

**AIR, NOISE AND VIBRATION
MONTHLY MONITORING REPORT
Number 008**

Prepared By:

DDC Pin No.:	BBJ-XSP	Period Start: 3/1/23 End 3/31/23
Project Name:	NYCDDC D&B – The Bronx Site Preparation	
DDC Project No.:	8502021CR0004P-06P	

1) Community Air Monitoring Weekly 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
23	23	3	There was one instance of CAMP excursions above the 0.100 ug/m ³ dust action and two instances of CAMP excursions above the 0.150 ug/m ³ dust exceedance level limits. In all instances, there were no exceedances. These instances occurred on 3/16, 3/27, and 3/31 and are detailed below.

Community Air Monitoring Weekly 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
3/16/23 8:40am	132	78	An elevated reading was caused by dust from rock drilling activities. Work was stopped until particulate matter concentrations returned under the exposure limit.
3/27/23 7:05am	166	-5	An elevated reading was caused by dust from rock scraping activities. Work was stopped and watering was implemented within the work area.
3/31/23 7:08am	182	19	Two elevated readings were caused by dust during rock drilling for an anchor bolt installation. This activity ceased and particulate matter concentrations returned to under the exposure limit after work was

			stopped.
<p>Narrative Summary of Air Monitoring, Excursions and Corrective Actions: <i>In March 2023, construction-related levels of Particulate Matter (PM) PM10 did surpass the Daily Permissible Exposure Limits (PEL) as set by federal standards for the 8-hour Time Weighted Average (TWA) and did cause air quality concerns to the community and/or onsite workers.</i></p>			
<p>2) Community Noise Monitoring Weekly Summary Units to be determined (TBD) typically a weighted decibels (dBA) level</p>			
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
23	23	5	There were five instances of noise levels above the 80 dBA limit. Instances occurred on 3/1, 3/2, 3/3, 3/15, and 3/31 and are detailed below.

<p>Community Noise Monitoring Weekly Excursions and Corrective Actions Action Level = TBD above background Stop Work Level = TBD above background</p>			
Date: Time	Maximum Noise Reading before Corrective Action (dBA)	Maximum Noise Reading after Corrective Action (dBA)	Corrective Action
3/1/23 8:30am	81.61	74.20	Exceedance was caused by rock breaking activities.
3/2/23 8:30am	82.87	67.23	Exceedance began at 8:20am, peaked at 8:30am, and ceased by 8:50am during rock breaking activities.
3/3/23 8:40am	80.03	76.41	Exceedance was caused during the concrete wall breaking actions occurring nearby.
3/15/23 11:40am	82.36	77.87	Exceedance was caused by rock hammering activities.
3/31/23 12:40pm	83.90	70.77	Exceedance began at 12:40pm and ceased by 1:00pm while a nearby excavator was utilizing its warning indicator to move materials.
<p>Narrative Summary of Air Monitoring, Excursions and Corrective Actions: <i>In March 2023, construction-related levels of noise surpassed the limits of Local Law 113 on five occasions. On every occasion, the daily average was below the limits and did not cause noise concerns for the community.</i></p>			

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
23	31	8	Four out of seven vibration monitors (VM) had recorded a total of 27 exceedances, including outlier data and exceedances caused by damaged cable, backfilling work, and disturbances. 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
3/13/2023 12:31	0.545	0.17	Exceedances observed at VM1 were caused by backfilling near the sensor.
3/15/2023 10:17 to 11:01	9.78	N/A	Cable of VM1 was found cut on 3/16/23. As the remaining construction work that requires vibration monitoring is 50 ft away from VM1, Wang was instructed to remove VM1 on 3/16/23.
3/7/2023 18:26 & 19:17	0.915	0.075	Exceedances observed at VM5 were recorded during non-construction hours.
3/15/2023 08:04	0.5	0.035	This is an isolated event recorded at VM5. Residents have access to the sensor.
3/15/2023 13:29	0.53	0.485	This is an isolated event recorded at VM5. Residents have access to the sensor.
3/16/2023 11:08	0.535	0.315	This is an isolated event recorded at VM5. Residents have access to the sensor.
3/21/2023 05:54	0.88	0.01	Exceedance observed at VM5 was recorded during non-construction hours.
3/21/2023 15:22	0.6	0.06	Exceedance observed at VM5 was recorded during non-construction hours.
3/24/2023 21:20	0.635	0.005	Exceedance observed at VM5 was recorded during non-construction hours.
3/1/2023 17:03	0.675	0.025	Exceedance observed at VM6 was recorded during non-construction hours.
3/3/2023 09:54	1.172	0.05	Exceedance observed at VM9 was caused by Wang testing the sensor.
3/3/2023 11:59	0.916	0.208	This is an isolated event recorded at VM9, likely caused by disturbance. No corrective actions or mitigation measures were required.

Narrative Summary of Vibration Monitoring, Excursions and Corrective Actions:
VM9 and VM10 were installed on March 3rd for the oil static line monitoring.

In March 2023, four vibration monitors had recorded exceedances. There were exceedances recorded during non-construction hours at 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. Two isolated events were recorded at VM9 on March 3rd, the first event was caused by Wang testing the sensor. For the second event, per GC, no vibratory work was performed near the sensor, the exceedance was likely caused by disturbance. Therefore, no corrective actions or mitigation measures were required.

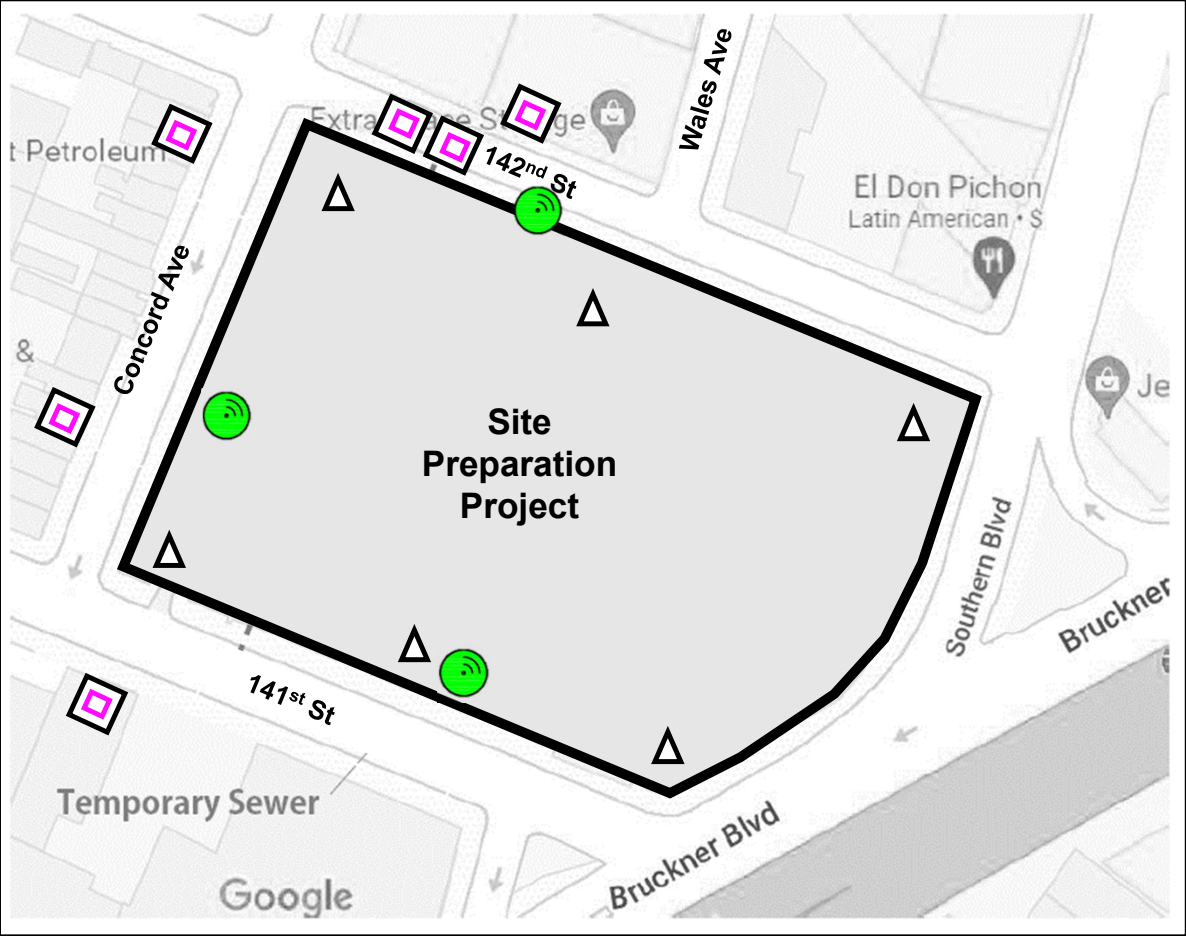
The exceedance recorded at VM1 on March 13th was caused by backfilling near the sensor. The exceedances recorded at VM1 on March 15th were caused by a cut cable. As the remaining construction work that requires vibration monitoring is 50 ft away from VM1, Wang was instructed to remove VM1 on March 16th.




ATTACHMENTS:

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

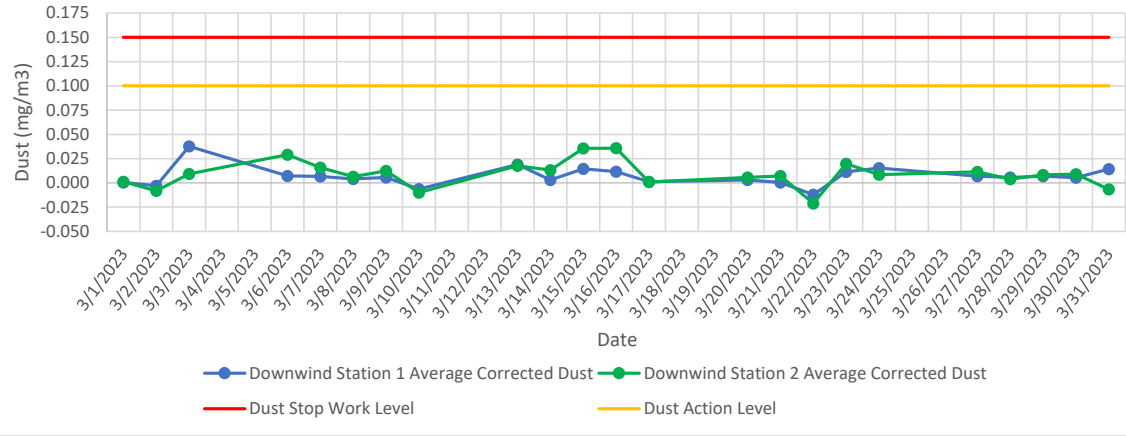
Attachments

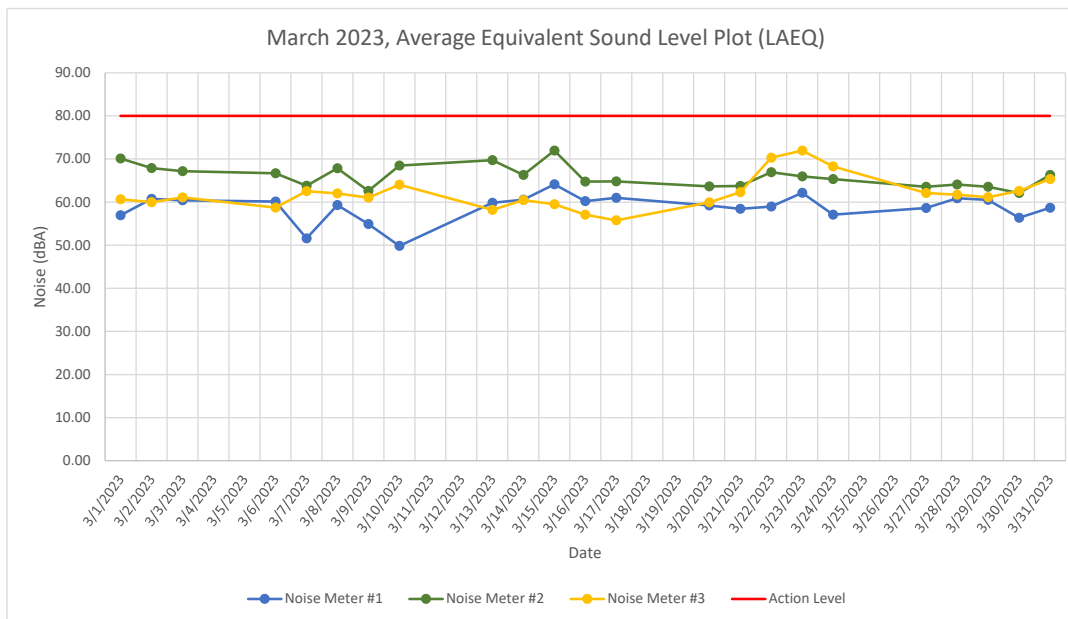
Environmental Monitoring The Bronx



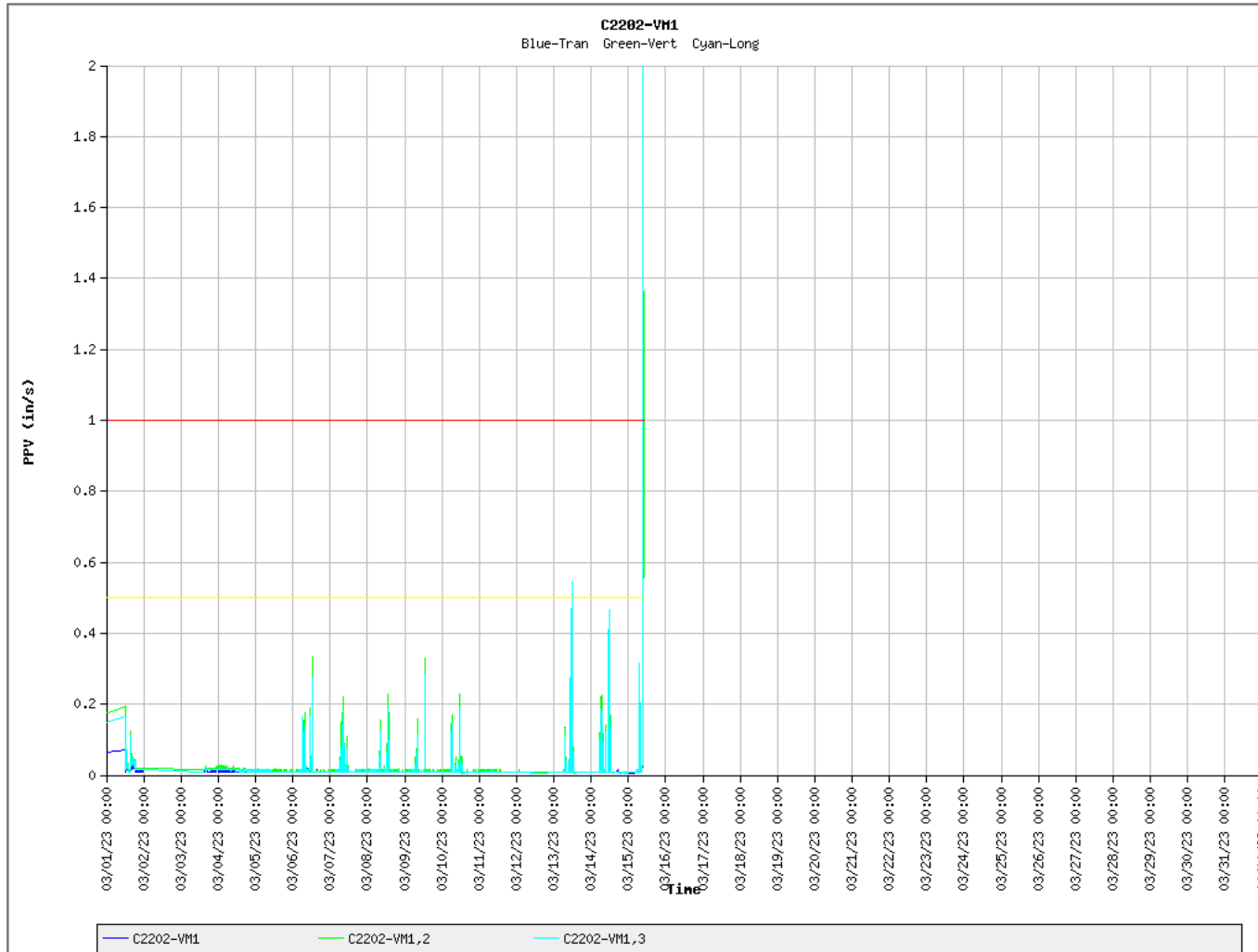
-  Vibration Monitor (VM)
-  Air Monitoring Station (DM)
-  Noise Monitoring Station (NM)

March 2023, 15-min Running Average Air Quality Data, PM 10ug/m3 Plot





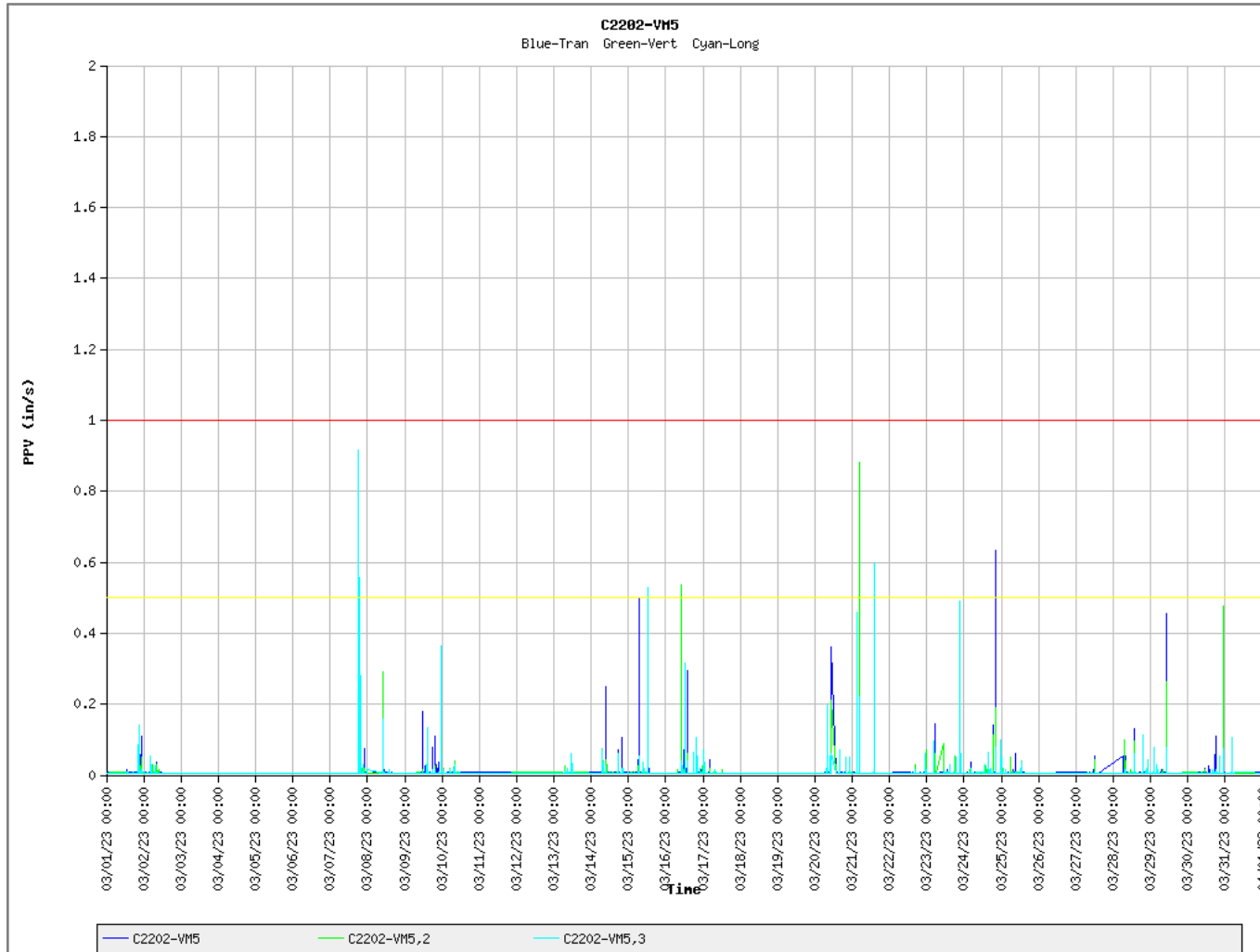
The Bronx Site Preparation March 2023 Vibration Monitoring Data Plots



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

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

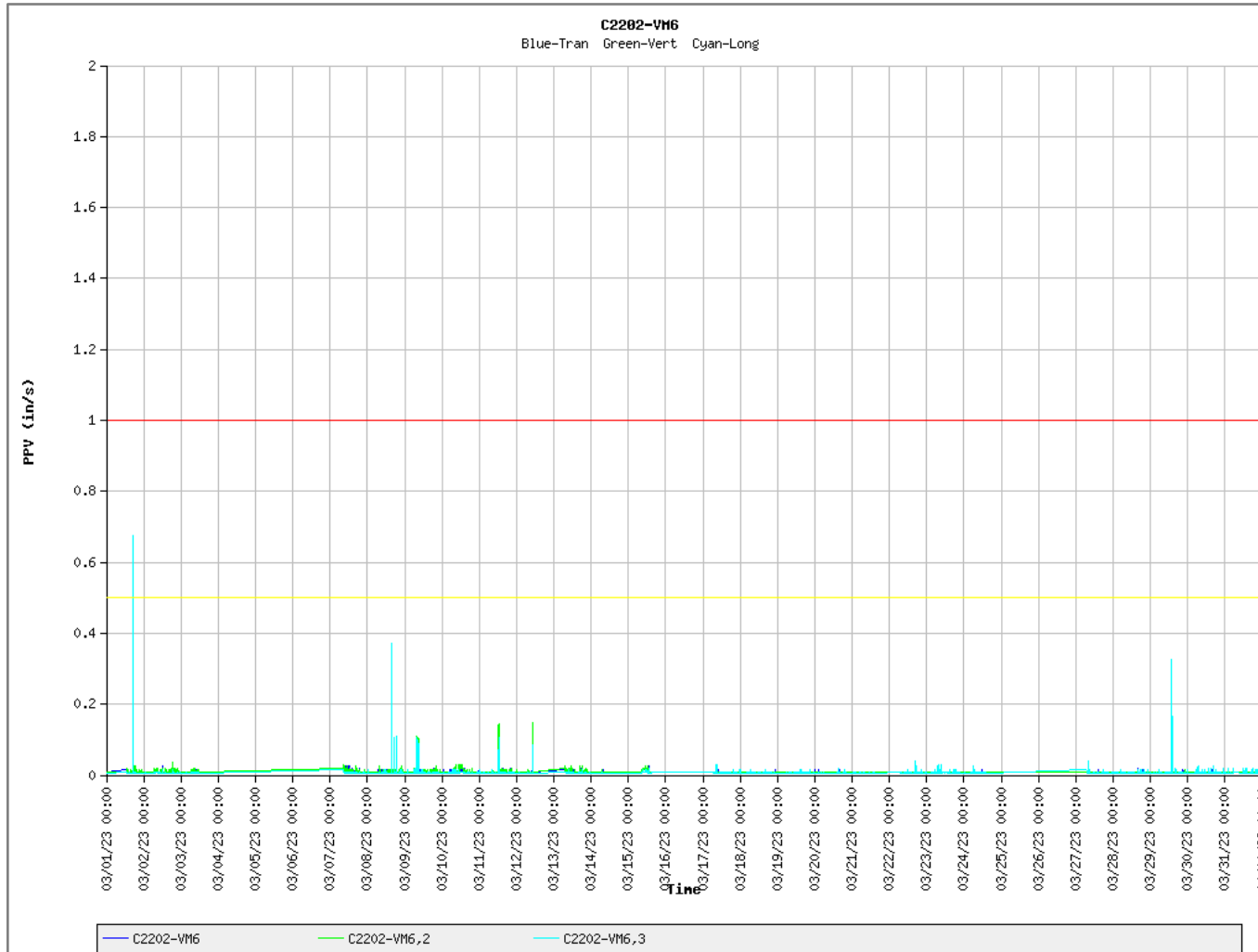
The Bronx Site Preparation March 2023 Vibration Monitoring Data Plots



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

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

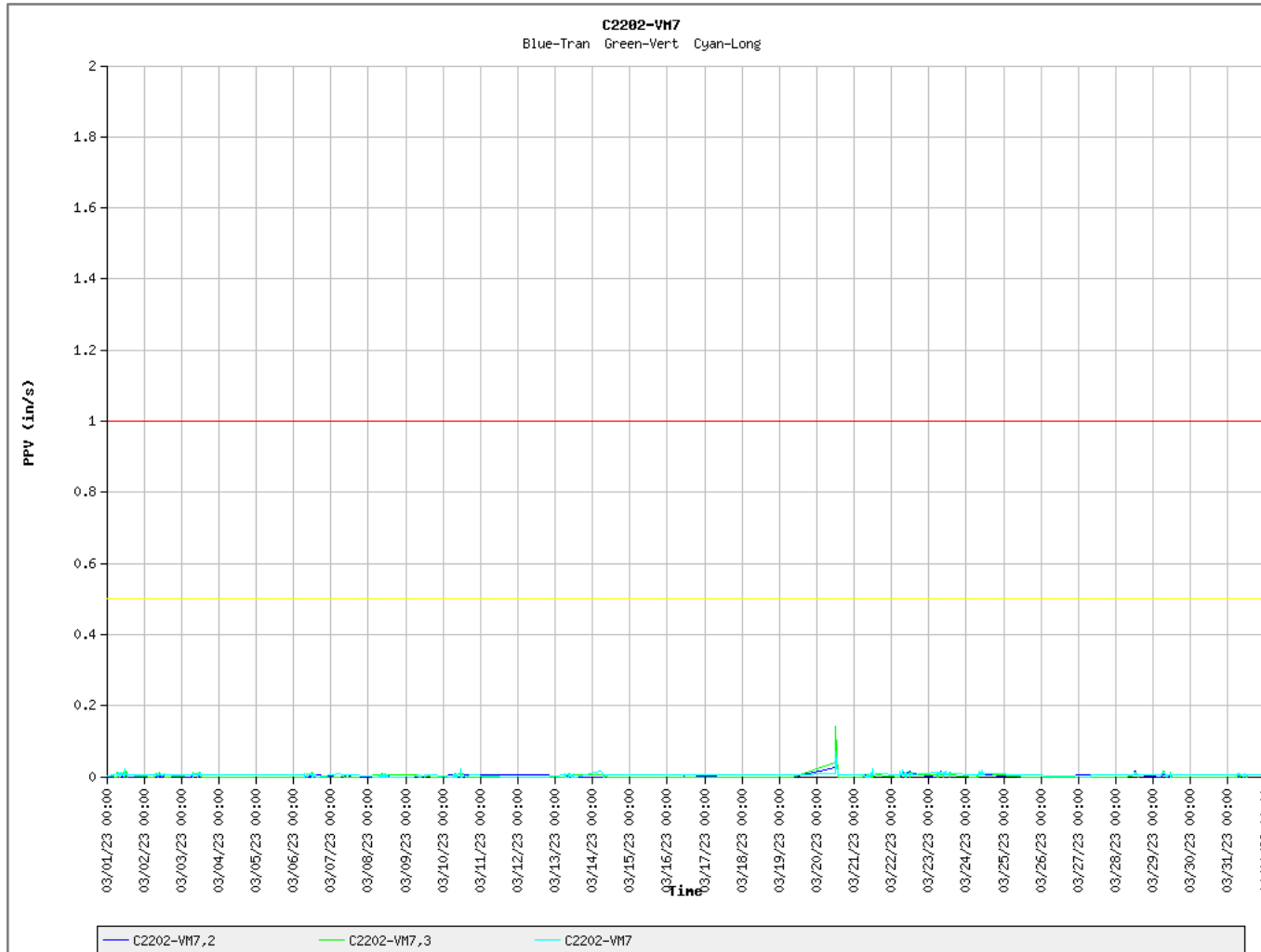
The Bronx Site Preparation March 2023 Vibration Monitoring Data Plots



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

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

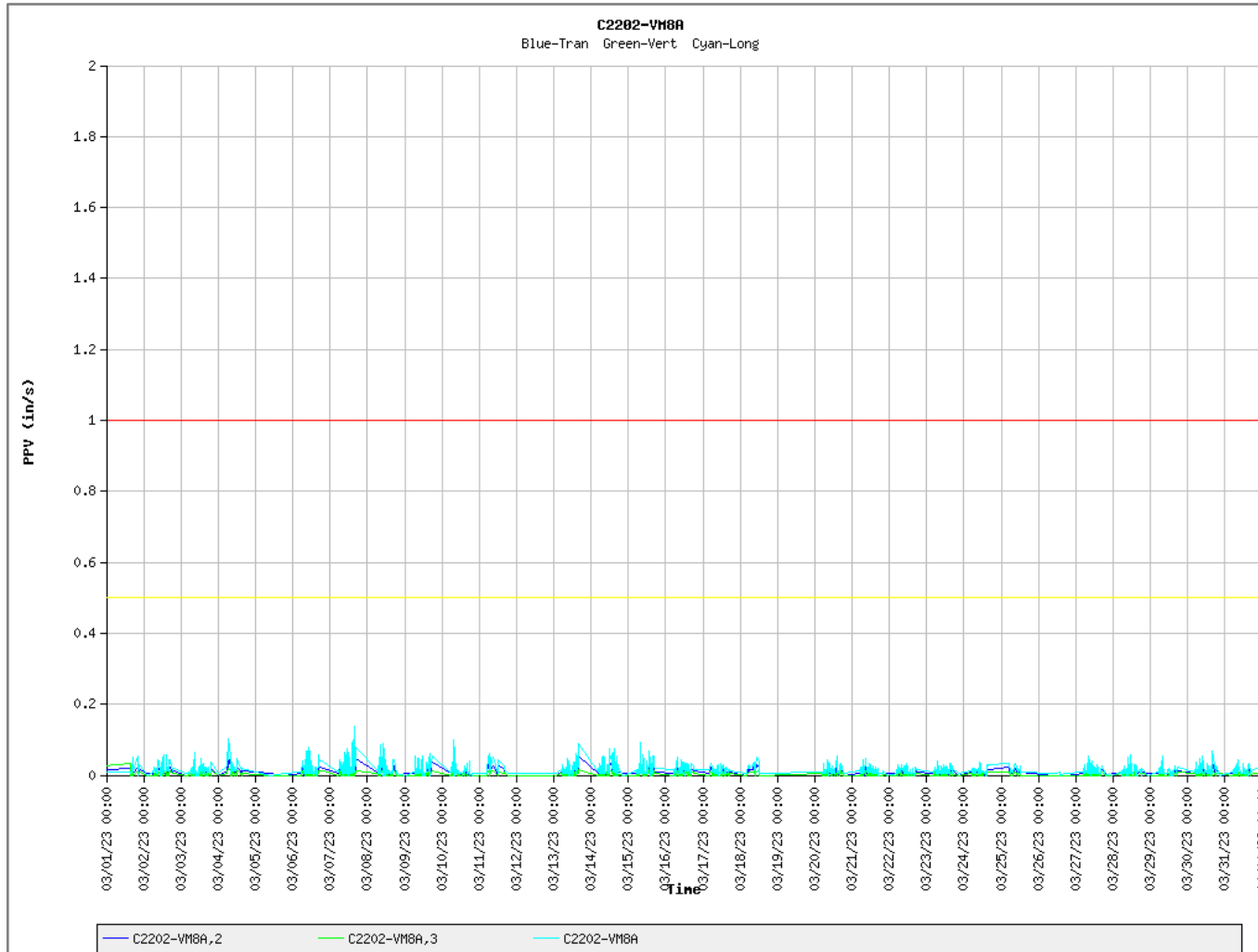
The Bronx Site Preparation March 2023 Vibration Monitoring Data Plots



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

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

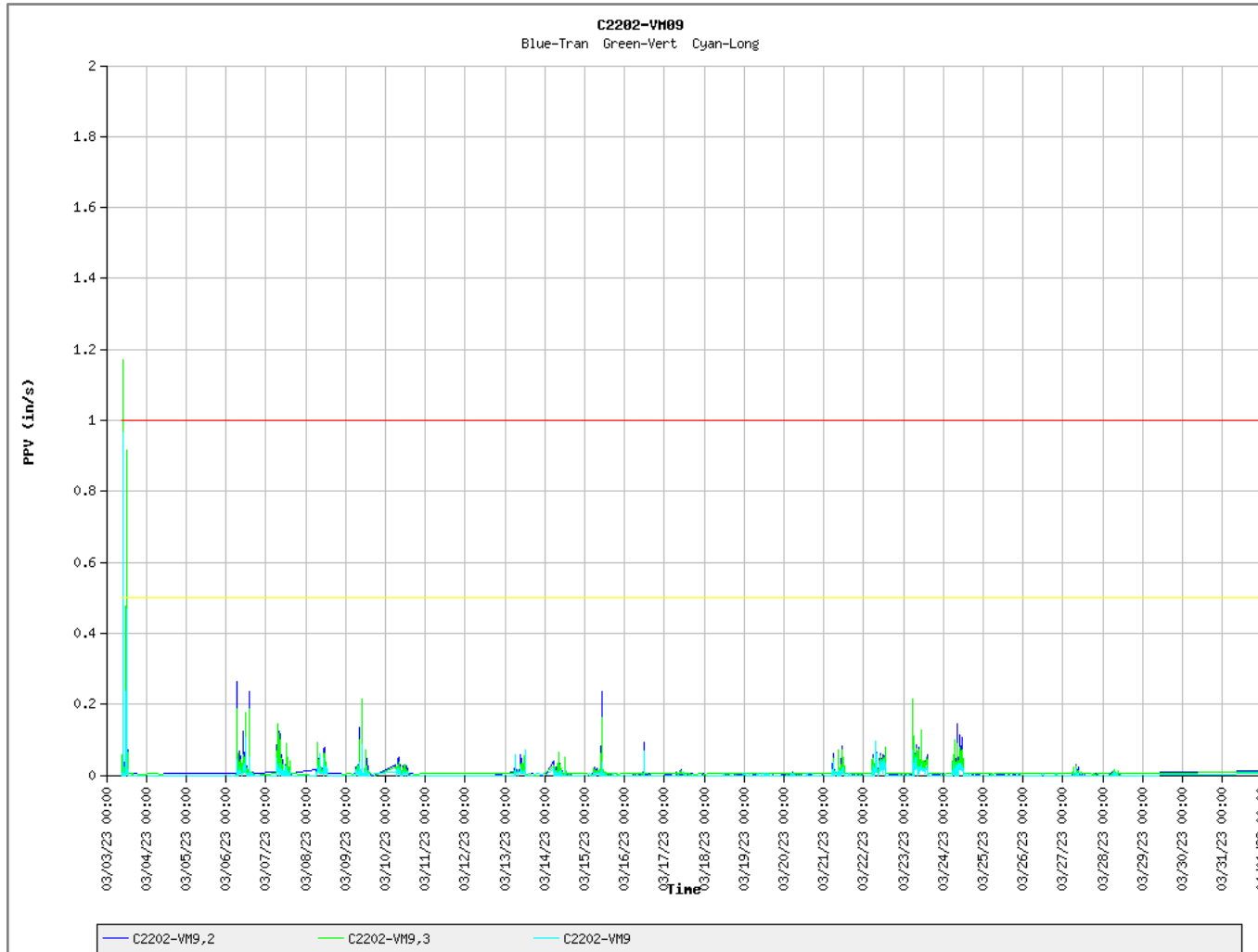
The Bronx Site Preparation March 2023 Vibration Monitoring Data Plots



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

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

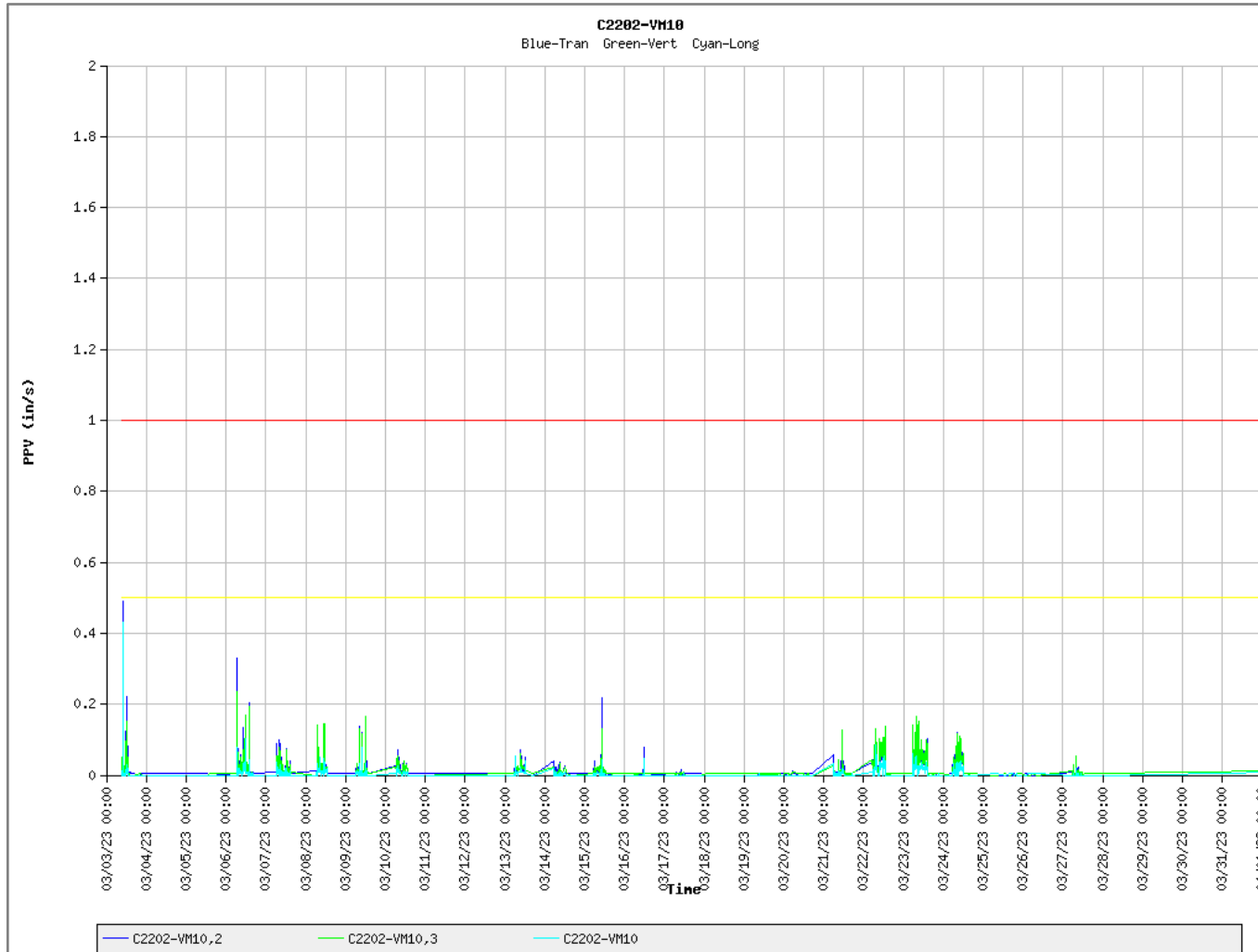
The Bronx Site Preparation March 2023 Vibration Monitoring Data Plots



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

C2202-VM9 Transverse
C2202-VM9,2 Vertical
C2202-VM9,3 Longitudinal

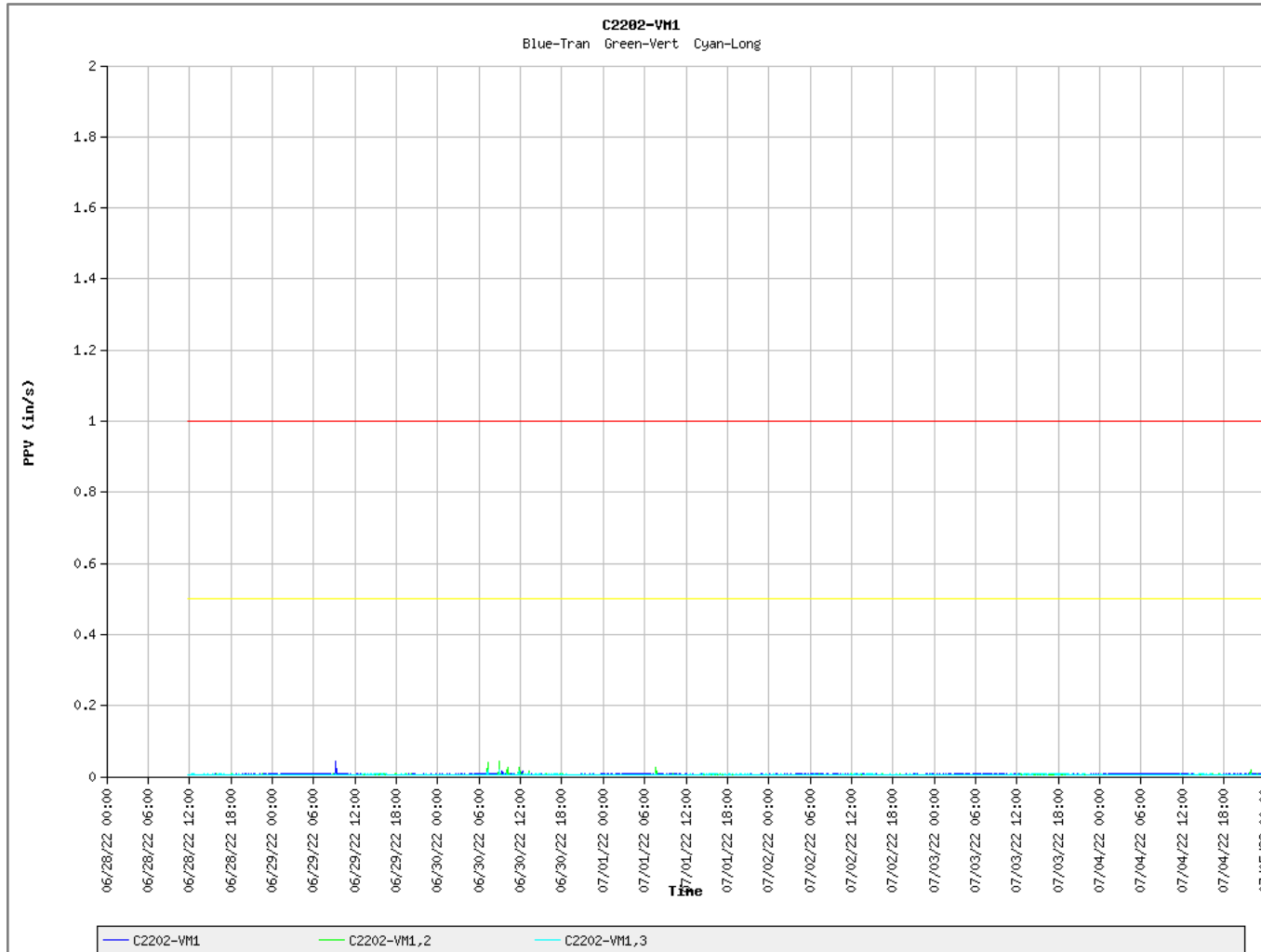
The Bronx Site Preparation March 2023 Vibration Monitoring Data Plots



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

C2202-VM10 Transverse
C2202-VM10,2 Vertical
C2202-VM10,3 Longitudinal

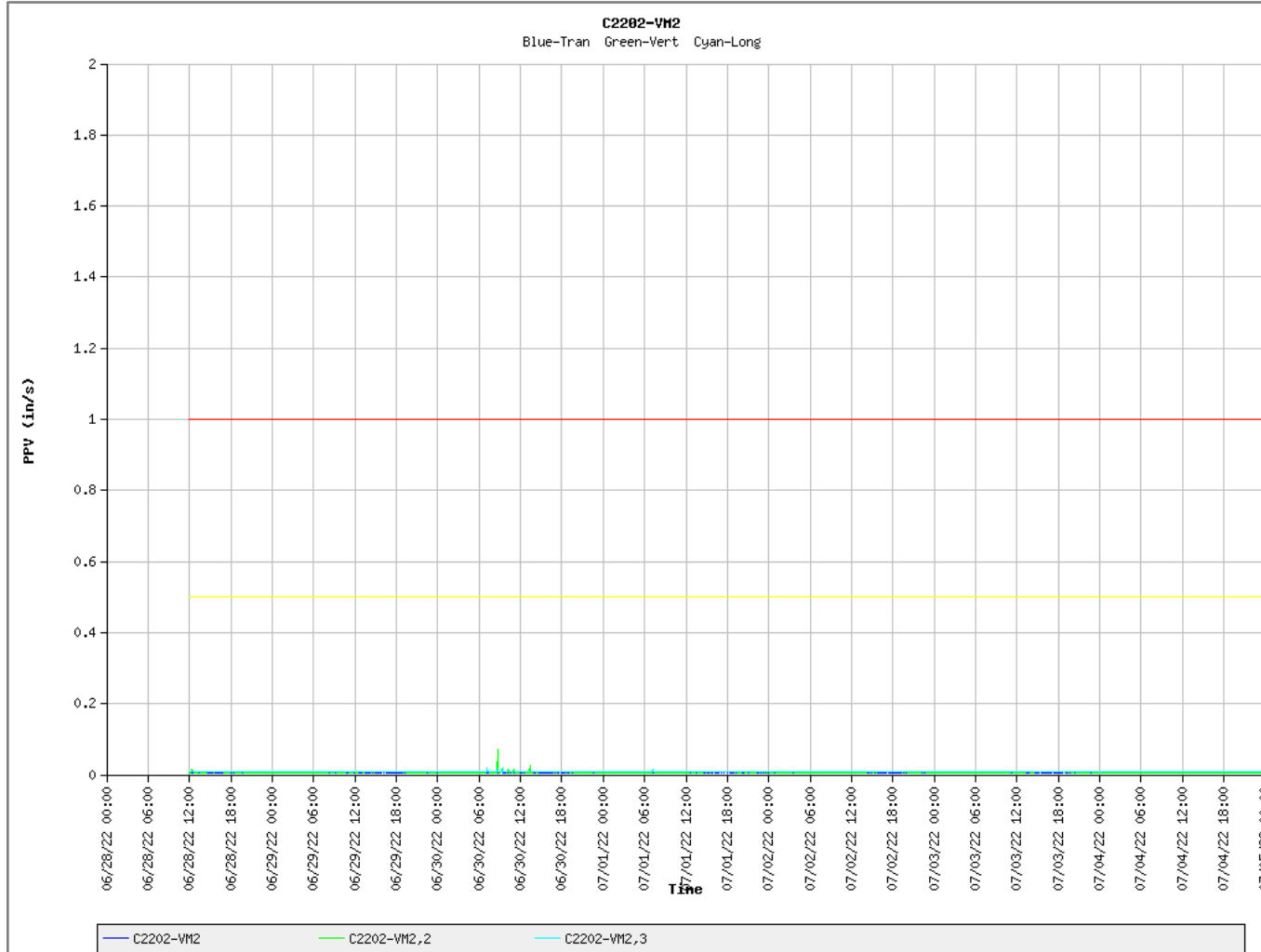
The Bronx Site Preparation Vibration Baseline Reference Data Plots



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

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

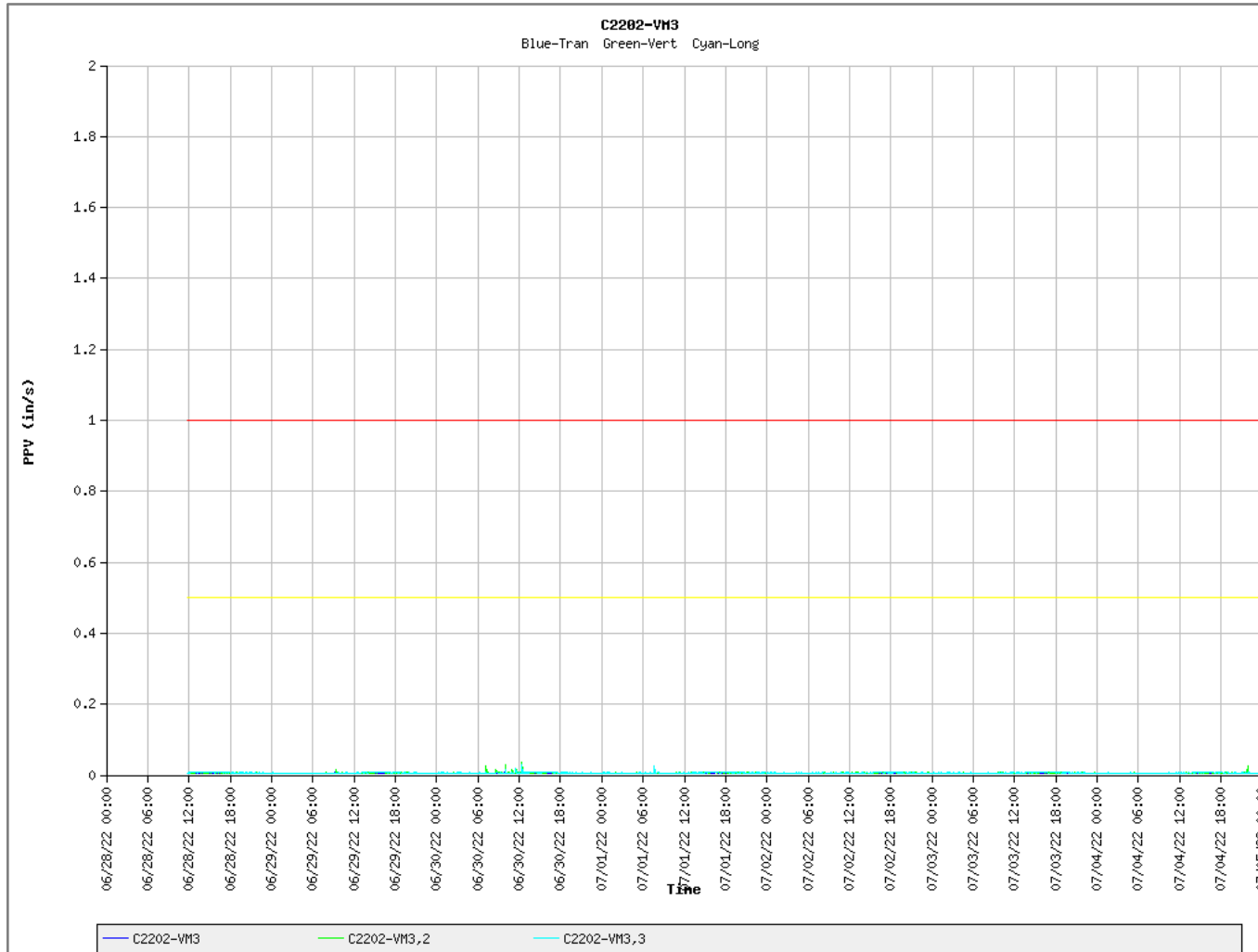
The Bronx Site Preparation Vibration Baseline Reference Data Plots



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

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

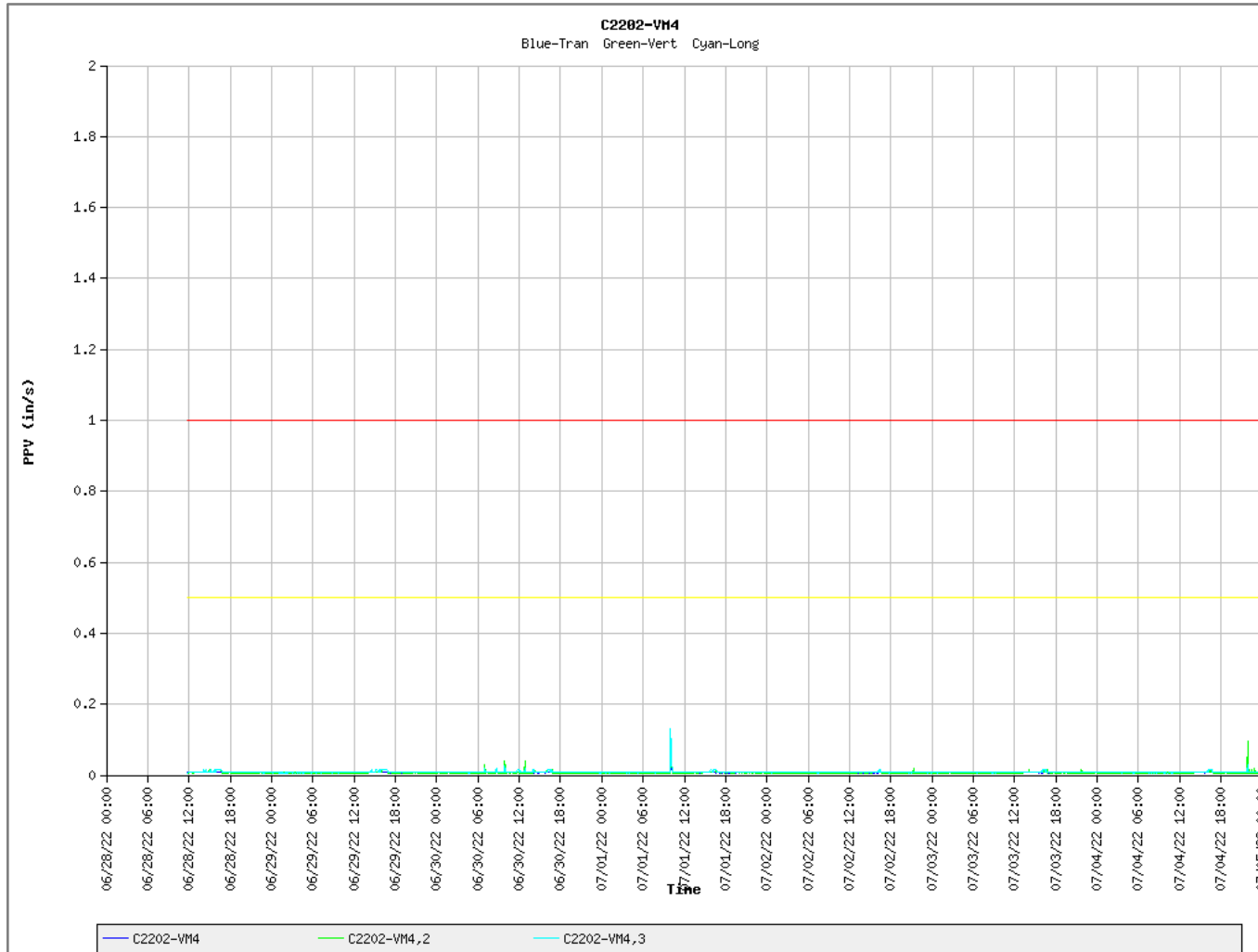
The Bronx Site Preparation Vibration Baseline Reference Data Plots



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

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

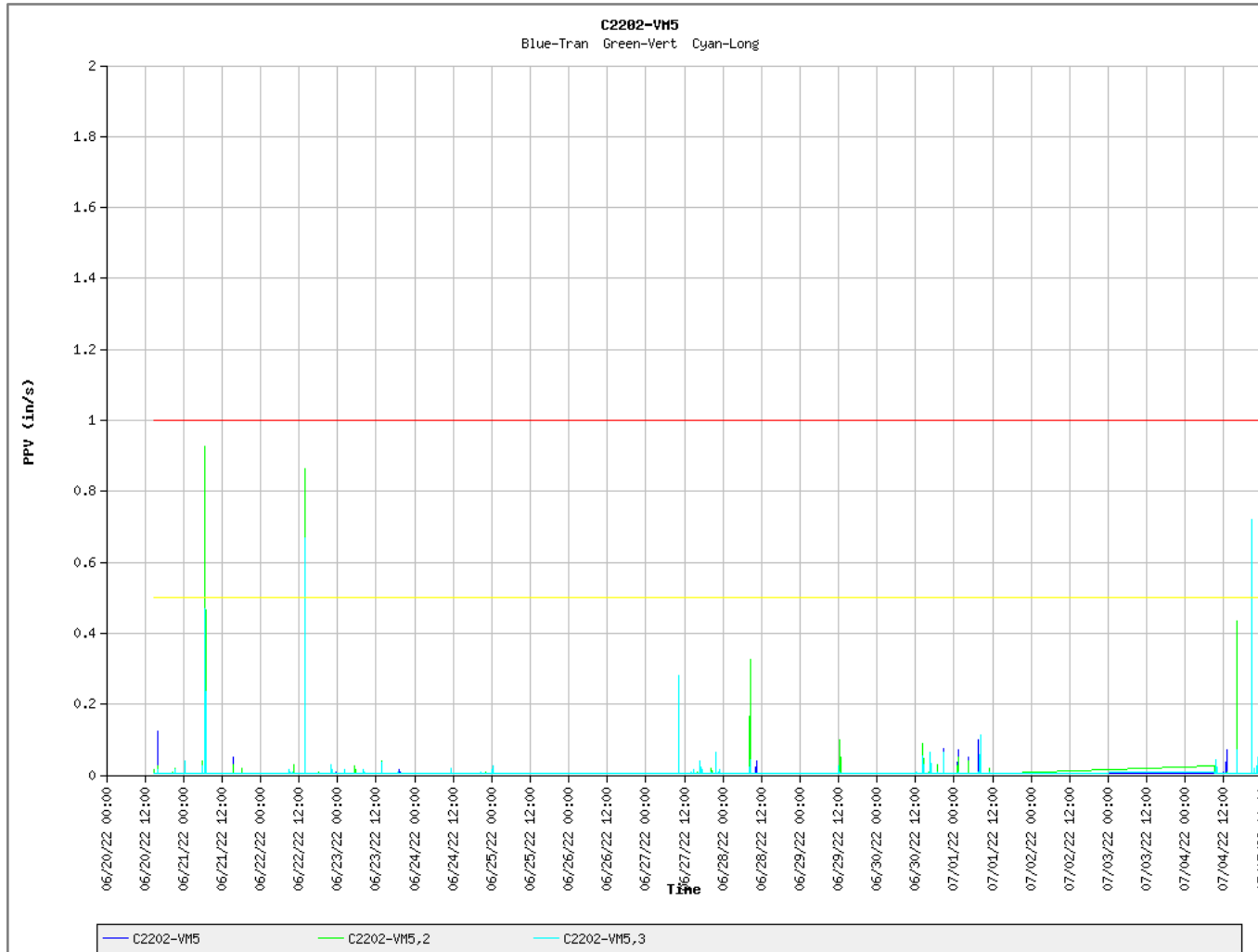
The Bronx Site Preparation Vibration Baseline Reference Data Plots



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

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

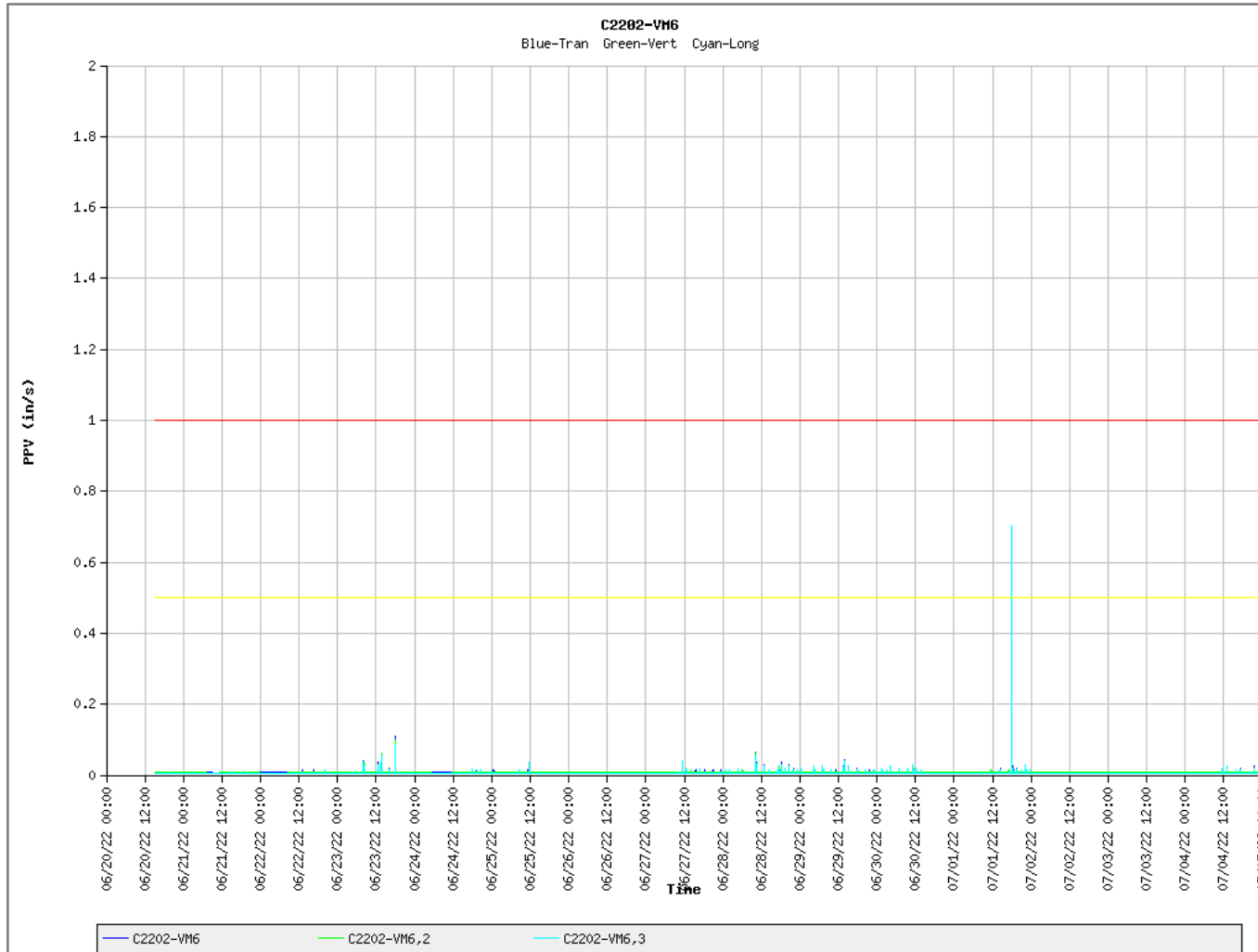
The Bronx Site Preparation Vibration Baseline Reference Data Plots



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

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

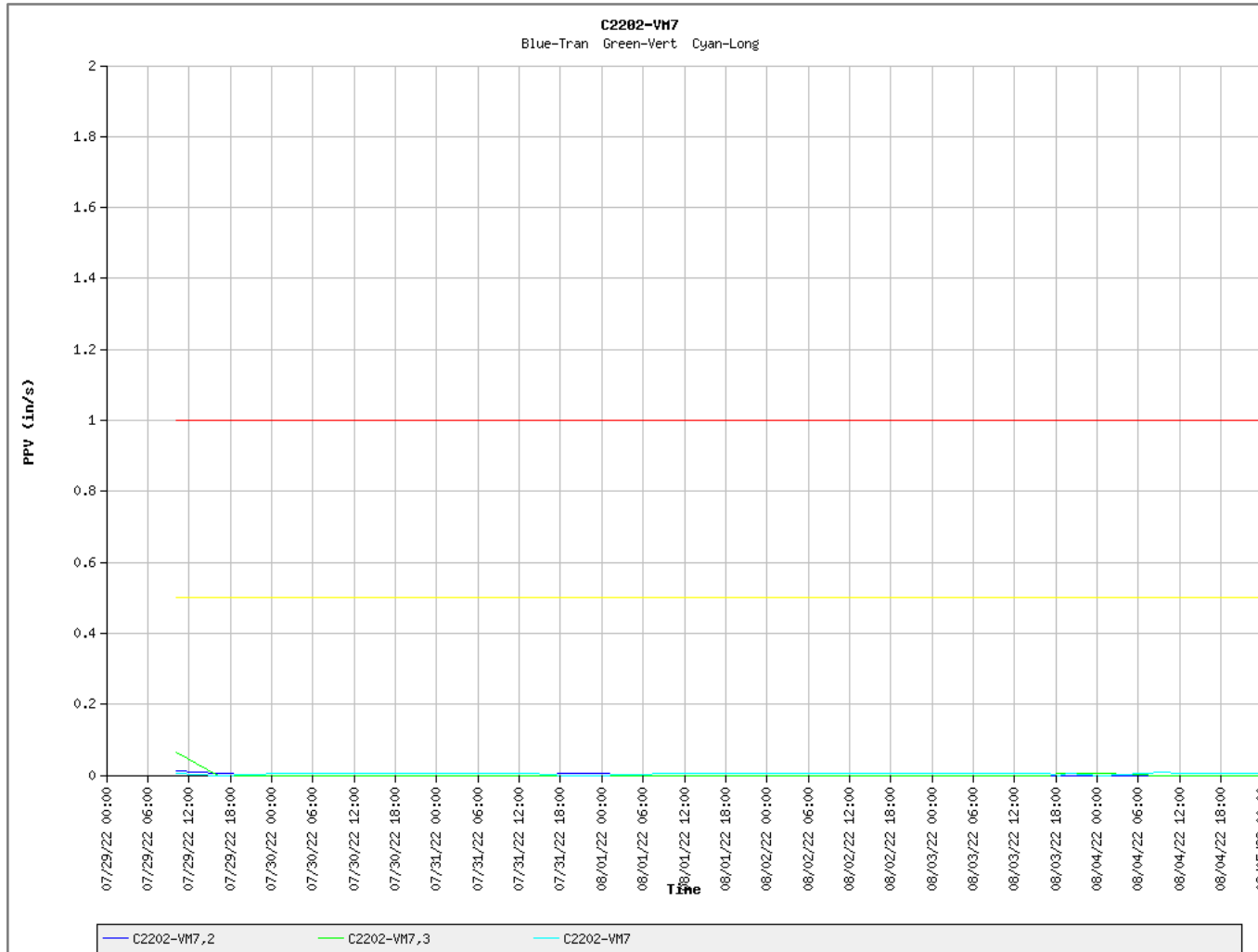
The Bronx Site Preparation Vibration Baseline Reference Data Plots



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

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

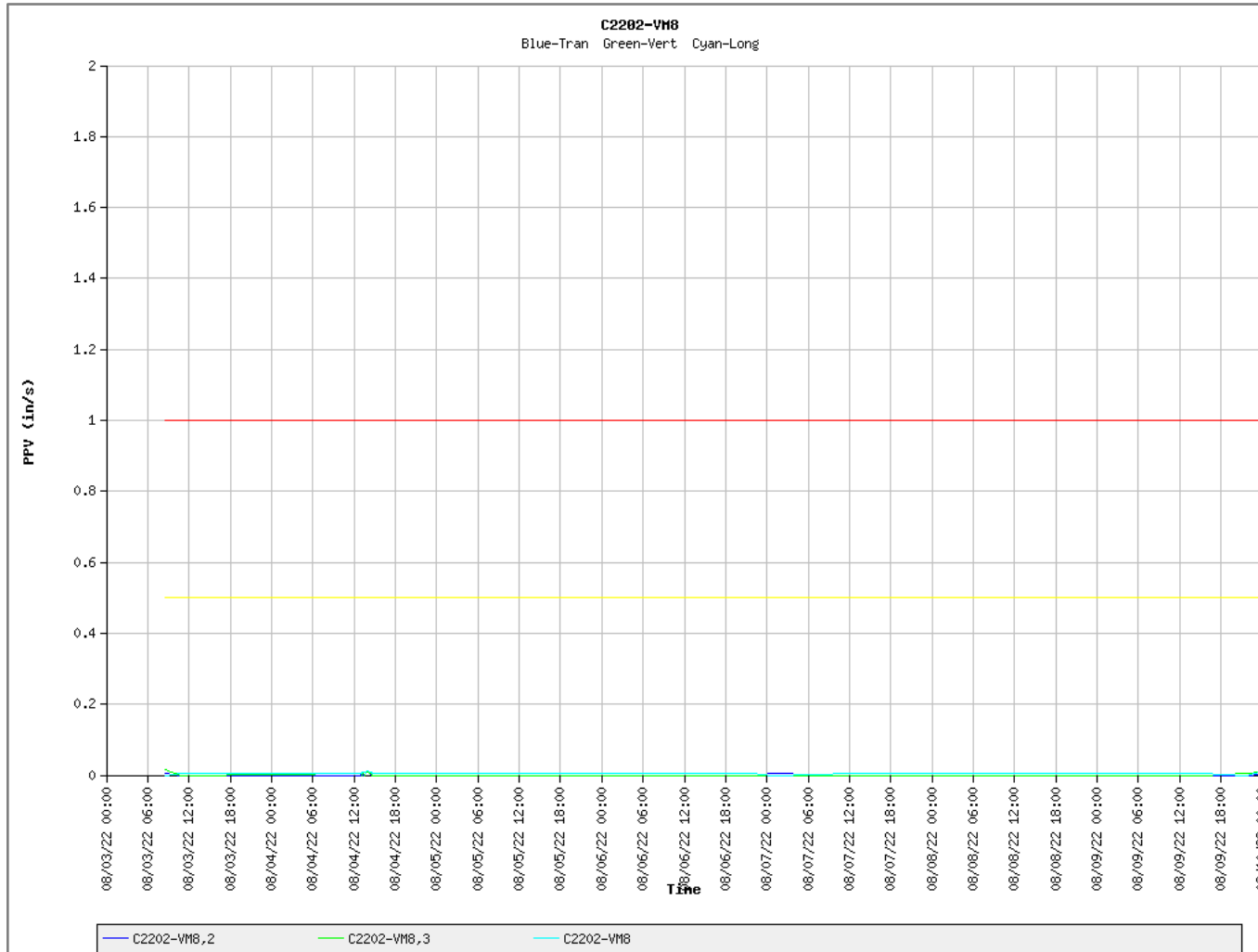
The Bronx Site Preparation Vibration Baseline Reference Data Plots



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

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

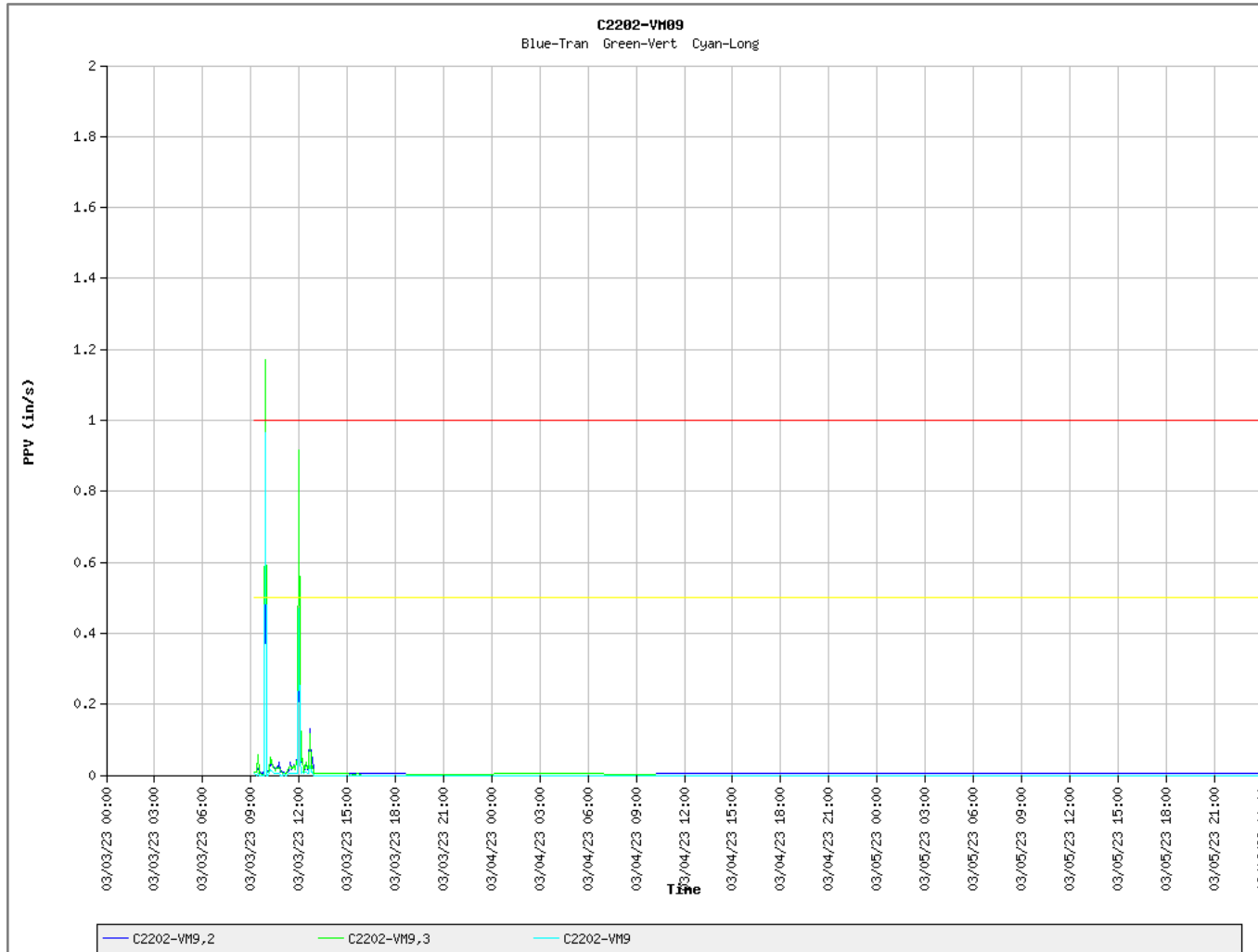
The Bronx Site Preparation Vibration Baseline Reference Data Plots



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

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

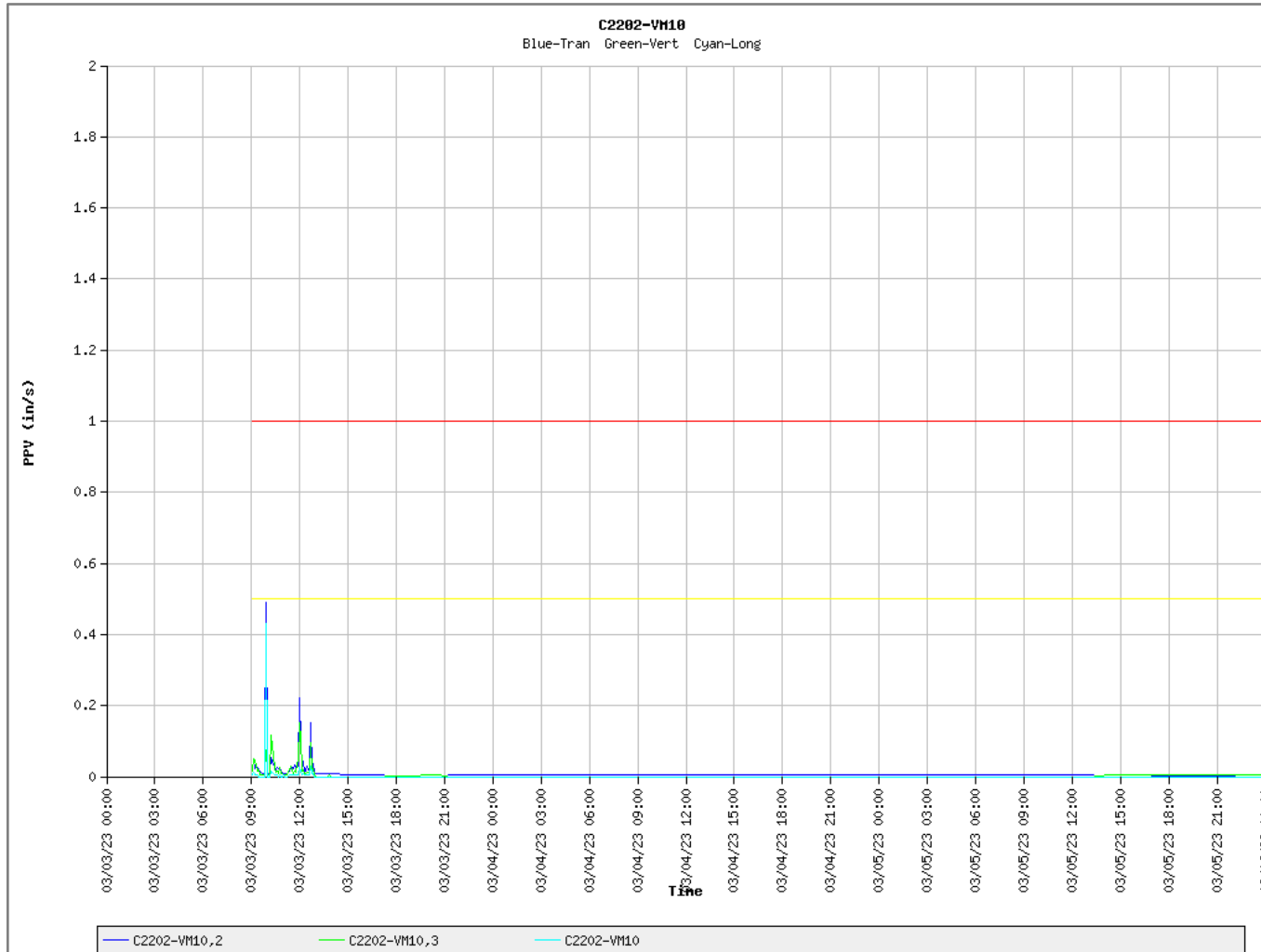
The Bronx Site Preparation Vibration Baseline Reference Data Plots



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

C2202-VM9 Transverse
C2202-VM9,2 Vertical
C2202-VM9,3 Longitudinal

The Bronx Site Preparation Vibration Baseline Reference Data Plots



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

C2202-VM10 Transverse
C2202-VM10,2 Vertical
C2202-VM10,3 Longitudinal