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VIA E-MAIL

Ms. June Jones
Morris Canal Community Development Corporation
317 Pacific Avenue
Jersey City, New Jersey 07304

Ms. Veronica Sutton
VDS Consulting
317 Pacific Avenue
Jersey City, New Jersey 07304

RE: TECHNICAL ENVIRONMENTAL PEER REVIEW SUMMARY OF DOCUMENTS PROVIDED BY THE JCRA FOR THE 408-420 COMMUNIPAW AVENUE & 199 WOODWARD STREET PARCELS, JERSEY CITY, NEW JERSEY

Dear Ms. Jones and Ms. Sutton:

As requested by the Morris Canal Community Development Corporation (MCCDC), our firm has completed a technical review of the following documents associated with the above-referenced property, as recently furnished by the Jersey City Redevelopment Agency (JCRA):

- a *Preliminary Assessment Report (PAR)* prepared by BRS, Inc. (BRS; Medford Lakes, New Jersey), dated February 3, 2020;
- a *1,000 Gallon Gasoline Underground Storage Tank (UST) Closure Report* prepared by BRS, dated April 16, 2020; and
- a *Site Investigation Report (SIR)* prepared by BRS, dated May 2, 2020.

It is our understanding the work performed at the subject site, identified as 408-420 Communipaw Avenue and 199 Woodward Street (the Property), was undertaken unilaterally by the JCRA utilizing public grant funding, without first consulting with MCCDC as the designated Redeveloper. JCRA is the current owner of the Property and MCCDC is the designated Redeveloper.

The following sections briefly detail the content of the recently received JCRA reports, the impact of the findings on the overall environmental condition of the Property and the requisite additive investigation/remediation work to be performed to address the noted concerns.

PAR

It is unknown why the JCRA requisitioned the compilation of a PAR by BRS, as they had been furnished with a copy of our firm's analogous ASTM Phase I Environmental Site Assessment (ESA) Report prepared in 2016, which provided similar/comparable information on historic site development, operations and features of potential environmental concern. As the Property was, and still is, a vacant lot, there would be no anticipated changed site conditions since the time of the issuance of our 2016 report.

Nonetheless, BRS' assessment identified the following list of known or potential environmental concerns for the site:

- former and potential existing heating oil USTs, including a reported discharge of product identified during the removal of a tank in 2014;
- other possible petroleum UST(s), based on historic research and the result of a 2016 geophysical/ground penetrating radar (GPR) survey that had been conducted on behalf of the MCCDC;
- historic reported incidents of abandoned 55-gallon drums being identified within the Property in 1992 and 1993 (i.e., 27 to 28 years ago); and
- the documented presence of historic fill material within underlying portions of the Property.

Additional information pertaining to the UST concerns is provided below. With regards to the abandoned drum matter, it appears the 1992 and 1993 incidents reported to the New Jersey Department of Environmental Protection (NJDEP) pertain to the same set of drums. Available documentation indicates the NJDEP Bureau of Emergency Response (BER) investigated the matter in 1993 and found that the drums contained a mixture of motor oil, diesel fuel and cleaning solvents. NJDEP personnel noted a limited leak of approximately 2 gallons of fluid from one of the drums onto the paved street surface, with no impact observed to the unpaved surfaces. The NJDEP BER retained a contracting company to address the localized spill and remove the drums from the property for proper disposal.

The BRS PAR also identifies a separate incident of abandoned drums, in addition to 5 gallon pails, reported to the NJDEP in 1999; however, based on the property address information, it was concluded by BRS the matter pertained to a separate site, located near the intersection of Communipaw Avenue and Berry Lane.

With regard to historic fill material, the 2016 GPR survey conducted for MCCDC identified areas of suspected fill within sections of the Property; a subsequent subsurface investigation performed by our firm confirmed the presence of fill material extending to depths of approximately 10 feet below ground surface (bgs). Soil samples collected by our firm from areas of identified fill were submitted for laboratory analysis; results confirmed select metals and polycyclic aromatic hydrocarbons (PAHs) at concentrations exceeding NJDEP Soil Remediation Standards (SRS), which is a common condition for historic fill material.

UST Closures

Again, although a GPR survey had already been performed for the Property and surrounding sidewalks on behalf of MCCDC in 2016, and a report with corresponding detailed GPR map had been provided to the JCRA, BRS was tasked by the JCRA with implementing another sitewide GPR survey. The findings of the updated survey did not differ from the prior study, with three separate anomalous areas identified below the sidewalk along Communipaw Avenue, including two suspected USTs and one presumed former tank grave.

Subsequently, sections of concrete sidewalk were removed and test-pitting performed under the direction of BRS in 2019; said work confirmed one 550-gallon presumed former heating oil UST, one 1,000 gallon gasoline UST and one tank grave, with a concrete slab encountered at the base of the excavation (i.e., the presumed location of an UST removed in 2014). In February 2020, the 550 gallon heating oil UST was decommissioned and removed from the site. Although some slight petroleum odors were reported by BRS, testing of the soil in this area revealed no detected Extractable Petroleum Hydrocarbons (EPH).

Additionally, the 1,000 gallon gasoline UST was emptied of liquid contents and sampling of soil below the tank invert was performed via cutting three holes in the base of the tank shell. Please note, it was reported that removal of the subject tank was not pursued by BRS due to concerns regarding a nearby water supply line and valve, located in proximity to the UST. Although gasoline odors were noted by BRS in the soil samples along the tank base/spine and slightly elevated volatile vapor readings were recorded with a photoionization detector (PID), BRS inexplicably proceeded to fill the tank with a flowable fill concrete prior to receiving data from the laboratory. Ultimately, it was determined all three soil samples exhibited select volatile organic compounds (VOCs) at concentrations exceeding the NJDEP's Default Impact to Groundwater Soil Screening Levels (IGWSSL). No further testing of the samples was performed by BRS in an attempt to establish site-specific IGWSSL, which may be higher than the NJDEP's default limits.

Based on the findings, an UST discharge was reported to the NJDEP and Case No. 20-04-09-0905-44 was assigned. BRS noted that no groundwater was encountered during the UST closure procedures. BRS concluded that further investigation of the gasoline UST discharge should be conducted, including both groundwater and soil vapor sampling. It is our understanding these recommended tasks have not been implemented by the JCRA.

Historic Fill Material

As documented above, the ESA performed by our firm confirmed the presence of historic fill material within portions of the Property, which contains some select metals and PAHs at concentrations exceeding NJDEP SRS. This historic fill matter can likely be incorporated into the redevelopment plan for the site, based on the existing data, and addressed via the establishment of Deed Notice-related institutional and engineering controls.

Nonetheless, despite these pre-determined findings, the JCRA opted for further studies of the historic fill by BRS, although this exercise was both redundant and unnecessary.

A total of ten (10) historic fill-related soil borings were advanced at the site to depths of up to 18 feet bgs, at which depth drilling refusal was reportedly encountered. BRS reported observing nonindigenous fill material in 8 of the 10 borings. Additionally, BRS indicated a petroleum-type impact within one of the borings in the northeastern portion of the site (boring B2) at depths of approximately 12 to 15 feet bgs, reportedly intersecting groundwater at approximately 14 feet bgs, with a visible sheen noted.

A total of nine (9) soil samples were collected for laboratory analysis of multiple parameters, although testing of the fill material by our firm had already been performed. Analytical results revealed typical historic fill-related PAH and metal impacts, which had already been established. However, select pesticide impacts and one ‘hit’ of PCBs above SRS were reported. BRS noted that the pesticides and PCBs were not typical components of historic fill and, as such, their SIR proposes that further assessment/delineation of the impacts should be performed, in addition to additional investigation of the aforementioned petroleum-type impact in both soil and groundwater.

Technical Review Findings and Conclusions

As outlined herein, the majority of the work/tasks implemented by BRS on behalf of the JCRA were redundant to the site assessment/investigation work already completed by our firm, including the compilation of the PAR, the additional GPR survey and the supplemental investigation of historic fill material. Additionally, the results of some of this unnecessary testing has now produced ancillary, superfluous data that has further complicated the environmental matters on this parcel. Additionally, the procedures implemented by BRS with respect to the gasoline tank abandonment have also caused a problematic situation (i.e., filling the tank with concrete and missing the opportunity to conduct further analysis of soil below the UST to establish a site-specific IGWSSL).

More specifically, please note the following:

- **Known Historic Heating Oil UST Spill** – The JCRA was aware of the open, unresolved 2014 Case File for the UST discharge (which existed prior to the execution of the Redeveloper Agreement between JCRA and MCCDC in 2018) and that the conditions of the contamination had not been fully delineated/quantified; however, no further investigation of this concern was performed by JCRA/BRS, which could have helped define the remediation strategy for this portion of the property. Instead, multiple, unnecessary borings were installed to evaluate historic fill material.
- **Gasoline UST Spill** – Although closure of the gasoline tank would be a benefit to both JCRA and MCCDC, once BRS identified evidence of potential impacts below the UST, the vessel should not have been filled with concrete, which has now created an otherwise avoidable obstruction for further investigation/remediation work in this area. If BRS did not want to leave the tank open/empty, it could have been filled with a different, easily removable inert substance, such as sand or expandable foam. Conducting further work at this area of concern has now become much more complicated and, ultimately, more costly to address.
- **Historic Fill Material** – Based on the studies performed by Eikon, the presence of historic fill material onsite had already been confirmed, as had the general contaminants of concern associated with same. No further study of this matter was needed. However, the JCRA allowed for extraneous borings/testing to be performed, the results of which have now produced ancillary data (i.e., PCB and pesticide hits) that will lead to further testing, in addition to identifying a separate area of potential petroleum impacts in an area of the Property that is unrelated to the sidewalk area heating oil tanks. This petroleum contaminant

condition has not yet been properly reported to the NJDEP by BRS or the JCRA. These are all new environmental matters wholly due to work performed by BRS on behalf of the JCRA.

- **Former Abandoned Drum Matters** – The BRS PAR indicates the incident of abandoned drums onsite was addressed in 1993 under the direction of the NJDEP BER and no discharge to exposed soil was identified at the time. However, the JCRA elected to notify the NJDEP that the matter constitutes a non-compliance for the property (which is not an accurate characterization) and, as such, the NJDEP has indicated the issue will need to be addressed via the establishment of an Administrative Consent Order (ACO) and will be handled under Direct Oversight of the NJDEP. This could also constitute the issuance of fines and penalties for missed regulatory deadlines. The JCRA has indicated this ACO will need to be addressed by MCCDC, as the designated Redeveloper of the site. We strongly recommend this issue be resolved *prior* to closing on the transaction of the Property and the NJDEP should be informed by the JCRA that the condition of concern was properly/fully addressed over 27 years ago directly by NJDEP BER personnel and is not a non-compliance matter.

In summary, the additional work authorized by the JCRA did not serve to advance the environmental matters forward, but instead generated more problematic data and conditions, which are now apparently intended by the JCRA to be transferred to MCCDC. Initially, following the studies performed by our firm at the property, the projected remedial budget estimate to address the known conditions was proffered to be within the range of \$30,000 to \$40,000. At this time, based on the additional unwarranted data generated by BRS, the abandonment of the gasoline UST with concrete despite identified underlying soil impacts, the implication of a potential groundwater impact concern, and the complication of a potential NJDEP ACO, the updated budget estimate range would likely be on the order of 3 or more times the initial estimate, and could well exceed six-figures in cost. This revised estimated will be determined based upon more SI-related work; namely:

- satisfaction of the 1992/1993 drum spill ACO issue;
- delineation of the pesticide and PCB impacts in the historic fill material;
- confirmation/delineation of the new petroleum impact identified by BRS during the historic fill investigation, including evaluation for potential groundwater impact concerns; and
- confirmation/delineation of the soil impacts below the cement-filled gasoline UST.

Upon review of this summary, please contact our office if you have any questions or require additional information regarding the matters noted above.

EIKON PLANNING AND DESIGN, LLC



Vincent C. Pappalardo

Attachments

J4829/Reports