

**AIR, NOISE AND VIBRATION
MONTHLY MONITORING REPORT
Number 005**

Prepared By:

DDC. Project ID:	BBJ-XSP	Period Start: 12/1/22 End 12/31/22
Project Name:	NYCDDC D&B – The Bronx Site Preparation	
DDC Pin No.:	8502021CR0004P-06P	

1) Community Air Monitoring Monthly Status Summary

TWA – Time Weighted Average
ug/m³- micrograms per cubic meter

Number of Workdays in a Month	Number of Air Monitoring Days in a Month	Number of Days with Dust Concentrations above Action Concentrations by Month (100 ug/m ³ 15 minute TWA)	Comments
22	21	0	There were no dust levels above the 100 ug/m ³ limit.

Community Air Monitoring Excursions and Corrective Actions

Action Concentration = 100 ug/m³ 15 minute TWA above background concentration
Stop Work Concentration = 150 ug/m³ 15 minute TWA above background concentration

Date: Time	Maximum Dust Reading Before Corrective Action 15 Minute TWA (ug/m ³)	Maximum Dust Reading After Corrective Action 15 Minute TWA (ug/m ³)	Corrective Action

Narrative Summary of Air Monitoring, Excursions and Corrective Actions:

In December 2022, construction-related levels of Particulate Matter (PM) PM10 did not surpass the Daily Permissible Exposure Limits (PEL) as set by federal standards for the 8-hour Time Weighted Average (TWA) and did not cause air quality concerns to the community or onsite workers.

Mitigation measures: No corrective actions or mitigation measures were required.

2) Community Noise Monitoring Monthly Summary

Units: weighted decibels (dBA) level

Number of Workdays in a Month	Number of Noise Monitoring Days in a Month	Number of Days with Noise Levels above Action Levels by Month	Comments
22	21	0	There were no noise levels above the 80 dBA limit.

Community Noise Monitoring Excursions and Corrective Actions

Action Level =70 dBA

Stop Work Level = 80 dBA

Date: Time	Maximum Noise Reading before Corrective Action (dBA)	Maximum Noise Reading after Corrective Action (dBA)	Corrective Action

Narrative Summary of Noise Monitoring, Excursions and Corrective Actions:

In December 2022, construction-related levels of noise did not surpass the limits of Local Law 113 and the daily average was below the limits and did not cause noise concerns for the community.

Mitigation measures: No corrective actions or mitigation measures were required

3) Community Vibration Monitoring Monthly Summary

Units: inches per second (in/sec)

Number of Workdays in a Month	Number of Vibration Monitoring Days in a Month	Number of Days with Vibration Levels above Action Levels by Month	Comments
22	31	22	Four out of eight vibration monitors (VM) had recorded a total of 299 exceedances, including outlier data and exceedances caused by a malfunction unit. Detail information about exceedances is provided in the narrative summary section and plots.

Community Vibration Monitoring Excursions and Corrective Actions

Action Level = 0.5 in/sec above background

Stop Work Level = 1.0 in/sec above background

Date: Time	Maximum Vibration Level before Corrective Action (in/sec)	Maximum Vibration Level after Corrective Action (in/sec)	Corrective Action
12/21/2022 11:07	0.618	0.14	Excavation and hammering foundation near the sensor caused exceedance at VM3.
12/2/2022 to 12/19/2022	9.425	0.15	Erratic readings observed at VM4 at the beginning of December, the unit is believed to be damaged. Wang inspected the unit during site visit on December 8 th and found not physical damage to it nor the signal cable. The unit is believed to be water damaged. GC was trying to coordinate support for retrieving the buried geophone. In the meanwhile, Wang replaced the datalogger for VM4 on December 15 th . Wang replaced the malfunction geophone and signal cable on December 21 st .
12/23/2022 04:16	0.725	0.31	Exceedance observed at VM4 was recorded during non-construction hours.
12/23/2022 07:03	1.14	0.155	Excavation and hammering foundation near the sensor caused exceedance at VM4.
12/2/2022 08:54	0.61	0.36	This is an isolated event recorded at VM5. Residents have access to the sensor.
12/2/2022 18:47, 21:12, & 21:12	0.91	0.025	Exceedances observed at VM5 were recorded during non-construction hours.
12/7/2022 09:42	0.61	0.06	This is an isolated event recorded at VM5. Residents have access to the sensor.
12/8/2022 07:59	0.6	0.135	This is an isolated event recorded at VM5. Residents have access to the sensor.
12/10/2022 08:40 & 16:28	0.575	0.375	Exceedances observed at VM5 were recorded during non-construction hours.
12/12/2022 21:44	0.695	0.14	Exceedance observed at VM5 was recorded during non-construction hours.
12/14/2022 11:37	1.03	0.17	This is an isolated event recorded at VM5. Residents have access to the sensor.
12/15/2022 11:16	0.855	0.16	This is an isolated event recorded at VM5. Residents have access to the sensor.
12/15/2022 18:17	0.96	0.105	Exceedance observed at VM5 was recorded during non-construction hours.

Date: Time	Maximum Vibration Level before Corrective Action (in/sec)	Maximum Vibration Level after Corrective Action (in/sec)	Corrective Action
12/19/2022 12:05	0.5	0.3	This is an isolated event recorded at VM5. Residents have access to the sensor.
12/20/2022 12:58	0.575	0.09	This is an isolated event recorded at VM5. Residents have access to the sensor.
12/21/2022 18:40	0.99	0.22	Exceedance observed at VM5 was recorded during non-construction hours.
12/22/2022 04:40 & 21:56	0.73	0.13	Exceedances observed at VM5 were recorded during non-construction hours.
12/27/2022 17:35 & 17:46	0.545	0.195	Exceedances observed at VM5 were recorded during non-construction hours.
12/7/2022 18:28	1.235	0.01	Exceedance observed at VM6 was recorded during non-construction hours.

Narrative Summary of Vibration Monitoring, Excursions and Corrective Actions:
 In December 2022, four vibration monitors had recorded exceedances. There were exceedances recorded during non-construction hours at VM4, VM5, and VM6. There were isolated events recorded at VM5, where residents have access to the sensor as it is installed in the basement of a residential building. There were isolated events recorded at VM5 during baseline period as well.

There were exceedances recorded at VM3 and VM4 on December 21st and December 23rd caused by excavation and hammering foundation near the sensors.

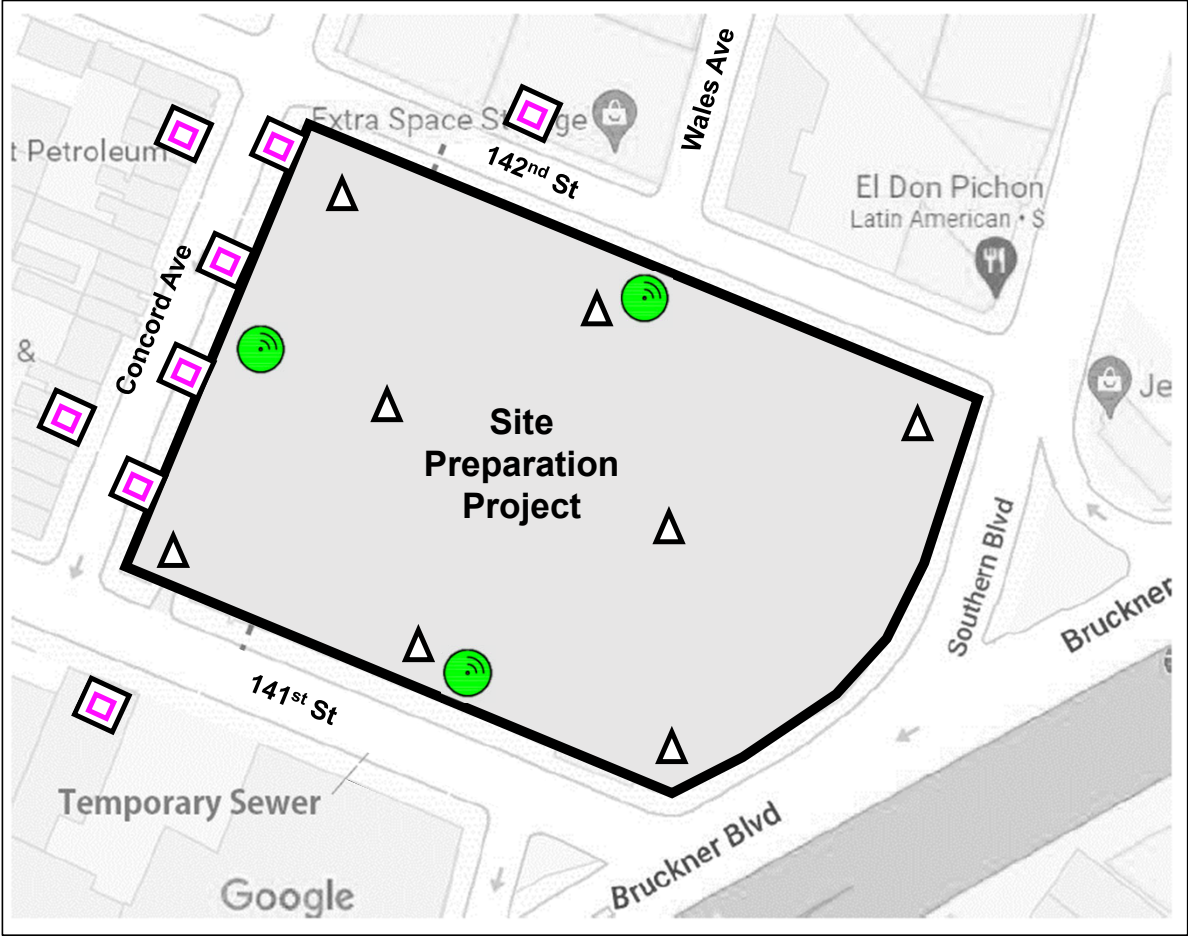
Exceedances recorded at VM4 between December 2nd and December 19th were caused by a malfunction sensor and signal cable. The malfunction sensor and signal cable were replaced on December 21st. Once completed, the readings returned to be within the project threshold afterwards.




ATTACHMENTS:

- 1 – Include one map of monitoring station/locations
- 2 – Include Data Plots
- 3 – Include Baseline Reference

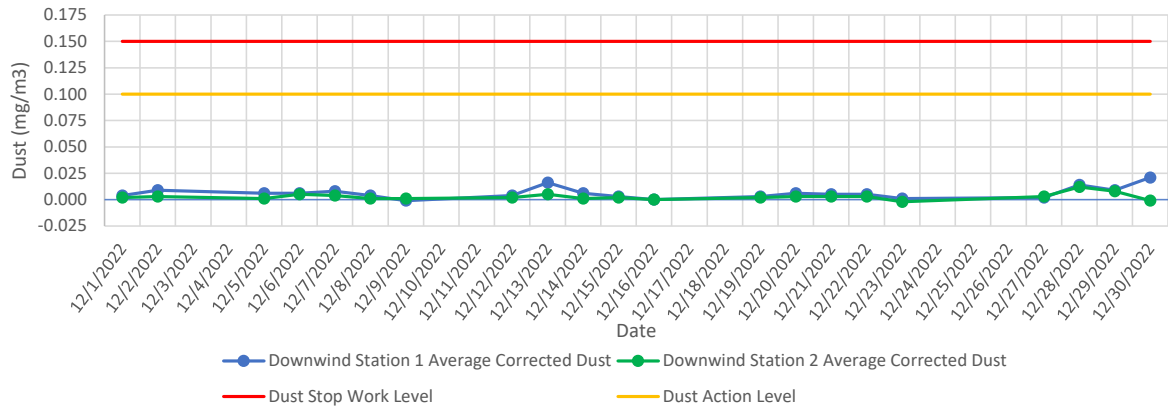
Attachments

Environmental Monitoring The Bronx

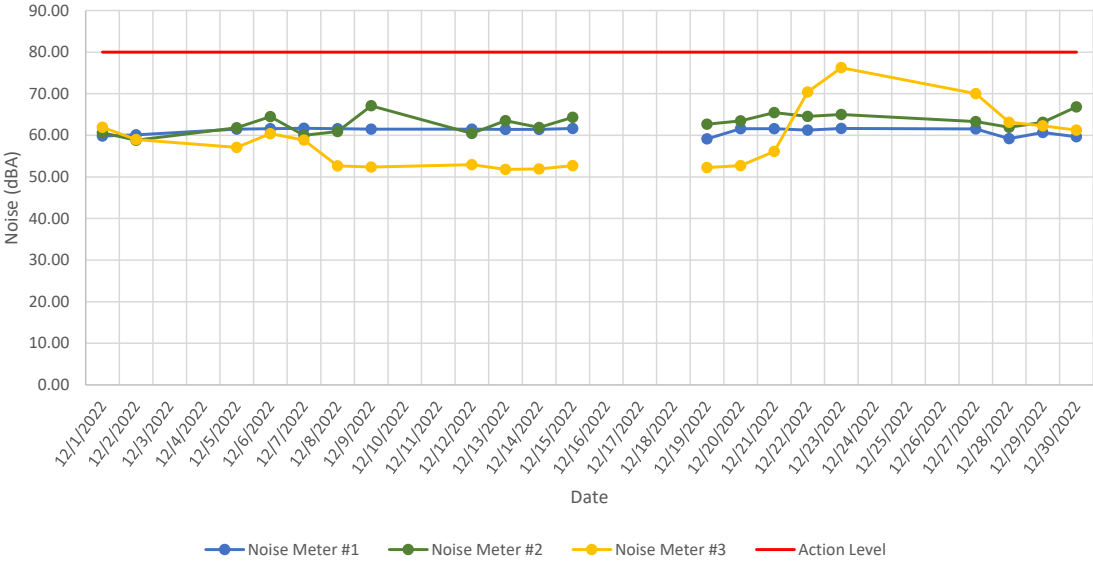


-  Vibration Monitor (VM)
-  Air Monitoring Station (DM)
-  Noise Monitoring Station (NM)

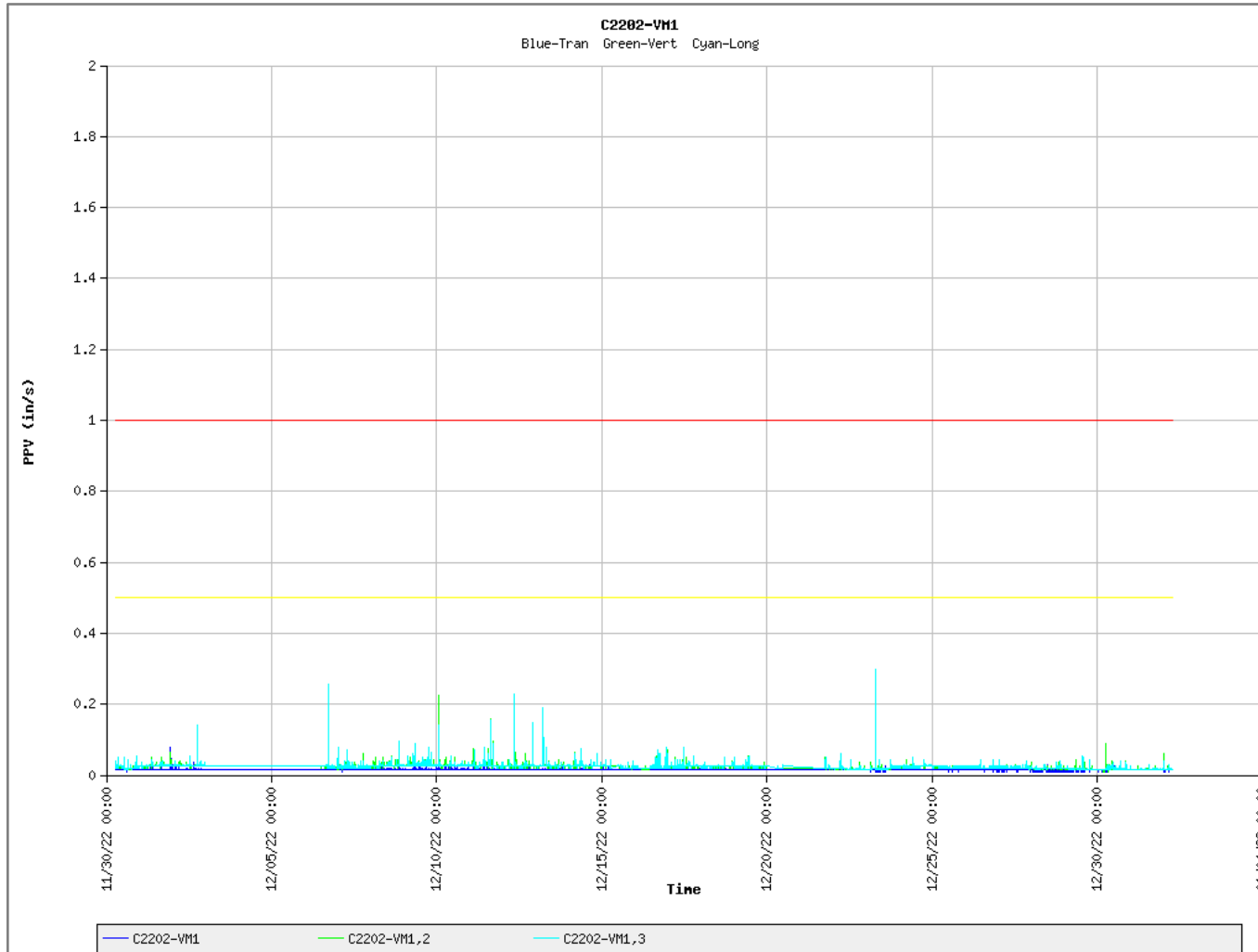
December 2022, 15-min Running Average Air Quality Data, PM 10ug/m3 Plot



December 2022, Average Equivalent Sound Level Plot (Laeq)



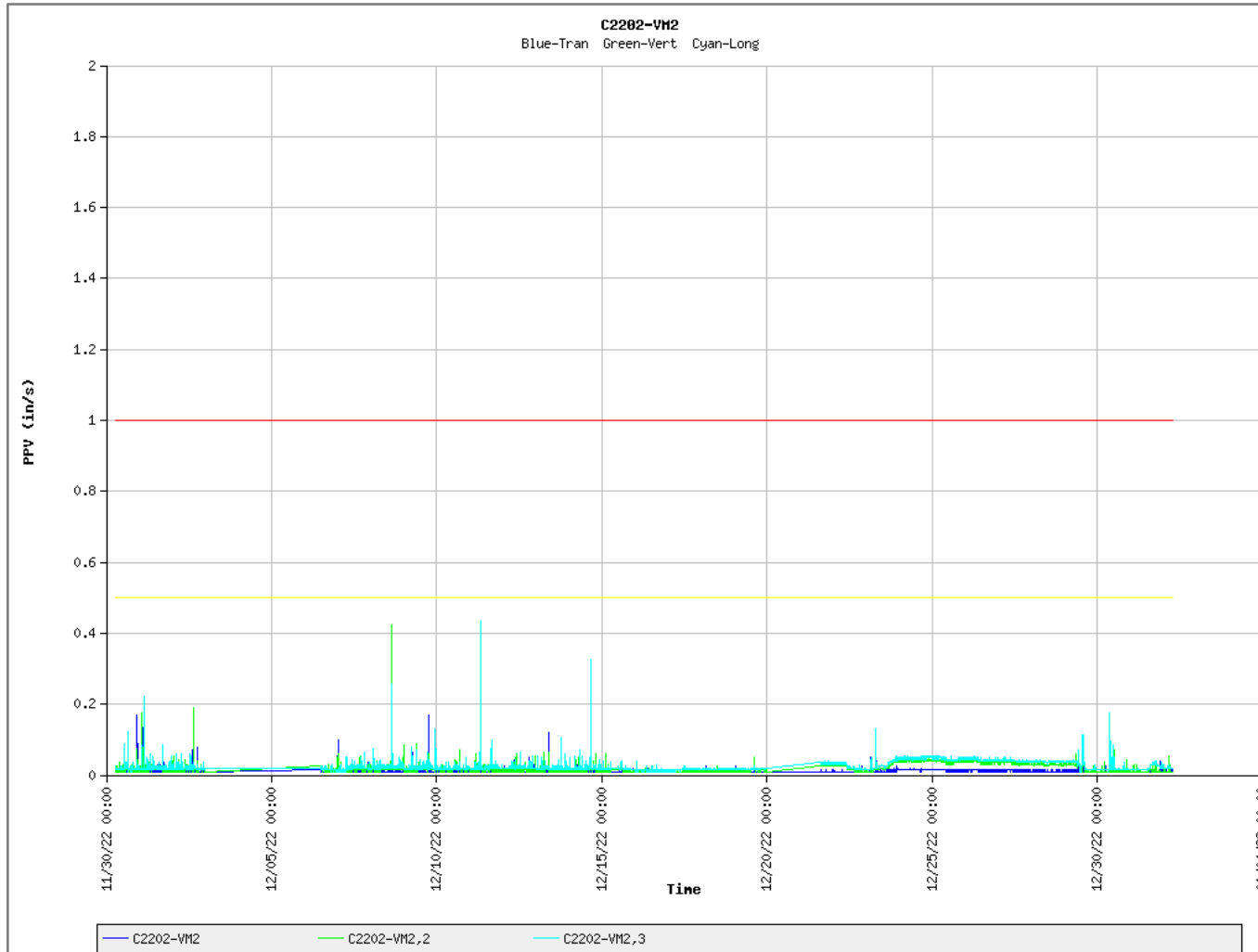
The Bronx Site Preparation December 2022 Vibration Monitoring Data Plots



Exceedance level: 1 in/sec
Warning level: 0.5 in/sec

C2202-VM1 Transverse
C2202-VM1,2 Vertical
C2202-VM1,3 Longitudinal

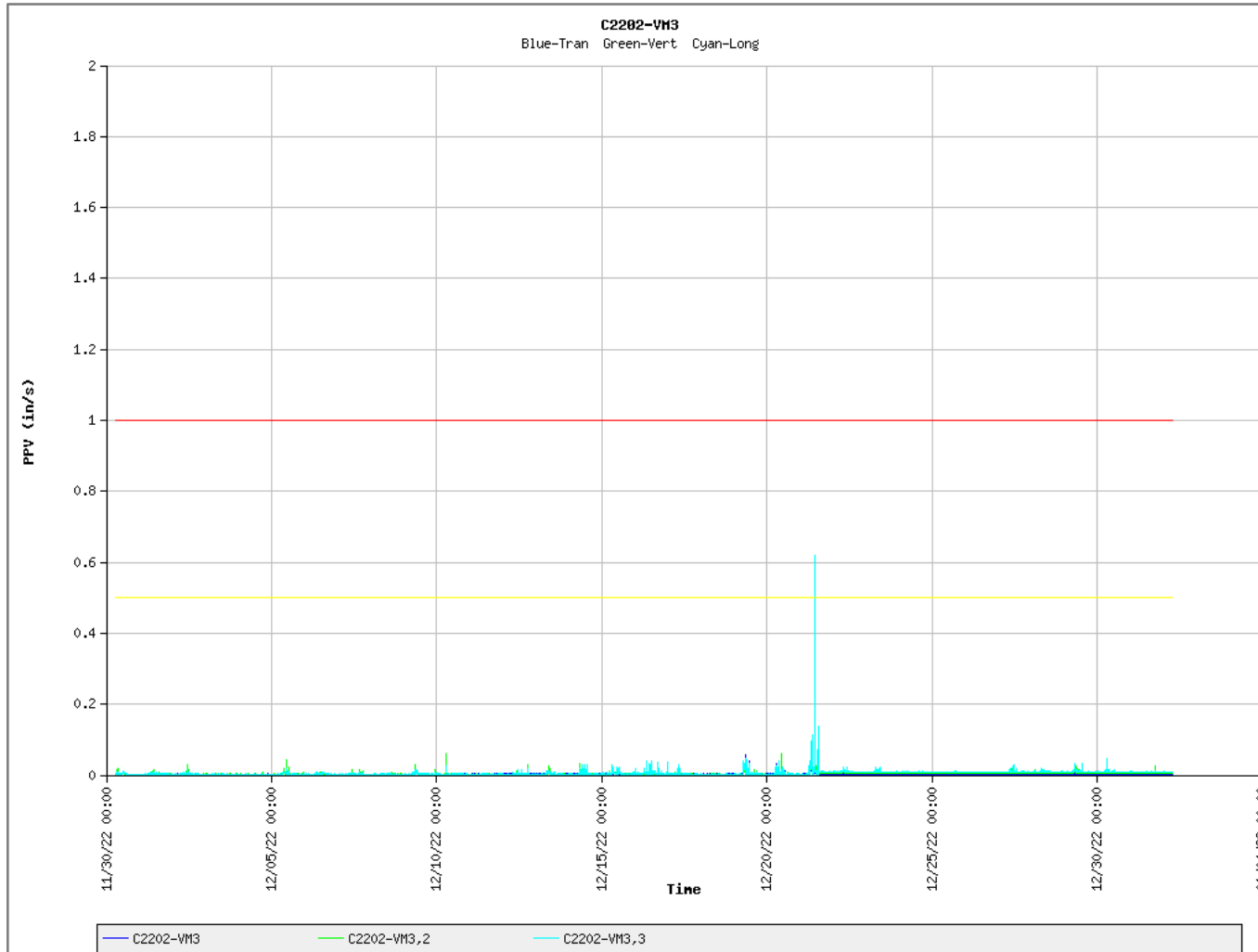
The Bronx Site Preparation December 2022 Vibration Monitoring Data Plots



Exceedance level: 1 in/sec
Warning level: 0.5 in/sec

C2202-VM2 Transverse
C2202-VM2,2 Vertical
C2202-VM2,3 Longitudinal

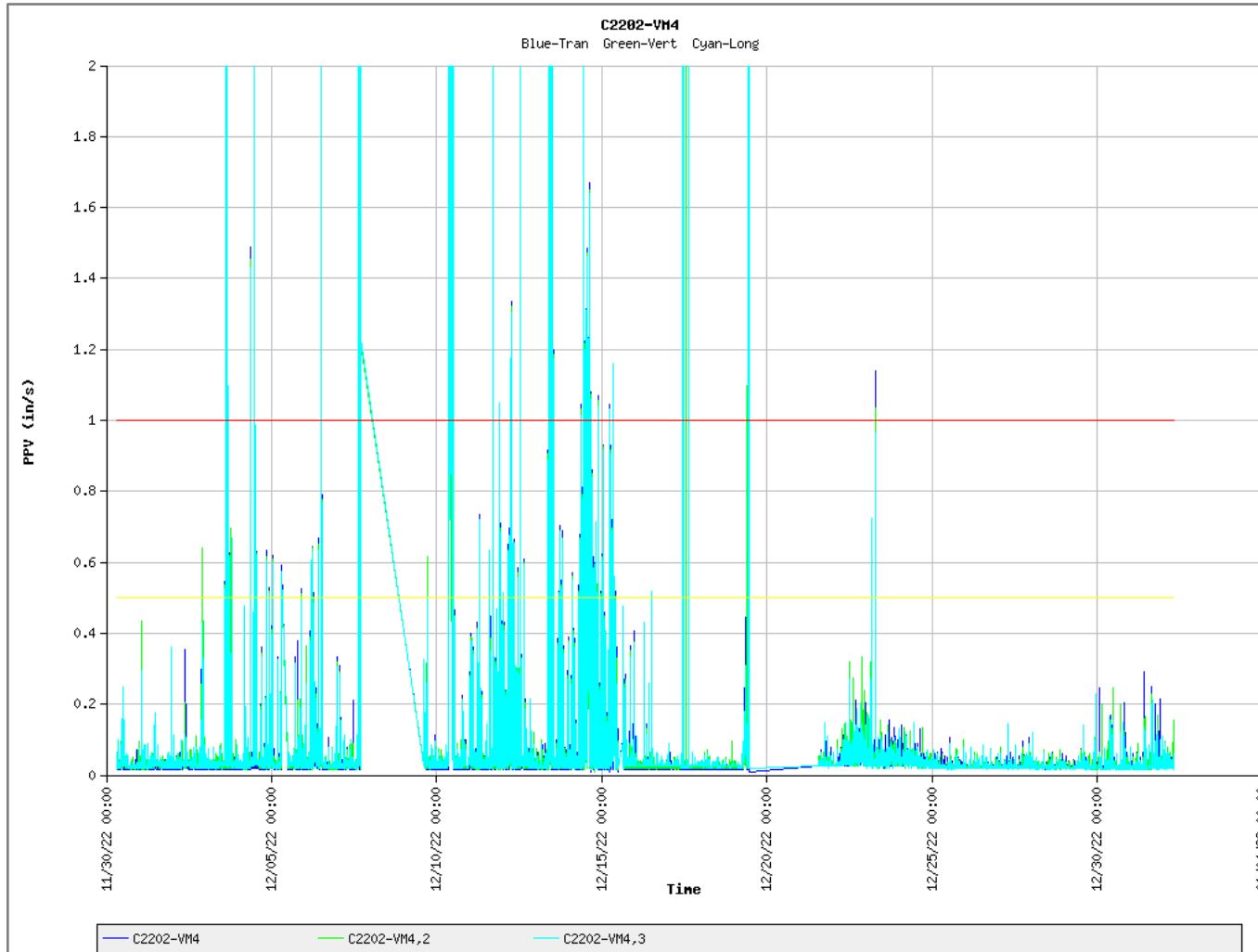
The Bronx Site Preparation December 2022 Vibration Monitoring Data Plots



Exceedance level: 1 in/sec
Warning level: 0.5 in/sec

C2202-VM3 Transverse
C2202-VM3,2 Vertical
C2202-VM3,3 Longitudinal

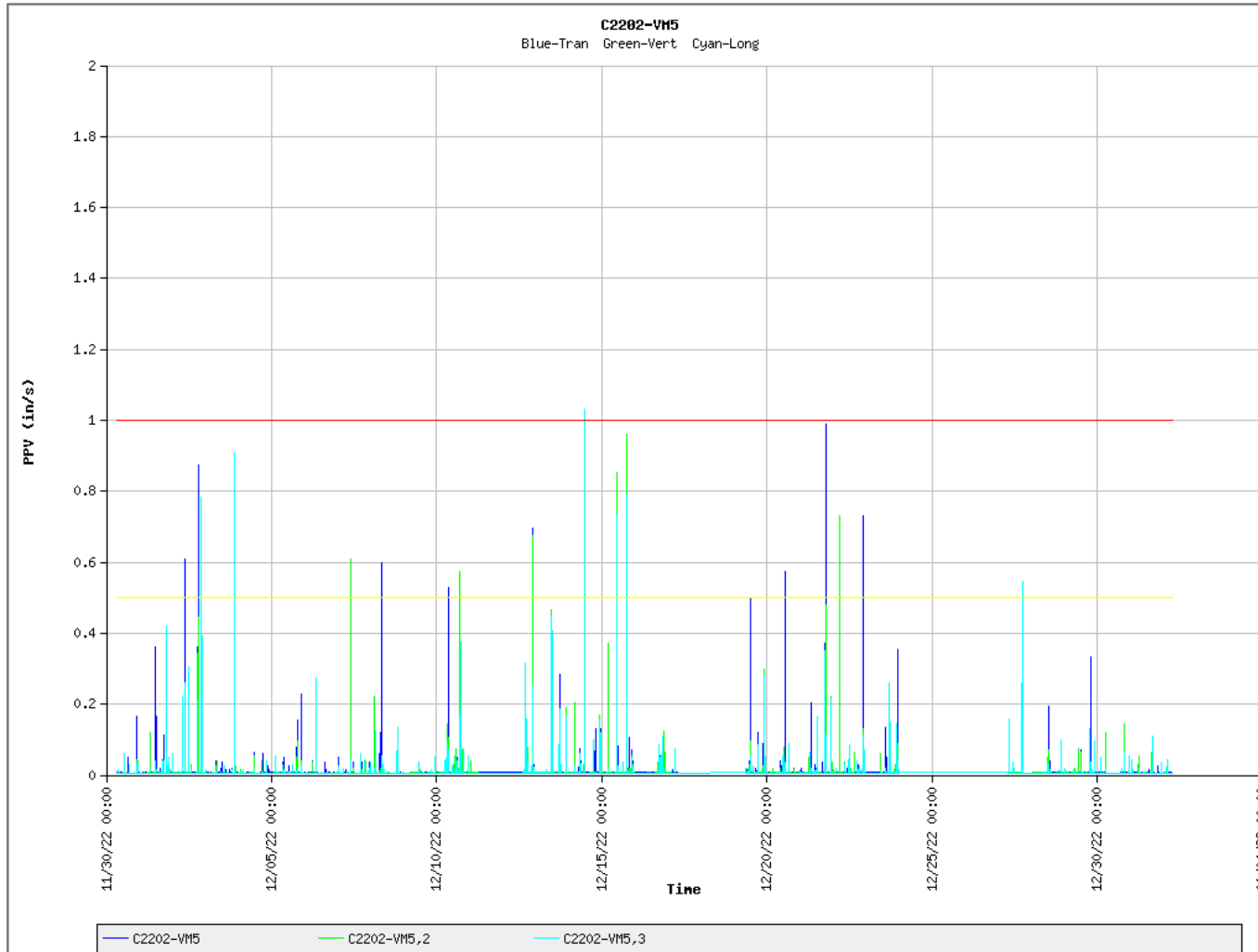
The Bronx Site Preparation December 2022 Vibration Monitoring Data Plots



Exceedance level: 1 in/sec
Warning level: 0.5 in/sec

C2202-VM4 Transverse
C2202-VM4,2 Vertical
C2202-VM4,3 Longitudinal

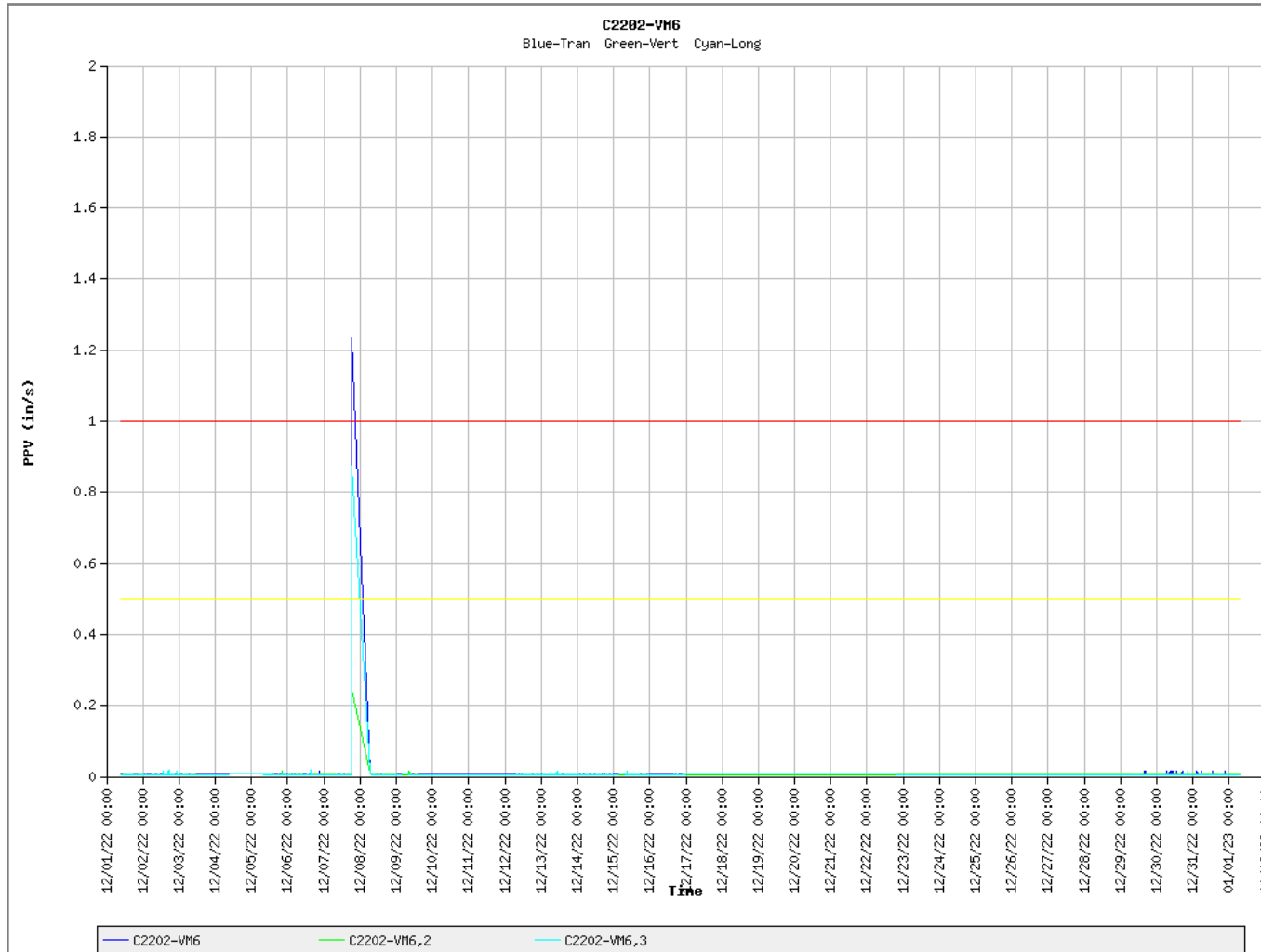
The Bronx Site Preparation December 2022 Vibration Monitoring Data Plots



Exceedance level: 1 in/sec
Warning level: 0.5 in/sec

C2202-VM5 Transverse
C2202-VM5,2 Vertical
C2202-VM5,3 Longitudinal

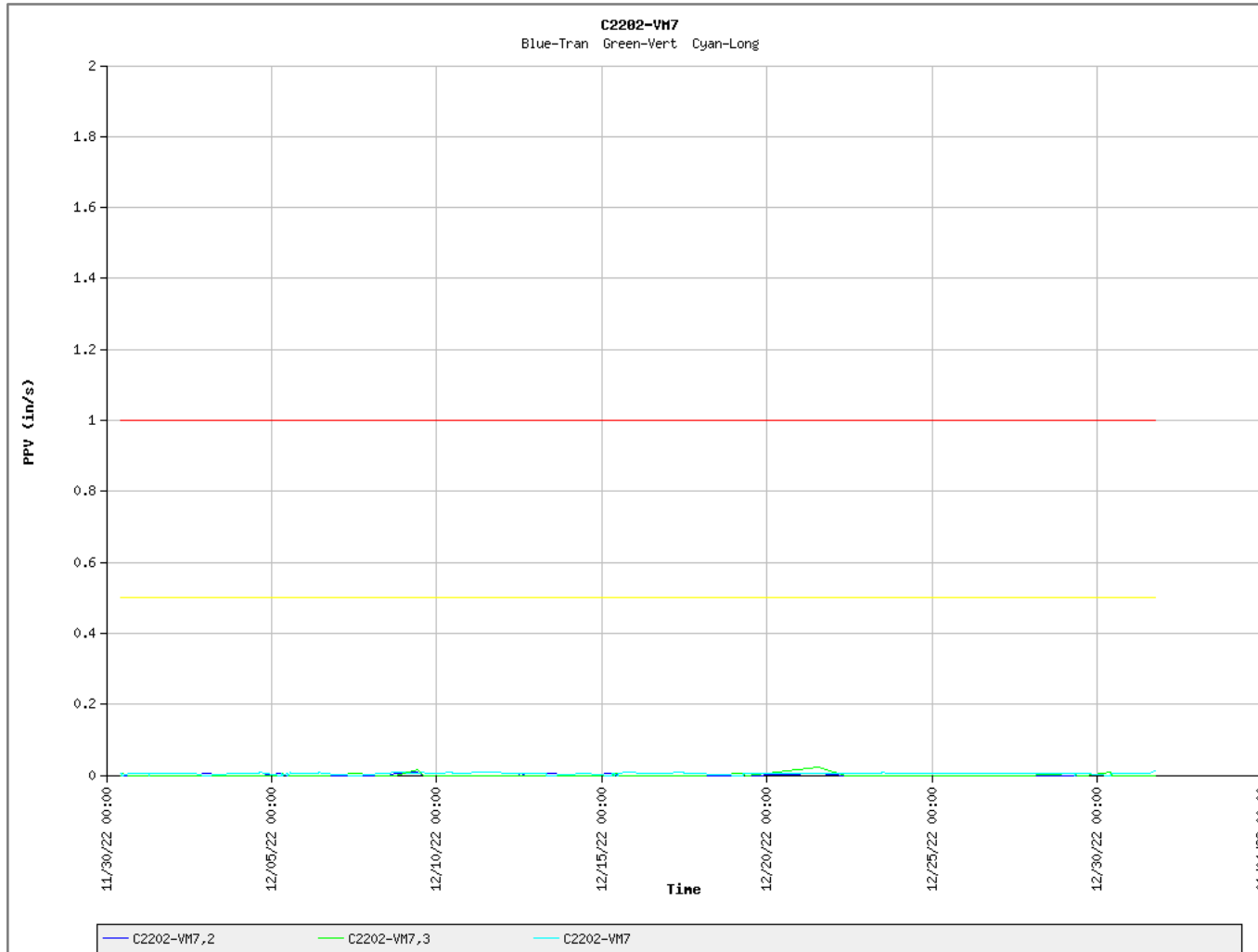
The Bronx Site Preparation December 2022 Vibration Monitoring Data Plots



Exceedance level: 1 in/sec
Warning level: 0.5 in/sec

C2202-VM6 Transverse
C2202-VM6.2 Vertical
C2202-VM6.3 Longitudinal

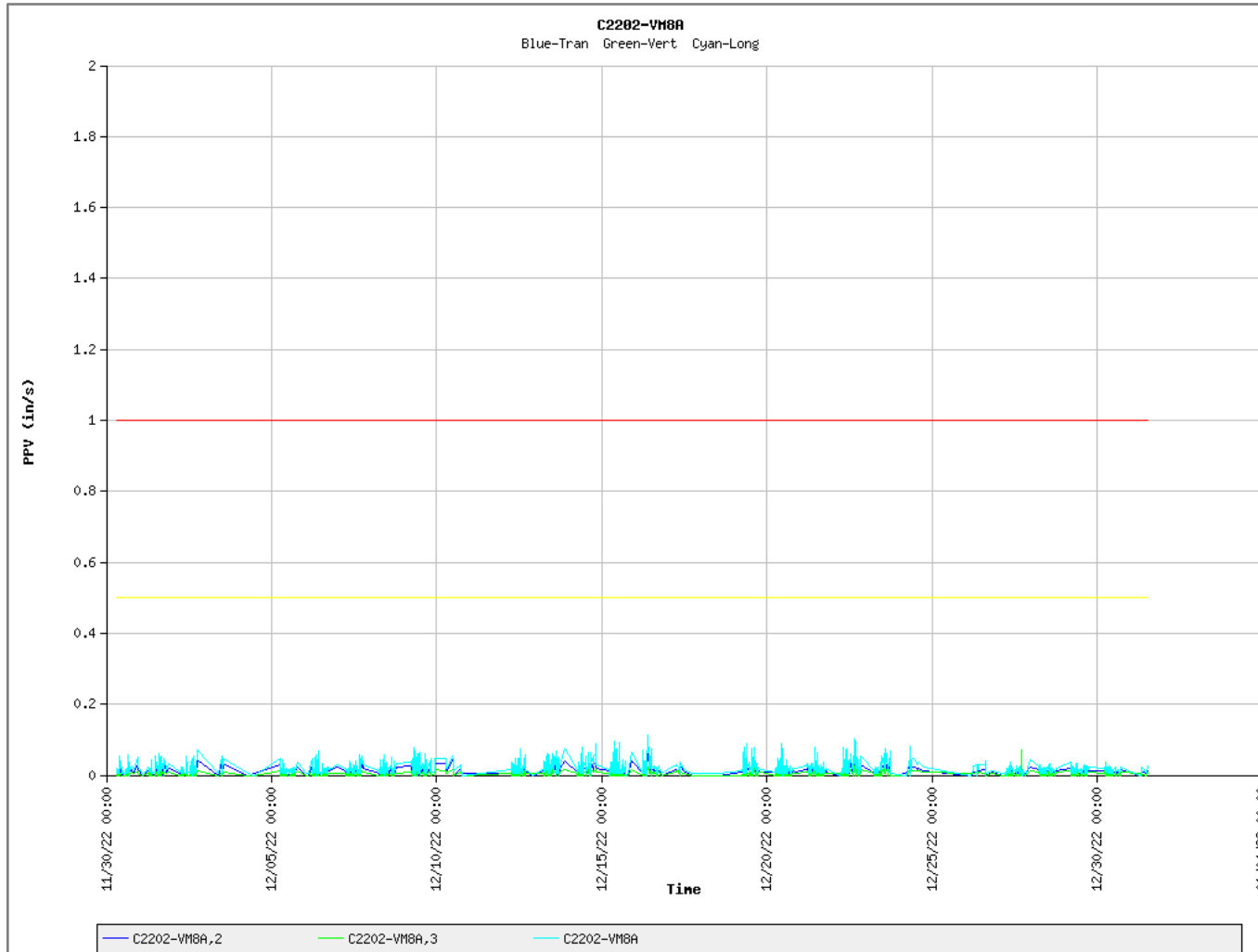
The Bronx Site Preparation December 2022 Vibration Monitoring Data Plots



Exceedance level: 1 in/sec
Warning level: 0.5 in/sec

C2202-VM7 Transverse
C2202-VM7,2 Vertical
C2202-VM7,3 Longitudinal

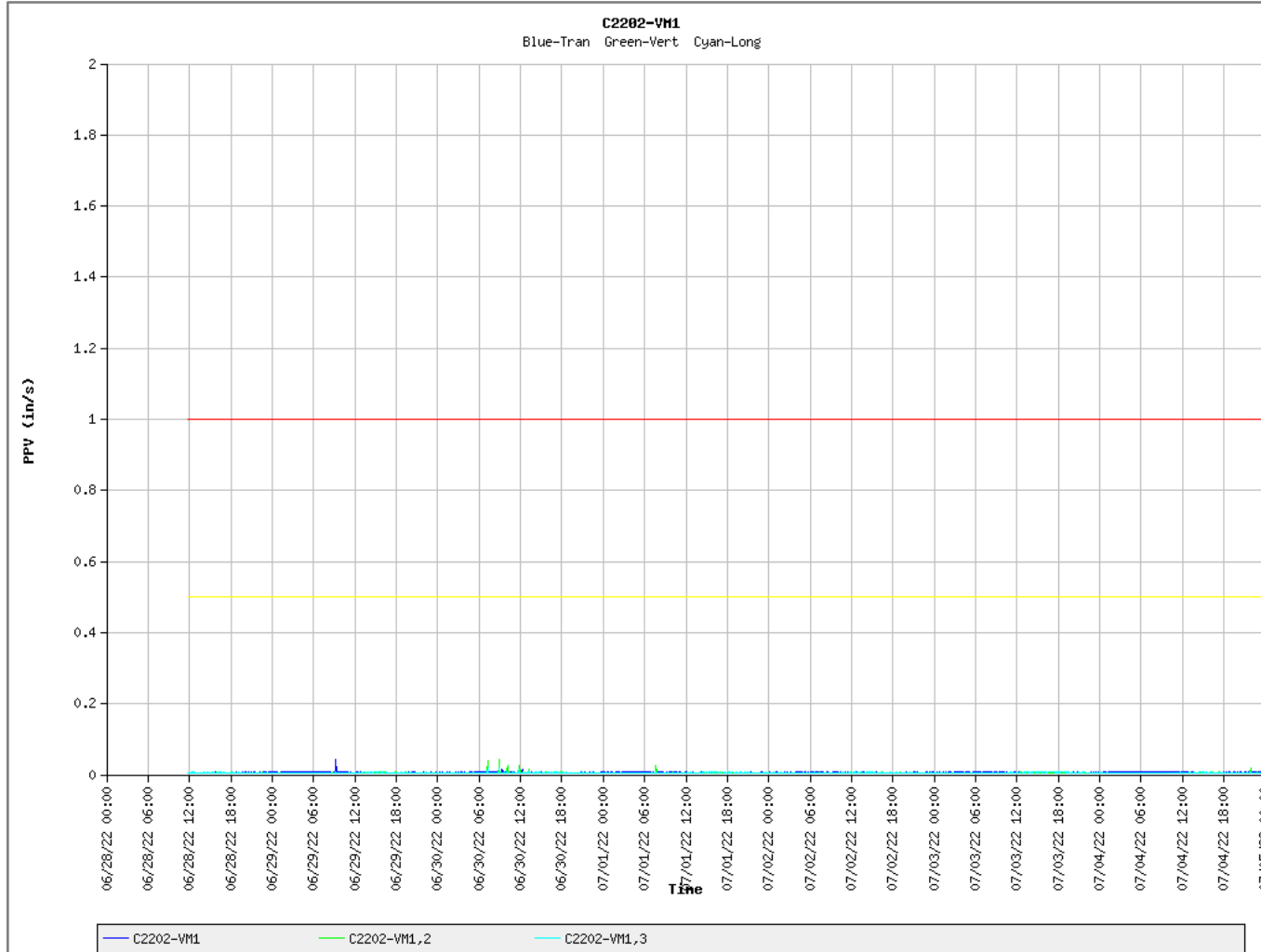
The Bronx Site Preparation December 2022 Vibration Monitoring Data Plots



Exceedance level: 1 in/sec
Warning level: 0.5 in/sec

C2202-VM8A Transverse
C2202-VM8A,2 Vertical
C2202-VM8A,3 Longitudinal

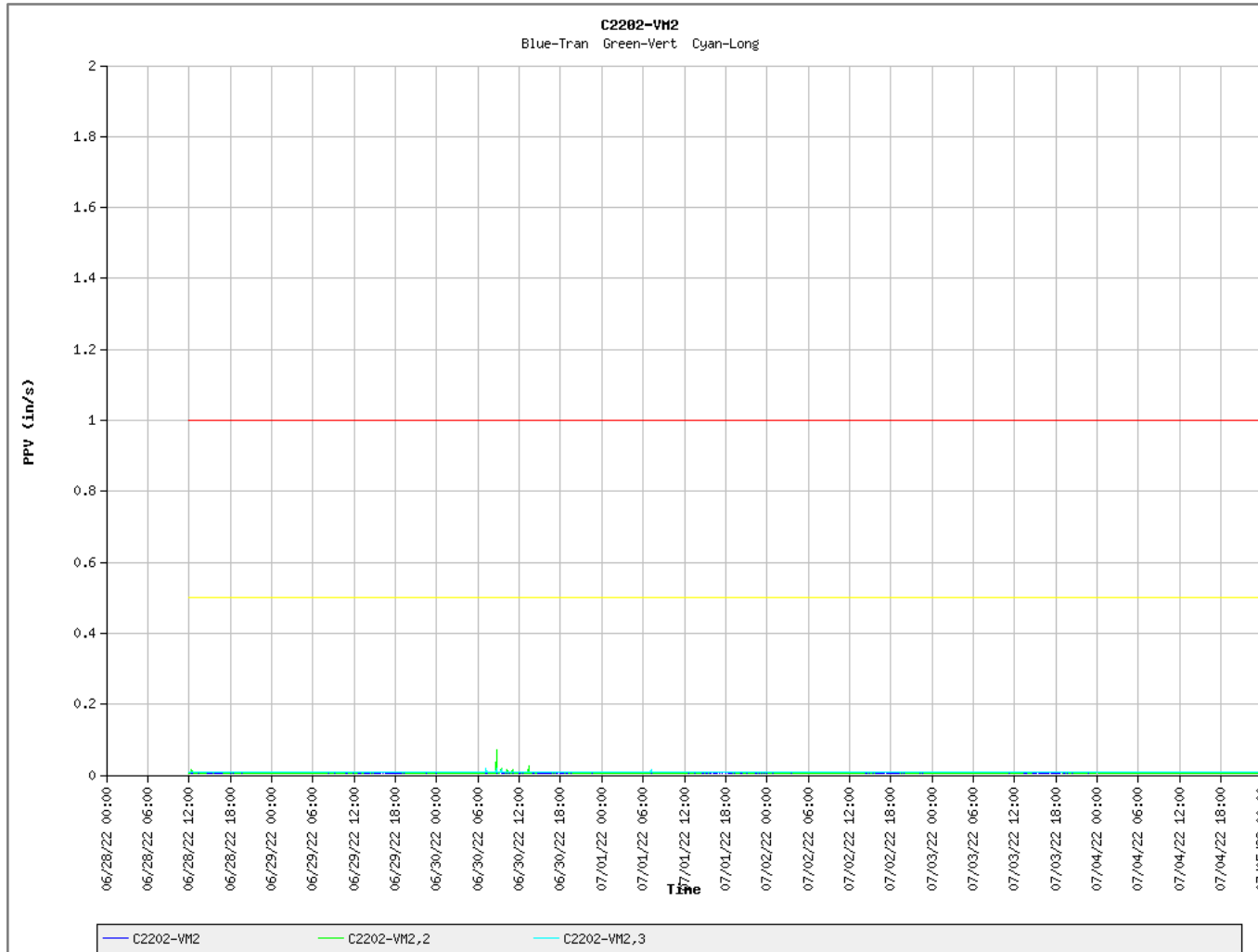
The Bronx Site Preparation Vibration Baseline Reference Data Plots



Exceedance level: 1 in/sec
Warning level: 0.5 in/sec

C2202-VM1 Transverse
C2202-VM1,2 Vertical
C2202-VM1,3 Longitudinal

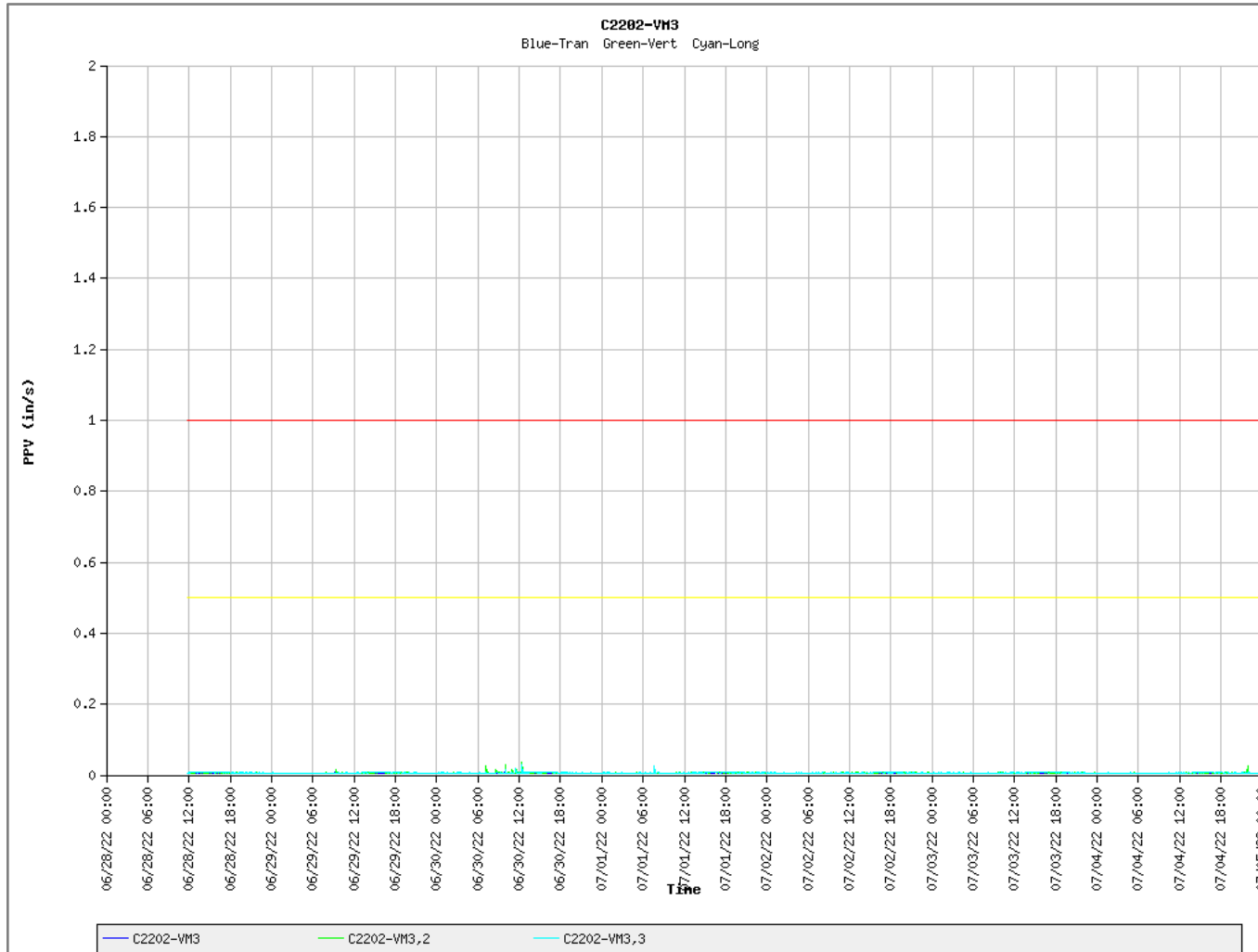
The Bronx Site Preparation Vibration Baseline Reference Data Plots



Exceedance level: 1 in/sec
Warning level: 0.5 in/sec

C2202-VM2 Transverse
C2202-VM2,2 Vertical
C2202-VM2,3 Longitudinal

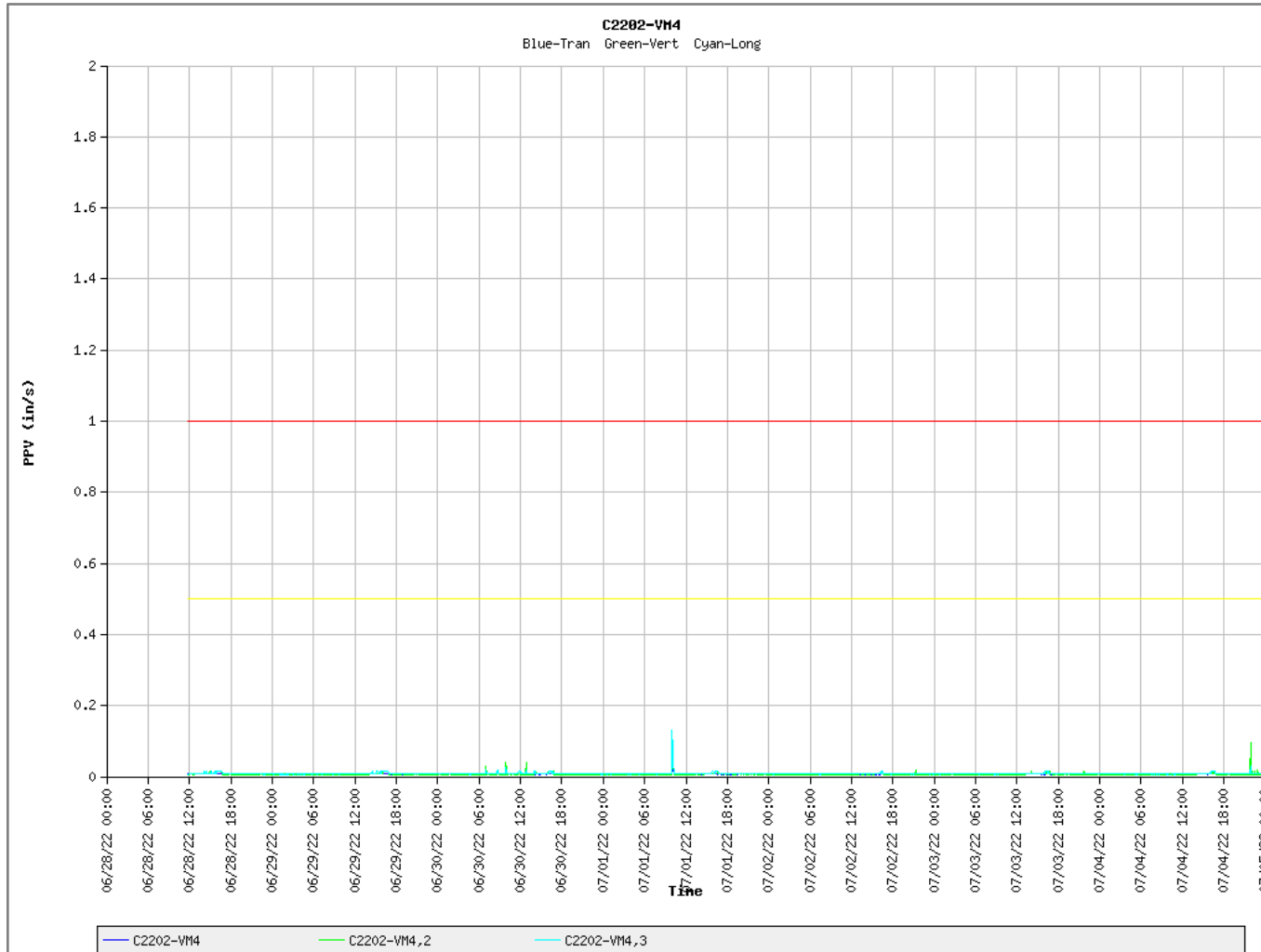
The Bronx Site Preparation Vibration Baseline Reference Data Plots



Exceedance level: 1 in/sec
Warning level: 0.5 in/sec

C2202-VM3 Transverse
C2202-VM3,2 Vertical
C2202-VM3,3 Longitudinal

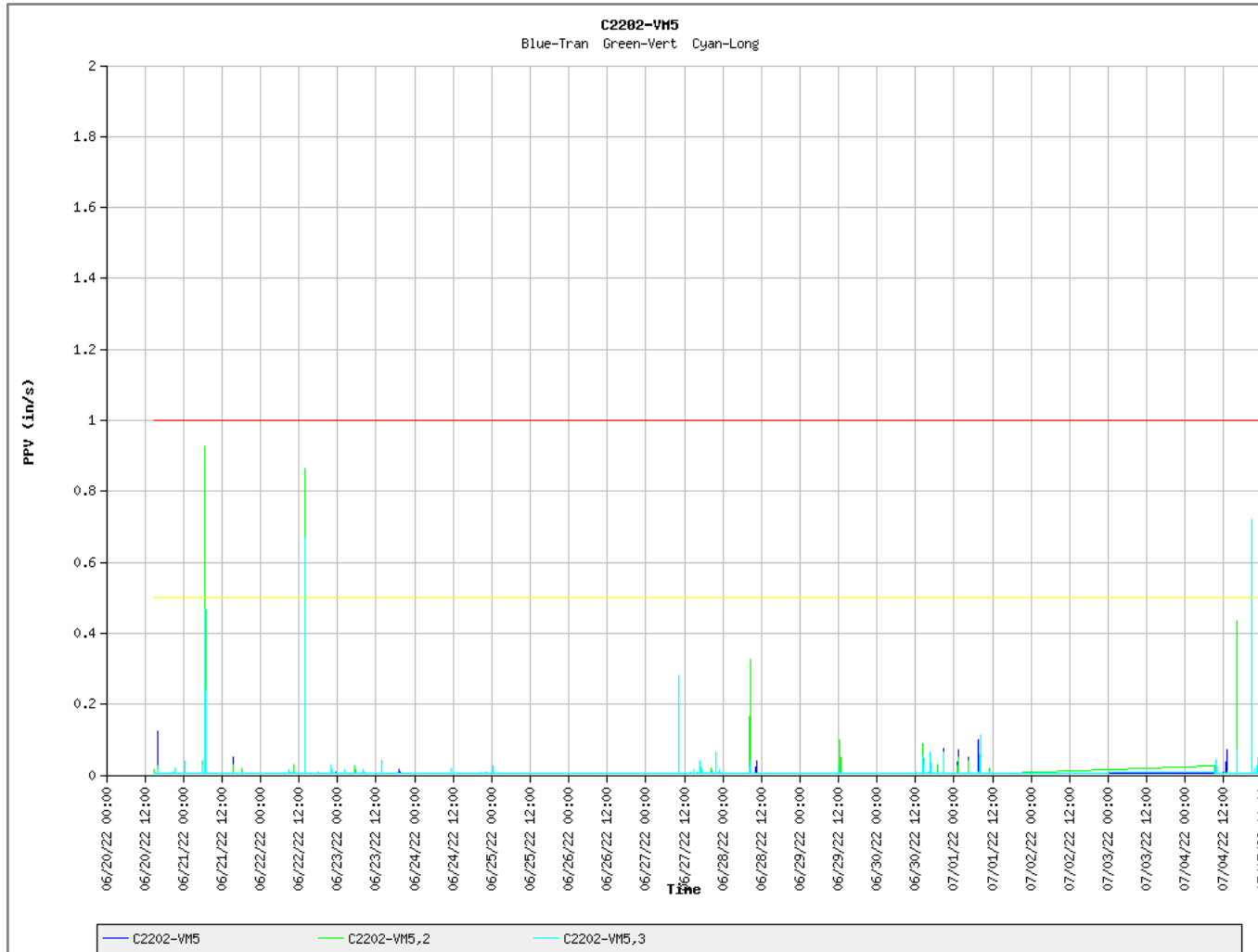
The Bronx Site Preparation Vibration Baseline Reference Data Plots



Exceedance level: 1 in/sec
Warning level: 0.5 in/sec

C2202-VM4 Transverse
C2202-VM4,2 Vertical
C2202-VM4,3 Longitudinal

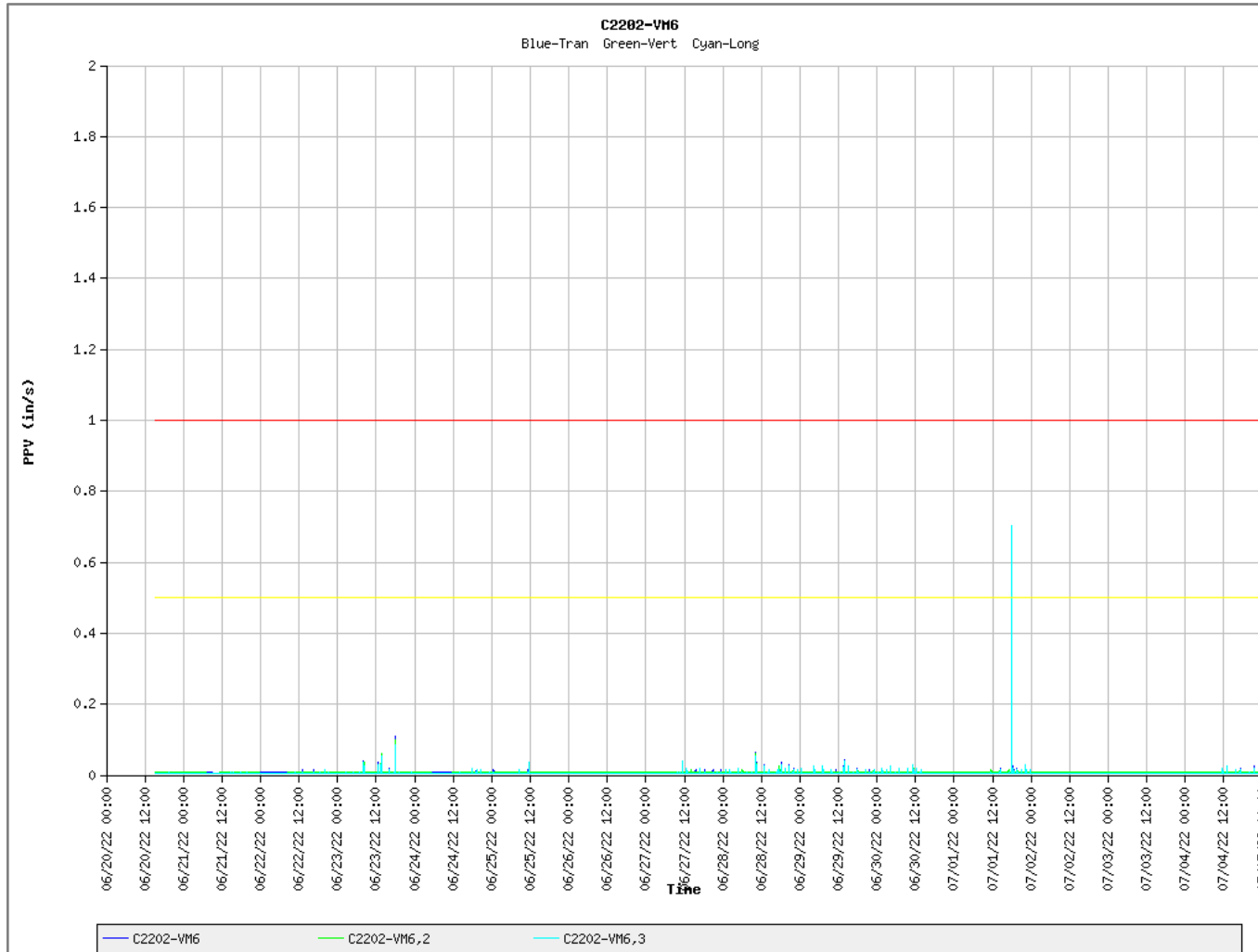
The Bronx Site Preparation Vibration Baseline Reference Data Plots



Exceedance level: 1 in/sec
Warning level: 0.5 in/sec

C2202-VM5 Transverse
C2202-VM5,2 Vertical
C2202-VM5,3 Longitudinal

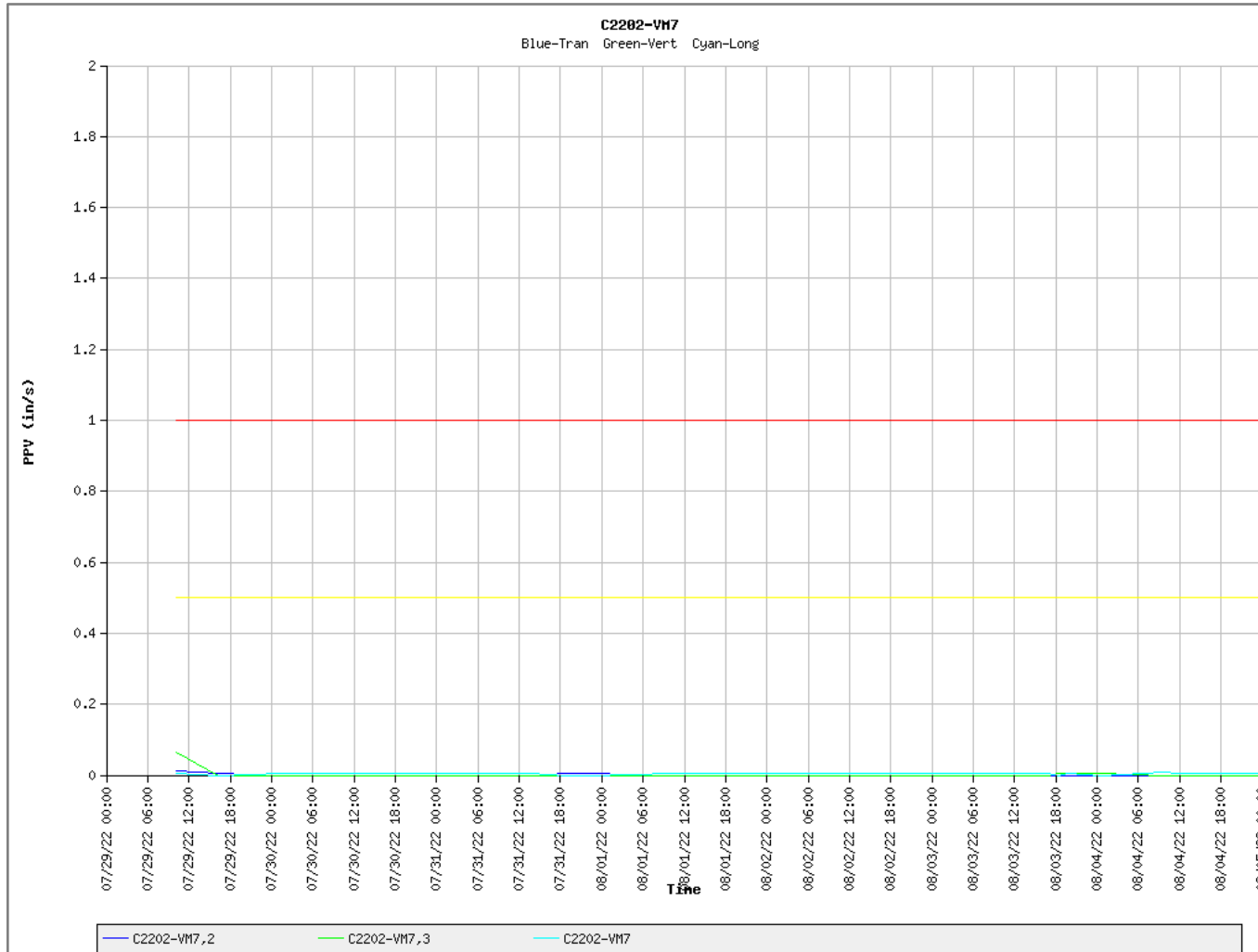
The Bronx Site Preparation Vibration Baseline Reference Data Plots



Exceedance level: 1 in/sec
Warning level: 0.5 in/sec

C2202-VM6 Transverse
C2202-VM6,2 Vertical
C2202-VM6,3 Longitudinal

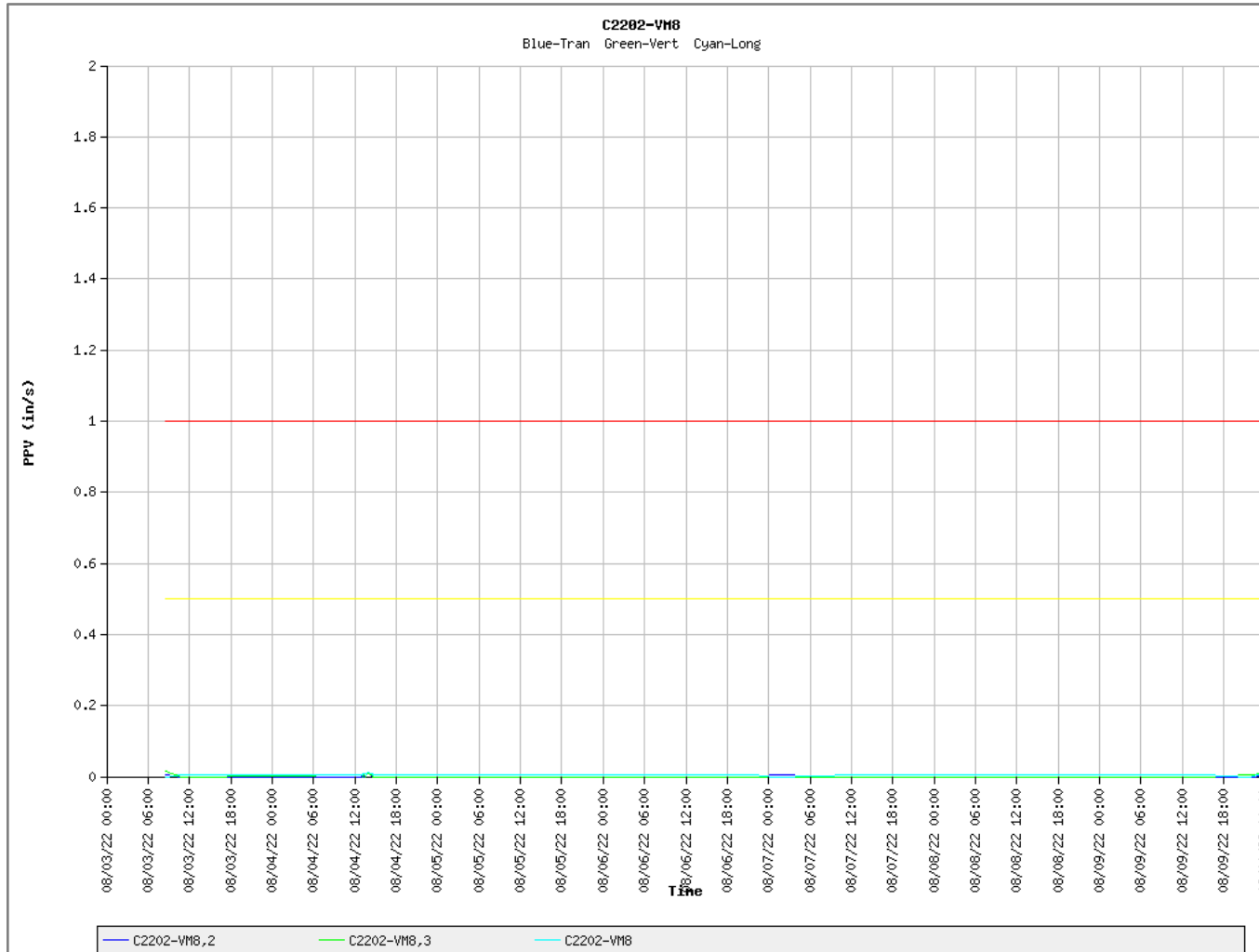
The Bronx Site Preparation Vibration Baseline Reference Data Plots



Exceedance level: 1 in/sec
Warning level: 0.5 in/sec

C2202-VM7 Transverse
C2202-VM7,2 Vertical
C2202-VM7,3 Longitudinal

The Bronx Site Preparation Vibration Baseline Reference Data Plots



Exceedance level: 1 in/sec
Warning level: 0.5 in/sec

C2202-VM8 Transverse
C2202-VM8,2 Vertical
C2202-VM8,3 Longitudinal