



April 9, 2021

Roers Companies  
c/o: Mr. Shane LaFave  
110 Cheshire Lane  
Suite 120  
Minnetonka, MN 55305

Subject: Review of Remedial Action Design Report  
Community Within the Corridor – East Block  
2748 N 32<sup>nd</sup> Street, Milwaukee, WI 53208  
BRRTS #: 02-41-263675, FID #: 241025400

Dear Mr. LaFave:

On March 23, 2021, the Wisconsin Department of Natural Resources (DNR) received *Update to Post Closure Modification Request/Remedial Action Plan*, dated March 19, 2021, prepared by K. Singh & Associates, Inc. (K. Singh) for the above-referenced site. This submittal was presented with a Technical Assistance fee for DNR review and response. The following supplemental documents were submitted along with the above-identified document:

- *Feasibility Study and Design – Vapor Mitigation System*, dated March 10, 2021
- *Additional Soils Investigation*, dated March 24, 2021

The above-referenced documents will be collectively referred to as “the Report” for the remainder of this letter. In the Report, K. Singh presents recently collected data pertaining to the site investigation and proposes a remedial action plan/design report (RAP) to address the contamination identified thus far. The DNR reviewed the site investigation portion of the Report for regulatory compliance with Wis. Admin Code ch. NR 716 and the remedial action portion of the Report for regulatory compliance with Wis. Admin. Code chs. NR 722 and NR 724.

The DNR’s comments, as presented below, provide you with recommendations for additional site investigation to complete the delineation of the extent and degree of contamination at this site, which must be completed prior to case closure, per Wis. Admin. Code ch, NR 716. Furthermore, the results of a complete site investigation must be applied when evaluating remedial action options, which are required to prevent any threat to public health, safety, welfare and the environment. Accordingly, at the present time, the DNR is unable to approve the remedial action plan presented in the Report as there are many variables that are still unknown at this site, as outlined below.

### Background

The site is 4.16 acres in size and is covered by paved parking lots and driveways (courtyards) and multi-building facility (collectively referred to as “the building”) that were constructed in the early 1900s. The property was originally used by Romadka Brothers Co. to manufacture trunks suitcases and travel bags. By 1951, the property

was occupied by a Briggs & Stratton factory, which operated as a part of the gas and engine division of the company. The site turned over ownership to WI Industries Pension Plan & Trust in 1987.

A *Notification of Hazardous Substance Discharge* was received by the DNR on January 11, 2001, for soil and groundwater contaminated with petroleum volatile organic compounds (VOCs), chlorinated VOCs and polycyclic aromatic hydrocarbons (PAHs). The sources of this contamination were identified as the historic underground storage tanks (USTs) located in the northern courtyard at the site. On August 26, 2008, the DNR issued a *Final Case Closure with Land Use Limitations or Conditions* letter for this site, formerly identified as the WI Industries Pension Plan & Trust. The land use limitations (i.e., continuing obligations) required for case closure included structural impediments, engineered caps and a sub-slab depressurization system.

On August 3, 2020, the DNR received a *Request for Post Closure Modification* (PCM Request), dated July 8, 2020, prepared by K. Singh. The PCM Request indicated that the Community Within the Corridor Limited Partnership purchased the site and planned to redevelop the site into a mixed residential, retail and commercial facility. Following the submittal of the PCM Request, K. Singh presented additional data to the DNR that identified sub-slab vapor and soil contamination above their respective vapor risk screening levels (VRSLs) and Wis. Admin. Code ch. NR 720 soil residual contaminant levels (RCLs), which indicate there are likely additional source areas present on the site that were not previously investigated. Subsequently, on April 6, 2021, the DNR re-opened the environmental contamination case under a new site name, Community Within the Corridor – East Block.

#### Site Investigation Summary

In preparation for site redevelopment, K. Singh performed a Phase I Environmental Site Assessment (ESA), and subsequently performed a Phase II ESA. The Phase II ESA identified PVOCs, CVOCs, PAHs and RCRA metals in the soil and/or groundwater greater than their respective soil RCLs and Wis. Admin. Code ch. NR 140 preventive action limits (PALs) and/or enforcement standards (ESs). Following the Phase II ESA, K. Singh conducted sub-slab vapor sampling as well as soil sampling throughout the site building, which identified soil RCL exceedances in addition to residential, commercial and industrial VRSL exceedances of PVOCs, CVOCs, PAHs and/or metals.

#### Site Investigation Review

Wis. Admin. Code ch. NR 716 provides the requirements for conducting a site investigation. In summary, the required steps to follow include 1) collecting and evaluating information to scope the investigation, 2) preparing a site investigation work plan, 3) conducting the field investigation, and 4) preparing a site investigation report. Investigative activities have occurred at this site, but additional site investigation, per Wis. Admin. Code ch. NR 716, which is based on and supports a conceptual site model, is required, as outlined below:

##### I. Source identification (scoping the investigation)

Wis. Admin. Code § NR 716.01 states that the site investigation must define the extent and degree of contamination and identify the source(s) of contamination. Furthermore, Wis. Admin. Code § NR 716.07(1) requires that the history of the site or facility, including industrial land uses that may have been associated with one or more hazardous substance discharges, be evaluated.

- A. Discuss the widespread distribution of trichloroethylene (TCE) related to a conceptual site model. Discuss potential sources and source areas of TCE at this site. Given the presence of high

moisture content clay soils beneath the building, it appears unlikely that there was widespread migration through vapor and/or groundwater from a single release/source area.

- B. Considering the historical use of the site, discuss whether there were degreasing stations throughout the building, and if possible, discuss the specific locations of these stations. Incorporate interviews from the Phase I ESA in your discussion, as applicable.

II. Addressing previous investigations during future site investigation activities (scoping the investigation and work plan development)

Wis. Admin Code § NR 716.09(2)(f)(8) requires a discussion of how sampling results will relate to results of any previous investigations.

- A. Provide historic site figures showing the location of contamination associated with the historic site investigation conducted prior to the 2008 case closure. Discuss the potential new sources of contamination as they may relate to previous investigations.

B. Evaluation of emerging contaminants

On August 24, 2020, the DNR received *Environmental Investigation Memorandum for Community Within the Corridor* (PFAS Report), dated August 24, 2020, prepared by K. Singh, which presents PFAS soil analytical results. However, an evaluation, as described below, was not provided.

Wis. Admin. Code §§ NR 716.07, NR 716.09 requires that site investigation scoping and work plans include an evaluation of potential perfluoroalkyl and polyfluoroalkyl substances (PFAS) and other applicable emerging contaminants that were historically or are presently produced, used, handled, or stored at the site.

1. Provide an evaluation of emerging contaminants, and include any available information on whether any products containing PFAS were used in any process services, the duration of PFAS containing product use, the type of PFAS contained in the product, and any areas of the site where PFAS- containing products may have been used, stored, managed, or discarded. You may reference *Reminder to Include Evaluation of Emerging Contaminants in Site Investigation* DNR letter, dated August 17, 2020, for additional details on this requirement.
2. Discuss how this emerging contaminant evaluation relates to the results presented in both the PFAS Report and the Report. Discuss whether additional PFAS or other emerging contaminant investigation is required given the data presented in the Report. Provide a work plan as needed.

III. Degree and extent of contamination in all affected media (field investigation)

Wis. Admin. Code § NR 716.11 (3) (a) requires the field investigation to determine the nature, degree and extent, both areal and vertical, of the hazardous substances or environmental pollution in all affected media.

A. Soil

1. The DNR concurs that additional soil investigation is needed to define the extent and degree of soil contamination at the site, as proposed in the Report. This investigation should consider potential source areas and areas where the concentration of contamination appears to be highest.

B. Groundwater

1. The DNR concurs that additional groundwater investigation is needed to define the extent and degree of groundwater contamination at the site, as proposed in the Report. Additionally, the groundwater investigation must assess depth to groundwater and groundwater flow direction.

C. Vapor

Additional discussion regarding the DNR's review of the vapor investigation as it pertains to the vapor mitigation system (VMS) design and feasibility is presented in the Remedial Action section below.

1. Collect vapor samples from the sewer connections to the building to assess the potential impact to indoor air in the building.
2. Revise VRSL exceedance lines on all applicable figures to include all sample locations with exceedances. For example, VRSL exceedances were identified at sample locations SS-1 and SS-2, but these locations were not included within the VRSL exceedance lines shown on several figures within the Report.

IV. Off-site affected properties (work plan development and field investigation)

Wis. Admin. Code § NR 716.11(4) requires the field investigation to extend beyond the property boundaries of the source area as necessary to full define the extent of contamination.

- A. Any additional soil, groundwater and vapor investigation at this site must be evaluated to determine whether contamination is extending off-site. Off-site contamination must be defined, as necessary.
- B. Collect vapor samples from the sewer connection points to the building to assess whether the sewer is acting as a preferential migration pathway for contamination off-site. Typically, this will include collection of vapor samples from cleanouts or other locations within the building's plumbing system and the sewer main manholes closest to the point where the sewer laterals from the building connect with the sewer main.

V. Submitting site investigation information (site investigation report)

Wis. Admin. Code § NR 716.15 requires that a site investigation report be submitted to the DNR within 60-days after completion of the field investigation and receipt of laboratory data. As you are aware based on the work conducted at this site thus far, the site investigation can be an iterative process and data results may indicate further assessment is needed to define the degree and extent of contamination. Although work status update information and field data notifications may be submitted to the DNR throughout the field investigation phase, it is expected that each submittal evaluating results and recommending additional work build on previous site information, therefore developing and maintaining

the comprehensive site investigation reporting up to submittal of the final comprehensive site investigation report.

### Remedial Action Summary

The Report includes a design and feasibility study that was conducted for the installation of a VMS. The VMS is proposed to mitigate the vapor contamination beneath the building slab as well as remediate the vapors in the building through soil vapor extraction (SVE), as described in the Report. In addition to SVE, the remedial action plan presented various remedial actions and recommended completion of the following activities:

- Soil excavation in the areas, outlined on Figure 6B (attached) from the Report;
- Implementation of engineered barriers to limit direct contact and groundwater infiltration will consist of the building, pavement, soil, and vapor barriers;
- Groundwater remediation through natural attenuation.

### Remedial Action Review

Wis. Admin. Code § NR 722.05(4)(a) states that responsible parties shall identify, evaluate, and document an appropriate range of remedial action options to address each contaminated medium when a site investigation report is completed in accordance with Wis. Admin. Code ch. NR 716. As previously indicated, the DNR cannot approve the remedial action plan presented in the Report at this time because the site investigation is not complete. However, based on the DNR's review of the remedial actions proposed in the Report, the following comments and questions are provided to assist with future remedial actions options evaluation(s):

#### I. Vapor – remedial action and mitigation

Wis. Admin Code § NR 726.05(8)(b) states that prior to case closure, any site where vapors are present above their respective VRSLs must complete a remedial action to reduce the mass and concentration of volatile organic compounds (VOCs) to the extent practical. Additionally, the vapor exposure pathway must be interrupted or mitigated.

The feasibility and design of the vapor mitigation system (VMS) presented in the Report does not provide enough evidence to show that it will adequately interrupt or mitigate vapors. Below are specific comments and questions regarding the system and its ability to provide protective conditions to future occupants of the building:

#### A. Vapor remediation

1. Discuss how the reduction in the mass and concentration of the contamination at the site will be measured during the operation of the SVE system. Provide the calculation(s) that will be applied to monitor the reduction in mass and concentration of contamination. Please note that if the selected remediation does not show a reduction in the mass and concentration of contamination, then additional remedial action will be required prior to case closure.
2. Discuss the specific goal(s) for the SVE system as a remedial action. Provide an estimate for the mass of the contamination that will be removed during the operation of the SVE system.

#### B. Vapor mitigation

1. Vapor mitigation system

- i. The current density of sub-slab vapor probes used to investigate sub-slab vapors beneath the building are likely not dense enough to capture all of the source areas and/or areas with VRSL exceedances, especially given the nature of the subsurface soils (i.e., clay soils with high moisture content). Therefore, the DNR has determined that the VMS must be effective in all areas of the building. Revise the system as necessary.
  - a. Discuss whether the potential for diffusion has been evaluated, per Section 8.1.2. of RR-800, *Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin*. Evaluate and discuss whether the high concentrations of TCE in vapors (such as at SS-25) could result in enough diffusion of vapors through the 4-inch thick concrete slab to present a concern of vapor intrusion regardless of the operation of the VMS.
- ii. Two individual drop points and fans are proposed to be placed near sub-slab sample locations SS-4 and SS-40. SS-4 and SS-40 could not be sampled during the December 2020 sub-slab vapor investigation due to the presence of a high-water table. Additionally, a pilot test could not be conducted near these sample locations at the vapor extraction point VE-1 due to the frozen ground and/or high-water table.
  - a. Discuss whether the VMS will properly function in this area of the site given the wet subsurface conditions. Moreover, discuss what modifications may be necessary to ensure that the VMS is properly functioning.
  - b. Discuss whether the VMS will be protective to the occupants in this area of the building.
- iii. The VMS is proposed to operate at 44-inches of water to overcome the resistance created by the clay soils beneath the building, which is not a typical vacuum for a VMS. Considering this parameter combined with the clay soils and condition of building slab, discuss whether the system may pull air out of the building or create short circuiting via the newly created utility trenches, old utility trenches or through outer foundation walls, which may impact the system's radius of influence. Describe how this will be measured or otherwise evaluated during future pilot testing.
- iv. Discuss whether dewatering will be necessary during remediation and redevelopment, specifically in the northern area of the site where the water appears to be immediately below the building slab. More specifically, discuss whether dewatering will be necessary for the VMS to properly function.
- v. The Report did not address several design considerations presented in Table 8f, *Parking Garage Ventilation – Mitigation Design Basics*, of Appendix C in RR-800, as detailed below:
  - a. Discuss how the penetrations to the upper building floors are being sealed. Describe the condition of the ceiling above the parking garage and indicate whether any sealing of this ceiling will be necessary.
  - b. There are two elevator shafts and several stairwells adjacent to the parking garage, which can act as pathways for vapors to migrate to upper building floors. Describe how these are building features are being evaluated and considered in the VMS design.

- c. Discuss the source of intake air into the parking garage. As presented in Table 8f, high ventilation can increase vapor intrusion if the ventilation causes high interior negative pressures in relation to the subsurface pressures.
    - d. What is the expected subsurface pressure in the parking garage relative to the sub-slab pressure, the overlying pressure, and the pressure in adjacent spaces?
    - e. Describe how the pressures described above will be monitored.
  - vi. The pilot pressure testing completed for the VMS was not working against a negative operating indoor air pressure, which will be established during redevelopment and will ultimately be the condition present when building is occupied. Pilot pressure testing should be re-evaluated once the negative operating indoor air pressure is established in the building.
  - vii. Provide a contingency plan for if the VMS does not achieve an adequate pressure-field-extension throughout the entire building, which will be required prior to case closure.
  - viii. A robust indoor air sampling program will be required following the installation of the VMS and after the interior construction is complete and the heating, ventilation and air conditioning (HVAC) systems are operational.
    - a. Given the scale of the building, number of rooms, and potential variability due to source and building factors, the DNR recommends using a real time portable gas chromatography-mass spectrometry (GC/MS) to initially assess the building. Additionally, canisters and passive air sampling should be conducted in the elevator shafts.
- 2. Preferential routes for vapor migration must be assessed, as detailed below:
  - i. The DNR understands that there is a tunnel beneath the 32<sup>nd</sup> Street right-of-way that connects the east and west block of the Community Within the Corridor redevelopment and that the tunnel will be filled during redevelopment.
    - a. Describe whether the tunnel is actively used.
    - b. Provide the depth and the dimensions of the tunnel.
    - c. Describe what type of material the tunnel will be filled with.
    - d. Discuss whether the tunnel represents a potential source for vapor contamination.
    - e. Discuss whether the tunnel may have a negative impact on the effectiveness of the VMS.
    - f. Discuss whether there is an opportunity to collect vapor samples from within the tunnel before the tunnel is filled, and if so, provide a sampling plan.
  - ii. As indicated in RR-800, a tight foundation is an important element of a sub-slab depressurization system (i.e., VMS). The DNR understands that the building foundation is generally 4- to 5-inches thick throughout the building, with few areas being 8-inches thick.
    - a. Describe the condition of the slab throughout the building.
    - b. Describe how the foundation will be sealed, including floor cracks and perimeter cracks/joints and around any penetrations (i.e., columns).
    - c. The Report states that regular sealing of any cracks will allow the VMS to achieve the required zone of influence. Describe how this will be accomplished when the building floor is finished. Clarify whether this action will only be performed in the parking garage, or through the entire building.

- d. Discuss whether the walls are poured solid concrete or consist of concrete blocks that are hollow.
  - e. Discuss whether the columns in the basement of the building are poured concrete or whether they are hollow.
- iii. The DNR understands that there are three elevator shafts in the building and that passive air samples will be collected from each elevator shaft.
- a. Describe if and/or how the pits will be sealed to prevent vapors from entering them.
- iv. The DNR has not received an assessment of utilities as a preferential pathway for migration of contamination.
- a. Present the locations of any utility pipes, such as sewers or drains on a figure and indicate whether any existing utilities will be retained or abandoned.
  - b. Discuss whether there is a potential for vapor movement into the occupied spaces through any utility pipes, such as sewers or drains.
  - c. Indicate whether historic sewer pipes beneath the building have been abandoned. If not, discuss whether these pipes could be contaminated from historic solvent disposal and may be acting as a source of contamination.

#### C. Acute risks of TCE in vapor

One of the contaminants of concern at this site, TCE, poses a short-term (i.e., acute) health risk in indoor air at concentrations that exceed its applicable VRSL. More specifically, TCE presents an acute risk of fetal heart malformation that may occur when a pregnant mother is exposed to TCE vapors in the first trimester of pregnancy, as indicated in Section 3.4.1 of RR-800. Department of Health Services recommends that if TCE is present beyond the building envelope at or above the VRSL and women of child-bearing age are present, that indoor air be evaluated with a quick lab turnaround (24- to 72-hours). Given the nature of the proposed building use, the presence of the above-referenced demographic should be presumed. TCE is present beneath the site building in sub-slab vapors at concentrations that exceed not only the residential VRSL, but also the industrial VRSL. Given these conditions and the information provided above, establishing the indoor air concentrations prior to occupancy is highly recommended. Periodic sampling of indoor air throughout a given year to ensure protectiveness is also highly recommended.

## II. Soil – remedial action

The remedial action plan portion of the Report did not evaluate and incorporate all soil data that was available at the time that the Report was created and submitted to the DNR. Not including this soil data in the remedial action plan results in a misrepresentation of the degree and extent of contamination being addressed by the proposed remedial action, thus making it difficult for the DNR to evaluate the proposed plan. All available data must be included and considered in future remedial action plans submitted to the DNR.

### A. Soil excavation

- 1. The Report indicates that there will be four main areas of excavation at the site which will focus on the parking garage area and the utilities beneath the building. Considering these excavations are to facilitate redevelopment and were not specifically designed or remediation,



evaluate and discuss whether soil excavation could occur in areas where the concentration of soil contamination is highest. Provide evidence of any access limitations which might impact the feasibility of source area soil excavations.

2. Discuss how the planned soil excavation and introducing off-site fill material beneath the building will alter sub-slab dynamics. More specifically, discuss whether potential accumulation of groundwater within these areas of excavation may impact the VMS.
3. The Report indicates that approximately 12,000 tons of soil will be excavated as a part of site redevelopment. However, this is the total amount of soil excavation that is proposed for both the west and east blocks of the Community Within the Corridor redevelopment. The DNR understands that that less than half of this anticipated total volume of soil will be removed from this site (east block) during redevelopment. Future reports should provide information specific to the east block only.

#### B. Engineered barrier

1. The DNR does not have any feedback to provide for the engineered barrier presented in the Report. The proposed engineered barrier can be re-evaluated once the site investigation is complete.

### III. Groundwater – remedial action

- A. Natural Attenuation as a remedial action for groundwater contamination at this site will be re-assessed once there is a complete groundwater investigation presented to the DNR.

#### Schedule

The DNR understands that a strict construction schedule has been established for this site. Nevertheless, this case must follow the Wis. Admin. NR 700 code series to entirely investigate and remediate the environmental contamination on site to ensure protective conditions for the citizens that will reside in and utilize this residential and community-oriented redevelopment. Therefore, in consideration of administrative code requirements, and as detailed in the *Reopening of Closed Case at Community Within the Corridor – East Block (Former Wisconsin Industries Pension Plan & Trust)* DNR letter, dated April 6, 2021, the DNR is requesting the implementation of the following schedule:

- Per Wis. Admin. Code § NR 716.14, all sampling results are required to be submitted within 10-days of receiving laboratory data.
- Per Wis. Admin. Code § NR 716.09(1), submit a site investigation work plan within 60-days of the date of this letter, by June 8, 2021, that incorporates the DNR's review of site investigation, as presented above.
- Per Wis. Admin Code § NR. 716.15, submit a site investigation report within 60-days after the completion of the field investigation and receipt of the laboratory data.
- Per Wis. Admin Code § NR 722.13, submit a remedial action options report (RAOR) within 60-days after submitting the site investigation report. Consider and incorporate the DNR's review of the remedial action plan, as presented above, in the RAOR.

The DNR appreciates the actions you are taking to restore the environment at this site. If you have any questions concerning this site or this letter, please contact me, the DNR Project Manager, at (414) 263-8603, or by email at [Jane.Pfeiffer@wisconsin.gov](mailto:Jane.Pfeiffer@wisconsin.gov), and we can schedule a meeting to address any questions you may have.

Sincerely,

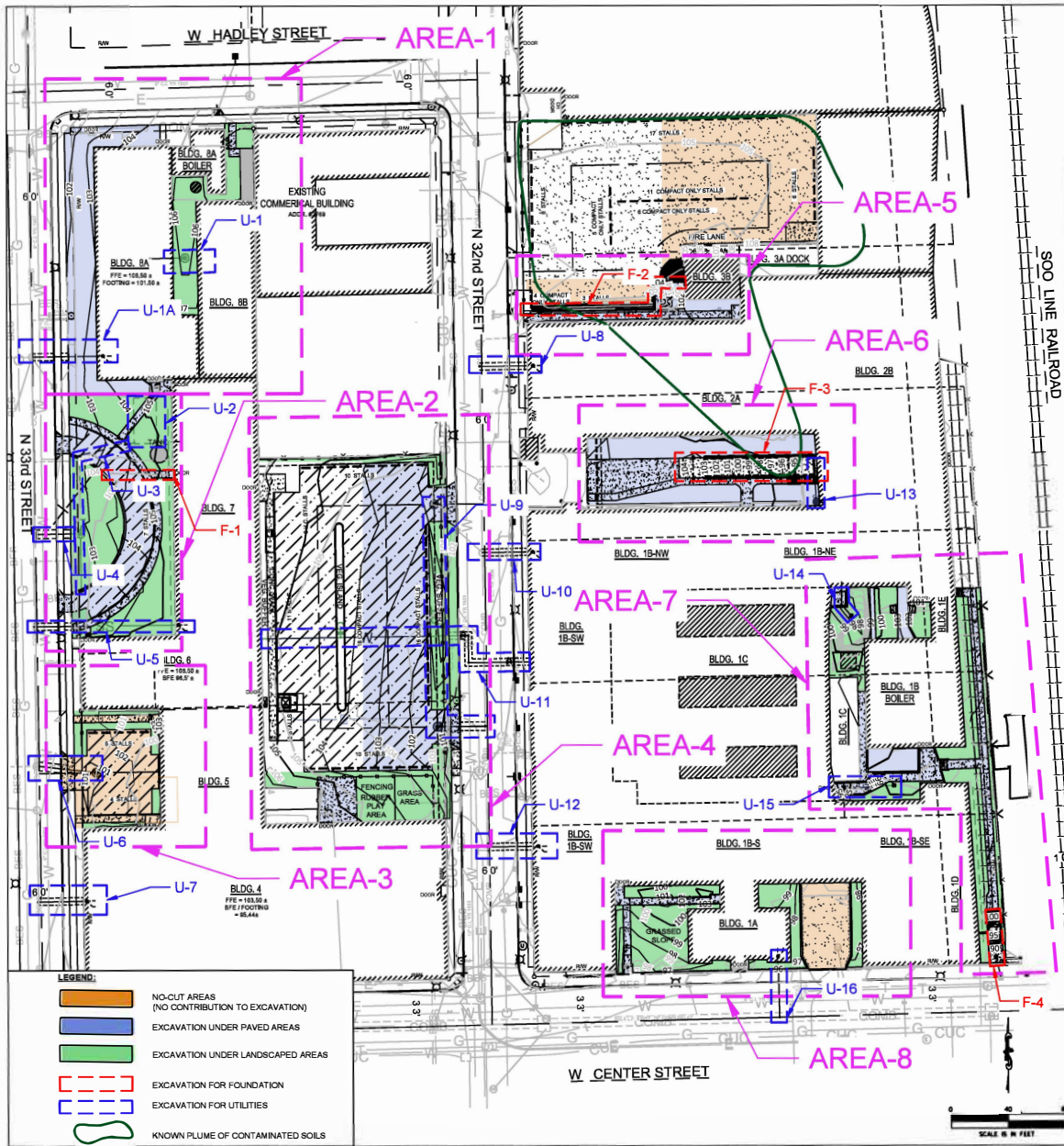


Jane K. Pfeiffer  
Project Manager – Hydrogeologist  
Remediation & Redevelopment Program

Enclosures:

- Figure 6B, Earthwork Calculations Exhibit, dated September 21, 2020

cc: Mr. Que El-Amin, Scott Crawford, Inc., [que@scott-crawford.com](mailto:que@scott-crawford.com) – electronic copy  
Mr. Robert Reineke, K. Singh & Associates, Inc., [rreineke@ksinghengineering.com](mailto:rreineke@ksinghengineering.com) – electronic copy  
Dr. Pratap N. Singh, K Singh & Associates, Inc., [psingh@ksinghengineering.com](mailto:psingh@ksinghengineering.com) – electronic copy



**NOTE:** EXCAVATION QUANTITIES ESTIMATED BY ENVIRONMENTAL CONSULTANT FOR DISPOSAL PURPOSES. ACTUAL EXCAVATION QUANTITIES TO BE DETERMINED BY THE CONTRACTOR.

Excavation under Paved Areas	
t Volume (C.Yd)	
$\sum = F/27$	115
	313
	1,599
	59
	106
	91
	14
	2,296
Excavation under Landscaped Areas	
ut Volume (C.Yd)	
$G = F/27$	127
	699
	27
	857
	311
	226
	2,247

Volume (C.YD)	Notes
3	Storm
75	Sanitary
315	Vault
50	Storm
19	Storm
137	Sanitary
24	Storm
59	Sanitary
64	Sanitary
39	Storm
62	Sanitary
171	Water
64	Sanitary
13	Storm
10	Storm
22	Storm
74	Sanitary
1,201	

Volume (C.YD)	Notes
4	Storm
1	Storm
0	Storm
9	Storm
5	Storm

Volume (C.YD)	Notes
4	2,296
1	2,247
0	1,201
9	771
5	6,515

CONSULTANT  
 CONSULTANT  
 CONSULTANT

PROJECT TITLE: COMMUNITY WITHIN THE CORRIDOR  
 MILWAUKEE, WI  
 PROJECT NUMBER: 40405  
 CLIENT: COMMUNITY WITHIN THE CORRIDOR LIMITED PARTNERSHIP

REVISIONS	DATE	DESCRIPTION

EARTHWORK CALCULATIONS EXHIBIT

**FIGURE 6B**