Remedial Investigation Report Addendum / Remedial Action Work Plan PPG, Bayonne, New Jersey

Appendix G

Draft Institutional Controls

Remedial Investigation Report Addendum / Remedial Action Work Plan PPG, Bayonne, New Jersey

Appendix G-1

Draft Deed Notice

Return Address: Aptim Environmental & Infrastructure, LLC 200 Horizon Center Trenton, NJ 08691

DEED NOTICE

IN ACCORDANCE WITH N.J.S.A. 58:10B-13, THIS DOCUMENT IS TO BE RECORDED IN THE SAME MANNER AS ARE DEEDS AND OTHER INTERESTS IN REAL PROPERTY.

Prepared by:	
[Signature]	
[Print name below signature]	
Recorded by:	
[Signature, Officer of County Recording Office]	
[Print name below signature]	
DEED NOTICE	
This Deed Notice is made as of the day of, 202 Avenue C, Bayonne, New Jersey 07002 (together with his/her/itelligeneration).	
1. THE PROPERTY. The City of Bayonne, 630 Avenue C	, Bayonne, New Jersey 07002 is
he owner in fee simple of certain real property designated as R	lock 383 Lot 3. Block 383 Lot

the owner in fee simple of certain real property designated as Block 383, Lot 3; Block 383, Lot 4; Block 383, Lots 5, 6, 7, and 8; Block 384, Lots 1 and 2; Block 385, Lots 1 and 2; Block 385, Lots 3 and 6 on the tax map of the City of Bayonne, Hudson County (a/k/a Hudson County Chromate Site 174); the New Jersey Department of Environmental Protection Program Interest Number (Preferred ID) for the contaminated site which includes this property is G000011472/Hudson County Chromate 174; and the property is more particularly described in Exhibit A, which is attached hereto and made a part hereof (the "Property").

2. REMEDIATION.

i. The New Jersey Department of Environmental Protection has approved this Deed Notice as an institutional control for the Property, which is part of the remediation of the Property. The Property is subject to a Partial Consent Judgment Concerning PPG Sites entered into by NJDEP, the City of Jersey City, and PPG and approved by the court on June 26, 2009 (Superior Court of New Jersey, Chancery Division-Hudson County, Docket No. C-77-05 ("Consent Judgment")).

- ii. N.J.A.C. 7:26C-7 requires the Owner, among other persons, to obtain a soil remedial action permit for the soil remedial action at the Property. That permit will contain the monitoring, maintenance and biennial certification requirements that apply to the Property.
- 3. SOIL CONTAMINATION. PPG, One PPG Place, Pittsburgh, Pennsylvania 15272 has remediated contaminated soil at the Property, such that soil contamination remains at certain areas of the Property that contains contaminants in concentrations that do not allow for the unrestricted use of the Property. Such soil contamination is described, including the type, concentration and specific location of such contamination, and the existing engineering controls on the site are described, in Exhibit B, which is attached hereto and made a part hereof. As a result, there is a statutory requirement for this Deed Notice and engineering controls in accordance with N.J.S.A. 58:10B-13.
- 4. CONSIDERATION. In accordance with the remedial action for the site which included the Property, and in consideration of the terms and conditions of that remedial action, and other good and valuable consideration, Owner has agreed to subject the Property to certain statutory and regulatory requirements that impose restrictions upon the use of the Property, to restrict certain uses of the Property, and to provide notice to subsequent owners, lessors, lessees and operators of the Property of the restrictions and the monitoring, maintenance, and biennial certification requirements outlined in this Deed Notice and required by law, as set forth herein.
- 5A. RESTRICTED AREAS. Due to the presence of contamination remaining at concentrations that do not allow for unrestricted use, the Owner has agreed, as part of the remedial action for the Property, to restrict the use of certain parts of the Property (the "Restricted Areas"); a narrative description of these restrictions is provided in Exhibit C, which is attached hereto and made a part hereof. The Owner has also agreed to maintain a list of these restrictions on site for inspection by governmental officials.
- 5B. RESTRICTED LAND USES. The following statutory land use restrictions apply to the Restricted Areas:
- i. The Brownfield and Contaminated Site Remediation Act, N.J.S.A. 58:10B-12.g(10), prohibits the conversion of a contaminated site, remediated to non-residential soil remediation standards that require the maintenance of engineering or institutional controls, to a child care facility, or public, private, or charter school without the Department's prior written approval, unless a presumptive remedy is implemented; and
- ii. The Brownfield and Contaminated Site Remediation Act, N.J.S.A. 58:10B-12.g(12), prohibits the conversion of a landfill, with gas venting systems and or leachate collection systems, to a single family residence or a child care facility.
- 5C. ENGINEERING CONTROLS. Due to the presence and concentration of these contaminants, the Owner has also agreed, as part of the remedial action for the Property, to the placement of certain engineering controls on the Property; a narrative description of these engineering controls is provided in Exhibit C.

6A. CHANGE IN OWNERSHIP AND REZONING.

- i. The Owner and the subsequent owners, lessors, and lessees, shall cause all leases, grants, and other written transfers of an interest in the Restricted Areas to contain a provision expressly requiring all holders thereof to take the Property subject to the restrictions contained herein and to comply with all, and not to violate any of the conditions of this Deed Notice. Nothing contained in this Paragraph shall be construed as limiting any obligation of any person to provide any notice required by any law, regulation, or order of any governmental authority.
- ii. The Owner and the subsequent owners shall provide written notice to the Department of Environmental Protection on a form provided by the Department and available at www.nj.gov/srp/forms within 30 calendar days after the effective date of any conveyance, grant, gift, or other transfer, in whole or in part, of the Owner's or subsequent owner's interest in the Restricted Area.
- iii. The Owner and the subsequent owners shall provide written notice to the Department, on a form available from the Department at www.nj.gov/srp/forms, within thirty (30) calendar days after the owner's petition for or filing of any document initiating a rezoning of the Property to residential.
- 6B. SUCCESSORS AND ASSIGNS. This Deed Notice shall be binding upon Owner and upon Owner's successors and assigns, and subsequent owners, lessors, lessees and operators while each is an owner, lessor, lessee, or operator of the Property.

7A. ALTERATIONS, IMPROVEMENTS, AND DISTURBANCES.

- i. The Owner and all subsequent owners, lessors, and lessees shall notify any person, including, without limitation, tenants, employees of tenants, and contractors, intending to conduct invasive work or excavate within the Restricted Areas, of the nature and location of contamination in the Restricted Areas, and, of the precautions necessary to minimize potential human exposure to contaminants.
- ii. Except as provided in Paragraph 7B, below, no person shall make, or allow to be made, any alteration, improvement, or disturbance in, to, or about the Property which disturbs any engineering control at the Property without first retaining a licensed site remediation professional. Nothing herein shall constitute a waiver of the obligation of any person to comply with all applicable laws and regulations including, without limitation, the applicable rules of the Occupational Safety and Health Administration.
- iii. A soil remedial action permit modification is required for any permanent alteration, improvement, or disturbance and the owner, lessor, lessee or operator shall submit the following within 30 days after the occurrence of the permanent alteration, improvement, or disturbance:

- (A) A Remedial Action Workplan or Linear Construction Project notification and Final Report Form, whichever is applicable;
 - (B) A Remedial Action Report and Termination of Deed Notice Form; and
- (C) A revised recorded Deed Notice with revised Exhibits, and Remedial Action Permit Modification or Remedial Action Permit Termination form and Remedial Action Report.
 - iv. No owner, lessor, lessee or operator shall be required to obtain a Remedial Action Permit Modification for any temporary alteration, improvement, or disturbance, provided that the site is restored to the condition described in the Exhibits to this Deed Notice, and the owner, lessee, or operator complies with the following:
 - (A) Restores any disturbance of an engineering control to pre-disturbance conditions within 60 calendar days after the initiation of the alteration, improvement or disturbance;
 - (B) Ensures that all applicable worker health and safety laws and regulations are followed during the alteration, improvement, or disturbance, and during the restoration;
 - (C) Ensures that human exposure to contamination in excess of the remediation standards does not occur; and
 - (D) Describes, in the next biennial certification the nature of the temporary alteration, improvement, or disturbance, the dates and duration of the temporary alteration, improvement, or disturbance, the name of key individuals and their affiliations conducting the temporary alteration, improvement, or disturbance, the notice the Owner gave to those persons prior to the disturbance.
- 7B. EMERGENCIES. In the event of an emergency which presents, or may present, an unacceptable risk to the public health and safety, or to the environment, or an immediate environmental concern, see N.J.S.A. 58:10C-2, any person may temporarily breach an engineering control provided that that person complies with each of the following:
 - i. Immediately notifies the Department of Environmental Protection of the emergency, by calling the DEP Hotline at 1-877-WARNDEP or 1-877-927-6337;
 - ii. Hires a Licensed Site Remediation Professional (unless the Restricted Areas includes an unregulated heating oil tank) to respond to the emergency;
 - iii. Limits both the actual disturbance and the time needed for the disturbance to the minimum reasonably necessary to adequately respond to the emergency;
 - iv. Implements all measures necessary to limit actual or potential, present or future risk of exposure to humans or the environment to the contamination;

- v. Notifies the Department of Environmental Protection when the emergency or immediate environmental concern has ended by calling the DEP Hotline at 1-877-WARNDEP or 1-877-927-6337; and
- vi. Restores the engineering control to the pre-emergency conditions as soon as possible; and
- vii. Submits to the Department of Environmental Protection within 60 calendar days after completion of the restoration of the engineering control, a report including: (a) the nature and likely cause of the emergency; (b) the measures that have been taken to mitigate the effects of the emergency on human health and the environment; (c) the measures completed or implemented to restore the engineering control; and (d) any changes to the engineering control or site operation and maintenance plan to prevent reoccurrence of such conditions in the future.

8. TERMINATION OF DEED NOTICE.

- i. This Deed Notice may be terminated only upon recording a Department-approved Termination of Deed Notice, available at N.J.A.C. 7:26C Appendix C, with the office of the Register of Deeds and Mortgages of Hudson County, New Jersey, expressly terminating this Deed Notice.
- ii. Within 30 calendar days after recording a Department-approved Termination of Deed Notice, the owner of the property should apply to the Department for termination of the soil remedial action permit pursuant to N.J.A.C. 7:26C-7.
- 9. ACCESS. The Owner, and the subsequent owners, lessors, lessees, and operators agree to allow the Department, its agents and representatives access to the Property to inspect and evaluate the continued protectiveness of the remedial action that includes this Deed Notice and to conduct additional remediation to ensure the protection of the public health and safety and of the environment if the subsequent owners, lessors, lessees, and operators, during their ownership, tenancy, or operation, and the Owner fail to conduct such remediation pursuant to this Deed Notice as required by law. The Owner, and the subsequent owners, lessors, and lessees, shall also cause all leases, subleases, grants, and other written transfers of an interest in the Restricted Areas to contain a provision expressly requiring that all holders thereof provide such access to the Department.

10. ENFORCEMENT OF VIOLATIONS.

i. This Deed Notice itself is not intended to create any interest in real estate in favor of the Department of Environmental Protection, nor to create a lien against the Property, but merely is intended to provide notice of certain conditions and restrictions on the Property and to reflect the regulatory and statutory obligations imposed as a conditional remedial action for this site.

- ii. The restrictions provided herein may be enforceable solely by the Department against any person who violates this Deed Notice. To enforce violations of this Deed Notice, the Department may initiate one or more enforcement actions pursuant to N.J.S.A. 58:10-23.11, and N.J.S.A. 58:10C, and require additional remediation and assess damages pursuant to N.J.S.A. 58:10-23.11, and N.J.S.A. 58:10C.
- 11. SEVERABILITY. If any court of competent jurisdiction determines that any provision of this Deed Notice requires modification, such provision shall be deemed to have been modified automatically to conform to such requirements. If a court of competent jurisdiction determines that any provision of this Deed Notice is invalid or unenforceable and the provision is of such a nature that it cannot be modified, the provision shall be deemed deleted from this instrument as though the provision had never been included herein. In either case, the remaining provisions of this Deed Notice shall remain in full force and effect.
 - 12A. EXHIBIT A. Exhibit A includes the following maps of the Property and the vicinity:
 - i. Exhibit A-1: Vicinity Map A map that identifies by name the roads, and other important geographical features in the vicinity of the Property (for example, USGS Quad map, Hagstrom County Maps);
 - ii. Exhibit A-2: Metes and Bounds Description A tax map of lots and blocks as wells as metes and bounds description of the Property, including reference to tax lot and block numbers for the Property;
 - iii. Exhibit A-3: Property Map A scaled map of the Property, scaled at one inch to 200 feet or less, and if more than one map is submitted, the maps shall be presented as overlays, keyed to a base map; and the Property Map shall include diagrams of major surface topographical features such as buildings, roads, and parking lots.
 - 12B. EXHIBIT B. Exhibit B includes the following descriptions of the Restricted Areas:
 - i. Exhibit B-1: Restricted Area Map -- A separate map for each restricted area that includes:
 - (A) As-built diagrams of each engineering control, including caps, fences, slurry walls, (and, if any) ground water monitoring wells, extent of the ground water classification exception area, pumping and treatment systems that may be required as part of a ground water engineering control in addition to the deed notice
 - (B) As-built diagrams of any buildings, roads, parking lots and other structures that function as engineering controls; and
 - (C) Designation of all soil and all upland sediment sample locations within the restricted areas that exceed any soil standard that are keyed into one of the tables described in the following paragraph.

- ii. Exhibit B-2: Restricted Area Data Table A separate table for each restricted area that includes either (A) or (B) through (F):
 - (A) Only for historic fill extending over the entire site or a portion of the site and for which analytical data are limited or do not exist, a narrative that states that historic fill is present at the site, a description of the fill material (e.g., ash, cinders, brick, dredge material), and a statement that such material may include, but is not limited to, contaminants such as PAHs and metals;
 - (B) Sample location designation from Restricted Area map (Exhibit B-1);
 - (C) Sample elevation based upon mean sea level;
 - (D) Name and chemical abstract service registry number of each contaminant with a concentration that exceeds the unrestricted use standard;
 - (E) The restricted and unrestricted use standards for each contaminant in the table; and
 - (F) The remaining concentration of each contaminant at each sample location at each elevation.
- 12C. EXHIBIT C. Exhibit C includes narrative descriptions of the institutional controls and engineering controls as follows:
- i. Exhibit C-1: Deed Notice as Institutional Control: Exhibit C-1 includes a narrative description of the restriction and obligations of this Deed Notice that are in addition to those described above, as follows:
 - (A) Description and estimated size in acres and square feet of the Restricted Areas as described above;
 - (B) Description of the restrictions on the Property by operation of this Deed Notice; and
 - (C) The objective of the restrictions.
 - ii. Exhibit C-2: Two-Foot Soil Cap: Exhibit C-2 includes a narrative description of the Two-Foot Soil Cap as follows:
 - (A) Description of the engineering control;
 - (B) The objective of the engineering control; and
 - (C) How the engineering control is intended to function.

- iii. Exhibit C-3: Restroom Building Foundation: Exhibit C-3 includes a narrative description of the Restroom Building as follows:
 - (A) Description of the engineering control;
 - (B) The objective of the engineering control; and
 - (C) How the engineering control is intended to function.
- iv. Exhibit C-4: Shoreline Erosion Protection System: Exhibit C-4 includes a narrative description of the Shoreline Erosion Protection System as follows:
 - (A) Description of the engineering control;
 - (B) The objective of the engineering control; and
 - (C) How the engineering control is intended to function.
- v. Exhibit C-5: Chain Link Fencing at Sewage Pump Station: Exhibit C-5 includes a narrative description of the Chain Link Fencing at Sewage Pump Station as follows:
 - (A) Description of the engineering control;
 - (B) The objective of the engineering control; and
 - (C) How the engineering control is intended to function.

13. SIGNATURES. IN WIT the date first written above.	NESS WHEREOF, Owner has executed this Deed Notice as of
[If Owner is a corporation]	
ATTEST:	[Name of corporation]
	By
[Print name and title]	[Signature]
STATE OF [State where doc COUNTY OF [County where	_
I certify that on, 20 personally came before me, and to	O, [Name of person executing document on behalf of Owner] this person acknowledged under oath, to my satisfaction, that:
(a) this person is the [secreta document;	ry/assistant secretary] of [Owner], the corporation named in this
(b) this person is the attesting officer who is the [president/vice	g witness to the signing of this document by the proper corporate president] of the corporation;
(c) this document was signed duly authorized;	and delivered by the corporation as its voluntary act and was
(d) this person knows the pro	oper seal of the corporation which was affixed to this document;
(e) this person signed this pro	oof to attest to the truth of these facts.
[Signature]	
Print name and title of attest	ing witness]
Signed and sworn before me	on, 20

	, Notary Public
[Print name and title]	

EXHIBIT A

A-1: Vicinity Map
A-2: Metes and Bounds Description of Property
A-3: Property Map

EXHIBITS TO BE PROVIDED WITH ENTIRE SITE REMEDIAL ACTION REPORT

EXHIBIT B

B-1: Restricted Area Map B-2: Restricted Area Data Table

EXHIBITS TO BE PROVIDED WITH ENTIRE SITE REMEDIAL ACTION REPORT

DEED NOTICE AS INSTITUTIONAL CONTROL

A. GENERAL DESCRIPTION OF DEED NOTICE

In order to limit exposure to impacted soils, an Institutional Control in the form of a Deed Notice will be employed. The Deed Notice is required by the New Jersey Department of Environmental Protection (NJDEP) as part of the proposed remediation for soils. The Deed Notice will be a notification to existing and future property owners that site soils are contaminated and that the impacted soils will need to be taken into consideration during future intrusive work.

This deed notice is for the property located in the City of Bayonne, Hudson County, New Jersey and identified as Block 383, Lot 3; Block 383, Lot 4; Block 383, Lots 5, 6, 7, and 8; Block 384, Lots 1 and 2; Block 385, Lots 1 and 2; Block 385, Lots 3 and 6.

1. Description and estimated size of the Restricted Area:

As shown on Exhibits B-1, B-1-1, and B-1-2, the restricted area for this Deed Notice includes Block 383, Lot 3; Block 383, Lot 4; Block 383, Lots 5, 6, 7, and 8; Block 384, Lots 1 and 2; Block 385, Lots 1 and 2; Block 385, Lots 3 and 6 in the City of Bayonne, Hudson County, New Jersey.

The restricted area comprises approximately 9 acres (392,037 square feet). The vertical extent of the impacted soils to be included in the restricted area are depicted on Exhibit B-2. Based on the findings of the remedial investigation, sporadic chromate chemical processing waste (CCPW) nodules may exist in fill material above native soil anywhere within the horizontal Site limits and the presence of CCPW may result in an exceedance of the NJDEP Residential Direct Contact Soil Remediation Standards (RDCSRS, N.J.A.C. 7:26D, September 2017) and/or the NJDEP Chromium Soil Cleanup Criteria (CrSCC, September 2008, revised April 2010) for CCPW-related metals within this fill material.

2. Descriptions of the restrictions on the Property:

Subject property use is restricted in the following manner:

1. The soils in the restricted area (see Exhibit B-1 and B-2) may not be disturbed without appropriate actions. Restrictions are primarily limited to intrusive activities below the acceptable engineering controls (i.e., cap) between the depth intervals noted in Exhibit B-1 and Exhibit B-2 below the ground surface within the restricted area on the sites. All soils deeper than the soil cap (two-feet to meadow mat) shall be restricted.

Any activities within the restricted area will require the application of a site-specific health and Safety Plan and may include the use of Personal Protective Equipment (PPE). Soils removed from the depth intervals below two-feet in the areas shown on

Exhibit B-1 and Exhibit B-2 within the restricted area cannot be placed above the cap or transported offsite without property characterization and/or handling. Reasonable construction methods and techniques shall be employed to minimize risk of exposure.

2. The objectives of the restrictions:

The objective of the Restriction is to prevent impacts to human health and the environment associated with impacted soils on the site via engineering controls (see Exhibits C-2 through C-5).

TWO-FOOT SOIL CAP

The remedial action in place on Block 383, Lot 3; Block 383, Lot 4; Block 383, Lots 5, 6, 7, and 8; Block 384, Lots 1 and 2; Block 385, Lots 1 and 2; Block 385, Lots 3 and 6 includes engineering controls consisting of the following:

- 1. A two-foot thick soil cap over the entire site (Exhibit C-2);
- 2. Restroom Building Foundation (Exhibit C-3);
- 3. Shoreline Erosion Protection along the southern shore (Exhibit C-4); and
- 4. Chain-link fencing at Sewage Pump Station (Exhibit C-5)

A. GENERAL DESCRIPTION OF THE TWO-FOOT SOIL CAP:

1. Description of the engineering control:

The two-foot thick soil cap installed where concentrations of hexavalent chromium and chromate chemical production waste (CCPW) related metals (antimony, thallium, nickel, and vanadium) exceed the NJDEP *Chromium Soil Cleanup Criteria* (September 2008, revised April 2010) or the *Soil Remediation Standards* (N.J.A.C. 7:26D, last amended September 18, 2017). The area covered by the Two-Foot Thick Soil Cap is depicted on Exhibit B-1. The elevation of the Two-Foot Thick Soil Cap is shown on Exhibit B-1. The Two-Foot Thick Soil Cap consists of a multi-layer cap consisting of the following:

Vegetated Areas

- A layer of filtration geotextile with a fabric weight of 13 oz. per square yard;
- A layer of clean loamy sand with a minimum thickness of 18-inches; and
- A layer of vegetative soil 6-inches in thickness

Soil Cap Overlain by Hardscape (concrete/asphalt)

- A layer of filtration geotextile with a fabric weight of 13 oz. per square yard;
- A layer of clean loamy sand with minimum thicknesses described on Sheet C-5 of Exhibit B-2; and
- Overlain by hardscape (concrete/asphalt) as described on Sheet C-5 of Exhibit B-
 - Hardscape is not part of the engineering control, unless specified in Exhibit B-2.

2. The objective of the engineering control:

The objective of the engineering control is to permit the continued use of the property containing hexavalent chromium and CCPW-related metals in excess of the NJDEP *Chromium Soil Cleanup Criteria* and/or *Soil Remediation Standards* while preventing direct contact or exposure to contaminants by creating a physical barrier to exposure and limiting the potential impact to the environment.

3.	How the engineering control is intended to function:
	To protect public health and safety and the environment through a surface barrier.

RESTROOM BUILDING

A. GENERAL DESCRIPTION OF THE RESTROOM BUILDING:

1. Description of the engineering control:

CCPW was historically identified in the vicinity of the existing restroom building. Soil excavation activities that were completed in 2016 identified the presence of a visible CCPW seam in the vicinity of the restroom building. CCPW nodules were observed to be embedded in the exterior of the building foundation. Approximately 10-inches of concrete were removed from the building foundation and post-removal concrete samples were collected. Hexavalent chromium was identified at concentrations in excess of the NJDEP *Chromium Soil Cleanup Criteria* (September 2008, revised April 2010) in the concrete that remained, necessitating the incorporation of the Restroom Building into a Deed Notice.

The area covered by the Restroom Building is depicted on Exhibit B-1. The elevation of the Restroom Building is shown on Exhibit B-1. The Restroom Building foundation consists of 6-inches of poured concrete.

2. The objective of the engineering control:

The objective of the engineering control is to permit the continued use of the property containing hexavalent chromium and CCPW-related metals in excess of the NJDEP *Chromium Soil Cleanup Criteria* and/or *Soil Remediation Standards* while preventing direct contact or exposure to contaminants by creating a physical barrier to exposure and limiting the potential impact to the environment.

3. How the engineering control is intended to function:

To protect public health and safety and the environment through a surface barrier.

SHORELINE EROSION PROTECTION SYSTEM

A. GENERAL DESCRIPTION OF THE SHORELINE EROSION PROTECTION SYSTEM

1. Description of the engineering control:

The Shoreline Erosion Protection System is an extension of the Two Foot Thick Soil Cap (Exhibit C-2) extending into portions of the southern shoreline as shown on Exhibit B-1. The Shoreline Erosion Protection System was installed to cover areas where concentrations of hexavalent chromium exceed the Chromium Cleanup Criteria along the shoreline embankment and/or visible CCPW has been identified. The area covered by Shoreline Erosion Protection System is shown on Exhibit B-1. The elevation of the Shoreline Erosion Protection is shown on Exhibit B-1.

The Shoreline Erosion Protection System includes a rock overlay along an approximately 1,200 foot length of shoreline. The revetment was installed between elevation -3.0 FT NAVD88 up to between elevation 8.0 FT and 12 FT NAVD88. The revetment is comprised of an approximately 4-foot thick layer of armor stone underlain with a 6-inch thick layer of bedding stone and a geotextile layer. The armor stone has a minimum median diameter (D₅₀) of 24-inches, weight ranging from 0.3 tons to 1.3 tons, and a minimum density of 165 pounds per cubic foot (pcf).

2. The objective of the engineering control:

This control is utilized in conjunction with the Two Foot Thick Soil Cap (Exhibit C-2) along a portion of the southern shoreline the site to prevent erosion of land and exposure of hexavalent chromium and CCPW-related metals in excess of the NJDEP *Chromium Soil Cleanup Criteria* and/or *Soil Remediation Standards*.

3. How the engineering control is intended to function:

To protect public health and safety and the environment through a surface barrier.

CHAIN-LINK FENCING AT SEWAGE PUMP STATION

A. GENERAL DESCRIPTION OF THE SHORELINE EROSION PROTECTION SYSTEM

1. Description of the engineering control:

A 10-foot high chain-link fence enclosed sewage pump station is situated on the site between the restroom building and the sidewalk along West 1st Street. The chain-link fence is intended to prevent access to this area by the general public.

2. The objective of the engineering control:

This control is utilized to prevent exposure to hexavalent chromium and CCPW-related metals in excess of the NJDEP *Chromium Soil Cleanup Criteria* and/or *Soil Remediation Standards*.

3. How the engineering control is intended to function:

To protect public health and safety and the environment through a physical barrier. The chain-link fences functions as an engineering control to prevent direct contact of potentially contaminated soils by the general public. Only employees or contractors of the City of Bayonne Public Works Department are permitted to access the area within the chain-link fence.

Remedial Investigation Report Addendum / Remedial Action Work Plan PPG, Bayonne, New Jersey

Appendix G-2

Draft Notice in Lieu of a Deed Notice

Return Address: Aptim Environmental & Infrastructure, LLC 200 Horizon Center Trenton, NJ 08691

NOTICE IN LIEU OF DEED NOTICE

THIS DOCUMENT SHALL BE DISTRIBUTED TO THE ENTITIES IDENTIFIED IN ACCORDANCE WITH N.J.A.C. 7:26C-7.2(b)2.

Prepared by: [Signature]	
Crystal L. Leavey, Aptim Environmental & Infrastructure, LLC [Print name below signature]	
This Notice in Lieu of a Deed Notice is made as of the day of The City of Bayonne, 630 Avenue C, Bayonne, New Jersey 07002 (together wit successors and assigns, collectively "Owner").	

1. THE PROPERTY. The City of Bayonne, 630 Avenue C, Bayonne, New Jersey 07002, is the owner in fee simple of certain real property located within the right-of-way of a portion of West 1st Street, Bayonne, New Jersey and adjacent to and abutting certain real property designated as Block 383, Lot 3; Block 383, Lot 4; Block 383, Lots 5, 6, 7, and 8; Block 384, Lots 1 and 2; Block 385, Lots 1 and 2; Block 385, Lots 3 and 6 on the tax map of the City of Bayonne, Hudson County, New Jersey between Islandview Court and Avenue C; and the property is more particularly described in Exhibit A, which is attached hereto and made a part hereof (the "Property").

2. REMEDIATION.

i. The New Jersey Department of Environmental Protection (Department) has approved this Notice in Lieu of a Deed Notice as an institutional control for the Property, which is part of the remediation of the Property for chromium-related impacts. The Department Program Interest Number (Preferred ID) for the contaminated site which includes the Property is G000011472 and referred to as Hudson County Chromate Site 174 (Site). The Property is subject to a Consent Judgment between the Department and Honeywell et al. filed September 7, 2011, Superior Court of New Jersey, Chancery Division-Hudson County, Docket No. C-77-05 ("Consent Judgment") and a Partial Consent Judgment between PPG and Honeywell et al. filed June 26, 2009, Superior Court of New Jersey, Chancery Division-Hudson County, Docket No. C-77-05 ("Partial Consent Judgment"). PPG has responsibility for remediation of chromium-related contamination at Hudson County Chromate Site 174 in accordance with the Consent Judgement and Partial Consent Judgement.

- ii. N.J.A.C. 7:26C-7 requires the Owner, among other persons, to obtain a soil remedial action permit for the soil remedial action at the Property. That permit will contain the monitoring, maintenance and biennial certification requirements that apply to the Property.
- 3. SOIL CONTAMINATION. PPG has remediated contaminated soil at the Property, such that soil contamination remains at certain areas of the Property that contains contaminants in concentrations that do not allow for the unrestricted use of the Property. Such soil contamination is described, including the type, concentration and specific location of such contamination, and the existing engineering controls on the site are described, in Exhibit B, which is attached hereto and made a part hereof. As a result, there is a statutory requirement for this Notice in Lieu of a Deed Notice and engineering controls in accordance with N.J.S.A. 58:10B-13.
- 4. CONSIDERATION. In accordance with the remedial action for the site which included the Property, and in consideration of the terms and conditions of that remedial action, and other good and valuable consideration, Owner has agreed to subject the Property to certain statutory and regulatory requirements that impose restrictions upon the use of the Property, to restrict certain uses of the Property, and to provide notice to subsequent owners, lessors, lessees and operators of the Property of the restrictions and the monitoring, maintenance, and biennial certification requirements outlined in this Notice in Lieu of a Deed Notice and required by law, as set forth herein.
- 5A. RESTRICTED AREAS. Due to the presence of contamination remaining at concentrations that do not allow for unrestricted use, the Owner has agreed, as part of the remedial action for the Property, to restrict the use of certain parts of the Property (the "Restricted Areas"); a narrative description of these restrictions is provided in Exhibit C, which is attached hereto and made a part hereof. The Owner has also agreed to maintain a list of these restrictions available for inspection by governmental officials.
- 5B. RESTRICTED LAND USES. The following statutory land use restrictions apply to the Restricted Areas:
- i. The Brownfield and Contaminated Site Remediation Act, N.J.S.A. 58:10B-12.g(10), prohibits the conversion of a contaminated site, remediated to non-residential soil remediation standards that require the maintenance of engineering or institutional controls, to a child care facility, or public, private, or charter school without the Department's prior written approval, unless a presumptive remedy is implemented; and
- ii. The Brownfield and Contaminated Site Remediation Act, N.J.S.A. 58:10B-12.g(12), prohibits the conversion of a landfill, with gas venting systems and or leachate collection systems, to a single family residence or a child care facility.
- 5C. ENGINEERING CONTROLS. Due to the presence and concentration of these contaminants, the Owner has also agreed, as part of the remedial action for the Property, to the placement of certain engineering controls on the Property; a narrative description of these engineering controls is provided in Exhibit C.

6A. CHANGE IN OWNERSHIP AND REZONING.

- i. The Owner and the subsequent owners, lessors, and lessees, shall cause all leases, grants, and other written transfers of an interest in the Restricted Areas to contain a provision expressly requiring all holders thereof to take the Property subject to the restrictions contained herein and to comply with all, and not to violate any of the conditions of this Notice in Lieu of a Deed Notice. Nothing contained in this Paragraph shall be construed as limiting any obligation of any person to provide any notice required by any law, regulation, or order of any governmental authority.
- ii. The Owner and the subsequent owners shall provide written notice to the Department on a form provided by the Department and available at https://www.state.nj.us/dep/srp/srra/forms/ within 30 calendar days after the effective date of any conveyance, grant, gift, or other transfer, in whole or in part, of the Owner's or subsequent owner's interest in the Restricted Area.
- iii. The Owner and the subsequent owners shall provide written notice to the Department, on a form available from the Department at https://www.state.nj.us/dep/srp/srra/forms/, within thirty (30) calendar days after the owner's petition for or filing of any document initiating a rezoning of the Property to residential.
- 6B. SUCCESSORS AND ASSIGNS. This Notice in Lieu of a Deed Notice shall be binding upon Owner and upon Owner's successors and assigns, and subsequent owners, lessors, lessees and operators while each is an owner, lessor, lessee, or operator of the Property.

7A. ALTERATIONS, IMPROVEMENTS, AND DISTURBANCES.

- i. The Owner and all subsequent owners, lessors, and lessees shall notify any person, including, without limitation, tenants, employees of tenants, and contractors, intending to conduct invasive work or excavate within the Restricted Areas, of the nature and location of contamination in the Restricted Areas, and, of the precautions necessary to minimize potential human exposure to contaminants.
- ii. Except as provided in Paragraph 7B, below, no person shall make, or allow to be made, any alteration, improvement, or disturbance in, to, or about the Property which disturbs any engineering control at the Property without first retaining a licensed site remediation professional (LSRP). Nothing herein shall constitute a waiver of the obligation of any person to comply with all applicable laws and regulations including, without limitation, the applicable rules of the Occupational Safety and Health Administration.
- iii. Notwithstanding subparagraph 7A.ii., above, a soil remedial action permit modification is not required for any alteration, improvement, or disturbance provided that the owner, lessor, lessee or operator:
 - (A) Notifies the Department of the activity by calling the DEP Hotline at 1-877-

WARNDEP or 1-877-927-6337, within twenty-four (24) hours after the beginning of each alteration, improvement, or disturbance;

- (B) Notifies PPG of the activity by calling the Chromium Cleanup Partnership at 201-777-2099;
- (C) Restores any disturbance of an engineering control to pre-disturbance conditions within sixty (60) calendar days after the initiation of the alteration, improvement or disturbance;
- (D) Follows all applicable worker health and safety laws and regulations during the alteration, improvement, or disturbance, and during the restoration;
- (E) Takes appropriate measures so that human exposure to contamination in excess of the remediation standards does not occur; and
- (F) Describes, in the next biennial certification the nature of the alteration, improvement, or disturbance, the dates and duration of the alteration, improvement, or disturbance, the name of key individuals and their affiliations conducting the alteration, improvement, or disturbance, a description of the notice the Owner gave to those persons prior to the disturbance.
- 7B. EMERGENCIES. In the event of an emergency which presents, or may present, an unacceptable risk to the public health and safety, or to the environment, or an immediate environmental concern, see N.J.S.A. 58:10C-2, any person may temporarily breach an engineering control provided that that person complies with each of the following:
 - i. Immediately notifies the Department of the emergency, by calling the DEP Hotline at 1-877-WARNDEP or 1-877-927-6337;
 - ii. Immediately notifies PPG of the emergency by calling the Chromium Cleanup Partnership at 201-777-2099;
 - iii. Hires a Licensed Site Remediation Professional (unless the Restricted Areas includes an unregulated heating oil tank) to respond to the emergency;
 - iii. Limits both the actual disturbance and the time needed for the disturbance to the minimum reasonably necessary to adequately respond to the emergency;
 - iv. Implements all measures necessary to limit actual or potential, present or future risk of exposure to humans or the environment to the contamination;
 - v. Notifies the Department when the emergency or immediate environmental concern has ended by calling the DEP Hotline at 1-877-WARNDEP or 1-877-927-6337; and

- vi. Restores the engineering control to the pre-emergency conditions as soon as possible; and
- viii. Submits to the Department within sixty (60) calendar days after completion of the restoration of the engineering control, a report including: (a) the nature and likely cause of the emergency; (b) the measures that have been taken to mitigate the effects of the emergency on human health and the environment; (c) the measures completed or implemented to restore the engineering control; and (d) the changes to the engineering control or site operation and maintenance plan to prevent reoccurrence of such conditions in the future.

8. TERMINATION OF NOTICE IN LIEU OF A DEED NOTICE.

- i. This Notice in Lieu of a Deed Notice may be terminated only upon recording a Department-approved Termination of a Notice in Lieu of a Deed Notice, available at N.J.A.C. 7:26C Appendix C, with the Affected Parties as identified in N.J.A.C. 7:26C-7.2(b)2, expressly terminating this Notice in Lieu of a Deed Notice.
- ii. Within 30 calendar days after recording a Department-approved Termination of Notice in Lieu of a Deed Notice, the owner of the property should apply to the Department for termination of the soil remedial action permit pursuant to N.J.A.C. 7:26C-7.
- 9. ACCESS. The Owner, and the subsequent owners, lessors, lessees, and operators agree to allow the Department, its agents and representatives access to the Property to inspect and evaluate the continued protectiveness of the remedial action that includes this Notice in Lieu of Deed Notice and to conduct additional remediation to ensure the protection of the public health and safety and of the environment if the subsequent owners, lessors, lessees, and operators, during their ownership, tenancy, or operation, and the Owner fail to conduct such remediation pursuant to this Notice in Lieu of a Deed Notice as required by law. The Owner, and the subsequent owners, lessors, and lessees, shall also cause all leases, subleases, grants, and other written transfers of an interest in the Restricted Areas to contain a provision expressly requiring that all holders thereof provide such access to the Department.

10. ENFORCEMENT OF VIOLATIONS.

- i. This Notice in Lieu of a Deed Notice itself is not intended to create any interest in real estate in favor of the Department of Environmental Protection, nor to create a lien against the Property, but merely is intended to provide notice of certain conditions and restrictions on the Property and to reflect the regulatory and statutory obligations imposed as a conditional remedial action for this site.
- ii. The restrictions provided herein may be enforceable solely by the Department against any person who violates this Notice in Lieu of a Deed Notice. To enforce violations of this Notice in Lieu of Deed Notice, the Department may initiate one or more enforcement actions pursuant to N.J.S.A. 58:10-23.11, and N.J.S.A. 58:10C, and require additional remediation and assess damages pursuant to N.J.S.A. 58:10-23.11, and N.J.S.A. 58:10C.

11. SEVERABILITY. If any court of competent jurisdiction determines that any provision of this Notice in Lieu of Deed Notice requires modification, such provision shall be deemed to have been modified automatically to conform to such requirements. If a court of competent jurisdiction determines that any provision of this Notice in Lieu of a Deed Notice is invalid or unenforceable and the provision is of such a nature that it cannot be modified, the provision shall be deemed deleted from this instrument as though the provision had never been included herein. In either case, the remaining provisions of this Notice in Lieu of a Deed Notice shall remain in full force and effect.

12A. EXHIBIT A. Exhibit A includes the following maps of the Property and the vicinity:

- i. Exhibit A-1: Vicinity Map A map that identifies by name the roads, and other important geographical features in the vicinity of the Property (for example, USGS Quad map, Hagstrom County Maps);
- ii. Exhibit A-2: Metes and Bounds Description A tax map of lots and blocks as well as metes and bounds description of the restricted area within the Property, including references to tax lot and block numbers for the properties adjacent to the Property;
- iii. Exhibit A-3: Property Map A scaled map of the Property, scaled at one inch to 200 feet or less, and if more than one map is submitted, the maps shall be presented as overlays, keyed to a base map; and the Property Map shall include diagrams of major surface topographical features such as buildings, roads, and parking lots.

12B. EXHIBIT B. Exhibit B includes the following descriptions of the Restricted Areas:

- i. Exhibit B-1: Restricted Area Map -- A separate map for each restricted area that includes:
 - (A) As-built diagrams of each engineering control, including caps, fences, slurry walls, (and, if any) ground water monitoring wells, extent of the ground water classification exception area, pumping and treatment systems that may be required as part of a ground water engineering control in addition to the Notice in Lieu of a Deed Notice
 - (B) As-built diagrams of any buildings, roads, parking lots and other structures that function as engineering controls; and
 - (C) Designation of all soil and all upland sediment sample locations within the restricted areas that exceed any soil standard that are keyed into one of the tables described in the following paragraph.
- ii. Exhibit B-2: Restricted Area Data Table A separate table for each restricted area that includes either (A) or (B) through (F):

- (A) Only for historic fill extending over the entire site or a portion of the site and for which analytical data are limited or do not exist, a narrative that states that historic fill is present at the site, a description of the fill material (e.g., ash, cinders, brick, dredge material), and a statement that such material may include, but is not limited to, contaminants such as PAHs and metals;
 - (B) Sample location designation from Restricted Area map (Exhibit B-1);
 - (C) Sample elevation based upon mean sea level;
- (D) Name and chemical abstract service registry number of each contaminant with a concentration that exceeds the unrestricted use standard;
- (E) The restricted and unrestricted use standards for each contaminant in the table; and
- (F) The remaining concentration of each contaminant at each sample location at each elevation.
- 12C. EXHIBIT C. Exhibit C includes narrative descriptions of the institutional controls and engineering controls as follows:
 - i. Exhibit C-1: Notice in Lieu of a Deed Notice as Institutional Control: Exhibit C-1 includes a narrative description of the restriction and obligations of this Notice in Lieu of a Deed Notice that are in addition to those described above, as follows:
 - (A) Description and estimated size in acres of the Restricted Areas as described above;
 - (B) Description of the restrictions on the Property by operation of this Notice in Lieu of Deed Notice; and
 - (C) The objective of the restrictions.
 - ii. Exhibit C-2: Asphalt Capping: Exhibit C-2 includes a narrative description of the Asphalt Capping engineering control as follows:
 - (A) Description of the engineering control;
 - (B) The objective of the engineering control; and
 - (C) How the engineering control is intended to function.

the date first written above.	
ATTEST:	[Name of corporation]
	By
[Print name and title]	[Signature]
STATE OF [State where d COUNTY OF [County wh	_
	20, [Name of person executing document on behalf of Owner] and this person acknowledged under oath, to my satisfaction, that:
(a) this person is the [secred document;	etary/assistant secretary] of [Owner], the corporation named in this
` /	ing witness to the signing of this document by the proper corporate ice president] of the corporation;
(c) this document was sign duly authorized;	ned and delivered by the corporation as its voluntary act and was
(d) this person knows the pand	proper seal of the corporation which was affixed to this document;
(e) this person signed this	proof to attest to the truth of these facts.
[Signature]	
Print name and title of atte	esting witness]
Signed and sworn before n	ne on, 20
	, Notary Public
[Print name and title]	

13. SIGNATURES. IN WITNESS WHEREOF, Owner has executed this Deed Notice as of

EXHIBIT A

A-1 Vicinity Map A-2 Metes and Bounds Description and Tax Map A-3 Property Map

EXHIBITS TO BE PROVIDED WITH ENTIRE SITE REMEDIAL ACTION REPORT

EXHIBIT B

B-1: Restricted Area Map B-2: Restricted Area Data Table

EXHIBITS TO BE PROVIDED WITH ENTIRE SITE REMEDIAL ACTION REPORT

NOTICE IN LIEU OF A DEED NOTICE AS INSTITUTIONAL CONTROL

A. GENERAL DESCRIPTION OF NOTICE IN LIEU OF DEED NOTICE

In order to limit exposure to impacted soils, an Institutional Control in the form of a Notice in Lieu of Deed Notice will be employed. The Notice in Lieu of Deed Notice is required by the New Jersey Department of Environmental Protection (NJDEP) as part of the proposed remediation for soils. The Notice in Lieu of Deed Notice will be a notification to existing and future property owners that site soils are contaminated and that the impacted soils will need to be taken into consideration during future intrusive work.

This deed notice is for property located in the City of Bayonne, Hudson County, New Jersey and identified as a portion of the right-of-way of West 1st Street. The restricted area covered by the deed notice totals approximately 0.25 acres and is further identified in Exhibits A and B.

1. Description and estimated size of the Restricted Area:

As shown on Exhibit B-1, the restricted area for this Notice in Lieu of Deed Notice includes a portion of the right-of-way of West 1st Street, Bayonne, New Jersey and adjacent to and abutting certain real property designated as Block 383, Lot 3; Block 383, Lot 4; Block 383, Lots 5, 6, 7, and 8; Block 384, Lots 1 and 2; Block 385, Lots 1 and 2; Block 385, Lots 3 and 6 on the tax map of the City of Bayonne, Hudson County, New Jersey between Islandview Court and Avenue C.

The restricted area covered by the notice in lieu of a deed notice totals approximately 0.25 acres. The vertical extent of the impacted soils to be included in the restricted area are provide in Exhibit B-2.

2. Descriptions of the restrictions on the Property:

The soils in the restricted area (see Exhibit B-1 and B-2) may not be disturbed without appropriate actions. Restrictions are primarily limited to intrusive activities below the acceptable engineering controls (i.e., cap) between the depth intervals noted in Exhibit B-1 and Exhibit B-2 below the ground surface within the restricted area on the sites. All soils beneath the engineering control to the top of native soil shall be restricted.

Any activities within the restricted area will require the application of a site-specific health and Safety Plan and may include the use of Personal Protective Equipment (PPE). Soils removed from the depth intervals in the restricted areas shown on Exhibit B-1 and Exhibit B-2 cannot be placed above the cap or transported offsite without property characterization and/or handling. Reasonable construction methods and techniques shall be employed to minimize risk of exposure.

3. The objectives of the restrictions:

The objective of the Restriction is to prevent impacts to human health and the environment associated with impacted soils on the site via engineering controls.

ASPHALT CAPPING

The remedial action installed on the right-of-way of portions of West 1st Street includes engineering controls consisting of an asphalt cap.

A. GENERAL DESCRIPTION OF THE ASPHALT CAPPING:

1. Description of the engineering control:

The asphalt capping covers the Property where concentrations of Chromate Chemical Production Waste (CCPW) and CCPW-related metals remain in excess of the Department soil remediation criteria and/or standards. The area covered by the asphalt cap is shown on Exhibit B-1.1. The asphalt cap consists of 4-inches of asphalt pavement.

2. The objective of the engineering control:

The objective of the engineering control is to permit the continued use of the property containing hexavalent chromium in excess of the NJDEP *Chromium Soil Cleanup Criteria* and other related contamination in excess of the Soil Remediation Standards while preventing direct contact or exposure to contaminants by creating a physical barrier to exposure and limiting the potential impact to the environment. Based on the findings of the remedial investigation, sporadic chromate chemical processing waste (CCPW) nodules may exist in fill material above native soil anywhere within the horizontal Site limits and the presence of CCPW may result in an exceedance of the NJDEP Residential Direct Contact Soil Remediation Standards (RDCSRS, N.J.A.C. 7:26D, September 2017) and/or the NJDEP Chromium Soil Cleanup Criteria (CrSCC, September 2008, revised April 2010) for CCPW-related metals within this fill material.

3. How the engineering control is intended to function:

To protect public health and safety and the environment by preventing direct contact and the generation of fugitive dust and reducing infiltration through the high concentration hexavalent chromium zone and other related contaminants present above NJDEP RDCSRS and/or CrSCC..