2022 & March 2, 2022

4100	0.01	0.00	-0.05	992.84
4101	0.02	-0.33	-0.05	982.87
4102	0.00	0.02	-0.04	987.33
4104	0.01	-0.05	-0.04	987.40
4105	0.05	0.06	-0.05	986.36
4106	0.02	0.06	-0.07	988.21

Note: The certification on this exhibit is to verify that the horizontal and vertical positions shown hereon were collected under my direct supervision. This certification does not intend to show anything other what is shown on the exhibit. We are not certifying any reason or cause for the differences in the locations or elevations.





Monitoring Point Displacement Summary
Streets West of Pryor
Lee's Summit Missouri
Geotechnology Project No. J035637.02

Displacement for A100

Date	Elevation Change (ft)	Northing Change (ft)	Easting Change (ft)	Northing (ft)	Easting (ft)	Elevation (ft)	Time Elapsed (yr)	Elevation Change (in)	Total Elevation Change (in)	Rate (in/yr)	Remarks
10/12/2021	NA	NA	NA	1006796.43	2812899	992.88	NA	NA	NA	NA	
12/12/2021	-0.04	-0.03	0.01	1006796.40	2812899.01	992.84	0.17	-0.48	-0.48	-2.87	
2/4/2022	0.05	-0.01	-0.02	1006796.39	2812898.99	992.89	0.15	0.60	0.12	4.06	
3/2/2022	-0.05	0.01	0.00	1006796.40	2812898.99	992.84	0.07	-0.60	-0.48	-8.42	Inlet point moved, new baseline set
4/8/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Monitor point removed due to adjusting inlet

Displacement for A101

Date	Elevation Change (ft)	Northing Change (ft)	Easting Change (ft)	Northing	Easting	Elevation (ft)	Time Elapsed (yr)	Elevation Change (in)	Total Elevation Change (in)	Rate (in/yr)	Remarks
10/12/2021	NA	NA	NA	1006763.01	2812554.02	982.86	NA	NA	NA	NA	
12/12/2021	0.01	-2.90	-2.00	1006760.11	2812552.02	982.87	0.17	0.12	0.12	0.72	Inlet lid adjusted after initial monitoring
2/4/2022	0.05	-0.03	-0.06	1006760.08	2812551.96	982.92	0.15	0.60	0.72	4.06	
3/2/2022	-0.05	0.02	-0.33	1006760.10	2812551.63	982.87	0.07	-0.60	0.12	-8.42	Inlet point moved, new baseline set
4/8/2022	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Monitor point removed due to adjusting inlet

Displacement for A102

Date	Elevation Change (ft)	Northing Change (ft)	Easting Change (ft)	Northing	Easting	Elevation (ft)	Time Elapsed (yr)	Elevation Change (in)	Total Elevation Change (in)	Rate (in/yr)	Remarks
10/12/2021	NA	NA	NA	1006414.57	2812733.04	987.35	NA	NA	NA	NA	
12/12/2021	-0.02	-1.55	5.17	1006413.02	2812738.21	987.33	0.17	-0.24	-0.24	-1.44	Inlet lid adjusted after initial monitoring
2/4/2022	0.04	-0.02	-0.03	1006413.00	2812738.18	987.37	0.15	0.48	0.24	3.24	
3/2/2022	-0.04	0.00	0.02	1006413.00	2812738.20	987.33	0.07	-0.48	-0.24	-6.74	Inlet point moved, new baseline set
4/8/2022	1.11	-3.33	1.85	1006412.77	2812729.71	988.44	0.10	13.32	13.08	131.4	Inlet A-3 shifted since last monitoring

Displacement for C103

Date	Elevation Change (ft)	Northing Change (ft)	Easting Change (ft)	Northing	Easting	Elevation (ft)	Time Elapsed (yr)	Elevation Change (in)	Total Elevation Change (in)	Rate (in/yr)	Remarks
10/12/2021	NA	NA	NA	1006322.29	2812351.55	988.07	NA	NA	NA	NA	
12/21/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Removed after initial monitoring

Displacement for A104

Date	Elevation Change (ft)	Northing Change (ft)	Easting Change (ft)	Northing	Easting	Elevation (ft)	Time Elapsed (yr)	Elevation Change (in)	Total Elevation Change (in)	Rate (in/yr)	Remarks
12/12/2021	NA	NA	NA	1006511.50	2812680.58	987.40	NA	NA	NA	NA	
2/4/2022	0.04	0.00	-0.04	1006511.50	2812680.54	987.44	0.15	0.48	0.48	3.24	
3/2/2022	-0.04	0.01	-0.05	1006511.51	2812680.49	987.40	0.07	-0.48	0.00	-6.74	Inlet point moved, new baseline set
4/8/2022	0.04	-0.01	0.04	1006511.50	2812680.53	987.44	0.10	0.48	0.48	4.74	

Displacement for A105

Date	Elevation Change (ft)	Northing Change (ft)	Easting Change (ft)	Northing	Easting	Elevation (ft)	Time Elapsed (yr)	Elevation Change (in)	Total Elevation Change (in)	Rate (in/yr)	Remarks
12/12/2021	NA	NA	NA	1006601.94	2812547.13	986.35	NA	NA	NA	NA	
2/4/2022	0.06	-0.04	-0.05	1006601.90	2812547.08	986.41	0.15	0.72	0.72	4.87	
3/2/2022	-0.05	0.05	0.06	1006601.95	2812547.14	986.36	0.07	-0.60	0.12	-8.42	Inlet point moved, new baseline set
4/8/2022	0.01	-0.01	-0.02	1006601.94	2812547.12	986.37	0.10	0.12	0.12	1.18	

Displacement for C106

Date	Elevation Change (ft)	Northing Change (ft)	Easting Change (ft)	Northing	Easting	Elevation (ft)	Time Elapsed (yr)	Elevation Change (in)	Total Elevation Change (in)	Rate (in/yr)	Remarks
12/12/2021	NA	NA	NA	1006319.59	2812353.76	988.24	NA	NA	NA	NA	
2/4/2022	0.04	0.02	-0.17	1006319.61	2812353.59	988.28	0.15	0.48	0.48	3.24	
3/2/2022	-0.07	0.02	0.06	1006319.63	2812353.65	988.21	0.07	-0.84	-0.36	-11.79	Inlet point moved, new baseline set
4/8/2022	0.03	-0.03	0.02	1006319.60	2812353.67	988.24	0.10	0.36	0.00	3.55	

*Negative values indicate a decrease in elevation

**Graphs to be provided after obtaining a sufficient amount of survey recordings

Streets of West Pryor Monitoring Spreadsheet

Fourth Monitoring Results

4/8/2022

Note: Differences Below Between

Dec. 12, 2021 & April 8, 2022

<u>Point #</u>	<u>Northing</u> <u>Difference</u>	<u>Easting</u> <u>Difference</u>	<u>Elevation</u> <u>Difference</u>	<u>Observed</u> <u>Elevation</u>	<u>Location</u>
----------------	--------------------------------------	-------------------------------------	---------------------------------------	-------------------------------------	-----------------

Inlet Adjusted- Removed from Monitoring

Inlet Adjusted- Removed from Monitoring

5102	-3.35	1.84	1.10	988.44	Inlet A-3
------	-------	------	------	--------	-----------

Based on above results, Inlet A-3 has shifted since last monitoring

5104	0.00	-0.04	0.04	987.44	Inlet E-2
------	------	-------	------	--------	-----------

5105	-0.01	-0.02	0.02	986.37	Inlet F-2
------	-------	-------	------	--------	-----------

5106	0.02	-0.09	0.00	988.24	Inlet A-1
------	------	-------	------	--------	-----------

107	1006824.68	2812868.80	990.01		
-----	------------	------------	--------	--	--

108	1007111.59	2812258.87	979.05		
-----	------------	------------	--------	--	--

109	1007411.19	2812081.44	975.28		
-----	------------	------------	--------	--	--

110	1006703.64	2812454.33	984.07		
-----	------------	------------	--------	--	--

Note: Point's 107-110 above are new
or replacement monitoring points on the site.

Inlet Adjusted- Removed from Monitoring

Inlet Adjusted- Removed from Monitoring

5102	-3.33	1.85	1.10	988.44	
------	-------	------	------	--------	--

5104	-0.01	0.04	0.04	987.44	
------	-------	------	------	--------	--

5105	-0.01	-0.02	0.01	986.37	
------	-------	-------	------	--------	--

5106	-0.03	0.02	0.03	988.24	
------	-------	------	------	--------	--

Note: The certification on this exhibit is to verify that the horizontal and vertical positions shown hereon were collected under my direct supervision. This certification does not intend to show anything other what is shown on the exhibit. We are not certifying any reason or cause for the differences in the locations or elevations.