ROCHESTER HILLS BROWNFIELD REDEVELOPMENT AUTHORITY

ACT 381 WORK PLAN, AMENDMENT #1

To Conduct EGLE Environmental Activities

Legacy Rochester Hills Redevelopment Project
Northeast Corner of Hamlin and Adams Roads
Rochester Hills, Michigan 48309

PREPARED BY

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PROJECT # 3679f6

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BRA APPROVAL
EGLE APPROVAL

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1.0 Introduction

The Rochester Hills Brownfield Redevelopment Authority (the "Authority") is submitting this Act 381 Work Plan Amendment #1 for Legacy Rochester Hills Redevelopment Project (Project). The Project is being completed at the 28-Acre Vacant Property on the Northeast Corner of Hamlin Road and Adams Road (the "subject property"). The subject property is comprised of two parcels (Parcel ID Numbers 15-29-101-022 and 15-29-101-023). For the purposes of this plan amendment, the western parcel (Parcel ID Number 15-29-101-022) is designated as "Parcel A". The eastern parcel (Parcel ID Number 15-29-101-023) is designated as "Parcel B". The Brownfield Plan for the Legacy Rochester Hills Redevelopment Project (the "Brownfield Plan") was approved by the Authority on April 10, 2018, and the Rochester Hills City Council approved the Brownfield Plan on April 23, 2018. Refer to Appendix A for a copy of the Brownfield Plan and Appendix B for copies of the respective resolutions approving the Brownfield Plan.

A previous Act 381 Work Plan (2008 381 Work Plan) was approved in 2008 to conduct Michigan Department of Environmental Quality (MDEQ, now the Department of Environment, Great Lakes and Energy or EGLE) environmental activities for a proposed redevelopment project on the subject property. However, the proposed project did not occur, and the anticipated previous developer walked away from the property. A new developer was identified and a new redevelopment project proposed. The 381 Work Plan (updated 381 Work Plan) was prepared in 2018 and was approved by EGLE on June 14, 2018 (refer to Appendix B for DEQ Response Letter).

The new developer wanted to remediate Parcel A of the subject property to the extent necessary to obtain a No Further Action (NFA) determination from EGLE. The 2008 Act 381 Work Plan did not include the required activities and costs to obtain an NFA for the subject property. A NFA report was submitted and received by EGLE on February 8, 2019 and approved by EGLE on June 27, 2019 (refer to Appendix C for NFA EGLE Response Letter).

The Project consists of the redevelopment of the subject property. The final plans for the redevelopment have been completed, finalized and approved (see attachment). Redevelopment started in 2018 with a removal action of contaminated soils on Parcel A, which resulted in an EGLE-approved residential NFA determination. Construction of a new residential apartment complex, to include 359 units with onsite surface parking, commenced on Parcel A, after No Further Action (NFA) was approved by EGLE in 2019. In addition, in 2019 environmental cleanup activities began on Parcel B. Parcel B is the site where due care engineering controls will be constructed, due to higher concentrations of contaminants in soil. The future use of Parcel B is as an open green space and open-air exercise area near Hamlin Road. No buildings will be constructed on Parcel B.

This Project will put previously underutilized property back to productive use and will generate new tax revenue for the City of Rochester Hills. In addition to the economic benefits of this development to the City of Rochester Hills, environmental activities have been conducted and are anticipated that would provide a safer and healthier community to the public and environment alike.

Founded in 1952, Goldberg Companies, Inc, are national developers, general contractors and property managers of residential and commercial real estate. Goldberg Companies, Inc, are large community supporters in their project locations. Their commitment to quality and excellence has – and will continue to be – the cornerstone of the company. All their properties are developed to own, not to sell. As a result, their primary focus is to provide a level of construction, maintenance and management of residential properties that remains unparalleled in the real estate industry. Goldberg Companies, Inc's broader mission is to serve the community by building trusted relationships and creating a better quality of life for its residents.

The purpose of this Act 381 Work Plan Amendment is to seek approval of additional eligible activity costs for the following: 1) installation of the slurry wall around Parcel B's area of PCB contamination; 2) installation of a liner and cap over the former landfill (including a passive methane venting system); 3) environmental oversight; 4) project management; and 5) Documentation of Due Care Compliance report. A Response Activity Plan (RespAP) and Addendum for the installation of a slurry wall was submitted and received by EGLE on June 3, 2020 and on July 29, 2020 respectively, and approved August 7, 2020.

The Project is seeking approval of additional eligible activity costs for reimbursement through tax increment financing (TIF). These TIF funds will not exceed amounts approved in the Brownfield Plan in 2018 (refer to Appendix A for a copy of the Brownfield Plan). The City does not anticipate applying for EGLE grant funds as it understands that none are available at this time. Redevelopment began in 2018, starting with environmental eligible activities and remediation.

Based on the current site conditions, certain activities were and are necessary to prepare the subject property for redevelopment. The following sections present site background information, current subject property conditions, the previously approved and completed and the remaining proposed EGLE environmental activities and the costs associated with the completed and proposed activities.

1.1 Eligible Property Information

The following sections provide details on subject property ownership and use.

1.1.1 Location and Eligibility

The subject property is the 28-acre vacant property located on the northeast corner of Hamlin Road and Adams Road in the City of Rochester Hills, Michigan. The subject property comprises two parcels (Parcel ID Numbers 15-29-101-022 and 15-29-101-023). For the purposes of this report, the western parcel (Parcel ID Number 15-29-101-022) is designated as "Parcel A". The eastern parcel (Parcel ID Number 15-29-101-023) is designated as "Parcel B".

The property boundary separating the two parcels was redrawn prior to the commencement of the Project. The previous dividing line between the eastern and western subject property parcels was moved to the east. The total area defined by the subject property boundary was not changed. Refer to Figure 2 for the approved parcel boundary lines. It should be noted that any future parcel reconfigurations or divisions will not affect the eligible property boundary, nor would they necessitate a brownfield plan or 381 work plan amendment. Moreover, while Department Specific Activities (i.e., environmental activities) have been or will be conducted on both parcels, and the parcels are owned by separate entities, further described in sections below.

Please refer to the Brownfield Plan located in Appendix A for the subject property legal description. Refer to Figure 1 for a Scaled Property Location Map and Figure 2 for an Eligible Property Boundary Map. Site Plans and Renderings are also included with the Figures 6.

The subject property is considered "eligible property" as defined by Act 381, Section 2 because: (a) the subject property was previously utilized as a commercial property; and (b) each of the two parcels is or was determined to be a "facility." Please refer to Section 2.0 for further information and the Brownfield Plan provided in Appendix A for the relevant supporting documentation.

1.1.2 Current Ownership

Ownership information for the parcels comprising the subject property is summarized below.

Current Property Owner Parcel A
LRH Development LLC
25101 Chagrin Boulevard
Beachwood, Ohio 44122
Phone: (216) 831-6100

Current Property Owner Parcel B
Hamlin Conservation Park, LLC
25101 Chagrin Boulevard
Beachwood, Ohio 44122
Phone: (216) 831-6100

1.1.3 Proposed Future Ownership

Ownership will remain in the name of the entities listed in section 1.1.2 for the foreseeable future.

1.1.4 Delinquent Taxes, Interest, and Penalties

No delinquent taxes, interest, or penalties are known to exist for the property.

1.1.5 Existing and Proposed Future Zoning for the Eligible Property

The subject property is zoned Residential (R2). Future zoning is expected to stay the same. However, it is anticipated that a restrictive covenant will be placed on the eastern parcel (Parcel B) limiting future use.

1.2 Historical Use of the Eligible Property

The project is the redevelopment of the former Christensen Dump, located on two parcels northeast of the intersection of Hamlin and Adams Roads. The Christensen Dump operated from the mid-1950s until the mid-1960s. Later, during the 1960s and early-1970s, 55-gallon drums (which contained a variety of chemicals including paint and solvents) were dumped illegally on the property. The property has remained unimproved with no apparent use since that time.

Prior to remediation of Parcel A, both parcels were heavily contaminated. Analytical results of previous environmental investigations conducted on the two parcels indicate that concentrations of select metals, pesticides, volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs) and polynuclear aromatic compounds (PNAs) were detected in soil and/or groundwater above EGLE Residential Cleanup Criteria (RCC).

1.3 Current Use of the Eligible Property

The subject property is currently overgrown with vegetation. The subject property is not currently used for any significant or obvious purpose and has lain vacant since the early 1960s.

1.4 Summary of Proposed Redevelopment and Future Use for the Eligible Property

Because of both heavy contamination and geotechnical issues from dumping, the Parcels have been unable to attract development or use since the 1960s. The area is attractive for new construction, but the costs associated with site conditions are so high that all previous efforts have been stymied. The most recent proposal, in 2008, failed because the redevelopment plan was unable to attract funding.

The proposed redevelopment has two components. The first, on the western portion of the property (Parcel A), involves remediation of contamination and construction of 359 high-quality rental residential units. The second, on the eastern end of the property (Parcel B), is limited to due care response activities in the areas of most significant contamination (excavation and removal of certain non-hazardous contaminated soils, and capping and isolating the area of most significant impact). Together, the two components will result in economically productive rehabilitation and reuse of properties that, for decades, have been a blight on the community. In addition to the significant benefits of environmental cleanup, the project will result in an immediate increase in tax revenue for some taxing jurisdictions.

Goldberg Companies, Inc., is a leader in land development, construction and property management. Unlike most management companies, Goldberg Companies, Inc., focuses on long-term ownership and management and continues to invest in and maintain their properties, which they own and manage across the country.

Following MDEQ (EGLE) approval of the updated 381 Work Plan in 2018, redevelopment began in 2018, beginning with environmental remediation and site preparation activities.

2.0 Current Property Conditions

The following sections provide detail on the subject property's Brownfield qualifications.

2.1 Property Eligibility

As indicated in Section 1.1.1, the subject property is considered "eligible property" as defined by Act 381, Section 2. Additional information regarding property eligibility is provided in the Sections below.

2.2 Summary of Environmental Conditions

Under Part 201, a "facility" is defined as "any area, place, or property where a hazardous substance in excess of the concentrations which satisfy the requirements of section 20120a (1) (a) has been released, deposited, disposed of, or otherwise comes to be located." M.C.L. § 324.20101(1) (o). A "release" is defined to include "spilling" or "leaking" of a hazardous substance into the environment. In addition, a "release" includes the abandonment of containers or other closed receptacles containing hazardous substances. M.C.L. § 324.20101(1) (bb).

2.2.1 Environmental Investigations

The environmental investigations completed on the subject property since 2002 are summarized below.

- Soil Sampling and Monitoring Well Installation, prepared in June 2002 by Harding ESE for only the eastern parcel
- Limited Subsurface Investigation, prepared in October 2002 by AKT Peerless
- Limited Subsurface Investigation, prepared in December 2004 by AKT Peerless
- Phase I Environmental Site Assessment (ESA), prepared in January 2005 by AKT Peerless
- Supplemental Subsurface Investigation, prepared in February 2005 by AKT Peerless
- Category N Baseline Environmental Assessment Report, prepared on November 10, 2005 by AKT Peerless
- Phase II ESA, prepared in July 2007 by AKT Peerless
- Limited Soil Gas Investigation, conducted in April 2017 by AKT Peerless
- Limited Subsurface Investigation, conducted in June 2017 by AKT Peerless
- Phase I ESA, prepared on May 11, 2018 by AKT Peerless
- BEA, prepared on August 1, 2018 on parcel 15-29-101-022 by AKT Peerless
- BEA, prepared on August 1, 2018 on parcel 15-29-101-023 by AKT Peerless
- NFA Report, prepared on February 4, 2019 on parcel 15-29-101-022 by AKT Peerless
    - Approved by EGLE June 27, 2019
- RespAP and Addendum, prepared on June 1, 2020 and July 29, 2020 respectively on parcel 15-29-101-023 by AKT Peerless
    - Approved by EGLE August 7, 2020

Summaries of the reports and activities relevant to site conditions, since at least 2002, are provided in the following sections.

2.2.1.1 Harding ESE June 2002 Soil Sampling and Monitoring Well Installation for Parcel 15-29-101-023

Harding ESE conducted a subsurface investigation at the direction of the EGLE throughout the fenced area on the subject property in June 2002. Thirteen (13) soil borings (GP-1 through GP-13) were advanced to further evaluate the historical drum burial area and assess groundwater conditions.

Laboratory analytical results indicate that concentrations of select VOCs, SVOCs, metals (arsenic, cadmium, chromium, lead, silver, and zinc), and PCBs exceed the EGLE Drinking Water Protection (DWP), GSIP, Soil Volatilization to Indoor Air Inhalation (SVIAI), Infinite Source Volatile Soil Inhalation Criteria (VSIC), Particulate Soil Inhalation Criteria (PSI), and/or Direct Contact (DC) Residential Cleanup Criteria (RCC).

Additionally, in 2002, the EGLE performed a groundwater sampling event of select monitoring wells. Based on review of laboratory analytical results, vinyl chloride was identified in a groundwater sample obtained from MW-4D in exceedance of the EGLE DW RCC. The laboratory data associated with this groundwater sampling is on file with the EGLE.

2.2.1.2 AKT Peerless' October 2002 Limited Subsurface Investigation

AKT Peerless conducted a limited subsurface investigation on the subject property and eastern adjoining parcel in October 2002. AKT Peerless advanced 15 test pits across the subject property. This investigation was performed in order to evaluate potential environmental impact associated with historical landfilling activities.

Soil samples collected from select test pits were submitted for laboratory analysis of Michigan metals and PCBs. Based on analytical results, the metals arsenic and chromium were identified in soil samples 2-3 (0-1') and 2-3 (10-12') at concentrations in exceedance of the EGLE DWP, GSIP, and/or DC RCC.

2.2.1.3 AKT Peerless' December 2004 Limited Subsurface Investigation

On December 10, 2004, AKT Peerless conducted a limited subsurface investigation (on behalf of Hamlin & Adams Properties, LLC) of the subject property to address the environmental concerns identified in previous environmental investigations and identified within AKT Peerless' January 2005 Phase I ESA.

This subsurface investigation consisted of (1) the advancement of 10 soil borings (B-1 through B-10) on the subject property and (2) the collection of 13 soil samples and one groundwater sample. The 13 soil samples were submitted for laboratory analysis of PCBs, and the groundwater sample was submitted for laboratory analysis of Michigan metals and VOCs.

Soil laboratory analytical results indicated concentrations of PCBs were not detected above EGLE RCC within the 13 soil samples. PCB concentrations identified in B-3 (0-1') were detected at concentrations above the Direct Contact Criteria for the Federal Toxic Substance Control Act (TSCA) 40 C.F.R. §761, Subpart D and 40 C.F.R. §761, Subpart G (1,000 parts per billion (ppb)). However, the EGLE RRD Operational Memorandum #1 indicates that in cases where the TSCA is not applicable, the Part 201 criteria should be used. Given that the PCBs are attributed to the illegal dumping activities conducted at the subject property prior to 1978, the TSCA standards are not applicable to the subject property. Refer to Appendix D for a letter from EPA to EGLE concurring with this approach. Therefore, AKT Peerless compared PCB analytical results to the Part 201 EGLE DC RCC for PCBs (4,000 ppb for residential land use).

Review of groundwater laboratory analytical results indicated that concentrations of VOCs and metals were not detected above EGLE RCC.

2.2.1.4 AKT Peerless' January 2005 Phase I Environmental Site Assessment

Hamlin & Adams Properties, LLC retained AKT Peerless to conduct a Phase I ESA of the subject property. AKT Peerless identified the following recognized environmental conditions (RECs) in the January 2005 report:

- The subject property operated as a landfill since at least the mid-1950s until the early 1960s, which included the dumping of household and slaughterhouse wastes, and illegal dumping of drums and waste containing a variety of chemicals including PCBs and paint wastes.
- The southern adjoining property operated as a landfill since at least the early 1960s until 1976.

AKT Peerless recommended conducting a limited subsurface investigation to evaluate the on-site landfilling concern.

2.2.1.5 AKT Peerless' February 2005 Supplemental Subsurface Investigation

On February 12, 2005, AKT Peerless conducted a geophysical survey of the subject property in order to further evaluate the historical subject property landfilling activities. The results of the magnetometer survey identified several anomalies at the subject property. AKT Peerless excavated 20 test pits on the subject property on February 15, 2005. The test pits were advanced in areas identified as "anomalous" during the geophysical survey and in areas that appeared to be visually disturbed.

The results of the test pit investigation activities indicated the presence of buried materials in previously unidentified areas, specifically in the north-eastern and south-eastern portion of Parcel 15-29-101-023 (the eastern parcel).

AKT Peerless collected a total of four soil samples from test pits (one from TP-2, TP-3, TP-16b and TP-21) that were visually identified to be disturbed and/or containing debris. The soil samples were submitted for laboratory analysis of VOCs, PNAs, and Michigan metals. Based on review of laboratory analytical results, select metals (arsenic, cadmium, chromium, lead, mercury and selenium) were identified at concentrations exceeding the EGLE DW, GSIP, and/or DC RCC.

AKT Peerless concluded that based on the results of this subsurface investigation, and on the analytical results from previous subsurface investigations, contaminant concentrations were detected above the EGLE Residential Cleanup Criteria. Therefore, the subject property met the definition of a "facility", as defined in Part 201 of Natural Resources and Environmental Protection Act (NREPA), Michigan Public Act 451, 1994, as amended.

2.2.1.6 AKT Peerless' November 2005 Category N Baseline Environmental Assessment

A Category N BEA was completed for the subject property on behalf of Hamlin & Adams Properties, LLC in November 2005 and submitted to the EGLE for approval. The BEA was completed subsequent to a Phase I ESA and two Phase II ESAs (subsurface investigations) previously completed at the subject property in December 2004 and January and February 2005. Based on laboratory analytical results of the previous environmental investigations summarized above, the subject property met the definition of a "facility", as defined in Part 201 of the NREPA.

2.2.1.7 AKT Peerless' July 2007 Phase II ESA Report

In June and July 2007, AKT Peerless conducted a subsurface investigation at the subject property to evaluate the existing contamination. AKT Peerless conducted the following scope of work: (1) advanced 12 soil borings to be converted to permanent monitoring wells throughout the subject property; (2) the advancement of 40 soil borings in the Area B location; (3) the advancement of 40 soil borings in the Area E location; (4) the completion of 51 test pits and 2 trenches (Areas A, C, D and F); (5) the collection of 234 soil samples; (6) the completion of two groundwater sampling events; (7) the collection of 21 groundwater samples; and (8) the completion of three methane field screening events. The results of the Phase II ESA investigation identified the following:

- Benzene, toluene, ethylbenzene, xylenes, 1,2,4 trimethylbenzene, 1,3,5 trimethylbenzene, n-butylbenzene, sec-butylbenzene, n-propylbenzene, acenaphthene, benzo(a)pyrene, di-n-butyl phthalate, fluoranthene, fluorene, 2-methylnaphthalene, naphthalene, phenanthrene, PCBs, antimony, arsenic, cadmium, chromium, lead, mercury, nickel, selenium and silver were detected in soil across the subject property at concentrations exceeding the EGLE Part 201 Non-Residential Cleanup Criteria. Various concentrations in soil were detected above the Groundwater-Surface Water Interface Protection (GSIP) criteria and Drinking Water Protection (DWP) criteria.
- Benzene, toluene, ethylbenzene, xylenes, 1,2,4 trimethylbenzene, 1,3,5 trimethylbenzene, di-n-butylphthalate, naphthalene, arsenic, lead and selenium were detected in shallow groundwater at the subject property at concentrations exceeding the EGLE Part 201 Non-Residential Cleanup Criteria. Various concentrations in groundwater were detected above the Groundwater-Surface Water Interface (GSI) criteria and Drinking Water (DW) criteria.

2.2.1.8 AKT Peerless' April 2017 Limited Soil Gas Investigation

AKT Peerless installed a temporary groundwater monitoring well and installed soil gas monitoring wells at the subject property in April 2017. AKT Peerless obtained methane, carbon dioxide, oxygen and balance gas readings using a Landtec GEM 5000 gas analyzer. AKT Peerless submitted six soil gas and one groundwater sample for laboratory analyses. The results of the laboratory analyses of the groundwater sample and soil gas samples did not identify concentrations of target parameters above EGLE Residential Cleanup Criteria.

2.2.1.9 AKT Peerless' June 2017 Limited Subsurface Investigation

In June 2017, AKT Peerless conducted a limited subsurface investigation at the subject property. AKT Peerless collected soil samples and submitted those samples for laboratory testing for select chemical analyses of SVOCs and/or metals including arsenic, lead, mercury, silver, hexavalent chromium, and total chromium. The results of the investigation identified the following:

- Arsenic was detected in soil samples at the subject property at concentrations exceeding the EGLE Part 201 Non-Residential Cleanup Criteria. Various concentrations in soil were detected above the DWP criteria and Residential Direct Contact criteria.
- Arsenic and mercury were detected in soil samples at the subject property at concentrations exceeding the EGLE Part 201 Non-Residential Cleanup Criteria. Various concentrations in soil were detected above the GSIP criteria.

Based on the laboratory analytical results, the subject property meets the definition of a facility, as defined in Part 201 of the NREPA. In addition, the results of the metals investigation provided data to be utilized in site-specific background calculations for site redevelopment.

The Legacy Rochester Hills Redevelopment (Project) Brownfield Plan was approved by the City of Rochester Hills on April 23, 2018. The Brownfield Plan included a total of $9,619,587 of eligible activities and contingency, not including payments: (a) to the RHBRA for administration; (b) into the State revolving fund; and (c) into a local brownfield revolving fund. Additionally, 5% simple interest was approved.

2.2.1.10 AKT Peerless' May 2018 Phase I ESA

AKT Peerless completed a Phase I ESA of the subject property on May 11, 2018 on behalf of Hamlin Conservation Park, LLC in conformance with the scope and limitations of American Society for Testing and Materials (ASTM) Standard Practice E 1527-13. The purpose of AKT Peerless' ESA was to provide an independent, professional opinion of the RECs or historical recognized environmental conditions (HRECs) associated with the subject property. AKT Peerless identified the following recognized environmental conditions (RECs) in the May 2018 report:

- The subject property operated as the Christenson Dump from the mid-1950s until the mid-1960s. During the 1960s and early 1970s illegal disposal of 55-gallon drums (which contained a variety of chemicals including paint and solvents) were dumped at the subject property. A known area of historical dumping is located within a fenced area on Parcel B. Analytical results of previous environmental investigations conducted on Parcels A and B of the subject property indicate that concentrations of select metals, pesticides, VOCs, PCBs and PNAs were detected in soil and/or groundwater above EGLE RCC. A BEA was completed for the subject property and submitted to the EGLE in February 2005. Based on this information, Parcels A and B are a "facility" as defined in Part 201 of NREPA.

- The southern adjoining property operated as a landfill from 1966 until 1976, with documented disposal of municipal refuse and industrial waste. A BEA was completed for this adjoining property in September 2004, which identified soil and groundwater contamination on the subject property, and indicated that contaminants were identified to be migrating off this property, in the direction of the subject property. In AKT Peerless' opinion, the historical use as a landfill and the identified soil and groundwater contamination at the southern adjoining property represents a
  REC to the subject property.

The Michigan Department of Environmental, Great Lakes and Energy (EGLE) (formerly the Michigan Department of Environmental Quality) approved the Act 381 Work Plan on June 14, 2018 for a total of $9,584,996 of eligible activities and contingency, as well as 5% simple interest. Of that approved amount, $1,248,000 was conditionally approved only to be used for sub-slab venting systems for new construction and passive methane venting systems, if needed. EGLE's approval represented a difference of $1,282,591 in eligible activities from the Brownfield Plan. This requested Amendment is to restore the conditionally approved amount (which was not needed at the project) and the remaining amount not approved by EGLE to pay for additional expenses incurred conducting the work that was approved by the BRA, City Council and EGLE.

The Developer has made significant progress with the Project completing nearly 70% of eligible activities approved in the Brownfield Plan. Overall, the eligible activity scope of the Project has not changed, however the eligible activity cost has increased, due, in part, to removing more contaminated soil originally estimated in the Act 381 Work Plan and changes in the methodology of constructing the slurry wall on the eastern parcel. The Developer has conducted a cost accounting analysis of all activities completed to date and the estimated cost of the remaining activities. This cost accounting has identified the need to request an amendment to the Act 381 Work Plan to increase the EGLE approval amount to $9,619,587, which is the maximum eligible activity amount approved in the Brownfield Plan and Reimbursement Agreement. The proposed Amendment does not: (A) increase the amount of local taxes to be captured from what was previously approved; (B) extend the maximum 24 year capture period previously approved and agreed to.

2.2.1.11 AKT Peerless' August 2018 BEA

Based on laboratory analytical results, the subject property parcel 15-29-101-022 located at the northeast corner of Hamlin and Adams Roads in Rochester Hills, Oakland County, Michigan, meets the definition of a facility, as defined in Part 201 of the NREPAAKT Peerless completed a BEA for the subject property on behalf of LRH Development, LLC on August 1, 2018. The BEA was disclosed to EGLE.

2.2.1.12 AKT Peerless' August 2018 BEA

Based on laboratory analytical results, the subject property parcel 15-29-101-023 located at the northeast corner of Hamlin and Adams Roads in Rochester Hills, Oakland County, Michigan, meets the definition of a facility, as defined in Part 201 of the NREPA. AKT Peerless completed a BEA for the subject property on behalf of Hamlin Conservation Park, LLC on August 1, 2018. The BEA was disclosed to EGLE.

2.2.1.13 AKT Peerless' NFA Report

On February 4, 2019, AKT Peerless conducted a NFA Report on behalf of LRH Development, LLC for Parcel A (15-29-101-022) located at the northeast corner of Hamlin and Adams Road, in Rochester Hills, Oakland County, Michigan. The NFA Report was submitted and received by EGLE on February 8, 2019. On June 27, 2019, EGLE determined that the remedial action described in the NFA Report satisfies the

requirements of Part 201 and, the Residential cleanup category as provided in Section 20120a(1) of NREPA.

2.2.1.14 AKT Peerless' June 2020 RespAP and Addendum

On June 1, 2020, AKT Peerless prepared a RespAP on behalf of Hamlin Conservation Park, LLC for Parcel B (15-29-101-023) located north of Hamlin Road and east of Adams Road in Rochester Hills, Oakland County, Michigan. This RespAP identified the response activities to be undertaken by the Owner to prevent exposure to remaining contaminated soil. On July 29, 2020, AKT Peerless prepared a RespAP Addendum on behalf of Hamlin Conservation Park, LLC to change the proposed depth of the slurry wall.

Based upon representations and information contained in the submittals, the RespAP addressing environmental conditions and installation of a slurry wall on a portion of the former Christianson Dump subject property was approved by EGLE RRD under Section 20114b(3) of Part 201 of NREPA on August 7, 2020.

2.2.2 Summary of Current Known Conditions

As demonstrated in the preceding section, the subject property has been thoroughly investigated to determine the soil, soil gas and groundwater quality that currently exists. This section summarizes the current known conditions relative to applicable Part 201 residential cleanup criteria (RCC) prior to the remediation initiated in 2018.

AKT Peerless anticipates completing a Phase I ESA and BEA on behalf of Goldberg Companies, Inc, or on behalf of related single-purpose LLCs.

Based on the analytical results obtained during AKT Peerless' 2002, 2004, 2005, and 2007 subsurface investigations of the subject property, the following hazardous substances were detected in samples collected from the subject property above their respective EGLE RCC in soil and/or groundwater.

Summary of Part 201 Exceedances in Soil

(as of the date of approval of the Act 381 Work Plan from 2018)

Parameter (CAS Number)	Part 201 Generic Residential Criteria Exceeded	Sample Identification [1]	Maximum Concentration (µg/kg) [2]	Parcel
Antimony (7440360)	DW / 4,300	AKT-8 (3-5')	6,140 / AKT-8 (3-5')	15-29-101-023

Parameter (CAS Number)	Part 201 Generic Residential Criteria Exceeded	Sample Identification [1]	Maximum Concentration (µg/kg) [2]	Parcel
Arsenic (7440382)	DW / 4,600 GSIP / 4,600 DC / 7,600	TP-2, TP-21, 2-3 (0-1'), 2-3 (10-12'), AKT-5 (20-22'), SB-5 (10-14'), SB-6 (18-20'), SB-9 (18-20'), SB-10 (18-20'), SS-3 (4-6'), SS-4 (2-4'), SS-6 (0-2'), SS-9 (2-4'), SS-10 (2-4') GP-1 (4-7'), GP-3 (2-6'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-5 (11-14'), GP-6 (2-4'), GP-7 (4-8'), GP-8 (0-2'), GP-8 (9-10.5'), GP-9 (4-6'), GP-9 (6-7.5'), GP-10 (6-8'), GP-10 (8-10'), GP-11 (4.5-5'), GP-12 (0-2'), MW-9D (2-4'), MW-9D (4-6'), TP-16b, EP-28 (8'), EP-33 (15'), EP-48 (6'), AKT-8 (3-5'), AKT-200 (6.5-7.5'), AKT-202 (2-3'), AKT-203 (6.5-7.5'), AKT-204 (9-10'), AKT-205 (6-7'), AKT-205 (9.5-10.5'), AKT-206 (4-5'), AKT-207 (2-3'), AKT-207 (9-10'), AKT-210 (4-5'), AKT-210 (2-3'), AKT-211 (3-4'), AKT-211 (11-12')	25,000 / SB-5 (10-14') 36,000 / GP-3 (2-6')	15-29-101-022 15-29-101-023
Acenaphthene (83329)	GSIP / 8,700	DUP-1 [EP-5 (6')]	22,100 / DUP-1 [EP-5 (6')]	15-29-101-022
Benzene (71432)	DWP / 100	GP-1 (4-7'), GP-4 (2.5-4'), EB-23 (3-5')	800 / EB-23 (3-5')	15-29-101-023
Benzo(a)anthracene (56553)	DC / 20,000	GP-4 (2.5-4'), EB-20 (5-7')	33,000 / GP-4 (2.5-4')	15-29-101-023

Parameter (CAS Number)	Part 201 Generic Residential Criteria Exceeded	Sample Identification [(1)]	Maximum Concentration (µg/kg) [(2)]	Parcel
Benzo(a)pyrene (50328)	DC / 2,000	DUP-1 [EP-5 (6')], GP-1 (4-7'), GP-4 (2.5-4'), GP-6 (2-4'), GP-10 (6-8'), EB-7 (1-3'), EB-11 (10-12'), Duplicate [EB-13 (13-15')], EB-18 (3-5'), EB-19 (4-5'), EB-20 (5-7'), EB-21 (8-10'), EB-23 (3-5'), EB-24 (8-10'), EB-25 (3-4'), EB-26 (1-3'), EB-27 (1-3'), EB-29 (1-3'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-31 (3-5'), EB-31 (7-9'), EB-32 (1-3'), EB-35 (1-3'), EB-39 (3-5'), EB-40 (3-5'), Duplicate 5 [EB-40(3-5')]	4,500 / DUP-1 [EP-5 (6')] 29,000 / GP-4 (2.5-4')	15-29-101-022 15-29-101-023
Benzo(b) fluoranthene (205992)	DC / 20,000	GP-4 (2.5-4')	48,000 / GP-4 (2.5-4')	15-29-101-023
beta-Hexachlorocyclohexane (319857)	GSIP / 37	TP1W	65 / TP1W	15-29-101-022
Bis(2-ethylhexyl)phthalate (117817)	DC / 2,800,000 SSSL / 10,000,000	GP-7 (4-8')	37,000,000 / GP-7 (4-8')	15-29-101-023
n-Butylbenzene (104518)	DWP / 1,600	EB-9 (8-10'), Duplicate 3 [EB-13 (13-15')]	10,000 / EB-9 (8-10')	15-29-101-023
sec-Butylbenzene (135998)	DWP / 1,600	GP-1 (4-7'), GP-4 (2.5-4'), EB-9 (8-10'), EB-11 (10-12'), EB-12 (8-10'), EB-13 (13-15'), Duplicate 3 [EB-13 (13-15')], EB-19 (4-5'), EB-21 (8-10'), EB-22 (6-8'), EB-23 (3-5'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-38 (3-5')	50,000/ EB-12 (8-10')	15-29-101-023
Cadmium (7440439)	DWP / 6,000	EP-31 (0.5-1'), SS-6 (0-2') GP-3 (2-6'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-6 (2-4'), GP-7 (4-8'), GP-8 (0-2'), TP-16b, EB-1 (3-5'), EP-23 (2'), EP-33 (7'), Duplicate 4 [EP-33 (7')], EP-33 (15'), AKT-8 (3-5')	39,000 / EP-31 (0.5-1') 61,000 / GP-8 (0-2')	15-29-101-022 15-29-101-023

Parameter (CAS Number)	Part 201 Generic Residential Criteria Exceeded	Sample Identification [1]	Maximum Concentration (µg/kg) [2]	Parcel
Carbon tetrachloride (56235)	DWP/ 100	GP-6 (12-13.5')	110 / GP-6 (12-13.5')	15-29-101-023
Carbazole (86748)	GSIP / 1,100	GP-6 (2-4'), GP-10 (6-8')	5,200 / GP-6 (2-4')	15-29-101-023
Chromium (total) (18540299)	DWP/ 30,000 GSIP / 3,300 PSI / 260,000 DC / 2,500,000	TP-2, TP-3-1, TP-21, 2-3 (0-1'), 2-3 (10-12'), EP-5 (6'), DUP-1 [EP-5 (6')], DUP-2 [EP-14 (7')], EP-31 (0.5-1'), EP-37 (0.5-1'), DUP-5 [EP-37 (0.5-1')], SB-3 (18-20'), SB-5 (10-14'), SB-6 (18-20'), SB-8 (18-20'), SB-9 (18-20'), SB-10 (18-20'), SB-12 (18-20'), SS-1 (0-2'), SS-2 (4-6'), SS-3 (4-6'), SS-4 (2-4'), SS-5 (2-4'), SS-6 (0-2'), SS-7 (4-6'), SS-8 (0-2'), SS-9 (2-4'), SS-10 (2-4'), TR1N, TR1S, TR1W, TR1Bottom-N, TR1Bottom-S, TR2-N, TR2-S, TR2-East, TR2-West, TR2-B North, TR2-B South, TP1N, TP1Bottom-S, SB-2 (14-16'), GP-1 (4-7'), GP-2 (13-15'), GP-3 (2-6'), GP-3 (10-12'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-5 (11-14'), GP-6 (2-4'), GP-6 (12-13.5'), GP-7 (4-8'), GP-7 (9-10.5'), GP-8 (0-2'), GP-8 (9-10.5'), GP-9 (4-6'), GP-9 (6-7.5'), GP-10 (6-8'), GP-10 (8-10'), GP-11 (4-5.5'), GP-11 (5.5-7'), GP-12 (0-2'), GP-13 (16-18'), MW-9D (2-4'), MW-9D (4-6'), TP-16B, EB-1 (3-5'), EP-19 (0.5-1'), EP-22 (6'), Duplicate 3 [EP-22 (6')], EP-23 (2'), EP-28 (8'), EP-30 (7'), EP-33 (7'), Duplicate 4 [EP-33 (7')], EP-33 (15'), EP-48 (6'), AKT-8 (3-5'), AKT-9 (8-10')	91,000 / SS-3 (4-6') 2,880,000 / GP-5 (4-8')	15-29-101-022 15-29-101-023

Parameter (CAS Number)	Part 201 Generic Residential Criteria Exceeded	Sample Identification [1]	Maximum Concentration (µg/kg) [2]	Parcel
Dibenzofuran (132649)	GSIP / 1,700	DUP-1 [EP-5 (6')]	26,400 / DUP-1 [EP-5 (6')]	15-29-101-022
Di-n-butyl phthalate (84742)	GSIP / 11,000	GP-4 (11-12'), EB-12 (10-11'), EB-38 (3-5')	61,000 / GP-4 (11-12')	15-29-101-023
Ethylbenzene (100414)	DWP / 1,500 GSIP / 360 SVIAI / 87,000 SSSL / 140,000	GP-1 (4-7'), GP-4 (2.5-4'), GP-5 (4-8'), EB-9 (8-10'), EB-11 (10-12'), EB-12 (8-10'), EB-13 (13-15'), Duplicate 3 [EB-13 (13-15')], EB-19 (4-5'), EB-21 (8-10'), EB-22 (6-8'), EB-23 (3-5'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-38 (3-5'), AKT-8 (3-5')	590,000 / EB-12 (8-10')	15-29-101-023
Fluorene (86737)	GSIP / 5,300	DUP-1 [EP-5 (6')], EB-20 (5-7'), AKT-8 (3-5')	24,700 / DUP-1 [EP-5 (6')] 6,000 / EB-20 (5-7")	15-29-101-022 15-29-101-023
Fluoranthene (206440)	GSIP / 5,500	DUP-1 [EP-5 (6')] GP-1 (4-7'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-6 (2-4'), GP-10 (6-8'), EB-11 (10-12'), EB-18 (3-5'), EB-19 (4-5'), EB-20 (5-7'), EB-21 (8-10'), EB-23 (3-5'), EB-24 (8-10'), EB-25 (3-4'), EB-26 (1-3'), EB-27 (1-3'), EB-28 (8-10'), EB-29 (1-3'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-32 (1-3'), EB-38 (3-5'), EB-39 (3-5'), EB-40 (3-5'), Duplicate 5 [EB-40 (3-5')]	19,000 / DUP-1 [EP-5 (6')] 97,000 / GP-4 (2.5-4')	15-29-101-022 15-29-101-023
Isopropyl benzene (98828)	GSIP / 3,200	EB-11 (10-12'), EB-12 (8-10'), EB-19 (4-5'), EB-21 (8-10'), EB-22 (6-8'), EB-23 (3-5'), Duplicate 4 [EB-30 (1-3')], EB-38 (3-5')	70,000 / EB-12 (8-10')	15-29-101-023

Parameter (CAS Number)	Part 201 Generic Residential Criteria Exceeded	Sample Identification [1]	Maximum Concentration (µg/kg) [2]	Parcel
Lead (7439921)	DC / 400,000 DWP / 700,000	TP-2, TP-21, EP-31 (0.5-1'), SS-6 (0-2') GP-1 (4-7'), GP-3 (2-6'), GP-4 (2.5-4'), GP-5 (4-8'), GP-5 (11-14'), GP-6 (2-4'), GP-7 (4-8'), GP-8 (0-2'), TP-16B, EB-1 (3-5'), EP-23 (2'), EP-28 (8'), EP-33 (7'), Duplicate 4 [EP-33 (7')], EP-33 (15'), AKT-8 (3-5')	660,000 / TP-2 2,450,000 / GP-5 (4-8')	15-29-101-022 15-29-101-023
Mercury (7439976)	GSIP / 50 DWP / 1,700	TP-21, EP-14 (7'), DUP-2 [EP-14 (7')], EP-31 (0.5-1'), EP-37 (0.5-1'), DUP-5 [EP-37 (0.5-1')], SS-6 (0-2'), SS-9 (2-4') SB-3 (2-4'), GP-1 (4-7'), GP-3 (2-6'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-6 (2-4'), GP-7 (4-8'), GP-7 (9-10.5'), GP-9 (4-6'), GP-10 (8-10'), TP-16b, EB-1 (3-5'), EP-19 (0.5-1'), EP-22 (6'), Duplicate 3 [EP-22 (6')], EP-23 (2'), EP-28 (8'), EP-30 (7'), EP-33 (7'), Duplicate 4 [EP-33 (7')], EP-33 (15'), EP-44 (6'), EP-48 (6'), AKT-8 (3-5') , AKT-SS9-N1 (0-1'), AKT-SS9-N2 (0-1'), AKT-SS9-E1 (0-1'), AKT-SS9-E2 (0-1'), AKT-SS9-S1 (0-1'), AKT-SS9-S2 (0-1'), AKT-SS9-W1 (0-1'), AKT-SS9-W2 (0-1')	500 / SS-6 (0-2') & AKT-SS9-W2 (0-1') 2,530 / AKT-8 (3-5')	15-29-101-022 15-29-101-023
2-Methylnaphthalene (91576)	GSIP / 4,200 DWP / 57,000	DUP-1 [EP-5 (6')] GP-1 (4-7'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), EB-9 (8-10'), EB-11 (10-12'), EB-12 (8-10'), EB-18 (3-5'), EB-19 (4-5'), EB-20 (5-7'), EB-21 (8-10'), EB-22 (6-8'), EB-23 (3-5'), EB-24 (8-10'), EB-28 (8-10'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-38 (3-5'), EB-39 (3-5'), AKT-8 (3-5')	16,500 / DUP-1 [EP-5 (6')] 388,000,000 / EB-39 (3-5')	15-29-101-022 15-29-101-023

Parameter (CAS Number)	Part 201 Generic Residential Criteria Exceeded	Sample Identification [1]	Maximum Concentration (µg/kg) [2]	Parcel
Naphthalene (91203)	DWP / 35,000 GSIP / 730 SVIAI / 250,000 VSIC / 300,000	EP-5 (6'), DUP-1 [EP-5 (6')], EP-31 (0.5-1') GP-1 (4-7'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), EB-9 (8-10'), EB-11 (10-12'), EB-12 (8-10'), EB-12 (10-11'), EB-13 (13-15'), Duplicate 3 [EB-13 (13-15')], EB-18 (3-5'), EB-19 (4-5'), EB-20 (5-7'), EB-21 (8-10'), EB-22 (6-8'), EB-23 (3-5'), EB-28 (8-10'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-38 (3-5'), EB-39 (3-5'), EB-40 (3-5'), Duplicate 5 [EB-40 (3-5')], AKT-8 (3-5'), AKT-9 (8-10'), AKT-8 (3-5')	142,000 / DUP-1 [EP-5 (6')] 400,000 / EB-12 (8-10')	15-29-101-022 15-29-101-023
Nickel (7440020)	DWP / 100,000	AKT-8 (3-5')	339,000 / AKT-8(3-5')	15-29-101-023
Phenanthrene (85018)	GSIP / 2,100	EP-5 (6'), DUP-1 [EP-5 (6')] GP-1 (4-7'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-6 (2-4'), GP-10 (6-8'), EB-11 (10-12'), Duplicate 3 [EB-13 (13-15')], EB-18 (3-5'), EB-19 (4-5'), EB-20 (5-7'), EB-22 (6-8'), EB-23 (3-5'), EB-24 (8-10'), EB-25 (3-4'), EB-26 (1-3'), EB-27 (1-3'), EB-29 (1-3'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-35 (1-3'), EB-40 (3-5'), Duplicate 5 [EB-40 (3-5')], AKT-8 (3-5')	51,400 / DUP-1 [EP-5 (6')] 33,000 / GP-6 (2-4')	15-29-101-023

Parameter (CAS Number)	Part 201 Generic Residential Criteria Exceeded	Sample Identification [1]	Maximum Concentration (µg/kg) [2]	Parcel
Polychlorinated biphenyls (1336363)	DC / 4,000 VSIC / 240,000	DUP-1 [EP-5 (6')] GP-1 (4-7'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-7 (4-8'), GP-7 (9-10.5'), GP-8 (0-2'), EB-10 (10-12'), Duplicate 2 [EB-10 (10-12')], EB-11 (1-3'), EB-11 (8-10'), EB-11 (10-12'), EB-12 (8-10'), EB-12 (10-11'), EB-13 (3-5'), EB-13 (8-10'), EB-13 (13-15'), Duplicate 3 [EB-13 (13-15')], EB-18 (3-5'), EB-19 (4-5'), EB-19 (5-7'), EB-19 (8-10'), EB-20 (1-3'), EB-20 (3-5'), EB-20 (5-7'), EB-21 (3-5'), EB-21 (8-10'), EB-22 (3-5'), EB-22 (6-8'), EB-22 (10-12'), EB-23 (3-5'), EB-23 (5-7'), EB-23 (7-9'), EB-28 (1-3'), EB-28 (3-5'), EB-28 (8-10'), EB-29 (3-5'), EB-29 (8-9'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-30 (3-5'), EB-31 (1-3'), EB-31 (3-5'), EB-32 (1-3'), EB-36 (3-5'), EB-37 (1-3'), EB-38 (1-3'), EB-38 (3-5'), EB-38 (8-10'), EB-39 (1-3'), EB-39 (3-5'), EB-40 (1-3'), EB-40 (3-5'), Duplicate 5 [EB-40 (3-5')], EB-40 (8-10'), Duplicate 4 [EP-33 (7')], AKT-8 (3-5')	22,100 / DUP-1 [EP-5 (6')] 2,300,000 / GP-7 (4-8')	15-29-101-022 15-29-101-023
n-Propylbenzene (103651)	DWP / 1,600	GP-1 (4-7'), GP-4 (2.5-4'), EB-9 (8-10'), EB-11 (10-12'), EB-12 (8-10'), EB-13 (13-15'), Duplicate 2 [EB-13 (13-15')], EB-19 (4-5'), EB-21 (8-10'), EB-22 (6-8'), EB-23 (3-5'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-38 (3-5')	110,000 / EB-12 (8-10')	15-29-101-023

Parameter (CAS Number)	Part 201 Generic Residential Criteria Exceeded	Sample Identification [1]	Maximum Concentration (µg/kg) [2]	Parcel
Selenium (7782492)	GSIP / 400	EP-31 (0.5-1'), SS-6 (0-2'), SB-1 (19-20'), SB-3 (18-20'), SB-6 (18-20'), SB-8 (18-20'), SB-9 (18-20'), SB-10 (18-20') GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-5 (11-14'), GP-7 (4-8'), GP-8 (0-2'), TP-16b, EB-1 (3-5'), EP-23 (2'), EP-30 (7'), EP-33 (15'), AKT-8 (3-5')	1,000 / SB-1 (19-20') 1,700 / GP-4 (2.5-4')	15-29-101-022 15-29-101-023
Silver (7440224)	GSIP / 100 DWP / 4,500	EP-37 (1-2') SB-2 (14-16'), SB-3 (2-4'), GP-1 (4-7'), GP-2 (13-15'), GP-3 (2-6'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-5 (11-14'), GP-6 (2-4'), GP-7 (4-8'), EP-23 (2'), EP-33 (7'), Duplicate 4 [EP-33 (7')], EP-33 (15'), AKT-8 (3-5')	2,070 / EP-37 (1-2') 90,000 / GP-2 (13-15')	15-29-101-022 15-29-101-023
Toluene (10883)	DWP / 16,000 GSIP / 5,400 SVIAI / 330,000 SSSL / 110,000	EB-12 (8-10'), EB-13 (13-15'), Duplicate 3 [EB-13 (13-15')], EB-38 (3-5')	400,000 / EB-12 (8-10')	15-29-101-023
Trichloroethylene (79016)	DWP / 100	GP-3 (10-12'), GP7 (4-8')	410 / GP-3 (10-12')	15-29-101-023
1,2,4-Trimethylbenzene (95636)	DWP / 2,100 GSIP / 570 DC / 110,000 SSSL / 110,000	GP-1 (4-7'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-7 (4-8'), EB-9 (8-10'), EB-11 (10-12'), EB-12 (8-10'), EB-13 (13-15'), Duplicate 3 [EB-13 (13-15')], EB-19 (4-5'), EB-21 (8-10'), EB-22 (6-8'), EB-23 (3-5'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-38 (3-5'), AKT-9 (8-10')	760,000 / EB-12 (8-10')	15-29-101-023

Parameter (CAS Number)	Part 201 Generic Residential Criteria Exceeded	Sample Identification [1]	Maximum Concentration (µg/kg) [2]	Parcel
1, 3, 5-Trimethylbenzene (108678)	DWP / 1,800 GSIP / 1,100 SSSL / 150,000	GP-4 (2.5-4'), EB-9 (9-10'), EB-11 (10-12'), EB-12 (8-10'), EB-13 (13-15'), Duplicate 3 [EB-13 (13-15')], EB-19 (4-5'), EB-21 (8-10'), EB-22 (6-8'), EB-23 (3-5'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')]	280,000 / EB-12 (8-10')	15-29-101-023
Xylenes (95476)	GSIP / 820 DWP / 5,600 SSSL / 150,000	GP-1 (4-7'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-7 (4-8'), EB-9 (8-10'), EB-11 (10-12'), EB-12 (8-10'), EB-13 (13-15'), Duplicate 3 [EB-13 (13-15')], EB-19 (4-5'), EB-21 (8-10'), EB-22 (6-8'), EB-23 (3-5'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-38 (3-5')	930 / EP-31 (0.5-1') 2,070,000 / EB-12 (8-10')	15-29-101-022 15-29-101-023
Zinc (7440666)	DWP / 2,400,000	GP-5 (4-8')	7,100,000 / GP-5 (4-8')	15-29-101-023

[1] - Sample identification: B-# indicates soil boring and (#-#) indicates sample depth in feet.
[2] – µg/kg = micrograms per kilogram.
DWP – Drinking Water Protection Criteria
GSIP – Groundwater Surface Water Interface Protection Criteria
PSI– Particulate Soil Inhalation Criteria
SVIAI – Soil Volatilization to Indoor Air Inhalation Criteria
VSIC – Infinite Source Volatile Soil Inhalation Criteria
DC – Direct Contact Criteria
SSSL – Soil Saturation Concentration Screening Levels

Summary of Part 201 Exceedances in Groundwater

(as of date of EGLE approval of the 381 Work Plan in 2018)

Parameter (CAS Number)	Part 201 Generic Residential Cleanup Criteria Exceeded	Sample Identification [1]	Maximum Concentration (µg/L) [2]	Parcel
Arsenic (7440382)	DW / 10 GSIP / 10	MW-13D, AKT-5W, MW-2D, AKT-9W, AKT-10W	21 / AKT-5W 33 / AKT-9W	15-29-101-022 15-29-101-023

Parameter (CAS Number)	Part 201 Generic Residential Cleanup Criteria Exceeded	Sample Identification [1]	Maximum Concentration (µg/L) [2]	Parcel
Benzene (71432)	DW / 5	AKT-9W	60 / AKT-9W	15-29-101-023
Chromium (7440473)	GSIP / 11	AKT-5W, MW-6	18 / AKT-5W 15 / MW-6	15-29-101-022 15-29-101-023
Di-n-butyl phthalate (84742)	GSIP / 9.7	AKT-9W	55 / AKT-9W	15-29-101-023
Ethylbenzene (100414)	DW / 74 GSIP / 18	AKT-9W	1,090 / AKT-9W	15-29-101-023
Lead (7439921)	DW / 4	AKT-5W	42 / AKT-5W	15-29-101-022
4-Methyl-2-pentanone (MIBK) (108101)	DW / 1,800	AKT-9W	4,000 / AKT-9W	15-29-101-023
Naphthalene (91203)	GSIP / 11	AKT-9W	90 / AKT-9W	15-29-101-023
Selenium (7782492)	GSI / 5	AKT-9W	8 / AKT-9W	15-29-101-023
Toluene (108883)	DW / 790 GSI / 270	AKT-9W	2,220 / AKT-9W	15-29-101-023
1,2,4-Trimethylbenzene (95636)	DW / 63 GSI / 17	AKT-9W	730 / AKT-9W	15-29-101-023
1,3,5-Trimethylbenzene (108678)	DW / 72 GSI / 45	AKT-9W	120 / AKT-9W	15-29-101-023
Vinyl Chloride (75014)	DW/ 2	MW-4D	3.5 / MW-4D	15-29-101-023
Xylenes (1330207)	DW / 280 GSI / 41	AKT-9W	4,660 / AKT-9W	15-29-101-023

[1] - Sample identification: B-# indicates soil boring and (#-#) indicates sample depth in feet.

[2] – µg/L = micrograms per liter.

DW – Drinking Water Criteria

GSI – Groundwater Surface Water Interface Criteria

Based on the analytical findings, at the time the 381 Work Plan was approved in 2018, both parcels meet the definition of a “facility” as defined by Part 201 of NREPA. Parcel B still meets the definition of a “facility”.

2.3 Functionally Obsolete

"Functionally obsolete" means that the subject property is unable to be used to adequately perform the function for which it was intended due to a substantial loss in value resulting from factors such as overcapacity, changes in technology, deficiencies or super adequacies in design, or other similar factors that affect the subject property itself or the subject property's relationship with other surrounding subject property.

A functionally obsolete designation has not been requested at this time.

2.4 Blighted

"Blighted" means property that meets any of the following criteria as determined by the governing body: (i) Has been declared a public nuisance in accordance with a local housing, building, plumbing, fire, or other related code or ordinance; (ii) Is an attractive nuisance to children because of physical condition, use, or occupancy; (iii) Is a fire hazard or is otherwise dangerous to the safety of persons or property; (iv) Has had the utilities, plumbing, heating, or sewerage permanently disconnected, destroyed, removed, or rendered ineffective so that the property is unfit for its intended use; (v) Is tax reverted property owned by a qualified local governmental unit, by a county, or by this state. The sale, lease, or transfer of tax reverted property by a qualified local governmental unit, county, or this state after the property's inclusion in a brownfield plan shall not result in the loss to the property of the status as blighted property for purposes of this act; (vi) Is property owned or under the control of a land bank fast track authority, whether or not located within a qualified local governmental unit. subject property included within a brownfield plan prior to the date it meets the requirements of this subdivision to be eligible property shall be considered to become eligible property as of the date the property is determined to have been or becomes qualified as, or is combined with, other eligible property. The sale, lease, or transfer of the property by a land bank fast track authority after the property's inclusion in a brownfield plan shall not result in the loss to the property of the status as blighted property for purposes of this act; (vii) Has substantial subsurface demolition debris buried on site so that the property is unfit for its intended use.

A blight designation has not been requested for the subject property at this time.

2.5 Adjacent and Contiguous

The City of Rochester Hills is considered a qualified local governmental unit as provided in Act 146 of 2000, as amended. The definition of “Eligible Property” in PA 381 of 1996, as amended, includes property that is located in a qualified local governmental unit and is a facility, functionally obsolete, or blighted and includes parcels that are adjacent or contiguous to that property if the development of the adjacent and contiguous parcels is estimated to increase the captured taxable value of that property.

Both Parcels of the subject property were facilities at the time the 381 Work Plan was approved in 2018; adjacent and contiguous status is not applicable at this time.

3.0 Scope of Work

The following scope of work has been identified to address the subject property's Brownfield conditions.

3.1 EGLE Eligible Activities

The subject property will be prepared to make it suitable for development. Appropriate environmental investigations and environmental remediation activities will be and have been performed to prevent exposure to materials hazardous to human health and safety, and the environment. The Developer desires to be, and was previously approved to be, reimbursed for the costs of eligible activities. Tax increment revenue generated by the subject property will be captured and used to reimburse the cost of the eligible activities completed on the subject property, as authorized by Act 381, as amended, and pursuant to the terms of a Reimbursement Agreement (refer to Appendix D) with the Authority.

On the western parcel (Parcel A), Department Specific Activities have been completed. These activities included environmental assessment activities, excavation, contaminated soil removal, and backfill in previously identified contaminated areas. These activities were completed in December of 2018 and the NFA relating to such work was approved by EGLE. Parcel A activities were planned to include installation of sub slab venting systems on new construction, and costs associated with a sub slab venting system were conditionally approved by EGLE. Ultimately, such work was deemed not necessary to achieve No Further Action.

Remediation activities including soil removal were conducted on Parcel B in 2019. However, installation of a cut off wall, liner & cap, and passive methane venting system on the former landfill area have not yet been completed, and amendments to the original plan for such work are a part of this Amendment.

Refer to Table 1 for a detailed description and comparison of the eligible activities for the Project previously approved, costs incurred to date, and the current request. Refer to Table 2 for tax increment financing information.

3.1.1 Department Specific Activities

3.1.1.1 Baseline Environmental Assessment Activities

A Phase I ESA was completed for the subject property in January 2017. New Phase I ESAs, a Supplemental Subsurface Investigation, and BEAs were prepared in 2018 for the acquiring entities.

3.1.1.2 NFA Report and Documentation of Due Care Compliance Report

Phase I and Phase II ESAs have been completed for the subject property. A BEA was completed for Parcels A and B prior to the current owners' acquisition of the subject property. No additional due care investigations are planned for Parcel A. However, additional due care activities are planned for Parcel B.

Parcel A

Remediation on Parcel A was completed in order to obtain an unrestricted residential status. Subsequent to the completion of remedial activities, a No Further Action (NFA) report was prepared and submitted to EGLE for review and was approved by EGLE on June 27, 2019.

The BEA and NFA reporting was completed in accordance with Part 201 of the NREPA, and EGLE Instructions for Preparing and Disclosing Baseline Environmental Assessments and Section 7a Compliance Analyses, effective March 11, 1999. The NFA described remedial activities associated with

soil and groundwater contamination at Parcel A in light of the nature of the proposed development construction activities and occupancy of the developed property. A detailed breakdown of the costs associated with this task is provided later in this section.

Parcel B

On Parcel B, targeted environmental response activities were conducted on the areas associated with previous dumping and landfilling outside of the former fenced area. As detailed in Section 3.1.1.4, these activities included excavation of landfilled materials (= largely in Source Area E). In addition, the former fenced area, where the remaining impact is located, will be subject to the installation of due care engineering controls. Response activities on "areas of most significant impact" are intended to address the paint waste landfilled onsite; identification of these areas was evaluated during field observations during excavation activities, using visual and olfactory criteria. Subsequent to the completion of response activities and installation of due care engineering controls, a Documentation of Due Care Compliance (DDCC) report will be completed. Future use of Parcel B is intended to be restricted to non-residential use and is planned to be further limited to natural open area and surface parking. Therefore, in consultation with EGLE, due care requirements for the intended use will be met. The Developer intends that the DDCC will be reviewed and approved by EGLE, but does not intend to pursue regulatory closure for Parcel B.

After consultation with EPA and EGLE, encapsulation of landfilled materials, which includes areas where PCB contamination was previously detected on Parcel B, will be conducted pursuant to Part 201 of the Natural Resources and Environmental Protection Act (NREPA), rather than the Toxic Substances Control Act of 1976, which EPA administers. Correspondence with EPA confirming the basis for this determination is provided in Attachment D.

The DDCC reporting will be completed in accordance with Part 201 of the (NREPA), and EGLE Instructions for Preparing and Disclosing Baseline Environmental Assessments and Section 7a Compliance Analyses, effective March 11, 1999. A detailed breakdown of the costs associated with this task is provided later following section 4.2.2.

3.1.1.3 Health and Safety Plans

Site-specific Health and Safety Plans (HASPs) have been and will be completed for redevelopment activities at the subject property by each of the subsurface contractors and others that can come into contact with potentially contaminated media during the performance of their work activities. The HASPs will be available for review by the City. The HASPs will comply with appropriate guidelines including the following:

- Michigan Occupational Safety and Health Act;
- Section 111(c)(6) of CERCLA;
- Occupational Safety and Health Administration requirements 29 CFR 1910 and 1926;
- Standard Operating Safety Guide Manual (revised November 1984) by the Office of Emergency and Remedial Response; and
- Occupation Safety and Health guidance manual for Hazardous Waste Site Activities (NIOSH/OSHA/USCG/EPA, DHHS [NIOSH] Publication No. 85-115, October 1985).

The HASPs will include the following elements:

- Authorized personnel and definition of responsibilities;

- proposed activities;
- personal protective equipment;
- decontamination procedures;
- work zone restrictions and delineations;
- personal protection upgrade/downgrade action limits;
- emergency information and telephone numbers;
- incident documentation procedures; and
- contingency plans.

Oversight will be conducted to ensure due care issues are addressed while eligible activities and construction activities are being completed. The following activities (at a minimum) will be documented:

- The type, location, quantities, etc., of materials removed from the subject property and disposed at the landfill or other appropriately licensed disposal operation.
- The final disposition and location of any contaminated media that can be managed on-site in accordance with due care requirements.
- Monitoring for unanticipated materials and/or materials previously not identified, including collection of samples for additional waste characterization.
- The type, location, materials and construction of vapor mitigation systems installed at the subject property to prevent future potential indoor air inhalation exposures.

The Contractor Site Safety Officer will document and enforce HASP issues with workers at the subject property, including:

- Verification of on-site worker training and current certifications.
- Conducting site-specific HASP training for workers entering the subject property.
- Monitoring construction activities to ensure the HASP is being followed, including use of PPE, decontamination of equipment, subject property security, etc.

The Developer will provide copies of environmental construction management plans to the City and the EGLE for Parcel B. A Construction Summary Report (CSR) will be prepared and submitted to the EGLE-RRD at the completion of development activities. The CSR will summarize the due care issues addressed during the construction activities and will include such items as photographic documentation, disposal manifests, fill material load tickets, utility abandonment logs (if any), site plans, etc. to verify that the development construction activities were conducted in accordance with approved plans.

3.1.1.4 Soil Remediation Activities

AKT Peerless has conducted several investigations that detected numerous VOCs, SVOCs, PBCs and/or metals in soil and groundwater at concentrations that exceed EGLE's Part 201 RCC. VOCs, SVOCs, PBCs and/or metals detected in soil and/or groundwater at the subject property during past investigations include:

Antimony	Arsenic
Acenaphthene	beta-Hexachlorocyclohexane
Benzene	Benzo(a)anthracene

Benzo(a)pyrene	Benzo(b)fluoranthene
Bis(2-ethylhexyl)phthalate	n-Butylbenzene
Sec-Butylbenzene	Cadmium
Carbon tetrachloride	Carbazole
Chromium (total)	Dibenzofuran
Di-n-butyl phthalate	Ethylbenzene
Fluorene	Fluoranthene
Isopropyl benzene	Lead
Mercury	2-Methylnaphthalene
Naphthalene	Nickel
Phenanthrene	Polychlorinated biphenyls
n-Propylbenzene	Selenium
Silver	Toluene
Trichloroethylene	1,2,4-Trimethylbenzene
1,3,5-Trimethylbenzene	4-Methyl-2-pentanone (MIBK)
Vinyl Chloride	Xylenes
Zinc	

The Developer intends to construct a residential development on Parcel A. The Developer removed the source areas of contamination on Parcel A, based on the analytical results from previous subsurface investigations. Six source areas were identified on Parcel A (additional areas of contamination related to former landfilling are on Parcel B) and removed. Site specific background calculations were performed for arsenic as part of the NFA. A NFA report was prepared and submitted to EGLE for review and approved by EGLE on June 27, 2019.

The Developer has performed and intends to perform environmental cleanup activities on Parcel B and install due care engineering controls, such that Parcel B can be used as an open natural area and surface parking to support recreational activities on municipal property east of Parcel B. These cleanup activities include contaminated soil removal in Source Area E which has been completed.

No contaminated soils are to be relocated between Parcel A and Parcel B, and none will or have been relocated within Parcel A.

Following EGLE NFA approval as to Parcel A, additional remedial excavation at Parcel B were conducted in 2019 and 2020 and will be presented in a future Documentation of Due Care Compliance in 2021. It was anticipated 66,853 Yd^3 of contaminated soil would be removed from the subject property. As of January 31, 2021, a total of 114,755.73 tons or 76,503.82 Yd^3 of contaminated soil were removed from the subject property. This increased volume of soils removed results in an increase of costs which is part of the reason for this Amendment.

The impacted soil/fill was removed from the subject property and disposed at a Type II landfill. The costs included in the eligible activities included excavation, transportation, disposal, verification sampling, backfill, oversight and reporting, and project management. A total of 136,124tons or 90,750 Yd^3 tons was backfilled into the excavated areas and hot spots. Three different types of backfill were utilized to address compaction needs which include: engineered fill, class II sand, and limestone. The backfilling of each excavation was completed to match the existing grade before removal. The cost of such backfill represents a 17% increase in cost from the approved Act 381 work Plan, which is part of the reason for this amendment.

Due to compaction requirements, an additional 40,000 tons of backfill was anticipated to be necessary to return excavated areas to grade. Based on current estimates, this has been revised to 9,000 tons to land balance the site for construction.

It should be noted that previous subsurface investigations encountered discontinuous, perched groundwater pockets with limited to no detectable concentrations of contamination. Groundwater contamination appeared to have been due to leaching from surrounding contaminated soils. These pockets of groundwater were removed and properly disposed of during soil remediation activities on Parcel A.

Please refer to Table 1, Eligible Activity Cost Detail, for specific line item costs for the due care activities, and to Figure 3 for the locations of the source areas. These costs include allowances for environmental project management, field time, and contracted services.

3.1.1.5 Hot Spot Removal

In addition to contaminated soils found in Areas A through F, several areas of impacted soils, “Hot Spots,” were identified in isolated locations. As reported in the NFA Report on February 4, 2019 and approved by EGLE on June 27, 2019, based on the results of the VSR sampling of each of the areas and hotspots, AKT Peerless determined that the residual soil impact above RCC is no longer present at Parcel A. Each of the known exceedances at the subject property have been removed as part of the remedial action taken. Groundwater in the areas of former soil impact was confirmed before remedial work was undertaken and during VSR sampling as not being impacted or above RCC. Pre-remediation and post-remediation sampling confirmed that soil gas did not indicate any concern.

The costs included in the eligible activities include excavation, transportation, disposal, verification sampling, backfill, oversight and reporting, and project management. These activities were completed in December of 2018. The costs in this section included allowances for environmental project management, field time and contracted services.

3.1.1.6 Sub-Slab Venting System (New Construction)

Costs associated with a Sub-Slab Venting System were conditionally approved by EGLE. In November 2018, following the excavation and backfilling of Areas A, B, C, D and F, AKT Peerless conducted a post-

remedial soil gas assessment. The pre-remediation and post-remediation sampling confirmed that soil gas did not indicate any concern. This showed that sub-slab venting systems for new construction were not necessary. The No Further Action (NFA), approved on June 27, 2019, included the results of the soil gas assessment and confirmed the conclusions reached by AKT Peerless.

3.1.1.7 Engineering Controls – Former Landfill Area

Complete removal of the area of the highest contamination, the former landfill area on the eastern parcel, is not financially feasible.

In July 2019, HM Environmental Services retained Mersino to install the slurry wall using one pass trenching equipment. However, the one pass trenching equipment encountered difficulty in excavating through hard soils (clay and silt) or cobbles that were encountered during trenching. Therefore, a new method is proposed to install the slurry wall. A slurry wall will be installed around the perimeter of the former landfill area (approximately 1,000 linear feet).

The slurry wall will be installed by an excavation panel method. Depending on the slope of the land, the 2-foot slurry wall will consist of either of the following: (1) soil-bentonite or (2) cement-bentonite. Soil bentonite panels will be installed at the locations with flat topography locations (north and south walls) and cement-bentonite panels will be installed at the locations that slope (west and east walls). The panels will be installed in 40-foot alternating sections to allow slurry to harden and then overlap to ensure no gaps between sections. The depths of the slurry wall will extend into native low permeable layers of clay and silt encountered between 20 and 43 feet below ground surface (see Appendix E). While this method is different than the one-pass technology approach envisioned in the Brownfield Plan and Act 381 Work Plan, this slurry wall design keying into low permeability layers of clay and silt is consistent with the previously approved Brownfield Plan and Act 381 Work Plan in the objective of preventing infiltration of groundwater into the former landfill area. This installation method adds cost to the project and is a driving reason for the Act 381 Amendment.

After installing the slurry wall, the cover system will be installed. The first layer will be class II sand to flatten the topographic surface. Then a flexible membrane liner ("FML") followed with a bentonite geosynthetic clay cover (GCL) with a brand name, Bentomat will be installed over the former landfill area. The GCL provides a hydraulic barrier into the former landfill area. The swelling bentonite in the Benotmat 200R material fills in the pore space and constricts the flow paths of water, resulting in a low permeability hydraulic barrier similar to clay but at a lower installation cost to the project. The FML and GCL will be anchored outside the slurry wall. These control measures will act to prevent leach formation within the former landfill area and prevent exacerbation of existing contamination. Following the FML and GCL covers another layer of class II sand (approximately 36-inches thick) Above this sand layer will be 6 inches of topsoil to support grass vegetation similar to the adjacent Innovation Hills Park. The thickness of the class II sand and topsoil above the FML and GCL materials is to allow for a healthy root system for the grass vegetation to thrive while not coming into contact with the engineered materials.

A passive vent system trench will be installed below the liner as shown in Appendix E. The vents from the passive trench system will be located on the uphill side of each trench. The venting system will include two subsurface vapor vent/geovent trenches below the flexible membrane layer/Bentomat 200R geosynthetic clay cover connected to an 8-foot tall, 4-inch diameter metal vent pipe at southeastern end of each run. The vent heights are a requirement by EGLE. A screen will be placed on the top 6 inches of the vent pipe.

Refer to Appendix E for the cover system design specifications.

As noted in Section 3.1.1.2, the Developer intends that the DDCC will be reviewed and approved by EGLE, but does not intend to pursue regulatory closure for Parcel B. The specifications for the engineering controls will be included with the DDCC.

The environmental consultant will prepare and implement an O&M Plan for the engineering controls installed in the former landfill area. The O&M Plan is anticipated to include a recommendation for quarterly long-term inspection/methane monitoring. The cost estimate for implementation of an O&M Plan is $30,000 per year for 24 years (costs eligible for reimbursement in the Brownfield Plan), although the O&M Plan implementation will continue beyond that date for at least a total of 30 years.

This cost includes design, installation, reporting, and project management for the systems.

3.1.1.8 Passive Methane Venting System

Costs associated with a Passive Methane Venting System will be installed as part of the engineering controls – former landfill area. For more details, please refer to section 3.1.1.7.

3.1.1.9 Waterproofing Seals and Gaskets for Stormwater Piping

Due to known contamination in soil that will be left in place on Parcel B and to mitigate against exacerbation of contamination, chemical resistant seals and gaskets may be installed on piping located on Parcel B to prevent the intrusion of contaminants on site into the stormwater system. The piping will run along the northern side of the property, north of the encapsulation zone.

3.1.1.10 Site Control & Erosion Control

In order to be protective of workers and residents, the excavation areas will be fenced or barricaded to minimize potential for unauthorized access to contaminated soil. These costs include the silt fencing for the north and east in order to mitigate erosion concerns; dust monitoring during environmental mitigation work in order to address further concerns of the neighbors to the north; a Soil Erosion and Sedimentation Control Plan; and a Fugitive Dust Emission Control and Contingency Plan. Other protective measures may include a gravel mat along the truck route leaving the property and/or other measures to minimize tracking of dirt and potentially impacted soil from the property. Protective measures will be outlined in the HASPs, as detailed in Section 3.1.1.3. Once developed, the HASPs will be made available to the City and the EGLE.

During soil excavation and removal activities the truck routes will be as follows:

Site Arrival

- The trucks will initially use the entrance ramps on M-59 at the Adams Road interchange.
- The trucks will proceed north on Adams Road to Hamlin Road.
- Turn right (east) on Hamlin Road to enter the subject property. All trucks will be staged on subject property while waiting to be loaded or completion of shipping papers.

Site Departure

- The trucks leave the site onto Hamlin Road and proceed west toward Adams.
- The trucks will turn left (south) onto Adams Road and proceed to the M-59 interchange.
- The trucks will access M-59 from Adams Road and procedure to their destination.

3.1.1.11 Dewatering

In the event that groundwater is encountered, or if surface runoff accumulates, in sufficient quantities to require dewatering, the water will be containerized in frac tanks. Once containerized, the water will be sampled to determine whether or not disposal is necessary or if the water can be discharged to the

POTW under a permit. In the event that water is encountered in a quantity that is too large to containerize, alternate methods for direct dewatering and disposal will be evaluated.

3.1.2 Preparation of Brownfield Plan and Act 381 Work Plan

As previously noted, AKT Peerless prepared a Brownfield Plan and EGLE approved Act 381 Work Plan for the subject property in accordance with all applicable EGLE guidance. Developer anticipates incurring costs to assist with the tracking and reporting of incurred eligible costs. Taking into account the increases and decreases in costs from the 381 Work Plan including, but not limited to, the increase in costs for contaminated soil removal, disposal and replacement and the increase in costs for the cut-off wall, this Act 381 Work Plan Amendment increases the amount of eligible activities, to be reimbursed with school and local taxes, by $1,282,591.

3.2 Local-Only Eligible Activities

There are no local-only eligible activities identified.

4.0 Schedule and Costs

The following sections present the proposed schedule to complete the Project and the associated costs.

4.1 Schedule of Activities

Project activities began in 2018 following the Rochester Hills Brownfield Redevelopment Authority, the City Council, and EGLE approvals. In December of 2018, remediation activities on the western parcel were completed. Construction of the residential development is anticipated to be complete within approximately 1 year of all remediation across the subject property. It is anticipated that limited remedial activities of installing the slurry wall and cover system will be conducted on the eastern parcel during construction of the residential development in 2021. Remedial activities on the eastern parcel began in 2019 and are expected to be completed by mid-2021.

4.2 Estimated Costs

The itemized estimated costs to complete the environmental eligible activities including all labor, equipment, subcontractors, and materials under this Act 381 Work Plan are provided in Sections 4.2.1 below and in the attached Table 1. Actual interest associated with the eligible activities not to exceed 5% to address the true cost of conducting the eligible activities associated with the development of this subject property is also included.

4.2.1 Description of EGLE Eligible Activities Costs

The estimated cost for the activities plus contingency, fees, and interest described in this section is $14,201,575. The Developer desires to be reimbursed for the costs of eligible activities. Individual costs associated with these activities are provided in the table below. See Table 1 for further details.

4.2.2 Contingency

A 15% contingency factor has been included to accommodate for unexpected conditions that may be encountered during the performance of installation of the slurry wall, installation of the liner and cap over former landfill, import clean fill for land balancing, implementation of O&M Plan for 24 years, and project management throughout the duration of eligible activities.

EGLE Eligible Activities

Eligible Activity	Total Est. Cost
Department Specific Activities	
Phase I ESA	$5,450
Baseline Environmental Assessment	$10,577
Supplemental Subsurface Investigation	$93,983
Project Management, Admin., and Consulting	$81,135
Health & Safety Plan	$3,088
Parcel A & B – Soil/Waste Removal	
Excavation, Transportation & Disposal	$3,002,474
Backfill	$1,974,595
Laboratory Costs and Verification Sampling	$214,892
Environmental Management/Oversight	$636,267
Parcel A / B – Removal & Disposal of PCB Soil	$61,950
O & M Plan – Parcel B	$720,000
Import Clean Fill for Land Balancing	$150,000
Installation of Slurry Wall 20'-43'	$1,171,159
Installation of Liner and Cap over former Landfill	$680,510
Temporary Site Control and Erosion Control	$138,200
Dewatering	$149,407
Closeout Reporting & DDCC	$45,000
NFA Due Care Plan	$44,731
Subtotal of Environmental Eligible Activities	**$9,183,418**
Contingency (A 15% contingency factor has been included to accommodate unexpected conditions that may be encountered during redevelopment)	$376,169
Brownfield Plan & Act 381 Work Plan Prep and Compliance	$60,000
Subtotal	**$9,619,587**
Interest	$4,581,988
Total EGLE Reimbursable Costs	**$14,201,575**

5.0 Project Costs and Funding

The following subsections present the total estimated Project costs and the source and uses of funds.

5.1 Total Estimated Project Costs

The total costs of the non-environmental eligible activities under this Act 381 Work Plan are provided in Table 1. The Developer anticipates making an investment of up to $50 million in real and personal property improvements on the subject property.

5.2 Sources and Uses of Funds

The Developer anticipates investment of approximately $50 million in real property improvements on the subject property including acquisition of the land. Redevelopment of the subject property is expected to subsequently generate material increases in taxable value and result in incremental taxable value beginning in 2019. The initial taxable value for the brownfield plan will be the subject property's 2017 assessment, because the 2017 taxable value was on the rolls when brownfield plan received final approval in early 2018, prior to spring equalization. Tax increment revenue will be utilized to reimburse the cost of eligible activities. Table 2 provides an estimate of tax increment revenue. The Developer will finance all eligible activities under this Act 381 Work Plan related to improvements on the subject property.

6.0 Limitations

The taxable value on real property is estimated to increase at a rate of 2.1% each year (refer to Table 2).

The incremental tax revenue estimates for the proposed development could vary from this estimate affecting the time period it takes to reimburse the eligible activities. The cost estimates included within this Act 381 Work Plan are just that—estimates—and the actual costs incurred may vary depending on site conditions. If in fact the eligible activity costs exceed the estimated amount for reimbursement, the Developer and the Authority may submit an amended Brownfield Plan and Act 381 Work Plan. Please reference the Brownfield Plan in Appendix A for additional information.

All reimbursements authorized under this Act 381 Work Plan Amendment #1 shall be governed by the Reimbursement Agreement. The inclusion of eligible activities and estimates of costs to be reimbursed in this Act 381 Work Plan Amendment #1 are intended to authorize the Authority to fund such reimbursements and does not obligate the Authority or the County to fund any reimbursement or to enter into the Reimbursement Agreement providing for the reimbursement of any costs for which tax increment revenues may be captured under this Act 381 Work Plan Amendment #1, or which are permitted to be reimbursed under this Act 381 Work Plan Amendment #1. The amount and source of any tax increment revenues that will be used for purposes authorized by this Act 381 Work Plan Amendment #1, and the terms and conditions for such use and upon any reimbursement of the expenses permitted by the Act 381 Work Plan Amendment #1, will be provided solely under the Reimbursement Agreement contemplated by this Act 381 Work Plan Amendment #1.

Figures

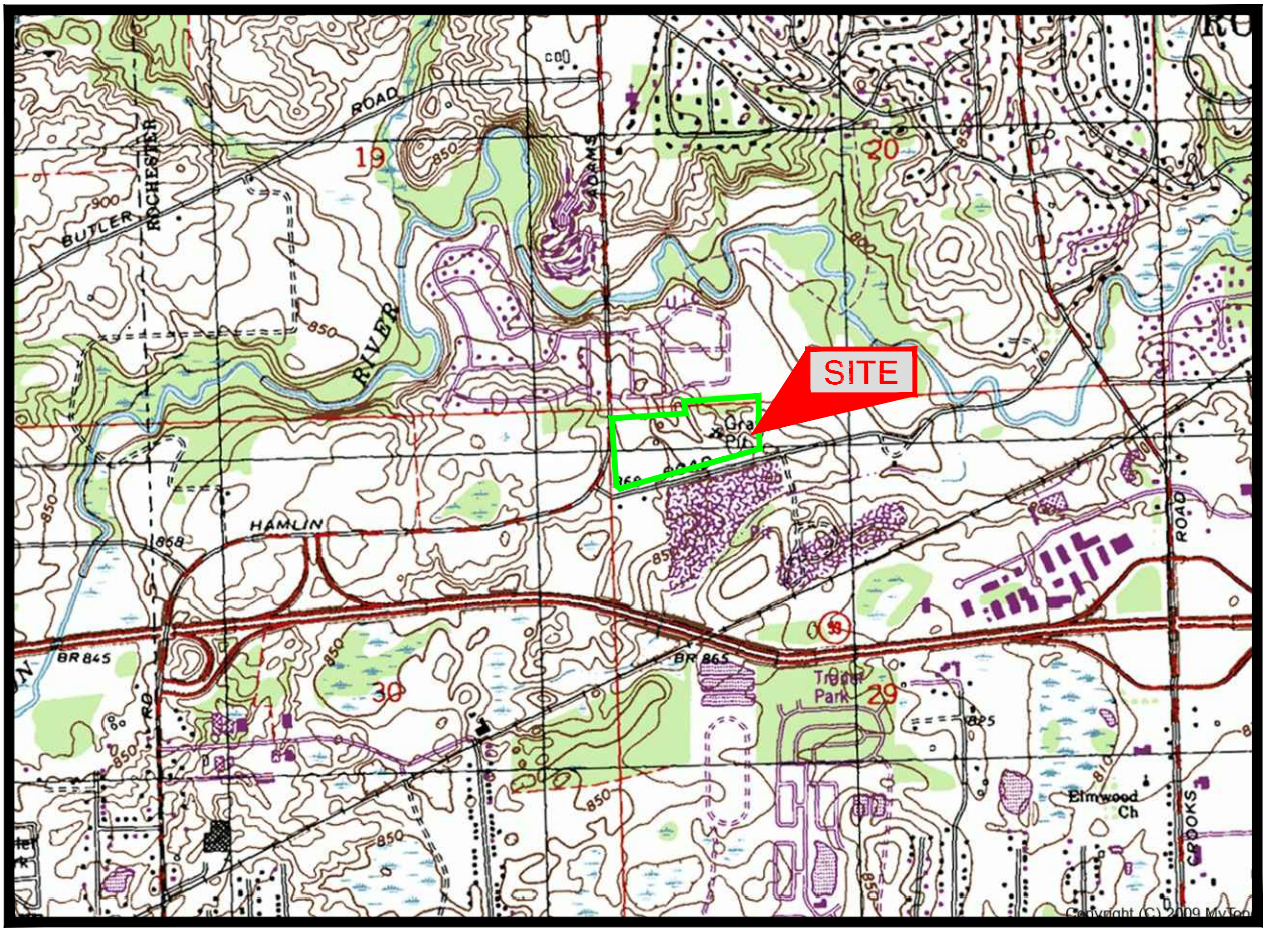
Figure 1

Scaled Property Location Map

ROCHESTER QUADRANGLE

MICHIGAN - OAKLAND COUNTY

7.5 MINUTE SERIES (TOPOGRAPHIC)



T.3 N.-R.11 E.

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 0 1 KILOMETER

MICHIGAN
QUADRANGLE LOCATION

IMAGE TAKEN FROM 1997 U.S.G.S. TOPOGRAPHIC MAP

AKTPEERLESS

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SCALED PROPERTY LOCATION MAP

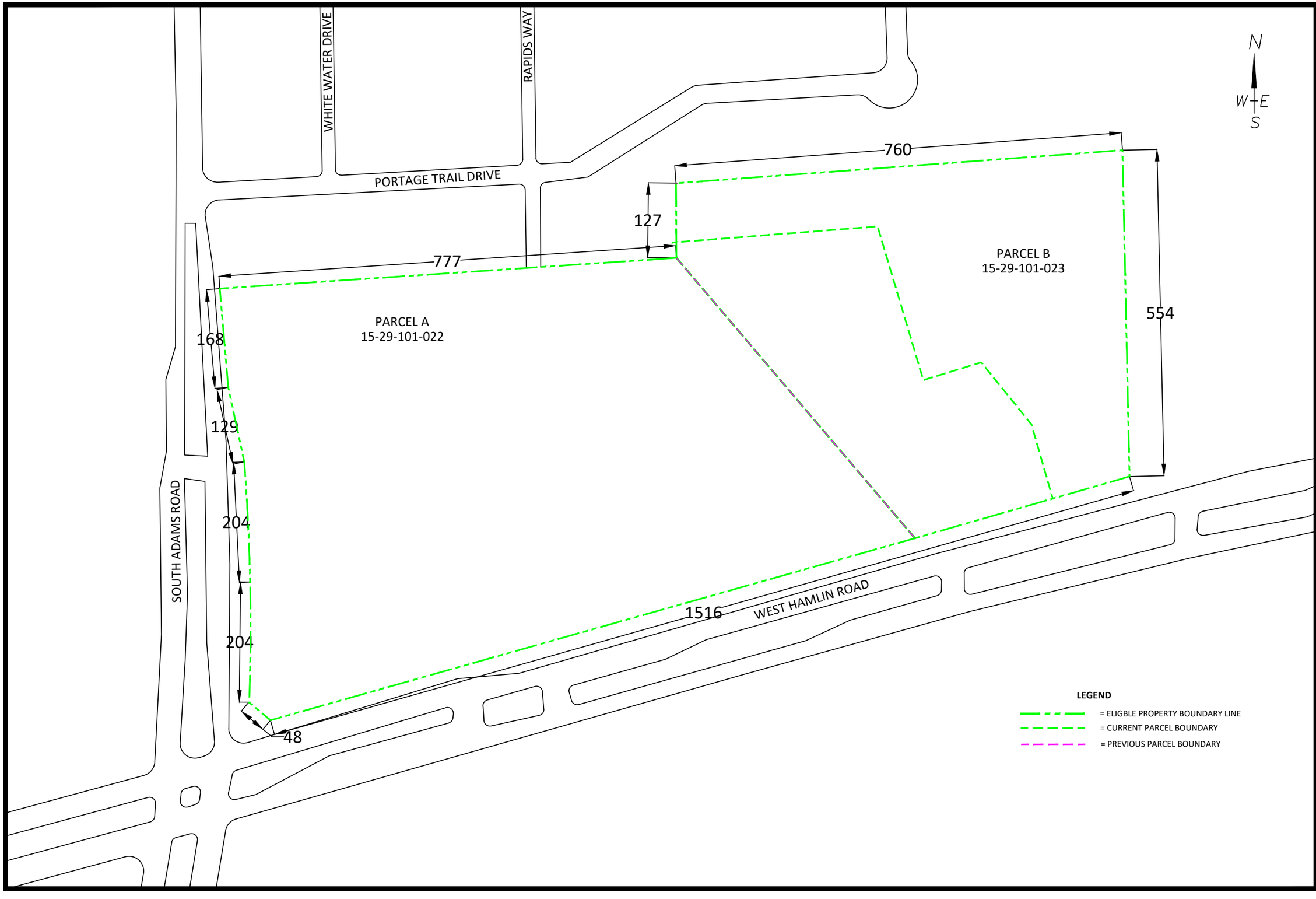
PARCEL 15-29-101-022 AND 15-29-101-023
NE CORNER OF HAMLIN & ADAMS ROADS
ROCHESTER HILLS, MICHIGAN
PROJECT NUMBER: 3679F6-27-25

DRAWN BY: MST
DATE: 11/23/2020

FIGURE 1

Figure 2

Eligible Property Boundary Map



DRAWN BY: MST
DATE: 11/23/2020

0 75 150
SCALE: 1" = 150'

FIGURE 2

ELIGBLE PROPERTY BOUNDARY MAP

PARCEL 15-29-101-022 AND 15-29-101-023
NE CORNER OF HAMLIN & ADAMS ROADS
ROCHESTER HILLS, MICHIGAN
PROJECT NUMBER: 3679F6-27-25

AKTPEERLESS
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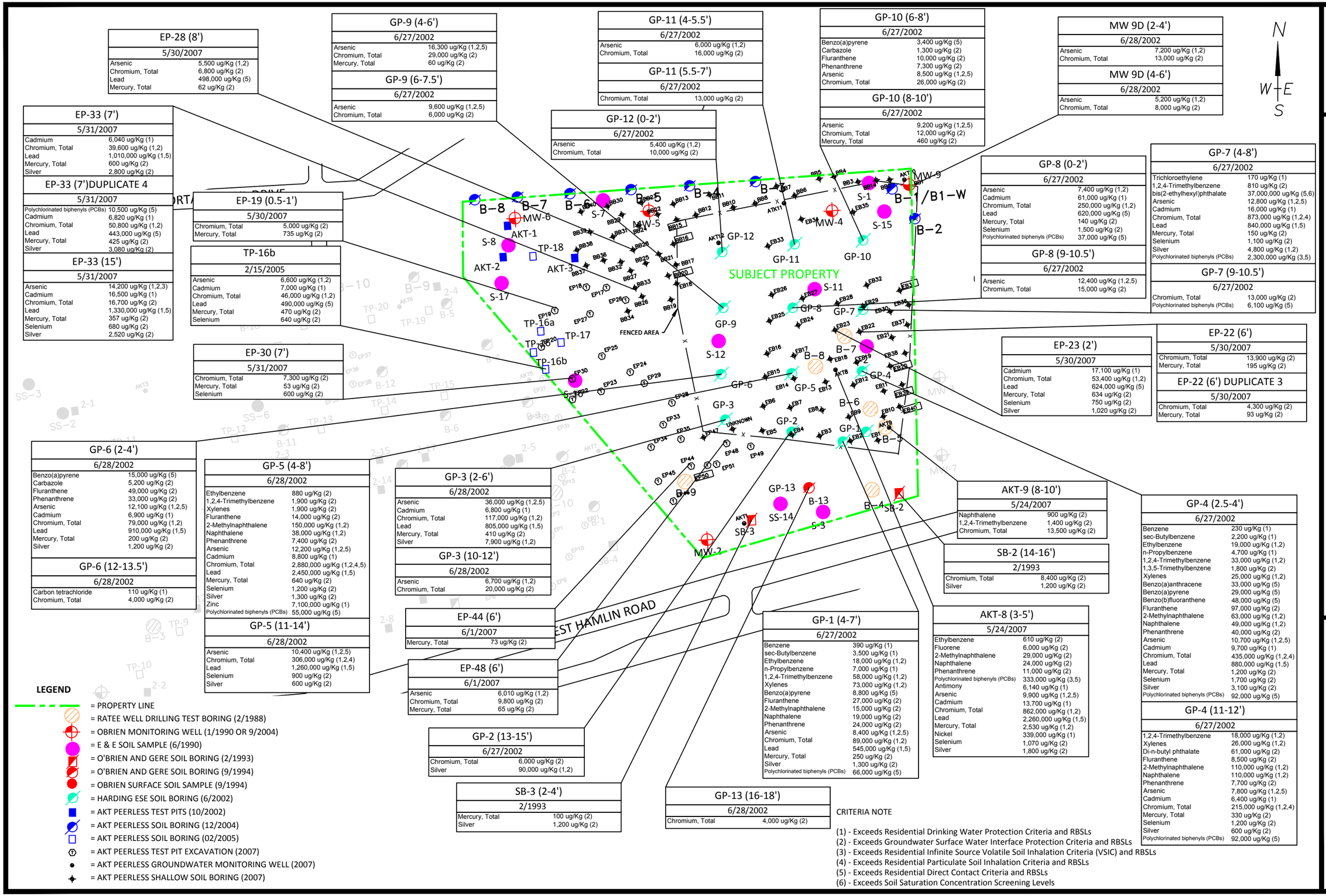
Figure 3

Property Maps with Soil Analytical Results



EP-28 (8')	
5/30/2007	
Arsenic	5,500 ug/Kg (1,2)
Chromium, Total	6,800 ug/Kg (2)
Lead	498,000 ug/Kg (5)
Mercury, Total	62 ug/Kg (2)

EP-33 (7')	
5/31/2007	
Cadmium	6,040 ug/Kg (1)
Chromium, Total	39,600 ug/Kg (1,2)
Lead	1,010,000 ug/Kg (1,5)
Mercury, Total	600 ug/Kg (2)
Silver	2,800 ug/Kg (2)

EP-33 (7')DUPLICATE 4	
5/31/2007	
Polychlorinated biphenyls (PCBs)	10,500 ug/Kg (5)
Cadmium	6,820 ug/Kg (1)
Chromium, Total	50,800 ug/Kg (1,2)
Lead	443,000 ug/Kg (5)
Mercury, Total	425 ug/Kg (2)
Silver	3,080 ug/Kg (2)

EP-33 (15')	
5/31/2007	
Arsenic	14,200 ug/Kg (1,2,3)
Cadmium	16,500 ug/Kg (1)
Chromium, Total	16,700 ug/Kg (2)
Lead	1,330,000 ug/Kg (1,5)
Mercury, Total	357 ug/Kg (2)
Selenium	680 ug/Kg (2)
Silver	2,520 ug/Kg (2)

EP-19 (0.5-1')	
5/30/2007	
Chromium, Total	5,000 ug/Kg (2)
Mercury, Total	735 ug/Kg (2)

TP-16b	
2/15/2005	
Arsenic	6,600 ug/Kg (1,2)
Cadmium	7,000 ug/Kg (1)
Chromium, Total	46,000 ug/Kg (1,2)
Lead	490,000 ug/Kg (5)
Mercury, Total	470 ug/Kg (2)
Selenium	640 ug/Kg (2)

EP-30 (7')	
5/31/2007	
Chromium, Total	7,300 ug/Kg (2)
Mercury, Total	53 ug/Kg (2)
Selenium	600 ug/Kg (2)

GP-6 (2-4')	
6/28/2002	
Benzo(a)pyrene	15,000 ug/Kg (5)
Carbazole	5,200 ug/Kg (2)
Fluranthene	49,000 ug/Kg (2)
Phenanthrene	33,000 ug/Kg (2)
Arsenic	12,100 ug/Kg (1,2,5)
Cadmium	6,900 ug/Kg (1)
Chromium, Total	79,000 ug/Kg (1,2)
Lead	910,000 ug/Kg (1,5)
Mercury, Total	200 ug/Kg (2)
Silver	1,200 ug/Kg (2)

GP-6 (12-13.5')	
6/28/2002	
Carbon tetrachloride	110 ug/Kg (1)
Chromium, Total	4,000 ug/Kg (2)

GP-5 (4-8')	
6/28/2002	
Ethylbenzene	880 ug/Kg (2)
1,2,4-Trimethylbenzene	1,900 ug/Kg (2)
Xylenes	1,900 ug/Kg (2)
Fluranthene	14,000 ug/Kg (2)
2-Methylnaphthalene	150,000 ug/Kg (1,2)
Naphthalene	38,000 ug/Kg (1,2)
Phenanthrene	7,400 ug/Kg (2)
Arsenic	12,200 ug/Kg (1,2,5)
Cadmium	8,800 ug/Kg (1)
Chromium, Total	2,880,000 ug/Kg (1,2,4,5)
Lead	2,450,000 ug/Kg (1,5)
Mercury, Total	640 ug/Kg (2)
Selenium	1,200 ug/Kg (2)
Silver	1,300 ug/Kg (2)
Zinc	7,100,000 ug/Kg (1)
Polychlorinated biphenyls (PCBs)	55,000 ug/Kg (5)

GP-5 (11-14')	
6/28/2002	
Arsenic	10,400 ug/Kg (1,2,5)
Chromium, Total	306,000 ug/Kg (1,2,4)
Lead	1,260,000 ug/Kg (1,5)
Selenium	900 ug/Kg (2)
Silver	600 ug/Kg (2)

GP-9 (4-6')	
6/27/2002	
Arsenic	16,300 ug/Kg (1,2,5)
Chromium, Total	29,000 ug/Kg (2)
Mercury, Total	60 ug/Kg (2)

GP-9 (6-7.5')	
6/27/2002	
Arsenic	9,600 ug/Kg (1,2,5)
Chromium, Total	6,000 ug/Kg (2)

GP-12 (0-2')	
6/27/2002	
Arsenic	5,400 ug/Kg (1,2)
Chromium, Total	10,000 ug/Kg (2)

GP-11 (4-5.5')	
6/27/2002	
Arsenic	6,000 ug/Kg (1,2)
Chromium, Total	16,000 ug/Kg (2)

GP-11 (5.5-7')	
6/27/2002	
Chromium, Total	13,000 ug/Kg (2)

GP-10 (6-8')	
6/27/2002	
Benzo(a)pyrene	3,400 ug/Kg (5)
Carbazole	1,300 ug/Kg (2)
Fluranthene	10,000 ug/Kg (2)
Phenanthrene	7,300 ug/Kg (2)
Arsenic	8,500 ug/Kg (1,2,5)
Chromium, Total	26,000 ug/Kg (2)

GP-10 (8-10')	
6/27/2002	
Arsenic	9,200 ug/Kg (1,2,5)
Chromium, Total	12,000 ug/Kg (2)
Mercury, Total	460 ug/Kg (2)

MW 9D (2-4')	
6/28/2002	
Arsenic	7,200 ug/Kg (1,2)
Chromium, Total	13,000 ug/Kg (2)

MW 9D (4-6')	
6/28/2002	
Arsenic	5,200 ug/Kg (1,2)
Chromium, Total	8,000 ug/Kg (2)

GP-8 (0-2')	
6/27/2002	
Arsenic	7,400 ug/Kg (1,2)
Cadmium	61,000 ug/Kg (1)
Chromium, Total	250,000 ug/Kg (1,2)
Lead	620,000 ug/Kg (5)
Mercury, Total	140 ug/Kg (2)
Selenium	1,500 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	37,000 ug/Kg (5)

GP-8 (9-10.5')	
6/27/2002	
Arsenic	12,400 ug/Kg (1,2,5)
Chromium, Total	15,000 ug/Kg (2)

GP-7 (4-8')	
6/27/2002	
Trichloroethylene	170 ug/Kg (1)
1,2,4-Trimethylbenzene	810 ug/Kg (2)
bis(2-ethylhexyl)phthalate	37,000,000 ug/Kg (5,6)
Arsenic	12,800 ug/Kg (1,2,5)
Cadmium	16,000 ug/Kg (1)
Chromium, Total	873,000 ug/Kg (1,2,4)
Lead	840,000 ug/Kg (1,5)
Mercury, Total	150 ug/Kg (2)
Selenium	1,100 ug/Kg (2)
Silver	4,800 ug/Kg (1,2)
Polychlorinated biphenyls (PCBs)	2,300,000 ug/Kg (3,5)

GP-7 (9-10.5')	
6/27/2002	
Chromium, Total	13,000 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	6,100 ug/Kg (5)

EP-23 (2')	
5/30/2007	
Cadmium	17,100 ug/Kg (1)
Chromium, Total	53,400 ug/Kg (1,2)
Lead	624,000 ug/Kg (5)
Mercury, Total	634 ug/Kg (2)
Selenium	750 ug/Kg (2)
Silver	1,020 ug/Kg (2)

EP-22 (6')	
5/30/2007	
Chromium, Total	13,900 ug/Kg (2)
Mercury, Total	195 ug/Kg (2)

EP-22 (6') DUPLICATE 3	
5/30/2007	
Chromium, Total	4,300 ug/Kg (2)
Mercury, Total	93 ug/Kg (2)

GP-3 (2-6')	
6/28/2002	
Arsenic	36,000 ug/Kg (1,2,5)
Cadmium	6,800 ug/Kg (1)
Chromium, Total	117,000 ug/Kg (1,2)
Lead	805,000 ug/Kg (1,5)
Mercury, Total	410 ug/Kg (2)
Silver	7,900 ug/Kg (1,2)

GP-3 (10-12')	
6/28/2002	
Arsenic	6,700 ug/Kg (1,2)
Chromium, Total	20,000 ug/Kg (2)

EP-44 (6')	
6/1/2007	
Mercury, Total	73 ug/Kg (2)

EP-48 (6')	
6/1/2007	
Arsenic	6,010 ug/Kg (1,2)
Chromium, Total	9,800 ug/Kg (2)
Mercury, Total	65 ug/Kg (2)

GP-2 (13-15')	
6/27/2002	
Chromium, Total	6,000 ug/Kg (2)
Silver	90,000 ug/Kg (1,2)

SB-3 (2-4')	
2/1993	
Mercury, Total	100 ug/Kg (2)
Silver	1,200 ug/Kg (2)

GP-13 (16-18')	
6/28/2002	
Chromium, Total	4,000 ug/Kg (2)

GP-1 (4-7')	
6/27/2002	
Benzene	390 ug/Kg (1)
sec-Butylbenzene	3,500 ug/Kg (1)
Ethylbenzene	18,000 ug/Kg (1,2)
n-Propylbenzene	7,000 ug/Kg (1)
1,2,4-Trimethylbenzene	58,000 ug/Kg (1,2)
Xylenes	73,000 ug/Kg (1,2)
Benzo(a)pyrene	8,800 ug/Kg (5)
Fluranthene	27,000 ug/Kg (2)
2-Methylnaphthalene	15,000 ug/Kg (2)
Naphthalene	19,000 ug/Kg (2)
Phenanthrene	24,000 ug/Kg (2)
Arsenic	8,400 ug/Kg (1,2,5)
Chromium, Total	89,000 ug/Kg (1,2)
Lead	545,000 ug/Kg (1,5)
Mercury, Total	250 ug/Kg (2)
Silver	1,300 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	66,000 ug/Kg (5)

AKT-9 (8-10')	
5/24/2007	
Naphthalene	900 ug/Kg (2)
1,2,4-Trimethylbenzene	1,400 ug/Kg (2)
Chromium, Total	13,500 ug/Kg (2)

SB-2 (14-16')	
2/1993	
Chromium, Total	8,400 ug/Kg (2)
Silver	1,200 ug/Kg (2)

AKT-8 (3-5')	
5/24/2007	
Ethylbenzene	610 ug/Kg (2)
Fluorene	6,000 ug/Kg (2)
2-Methylnaphthalene	29,000 ug/Kg (2)
Naphthalene	24,000 ug/Kg (2)
Phenanthrene	11,000 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	333,000 ug/Kg (3,5)
Antimony	6,140 ug/Kg (1)
Arsenic	9,900 ug/Kg (1,2,5)
Cadmium	13,700 ug/Kg (1)
Chromium, Total	862,000 ug/Kg (1,2)
Lead	2,260,000 ug/Kg (1,5)
Mercury, Total	2,530 ug/Kg (1,2)
Nickel	339,000 ug/Kg (1)
Selenium	1,070 ug/Kg (2)
Silver	1,800 ug/Kg (2)

GP-4 (2.5-4')	
6/27/2002	
Benzene	230 ug/Kg (1)
sec-Butylbenzene	2,200 ug/Kg (1)
Ethylbenzene	19,000 ug/Kg (1,2)
n-Propylbenzene	4,700 ug/Kg (1)
1,2,4-Trimethylbenzene	33,000 ug/Kg (1,2)
1,3,5-Trimethylbenzene	1,800 ug/Kg (2)
Xylenes	25,000 ug/Kg (1,2)
Benzo(a)anthracene	33,000 ug/Kg (5)
Benzo(a)pyrene	29,000 ug/Kg (5)
Benzo(b)fluoranthene	48,000 ug/Kg (5)
Fluranthene	97,000 ug/Kg (2)
2-Methylnaphthalene	63,000 ug/Kg (1,2)
Naphthalene	49,000 ug/Kg (1,2)
Phenanthrene	40,000 ug/Kg (2)
Arsenic	10,700 ug/Kg (1,2,5)
Cadmium	9,700 ug/Kg (1)
Chromium, Total	435,000 ug/Kg (1,2,4)
Lead	880,000 ug/Kg (1,5)
Mercury, Total	1,200 ug/Kg (2)
Selenium	1,700 ug/Kg (2)
Silver	3,100 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	92,000 ug/Kg (5)

GP-4 (11-12')	
6/27/2002	
1,2,4-Trimethylbenzene	18,000 ug/Kg (1,2)
Xylenes	26,000 ug/Kg (1,2)
Di-n-butyl phthalate	61,000 ug/Kg (2)
Fluranthene	8,500 ug/Kg (2)
2-Methylnaphthalene	110,000 ug/Kg (1,2)
Naphthalene	110,000 ug/Kg (1,2)
Phenanthrene	7,700 ug/Kg (2)
Arsenic	7,800 ug/Kg (1,2,5)
Cadmium	6,400 ug/Kg (1)
Chromium, Total	215,000 ug/Kg (1,2,4)
Mercury, Total	330 ug/Kg (2)
Selenium	1,200 ug/Kg (2)
Silver	600 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	92,000 ug/Kg (5)

LEGEND

- = PROPERTY LINE
- = RATEE WELL DRILLING TEST BORING (2/1988)
- = OBRIEN MONITORING WELL (1/1990 OR 9/2004)
- = E & E SOIL SAMPLE (6/1990)
- = O'BRIEN AND GERE SOIL BORING (2/1993)
- = O'BRIEN AND GERE SOIL BORING (9/1994)
- = OBRIEN SURFACE SOIL SAMPLE (9/1994)
- = HARDING ESE SOIL BORING (6/2002)
- = AKT PEERLESS TEST PITS (10/2002)
- = AKT PEERLESS SOIL BORING (12/2004)
- = AKT PEERLESS SOIL BORING (02/2005)
- = AKT PEERLESS TEST PIT EXCAVATION (2007)
- = AKT PEERLESS GROUNDWATER MONITORING WELL (2007)
- = AKT PEERLESS SHALLOW SOIL BORING (2007)

CRITERIA NOTE

(1) - Exceeds Residential Drinking Water Protection Criteria and RBSLs
(2) - Exceeds Groundwater Surface Water Interface Protection Criteria and RBSLs
(3) - Exceeds Residential Infinite Source Volatile Soil Inhalation Criteria (VSIC) and RBSLs
(4) - Exceeds Residential Particulate Soil Inhalation Criteria and RBSLs
(5) - Exceeds Residential Direct Contact Criteria and RBSLs
(6) - Exceeds Soil Saturation Concentration Screening Levels

DRAWN BY: OGO
DATE: 01/05/2017

0 75 150
SCALE: 1" = 150'

FIGURE 3A

SITE MAP WITH SOIL RESULTS EXCEEDING MDEQ RCC

PARCEL 15-29-101-023
NE CORNER OF HAMLIN & ADAMS ROADS
ROCHESTER HILLS, MICHIGAN
PROJECT NUMBER : 3679F6-3-26

AKTPEERLESS
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(5) - Exceeds Residential Direct Contact Criteria and RBSLs
(6) - Exceeds Soil Saturation Concentration Screening Levels

EB-28 (1-3')	
5/24/2007	
Polychlorinated biphenyls (PCBs)	150,000 ug/Kg (5)

EB-28 (3-5')	
5/24/2007	
Polychlorinated biphenyls (PCBs)	31,000 ug/Kg (5)

EB-28 (8-10')	
5/24/2007	
Fluoranthene	10,000 ug/Kg (2)
2-Methylnaphthalene	30,000 ug/Kg (2)
Naphthalene	30,000 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	16,000 ug/Kg (5)

EB-29 (1-3')	
5/24/2007	
Benzo(a)pyrene	9,700 ug/Kg (5)
Fluoranthene	17,100 ug/Kg (2)
Phenanthrene	8,700 ug/Kg (2)

EB-29 (3-5')	
5/24/2007	
Polychlorinated biphenyls (PCBs)	40,000 ug/Kg (5)

EB-29 (8-9')	
5/24/2007	
Polychlorinated biphenyls (PCBs)	6,000 ug/Kg (5)

EB-21 (3-5')	
5/23/2007	
Polychlorinated biphenyls (PCBs)	172,000 ug/Kg (5)

EB-21 (8-10')	
5/23/2007	
sec-Butylbenzene	8,000 ug/Kg (1)
Ethylbenzene	18,000 ug/Kg (1,2)
Isopropyl benzene	12,000 ug/Kg (2)
Naphthalene	60,000 ug/Kg (1,2)
n-Propylbenzene	23,000 ug/Kg (1)
1,2,4-Trimethylbenzene	117,000 ug/Kg (1,2,5,6)
1,3,5-Trimethylbenzene	27,000 ug/Kg (1,2)
Xylenes	191,000 ug/Kg (1,2,6)
2-Methylnaphthalene	52,000 ug/Kg (2)
Benzo(a)pyrene	4,000 ug/Kg (5)
Fluranthene	8,000 ug/Kg (5)
Polychlorinated biphenyls (PCBs)	83,000 ug/Kg (5)

EB-32 (1-3')	
5/24/2007	
Benzo(a)pyrene	5,500 ug/Kg (5)
Fluoranthene	7,400 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	29,000 ug/Kg (5)

EB-35 (1-3')	
5/25/2007	
Benzo(a)pyrene	3,600 ug/Kg (5)
Phenanthrene	2,700 ug/Kg (2)

EB-31 (1-3')	
5/24/2007	
Polychlorinated biphenyls (PCBs)	5,400 ug/Kg (5)

EB-31 (3-5')	
5/24/2007	
Benzo(a)pyrene	2,300 ug/Kg (5)
Polychlorinated biphenyls (PCBs)	32,000 ug/Kg (5)

EB-31 (7-9')	
5/24/2007	
Benzo(a)pyrene	3,000 ug/Kg (5)

EB-30 (1-3')	
5/24/2007	
sec-Butylbenzene	7,000 ug/Kg (1)
Ethylbenzene	111,000 ug/Kg (1,2,3)
n-Propylbenzene	40,000 ug/Kg (1)
1,2,4-Trimethylbenzene	140,000 ug/Kg (1,2,5,6)
1,3,5-Trimethylbenzene	30,000 ug/Kg (1,2)
Xylenes	330,000 ug/Kg (1,2,6)
Benzo(a)pyrene	8,000 ug/Kg (5)
Fluoranthene	15,600 ug/Kg (2)
2-Methylnaphthalene	12,100 ug/Kg (2)
Naphthalene	13,800 ug/Kg (2)
Phenanthrene	10,800 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	68,000 ug/Kg (5)

DUPLICATE 4 EB-30 (1-3')	
5/24/2007	
sec-Butylbenzene	10,000 ug/Kg (1)
Ethylbenzene	122,000 ug/Kg (1,2,3)
Isopropyl benzene	20,000 ug/Kg (2)
Naphthalene	30,000 ug/Kg (2)
n-Propylbenzene	47,000 ug/Kg (1)
1,2,4-Trimethylbenzene	175,000 ug/Kg (1,2,5,6)
1,3,5-Trimethylbenzene	48,000 ug/Kg (1,2)
Xylenes	332,000 ug/Kg (1,2,6)
Benzo(a)pyrene	3,600 ug/Kg (5)
Fluoranthene	9,900 ug/Kg (2)
2-Methylnaphthalene	22,500 ug/Kg (2)
Phenanthrene	10,400 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	284,000 ug/Kg (5)

EB-30 (3-5')	
5/24/2007	
Polychlorinated biphenyls (PCBs)	97,000 ug/Kg (5)

EB-38 (1-3')	
5/25/2007	
Polychlorinated biphenyls (PCBs)	89,000 ug/Kg (5)

EB-38 (3-5')	
5/25/2007	
sec-Butylbenzene	14,000 ug/Kg (1)
Ethylbenzene	71,000 ug/Kg (1,2)
Isopropyl benzene	20,000 ug/Kg (2)
n-Propylbenzene	29,000 ug/Kg (1)
Toluene	9,000 ug/Kg (2)
1,2,4-Trimethylbenzene	168,000 ug/Kg (1,2,5,6)
Xylenes	79,000 ug/Kg (1,2)
Di-n-butyl phthalate	48,000 ug/Kg (2)
Flurranthene	8,000 ug/Kg (2)
2-Methylnaphthalene	388,000 ug/Kg (1,2)
Naphthalene	246,000 ug/Kg (1,2)
Polychlorinated biphenyls (PCBs)	56,000 ug/Kg (5)

EB-38 (8-10')	
5/25/2007	
Polychlorinated biphenyls (PCBs)	20,000 ug/Kg (5)

EB-20 (1-3')	
5/23/2007	
Polychlorinated biphenyls (PCBs)	37,000 ug/Kg (5)

EB-20 (3-5')	
5/23/2007	
Polychlorinated biphenyls (PCBs)	74,000 ug/Kg (5)

EB-20 (5-7')	
5/23/2007	
Benzo(a)anthracene	21,000 ug/Kg (5)
Benzo(a)pyrene	17,000 ug/Kg (5)
Flurranthene	53,000 ug/Kg (2)
Fluorene	6,000 ug/Kg (2)
2-Methylnaphthalene	149,000 ug/Kg (1,2)
Naphthalene	126,000 ug/Kg (1,2)
Phenanthrene	44,000 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	110,000 ug/Kg (5)

EB-36 (3-5')	
5/25/2007	
Polychlorinated biphenyls (PCBs)	82,000 ug/Kg (5)

EB-37 (3-5')	
5/25/2007	
Polychlorinated biphenyls (PCBs)	14,000 ug/Kg (5)

EB-39 (1-3')	
5/25/2007	
Polychlorinated biphenyls (PCBs)	25,000 ug/Kg (5)

EB-39 (3-5')	
5/25/2007	
Benzo(a)pyrene	4,000 ug/Kg (5)
Fluranthene	7,000 ug/Kg (2)
Naphthalene	2,000 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	113,000 ug/Kg (5)

EB-23 (3-5')	
5/24/2007	
Benzene	800 ug/Kg (1)
sec-Butylbenzene	5,400 ug/Kg (1)
Ethylbenzene	46,900 ug/Kg (1,2)
Isopropyl benzene	8,000 ug/Kg (2)
Naphthalene	82,000 ug/Kg (1,2)
n-Propylbenzene	17,000 ug/Kg (1)
1,2,4-Trimethylbenzene	66,000 ug/Kg (1,2)
1,3,5-Trimethylbenzene	19,000 ug/Kg (1,2)
Xylenes	159,500 ug/Kg (1,2,6)
Benzo(a)pyrene	3,000 ug/Kg (5)
Fluoranthene	6,000 ug/Kg (2)
2-Methylnaphthalene	82,000 ug/Kg (1,2)
Phenanthrene	4,000 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	149,000 ug/Kg (5)

EB-23 (5-7')	
5/24/2007	
Polychlorinated biphenyls (PCBs)	119,000 ug/Kg (5)

EB-23 (7-9')	
5/24/2007	
Polychlorinated biphenyls (PCBs)	99,000 ug/Kg (5)

EB-27 (1-3')	
5/24/2007	
Benzo(a)pyrene	10,200 ug/Kg (2)
Fluoranthene	20,500 ug/Kg (2)
Phenanthrene	14,100 ug/Kg (2)

EB-26 (1-3')	
5/24/2007	
Benzo(a)pyrene	4,600 ug/Kg (2)
Fluoranthene	8,400 ug/Kg (2)
Phenanthrene	3,200 ug/Kg (2)

EB-25 (3-4')	
5/24/2007	
Benzo(a)pyrene	9,100 ug/Kg (2)
Fluoranthene	16,700 ug/Kg (2)
Phenanthrene	9,200 ug/Kg (2)

EB-24 (8-10')	
5/24/2007	
Benzo(a)pyrene	3,900 ug/Kg (2)
Fluoranthene	6,700 ug/Kg (2)
2-Methylnaphthalene	6,100 ug/Kg (2)
Phenanthrene	3,100 ug/Kg (2)

EB-22 (3-5')	
5/24/2007	
Polychlorinated biphenyls (PCBs)	94,000 ug/Kg (5)

EB-22 (6-8')	
5/24/2007	
sec-Butylbenzene	9,000 ug/Kg (1)
Ethylbenzene	230,000 ug/Kg (1,2,3,6)
Isopropyl benzene	20,000 ug/Kg (2)
Naphthalene	130,000 ug/Kg (1,2)
n-Propylbenzene	39,000 ug/Kg (1)
1,2,4-Trimethylbenzene	142,000 ug/Kg (1,2,5,6)
1,3,5-Trimethylbenzene	41,000 ug/Kg (1,2)
Xylenes	1,033,000 ug/Kg (1,2,6)
2-Methylnaphthalene	130,000 ug/Kg (1,2)
Phenanthrene	5,600 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	51,000 ug/Kg (5)

EB-22 (10-12')	
5/24/2007	
Polychlorinated biphenyls (PCBs)	7,000 ug/Kg (5)

EB-18 (3-5')	
5/23/2007	
Benzo(a)pyrene	6,000 ug/Kg (5)
Fluoranthene	13,400 ug/Kg (2)
2-Methylnaphthalene	4,700 ug/Kg (2)
Naphthalene	2,700 ug/Kg (2)
Phenanthrene	3,700 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	4,300 ug/Kg (5)

EB-10 (11-13')	
5/23/2007	
Polychlorinated biphenyls (PCBs)	104,000 ug/Kg (5)

EB-19 (4-5')	
5/23/2007	
sec-Butylbenzene	10,000 ug/Kg (1)
Ethylbenzene	38,000 ug/Kg (1,2)
Isopropyl benzene	7,000 ug/Kg (2)
Naphthalene	55,000 ug/Kg (1,2)
n-Propylbenzene	13,000 ug/Kg (1)
1,2,4-Trimethylbenzene	91,000 ug/Kg (1,2)
1,3,5-Trimethylbenzene	54,000 ug/Kg (1,2)
Xylenes	179,000 ug/Kg (1,2,6)
2-Methylnaphthalene	68,000 ug/Kg (1,2)
Benzo(a)pyrene	11,000 ug/Kg (5)
Fluranthene	39,000 ug/Kg (2)
Phenanthrene	20,000 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	203,000 ug/Kg (5)

EB-19 (5-7')	
5/23/2007	
Polychlorinated biphenyls (PCBs)	197,000 ug/Kg (5)

EB-19 (8-10')	
5/23/2007	
Polychlorinated biphenyls (PCBs)	34,000 ug/Kg (5)

EB-13 (3-5')	
5/23/2007	
Polychlorinated biphenyls (PCBs)	6,600 ug/Kg (5)

EB-13 (8-10')	
5/23/2007	
Polychlorinated biphenyls (PCBs)	13,700 ug/Kg (5)

EB-13 (13-15')	
5/23/2007	
sec-Butylbenzene	4,000 ug/Kg (1)
Ethylbenzene	53,000 ug/Kg (1,2)
n-Propylbenzene	11,000 ug/Kg (1)
Toluene	56,000 ug/Kg (1,2)
1,2,4-Trimethylbenzene	43,000 ug/Kg (1,2)
1,3,5-Trimethylbenzene	10,000 ug/Kg (1,2)
Xylenes	250,000 ug/Kg (1,2,6)
Naphthalene	1,300 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	5,000 ug/Kg (5)

DUPLICATE 3 EB-13 (13-15')	
5/23/2007	
n-Butylbenzene	11,000 ug/Kg (1)
sec-Butylbenzene	6,000 ug/Kg (1)
Ethylbenzene	61,000 ug/Kg (1,2)
n-Propylbenzene	15,000 ug/Kg (1)
Toluene	76,000 ug/Kg (1,2)
1,2,4-Trimethylbenzene	59,000 ug/Kg (1,2)
1,3,5-Trimethylbenzene	13,000 ug/Kg (1,2)
Xylenes	289,000 ug/Kg (1,2,6)
Benzo(a)pyrene	2,200 ug/Kg (5)
Naphthalene	1,500 ug/Kg (2)
Phenanthrene	2,900 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	14,000 ug/Kg (5)

EB-7 (1-3')	
5/22/2007	
Benzo(a)pyrene	2,400 ug/Kg (5)

EB-12 (8-10')	
5/22/2007	
sec-Butylbenzene	50,000 ug/Kg (1)
Ethylbenzene	590,000 ug/Kg (1,2,3,6)
Isopropyl benzene	70,000 ug/Kg (2)
Naphthalene	400,000 ug/Kg (1,2,3,4)
n-Propylbenzene	110,000 ug/Kg (1)
Toluene	400,000 ug/Kg (1,2,3,6)
1,2,4-Trimethylbenzene	760,000 ug/Kg (1,2,5,6)
1,3,5-Trimethylbenzene	280,000 ug/Kg (1,2,6)
Xylenes	2,070,000 ug/Kg (1,2,6)
2-Methylnaphthalene	280,000 ug/Kg (1,2)
Polychlorinated biphenyls (PCBs)	23,000 ug/Kg (5)

EB-12 (10-11')	
5/22/2007	
Di-n-butyl phthalate	7,200 ug/Kg (5)
2-Methylnaphthalene	7,200 ug/Kg (5)
Naphthalene	7,200 ug/Kg (5)
Polychlorinated biphenyls (PCBs)	7,200 ug/Kg (5)

EB-9 (8-10')	
5/22/2007	
n-Butylbenzene	10,000 ug/Kg (1)
sec-Butylbenzene	3,500 ug/Kg (1)
Ethylbenzene	21,500 ug/Kg (1,2)
Naphthalene	11,000 ug/Kg (2)
n-Propylbenzene	7,000 ug/Kg (1)
1,2,4-Trimethylbenzene	41,000 ug/Kg (1,2)
1,3,5-Trimethylbenzene	11,000 ug/Kg (1,2)
Xylenes	66,200 ug/Kg (1,2)
2-Methylnaphthalene	6,000 ug/Kg (2)

EB-10 (10-12')	
5/22/2007	
Polychlorinated biphenyls (PCBs)	10,400 ug/Kg (5)

DUPLICATE 2 EB-10 (10-12')	
5/22/2007	
Naphthalene	800 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	50,000 ug/Kg (5)

EB-1 (3-5')	
5/21/2007	
Cadmium	14,900 ug/Kg (1)
Chromium, Total	82,800 ug/Kg (1,2)
Lead	695,000 ug/Kg (5)
Mercury, Total	394 ug/Kg (2)
Selenium	1,110 ug/Kg (2)

EB-40 (1-3')	
5/25/2007	
Polychlorinated biphenyls (PCBs)	9,000 ug/Kg (5)

EB-40 (3-5')	
5/25/2007	
Benzo(a)pyrene	4,800 ug/Kg (5)
Fluranthene	9,600 ug/Kg (2)
Naphthalene	1,100 ug/Kg (2)
Phenanthrene	2,700 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	67,000 ug/Kg (5)

DUPLICATE 5 EB-40 (3-5')	
5/25/2007	
Benzo(a)pyrene	5,600 ug/Kg (5)
Fluranthene	10,600 ug/Kg (2)
Naphthalene	1,300 ug/Kg (2)
Phenanthrene	2,700 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	159,000 ug/Kg (5)

EB-40 (8-10')	
5/25/2007	
Polychlorinated biphenyls (PCBs)	4,700 ug/Kg (5)

EB-11 (1-3')	
5/22/2007	
Polychlorinated biphenyls (PCBs)	7,200 ug/Kg (5)

EB-11 (8-10')	
5/22/2007	
Polychlorinated biphenyls (PCBs)	20,000 ug/Kg (5)

EB-11 (10-12')	
5/22/2007	
sec-Butylbenzene	5,200 ug/Kg (1)
Ethylbenzene	26,000 ug/Kg (1,2)
Isopropyl benzene	5,000 ug/Kg (2)
Naphthalene	77,000 ug/Kg (1,2)
n-Propylbenzene	11,000 ug/Kg (1)
1,2,4-Trimethylbenzene	60,000 ug/Kg (1,2)
1,3,5-Trimethylbenzene	14,000 ug/Kg (1,2)
Xylenes	96,300 ug/Kg (1,2)
2-Methylnaphthalene	76,000 ug/Kg (1,2)
Benzo(a)pyrene	3,800 ug/Kg (5)
Fluoranthene	10,000 ug/Kg (2)
Phenanthrene	9,000 ug/Kg (1,2)
Polychlorinated biphenyls (PCBs)	45,000 ug/Kg (5)

LEGEND

- = PROPERTY LINE
- = RATEE WELL DRILLING TEST BORING (2/1988)
- = OBRIEN MONITORING WELL (1/1990 OR 9/2004)
- = E & E SOIL SAMPLE (6/1990)
- = O'BRIEN AND GERE SOIL BORING (2/1993)
- = O'BRIEN AND GERE SOIL BORING (9/1994)
- = OBRIEN SURFACE SOIL SAMPLE (9/1994)
- = HARDING ESE SOIL BORING (6/2002)
- = AKT PEERLESS TEST PITS (10/2002)
- = AKT PEERLESS SOIL BORING (12/2004)
- = AKT PEERLESS SOIL BORING (02/2005)
- = AKT PEERLESS TEST PIT EXCAVATION (2007)
- = AKT PEERLESS GROUNDWATER MONITORING WELL (2007)
- = AKT PEERLESS SHALLOW SOIL BORING (2007)

DRAWN BY: OGO
DATE: 01/05/2017

0 75 150
SCALE: 1" = 150'

FIGURE 3B

SITE MAP WITH SOIL RESULTS EXCEEDING MDEQ RCC (AKT PEERLESS' 2007 INVESTIGATION - AREA B)

PARCEL 15-29-101-023
NE CORNER OF HAMLIN & ADAMS ROADS
ROCHESTER HILLS, MICHIGAN
PROJECT NUMBER : 3679F6-3-26

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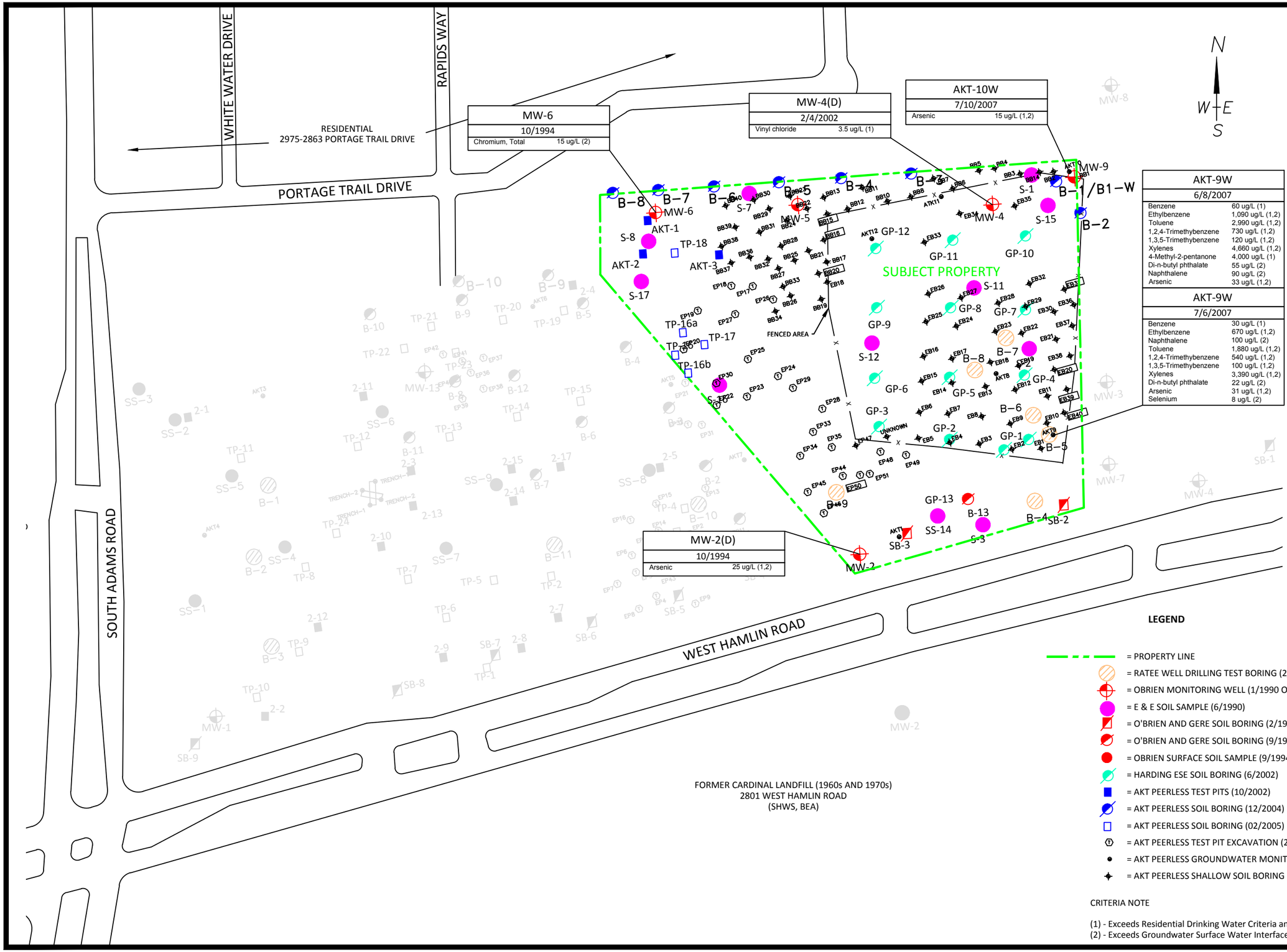
Figure 4

Property Maps with Groundwater Analytical Results



DRAWN BY: OGO
DATE: 01/05/2017

0 75 150
SCALE: 1" = 150'

FIGURE 4

SITE MAP WITH GROUNDWATER RESULTS EXCEEDING MDEQ RCC

PARCEL 15-29-101-023
NE CORNER OF HAMLIN & ADAMS ROADS
ROCHESTER HILLS, MICHIGAN
PROJECT NUMBER : 3679F6-3-26

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SITE MAP WITH GROUNDWATER RESULTS EXCEEDING MDEQ RCC

PARCEL 15-29-101-022
NE CORNER OF HAMLIN & ADAMS ROADS
ROCHESTER HILLS, MICHIGAN
PROJECT NUMBER : 3679F6-3-26

DRAWN BY: OGO
DATE: 01/05/2017

0 75 150
SCALE: 1" = 150'

FIGURE 4

N
W E
S

MW-13D	
10/1994	
Arsenic	13 ug/L (1,2)

AKT-5W	
6/8/2007	
Lead	12 ug/L (1)
7/6/2007	
Arsenic	21 ug/L (1,2)
Chromium, Total	18 ug/L (2)
Lead	42 ug/L (1)

RESIDENTIAL
2975-2863 PORTAGE TRAIL DRIVE

WHITE WATER DRIVE

RAPIDS WAY

PORTAGE TRAIL DRIVE

SUBJECT PROPERTY

UNDEVELOPED LAND

FENCED AREA

QUAIL RIDGE SUBDIVISION
2007-2049 MAPLE RIDGE ROAD

SOUTH ADAMS ROAD

WEST HAMLIN ROAD

FORMER CARDINAL LANDFILL (1960s AND 1970s)
2801 WEST HAMLIN ROAD
(SHWS, BEA)

LEGEND

- = PROPERTY LINE
- = RATEE WELL DRILLING TEST BORING (2/1988)
- = O'BRIEN MONITORING WELL (1/1990 OR 9/2004)
- = E & E SOIL SAMPLE (6/1990)
- = O'BRIEN AND GERE SOIL BORING (2/1993)
- = O'BRIEN AND GERE SOIL BORING (9/1994)
- = O'BRIEN SURFACE SOIL SAMPLE (9/1994)
- = O'BRIEN TEST PIT (1994)
- = O'BRIEN TRENCH (1994)
- = AKT PEERLESS TEST PITS (10/2002)
- = AKT PEERLESS SOIL BORING (12/2004)
- = AKT PEERLESS SOIL BORING (02/2005)
- = TEST PIT EXCAVATION (2007)
- = GROUNDWATER MONITORING WELL (2007)

CRITERIA NOTE

(1) - Exceeds Residential Drinking Water Criteria and RBSLs
(2) - Exceeds Groundwater Surface Water Interface Criteria and RBSLs

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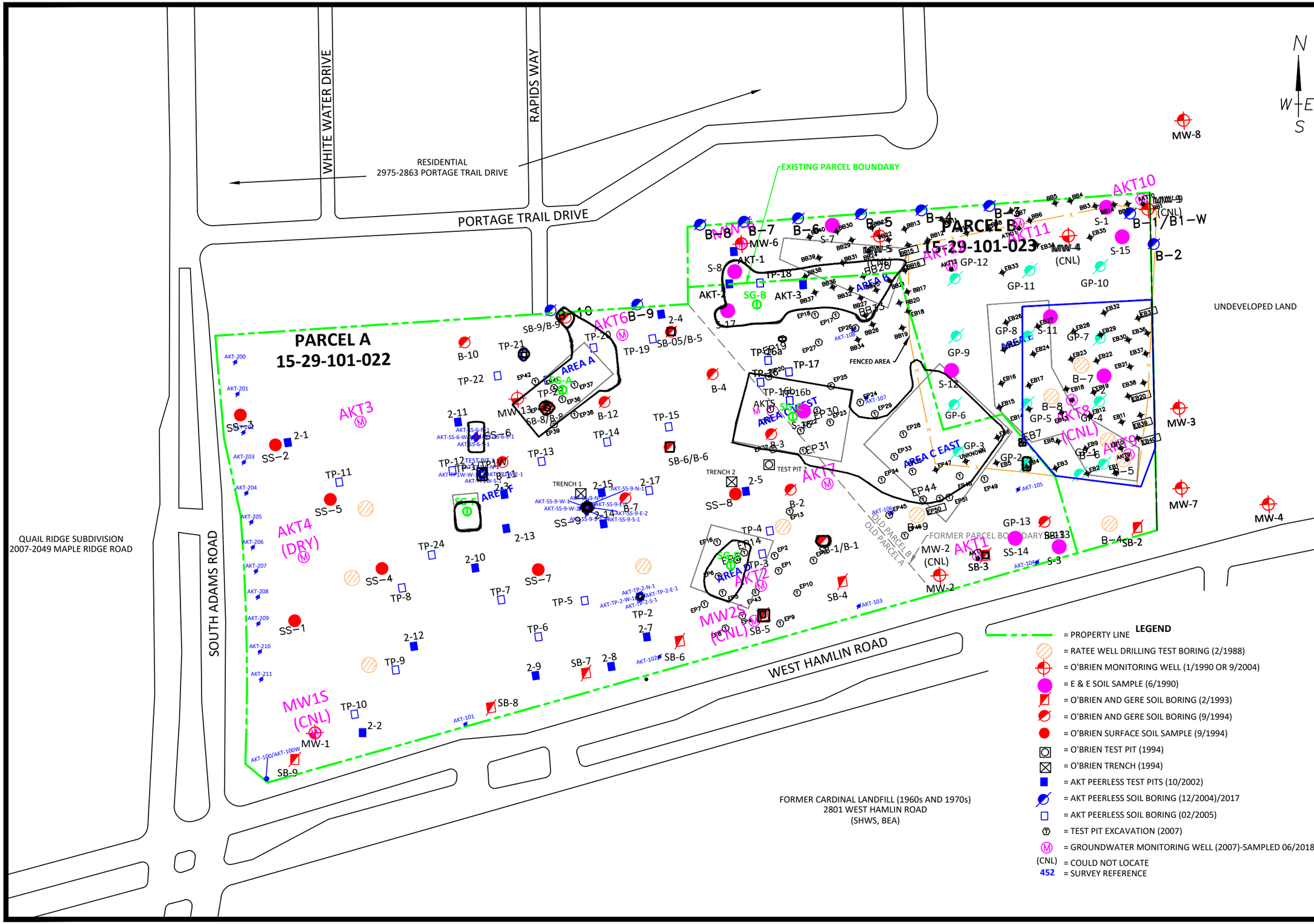
Figure 5

Locations for Soil Remediation and Engineering Controls



DRAWN BY: OGO/ARR
DATE: 02/07/2019

0 75 150
SCALE: 1" = 150'

FIGURE 6

SITE MAP WITH SOIL BORING/MONITORING WELL AND SOIL GAS SAMPLING LOCATIONS

PARCEL 15-29-101-022 AND 15-29-101-023
NE CORNER OF HAMLIN & ADAMS ROADS
ROCHESTER HILLS, MICHIGAN
PROJECT NUMBER : 3679F6-15-20

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Figure 6

Site Plan

NOTE:
ALL PEDESTRIAN PATHWAYS TO MEET ADA STANDARDS EXCEPT WHERE NOTED

NOTE:
ALL SIGNS MUST MEET THE REQUIREMENTS OF THE CITY AND BE APPROVED UNDER SEPARATE PERMITS ISSUED BY THE BUILDING DEPARTMENT.

FLOOD PLAIN:
BY GRAPHICAL PLOTTING, THE SITE IS WITHIN ZONE 'X', AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOOD PLAIN PER FLOOD INSURANCE RATE MAPS NUMBER 26125C–0389F & 26125C–0393F, DATED SEPTEMBER 29, 2006.

RETAINING WALL NOTE:
FOR LANDSCAPE BLOCK RETAINING WALLS NORTH OF BUILDINGS 1, 2, 3, AND 4, CONTRACTOR TO SUBMIT SHOP DRAWING FOR APPROVAL

GRAPHIC SCALE
−60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.

SITE DATA TABLE:

LAND AREA:

PARCEL #15–29–101–023:
NET = 4.83 ACRES

PARCEL #15–29–101–022:
NET = 17.67 ACRES

TOTAL ACREAGE = 22.50 ACRES (NET)

ZONING INFO:
EXISTING: R–2 WITH CONSENT JUDGEMENT
PROPOSED: RM–1 WITH MODIFIED CONSENT JUDGEMENT

PROPOSED BUILDING AREA:

MULTI–FAMILY RESIDENTIAL = 359 UNITS
MAX. PROPOSED DENSITY=359 UNITS/22.5 ACRES
=16 UNITS/ACRE

PARKING REQUIRED:

1 TO 2 BEDROOM UNITS:
1.5 SPACES PER DWELLING UNIT + 0.2 VISITOR SPACES/UNIT
= (1.5*288) + (0.2*288) = 490 SPACES

3 BEDROOM UNITS:
2 SPACES PER DWELLING UNIT + 0.25 VISITOR SPACES/UNIT
= (2*71) + (0.25*71) = 160 SPACES

TOTAL REQUIRED SPACES = 650 SPACES

PARKING PROVIDED:
504 SURFACE SPACES
100 ATTACHED GARAGE SPACES
106 UNDERGROUND PARKING
= 710 TOTAL PARKING SPACES

ADA CALCULATIONS:
SURFACE + GARAGE SPACES = 605 SPACES
5 + (605*2%) = 17 SPACES REQUIRED
21 SPACES PROVIDED

UNDERGROUND SPACES = 108 SPACES
2 + (106*3.33%) = 6 SPACES REQUIRED
6 SPACES PROVIDED

FRONT YARD OCCUPIED BY PARKING:
MAX ALLOWED = 50%

HAMLIN FRONT YARD = 73,182 S.F.
HAMLIN FRONT YARD PARKING = 17,220 S.F.
(17,220)/(73,182) = 23.5%

ADAMS FRONT YARD = 34,317 S.F.
ADAMS FRONT YARD PARKING = 1,278 S.F.
(1,278)/(34,317) = 3.7%

BUILDING SETBACKS:

	PROPOSED:
FRONT (HAMLIN)	50' MIN.
FRONT (ADAMS)	50' MIN.
SIDE (EAST)	35' MIN.
REAR (NORTH)	100' MIN.

PARKING SETBACKS:

	PROPOSED:
FRONT (HAMLIN)	20' MIN.
FRONT (ADAMS)	30' MIN.
SIDE (EAST)	20' MIN.
REAR (NORTH)	100' MIN.

AMENITY AREAS:
REQUIRED = 5% OF DEVELOPMENT ACREAGE
= 22.5 ACRES * 0.05 = 1.12 ACRES

PROPOSED:
PLAYGROUND = 5,000 SF
DOG PARK = 5,000 SF
POOL AMENITY = 12,700 SF
WATER FEATURE/WALKWAY = 53,450 SF
TOTAL = 66,150 SF (1.52 ACRES)

LOCATION MAP – NOT TO SCALE

PAVING ALTERNATE:

CONTRACTOR TO PROVIDE ALTERNATE PRICING FOR STANDARD–DUTY/HEAVY–DUTY CONCRETE IN LIEU OF STANDARD–DUTY/HEAVY–DUTY ASPHALT PAVING SECTION PER SHEET C–10.0.

LEGEND

IRON FOUND	BRASS PLUG SET
IRON SET	MONUMENT FOUND
NAIL FOUND	MONUMENT SET
NAIL & CAP SET	SEC. CORNER FOUND
	R RECORDED
	M MEASURED
	C CALCULATED

EXISTING / PROPOSED

OH–ELEC–W–O	ELEC., PHONE OR CABLE TV O/H. LINE, POLE & GUY WIRE
UG–CATV	UNDERGROUND CABLE TV, CATV PEDESTAL
UG–PHONE	TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE
UG–ELEC	ELECTRIC U.G. CABLE, MANHOLE, METER & HANDHOLE
	GAS MAIN, VALVE & GAS LINE MARKER
	WATERMAIN, HYD., GATE VALVE, TAPPING SLEEVE & VALVE
	SANITARY SEWER, CLEANOUT & MANHOLE
	STORM SEWER, CLEANOUT & MANHOLE
	COMBINED SEWER & MANHOLE
	SQUARE, ROUND & BEEHIVE CATCH BASIN, YARD DRAIN
	POST INDICATOR VALVE
	WATER VALVE BOX/HYDRANT VALVE BOX, SERVICE SHUTOFF
M T T	MAILBOX, TRANSFORMER, IRRIGATION CONTROL VALVE
	UNIDENTIFIED STRUCTURE
816.06	SPOT ELEVATION
670	CONTOUR LINE
	FENCE
	GUARD RAIL
	STREET LIGHT
	SIGN
CONC.	CONCRETE
ASPH.	ASPHALT
GRAVEL	GRAVEL SHOULDER
	WETLAND

671.21

STAMPED STD DUTY | HEAVY DUTY | R.O.W. ONLY
STD DUTY | HEAVY DUTY | DEEP STRENGTH

XREF: S:\PROJECTS\2017\2017037\DWG\17037–TOPOBASE.DWG
XREF: S:\PROJECTS\2017\2017037\DWG\CONSTRUCTION\X–BASE–17037.DWG
XREF: S:\PROJECTS\2017\2017037\DWG\CONSTRUCTION\X–TLBC–17037.DWG

CITY FILE #17-043
SECTION 29

NO.	BY	DESCRIPTION	DATE
10	ESB	BUILDINGS 1-7 GRADING	11/13/20
9	RLS	BULLETIN 4	07/22/20
8	RLS	BULLETIN 3	11/20/19
7	ESB	BULLETIN 2	11/12/19
6	ESB	BULLETIN 1	09/13/19
5	ESB	ISSUED FOR CONSTRUCTION	08/15/19
4	JRW	REVISED PER CITY COMMENTS	07/15/19
3	ESB	REVISED PER OCWRC COMMENTS	06/04/19
2	JRW	REVISED PER OCWRC COMMENTS	06/04/19
1	JRW	REVISED PER CITY COMMENTS	05/31/19

REVISIONS

CAUTION!!
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.

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GOLDBERG COMPANIES, INC.
25101 CHAGRIN BOULEVARD
BEACHWOOD, OHIO 44122

OVERALL SITE PLAN AND DATA TABLE
LEGACY ROCHESTER HILLS
PART OF THE WEST 1/2 OF THE NORTHWEST 1/4, SECTION 29, T03N, R11E
CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN

DES.	EB	DN.	JKS	SUR.	KTR	P.M.	RLS

S:\PROJECTS\2017\2017-037-HAMLIN, ADAMS - RLS\Dwg\Construction\C-3.0_SM-17037.dwg

ORIGINAL ISSUE DATE:
MARCH 18, 2019

PEA JOB NO. 2017-037

SCALE: 1" = 60'

DRAWING NUMBER:
C-3.0

Legacy Rochester Hills Conceptual Landscape Plan

Rochester Hills, Michigan

January, 2019

GCI

LEGACY | ROCHESTER HILLS APARTMENTS

PEA, Inc.
7927 Nemco Way, Ste 115
Brighton, MI 48116
t: 517.546.8583
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Tables

Table 1. Eligible Activities
Legacy Rochester Hills
Rochester Hills, MI
AKT Peerless Project No. 3679F6
As of March 8, 2021

ELIGIBLE ACTIVITIES COST SUMMARY	Estimated Cost of Eligible Activity
	Current
Department Specific Activities	**$ 9,183,418**
15% Contingency on Eligible Activities	$ 376,169
Brownfield Plan & Act 381 WP Preparation Activities	**$ 60,000**
Total Eligible Activities Cost with 15% Contingency	**$ 9,619,587**
Interest (calculated at 5%, simple)	**$ 4,581,988**
Total Eligible Activities Cost, with Contingency & Interest	**$ 14,201,575**
BRA Administration Fee	**$ 240,000**
State Revolving Fund	**$ 1,214,897**
Local Brownfield Revolving Fund (LBRF)	**$ 2,014,823**
Total Eligible Costs for Reimbursement	**$ 17,671,295**

ELIGIBLE ACTIVITIES COST DETAIL	# of Units	Unit Type	Cost/ Unit	Est. Total Cost
Department Specific Activities				
Phase I	2	LS	$ 2,725	$ 5,450
BEA	2	LS	$ 5,288	$ 10,577
Supplemental Subsurface Investigation	1	LS	$ 93,983	$ 93,983
Project Management, Adminsitration, and Consulting Support	1	LS	$ 81,135	$ 81,135
HASP	1	LS	$ 3,088	$ 3,088
Parcel A & B - Soil/Waste Removal				
Excavation, Transportation & Disposal	76,504	YD	$ 39	$ 3,002,474
Backfill	90,750	YD	$ 22	$ 1,974,595
Laboratory Costs and Verification Sampling	1	LS	$ 214,892	$ 214,892
Environmental Management/Oversight	1	LS	$ 636,267	$ 636,267
Parcel A / B - Removal and Disposal of PCB Impacted Soils	1	LS	$ 61,950	$ 61,950
O&M Plan - Parcel B	24	Yr	$ 30,000	$ 720,000
Import Clean Fill for Land Balancing	9,000	TON	$ 17	$ 150,000
Installation Slurry Wall 20'-43'	1	LS	$ 1,171,159	$ 1,171,159
Installation of Liner and Cap over former landfill	1	LS	$ 680,510	$ 680,510
Temporary Site Control & Erosion Control	1	LS	$ 138,200	$ 138,200
Dewatering	1	LS	$ 149,407	$ 149,407
Closeout Reporting (East Parcel) & Documentation of Due Care Compliance	1	LS	$ 45,000	$ 45,000
NFA Due Care Plan	1	LS	$ 44,731	$ 44,731
subtotal				**$ 9,183,418**
Brownfield Plan & Act 381 Work Plan Preparation				
BRA Application Fee and Administration Fee				
Brownfield Plan	1	LS	$ 15,000	$ 15,000
Act 381 Work Plan	1	LS	$ 15,000	$ 15,000
Cost Tracking & Compliance	1	LS	$ 30,000	$ 30,000
subtotal				**$ 60,000**

AKT PEERLESS ENVIRONMENTAL SERVICES

Table 2. Tax Increment Revenue Estimates

Legacy Rochester Hills

Rochester Hills, MI

AKT Peerless Project No. 3679F6

As of March 8, 2021

	Estimated TV Increase rate:	1.02																						
	Plan Year	1		2		3		4		5		6		7		8		9		10		11		12	
	Calendar Year	2019		2020		2021		2022		2023		2024		2025		2026		2027		2028		2029		2030	
	Initial Taxable Value	$	37,440	$	37,440	$	37,440	$	37,440	$	37,440	$	37,440	$	37,440	$	37,440	$	37,440	$	37,440	$	37,440	$	37,440
Post-Dev TV (30% of Project Investment)	Estimated New TV	$	4,148,110	$	4,226,770	$	9,774,336	$	15,037,440	$	15,338,189	$	15,644,953	$	15,957,852	$	16,277,009	$	16,602,549	$	16,934,600	$	17,273,292	$	17,618,758
	Incremental Difference (New TV - Initial TV)	**$**	**4,110,670**	**$**	**4,189,330**	**$**	**9,736,896**	**$**	**15,000,000**	**$**	**15,300,749**	**$**	**15,607,513**	**$**	**15,920,412**	**$**	**16,239,569**	**$**	**16,565,109**	**$**	**16,897,160**	**$**	**17,235,852**	**$**	**17,581,318**
School Capture	Millage Rate																							
State Education Tax (SET)	6.0000	Initial	$	225	$	225	$	225	$	225	$	225	$	225	$	225	$	225	$	225	$	225	$	225	$	225
		Incremental	$	24,664	$	25,136	$	58,421	$	90,000	$	91,804	$	93,645	$	95,522	$	97,437	$	99,391	$	101,383	$	103,415	$	105,488
School Operating Tax	18.0000	Initial	$	674	$	674	$	674	$	674	$	674	$	674	$	674	$	674	$	674	$	674	$	674	$	674
		Incremental	$	73,992	$	75,408	$	175,264	$	270,000	$	275,413	$	280,935	$	286,567	$	292,312	$	298,172	$	304,149	$	310,245	$	316,464
School Total	**24.0000**																							
Local Capture	Millage Rate																							
OAK COUNTY PARKS	0.3500	Initial	$	9	$	13	$	13	$	13	$	13	$	13	$	13	$	13	$	13	$	13	$	13	$	13
		Incremental	$	957	$	1,466	$	3,408	$	5,250	$	5,355	$	5,463	$	5,572	$	5,684	$	5,798	$	5,914	$	6,033	$	6,153
HURON-CLIN PARK	0.2104	Initial	$	8	$	8	$	8	$	8	$	8	$	8	$	8	$	8	$	8	$	8	$	8	$	8
		Incremental	$	870	$	881	$	2,049	$	3,156	$	3,219	$	3,284	$	3,350	$	3,417	$	3,485	$	3,555	$	3,626	$	3,699
GENERAL FUND	2.6909	Initial	$	100	$	101	$	101	$	101	$	101	$	101	$	101	$	101	$	101	$	101	$	101	$	101
		Incremental	$	10,927	$	11,273	$	26,201	$	40,364	$	41,173	$	41,998	$	42,840	$	43,699	$	44,575	$	45,469	$	46,380	$	47,310
LOCAL STREET	1.0868	Initial	$	41	$	41	$	41	$	41	$	41	$	41	$	41	$	41	$	41	$	41	$	41	$	41
		Incremental	$	4,507	$	4,553	$	10,582	$	16,302	$	16,629	$	16,962	$	17,302	$	17,649	$	18,003	$	18,364	$	18,732	$	19,107
FIRE FUND	2.7000	Initial	$	101	$	101	$	101	$	101	$	101	$	101	$	101	$	101	$	101	$	101	$	101	$	101
		Incremental	$	11,099	$	11,311	$	26,290	$	40,500	$	41,312	$	42,140	$	42,985	$	43,847	$	44,726	$	45,622	$	46,537	$	47,470
SPECIAL POLICE I	1.1552	Initial	$	44	$	43	$	43	$	43	$	43	$	43	$	43	$	43	$	43	$	43	$	43	$	43
		Incremental	$	4,791	$	4,840	$	11,248	$	17,328	$	17,675	$	18,030	$	18,391	$	18,760	$	19,136	$	19,520	$	19,911	$	20,310
SPECIAL POLICE II	1.1891	Initial	$	44	$	45	$	45	$	45	$	45	$	45	$	45	$	45	$	45	$	45	$	45	$	45
		Incremental	$	4,785	$	4,982	$	11,578	$	17,837	$	18,194	$	18,559	$	18,931	$	19,310	$	19,698	$	20,092	$	20,495	$	20,906
PATHWAY	0.1773	Initial	$	7	$	7	$	7	$	7	$	7	$	7	$	7	$	7	$	7	$	7	$	7	$	7
		Incremental	$	735	$	743	$	1,726	$	2,660	$	2,713	$	2,767	$	2,823	$	2,879	$	2,937	$	2,996	$	3,056	$	3,117
RARA OPERATING	0.1861	Initial	$	7	$	7	$	7	$	7	$	7	$	7	$	7	$	7	$	7	$	7	$	7	$	7
		Incremental	$	772	$	780	$	1,812	$	2,792	$	2,847	$	2,905	$	2,963	$	3,022	$	3,083	$	3,145	$	3,208	$	3,272
OPC TRANSPORTION	0.0954	Initial	$	4	$	4	$	4	$	4	$	4	$	4	$	4	$	4	$	4	$	4	$	4	$	4
		Incremental	$	396	$	400	$	929	$	1,431	$	1,460	$	1,489	$	1,519	$	1,549	$	1,580	$	1,612	$	1,644	$	1,677
OPC OPERATING	0.3200	Initial	$	9	$	12	$	12	$	12	$	12	$	12	$	12	$	12	$	12	$	12	$	12	$	12
		Incremental	$	952	$	1,341	$	3,116	$	4,800	$	4,896	$	4,994	$	5,095	$	5,197	$	5,301	$	5,407	$	5,515	$	5,626
LIBRARY OPERATING	0.7478	Initial	$	28	$	28	$	28	$	28	$	28	$	28	$	28	$	28	$	28	$	28	$	28	$	28
		Incremental	$	3,102	$	3,133	$	7,281	$	11,217	$	11,442	$	11,671	$	11,905	$	12,144	$	12,387	$	12,636	$	12,889	$	13,147
OAK COUNTY OPERATING	4.0200	Initial	$	151	$	151	$	151	$	151	$	151	$	151	$	151	$	151	$	151	$	151	$	151	$	151
		Incremental	$	16,607	$	16,841	$	39,142	$	60,300	$	61,509	$	62,742	$	64,000	$	65,283	$	66,592	$	67,927	$	69,288	$	70,677
OAK INT SD-ALLOC	0.1918	Initial	$	7	$	7	$	7	$	7	$	7	$	7	$	7	$	7	$	7	$	7	$	7	$	7
		Incremental	$	795	$	804	$	1,868	$	2,877	$	2,935	$	2,994	$	3,054	$	3,115	$	3,177	$	3,241	$	3,306	$	3,372
OAK INT SD-VTD	3.0362	Initial	$	115	$	114	$	114	$	114	$	114	$	114	$	114	$	114	$	114	$	114	$	114	$	114
		Incremental	$	12,581	$	12,720	$	29,563	$	45,543	$	46,456	$	47,388	$	48,338	$	49,307	$	50,295	$	51,303	$	52,331	$	53,380
OAK COMM COLLEGE	1.5184	Initial	$	57	$	57	$	57	$	57	$	57	$	57	$	57	$	57	$	57	$	57	$	57	$	57
		Incremental	$	6,291	$	6,361	$	14,785	$	22,776	$	23,233	$	23,698	$	24,174	$	24,658	$	25,152	$	25,657	$	26,171	$	26,695
Local Total	**19.6754**																							
Non-Capturable Millages	Millage Rate																							
ZOO AUTHORITY	0.0965	New TV	$	4	$	408	$	943	$	1,451	$	1,480	$	1,510	$	1,540	$	1,571	$	1,602	$	1,634	$	1,667	$	1,700
ART INSTITUTE	0.1913	New TV	$	7	$	809	$	1,870	$	2,877	$	2,934	$	2,993	$	3,053	$	3,114	$	3,176	$	3,240	$	3,304	$	3,370
CH 20 DRAIN DEBT	0.0364	New TV	$	1	$	154	$	356	$	547	$	558	$	569	$	581	$	592	$	604	$	616	$	629	$	641
OPC BUILDING DEBT	0.1660	New TV	$	7	$	702	$	1,623	$	2,496	$	2,546	$	2,597	$	2,649	$	2,702	$	2,756	$	2,811	$	2,867	$	2,925
ROCH SCH SINKING	1.4874	New TV	$	-	$	6,287	$	14,538	$	22,367	$	22,814	$	23,270	$	23,736	$	24,210	$	24,695	$	25,189	$	25,692	$	26,206
ROCH SCH DEBT	3.4800	New TV	$	198	$	14,709	$	34,015	$	52,330	$	53,377	$	54,444	$	55,533	$	56,644	$	57,777	$	58,932	$	60,111	$	61,313
Total Non-Capturable Taxes	**5.4576**																							

Table 2. Tax Increment Revenue Estimates

Legacy Rochester Hills

Rochester Hills, MI

AKT Peerless Project No. 3679F6

As of March 8, 2021

	Estimated TV Increase rate:																							
	Plan Year		13		14		15		16		17		18		19		20		21		22		23		24	
	Calendar Year		2031		2032		2033		2034		2035		2036		2037		2038		2039		2040		2041		2042	
	Initial Taxable Value		$ 37,440		$ 37,440		$ 37,440		$ 37,440		$ 37,440		$ 37,440		$ 37,440		$ 37,440		$ 37,440		$ 37,440		$ 37,440		$ 37,440
Post-Dev TV (30% of Project Investment)	Estimated New TV		$ 17,971,133		$ 18,330,555		$ 18,697,167		$ 19,071,110		$ 19,452,532		$ 19,841,583		$ 20,238,414		$ 20,643,183		$ 21,056,046		$ 21,477,167		$ 21,906,711		$ 22,344,845
	Incremental Difference (New TV - Initial TV)		**$ 17,933,693**		**$ 18,293,115**		**$ 18,659,727**		**$ 19,033,670**		**$ 19,415,092**		**$ 19,804,143**		**$ 20,200,974**		**$ 20,605,743**		**$ 21,018,606**		**$ 21,439,727**		**$ 21,869,271**		**$ 22,307,405**
School Capture	Millage Rate																							
State Education Tax (SET)	6.0000	Initial	$ 225		$ 225		$ 225		$ 225		$ 225		$ 225		$ 225		$ 225		$ 225		$ 225		$ 225		$ 225
		Incremental	$ 107,602		$ 109,759		$ 111,958		$ 114,202		$ 116,491		$ 118,825		$ 121,206		$ 123,634		$ 126,112		$ 128,638		$ 131,216		$ 133,844
School Operating Tax	18.0000	Initial	$ 674		$ 674		$ 674		$ 674		$ 674		$ 674		$ 674		$ 674		$ 674		$ 674		$ 674		$ 674
		Incremental	$ 322,806		$ 329,276		$ 335,875		$ 342,606		$ 349,472		$ 356,475		$ 363,618		$ 370,903		$ 378,335		$ 385,915		$ 393,647		$ 401,533
School Total	**24.0000**																							
Local Capture	Millage Rate																							
OAK COUNTY PARKS	0.3500	Initial	$ 13		$ 13		$ 13		$ 13		$ 13		$ 13		$ 13		$ 13		$ 13		$ 13		$ 13		$ 13
		Incremental	$ 6,277		$ 6,403		$ 6,531		$ 6,662		$ 6,795		$ 6,931		$ 7,070		$ 7,212		$ 7,357		$ 7,504		$ 7,654		$ 7,808
HURON-CLIN PARK	0.2104	Initial	$ 8		$ 8		$ 8		$ 8		$ 8		$ 8		$ 8		$ 8		$ 8		$ 8		$ 8		$ 8
		Incremental	$ 3,773		$ 3,849		$ 3,926		$ 4,005		$ 4,085		$ 4,167		$ 4,250		$ 4,335		$ 4,422		$ 4,511		$ 4,601		$ 4,693
GENERAL FUND	2.6909	Initial	$ 101		$ 101		$ 101		$ 101		$ 101		$ 101		$ 101		$ 101		$ 101		$ 101		$ 101		$ 101
		Incremental	$ 48,258		$ 49,225		$ 50,211		$ 51,218		$ 52,244		$ 53,291		$ 54,359		$ 55,448		$ 56,559		$ 57,692		$ 58,848		$ 60,027
LOCAL STREET	1.0868	Initial	$ 41		$ 41		$ 41		$ 41		$ 41		$ 41		$ 41		$ 41		$ 41		$ 41		$ 41		$ 41
		Incremental	$ 19,490		$ 19,881		$ 20,279		$ 20,686		$ 21,100		$ 21,523		$ 21,954		$ 22,394		$ 22,843		$ 23,301		$ 23,768		$ 24,244
FIRE FUND	2.7000	Initial	$ 101		$ 101		$ 101		$ 101		$ 101		$ 101		$ 101		$ 101		$ 101		$ 101		$ 101		$ 101
		Incremental	$ 48,421		$ 49,391		$ 50,381		$ 51,391		$ 52,421		$ 53,471		$ 54,543		$ 55,636		$ 56,750		$ 57,887		$ 59,047		$ 60,230
SPECIAL POLICE I	1.1552	Initial	$ 43		$ 43		$ 43		$ 43		$ 43		$ 43		$ 43		$ 43		$ 43		$ 43		$ 43		$ 43
		Incremental	$ 20,717		$ 21,132		$ 21,556		$ 21,988		$ 22,428		$ 22,878		$ 23,336		$ 23,804		$ 24,281		$ 24,767		$ 25,263		$ 25,770
SPECIAL POLICE II	1.1891	Initial	$ 45		$ 45		$ 45		$ 45		$ 45		$ 45		$ 45		$ 45		$ 45		$ 45		$ 45		$ 45
		Incremental	$ 21,325		$ 21,752		$ 22,188		$ 22,633		$ 23,086		$ 23,549		$ 24,021		$ 24,502		$ 24,993		$ 25,494		$ 26,005		$ 26,526
PATHWAY	0.1773	Initial	$ 7		$ 7		$ 7		$ 7		$ 7		$ 7		$ 7		$ 7		$ 7		$ 7		$ 7		$ 7
		Incremental	$ 3,180		$ 3,243		$ 3,308		$ 3,375		$ 3,442		$ 3,511		$ 3,582		$ 3,653		$ 3,727		$ 3,801		$ 3,877		$ 3,955
RARA OPERATING	0.1861	Initial	$ 7		$ 7		$ 7		$ 7		$ 7		$ 7		$ 7		$ 7		$ 7		$ 7		$ 7		$ 7	
		Incremental	$ 3,337		$ 3,404		$ 3,473		$ 3,542		$ 3,613		$ 3,686		$ 3,759		$ 3,835		$ 3,912		$ 3,990		$ 4,070		$ 4,151
OPC TRANSPORTION	0.0954	Initial	$ 4		$ 4		$ 4		$ 4		$ 4		$ 4		$ 4		$ 4		$ 4		$ 4		$ 4		$ 4	
		Incremental	$ 1,711		$ 1,745		$ 1,780		$ 1,816		$ 1,852		$ 1,889		$ 1,927		$ 1,966		$ 2,005		$ 2,045		$ 2,086		$ 2,128
OPC OPERATING	0.3200	Initial	$ 12		$ 12		$ 12		$ 12		$ 12		$ 12		$ 12		$ 12		$ 12		$ 12		$ 12		$ 12	
		Incremental	$ 5,739		$ 5,854		$ 5,971		$ 6,091		$ 6,213		$ 6,337		$ 6,464		$ 6,594		$ 6,726		$ 6,861		$ 6,998		$ 7,138
LIBRARY OPERATING	0.7478	Initial	$ 28		$ 28		$ 28		$ 28		$ 28		$ 28		$ 28		$ 28		$ 28		$ 28		$ 28		$ 28	
		Incremental	$ 13,411		$ 13,680		$ 13,954		$ 14,233		$ 14,519		$ 14,810		$ 15,106		$ 15,409		$ 15,718		$ 16,033		$ 16,354		$ 16,681
OAK COUNTY OPERATING	4.0200	Initial	$ 151		$ 151		$ 151		$ 151		$ 151		$ 151		$ 151		$ 151		$ 151		$ 151		$ 151		$ 151	
		Incremental	$ 72,093		$ 73,538		$ 75,012		$ 76,515		$ 78,049		$ 79,613		$ 81,208		$ 82,835		$ 84,495		$ 86,188		$ 87,914		$ 89,676
OAK INT SD-ALLOC	0.1918	Initial	$ 7		$ 7		$ 7		$ 7		$ 7		$ 7		$ 7		$ 7		$ 7		$ 7		$ 7		$ 7	
		Incremental	$ 3,440		$ 3,509		$ 3,579		$ 3,651		$ 3,724		$ 3,798		$ 3,875		$ 3,952		$ 4,031		$ 4,112		$ 4,195		$ 4,279
OAK INT SD-VTD	3.0362	Initial	$ 114		$ 114		$ 114		$ 114		$ 114		$ 114		$ 114		$ 114		$ 114		$ 114		$ 114		$ 114	
		Incremental	$ 54,450		$ 55,542		$ 56,655		$ 57,790		$ 58,948		$ 60,129		$ 61,334		$ 62,563		$ 63,817		$ 65,095		$ 66,399		$ 67,730
OAK COMM COLLEGE	1.5184	Initial	$ 57		$ 57		$ 57		$ 57		$ 57		$ 57		$ 57		$ 57		$ 57		$ 57		$ 57		$ 57	
		Incremental	$ 27,231		$ 27,776		$ 28,333		$ 28,901		$ 29,480		$ 30,071		$ 30,673		$ 31,288		$ 31,915		$ 32,554		$ 33,206		$ 33,872
Local Total	**19.6754**																							
Non-Capturable Millages	Millage Rate																							
ZOO AUTHORITY	0.0965	New TV	$ 1,734		$ 1,769		$ 1,804		$ 1,840		$ 1,877		$ 1,915		$ 1,953		$ 1,992		$ 2,032		$ 2,073		$ 2,114		$ 2,156
ART INSTITUTE	0.1913	New TV	$ 3,438		$ 3,507		$ 3,577		$ 3,648		$ 3,721		$ 3,796		$ 3,872		$ 3,949		$ 4,028		$ 4,109		$ 4,191		$ 4,275
CH 20 DRAIN DEBT	0.0364	New TV	$ 654		$ 667		$ 681		$ 694		$ 708		$ 722		$ 737		$ 751		$ 766		$ 782		$ 797		$ 813
OPC BUILDING DEBT	0.1660	New TV	$ 2,983		$ 3,043		$ 3,104		$ 3,166		$ 3,229		$ 3,294		$ 3,360		$ 3,427		$ 3,495		$ 3,565		$ 3,637		$ 3,709
ROCH SCH SINKING	1.4874	New TV	$ 26,730		$ 27,265		$ 27,810		$ 28,366		$ 28,934		$ 29,512		$ 30,103		$ 30,705		$ 31,319		$ 31,945		$ 32,584		$ 33,236
ROCH SCH DEBT	3.4800	New TV	$ 62,540		$ 63,790		$ 65,066		$ 66,367		$ 67,695		$ 69,049		$ 70,430		$ 71,838		$ 73,275		$ 74,741		$ 76,235		$ 77,760
Total Non-Capturable Taxes	**5.4576**																							

AKT PEERLESS ENVIRONMENTAL SERVICES

Table 3. Reimbursement Allocation Schedule

Legacy Rochester Hills
Rochester Hills, MI
AKT Peerless Project No. 3679F6
As of March 8, 2021

Developer Maximum Reimbursement	Proportionality	School & Local Taxes	Local-Only Taxes	Total
State	**55.0%**	**$ 7,803,885**		$ 7,803,885
Local	**45.0%**	**$ 6,397,690**	$ -	$ 6,397,690
TOTAL		**$ 14,201,575**	$ -	**$ 14,201,575**
EGLE	100.0%	$ 14,201,575		
MSF	0.0%	$ -		

Estimated Total Years of Plan:	24

Estimated Capture	
Administrative Fees	$ 240,000
State Revolving Fund	$ 1,214,897
Local Revolving Fund	$ 2,014,823

Plan Year	1	2	3	4	5	6	7	8	9	10	11	12	13
Total State Incremental Revenue	$ 98,656	$ 100,544	$ 233,686	$ 360,000	$ 367,218	$ 374,580	$ 382,090	$ 389,750	$ 397,563	$ 405,532	$ 413,660	$ 421,952	$ 430,409
State Brownfield Revolving Fund (3 mills of SET)	$ 12,332	$ 12,568	$ 29,211	$ 45,000	$ 45,902	$ 46,823	$ 47,761	$ 48,719	$ 49,695	$ 50,691	$ 51,708	$ 52,744	$ 53,801
Local Brownfield Revolving Fund (3% of capture)	$ 2,960	$ 3,016	$ 7,011	$ 10,800	$ 11,017	$ 11,237	$ 11,463	$ 11,692	$ 11,927	$ 12,166	$ 12,410	$ 12,659	$ 12,912
State TIR Available for Reimbursement	**$ 83,364**	**$ 84,960**	**$ 197,464**	**$ 304,200**	**$ 310,299**	**$ 316,520**	**$ 322,866**	**$ 329,338**	**$ 335,940**	**$ 342,674**	**$ 349,543**	**$ 356,549**	**$ 363,695**
Total Local Incremental Revenue	$ 80,879	$ 82,427	$ 191,577	$ 295,131	$ 301,048	$ 307,084	$ 313,240	$ 319,520	$ 325,925	$ 332,458	$ 339,122	$ 345,919	$ 352,853
BRA Administrative Fee	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000
Local Brownfield Revolving Fund (3% of capture)	$ 2,426	$ 2,473	$ 5,747	$ 8,854	$ 9,031	$ 9,213	$ 9,397	$ 9,586	$ 9,778	$ 9,974	$ 10,174	$ 10,378	$ 10,586
Local TIR Available for Reimbursement	**$ 68,453**	**$ 69,954**	**$ 175,830**	**$ 276,277**	**$ 282,017**	**$ 287,872**	**$ 293,843**	**$ 299,934**	**$ 306,147**	**$ 312,485**	**$ 318,949**	**$ 325,542**	**$ 332,267**
Total State & Local TIR Available	**$ 151,817**	**$ 154,914**	**$ 373,294**	**$ 580,477**	**$ 592,316**	**$ 604,392**	**$ 616,709**	**$ 629,273**	**$ 642,088**	**$ 655,159**	**$ 668,492**	**$ 682,091**	**$ 695,962**
DEVELOPER	Beginning Balance												
DEVELOPER Reimbursement Balance	***$ 14,201,575***	***$ 14,049,758***	***$ 13,894,844***	***$ 13,521,550***	***$ 12,941,073***	***$ 12,348,757***	***$ 11,744,365***	***$ 11,127,656***	***$ 10,498,383***	***$ 9,856,295***	***$ 9,201,136***	***$ 8,532,644***	***$ 7,850,553***	***$ 7,154,591***
STATE Reimbursement Balance	*$ 7,803,885*	*$ 7,720,521*	*$ 7,635,561*	*$ 7,438,097*	*$ 7,133,897*	*$ 6,823,598*	*$ 6,507,077*	*$ 6,184,211*	*$ 5,854,873*	*$ 5,518,932*	*$ 5,176,258*	*$ 4,826,715*	*$ 4,470,166*	*$ 4,106,471*
Eligible Activities Reimbursement	$ 5,286,044	$ 83,364	$ 84,960	$ 197,464	$ 304,200	$ 310,299	$ 316,520	$ 322,866	$ 329,338	$ 335,940	$ 342,674	$ 349,543	$ 356,549	$ 363,695
Environmental Eligible Activities	$ 5,286,044	$ 83,364	$ 84,960	$ 197,464	$ 304,200	$ 310,299	$ 316,520	$ 322,866	$ 329,338	$ 335,940	$ 342,674	$ 349,543	$ 356,549	$ 363,695
Interest Reimbursement	$ 2,517,841	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Environmental Portion	$ 2,517,841	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total STATE TIR Reimbursement		**$ 83,364**	**$ 84,960**	**$ 197,464**	**$ 304,200**	**$ 310,299**	**$ 316,520**	**$ 322,866**	**$ 329,338**	**$ 335,940**	**$ 342,674**	**$ 349,543**	**$ 356,549**	**$ 363,695**
LOCAL Reimbursement Balance	*$ 6,397,690*	*$ 6,329,237*	*$ 6,259,283*	*$ 6,083,453*	*$ 5,807,176*	*$ 5,525,159*	*$ 5,237,288*	*$ 4,943,445*	*$ 4,643,510*	*$ 4,337,363*	*$ 4,024,878*	*$ 3,705,930*	*$ 3,380,388*	*$ 3,048,121*
Eligible Activities Reimbursement	$ 4,333,543	$ 68,453	$ 69,954	$ 175,830	$ 276,277	$ 282,017	$ 287,872	$ 293,843	$ 299,934	$ 306,147	$ 312,485	$ 318,949	$ 325,542	$ 332,267
Environmental Eligible Activities	$ 4,333,543	$ 68,453	$ 69,954	$ 175,830	$ 276,277	$ 282,017	$ 287,872	$ 293,843	$ 299,934	$ 306,147	$ 312,485	$ 318,949	$ 325,542	$ 332,267
Interest Reimbursement	$ 2,064,147	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Environmental Portion	$ 2,064,147	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total LOCAL TIR Reimbursement		**$ 68,453**	**$ 69,954**	**$ 175,830**	**$ 276,277**	**$ 282,017**	**$ 287,872**	**$ 293,843**	**$ 299,934**	**$ 306,147**	**$ 312,485**	**$ 318,949**	**$ 325,542**	**$ 332,267**
Total Annual Developer Reimbursement		**$ 151,817**	**$ 154,914**	**$ 373,294**	**$ 580,477**	**$ 592,316**	**$ 604,392**	**$ 616,709**	**$ 629,273**	**$ 642,088**	**$ 655,159**	**$ 668,492**	**$ 682,091**	**$ 695,962**

LOCAL BROWNFIELD REVOLVING FUND

	LSRRF Year	0	0	0	0	0	0	0	0	0	0	0	0	0
LBRF Deposits		**$ 5,386**	**$ 5,489**	**$ 12,758**	**$ 19,654**	**$ 20,048**	**$ 20,450**	**$ 20,860**	**$ 21,278**	**$ 21,705**	**$ 22,140**	**$ 22,583**	**$ 23,036**	**$ 23,498**
STATE	*$ 7,803,885*	$ 2,960	$ 3,016	$ 7,011	$ 10,800	$ 11,017	$ 11,237	$ 11,463	$ 11,692	$ 11,927	$ 12,166	$ 12,410	$ 12,659	$ 12,912
LOCAL	*no maximum*	$ 2,426	$ 2,473	$ 5,747	$ 8,854	$ 9,031	$ 9,213	$ 9,397	$ 9,586	$ 9,778	$ 9,974	$ 10,174	$ 10,378	$ 10,586

AKT PEERLESS ENVIRONMENTAL SERVICES

Table 3. Reimbursement Allocation Schedule

Legacy Rochester Hills
Rochester Hills, MI
AKT Peerless Project No. 3679F6
As of March 8, 2021

	14	15	16	17	18	19	20	21	22	23	End Plan 24
Total State Incremental Revenue	$ 439,035	$ 447,833	$ 456,808	$ 465,962	$ 475,299	$ 484,823	$ 494,538	$ 504,447	$ 514,553	$ 524,862	$ 535,378
State Brownfield Revolving Fund (3 mills of SET)	$ 54,879	$ 55,979	$ 57,101	$ 58,245	$ 59,412	$ 60,603	$ 61,817	$ 63,056	$ 64,319	$ 65,608	$ 66,922
Local Brownfield Revolving Fund (3% of capture	$ 13,171	$ 13,435	$ 13,704	$ 13,979	$ 14,259	$ 14,545	$ 14,836	$ 15,133	$ 15,437	$ 15,746	$ 16,061
State TIR Available for Reimbursement	**$ 370,984**	**$ 378,419**	**$ 386,003**	**$ 393,738**	**$ 401,628**	**$ 409,676**	**$ 417,884**	**$ 426,257**	**$ 434,798**	**$ 443,509**	**$ 452,394**
Total Local Incremental Revenue	$ 359,924	$ 367,138	$ 374,495	$ 382,000	$ 389,654	$ 397,462	$ 405,426	$ 413,549	$ 421,835	$ 430,287	$ 438,907
BRA Administrative Fee	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000
Local Brownfield Revolving Fund (3% of capture	$ 10,798	$ 11,014	$ 11,235	$ 11,460	$ 11,690	$ 11,924	$ 12,163	$ 12,406	$ 12,655	$ 12,909	$ 13,167
Local TIR Available for Reimbursement	**$ 339,127**	**$ 346,123**	**$ 353,260**	**$ 360,540**	**$ 367,965**	**$ 375,538**	**$ 383,263**	**$ 391,143**	**$ 399,180**	**$ 407,378**	**$ 415,740**
Total State & Local TIR Available	**$ 710,111**	**$ 724,543**	**$ 739,263**	**$ 754,278**	**$ 769,593**	**$ 785,214**	**$ 801,148**	**$ 817,400**	**$ 833,978**	**$ 850,887**	**$ 868,134**
DEVELOPER											
DEVELOPER Reimbursement Balance	***$ 6,444,480***	***$ 5,719,937***	***$ 4,980,674***	***$ 4,226,397***	***$ 3,456,804***	***$ 2,671,590***	***$ 1,870,442***	***$ 1,053,041***	***$ 487,083***	***$ 43,574***	***$ (0)***
STATE Reimbursement Balance	*$ 3,735,486*	*$ 3,357,067*	*$ 2,971,064*	*$ 2,577,326*	*$ 2,175,698*	*$ 1,766,022*	*$ 1,348,138*	*$ 921,880*	*$ 487,083*	*$ 43,574*	*$ (0)*
Eligible Activities Reimbursement	$ 370,984	$ 378,419	$ 386,003	$ 393,738	$ 59,485	$ -	$ -	$ -	$ -	$ -	$ -
Environmental Eligible Activities	$ 370,984	$ 378,419	$ 386,003	$ 393,738	$ 59,485	$ -	$ -	$ -	$ -	$ -	$ -
Interest Reimbursement	$ -	$ -	$ -	$ -	$ 342,143	$ 409,676	$ 417,884	$ 426,257	$ 434,798	$ 443,509	$ 43,574
Environmental Portion	$ -	$ -	$ -	$ -	$ 342,143	$ 409,676	$ 417,884	$ 426,257	$ 434,798	$ 443,509	$ 43,574
Total STATE TIR Reimbursement	**$ 370,984**	**$ 378,419**	**$ 386,003**	**$ 393,738**	**$ 401,628**	**$ 409,676**	**$ 417,884**	**$ 426,257**	**$ 434,798**	**$ 443,509**	**$ 43,574**
LOCAL Reimbursement Balance	*$ 2,708,994*	*$ 2,362,871*	*$ 2,009,610*	*$ 1,649,071*	*$ 1,281,106*	*$ 905,567*	*$ 522,304*	*$ 131,161*	*$ -*	*$ -*	*$ -*
Eligible Activities Reimbursement	$ 339,127	$ 346,123	$ 298,724	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Environmental Eligible Activities	$ 339,127	$ 346,123	$ 298,724	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Interest Reimbursement	$ -	$ -	$ 54,537	$ 360,540	$ 367,965	$ 375,538	$ 383,263	$ 391,143	$ 131,161	$ -	$ -
Environmental Portion	$ -	$ -	$ 54,537	$ 360,540	$ 367,965	$ 375,538	$ 383,263	$ 391,143	$ 131,161	$ -	$ -
Total LOCAL TIR Reimbursement	**$ 339,127**	**$ 346,123**	**$ 353,260**	**$ 360,540**	**$ 367,965**	**$ 375,538**	**$ 383,263**	**$ 391,143**	**$ 131,161**	**$ -**	**$ -**
Total Annual Developer Reimbursement	**$ 710,111**	**$ 724,543**	**$ 739,263**	**$ 754,278**	**$ 769,593**	**$ 785,214**	**$ 801,148**	**$ 817,400**	**$ 565,959**	**$ 443,509**	**$ 43,574**
LOCAL BROWNFIELD REVOLVING FUND											
	0	0	0	0	0	0	0	0	0	1	2
LBRF Deposits	**$ 23,969**	**$ 24,449**	**$ 24,939**	**$ 25,439**	**$ 25,949**	**$ 26,469**	**$ 26,999**	**$ 27,540**	**$ 296,111**	**$ 420,287**	**$ 853,789**
STATE	$ 13,171	$ 13,435	$ 13,704	$ 13,979	$ 14,259	$ 14,545	$ 14,836	$ 15,133	$ 15,437	$ -	$ 424,882
LOCAL	$ 10,798	$ 11,014	$ 11,235	$ 11,460	$ 11,690	$ 11,924	$ 12,163	$ 12,406	$ 280,674	$ 420,287	$ 428,907

Appendix A

Brownfield Plan

ROCHESTER HILLS BROWNFIELD REDEVELOPMENT AUTHORITY

BROWNFIELD PLAN

Parcels 15-29-101-022 and 15-29-101-023, Northeast Corner of Hamlin and Adams Roads, Rochester Hills, Michigan

PREPARED BY

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PROJECT # 3679f6

REVISION DATE April 7, 2018

BRA APPROVAL April 10, 2018
CITY APPROVAL April 23, 2018

Table of Contents

ATTACHMENTS

PROJECT SUMMARY

PROJECT NAME	Legacy Rochester Hills - Redevelopment and Reuse of Properties Located at the northeast corner of Hamlin and Adams Roads, Rochester Hills, Michigan
DEVELOPER	Goldberg Companies, Inc. c/o Mr. Eric Bell 25101 Chagrin Boulevard, Suite 300 Beachwood, Ohio 44122
ELIGIBLE PROPERTY LOCATION	The Eligible Property is located at the northeast corner of Hamlin and Adams Roads, Rochester Hills, Michigan. Parcel ID Numbers 15-29-101-022 and 15-29-101-023.
TYPE OF ELIGIBLE PROPERTY	Facility
SUBJECT PROJECT DESCRIPTION	Legacy Rochester Hills (Project) consists of the redevelopment of the subject property, which is located at the northeast corner of Hamlin and Adams Roads in the City of Rochester Hills. The final plans for the redevelopment have not been completed. However, this Project will include remediation of contaminated soils and construction of a new residential apartment complex with approximately 368 units and onsite surface parking. This Project will put an underutilized property into productive use and return it to the City's tax rolls. In addition to the economic benefits of this development to Rochester Hills, environmental activities are anticipated that would provide a safer and healthier community to the public. The Project is seeking approval of Tax Increment Financing (TIF). Construction is expected to begin in 2018.
ELIGIBLE ACTIVITIES	Department Specific Activities and preparation of a Brownfield Plan and Act 381 Work Plan
DEVELOPER'S REIMBURSABLE COSTS	$ 9,619,587 (Est. Eligible Activities & Contingency) $ 3,800,000 (Interest) $13,419,587

MAXIMUM ANTICIPATED DURATION OF CAPTURE	24 years
ESTIMATED TOTAL CAPITAL INVESTMENT	$48 million
INITIAL TAXABLE VALUE	$37,440

LIST OF ACRONYMS AND DEFINITIONS

BEA	Baseline Environmental Assessment (Michigan process to provide new property owners and/or operators with exemptions from environmental liability)
BFP OR PLAN	Brownfield Plan
DEVELOPER	Goldberg Companies, Inc. or other entity as approved by the Rochester Hills Brownfield Redevelopment Authority.
ELIGIBLE PROPERTY	Property for which eligible activities are identified under a Brownfield Plan, referred to herein as "the subject property".
ESA	Environmental Site Assessment
LBRF	Local Site Remediation Revolving Fund
MDEQ	Michigan Department of Environmental Quality
MEDC	Michigan Economic Development Corporation
MSF	Michigan Strategic Fund
PHASE I ESA	An environmental historical review and site inspection (no soil and/or groundwater sampling and analysis)
PHASE II ESA	Environmental subsurface investigation (includes soil, soil gas, and/or groundwater sampling and analysis)
RCC	Residential Cleanup Criteria
RHBRA	Rochester Hills Brownfield Redevelopment Authority
SUBJECT PROPERTY	The Eligible Property, located at the northeast corner of Hamlin and Adams Roads, in Rochester Hills, Michigan. It comprises 2 parcels.
TIF	Tax Increment Financing (TIF describes the process of using TIR—i.e., TIF is the use of TIR to provide financial support to a project)
TIR	Tax Increment Revenue (new property tax revenue, usually due to redevelopment and improvement that is generated by a property after approval of a Brownfield Plan)

BROWNFIELD PLAN

Northeast Corner of Hamlin and Adams Roads
Rochester Hills, Michigan 48309

1.0 Introduction

The City of Rochester Hills, Michigan (the "City"), established the Rochester Hills Brownfield Redevelopment Authority (the "Authority") on November 13, 2002, pursuant to Michigan Public Act 381 of 1996, as amended ("Act 381"). The primary purpose of Act 381 is to encourage the redevelopment of eligible property by providing economic incentives through tax increment financing for certain eligible activities.

A primary purpose of this Brownfield Plan is to promote the redevelopment of, and investment in, certain "Brownfield" properties within the City. Inclusion of the subject property in a brownfield plan will facilitate financing of environmental response and other eligible activities at eligible properties. This will enable eligible taxpayers to invest in revitalization of eligible sites, commonly referred to as "Brownfields" that otherwise would be economically unfeasible to redevelop. By facilitating redevelopment of Brownfield properties, Brownfield plans are intended to promote economic growth for the benefit of the residents of the City and all taxing units located within and benefited by the Authority.

The identification or designation of a developer that is the subject of this Brownfield Plan (the "subject property") shall not be integral to the effectiveness or validity of this Brownfield Plan. This Brownfield Plan is intended to apply to the subject property identified in this Brownfield Plan. With respect to tax increment revenues proposed to be captured from that subject property, the Brownfield Plan is to identify and authorize the eligible activities to be funded by such tax increment revenues. Any change in the proposed developer shall not necessitate an amendment to this Brownfield Plan, affect the application of this Brownfield Plan to the subject property, or impair the rights available to the Authority under this Brownfield Plan. Any change in the proposed use of the subject property (particularly any proposed change in use of Parcel B) may require an Amendment and is subject to review by the Authority.

This Brownfield Plan is intended to be a living document, which may be modified or amended in accordance with the requirements of Act 381, as necessary to achieve the purposes of Act 381. If uses other than those currently planned by the Developer (i.e., residential use on the western Parcel A, and non-residential use, including open natural area and surface parking on the eastern Parcel B) are pursued in the future, the Brownfield Plan shall be amended if support of the new use through tax increment revenue is desired. The applicable sections of Act 381 are noted throughout the Brownfield Plan for reference purposes.

This Brownfield Plan contains information required by Section 13(1) of Act 381.

Legacy Rochester Hills (Project) consists of the redevelopment of the subject property. The final plans for the redevelopment have not been completed. However, this Project will include the remediation of contaminated soils and construction of a new residential apartment complex with approximately 368

units with onsite surface parking. This Project will put underutilized property back to productive use and will generate new tax revenue for the City. Although the Project is 100% residential, up to 10 new full-time permanent jobs are expected as well as 400 temporary construction jobs during the course of redevelopment.

In addition to the economic benefits of this development to the City of Rochester Hills, environmental activities are anticipated that would provide a safer and healthier community to the public and environment alike.

The Project is seeking approval of Tax Increment Financing (TIF). Construction is expected to begin in 2018.

2.0 General Provisions

The following sections detail information required by Act 381.

The project is for the redevelopment of the former Christensen Dump, located on two parcels northeast of the intersection of Hamlin and Adams Roads. The Christensen Dump operated from the mid-1950s until the mid-1960s. Later, during the 1960s and early-1970s, 55-gallon drums (which contained a variety of chemicals including paint and solvents) were dumped illegally on the property. The property has remained unimproved with no apparent use since that time. MDEQ began cleanup activities on the property in the 1990s, but due to financial constraints was unable to complete the remediation.

Both parcels are heavily contaminated. Analytical results of previous environmental investigations conducted on the two parcels indicate that concentrations of select metals, pesticides, volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs) and polynuclear aromatic compounds (PNAs) were detected in soil and/or groundwater above Michigan Department of Environmental Quality (MDEQ) Residential Cleanup Criteria (RCC).

Because of both heavy contamination and geotechnical issues from dumping, the properties have been unable to attract development or use since the 1960s. The area is attractive for new construction, but the costs associated with site conditions are so high that all previous efforts have been stymied. The most recent proposal, in 2008, failed because the redevelopment plan was unable to attract funding. In addition to financial viability, the current Legacy Rochester Hills development offers significant improvements over previous proposals, including: (1) this development entails more extensive cleanup activities on the western side of the property; (2) the proposed residential use is a better fit for the neighborhood; and (3) remediation activities planned for the former landfill include creation of a conservation area, which will expand upon municipal greenspace to the east of the subject property.

The proposed redevelopment has two components. The first, on the western portion of the property (Parcel A), involves remediation of contamination and construction of approximately 368 high-quality rental residential units. The second, on the eastern end of the property (Parcel B), is limited to environmental remediation activities in the areas of most significant contamination (excavation and removal of certain non-hazardous contaminated soils, and capping and isolating the area of most significant impact). Together, the two components will result in economically productive rehabilitation and reuse of properties that for decades have been a blight in the community. In addition to the significant benefits of environmental cleanup, the project will result in an immediate increase in tax revenue for some taxing jurisdictions.

2.1 Description of Eligible Property (Section 13 (l)(h)

The Eligible Property ("subject property") is located at the northeast corner of Hamlin and Adams Roads, in the northwest ¼ of Section 29 in the City of Rochester Hills (T.3N. /R.11E.), Oakland County, Michigan. The subject property is situated northeast of the intersection of Hamlin and Adams Roads. The subject property currently consists of two parcels that contain approximately 28 acres. It is anticipated that the property boundary separating the two parcels will be redrawn prior to the commencement of the project; this anticipated boundary is shown on Figure 3, separating Parcel A and Parcel B. It should be noted that any future parcel reconfigurations or divisions will not affect the Eligible Property boundary, nor would they necessitate a Plan amendment. Moreover, while it is anticipated that all parcels will be the beneficiary of Department Specific Activities (i.e., environmental activities), they might not be owned by the same entity.

The subject property is in an area of Rochester Hills ("City") that is characterized by residential properties and is served by surface roadways, municipal sanitary sewer and water, and electrical and gas utilities.

The following table describes each parcel which comprises the subject property. See Attachment A, Figure 2 – Eligible Property Boundary Map.

Eligible Property Information

Address	Tax Identification Number	Basis of Brownfield Eligibility	Approximate Acreage
No Address	15-29-101-022	Facility	18.8
No Address	15-29-101-023	Facility	9.2

The subject property is zoned Residential (R2). The subject property consists of undeveloped land and does not contain any structures. A chain link fence to deter entry into the most highly contaminated portion is present on the eastern portion of the eastern parcel.

Attachment A includes site maps of the Eligible Property, refer to: Figure 1, Scaled Property Location Map and Figure 2, Eligible Property Boundary Map (which includes lot dimensions). The legal descriptions of the parcels included in the Eligible Property are presented in Attachment B.

The parcels and all tangible real and personal property located thereon will comprise the Eligible Property, which is referred to herein as the "subject property."

2.2 Basis of Eligibility (Section 13 (2)(h), Section 2 (n)), Section 2(o)

The subject property is considered "Eligible Property" as defined by Act 381, Section 2 because: (a) the subject property was previously utilized as a commercial property; and (b) each of the parcels comprised by the subject property has been determined to be a "facility." Due to the contamination present both onsite and offsite, redevelopment requires extensive environmental response activities, including removal of contaminated soils and installation of due care engineering controls.

Historical use of the property consists of the following:

- 1940 – early 1950s: agricultural land (including slaughterhouse operations)
- Mid-1950s – Mid-1960s: commercial landfill

- 1960s – Present: undeveloped

Several environmental investigations have been conducted on the subject property. Refer to Attachment D for additional details and documentation on site environmental conditions. Hazardous substances known to exceed residential cleanup criteria compounds (which form the basis for the facility designations), Chemical Abstract Service (CAS) numbers, sample location, depths, and media affected are summarized in the following tables.

On the western parcel (Tax Identification No. 15-29-101-022):

Summary of Soil Analytical Results

Parameter	CAS Number	Sample Identification with Criteria Exceedance	Part 201 Residential Criteria Exceeded/ Established Criteria (ug/kg)	Maximum Concentration (ug/kg)/Sample Location
Arsenic	7440382	TP-2, TP-21, 2-3 (0-1'), 2-3 (10-12'), AKT-5 (20-22'), SB-5 (10-14'), SB-6 (18-20'), SB-9 (18-20'), SB-10 (18-20'), SS-3 (4-6'), SS-4 (2-4'), SS-6 (0-2'), SS-9 (2-4'), SS-10 (2-4')	DWP / 4,600 GSIP / 4,600 DC / 7,600	25,000 / SB-5 (10-14')
Acenaphthene	83329	DUP-1 [EP-5 (6')]	GSIP / 8,700	22,100 / DUP-1 [EP-5 (6')]
Benzo(a)pyrene	50328	DUP-1 [EP-5 (6')]	DC / 2,000	4,500 / DUP-1 [EP-5 (6')]
beta-Hexachlorocyclohexane	319857	TP1W	GSIP / 37	65 / TP1W
Cadmium	7440439	EP-31 (0.5-1'), SS-6 (0-2')	DWP / 6,000	39,000 / EP-31 (0.5-1')

Parameter	CAS Number	Sample Identification with Criteria Exceedance	Part 201 Residential Criteria Exceeded/ Established Criteria (ug/kg)	Maximum Concentration (ug/kg)/Sample Location
Chromium (total)	18540299	TP-2, TP-3-1, TP-21, 2-3 (0-1'), 2-3 (10-12'), EP-5 (6'), DUP-1 [EP-5 (6')], DUP-2 [EP-14 (7')], EP-31 (0.5-1'), EP-37 (0.5-1'), DUP-5 [EP-37 (0.5-1')], SB-3 (18-20'), SB-5 (10-14'), SB-6 (18-20'), SB-8 (18-20'), SB-9 (18-20'), SB-10 (18-20'), SB-12 (18-20'), SS-1 (0-2'), SS-2 (4-6'), SS-3 (4-6'), SS-4 (2-4'), SS-5 (2-4'), SS-6 (0-2'), SS-7 (4-6'), SS-8 (0-2'), SS-9 (2-4'), SS-10 (2-4'), TR1N, TR1S, TR1W, TR1Bottom-N, TR1Bottom-S, TR2-N, TR2-S, TR2-East, TR2-West, TR2-B North, TR2-B South, TP1N, TP1Bottom-S	DWP/ 30,000 GSIP / 3,300	91,000 / SS-3 (4-6')
Dibenzofuran	132649	DUP-1 [EP-5 (6')]	GSIP / 1,700	26,400 / DUP-1 [EP-5 (6')]
Fluorene	86737	DUP-1 [EP-5 (6')]	GSIP / 5,300	24,700 / DUP-1 [EP-5 (6')]
Fluoranthene	206440	DUP-1 [EP-5 (6')]	GSIP / 5,500	19,000 / DUP-1 [EP-5 (6')]
Lead	7439921	TP-2, TP-21, EP-31 (0.5-1'), SS-6 (0-2')	DC / 400,000	660,000 / TP-2
Mercury	7439976	TP-21, EP-14 (7'), DUP-2 [EP-14 (7')], EP-31 (0.5-1'), EP-37 (0.5-1'), DUP-5 [EP-37 (0.5-1')], SS-6 (0-2'), SS-9 (2-4')	GSIP / 50	500 / SS-6 (0-2')
2-Methylnaphthalene	91576	DUP-1 [EP-5 (6')]	GSIP / 4,200	16,500 / DUP-1 [EP-5 (6')]
Naphthalene	91203	EP-5 (6'), DUP-1 [EP-5 (6')], EP-31 (0.5-1')	DWP / 35,000 GSIP / 730	142,000 / DUP-1 [EP-5 (6')]
Phenanthrene	85018	EP-5 (6'), DUP-1 [EP-5 (6')]	GSIP / 2,100	51,400 / DUP-1 [EP-5 (6')]

Parameter	CAS Number	Sample Identification with Criteria Exceedance	Part 201 Residential Criteria Exceeded/ Established Criteria (ug/kg)	Maximum Concentration (ug/kg)/Sample Location
Polychlorinated biphenyls	1336363	DUP-1 [EP-5 (6')]	DC / 4,000	22,100 / DUP-1 [EP-5 (6')]
Selenium	7782492	EP-31 (0.5-1'), SS-6 (0-2'), SB-1 (19-20'), SB-3 (18-20'), SB-6 (18-20'), SB-8 (18-20'), SB-9 (18-20'), SB-10 (18-20')	GSIP / 400	1,000 / SB-1 (19-20')
Silver	7440224	EP-37 (1-2')	GSIP / 100	2,070 / EP-37 (1-2')
Xylenes	95476	EP-31 (0.5-1')	GSIP / 820	930 / EP-31 (0.5-1')

Table Notes:
ug/kg – microgram per kilogram
DWP – Drinking Water Protection Criteria
GSIP – Groundwater Surface Water Interface Protection Criteria
DC – Direct Contact Criteria

Summary of Groundwater Analytical Results

Parameter	CAS Number	Sample Identification with Criteria Exceedance	Part 201 Residential Criteria Exceeded/ Established Criteria (ug/kg)	Maximum Concentration (ug/kg)/Sample Location
Arsenic	7440382	MW-13D, AKT-5W	DW/ 10 GSI/10	21 / AKT-5W
Chromium	7440473	AKT-5W	GSI / 11	18 / AKT-5W
Lead	7439921	AKT-5W	DW/ 4	42 / AKT-5W

Table Notes:
ug/L – microgram per liter
DW – Drinking Water Criteria
GSI – Groundwater Surface Water Interface Criteria

On the eastern parcel (Tax Identification No. 15-29-101-023):

Summary of Soil Analytical Results

Parameter	CAS Number	Sample Identification with Criteria Exceedance	Part 201 Residential Criteria Exceeded/ Established Criteria (ug/kg)	Maximum Concentration (ug/kg)/Sample Location
Antimony	7440360	AKT-8 (3-5')	DWP / 4,300	6,140 / AKT-8 (3-5')
Arsenic	7440382	GP-1 (4-7'), GP-3 (2-6'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-5 (11-14'), GP-6 (2-4'), GP-7 (4-8'), GP-8 (0-2'), GP-8 (9-10.5'), GP-9 (4-6'), GP-9 (6-7.5'), GP-10 (6-8'), GP-10 (8-10'), GP-11 (4.5-5'), GP-12 (0-2'), MW-9D (2-4'), MW-9D (4-6'), TP-16b, EP-28 (8'), EP-33 (15'), EP-48 (6'), AKT-8 (3-5')	DWP / 4,600 GSIP / 4,600 DC / 7,600	36,000 / GP-3 (2-6')
Benzene	71432	GP-1 (4-7'), GP-4 (2.5-4'), EB-23 (3-5')	DWP / 100	800 / EB-23 (3-5')
Benzo(a)anthracene	56553	GP-4 (2.5-4'), EB-20 (5-7')	DC / 20,000	33,000 / GP-4 (2.5-4')
Benzo(a)pyrene	50328	GP-1 (4-7'), GP-4 (2.5-4'), GP-6 (2-4'), GP-10 (6-8'), EB-7 (1-3'), EB-11 (10-12'), Duplicate [EB-13 (13-15')], EB-18 (3-5'), EB-19 (4-5'), EB-20 (5-7'), EB-21 (8-10'), EB-23 (3-5'), EB-24 (8-10'), EB-25 (3-4'), EB-26 (1-3'), EB-27 (1-3'), EB-29 (1-3'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-31 (3-5'), EB-31 (7-9'), EB-32 (1-3'), EB-35 (1-3'), EB-39 (3-5'), EB-40 (3-5'), Duplicate 5 [EB-40(3-5')]	DC / 2,000	29,000 / GP-4 (2.5-4')
Benzo(b) fluoranthene	205992	GP-4 (2.5-4')	DC / 20,000	48,000 / GP-4 (2.5-4')
Bis(2-ethylhexyl)phthalate	117817	GP-7 (4-8')	DC / 2,800,000 SSSL / 10,000,000	37,000,000 / GP-7 (4-8')
n-Butylbenzene	104518	EB-9 (8-10'), Duplicate 3 [EB-13 (13-15')]	DWP / 1,600	10,000 / EB-9 (8-10')

Parameter	CAS Number	Sample Identification with Criteria Exceedance	Part 201 Residential Criteria Exceeded/ Established Criteria (ug/kg)	Maximum Concentration (ug/kg)/Sample Location
sec-Butylbenzene	135998	GP-1 (4-7'), GP-4 (2.5-4'), EB-9 (8-10'), EB-11 (10-12'), EB-12 (8-10'), EB-13 (13-15'), Duplicate 3 [EB-13 (13-15')], EB-19 (4-5'), EB-21 (8-10'), EB-22 (6-8'), EB-23 (3-5'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-38 (3-5')	DWP / 1,600	50,000/ EB-12 (8-10')
Cadmium	7440439	GP-3 (2-6'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-6 (2-4'), GP-7 (4-8'), GP-8 (0-2'), TP-16b, EB-1 (3-5'), EP-23 (2'), EP-33 (7'), Duplicate 4 [EP-33 (7')], EP-33 (15'), AKT-8 (3-5')	DWP / 6,000	61,000 / GP-8 (0-2')
Carbon tetrachloride	56235	GP-6 (12-13.5')	DWP / 100	110 / GP-6 (12-13.5')
Carbazole	86748	GP-6 (2-4'), GP-10 (6-8')	GSIP / 1,100	5,200 / GP-6 (2-4')
Chromium (total)	18540299	SB-2 (14-16'), GP-1 (4-7'), GP-2 (13-15'), GP-3 (2-6'), GP-3 (10-12'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-5 (11-14'), GP-6 (2-4'), GP-6 (12-13.5'), GP-7 (4-8'), GP-7 (9-10.5'), GP-8 (0-2'), GP-8 (9-10.5'), GP-9 (4-6'), GP-9 (6-7.5'), GP-10 (6-8'), GP-10 (8-10'), GP-11 (4-5.5'), GP-11 (5.5-7'), GP-12 (0-2'), GP-13 (16-18'), MW-9D (2-4'), MW-9D (4-6'), TP-16B, EB-1 (3-5'), EP-19 (0.5-1'), EP-22 (6'), Duplicate 3 [EP-22 (6')], EP-23 (2'), EP-28 (8'), EP-30 (7'), EP-33 (7'), Duplicate 4 [EP-33 (7')], EP-33 (15'), EP-48 (6'), AKT-8 (3-5'), AKT-9 (8-10')	DWP/ 30,000 GSIP / 3,300 PSI / 260,000 DC / 2,500,000	2,880,000 / GP-5 (4-8')
Di-n-butyl phthalate	84742	GP-4 (11-12'), EB-12 (10-11'), EB-38 (3-5')	GSIP / 11,000	61,000 / GP-4 (11-12')

Parameter	CAS Number	Sample Identification with Criteria Exceedance	Part 201 Residential Criteria Exceeded/ Established Criteria (ug/kg)	Maximum Concentration (ug/kg)/Sample Location
Ethylbenzene	100414	GP-1 (4-7'), GP-4 (2.5-4'), GP-5 (4-8'), EB-9 (8-10'), EB-11 (10-12'), EB-12 (8-10'), EB-13 (13-15'), Duplicate 3 [EB-13 (13-15')], EB-19 (4-5'), EB-21 (8-10'), EB-22 (6-8'), EB-23 (3-5'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-38 (3-5'), AKT-8 (3-5')	DWP / 1,500 GSIP / 360 SVIAI / 87,000 SSSL / 140,000	590,000 / EB-12 (8-10')
Fluorene	86737	EB-20 (5-7'), AKT-8 (3-5')	GSIP / 5,300	6,000 / EB-20 (5-7')
Fluoranthene	206440	GP-1 (4-7'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-6 (2-4'), GP-10 (6-8'), EB-11 (10-12'), EB-18 (3-5'), EB-19 (4-5'), EB-20 (5-7'), EB-21 (8-10'), EB-23 (3-5'), EB-24 (8-10'), EB-25 (3-4'), EB-26 (1-3'), EB-27 (1-3'), EB-28 (8-10'), EB-29 (1-3'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-32 (1-3'), EB-38 (3-5'), EB-39 (3-5'), EB-40 (3-5'), Duplicate 5 [EB-40 (3-5')]	GSIP / 5,500	97,000 / GP-4 (2.5-4')
Isopropyl benzene	98828	EB-11 (10-12'), EB-12 (8-10'), EB-19 (4-5'), EB-21 (8-10'), EB-22 (6-8'), EB-23 (3-5'), Duplicate 4 [EB-30 (1-3')], EB-38 (3-5')	GSIP / 3,200	70,000 / EB-12 (8-10')
Lead	7439921	GP-1 (4-7'), GP-3 (2-6'), GP-4 (2.5-4'), GP-5 (4-8'), GP-5 (11-14'), GP-6 (2-4'), GP-7 (4-8'), GP-8 (0-2'), TP-16B, EB-1 (3-5'), EP-23 (2'), EP-28 (8'), EP-33 (7'), Duplicate 4 [EP-33 (7')], EP-33 (15'), AKT-8 (3-5')	DWP / 700,000 DC / 400,000	2,450,000 / GP-5 (4-8')

Parameter	CAS Number	Sample Identification with Criteria Exceedance	Part 201 Residential Criteria Exceeded/ Established Criteria (ug/kg)	Maximum Concentration (ug/kg)/Sample Location
Mercury	7439976	SB-3 (2-4'), GP-1 (4-7'), GP-3 (2-6'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-6 (2-4'), GP-7 (4-8'), GP-7 (9-10.5'), GP-9 (4-6'), GP-10 (8-10'), TP-16b, EB-1 (3-5'), EP-19 (0.5-1'), EP-22 (6'), Duplicate 3 [EP-22 (6')], EP-23 (2'), EP-28 (8'), EP-30 (7'), EP-33 (7'), Duplicate 4 [EP-33 (7')], EP-33 (15'), EP-44 (6'), EP-48 (6'), AKT-8 (3-5')	DWP / 1,700 GSIP / 50	2,530 / AKT-8 (3-5')
2-Methylnaphthalene	91576	GP-1 (4-7'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), EB-9 (8-10'), EB-11 (10-12'), EB-12 (8-10'), EB-18 (3-5'), EB-19 (4-5'), EB-20 (5-7'), EB-21 (8-10'), EB-22 (6-8'), EB-23 (3-5'), EB-24 (8-10'), EB-28 (8-10'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-38 (3-5'), EB-39 (3-5'), AKT-8 (3-5')	DWP / 57,000 GSIP / 4,200	388,000,000 / EB-39 (3-5')
Naphthalene	91203	GP-1 (4-7'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), EB-9 (8-10'), EB-11 (10-12'), EB-12 (8-10'), EB-12 (10-11'), EB-13 (13-15'), Duplicate 3 [EB-13 (13-15')], EB-18 (3-5'), EB-19 (4-5'), EB-20 (5-7'), EB-21 (8-10'), EB-22 (6-8'), EB-23 (3-5'), EB-28 (8-10'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-38 (3-5'), EB-39 (3-5'), EB-40 (3-5'), Duplicate 5 [EB-40 (3-5')], AKT-8 (3-5'), AKT-9 (8-10'), AKT-8 (3-5')	DWP / 35,000 GSIP / 730 SVIAI / 250,000 VSIC / 300,000	400,000 / EB-12 (8-10')
Nickel	7440020	AKT-8 (3-5')	DWP / 100,000	339,000 / AKT-8(3-5')

Parameter	CAS Number	Sample Identification with Criteria Exceedance	Part 201 Residential Criteria Exceeded/ Established Criteria (ug/kg)	Maximum Concentration (ug/kg)/Sample Location
Phenanthrene	85018	GP-1 (4-7'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-6 (2-4'), GP-10 (6-8'), EB-11 (10-12'), Duplicate 3 [EB-13 (13-15')], EB-18 (3-5'), EB-19 (4-5'), EB-20 (5-7'), EB-22 (6-8'), EB-23 (3-5'), EB-24 (8-10'), EB-25 (3-4'), EB-26 (1-3'), EB-27 (1-3'), EB-29 (1-3'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-35 (1-3'), EB-40 (3-5'), Duplicate 5 [EB-40 (3-5')], AKT-8 (3-5')	GSIP / 2,100	33,000 / GP-6 (2-4')
Polychlorinated biphenyls	1336363	GP-1 (4-7'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-7 (4-8'), GP-7 (9-10.5'), GP-8 (0-2'), EB-10 (10-12'), Duplicate 2 [EB-10 (10-12')], EB-11 (1-3'), EB-11 (8-10'), EB-11 (10-12'), EB-12 (8-10'), EB-12 (10-11'), EB-13 (3-5'), EB-13 (8-10'), EB-13 (13-15'), Duplicate 3 [EB-13 (13-15')], EB-18 (3-5'), EB-19 (4-5'), EB-19 (5-7'), EB-19 (8-10'), EB-20 (1-3'), EB-20 (3-5'), EB-20 (5-7'), EB-21 (3-5'), EB-21 (8-10'), EB-22 (3-5'), EB-22 (6-8'), EB-22 (10-12'), EB-23 (3-5'), EB-23 (5-7'), EB-23 (7-9'), EB-28 (1-3'), EB-28 (3-5'), EB-28 (8-10'), EB-29 (3-5'), EB-29 (8-9'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-30 (3-5'), EB-31 (1-3'), EB-31 (3-5'), EB-32 (1-3'), EB-36 (3-5'), EB-37 (1-3'), EB-38 (1-3'), EB-38 (3-5'), EB-38 (8-10'), EB-39 (1-3'), EB-39 (3-5'), EB-40 (1-3'), EB-40 (3-5'), Duplicate 5 [EB-40 (3-5')], EB-40 (8-10'), Duplicate 4 [EP-33 (7')], AKT-8 (3-5')	DC / 4,000 VSIC / 240,000	2,300,000 / GP-7 (4-8')

Parameter	CAS Number	Sample Identification with Criteria Exceedance	Part 201 Residential Criteria Exceeded/ Established Criteria (ug/kg)	Maximum Concentration (ug/kg)/Sample Location
n-Propylbenzene	103651	GP-1 (4-7'), GP-4 (2.5-4'), EB-9 (8-10'), EB-11 (10-12'), EB-12 (8-10'), EB-13 (13-15'), Duplicate 2 [EB-13 (13-15')], EB-19 (4-5'), EB-21 (8-10'), EB-22 (6-8'), EB-23 (3-5'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-38 (3-5')	DWP / 1,600	110,000 / EB-12 (8-10')
Selenium	7782492	GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-5 (11-14'), GP-7 (4-8'), GP-8 (0-2'), TP-16b, EB-1 (3-5'), EP-23 (2'), EP-30 (7'), EP-33 (15'), AKT-8 (3-5')	GSIP / 400	1,700 / GP-4 (2.5-4')
Silver	7440224	SB-2 (14-16'), SB-3 (2-4'), GP-1 (4-7'), GP-2 (13-15'), GP-3 (2-6'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-5 (11-14'), GP-6 (2-4'), GP-7 (4-8'), EP-23 (2'), EP-33 (7'), Duplicate 4 [EP-33 (7')], EP-33 (15'), AKT-8 (3-5')	DWP / 4,500 GSIP / 100	90,000 / GP-2 (13-15')
Toluene	10883	EB-12 (8-10'), EB-13 (13-15'), Duplicate 3 [EB-13 (13-15')], EB-38 (3-5')	DWP / 16,000 GSIP / 5,400 SVIAI / 330,000 SSSL / 110,000	400,000 / EB-12 (8-10')
Trichloroethylene	79016	GP-3 (10-12'), GP7 (4-8')	DWP / 100	410 / GP-3 (10-12')
1,2,4-Trimethylbenzene	95636	GP-1 (4-7'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-7 (4-8'), EB-9 (8-10'), EB-11 (10-12'), EB-12 (8-10'), EB-13 (13-15'), Duplicate 3 [EB-13 (13-15')], EB-19 (4-5'), EB-21 (8-10'), EB-22 (6-8'), EB-23 (3-5'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-38 (3-5'), AKT-9 (8-10')	DWP / 2,100 GSIP / 570 DC / 110,000 SSSL / 110,000	760,000 / EB-12 (8-10')

Parameter	CAS Number	Sample Identification with Criteria Exceedance	Part 201 Residential Criteria Exceeded/ Established Criteria (ug/kg)	Maximum Concentration (ug/kg)/Sample Location
1, 3, 5-Trimethylbenzene	108678	GP-4 (2.5-4'), EB-9 (9-10'), EB-11 (10-12'), EB-12 (8-10'), EB-13 (13-15'), Duplicate 3 [EB-13 (13-15')], EB-19 (4-5'), EB-21 (8-10'), EB-22 (6-8'), EB-23 (3-5'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')]	DWP / 1,800 GSIP / 1,100 SSSL / 150,000	280,000 / EB-12 (8-10')
Xylenes	95476	GP-1 (4-7'), GP-4 (2.5-4'), GP-4 (11-12'), GP-5 (4-8'), GP-7 (4-8'), EB-9 (8-10'), EB-11 (10-12'), EB-12 (8-10'), EB-13 (13-15'), Duplicate 3 [EB-13 (13-15')], EB-19 (4-5'), EB-21 (8-10'), EB-22 (6-8'), EB-23 (3-5'), EB-30 (1-3'), Duplicate 4 [EB-30 (1-3')], EB-38 (3-5')	DWP / 5,600 GSIP / 820 SSSL / 150,000	2,070,000 / EB-12 (8-10')
Zinc	7440666	GP-5 (4-8')	DWP / 2,400,000	7,100,000 / GP-5 (4-8')

Table Notes:
ug/kg – microgram per kilogram
DWP – Drinking Water Protection Criteria
GSIP – Groundwater Surface Water Interface Protection Criteria
PSI– Particulate Soil Inhalation Criteria
SVIAI – Soil Volatilization to Indoor Air Inhalation Criteria
VSIC – Infinite Source Volatile Soil Inhalation Criteria
DC – Direct Contact Criteria
SSSL – Soil Saturation Concentration Screening Levels

Summary of Groundwater Analytical Results

Parameter	CAS Number	Sample Identification with Criteria Exceedance	Part 201 Residential Criteria Exceeded/ Established Criteria (ug/kg)	Maximum Concentration (ug/kg)/Sample Location
Arsenic	7440382	MW-2D, AKT-9W, AKT-10W	DW/ 10 GSI/10	33 / AKT-9W
Benzene	71432	AKT-9W	DW / 5	60 / AKT-9W

Parameter	CAS Number	Sample Identification with Criteria Exceedance	Part 201 Residential Criteria Exceeded/ Established Criteria (ug/kg)	Maximum Concentration (ug/kg)/Sample Location
Chromium	7440473	MW-6	GSI / 11	15 / MW-6
Di-n-butyl phthalate	84742	AKT-9W	GSI / 9.7	55 / AKT-9W
Ethylbenzene	100414	AKT-9W	DW / 74 GSI / 18	1,090 / AKT-9W
4-Methyl-2-pentanone (MIBK)	108101	AKT-9W	DW / 1,800	4,000 / AKT-9W
Naphthalene	91203	AKT-9W	GSI / 11	90 / AKT-9W
Selenium	7782492	AKT-9W	GSI / 5	8 / AKT-9W
Toluene	108883	AKT-9W	DW / 790 GSI / 270	2,220 / AKT-9W
1,2,4-Trimethylbenzene	95636	AKT-9W	DW / 63 GSI / 17	730 / AKT-9W
1,3,5-Trimethylbenzene	108678	AKT-9W	DW / 72 GSI / 45	120 / AKT-9W
Vinyl Chloride	75014	MW-4D	DW/ 2	3.5 / MW-4D
Xylenes	1330207	AKT-9W	DW / 280 GSI / 41	4,660 / AKT-9W

Table Notes:
ug/L – microgram per liter
DW – Drinking Water Criteria
GSI – Groundwater Surface Water Interface Criteria

Based on this information, Parcels A and B are a "facility" as defined in Part 201 of Natural Resources and Environmental Protection Act (NREPA), Michigan Public Act (PA) 451, as amended.

2.3 Summary of Eligible Activities and Description of Costs (Section 13 (2)(a),(b))

The "eligible activities" that are intended to be carried out at the subject property are considered "eligible activities" as defined by Sec 2 of Act 381, because they include Department Specific Activities and preparation of a Brownfield and Act 381 work plan (see Table 1). On the western Parcel A, Department Specific Activities include environmental assessment, excavation, soil removal, and backfill in contaminated areas. These activities are anticipated to begin in 2018, and are expected to take approximately three to four months to complete. Department Specific Activities on the western parcel also include installation of sub slab venting systems on new construction. Installation of the systems will

be coordinated with construction activities, which are estimated to take approximately 24-36 months to complete after environmental cleanup. A date for commencement of Department Specific Activities on the eastern Parcel B cannot be estimated at this time, as it depends on future discussions between the developer, the City, and the current property owner. However, the activities, include soil and waste removal, and installation of a hydraulic barrier, liner & cap, and passive methane venting system on the former landfill area.

Detailed information on eligible activities is summarized below:

2.3.1 Baseline Environmental Assessment Activities

A Phase I ESA was completed for the subject property in January 2017. A Supplemental Subsurface Investigation and BEA are currently being prepared for the acquiring entity. Additional Phase I ESAs and BEAs may be completed for new entities.

2.3.2 NFA Report and Documentation of Due Care Compliance Report

Phase I and Phase II ESAs are in process or have been completed for the subject property. A BEA will be completed for Parcels A and B prior to the development entity's (or entities') acquisition of the subject property. Additional due care investigations are planned for Parcel A and Parcel B.

Parcel A

Remediation on Parcel A at the subject property will be completed in order to obtain an unrestricted residential status. Subsequent to the completion of remedial activities, a No Further Action (NFA) report will be prepared and submitted to MDEQ for review and approval.

The BEA and NFA reporting will be completed in accordance with Part 201 of the Natural Resources and Environmental Protection Act (NREPA), 1994 Public Act (PA) 451, as amended, and Michigan Department of Environmental Quality (MDEQ) Instructions for Preparing and Disclosing Baseline Environmental Assessments and Section 7a Compliance Analyses, effective March 11, 1999. The NFA will describe remedial activities associated with soil and groundwater contamination at the subject property in light of the nature of the proposed development construction activities and occupancy of the developed property. A detailed breakdown of the costs associated with this task is provided later in this section.

Parcel B

On Parcel B, targeted environmental response activities will be conducted on the areas associated with previous dumping and landfilling outside of the currently fenced area. As detailed in Section 2.3.4, these activities will include excavation of landfilled materials and some consolidation of contaminated soils.

The fenced area, where most significant impact is generally located, will be subject to the installation of due care engineering controls. Cleanup activities on "areas of most significant impact" are intended to address the paint waste landfilled onsite; identification of these areas will be through field observation during excavation activities, using visual and olfactory criteria. Subsequent to the completion of remedial activities and installation of due care engineering controls, a Documentation of Due Care Compliance (DDCC) report will be completed. Future use of Parcel B is intended to be restricted to non-residential use, and is planned to be further limited to natural open area and surface parking. Therefore, in consultation with MDEQ, due care requirements for the intended use will be met. The Developer intends that the DDCC will be reviewed and approved by MDEQ, but does not intend to pursue closure for Parcel B.

After consultation with EPA and MDEQ, encapsulation of landfilled materials, which includes areas where PCB contamination was previously detected on Parcel B, will be conducted pursuant to Part 201 of the Natural Resources and Environmental Protection Act (NREPA), 1994 Public Act (PA) 451, as amended (Part 201), rather than the Toxic Substances Control Act of 1976, which EPA administers. Correspondence with EPA outlining the basis for this determination is provided in Attachment D.

The BEA and DDCC reporting will be completed in accordance with Part 201 of the Natural Resources and Environmental Protection Act (NREPA), 1994 Public Act (PA) 451, as amended, and Michigan Department of Environmental Quality (MDEQ) Instructions for Preparing and Disclosing Baseline Environmental Assessments and Section 7a Compliance Analyses, effective March 11, 1999. A detailed breakdown of the costs associated with this task is provided later in this section.

2.3.3 Health and Safety Plan

A site-specific Health and Safety Plan (HASP) will be completed for redevelopment activities at the subject property by each of the subsurface contractors and others that can come into contact with potentially contaminated media during the performance of their work activities. The HASPs will comply with appropriate guidelines including the following:

- Michigan Occupational Safety and Health Act;
- Section 111(c)(6) of CERCLA;
- Occupational Safety and Health Administration requirements 29 CFR 1910 and 1926;
- Standard Operating Safety Guide Manual (revised November 1984) by the Office of Emergency and Remedial Response; and
- Occupation Safety and Health guidance manual for Hazardous Waste Site Activities (NIOSH/OSHA/USCG/EPA, DHHS [NIOSH] Publication No. 85-115, October 1985).

The HASPs will include the following elements:

- Authorized personnel and definition of responsibilities;
- proposed activities;
- personal protective equipment;
- decontamination procedures;
- work zone restrictions and delineations;
- personal protection upgrade/downgrade action limits;
- emergency information and telephone numbers;
- incident documentation procedures; and
- contingency plans.

Oversight will be conducted to ensure due care issues are addressed while eligible activities and construction activities are being completed. The following activities (at a minimum) will be documented:

- The type, location, quantities, etc., of materials removed from the site and disposed at the landfill or other appropriately licensed disposal operation.
- The final disposition and location of any contaminated media that can be managed on-site in accordance with due care requirements.
- Monitoring for unanticipated materials and/or materials previously not identified, including collection of samples for additional waste characterization.

- The type, location, materials and construction of vapor mitigation systems installed at the site to prevent future potential indoor air inhalation exposures.

The Contractor Site Safety Officer will document and enforce HASP issues with workers at the Site, including:

- Verification of on-site worker training and current certifications.
- Conducting site-specific HASP training for workers entering the site.
- Monitoring construction activities to ensure the HASP is being followed, including use of PPE, decontamination of equipment, site security, etc.

A Construction Summary Report (CSR) will be prepared and submitted to the MDEQ-RD at the completion of development activities. The CSR will summarize the due care issues addressed during the construction activities and will include such items as photographic documentation, disposal manifests, fill material load tickets, utility abandonment logs (if any), site plans, etc. to verify that the development construction activities were conducted in accordance with approved plans.

2.3.4 Soil Remediation Activities

AKT Peerless has conducted several investigations that detected numerous VOCs, SVOCs, PBCs and/or metals in soil and groundwater at concentrations that exceed MDEQ's Part 201 RCC. VOCs, SVOCs, PBCs and/or metals detected in soil and/or groundwater at the subject property during past investigations include:

Antimony	Arsenic
Acenaphthene	beta-Hexachlorocyclohexane
Benzene	Benzo(a)anthracene
Benzo(a)pyrene	Benzo(b)fluoranthene
Bis(2-ethylhexyl)phthalate	n-Butylbenzene
Sec-Butylbenzene	Cadmium
Carbon tetrachloride	Carbazole
Chromium (total)	Dibenzofuran
Di-n-butyl phthalate	Ethylbenzene
Fluorene	Fluoranthene
Isopropyl benzene	Lead
Mercury	2-Methylnaphthalene
Naphthalene	Nickel
Phenanthrene	Polychlorinated biphenyls

n-Propylbenzene	Selenium
Silver	Toluene
Trichloroethylene	1,2,4-Trimethylbenzene
1,3,5-Trimethylbenzene	4-Methyl-2-pentanone (MIBK)
Vinyl Chloride	Xylenes
Zinc	

The Developer intends to construct a residential development on Parcel A and intends to remediate Parcel A to the extent that MDEQ may approve a No Further Action (NFA) request. Therefore, the Developer plans to remove the source areas of contamination on Parcel A. Based on the analytical results from previous subsurface investigations, six source areas have been identified on Parcel A (additional areas of contamination related to former landfilling are on Parcel B). Site specific background calculations will be performed for arsenic and selenium as part of the NFA.

The Developer intends to perform environmental cleanup activities on Parcel B and install due care engineering controls, such that Parcel B can be used as open natural area and surface parking to support recreational activities on municipal property east of Parcel B. These cleanup activities include soil removal in Source Area E, as listed in the following table.

Procedures for relocation of contaminated soils will be specified in an Environmental Construction Management Plan for certain minimal amounts of relocation within Parcel B, if necessary. In general, relocation of contaminated soils is not anticipated. Moreover, no contaminated soils are to be relocated between Parcel A and Parcel B, and none will be relocated within Parcel A.

The table below provides approximate volumes of contaminated soil/fill to be removed from each of the source areas and the former landfill area on the subject property.

Parcel Where Source Area Is Located	Source Area	Approximate Yd^3
Parcel A	Source Area A	1,630
Parcel A	Source Area B	3,556
Parcel A	Source Area C-1	7,741
Parcel A	Source Area C-2	23,333
Parcel A	Source Area D	6,667
Parcel B	Source Area E	23,185
Parcel A	Source Area F	741

Due to the concentrations of soil contaminants in these source areas and due to the fact that the Developer wishes to pursue a NFA designation, impacted soil and fill materials must be removed from Parcel A. The soil/fill will be removed and disposed at a Type II landfill. The costs included in the eligible activities include excavation, transportation, disposal, verification sampling, backfill, oversight and reporting, and project management. Due to compaction requirements, an additional 40,000 tons of

backfill is anticipated to be necessary to return excavated areas to grade. Remediation activities in Source Areas A-D and F are planned to begin in 2018, and are anticipated to take approximately three to four months to complete. The remedial and due care work in Source Area E and Parcel B is expected to be conducted after completion of remedial work on Parcel A, funded by the tax increment revenue stream that will then be available.

It should be noted that previous subsurface investigations encountered discontinuous, perched groundwater pockets with limited contamination. Groundwater contamination appeared to have been due to leaching from surrounding contaminated soils. It is anticipated that these pockets of impacted groundwater will be removed and properly disposed of during soil remediation activities on Parcel A.

Please refer to Table 1, Eligible Activity Cost Detail, for specific line item costs for the due care activities, and to Figure 3 for the locations of the source areas. These costs include allowances for environmental project management, field time, and contracted services.

2.3.5 Hot Spot Removal

Previous subsurface investigations identified six hot spots of metals contamination, likely associated with shallow fill materials, much smaller than the source areas identified in section 3.1.1.3 above. These hot spots are located in the central and southeastern portions of the western Parcel A. In order to remediate these areas, approximately 1,500 yd^3 of soil is anticipated to be excavated and disposed at a Type II landfill. The costs included in the eligible activities include excavation, transportation, disposal, verification sampling, backfill, oversight and reporting, and project management. These activities are anticipated to be completed at the same time as the soil removal described in the previous section. The costs in this section include allowances for environmental project management, field time, and contracted services.

2.3.6 Sub-Slab Venting System (New Construction)

Methane has not been found extensively across the property; however, the subject property is at risk for migration of methane gas from the landfill located across Hamlin Road to the south. This would be a concern for financing. As a result, the Developer intends to install passive sub-slab venting systems in all new buildings as a presumptive remedy to prevent indoor air exposure. AKT Peerless will engage with MDEQ representatives to obtain approval of the draft venting system construction plan. Construction of the systems will occur at the same time as construction of the residential units, which is anticipated to occur over approximately 3 years, beginning in 2018. This cost includes assessment, design, construction, testing, reporting, and project management for the systems.

An Operation and Maintenance (O&M) Plan for the sub-slab venting systems will be prepared by an environmental consultant.

2.3.7 Engineering Controls – Former Landfill Area

Complete removal of the area of the highest contamination, the former landfill area on the eastern parcel, is neither geotechnically sound or financially feasible. A hydraulic barrier system will be installed around the perimeter of the former landfill area (approximately 1,400 linear feet). Following the removal of contaminated soils from Area E, the initial portion of the barrier wall will be constructed adjacent to the western side of the landfill area (Refer to Figure 3, where this barrier wall is denoted as the “Clay Backfill Wall”). The final design of the barrier system is not complete, but will likely consist of a (minimum) 2-foot thick clay liner “slurry wall” around the remainder of the landfill area. The clay will be compacted to 95% based on the optimum moisture content. Shoring or trench boxes will be used to

ensure slope stability during the installation and compaction of the clay walls. The purpose of the Clay Backfill Wall and slurry wall is to prevent infiltration of groundwater into the former landfill area. The bottom of the Clay Backfill Wall and slurry wall will tie into native clay, and the top of these walls will tie into the clay cap, thus completely encapsulating the landfill area. Further, these control measures will act to prevent leachate formation.

As noted above, the former landfill will be covered with 2 feet of compacted clay and a flexible membrane liner and cap to prevent exacerbation of existing contamination. The clay cap will tie into the slurry wall and Clay Backfill Wall. In addition, if deemed necessary by MDEQ, a passive methane venting system will be designed and installed either (a) west of the former landfill area (approximately 1,400 linear feet), or (b) within the landfill area, to manage landfill gases on-site.

The environmental consultant will prepare and implement an O&M Plan for the engineering controls installed in the former landfill area. The O&M Plan is anticipated to include a recommendation for quarterly long term inspection/methane monitoring. The cost estimate for implementation of an O&M plan is $30,000 per year.

This cost includes design, installation, reporting, and project management for the systems.

2.3.8 Passive Methane Venting System

The south adjacent property is a former landfill. As a presumptive remedy to preemptively protect against the migration of contamination from methane gases, a passive methane venting system will be installed on the subject property along Hamlin Road, if deemed necessary by MDEQ. An O&M Plan for the venting system will be prepared.

This cost includes design, installation, reporting, and project management for the system. In addition, the environmental consultant will prepare and implement an O&M Plan for the engineering controls installed along Hamlin Road. The O&M Plan is anticipated to include a recommendation for quarterly long term inspection/methane monitoring.

2.3.9 Site Control & Erosion Control

In order to be protective of workers and residents, the excavation areas will be fenced or barricaded to minimize potential for unauthorized access to contaminated soil. These costs include the silt fencing for the north and east in order to mitigate erosion concerns; dust monitoring during environmental mitigation work in order to address further concerns of the neighbors to the north; a Soil Erosion and Sedimentation Control Plan; and a Fugitive Dust Emission Control and Contingency Plan. Additionally, a gravel mat will be constructed along the truck route leaving the property to minimize tracking of dirt and potentially impacted soil from the property.

During soil excavation and removal activities the truck routes will be as follows:

Site Arrival

- The trucks will initially use the entrance ramps on M-59 at the Adams Road interchange.
- The trucks will proceed north on Adams Road to Hamlin Road.
- Turn right (east) on Hamlin Road to enter the site. All trucks will be staged on site while waiting to be loaded or completion of shipping papers.

Site Departure

- The trucks leave the site onto Hamlin Road and proceed west toward Adams.

- The trucks will turn left (south) onto Adams Road and proceed to the M-59 interchange.
- The trucks will access M-59 from Adams Road and procedure to their destination.

See Figure 4 for a proposed truck route map.

2.3.10 Dewatering

The potential for water in excavations exists, particularly in Area E. In the event that groundwater is encountered in sufficient quantities to require dewatering, the water will be containerized in frac tanks. Once containerized, the water will be sampled to determine whether or not disposal is necessary or if the water can be discharged to the POTW under a permit. In the event that groundwater is encountered in a quantity that is too large to containerize, alternate methods for direct dewatering and disposal will be evaluated.

A summary of the eligible activities and the estimated cost of each eligible activity intended to be paid for with Tax Increment Revenues from the subject property are shown in the table below.

Estimated Cost of Reimbursable Eligible Activities

Description of Eligible Activity			Estimated Cost*
1.	Department Specific Activities	$	8,328,415
Subtotal Environmental & Non-Environmental Eligible Activities		$	8,328,415
2.	15% Contingency on Eligible Activities**	$	1,246,172
3.	Brownfield Plan & Act 381 WP Preparation Activities	$	45,000
Total Eligible Activities Cost with 15% Contingency		$	9,619,587
4.	BRA Administration Fee	$	210,000
5.	State Revolving Fund	$	1,410,194
6.	Local Brownfield Revolving Fund (LBRF)***	$	1,139,949
7.	Interest (calculated at 5%, simple)****	$	3,800,000
Total Eligible Costs for Reimbursement		$	**16,179,730**

*Estimated costs are subject to approval by MDEQ, as required. Any costs not approved by the MDEQ, as required, may become local only costs paid out of captured tax increment revenues from locally levied millages (to the extent available). Reimbursement of these activity costs would be limited to the local proportional share of local captured taxes.
**The contingency is applied to the Subtotal, excepting those particular activities which have already been performed.
***LBRF deposits will be made in accordance with Act 381 and with RHBRA policy.
****Interest is calculated annually at 5% simple interest on unreimbursed eligible activities.

A detailed breakout of the eligible activities and the estimated cost of each eligible activity intended to be paid for with Tax Increment Revenues from the subject property is shown in Attachment C, Table 1. It is currently anticipated that redevelopment will begin in 2018 and be completed in 2021.

The Developer desires to be reimbursed for the costs of eligible activities. Tax increment revenue generated by the subject property will be captured by the Authority and used to reimburse the cost of the eligible activities completed on the subject property after approval of this Brownfield Plan and an associated reimbursement agreement.

The costs listed in the table above are estimated costs and may increase or decrease depending on the nature and extent of environmental contamination and other unknown conditions encountered on the subject property. Costs may be moved between categories of eligible activities, provided that the total amount of incurred eligible activity costs requested for reimbursement does not exceed the total cap approved by the municipality. The actual cost of those eligible activities encompassed by this Brownfield Plan that will qualify for reimbursement from tax increment revenues of the Authority from the subject property shall be governed by the terms of a Reimbursement Agreement with the Authority (the "Reimbursement Agreement"). No costs of eligible activities will be qualified for reimbursement except to the extent permitted in accordance with the terms and conditions of the Reimbursement Agreement and/or the Development Agreement.

In accordance with this Brownfield Plan, and the associated Reimbursement Agreement, the amount advanced by the Developer will be repaid by the Authority solely from the tax increment revenues realized from the Eligible Property. It should be noted that the environmental costs for the project of $9,619,587 represent an approximately 17% increase in the development costs over a comparable "greenfield" site. This increase far exceeds any reasonable construction contingency for the project. Moreover, these costs do not add any benefit to the lenders' loan to value considerations, and therefore are anticipated to be funded through equity, reducing investors' returns on equity. In addition, the sub slab venting systems planned for the western parcel to address potential migration from offsite, and the capping and containment to remedy former illegal dumping on the eastern parcel are costs to address environmental issues that were not caused by the developers, and are outside the area of the developers' residential construction. Moreover, the eligible activities on the eastern parcel provide a significant, direct benefit to the City of Rochester Hills in its efforts to develop quality greenspace east of the subject property, as well as to the residents currently living immediately to the north. In general, the subject property is located within a larger area of former landfills that have resisted redevelopment for decades. This project represents a turning point and will be a model for other projects, providing a vital pathway and boon for the area.

Per its brownfield guidance, the City of Rochester Hills permits interest in extreme circumstances where there is a gap in financing. Due to the extreme circumstances associated with the cleanup of the former illegal landfill – including remediation activities on the adjacent largely vacant parcel separate from the new residential development, the projected amount to be reimbursed includes interest at the rate set at 5% simple interest, as permitted by the Act. The interest reimbursement is estimated at $3,800,000. This amount is still insufficient to fully cover the financing gap created by the $9,619,587 in projected environmental costs (since the lender for the project will not loan to support those costs), but it is necessary to make the project financeable. Since the senior lender will not finance the environmental cost, those costs must be covered with equity. Without interest reimbursement, the project cannot attract enough equity to complete those activities.

Payments will be made to the full extent incremental property tax revenues are or become available for such purpose under the Act. However, if the actual cost of eligible activities turns out to be lower than the above estimates, interest reimbursement may be lower, subject to the 5% simple interest calculation.

Tax increment revenues will used each year to make the specified payment toward administrative expenses described in the table above. The amount of school tax revenues, which will be used to reimburse the costs of implementing eligible activities at this site, will be limited to the school tax portion of the cost of: (1) eligible activities approved by the MDEQ (as required); (2) assessment activities and brownfield and work plan preparation; and (3) the interest calculated as described above.

If the use of school tax revenues to reimburse specific eligible activities is not approved by the MDEQ, these specific activities will be reimbursed with local-only TIR (to the extent available). Reimbursement of these activity costs would be limited to the local proportional share of local captured taxes.

2.4 Estimate of Captured Taxable Value and Tax Increment Revenues (Section 13(2)(c)); Impact of Tax Increment Financing On Taxing Jurisdictions (Section 13(2)(g), Section 2(ee))

This Brownfield Plan anticipates the capture of tax increment revenues to reimburse the Developer for the costs of eligible activities under this Brownfield Plan in accordance with the Reimbursement Agreement. A table of estimated tax increment revenues to be captured is attached to this Brownfield Plan as Attachment C, Table 2. Tax increment revenue capture is expected to begin in 2019.

All reimbursement will be in accordance with the Reimbursement Agreement and the Development Agreement.

The total estimated cost of the eligible activities and other costs (including administrative fees, contingency, interest, and LBRF deposits) to be reimbursed through the capture of tax increment revenue is projected to be $16,179,730. Of this total, $9,619,587 are eligible activities including contingency. This represents over a 17% increase to the total development costs, which – excluding land and the eligible activities – exceed $34 million.

The estimated effective initial taxable value for this Brownfield Plan is $37,440 and is based on land and real property tax only. No personal property is currently on the subject property. Significant taxable personal property is not anticipated in the new development; however, to the extent that new taxable personal property generates tax increment revenue, the reimbursement period may be shortened. The initial taxable value of $37,440 is set in the 2017 tax year, the tax year applicable to when the eligible property was included in this plan. Redevelopment of the subject property is expected to initially generate substantial incremental taxable value in 2020 with the first significant increase in taxable value of approximately $5,925,000 beginning in 2020. Only tax revenue from the incremental increase will go toward reimbursement; there will be no loss to taxing jurisdictions during the life of the Plan.

It is estimated that the Authority will capture the 2020 through 2040 tax increment revenues to reimburse the cost of the eligible activities, reimburse interest, State Brownfield Redevelopment Fund, LBRF and pay Authority administrative fees, although if necessary in order to reimburse these costs, reimbursement is authorized through 2043. An estimated schedule of tax increment revenue reimbursement is provided as Attachment C, Table 3.

The captured incremental taxable value and associated tax increment revenue will be based on the actual increased taxable value from all taxable improvements on the subject property and the actual millage rates levied by the various taxing jurisdictions during each year of the plan, as shown in Attachment C, Tables 2 and 3. The actual tax increment captured will be based on taxable value set through the property assessment process by the local unit of government and equalized by the County and the millage rates set each year by the taxing jurisdictions.

2.5 Impact on Taxing Jurisdictions (Section 13(2)(g)

Based on the current expectations, the Rochester Hills School District is projected to receive some $2,778,021 toward bond repayment over the anticipated life of the Plan; the Zoo Authority, Art Institute, Ch 20 Drain Debt reduction fund and OPC Building debt retirement fund will all see significant payments as reflected on Table 2. Further, the Plan will provide some $210,000 in fees to the Authority. Following

completion of this Plan, the subject property is anticipated to provide over $750,000 per year thereafter in local taxes and over $690,000 per year in school and education taxes. Also, the project will employ workers and house tenants that will help stimulate the regional economy, providing further tax benefits.

The following table on the next page presents an estimation of the tax revenues generated on the subject property during the life of the Plan. Revenues are shown by taxing jurisdiction.

Impact to Taxing Jurisdictions

School Capture	Millage Rate	Developer Reimbursement	BRA Admin Reimbursement	State Revolving Fund	LBRF	Taxing Jurisdiction
State Education Tax (SET)	6.0000	$ 1,847,215		$ 1,410,194	$ 84,612	$ 4,717
School Operating Tax	18.0000	$ 5,541,645			$ 253,835	$ 14,152
Local Capture						
OAK COUNTY PARKS	0.2392	$ 73,642	$ 2,564		$ 9,787	$ 188
HURON-CLIN PARK	0.2146	$ 66,069	$ 2,301		$ 8,781	$ 169
GENERAL FUND	2.1136	$ 650,712	$ 22,659		$ 86,482	$ 1,662
LOCAL STREET I	0.3507	$ 107,970	$ 3,760		$ 14,350	$ 276
LOCAL STREET II	0.4803	$ 147,870	$ 5,149		$ 19,652	$ 378
LOCAL STREET III	0.2939	$ 90,483	$ 3,151		$ 12,025	$ 231
FIRE FUND	2.7000	$ 831,247	$ 28,945		$ 110,475	$ 2,123
SPECIAL POLICE I	1.1954	$ 368,027	$ 12,815		$ 48,912	$ 940
SPECIAL POLICE II	1.5633	$ 481,292	$ 16,759		$ 63,965	$ 1,229
PATHWAY	0.1837	$ 56,556	$ 1,969		$ 7,516	$ 144
RARA OPERATING	0.1928	$ 59,357	$ 2,067		$ 7,889	$ 152
OPC TRANSPORTION	0.0990	$ 30,479	$ 1,061		$ 4,051	$ 78
OPC OPERATING	0.2377	$ 73,181	$ 2,548		$ 9,726	$ 187
LIBRARY OPERATING	0.7739	$ 238,260	$ 8,297		$ 31,665	$ 608
OAK COUNTY OPERATING	4.0400	$ 1,243,792	$ 43,311		$ 165,304	$ 3,176
OAK INT SD-ALLOC	0.1985	$ 61,112	$ 2,128		$ 8,122	$ 156
OAK INT SD-VTD	3.1413	$ 967,109	$ 33,676		$ 128,532	$ 2,470
OAK COMM COLLEGE	1.5707	$ 483,570	$ 16,839		$ 64,268	$ 1,235
TOTALS		**$ 13,419,587**	**$ 210,000**	**$ 1,410,194**	**$ 1,139,949**	**$ 34,271**

Total Non-Capturable Taxes

In addition, taxes levied by the following millages will not be captured under the Plan, but instead will flow through to the taxing units.

ZOO AUTHORITY	0.0990	$ 55,332
ART INSTITUTE	0.1981	$ 110,719
CH 20 DRAIN DEBT	0.0417	$ 23,306
OPC BUILDING DEBT	0.2345	$ 131,063
ROCH SCH DEBT	5.9000	$ 3,297,539

2.6 Plan of Financing (Section 13(2)(d)); Maximum Amount of Indebtedness (Section 13(2)(e))

Eligible activities are to be financed by the Developer. No bonds will be issued nor will other governmental funds be utilized. The Authority will reimburse the Developer for the cost of approved eligible activities, but only from tax increment revenues generated from the subject property as available, and subject to the Reimbursement Agreement.

All reimbursements authorized under this Brownfield Plan shall be governed by the Reimbursement Agreement. The Authority shall not incur any note or bonded indebtedness to finance the purposes of this Brownfield Plan. The inclusion of eligible activities and estimates of costs to be reimbursed in this Brownfield Plan is intended to: (1) authorize the Authority to fund such reimbursements; and (2) does not obligate the Authority to fund any reimbursement or to enter into the Reimbursement Agreement providing for the reimbursement of any costs for which tax increment revenues may be captured under this Brownfield Plan, or which are permitted to be reimbursed under this Brownfield Plan. The amount and source of any tax increment revenues that will be used for purposes authorized by this Brownfield Plan, and the terms and conditions for such use and upon any reimbursement of the expenses permitted by the Brownfield Plan, will be provided solely under the Reimbursement Agreement contemplated by this Brownfield Plan.

2.7 Duration of Brownfield Plan (Section 13(2)(f))

Current tax capture projections indicate the tax increment capture will continue for at least 21 years, and may continue for 24 years. In the event that the City of Rochester Hills does not have a local brownfield revolving fund, the tax increment capture is expected to last for only 18 years. In no event shall the duration of the Brownfield Plan exceed 35 years following the date of the resolution approving the Brownfield Plan, nor shall the duration of the tax capture exceed the lesser of the period authorized under subsection (4) and (5) of Section 13 of Act 381 or 30 years. Further, in no event shall the beginning date of the capture of tax increment revenues be later than five years after the date of the resolution approving the Brownfield Plan.

2.8 Effective Date of Inclusion in Brownfield Plan

The subject property will become a part of this Brownfield Plan on the date this Brownfield Plan is approved by the City of Rochester Hills. The date of tax capture is anticipated to commence the first year that tax increment revenue becomes available— but in no case shall the beginning date of tax capture shall exceed five years beyond the date of the governing body resolution approving the Brownfield Plan.

2.9 Displacement/Relocation of Individuals on Eligible Property (Section 13(2)(i-l))

There are no persons or businesses residing on the Eligible Property, and no occupied residences will be acquired or cleared; therefore, there will be no displacement or relocation of persons or businesses under this Brownfield Plan.

2.10 Local Brownfield Revolving Fund ("LBRF") (Section 8, Section 13(5))

The Authority has established a Local Brownfield Revolving Fund (LBRF). The Authority will capture incremental local and state school taxes to fund the LBRF, to the extent allowed by law. The rate and schedule of incremental tax capture for the LBRF will be determined on a case-by-case basis. Considerations may include, but not be limited to the following: total capture duration, total annual capture, project economic factors, level of existing LBRF funding, projected need for LBRF funds, and amount of school tax capture available in accordance with Act 381.

The amount of tax increment revenue authorized for capture and deposit in the LBRF is estimated at $1,139,949.

2.11 Other Information

The tax capture breakdown of tax increment revenues anticipated to become available for use in this Brownfield Plan is summarized below.

There are 43.6335 non-homestead mills available for capture, with school millage equaling 24.0000 mills (55%) and local millage equaling 19.6335 mills (45%). None of the project will include homestead residential property, with those properties including the State Education Tax and local ISD taxes. The requested tax capture for MDEQ eligible activities breaks down as follows:

Tax Capture

State to Local Tax Capture	Eligible Activities, Interest, Contingency
MDEQ School tax capture (55%)	$7,388,861
MDEQ Local tax capture (45%)	$6,030,726
Local-Only tax capture	$0
Total	**$13,419,587**

Attachments

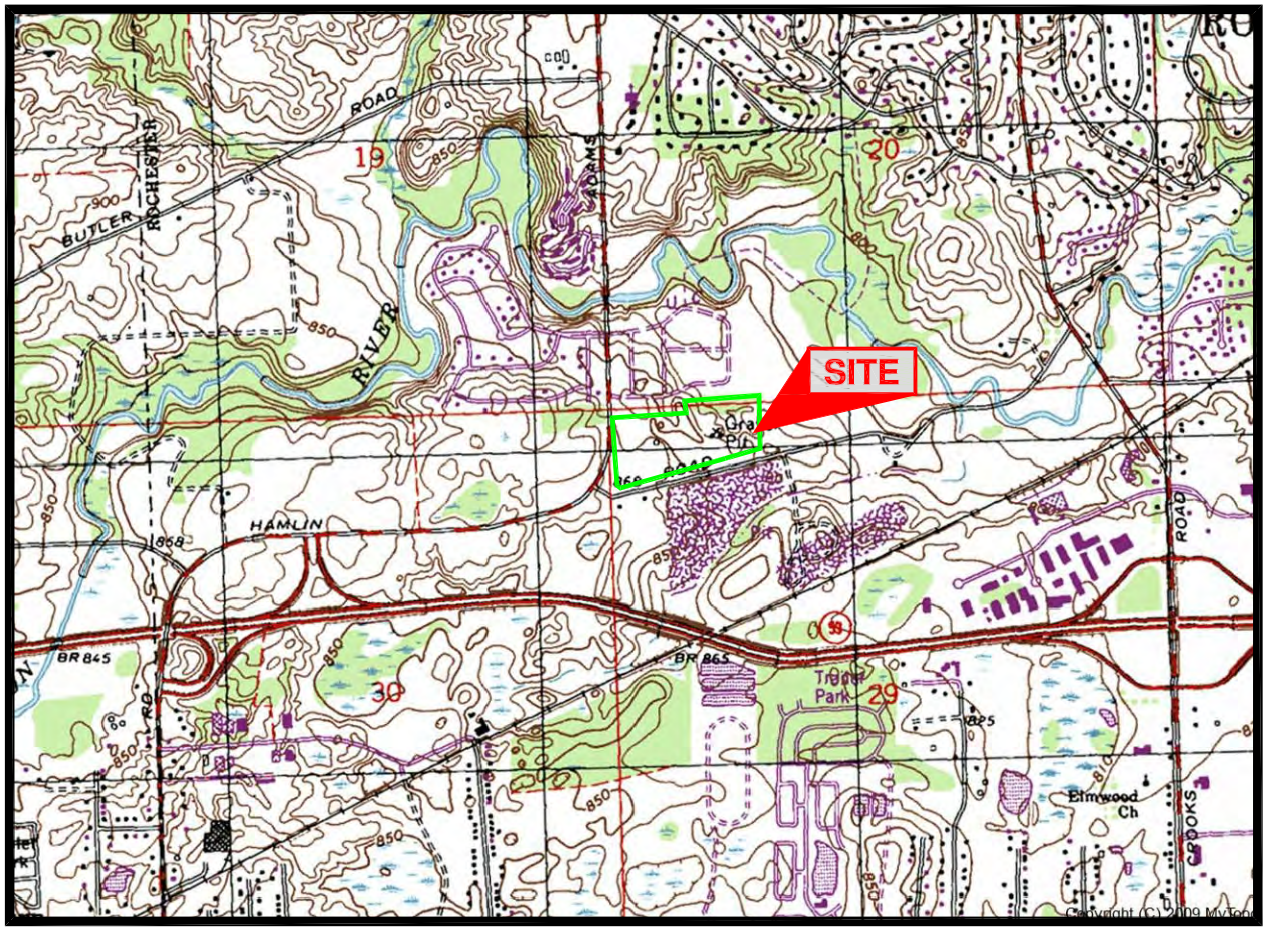
Attachment A

Site Maps

ROCHESTER QUADRANGLE

MICHIGAN - OAKLAND COUNTY

7.5 MINUTE SERIES (TOPOGRAPHIC)



T.3 N.-R.11 E.

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 0 1 KILOMETER

MICHIGAN
QUADRANGLE LOCATION

IMAGE TAKEN FROM 1997 U.S.G.S. TOPOGRAPHIC MAP

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SCALED PROPERTY LOCATION MAP

PARCEL 15-29-101-022 AND 15-29-101-023
NE CORNER OF HAMLIN & ADAMS ROADS
ROCHESTER HILLS, MICHIGAN
PROJECT NUMBER: 3679F6-5-25

DRAWN BY: ARR
DATE: 06/02/2017

FIGURE 1

WHITE WATER DRIVE

RAPIDS WAY

PORTAGE TRAIL DRIVE

760

127

777

Anticipated New
Boundary Between
Parcel A and Parcel B

15-29-101-023 **Parcel B**

Current Parcel B
Parcel ID No.

554

15-29-101-022 **Parcel A**

Current Parcel A
Parcel ID No.

168

Current Parcel Boundary

129

204

SOUTH ADAMS ROAD

204

1516

WEST HAMLIN ROAD

48

N
W E
S

LEGEND

= ELIGBLE PROPERTY BOUNDARY LINE

= PARCEL LINE

DRAWN BY: ARR
DATE: 06/02/2017

0 75 150
SCALE: 1" = 150'

FIGURE 2

ELIGBLE PROPERTY BOUNDARY MAP

PARCEL 15-29-101-022 AND 15-29-101-023
NE CORNER OF HAMLIN & ADAMS ROADS
ROCHESTER HILLS, MICHIGAN
PROJECT NUMBER: 3679F6-5-25

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Figure 3.

Map Showing Proposed New Parcel Boundaries

WHITE WATER DRIVE

RAPIDS WAY

RESIDENTIAL
2975-2863 PORTAGE TRAIL DRIVE

PORTAGE TRAIL DRIVE

760

127

777

PARCEL A

15-29-101-022

AREA A

168

PARCEL B

CLAY BACKFILL WALL

SLURRY WALL

15-29-101-023

AREA B

AREA E

UNDEVELOPED LAND

ENCAPSULATION AREA
LANDFILL AREA

LATERAL PIPES FOR
LANDFILL VENTING

554

FENCED AREA

AREA C

AREA C

AKT-200

AKT-201

AKT-202

AKT-203

AKT-204

AKT-205

AKT-206

AKT-207

AKT-208

AKT-209

AKT-210

AKT-211

AKT-100/AKT-100W

AKT-101

AKT-102

AKT-103

AKT-104

AKT-105

AKT-106

AKT-107

AKT-108

SS-6

TEST PIT 1

TRENCH 1

TRENCH 2

TEST PIT 2

SS-9

AREA D

SB-1

SB-2

SB-3

SB-4

MW-1

MW-2

MW-3

MW-4

MW-8

QUAIL RIDGE SUBDIVISION
2007-2049 MAPLE RIDGE ROAD

SOUTH ADAMS ROAD

129

204

204

48

1516

WEST HAMLIN ROAD

FORMER CARDINAL LANDFILL (1960s AND 1970s)
2801 WEST HAMLIN ROAD
(SHWS, BEA)

N

W E

S

DRAWN BY: OGO/ARR
DATE: 09/06/2017

0 75 150
SCALE: 1" = 150'

FIGURE 2

SITE MAP WITH HISTORICAL SUBSURFACE INVESTIGATION ACTIVITIES

PARCEL 15-29-101-022
NE CORNER OF HAMLIN & ADAMS ROADS
ROCHESTER HILLS, MICHIGAN
PROJECT NUMBER : 3679F6-3-26

LEGEND

= PROPERTY LINE
= RATEE WELL DRILLING TEST BORING (2/1988)
= O'BRIEN MONITORING WELL (1/1990 OR 9/2004)
= E & E SOIL SAMPLE (6/1990)
= O'BRIEN AND GERE SOIL BORING (2/1993)
= O'BRIEN AND GERE SOIL BORING (9/1994)
= O'BRIEN SURFACE SOIL SAMPLE (9/1994)
= O'BRIEN TEST PIT (1994)
= O'BRIEN TRENCH (1994)
= AKT PEERLESS TEST PITS (10/2002)
= AKT PEERLESS SOIL BORING (12/2004)/2017
= AKT PEERLESS SOIL BORING (02/2005)
= TEST PIT EXCAVATION (2007)
= GROUNDWATER MONITORING WELL (2007)

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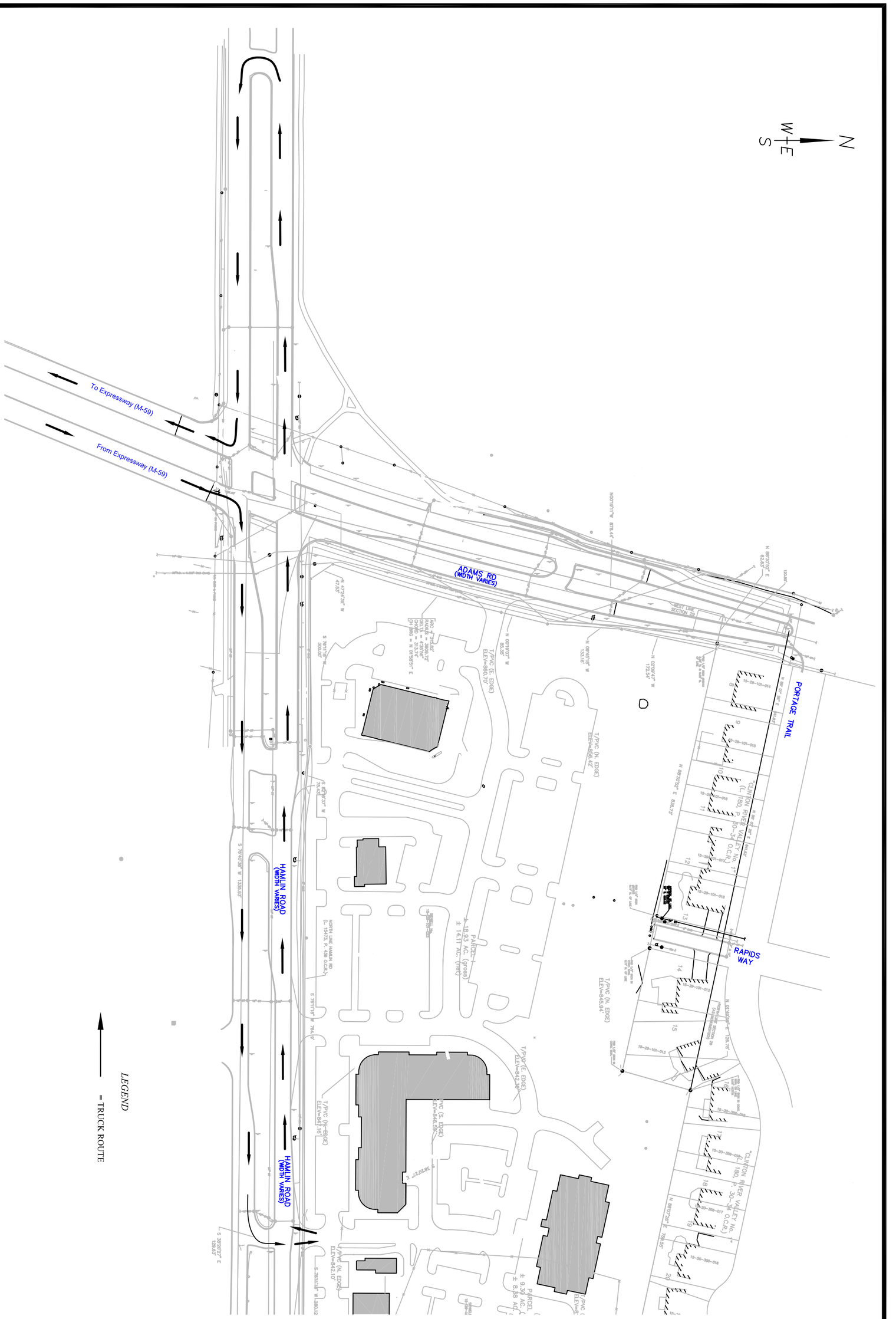
Figure 4.

Proposed Truck Route Map

P:\Projects 3000\3679F2 - Hamlin & Adams Road\3679F2 CAD-Figures\Working Figures Dwf\dwg RECOVER\3679f groundwater Elevation map_2008-6-5.dwg, Fig 3 truck route MAP 2-20 11x17 (2), 6/6/2008 9:52:24 AM, Tabloid



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environmental services
FARMINGTON DETROIT SAGINAW LANSING
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SITE MAP WITH GROUNDWATER FLOW DIRECTION

HAMLIN & ADAMS PROPERTIES, LLC
ROCHESTER, MICHIGAN
PROJECT NUMBER : 3679F2-10-20

DRAWN BY: KHE
DATE: 10-9-07

0 80 160
SCALE: 1" = 160' ±0

FIGURE 4

Attachment B

Legal Description(s)

Legal Descriptions:

Parcel ID: 70-15-29-101-022

Legal Information: T3N, R11E, SEC 29 PART OF W 1/2 OF NW 1/4 BEG AT PT DIST S 00-33-37 E 120.85 FT FROM NW SEC COR, TH N 88-30-46 E 836.53 FT, TH S 38-06-17 E 750.59 FT, TH S 76-30-50 W 1327.14 FT, TH N 00-33-37 W 878.45 FT TO BEG 18.80 A 1-24-00 FR 002

Parcel ID: 70-15-29-101-023

Legal Information: T3N, R11E, SEC 29 PART OF W 1/2 OF NW 1/4 BEG AT PT DIST N 88-07-26 E 841.94 FT FROM NW SEC COR, TH N 88-07-26 E 759 FT, TH S 01-26-07 W 674.52 FT, TH S 76-30-50 W 291 FT, TH N 38-06-17 W 750.59 FT, TH N 01-50-10 E 126.65 FT TO BEG 9.20A 01-24-00 FR 002

Attachment C

Tables

Table 1. Eligible Activities

Legacy Rochester Hills
Rochester Hills, MI
AKT Peerless Project No. 3679F6
As of April 7, 2018

ELIGIBLE ACTIVITIES COST SUMMARY				
				Estimated Cost of Eligible Activity
Department Specific Activities				**8,368,415**
			15% Contingency on Eligible Activities	$ 1,206,172
Brownfield Plan & Act 381 WP Preparation Activities				**$ 45,000**
Total Eligible Activities Cost with 15% Contingency				**$ 9,619,587**
			Interest (calculated at 5%, simple)	**$ 3,800,000**
Total Eligible Activities Cost, with Contingency & Interest				**$ 13,419,587**
BRA Administration Fee				**$ 210,000**
State Revolving Fund				**$ 1,410,194**
Local Brownfield Revolving Fund (LBRF)				**$ 4,075,533**
Total Eligible Costs for Reimbursement				**$ 19,115,315**

ELIGIBLE ACTIVITIES COST DETAIL	# of Units	Unit Type	Cost/ Unit	Est. Total Cost
Department Specific Activities				
Phase I	2	LS	$ 2,800	$ 5,600
BEA	2	LS	$ 7,500	$ 15,000
Supplemental Subsurface Investigation	1	LS	$ 120,000	$ 120,000
Environmental Construction Managemnt Plan	1	LS	$ 20,000	$ 20,000
Project Management, Adminsitration, and Consulting Support	1	LS	$ 25,000	$ 25,000
HASP	1	LS	$ 2,000	$ 2,000
Parcel A - Area A Soil/Waste Removal				
Area A Excavation, Transportation & Disposal	1,630	YD	$ 45	$ 73,333
Area A Backfill	1,630	YD	$ 17	$ 27,704
Area A Laboratory Costs and Verification Sampling	1	LS	$ 6,000	$ 6,000
Area A Environmental Management/Oversight	1	LS	$ 7,500	$ 7,500
Parcel A - Area B Soil/Waste Removal				
Area B Excavation, Transportation & Disposal	3,556	YD	$ 45	$ 160,000
Area B Backfill	3,556	YD	$ 17	$ 60,444
Area B LaboratorY Costs and Verification Sampling	1	LS	$ 10,000	$ 10,000
Area B Environmental Management/Oversight	1	LS	$ 14,000	$ 14,000
Parcel A - Area C1 Soil/Waste Removal				
Area C1 Excavation, Transportation & Disposal	7,741	YD	$ 45	$ 348,333
Area C1 Backfill	7,741	YD	$ 17	$ 131,593
Area C1 Laboratory Costs and Verification Sampling	1	LS	$ 11,500	$ 11,500
Area C2 Environmental Management/Oversight	1	LS	$ 15,000	$ 15,000
Parcel A - Area C2 Soil/Waste Removal				
Area C2 Excavation, Transportation & Disposal	23,333	YD	$ 45	$ 1,050,000
Area C2 Backfill	23,333	YD	$ 17	$ 396,667
Area C2 Laboratory Costs and Verification Sampling	1	LS	$ 15,000	$ 15,000
Area C2 Environmental Management/Oversight	1	LS	$ 12,000	$ 12,000
Parcel A - Area D Soil/Waste Removal				
Area D Excavation, Transportation & Disposal	6,667	YD	$ 45	$ 300,000
Area D Backfill	6,667	YD	$ 17	$ 113,333

Table 1. Eligible Activities

Legacy Rochester Hills

Rochester Hills, MI

AKT Peerless Project No. 3679F6

As of April 7, 2018

Area D Laboratory Costs and Verification Sampling	1	LS	$	6,500	$	6,500
Area D Environmental Management/Oversight	1	LS	$	8,000	$	8,000
Parcel A - Area F Soil/Waste Removal						
Area F Excavation, Transportation & Disposal	741	YD	$	45	$	33,333
Area F Backfill	741	YD	$	17	$	12,593
Area F Laboratory Costs and Verification Sampling	1	LS	$	3,500	$	3,500
Area F Environmental Management/Oversight	1	LS	$	5,000	$	5,000
Smaller Hot Spot Removal (Southwestern Area)	1	LS	$	100,000	$	100,000
Sub-slab venting system - all new construction	162,000	SF	$	4	$	648,000
Parcel B - Area E Soil/Waste Removal						
Area E Excavation, Transportation & Disposal	23,185	YD	$	45	$	1,043,333
Area E Backfill	23,185	YD	$	17	$	394,148
Area E Laboratory Costs and Verification Sampling	1	LS	$	15,000	$	15,000
Area E Environmental Management/Oversight	1	LS	$	12,000	$	12,000
Parcel B - Removal and Disposal of PCB Impacted Soils	1	LS	$	232,000	$	232,000
O&M Plan - Parcel B	1	LS	$	900,000	$	900,000
Import Clean Fill for Land Balancing	40,000	CY	$	17	$	680,000
Installation Hydraulic Barrier (i.e. slurry wall)	1	LS	$	150,000	$	150,000
Installation of Liner and Cap over former landfill	1	LS	$	120,000	$	120,000
Installation of Passive Methane Venting System (former "landfill" area)	1	LS	$	190,000	$	190,000
Operation and Maintenance Plan - Subfloor Methane Mitigation Systems, S	1	LS	$	255,000	$	255,000
Passive Methane Venting System along Hamlin Road	1	LS	$	260,000	$	260,000
O&M Plan - Passive Methane Venting System along Hamlin Road	1	LS	$	150,000	$	150,000
Waterproofing Seals and Gaskets for Stormwater Piping	1	LS	$	40,000	$	40,000
Temporary Site Control & Erosion Control	1	LS	$	50,000	$	50,000
Dewatering	1	LS	$	75,000	$	75,000
Closeout Reporting (East Parcel) & Documentation of Due Care Compliance	1	LS	$	15,000	$	15,000
NFA Due Care Plan	1	LS	$	30,000	$	30,000
			Subtotal		**$**	**8,368,415**
Brownfield Plan & Act 381 Work Plan Preparation						
BRA Application Fee and Administration Fee					$	-
Brownfield Plan	1	LS	$	10,000	$	10,000
Act 381 Work Plan	1	LS	$	15,000	$	15,000
Cost Tracking & Compliance	1	LS	$	20,000	$	20,000
			Subtotal		**$**	**45,000**

Table 2. Tax Increment Revenue Estimates

Legacy Rochester Hills

Rochester Hills, MI

AKT Peerless Project No. 3679F6

As of April 7, 2018

Estimated TV Increase rate: 1.02

			1	2	3	4	5	6	7	8	9	10	11	12
	Plan Year		1	2	3	4	5	6	7	8	9	10	11	12
	Calendar Year		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
	Initial Taxable Value		$ 37,440	$ 37,440	$ 37,440	$ 37,440	$ 37,440	$ 37,440	$ 37,440	$ 37,440	$ 37,440	$ 37,440	$ 37,440	$ 37,440
Post-Dev TV (30% of Project Investment)	Estimated New TV		$ 5,925,000	$ 13,825,000	$ 19,750,000	$ 20,145,000	$ 20,547,900	$ 20,958,858	$ 21,378,035	$ 21,805,596	$ 22,241,708	$ 22,686,542	$ 23,140,273	$ 23,603,078
	Incremental Difference (New TV - Initial TV)		**$ 5,887,560**	**$ 13,787,560**	**$ 19,712,560**	**$ 20,107,560**	**$ 20,510,460**	**$ 20,921,418**	**$ 21,340,595**	**$ 21,768,156**	**$ 22,204,268**	**$ 22,649,102**	**$ 23,102,833**	**$ 23,565,638**
School Capture	Millage Rate													
State Education Tax (SET)	6.0000	Initial	$ 225	$ 225	$ 225	$ 225	$ 225	$ 225	$ 225	$ 225	$ 225	$ 225	$ 225	$ 225
		Incremental	$ 35,325	$ 82,725	$ 118,275	$ 120,645	$ 123,063	$ 125,529	$ 128,044	$ 130,609	$ 133,226	$ 135,895	$ 138,617	$ 141,394
School Operating Tax	18.0000	Initial	$ 674	$ 674	$ 674	$ 674	$ 674	$ 674	$ 674	$ 674	$ 674	$ 674	$ 674	$ 674
		Incremental	$ 105,976	$ 248,176	$ 354,826	$ 361,936	$ 369,188	$ 376,586	$ 384,131	$ 391,827	$ 399,677	$ 407,684	$ 415,851	$ 424,181
School Total	**24.0000**													
Local Capture	Millage Rate													
OAK COUNTY PARKS	0.2392	Initial	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9
		Incremental	$ 1,408	$ 3,298	$ 4,715	$ 4,810	$ 4,906	$ 5,004	$ 5,105	$ 5,207	$ 5,311	$ 5,418	$ 5,526	$ 5,637
HURON-CLIN PARK	0.2146	Initial	$ 8	$ 8	$ 8	$ 8	$ 8	$ 8	$ 8	$ 8	$ 8	$ 8	$ 8	$ 8
		Incremental	$ 1,263	$ 2,959	$ 4,230	$ 4,315	$ 4,402	$ 4,490	$ 4,580	$ 4,671	$ 4,765	$ 4,860	$ 4,958	$ 5,057
GENERAL FUND	2.1136	Initial	$ 79	$ 79	$ 79	$ 79	$ 79	$ 79	$ 79	$ 79	$ 79	$ 79	$ 79	$ 79
		Incremental	$ 12,444	$ 29,141	$ 41,664	$ 42,499	$ 43,351	$ 44,220	$ 45,105	$ 46,009	$ 46,931	$ 47,871	$ 48,830	$ 49,808
LOCAL STREET I	0.3507	Initial	$ 13	$ 13	$ 13	$ 13	$ 13	$ 13	$ 13	$ 13	$ 13	$ 13	$ 13	$ 13
		Incremental	$ 2,065	$ 4,835	$ 6,913	$ 7,052	$ 7,193	$ 7,337	$ 7,484	$ 7,634	$ 7,787	$ 7,943	$ 8,102	$ 8,264
LOCAL STREET II	0.4803	Initial	$ 18	$ 18	$ 18	$ 18	$ 18	$ 18	$ 18	$ 18	$ 18	$ 18	$ 18	$ 18
		Incremental	$ 2,828	$ 6,622	$ 9,468	$ 9,658	$ 9,851	$ 10,049	$ 10,250	$ 10,455	$ 10,665	$ 10,878	$ 11,096	$ 11,319
LOCAL STREET III	0.2939	Initial	$ 11	$ 11	$ 11	$ 11	$ 11	$ 11	$ 11	$ 11	$ 11	$ 11	$ 11	$ 11
		Incremental	$ 1,730	$ 4,052	$ 5,794	$ 5,910	$ 6,028	$ 6,149	$ 6,272	$ 6,398	$ 6,526	$ 6,657	$ 6,790	$ 6,926
FIRE FUND	2.7000	Initial	$ 101	$ 101	$ 101	$ 101	$ 101	$ 101	$ 101	$ 101	$ 101	$ 101	$ 101	$ 101
		Incremental	$ 15,896	$ 37,226	$ 53,224	$ 54,290	$ 55,378	$ 56,488	$ 57,620	$ 58,774	$ 59,952	$ 61,153	$ 62,378	$ 63,627
SPECIAL POLICE I	1.1954	Initial	$ 45	$ 45	$ 45	$ 45	$ 45	$ 45	$ 45	$ 45	$ 45	$ 45	$ 45	$ 45
		Incremental	$ 7,038	$ 16,482	$ 23,564	$ 24,037	$ 24,518	$ 25,009	$ 25,511	$ 26,022	$ 26,543	$ 27,075	$ 27,617	$ 28,170
SPECIAL POLICE II	1.5633	Initial	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59
		Incremental	$ 9,204	$ 21,554	$ 30,817	$ 31,434	$ 32,064	$ 32,706	$ 33,362	$ 34,030	$ 34,712	$ 35,407	$ 36,117	$ 36,840
PATHWAY	0.1837	Initial	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7
		Incremental	$ 1,082	$ 2,533	$ 3,621	$ 3,694	$ 3,768	$ 3,843	$ 3,920	$ 3,999	$ 4,079	$ 4,161	$ 4,244	$ 4,329
RARA OPERATING	0.1928	Initial	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7
		Incremental	$ 1,135	$ 2,658	$ 3,801	$ 3,877	$ 3,954	$ 4,034	$ 4,114	$ 4,197	$ 4,281	$ 4,367	$ 4,454	$ 4,543
OPC TRANSPORTION	0.0990	Initial	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4
		Incremental	$ 583	$ 1,365	$ 1,952	$ 1,991	$ 2,031	$ 2,071	$ 2,113	$ 2,155	$ 2,198	$ 2,242	$ 2,287	$ 2,333
OPC OPERATING	0.2377	Initial	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9
		Incremental	$ 1,399	$ 3,277	$ 4,686	$ 4,780	$ 4,875	$ 4,973	$ 5,073	$ 5,174	$ 5,278	$ 5,384	$ 5,492	$ 5,602
LIBRARY OPERATING	0.7739	Initial	$ 29	$ 29	$ 29	$ 29	$ 29	$ 29	$ 29	$ 29	$ 29	$ 29	$ 29	$ 29
		Incremental	$ 4,556	$ 10,670	$ 15,256	$ 15,561	$ 15,873	$ 16,191	$ 16,515	$ 16,846	$ 17,184	$ 17,528	$ 17,879	$ 18,237
OAK COUNTY OPERATING	4.0400	Initial	$ 151	$ 151	$ 151	$ 151	$ 151	$ 151	$ 151	$ 151	$ 151	$ 151	$ 151	$ 151
		Incremental	$ 23,786	$ 55,702	$ 79,639	$ 81,235	$ 82,862	$ 84,523	$ 86,216	$ 87,943	$ 89,705	$ 91,502	$ 93,335	$ 95,205
OAK INT SD-ALLOC	0.1985	Initial	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7
		Incremental	$ 1,169	$ 2,737	$ 3,913	$ 3,991	$ 4,071	$ 4,153	$ 4,236	$ 4,321	$ 4,408	$ 4,496	$ 4,586	$ 4,678
OAK INT SD-VTD	3.1413	Initial	$ 118	$ 118	$ 118	$ 118	$ 118	$ 118	$ 118	$ 118	$ 118	$ 118	$ 118	$ 118
		Incremental	$ 18,495	$ 43,311	$ 61,923	$ 63,164	$ 64,430	$ 65,720	$ 67,037	$ 68,380	$ 69,750	$ 71,148	$ 72,573	$ 74,027
OAK COMM COLLEGE	1.5707	Initial	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59
		Incremental	$ 9,248	$ 21,656	$ 30,963	$ 31,583	$ 32,216	$ 32,861	$ 33,520	$ 34,191	$ 34,876	$ 35,575	$ 36,288	$ 37,015
Local Total	**19.5886**													
Non-Capturable Millages	Millage Rate													
ZOO AUTHORITY	0.0990	New TV	$ 587	$ 1,369	$ 1,955	$ 1,994	$ 2,034	$ 2,075	$ 2,116	$ 2,159	$ 2,202	$ 2,246	$ 2,291	$ 2,337
ART INSTITUTE	0.1981	New TV	$ 1,174	$ 2,739	$ 3,912	$ 3,991	$ 4,071	$ 4,152	$ 4,235	$ 4,320	$ 4,406	$ 4,494	$ 4,584	$ 4,676
CH 20 DRAIN DEBT	0.0417	New TV	$ 247	$ 577	$ 824	$ 840	$ 857	$ 874	$ 891	$ 909	$ 927	$ 946	$ 965	$ 984
OPC BUILDING DEBT	0.2345	New TV	$ 1,389	$ 3,242	$ 4,631	$ 4,724	$ 4,818	$ 4,915	$ 5,013	$ 5,113	$ 5,216	$ 5,320	$ 5,426	$ 5,535
ROCH SCH DEBT	5.9000	New TV	$ 34,958	$ 81,568	$ 116,525	$ 118,856	$ 121,233	$ 123,657	$ 126,130	$ 128,653	$ 131,226	$ 133,851	$ 136,528	$ 139,258
Total Non-Capturable Taxes	**6.4733**													

Table 2. Tax Increment Revenue Estimates

Legacy Rochester Hills

Rochester Hills, MI

AKT Peerless Project No. 3679F6

As of April 7, 2018

			Estimated TV Increase rate:								
		Plan Year	13	14	15	16	17	18	19	20	21
		Calendar Year	2032	2033	2034	2035	2036	2037	2038	2039	2040
		Initial Taxable Value	$ 37,440	$ 37,440	$ 37,440	$ 37,440	$ 37,440	$ 37,440	$ 37,440	$ 37,440	$ 37,440
Post-Dev TV (30% of Project Investment)		Estimated New TV	$ 24,075,140	$ 24,556,643	$ 25,047,775	$ 25,548,731	$ 26,059,706	$ 26,580,900	$ 27,112,518	$ 27,654,768	$ 28,207,863
		Incremental Difference (New TV - Initial TV)	**$ 24,037,700**	**$ 24,519,203**	**$ 25,010,335**	**$ 25,511,291**	**$ 26,022,266**	**$ 26,543,460**	**$ 27,075,078**	**$ 27,617,328**	**$ 28,170,423**
School Capture	Millage Rate										
State Education Tax (SET)	6.0000	Initial	$ 225	$ 225	$ 225	$ 225	$ 225	$ 225	$ 225	$ 225	$ 225
		Incremental	$ 144,226	$ 147,115	$ 150,062	$ 153,068	$ 156,134	$ 159,261	$ 162,450	$ 165,704	$ 169,023
School Operating Tax	18.0000	Initial	$ 674	$ 674	$ 674	$ 674	$ 674	$ 674	$ 674	$ 674	$ 674
		Incremental	$ 432,679	$ 441,346	$ 450,186	$ 459,203	$ 468,401	$ 477,782	$ 487,351	$ 497,112	$ 507,068
School Total	**24.0000**										
Local Capture	Millage Rate										
OAK COUNTY PARKS	0.2392	Initial	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9
		Incremental	$ 5,750	$ 5,865	$ 5,982	$ 6,102	$ 6,225	$ 6,349	$ 6,476	$ 6,606	$ 6,738
HURON-CLIN PARK	0.2146	Initial	$ 8	$ 8	$ 8	$ 8	$ 8	$ 8	$ 8	$ 8	$ 8
		Incremental	$ 5,158	$ 5,262	$ 5,367	$ 5,475	$ 5,584	$ 5,696	$ 5,810	$ 5,927	$ 6,045
GENERAL FUND	2.1136	Initial	$ 79	$ 79	$ 79	$ 79	$ 79	$ 79	$ 79	$ 79	$ 79
		Incremental	$ 50,806	$ 51,824	$ 52,862	$ 53,921	$ 55,001	$ 56,102	$ 57,226	$ 58,372	$ 59,541
LOCAL STREET I	0.3507	Initial	$ 13	$ 13	$ 13	$ 13	$ 13	$ 13	$ 13	$ 13	$ 13
		Incremental	$ 8,430	$ 8,599	$ 8,771	$ 8,947	$ 9,126	$ 9,309	$ 9,495	$ 9,685	$ 9,879
LOCAL STREET II	0.4803	Initial	$ 18	$ 18	$ 18	$ 18	$ 18	$ 18	$ 18	$ 18	$ 18
		Incremental	$ 11,545	$ 11,777	$ 12,012	$ 12,253	$ 12,498	$ 12,749	$ 13,004	$ 13,265	$ 13,530
LOCAL STREET III	0.2939	Initial	$ 11	$ 11	$ 11	$ 11	$ 11	$ 11	$ 11	$ 11	$ 11
		Incremental	$ 7,065	$ 7,206	$ 7,351	$ 7,498	$ 7,648	$ 7,801	$ 7,957	$ 8,117	$ 8,279
FIRE FUND	2.7000	Initial	$ 101	$ 101	$ 101	$ 101	$ 101	$ 101	$ 101	$ 101	$ 101
		Incremental	$ 64,902	$ 66,202	$ 67,528	$ 68,880	$ 70,260	$ 71,667	$ 73,103	$ 74,567	$ 76,060
SPECIAL POLICE I	1.1954	Initial	$ 45	$ 45	$ 45	$ 45	$ 45	$ 45	$ 45	$ 45	$ 45
		Incremental	$ 28,735	$ 29,310	$ 29,897	$ 30,496	$ 31,107	$ 31,730	$ 32,366	$ 33,014	$ 33,675
SPECIAL POLICE II	1.5633	Initial	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59
		Incremental	$ 37,578	$ 38,331	$ 39,099	$ 39,882	$ 40,681	$ 41,495	$ 42,326	$ 43,174	$ 44,039
PATHWAY	0.1837	Initial	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7
		Incremental	$ 4,416	$ 4,504	$ 4,594	$ 4,686	$ 4,780	$ 4,876	$ 4,974	$ 5,073	$ 5,175
RARA OPERATING	0.1928	Initial	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7
		Incremental	$ 4,634	$ 4,727	$ 4,822	$ 4,919	$ 5,017	$ 5,118	$ 5,220	$ 5,325	$ 5,431
OPC TRANSPORTION	0.0990	Initial	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4	$ 4
		Incremental	$ 2,380	$ 2,427	$ 2,476	$ 2,526	$ 2,576	$ 2,628	$ 2,680	$ 2,734	$ 2,789
OPC OPERATING	0.2377	Initial	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9	$ 9
		Incremental	$ 5,714	$ 5,828	$ 5,945	$ 6,064	$ 6,185	$ 6,309	$ 6,436	$ 6,565	$ 6,696
LIBRARY OPERATING	0.7739	Initial	$ 29	$ 29	$ 29	$ 29	$ 29	$ 29	$ 29	$ 29	$ 29
		Incremental	$ 18,603	$ 18,975	$ 19,355	$ 19,743	$ 20,139	$ 20,542	$ 20,953	$ 21,373	$ 21,801
OAK COUNTY OPERATING	4.0400	Initial	$ 151	$ 151	$ 151	$ 151	$ 151	$ 151	$ 151	$ 151	$ 151
		Incremental	$ 97,112	$ 99,058	$ 101,042	$ 103,066	$ 105,130	$ 107,236	$ 109,383	$ 111,574	$ 113,809
OAK INT SD-ALLOC	0.1985	Initial	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7	$ 7
		Incremental	$ 4,771	$ 4,867	$ 4,965	$ 5,064	$ 5,165	$ 5,269	$ 5,374	$ 5,482	$ 5,592
OAK INT SD-VTD	3.1413	Initial	$ 118	$ 118	$ 118	$ 118	$ 118	$ 118	$ 118	$ 118	$ 118
		Incremental	$ 75,510	$ 77,022	$ 78,565	$ 80,139	$ 81,744	$ 83,381	$ 85,051	$ 86,754	$ 88,492
OAK COMM COLLEGE	1.5707	Initial	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59	$ 59
		Incremental	$ 37,756	$ 38,512	$ 39,284	$ 40,071	$ 40,873	$ 41,692	$ 42,527	$ 43,379	$ 44,247
Local Total	**19.5886**										
Non-Capturable Millages	Millage Rate										
ZOO AUTHORITY	0.0990	New TV	$ 2,383	$ 2,431	$ 2,480	$ 2,529	$ 2,580	$ 2,632	$ 2,684	$ 2,738	$ 2,793
ART INSTITUTE	0.1981	New TV	$ 4,769	$ 4,865	$ 4,962	$ 5,061	$ 5,162	$ 5,266	$ 5,371	$ 5,478	$ 5,588
CH 20 DRAIN DEBT	0.0417	New TV	$ 1,004	$ 1,024	$ 1,044	$ 1,065	$ 1,087	$ 1,108	$ 1,131	$ 1,153	$ 1,176
OPC BUILDING DEBT	0.2345	New TV	$ 5,646	$ 5,759	$ 5,874	$ 5,991	$ 6,111	$ 6,233	$ 6,358	$ 6,485	$ 6,615
ROCH SCH DEBT	5.9000	New TV	$ 142,043	$ 144,884	$ 147,782	$ 150,738	$ 153,752	$ 156,827	$ 159,964	$ 163,163	$ 166,426
Total Non-Capturable Taxes	**6.4733**										

Table 3. Reimbursement Allocation Schedule

Legacy Rochester Hills
Rochester Hills, MI
AKT Peerless Project No. 3679F6
As of April 7, 2018

Developer Maximum Reimbursement	Proportionality	School & Local Taxes	Local-Only Taxes	Total
State	**55.1%**	**$ 7,388,861**		$ 7,388,861
Local	**44.9%**	**$ 6,030,726**	$ -	$ 6,030,726
TOTAL		**$ 13,419,587**	$ -	**$ 13,419,587**
MDEQ	100.0%	$ 13,419,587		
MSF	0.0%	$ -		

Estimated Total Years of Plan: 21

Plan Year	1	2	3	4	5	6	7	8	9	10
Total State Incremental Revenue	$ 141,301	$ 330,901	$ 473,101	$ 482,581	$ 492,251	$ 502,114	$ 512,174	$ 522,436	$ 532,902	$ 543,578
State Brownfield Revolving Fund (3 mills of SET)	$ 17,663	$ 41,363	$ 59,138	$ 60,323	$ 61,531	$ 62,764	$ 64,022	$ 65,304	$ 66,613	$ 67,947
Local Brownfield Revolving Fund (3% of capture)	$ 4,239	$ 9,927	$ 14,193	$ 14,477	$ 14,768	$ 15,063	$ 15,365	$ 15,673	$ 15,987	$ 16,307
State TIR Available for Reimbursement	**$ 119,400**	**$ 279,612**	**$ 399,771**	**$ 407,781**	**$ 415,952**	**$ 424,286**	**$ 432,787**	**$ 441,458**	**$ 450,303**	**$ 459,324**
Total Local Incremental Revenue	$ 115,329	$ 270,079	$ 386,141	$ 393,879	$ 401,771	$ 409,821	$ 418,032	$ 426,408	$ 434,951	$ 443,664
BRA Administrative Fee	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000
Local Brownfield Revolving Fund (3% of capture)	$ 3,460	$ 8,102	$ 11,584	$ 11,816	$ 12,053	$ 12,295	$ 12,541	$ 12,792	$ 13,049	$ 13,310
Local TIR Available for Reimbursement	**$ 101,869**	**$ 251,977**	**$ 364,557**	**$ 372,063**	**$ 379,718**	**$ 387,527**	**$ 395,491**	**$ 403,615**	**$ 411,902**	**$ 420,354**
Total State & Local TIR Available	**$ 221,269**	**$ 531,588**	**$ 764,328**	**$ 779,844**	**$ 795,670**	**$ 811,813**	**$ 828,279**	**$ 845,074**	**$ 862,205**	**$ 879,678**
DEVELOPER	Beginning Balance									
DEVELOPER Reimbursement Balance	***$ 13,419,587***	***$ 13,198,318***	***$ 12,666,730***	***$ 11,902,402***	***$ 11,122,558***	***$ 10,326,888***	***$ 9,515,075***	***$ 8,686,796***	***$ 7,841,722***	***$ 6,979,518***	***$ 6,099,840***
STATE Reimbursement Balance	*$ 7,388,861*	*$ 7,269,461*	*$ 6,989,849*	*$ 6,590,078*	*$ 6,182,297*	*$ 5,766,345*	*$ 5,342,059*	*$ 4,909,271*	*$ 4,467,813*	*$ 4,017,511*	*$ 3,558,187*
Eligible Activities Reimbursement	$ 5,296,570	$ 119,400	$ 279,612	$ 399,771	$ 407,781	$ 415,952	$ 424,286	$ 432,787	$ 441,458	$ 450,303	$ 459,324
Environmental Eligible Activities	$ 5,296,570	$ 119,400	$ 279,612	$ 399,771	$ 407,781	$ 415,952	$ 424,286	$ 432,787	$ 441,458	$ 450,303	$ 459,324
Interest Reimbursement	$ 2,092,290	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Environmental Portion	$ 2,092,290	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total STATE TIR Reimbursement		**$ 119,400**	**$ 279,612**	**$ 399,771**	**$ 407,781**	**$ 415,952**	**$ 424,286**	**$ 432,787**	**$ 441,458**	**$ 450,303**	**$ 459,324**
LOCAL Reimbursement Balance	*$ 6,030,726*	*$ 5,928,857*	*$ 5,676,881*	*$ 5,312,323*	*$ 4,940,261*	*$ 4,560,543*	*$ 4,173,016*	*$ 3,777,525*	*$ 3,373,909*	*$ 2,962,007*	*$ 2,541,653*
Eligible Activities Reimbursement	$ 4,323,017	$ 101,869	$ 251,977	$ 364,557	$ 372,063	$ 379,718	$ 387,527	$ 395,491	$ 403,615	$ 411,902	$ 420,354
Environmental Eligible Activities	$ 4,323,017	$ 101,869	$ 251,977	$ 364,557	$ 372,063	$ 379,718	$ 387,527	$ 395,491	$ 403,615	$ 411,902	$ 420,354
Interest Reimbursement	$ 1,707,710	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Environmental Portion	$ 1,707,710	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total LOCAL TIR Reimbursement		**$ 101,869**	**$ 251,977**	**$ 364,557**	**$ 372,063**	**$ 379,718**	**$ 387,527**	**$ 395,491**	**$ 403,615**	**$ 411,902**	**$ 420,354**
Total Annual Developer Reimbursement		**$ 221,269**	**$ 531,588**	**$ 764,328**	**$ 779,844**	**$ 795,670**	**$ 811,813**	**$ 828,279**	**$ 845,074**	**$ 862,205**	**$ 879,678**
LOCAL BROWNFIELD REVOLVING FUND										
	LSRRF Year	0	0	0	0	0	0	0	0	0	0
LBRF Deposits		**$ 7,699**	**$ 18,029**	**$ 25,777**	**$ 26,294**	**$ 26,821**	**$ 27,358**	**$ 27,906**	**$ 28,465**	**$ 29,036**	**$ 29,617**
STATE	*$ 7,388,861*	$ 4,239	$ 9,927	$ 14,193	$ 14,477	$ 14,768	$ 15,063	$ 15,365	$ 15,673	$ 15,987	$ 16,307
LOCAL	*no maximum*	$ 3,460	$ 8,102	$ 11,584	$ 11,816	$ 12,053	$ 12,295	$ 12,541	$ 12,792	$ 13,049	$ 13,310

AKTPEERLESS

Table 3. Reimbursement Allocation Schedule

Legacy Rochester Hills
Rochester Hills, MI
AKT Peerless Project No. 3679F6
As of April 7, 2018

Estimated Capture	
Administrative Fees	$ 210,000
State Revolving Fund	$ 1,410,194
Local Revolving Fund	$ 4,075,533

	11	12	13	14	15	16	17	18	19	20	End Plan 21
Total State Incremental Revenue	$ 554,468	$ 565,575	$ 576,905	$ 588,461	$ 600,248	$ 612,271	$ 624,534	$ 637,043	$ 649,802	$ 662,816	$ 676,090
State Brownfield Revolving Fund (3 mills of SE	$ 69,308	$ 70,697	$ 72,113	$ 73,558	$ 75,031	$ 76,534	$ 78,067	$ 79,630	$ 81,225	$ 82,852	$ 84,511
Local Brownfield Revolving Fund (3% of captur	$ 16,634	$ 16,967	$ 17,307	$ 17,654	$ 18,007	$ 18,368	$ 18,736	$ 19,111	$ 19,494	$ 19,884	$ 20,283
State TIR Available for Reimbursement	**$ 468,525**	**$ 477,911**	**$ 487,485**	**$ 497,249**	**$ 507,210**	**$ 517,369**	**$ 527,732**	**$ 538,301**	**$ 549,083**	**$ 560,079**	**$ 571,296**
Total Local Incremental Revenue	$ 452,552	$ 461,618	$ 470,865	$ 480,297	$ 489,917	$ 499,730	$ 509,740	$ 519,949	$ 530,363	$ 540,985	$ 551,819
BRA Administrative Fee	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000
Local Brownfield Revolving Fund (3% of captur	$ 13,577	$ 13,849	$ 14,126	$ 14,409	$ 14,698	$ 14,992	$ 15,292	$ 15,598	$ 15,911	$ 16,230	$ 16,555
Local TIR Available for Reimbursement	**$ 428,976**	**$ 437,769**	**$ 446,739**	**$ 455,888**	**$ 465,220**	**$ 474,739**	**$ 484,448**	**$ 494,351**	**$ 504,452**	**$ 514,755**	**$ 525,265**
Total State & Local TIR Available	**$ 897,501**	**$ 915,680**	**$ 934,223**	**$ 953,137**	**$ 972,430**	**$ 992,108**	**$ 1,012,179**	**$ 1,032,652**	**$ 1,053,535**	**$ 1,074,835**	**$ 1,096,561**
DEVELOPER											
DEVELOPER Reimbursement Balance	***$ 5,202,339***	***$ 4,286,658***	***$ 3,352,435***	***$ 2,399,297***	***$ 1,426,868***	***$ 602,438***	***$ 74,706***	***$ (0)***	***$ (0)***	***$ (0)***	***$ (0)***
STATE Reimbursement Balance	*$ 3,089,661*	*$ 2,611,750*	*$ 2,124,266*	*$ 1,627,016*	*$ 1,119,807*	*$ 602,438*	*$ 74,706*	*$ (0)*	*$ (0)*	*$ (0)*	*$ (0)*
Eligible Activities Reimbursement	$ 468,525	$ 477,911	$ 487,485	$ 31,976	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Environmental Eligible Activities	$ 468,525	$ 477,911	$ 487,485	$ 31,976	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Interest Reimbursement	$ -	$ -	$ -	$ 465,274	$ 507,210	$ 517,369	$ 527,732	$ 74,706	$ -	$ -	$ -
Environmental Portion	$ -	$ -	$ -	$ 465,274	$ 507,210	$ 517,369	$ 527,732	$ 74,706	$ -	$ -	$ -
Total STATE TIR Reimbursement	**$ 468,525**	**$ 477,911**	**$ 487,485**	**$ 497,249**	**$ 507,210**	**$ 517,369**	**$ 527,732**	**$ 74,706**	**$ -**	**$ -**	**$ -**
LOCAL Reimbursement Balance	*$ 2,112,677*	*$ 1,674,908*	*$ 1,228,169*	*$ 772,281*	*$ 307,061*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
Eligible Activities Reimbursement	$ 428,976	$ 404,968	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Environmental Eligible Activities	$ 428,976	$ 404,968	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Interest Reimbursement	$ -	$ 32,802	$ 446,739	$ 455,888	$ 465,220	$ 307,061	$ -	$ -	$ -	$ -	$ -
Environmental Portion	$ -	$ 32,802	$ 446,739	$ 455,888	$ 465,220	$ 307,061	$ -	$ -	$ -	$ -	$ -
Total LOCAL TIR Reimbursement	**$ 428,976**	**$ 437,769**	**$ 446,739**	**$ 455,888**	**$ 465,220**	**$ 307,061**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Total Annual Developer Reimbursement	**$ 897,501**	**$ 915,680**	**$ 934,223**	**$ 953,137**	**$ 972,430**	**$ 824,430**	**$ 527,732**	**$ 74,706**	**$ -**	**$ -**	**$ -**

LOCAL BROWNFIELD REVOLVING FUND	0	0	0	0	0	0	1	2	3	4	5
LBRF Deposits	**$ 30,211**	**$ 30,816**	**$ 31,433**	**$ 32,063**	**$ 32,705**	**$ 33,360**	**$ 34,028**	**$ 34,710**	**$ 35,405**	**$ 36,114**	**$ 562,102**
STATE	$ 16,634	$ 16,967	$ 17,307	$ 17,654	$ 18,007	$ 18,368	$ 18,736	$ 19,111	$ 19,494	$ 19,884	$ 20,283
LOCAL	$ 13,577	$ 13,849	$ 14,126	$ 14,409	$ 14,698	$ 14,992	$ 15,292	$ 15,598	$ 15,911	$ 16,230	$ 541,819

Attachment D

Environmental Documentation

CRITERIA NOTE

(1) - Exceeds Residential Drinking Water Protection Criteria and RBSLs
(2) - Exceeds Groundwater Surface Water Interface Protection Criteria and RBSLs
(3) - Exceeds Residential Direct Contact Criteria and RBSLs

SS-6 (0-2')	
8/18/1994	
Arsenic	5,900 ug/Kg (1,2)
Cadmium	8,000 ug/Kg (1)
Chromium, Total	47,000 ug/Kg (1,2)
Lead	634,000 ug/Kg (3)
Mercury, Total	500 ug/Kg (2)
Selenium	850 ug/Kg (2)

TP1N (Sidewall)	
10/25/1994	
Chromium, Total	4,100 ug/Kg (2)

TP1W (Sidewall)	
10/25/1994	
beta-Hexachlorocyclohexane	65 ug/Kg (1)

TP1BOTTOM-S (Floor)	
10/25/1994	
Chromium, Total	3,700 ug/Kg (2)

SS-3 (4-6')	
8/18/1994	
Arsenic	6,700 ug/Kg (1,2)
Chromium, Total	91,000 ug/Kg (1,2)

SS-2 (4-6')	
8/18/1994	
Chromium, Total	52,000 ug/Kg (1,2)

SS-5 (2-4')	
8/18/1994	
Chromium, Total	49,000 ug/Kg (1,2)

2-3 (0-1')	
10/25/2002	
Arsenic	5,600 ug/Kg (1,2)
Chromium, Total	8,700 ug/Kg (2)

2-3 (10-12')	
10/25/2002	
Arsenic	4,800 ug/Kg (1,2)
Chromium, Total	4,600 ug/Kg (2)

SS-1 (0-2')	
8/18/1994	
Chromium, Total	11,000 ug/Kg (2)

SS-4 (2-4')	
8/18/1994	
Arsenic	5,300 ug/Kg (1,2)
Chromium, Total	11,000 ug/Kg (2)

SB-9 (8-10')	
2/1993	
Chromium, Total	8,300 ug/Kg (2)

SS-7 (4-6')	
8/18/1994	
Chromium, Total	59,000 ug/Kg (1,2)

SB-8 (4-6')	
2/1993	
Chromium, Total	8,300 ug/Kg (2)

TR1N (Sidewall)	
10/25/1994	
Chromium, Total	4,100 ug/Kg (2)

TR1S (Sidewall)	
10/25/1994	
Chromium, Total	3,600 ug/Kg (2)

TR1W (Sidewall)	
10/25/1994	
Chromium, Total	3,700 ug/Kg (2)

TR1BOTTOM-N (Floor)	
10/25/1994	
Chromium, Total	4,200 ug/Kg (2)

TR1BOTTOM-S (Floor)	
10/25/1994	
Chromium, Total	13,600 ug/Kg (2)

TP-21	
2/15/2005	
Arsenic	5,600 ug/Kg (1,2)
Chromium, Total	22,000 ug/Kg (2)
Lead	580,000 ug/Kg (3)
Mercury, Total	300 ug/Kg (2)

SB-9 (18-20')	
9/1994	
Arsenic	5,000 ug/Kg (1,2)
Chromium, Total	5,000 ug/Kg (2)
Selenium	960 ug/Kg (2)

SB-8 (18-20')	
9/1994	
Chromium, Total	3,900 ug/Kg (2)
Selenium	570 ug/Kg (2)

EP-37 (1-2')	
5/31/2007	
Chromium, Total	11,600 ug/Kg (1,2)
Mercury, Total	102 ug/Kg (2)
Silver	2,070 ug/Kg (2)

EP-37 (1-2')Duplicate 5	
5/31/2007	
Chromium, Total	4,600 ug/Kg (2)
Mercury, Total	148 ug/Kg (2)

SB-5 (10-14')	
9/1994	
Arsenic	25,000 ug/Kg (1,2,3)
Chromium, Total	11,100 ug/Kg (2)

SB-12 (18-20')	
9/1994	
Chromium, Total	4,900 ug/Kg (2)

AKT-5 (20-22')	
5/23/2007	
Arsenic	6,780 ug/Kg (1,2)

SB-3 (18-20')	
9/1994	
Chromium, Total	4,100 ug/Kg (2)
Selenium	980 ug/Kg (2)

EP-31 (0.5-1')	
5/31/2007	
Naphthalene	4,700 ug/Kg (1,2)
Xylenes	930 ug/Kg (2)
Cadmium	39,000 ug/Kg (1)
Chromium, Total	76,700 ug/Kg (1,2)
Lead	523,000 ug/Kg (3)
Mercury, Total	295 ug/Kg (2)
Selenium	940 ug/Kg (2)

TR2N (Sidewall)	
10/25/1994	
Chromium, Total	12,400 ug/Kg (2)

TR2S (Sidewall)	
10/25/1994	
Chromium, Total	16,700 ug/Kg (2)

TR2-EAST (Sidewall)	
10/25/1994	
Chromium, Total	6,000 ug/Kg (2)

TR2-WEST (Sidewall)	
10/25/1994	
Chromium, Total	7,600 ug/Kg (2)

TR2-B-NORTH (Floor)	
10/25/1994	
Chromium, Total	78,000 ug/Kg (1,2)

TR-2B SOUTH (Floor)	
10/25/1994	
Chromium, Total	11,400 ug/Kg (2)

SS-8 (0-2')	
8/18/1994	
Chromium, Total	12,000 ug/Kg (2)

SB-1 (19-20')	
9/1994	
Selenium	1,000 ug/Kg (2)

TP-3-1	
2/15/2005	
Chromium, Total	13,000 ug/Kg (2)

EP-14 (7')	
5/30/2007	
Mercury, Total	119 ug/Kg (2)

EP-14 (7')Duplicate 2	
5/30/2007	
Chromium, Total	4,400 ug/Kg (2)
Mercury, Total	72 ug/Kg (2)

SB-5 (14-16')	
2/1993	
Arsenic	25,000 ug/Kg (1,2,3)
Chromium, Total	11,100 ug/Kg (2)

SB-6 (10-14')	
9/1994	
Arsenic	8,900 ug/Kg (1,2,3)
Chromium, Total	8,200 ug/Kg (2)
Selenium	930 ug/Kg (2)

EP-5 (6')	
5/29/2007	
Naphthalene	61,000 ug/Kg (1,2)
Phenanthrene	2,800 ug/Kg (2)
Chromium, Total	3,700 ug/Kg (2)

EP-5 (6') Duplicate 1	
5/29/2007	
Acenaphthene	21,100 ug/Kg (2)
Benzo(a)pyrene	4,500 ug/Kg (3)
Dibenzofuran	26,400 ug/Kg (2)
Fluoranthene	19,000 ug/Kg (2)
Fluorene	24,700 ug/Kg (2)
2-Methylnaphthalene	16,500 ug/Kg (2)
Naphthalene	142,000 ug/Kg (1,2)
Phenanthrene	51,400 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	22,100 ug/Kg (3)
Chromium, Total	3,900 ug/Kg (2)

SB-7 (14-16')	
2/1993	
Chromium, Total	8,700 ug/Kg (2)

SS-9 (2-4')	
8/18/1994	
Arsenic	5,100 ug/Kg (1,2)
Chromium, Total	15,000 ug/Kg (2)
Mercury, Total	160 ug/Kg (2)

SB-6 (18-20')	
2/1993	
Arsenic	8,900 ug/Kg (1,2,3)
Chromium, Total	8,200 ug/Kg (2)

TP-2	
2/15/2005	
Arsenic	7,100 ug/Kg (1,2)
Chromium, Total	8,600 ug/Kg (2)
Lead	660,000 ug/Kg (3)

LEGEND

- = PROPERTY LINE
- = RATEE WELL DRILLING TEST BORING (2/1988)
- = O'BRIEN MONITORING WELL (1/1990 OR 9/2004)
- = E & E SOIL SAMPLE (6/1990)
- = O'BRIEN AND GERE SOIL BORING (2/1993)
- = O'BRIEN AND GERE SOIL BORING (9/1994)
- = O'BRIEN SURFACE SOIL SAMPLE (9/1994)
- = O'BRIEN TEST PIT (1994)
- = O'BRIEN TRENCH (1994)
- = AKT PEERLESS TEST PITS (10/2002)
- = AKT PEERLESS SOIL BORING (12/2004)
- = AKT PEERLESS SOIL BORING (02/2005)
- = TEST PIT EXCAVATION (2007)
- = GROUNDWATER MONITORING WELL (2007)

DRAWN BY: OGO
DATE: 01/05/2017

0 75 150
SCALE: 1" = 150'

FIGURE 3

SITE MAP WITH SOIL RESULTS EXCEEDING MDEQ RCC

PARCEL 15-29-101-022
NE CORNER OF HAMLIN & ADAMS ROADS
ROCHESTER HILLS, MICHIGAN
PROJECT NUMBER : 3679F6-3-26

AKTPEERLESS
www.aktpeerless.com

SITE MAP WITH GROUNDWATER RESULTS EXCEEDING MDEQ RCC

PARCEL 15-29-101-022
NE CORNER OF HAMLIN & ADAMS ROADS
ROCHESTER HILLS, MICHIGAN
PROJECT NUMBER : 3679F6-3-26

DRAWN BY: OGO
DATE: 01/05/2017

0 75 150
SCALE: 1" = 150'

FIGURE 4

N
W E
S

AKT-5W	
6/8/2007	
Lead	12 ug/L (1)
7/6/2007	
Arsenic	21 ug/L (1,2)
Chromium, Total	18 ug/L (2)
Lead	42 ug/L (1)

MW-13D	
10/1994	
Arsenic	13 ug/L (1,2)

WHITE WATER DRIVE
RAPIDS WAY
RESIDENTIAL
2975-2863 PORTAGE TRAIL DRIVE
PORTAGE TRAIL DRIVE
SOUTH ADAMS ROAD
WEST HAMLIN ROAD
QUAIL RIDGE SUBDIVISION
2007-2049 MAPLE RIDGE ROAD
SUBJECT PROPERTY
FENCED AREA
UNDEVELOPED LAND
FORMER CARDINAL LANDFILL (1960s AND 1970s)
2801 WEST HAMLIN ROAD
(SHWS, BEA)

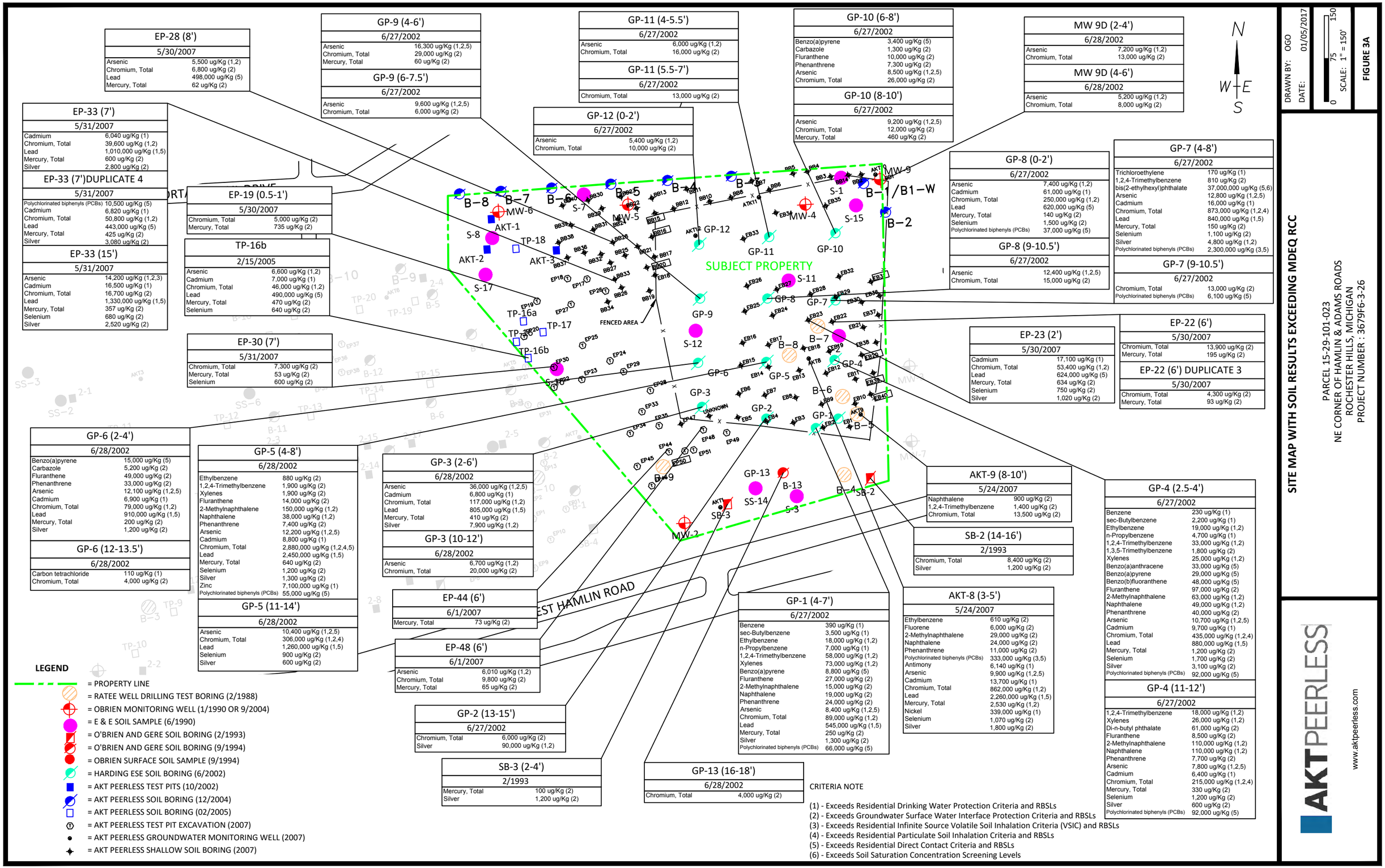
LEGEND

- = PROPERTY LINE
- = RATEE WELL DRILLING TEST BORING (2/1988)
- = O'BRIEN MONITORING WELL (1/1990 OR 9/2004)
- = E & E SOIL SAMPLE (6/1990)
- = O'BRIEN AND GERE SOIL BORING (2/1993)
- = O'BRIEN AND GERE SOIL BORING (9/1994)
- = O'BRIEN SURFACE SOIL SAMPLE (9/1994)
- = O'BRIEN TEST PIT (1994)
- = O'BRIEN TRENCH (1994)
- = AKT PEERLESS TEST PITS (10/2002)
- = AKT PEERLESS SOIL BORING (12/2004)
- = AKT PEERLESS SOIL BORING (02/2005)
- = TEST PIT EXCAVATION (2007)
- = GROUNDWATER MONITORING WELL (2007)

CRITERIA NOTE

(1) - Exceeds Residential Drinking Water Criteria and RBSLs
(2) - Exceeds Groundwater Surface Water Interface Criteria and RBSLs

AKTPEERLESS
www.aktpeerless.com



EP-28 (8')	
5/30/2007	
Arsenic	5,500 ug/Kg (1,2)
Chromium, Total	6,800 ug/Kg (2)
Lead	498,000 ug/Kg (5)
Mercury, Total	62 ug/Kg (2)

GP-9 (4-6')	
6/27/2002	
Arsenic	16,300 ug/Kg (1,2,5)
Chromium, Total	29,000 ug/Kg (2)
Mercury, Total	60 ug/Kg (2)

GP-9 (6-7.5')	
6/27/2002	
Arsenic	9,600 ug/Kg (1,2,5)
Chromium, Total	6,000 ug/Kg (2)

GP-11 (4-5.5')	
6/27/2002	
Arsenic	6,000 ug/Kg (1,2)
Chromium, Total	16,000 ug/Kg (2)

GP-11 (5.5-7')	
6/27/2002	
Chromium, Total	13,000 ug/Kg (2)

GP-10 (6-8')	
6/27/2002	
Benzo(a)pyrene	3,400 ug/Kg (5)
Carbazole	1,300 ug/Kg (2)
Fluranthene	10,000 ug/Kg (2)
Phenanthrene	7,300 ug/Kg (2)
Arsenic	8,500 ug/Kg (1,2,5)
Chromium, Total	26,000 ug/Kg (2)

GP-10 (8-10')	
6/27/2002	
Arsenic	9,200 ug/Kg (1,2,5)
Chromium, Total	12,000 ug/Kg (2)
Mercury, Total	460 ug/Kg (2)

MW 9D (2-4')	
6/28/2002	
Arsenic	7,200 ug/Kg (1,2)
Chromium, Total	13,000 ug/Kg (2)

MW 9D (4-6')	
6/28/2002	
Arsenic	5,200 ug/Kg (1,2)
Chromium, Total	8,000 ug/Kg (2)

EP-33 (7')	
5/31/2007	
Cadmium	6,040 ug/Kg (1)
Chromium, Total	39,600 ug/Kg (1,2)
Lead	1,010,000 ug/Kg (1,5)
Mercury, Total	600 ug/Kg (2)
Silver	2,800 ug/Kg (2)

EP-33 (7')DUPLICATE 4	
5/31/2007	
Polychlorinated biphenyls (PCBs)	10,500 ug/Kg (5)
Cadmium	6,820 ug/Kg (1)
Chromium, Total	50,800 ug/Kg (1,2)
Lead	443,000 ug/Kg (5)
Mercury, Total	425 ug/Kg (2)
Silver	3,080 ug/Kg (2)

EP-33 (15')	
5/31/2007	
Arsenic	14,200 ug/Kg (1,2,3)
Cadmium	16,500 ug/Kg (1)
Chromium, Total	16,700 ug/Kg (2)
Lead	1,330,000 ug/Kg (1,5)
Mercury, Total	357 ug/Kg (2)
Selenium	680 ug/Kg (2)
Silver	2,520 ug/Kg (2)

EP-19 (0.5-1')	
5/30/2007	
Chromium, Total	5,000 ug/Kg (2)
Mercury, Total	735 ug/Kg (2)

TP-16b	
2/15/2005	
Arsenic	6,600 ug/Kg (1,2)
Cadmium	7,000 ug/Kg (1)
Chromium, Total	46,000 ug/Kg (1,2)
Lead	490,000 ug/Kg (5)
Mercury, Total	470 ug/Kg (2)
Selenium	640 ug/Kg (2)

EP-30 (7')	
5/31/2007	
Chromium, Total	7,300 ug/Kg (2)
Mercury, Total	53 ug/Kg (2)
Selenium	600 ug/Kg (2)

GP-12 (0-2')	
6/27/2002	
Arsenic	5,400 ug/Kg (1,2)
Chromium, Total	10,000 ug/Kg (2)

GP-8 (0-2')	
6/27/2002	
Arsenic	7,400 ug/Kg (1,2)
Cadmium	61,000 ug/Kg (1)
Chromium, Total	250,000 ug/Kg (1,2)
Lead	620,000 ug/Kg (5)
Mercury, Total	140 ug/Kg (2)
Selenium	1,500 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	37,000 ug/Kg (5)

GP-8 (9-10.5')	
6/27/2002	
Arsenic	12,400 ug/Kg (1,2,5)
Chromium, Total	15,000 ug/Kg (2)

GP-7 (4-8')	
6/27/2002	
Trichloroethylene	170 ug/Kg (1)
1,2,4-Trimethylbenzene	810 ug/Kg (2)
bis(2-ethylhexyl)phthalate	37,000,000 ug/Kg (5,6)
Arsenic	12,800 ug/Kg (1,2,5)
Cadmium	16,000 ug/Kg (1)
Chromium, Total	873,000 ug/Kg (1,2,4)
Lead	840,000 ug/Kg (1,5)
Mercury, Total	150 ug/Kg (2)
Selenium	1,100 ug/Kg (2)
Silver	4,800 ug/Kg (1,2)
Polychlorinated biphenyls (PCBs)	2,300,000 ug/Kg (3,5)

GP-7 (9-10.5')	
6/27/2002	
Chromium, Total	13,000 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	6,100 ug/Kg (5)

EP-23 (2')	
5/30/2007	
Cadmium	17,100 ug/Kg (1)
Chromium, Total	53,400 ug/Kg (1,2)
Lead	624,000 ug/Kg (5)
Mercury, Total	634 ug/Kg (2)
Selenium	750 ug/Kg (2)
Silver	1,020 ug/Kg (2)

EP-22 (6')	
5/30/2007	
Chromium, Total	13,900 ug/Kg (2)
Mercury, Total	195 ug/Kg (2)

EP-22 (6') DUPLICATE 3	
5/30/2007	
Chromium, Total	4,300 ug/Kg (2)
Mercury, Total	93 ug/Kg (2)

GP-6 (2-4')	
6/28/2002	
Benzo(a)pyrene	15,000 ug/Kg (5)
Carbazole	5,200 ug/Kg (2)
Fluranthene	49,000 ug/Kg (2)
Phenanthrene	33,000 ug/Kg (2)
Arsenic	12,100 ug/Kg (1,2,5)
Cadmium	6,900 ug/Kg (1)
Chromium, Total	79,000 ug/Kg (1,2)
Lead	910,000 ug/Kg (1,5)
Mercury, Total	200 ug/Kg (2)
Silver	1,200 ug/Kg (2)

GP-6 (12-13.5')	
6/28/2002	
Carbon tetrachloride	110 ug/Kg (1)
Chromium, Total	4,000 ug/Kg (2)

GP-5 (4-8')	
6/28/2002	
Ethylbenzene	880 ug/Kg (2)
1,2,4-Trimethylbenzene	1,900 ug/Kg (2)
Xylenes	1,900 ug/Kg (2)
Fluranthene	14,000 ug/Kg (2)
2-Methylnaphthalene	150,000 ug/Kg (1,2)
Naphthalene	38,000 ug/Kg (1,2)
Phenanthrene	7,400 ug/Kg (2)
Arsenic	12,200 ug/Kg (1,2,5)
Cadmium	8,800 ug/Kg (1)
Chromium, Total	2,880,000 ug/Kg (1,2,4,5)
Lead	2,450,000 ug/Kg (1,5)
Mercury, Total	640 ug/Kg (2)
Selenium	1,200 ug/Kg (2)
Silver	1,300 ug/Kg (2)
Zinc	7,100,000 ug/Kg (1)
Polychlorinated biphenyls (PCBs)	55,000 ug/Kg (5)

GP-5 (11-14')	
6/28/2002	
Arsenic	10,400 ug/Kg (1,2,5)
Chromium, Total	306,000 ug/Kg (1,2,4)
Lead	1,260,000 ug/Kg (1,5)
Selenium	900 ug/Kg (2)
Silver	600 ug/Kg (2)

GP-3 (2-6')	
6/28/2002	
Arsenic	36,000 ug/Kg (1,2,5)
Cadmium	6,800 ug/Kg (1)
Chromium, Total	117,000 ug/Kg (1,2)
Lead	805,000 ug/Kg (1,5)
Mercury, Total	410 ug/Kg (2)
Silver	7,900 ug/Kg (1,2)

GP-3 (10-12')	
6/28/2002	
Arsenic	6,700 ug/Kg (1,2)
Chromium, Total	20,000 ug/Kg (2)

EP-44 (6')	
6/1/2007	
Mercury, Total	73 ug/Kg (2)

EP-48 (6')	
6/1/2007	
Arsenic	6,010 ug/Kg (1,2)
Chromium, Total	9,800 ug/Kg (2)
Mercury, Total	65 ug/Kg (2)

GP-2 (13-15')	
6/27/2002	
Chromium, Total	6,000 ug/Kg (2)
Silver	90,000 ug/Kg (1,2)

SB-3 (2-4')	
2/1993	
Mercury, Total	100 ug/Kg (2)
Silver	1,200 ug/Kg (2)

GP-1 (4-7')	
6/27/2002	
Benzene	390 ug/Kg (1)
sec-Butylbenzene	3,500 ug/Kg (1)
Ethylbenzene	18,000 ug/Kg (1,2)
n-Propylbenzene	7,000 ug/Kg (1)
1,2,4-Trimethylbenzene	58,000 ug/Kg (1,2)
Xylenes	73,000 ug/Kg (1,2)
Benzo(a)pyrene	8,800 ug/Kg (5)
Fluranthene	27,000 ug/Kg (2)
2-Methylnaphthalene	15,000 ug/Kg (2)
Naphthalene	19,000 ug/Kg (2)
Phenanthrene	24,000 ug/Kg (2)
Arsenic	8,400 ug/Kg (1,2,5)
Chromium, Total	89,000 ug/Kg (1,2)
Lead	545,000 ug/Kg (1,5)
Mercury, Total	250 ug/Kg (2)
Silver	1,300 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	66,000 ug/Kg (5)

GP-13 (16-18')	
6/28/2002	
Chromium, Total	4,000 ug/Kg (2)

AKT-9 (8-10')	
5/24/2007	
Naphthalene	900 ug/Kg (2)
1,2,4-Trimethylbenzene	1,400 ug/Kg (2)
Chromium, Total	13,500 ug/Kg (2)

SB-2 (14-16')	
2/1993	
Chromium, Total	8,400 ug/Kg (2)
Silver	1,200 ug/Kg (2)

AKT-8 (3-5')	
5/24/2007	
Ethylbenzene	610 ug/Kg (2)
Fluorene	6,000 ug/Kg (2)
2-Methylnaphthalene	29,000 ug/Kg (2)
Naphthalene	24,000 ug/Kg (2)
Phenanthrene	11,000 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	333,000 ug/Kg (3,5)
Antimony	6,140 ug/Kg (1)
Arsenic	9,900 ug/Kg (1,2,5)
Cadmium	13,700 ug/Kg (1)
Chromium, Total	862,000 ug/Kg (1,2)
Lead	2,260,000 ug/Kg (1,5)
Mercury, Total	2,530 ug/Kg (1,2)
Nickel	339,000 ug/Kg (1)
Selenium	1,070 ug/Kg (2)
Silver	1,800 ug/Kg (2)

GP-4 (2.5-4')	
6/27/2002	
Benzene	230 ug/Kg (1)
sec-Butylbenzene	2,200 ug/Kg (1)
Ethylbenzene	19,000 ug/Kg (1,2)
n-Propylbenzene	4,700 ug/Kg (1)
1,2,4-Trimethylbenzene	33,000 ug/Kg (1,2)
1,3,5-Trimethylbenzene	1,800 ug/Kg (2)
Xylenes	25,000 ug/Kg (1,2)
Benzo(a)anthracene	33,000 ug/Kg (5)
Benzo(a)pyrene	29,000 ug/Kg (5)
Benzo(b)fluoranthene	48,000 ug/Kg (5)
Fluranthene	97,000 ug/Kg (2)
2-Methylnaphthalene	63,000 ug/Kg (1,2)
Naphthalene	49,000 ug/Kg (1,2)
Phenanthrene	40,000 ug/Kg (2)
Arsenic	10,700 ug/Kg (1,2,5)
Cadmium	9,700 ug/Kg (1)
Chromium, Total	435,000 ug/Kg (1,2,4)
Lead	880,000 ug/Kg (1,5)
Mercury, Total	1,200 ug/Kg (2)
Selenium	1,700 ug/Kg (2)
Silver	3,100 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	92,000 ug/Kg (5)

GP-4 (11-12')	
6/27/2002	
1,2,4-Trimethylbenzene	18,000 ug/Kg (1,2)
Xylenes	26,000 ug/Kg (1,2)
Di-n-butyl phthalate	61,000 ug/Kg (2)
Fluranthene	8,500 ug/Kg (2)
2-Methylnaphthalene	110,000 ug/Kg (1,2)
Naphthalene	110,000 ug/Kg (1,2)
Phenanthrene	7,700 ug/Kg (2)
Arsenic	7,800 ug/Kg (1,2,5)
Cadmium	6,400 ug/Kg (1)
Chromium, Total	215,000 ug/Kg (1,2,4)
Mercury, Total	330 ug/Kg (2)
Selenium	1,200 ug/Kg (2)
Silver	600 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	92,000 ug/Kg (5)

LEGEND

- = PROPERTY LINE
- = RATEE WELL DRILLING TEST BORING (2/1988)
- = OBRIEN MONITORING WELL (1/1990 OR 9/2004)
- = E & E SOIL SAMPLE (6/1990)
- = O'BRIEN AND GERE SOIL BORING (2/1993)
- = O'BRIEN AND GERE SOIL BORING (9/1994)
- = OBRIEN SURFACE SOIL SAMPLE (9/1994)
- = HARDING ESE SOIL BORING (6/2002)
- = AKT PEERLESS TEST PITS (10/2002)
- = AKT PEERLESS SOIL BORING (12/2004)
- = AKT PEERLESS SOIL BORING (02/2005)
- = AKT PEERLESS TEST PIT EXCAVATION (2007)
- = AKT PEERLESS GROUNDWATER MONITORING WELL (2007)
- = AKT PEERLESS SHALLOW SOIL BORING (2007)

CRITERIA NOTE

(1) - Exceeds Residential Drinking Water Protection Criteria and RBSLs
(2) - Exceeds Groundwater Surface Water Interface Protection Criteria and RBSLs
(3) - Exceeds Residential Infinite Source Volatile Soil Inhalation Criteria (VSIC) and RBSLs
(4) - Exceeds Residential Particulate Soil Inhalation Criteria and RBSLs
(5) - Exceeds Residential Direct Contact Criteria and RBSLs
(6) - Exceeds Soil Saturation Concentration Screening Levels

DRAWN BY: OGO
DATE: 01/05/2017

FIGURE 3A

SITE MAP WITH SOIL RESULTS EXCEEDING MDEQ RCC

PARCEL 15-29-101-023
NE CORNER OF HAMLIN & ADAMS ROADS
ROCHESTER HILLS, MICHIGAN
PROJECT NUMBER : 3679F6-3-26

AKTPEERLESS
www.aktpeerless.com

CRITERIA NOTE

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(5) - Exceeds Residential Direct Contact Criteria and RBSLs
(6) - Exceeds Soil Saturation Concentration Screening Levels

EB-28 (1-3')	
5/24/2007	
Polychlorinated biphenyls (PCBs)	150,000 ug/Kg (5)

EB-28 (3-5')	
5/24/2007	
Polychlorinated biphenyls (PCBs)	31,000 ug/Kg (5)

EB-28 (8-10')	
5/24/2007	
Fluoranthene	10,000 ug/Kg (2)
2-Methylnaphthalene	30,000 ug/Kg (2)
Naphthalene	30,000 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	16,000 ug/Kg (5)

EB-29 (1-3')	
5/24/2007	
Benzo(a)pyrene	9,700 ug/Kg (5)
Fluoranthene	17,100 ug/Kg (2)
Phenanthrene	8,700 ug/Kg (2)

EB-29 (3-5')	
5/24/2007	
Polychlorinated biphenyls (PCBs)	40,000 ug/Kg (5)

EB-29 (8-9')	
5/24/2007	
Polychlorinated biphenyls (PCBs)	6,000 ug/Kg (5)

EB-21 (3-5')	
5/23/2007	
Polychlorinated biphenyls (PCBs)	172,000 ug/Kg (5)

EB-21 (8-10')	
5/23/2007	
sec-Butylbenzene	8,000 ug/Kg (1)
Ethylbenzene	18,000 ug/Kg (1,2)
Isopropyl benzene	12,000 ug/Kg (2)
Naphthalene	60,000 ug/Kg (1,2)
n-Propylbenzene	23,000 ug/Kg (1)
1,2,4-Trimethylbenzene	117,000 ug/Kg (1,2,5,6)
1,3,5-Trimethylbenzene	27,000 ug/Kg (1,2)
Xylenes	191,000 ug/Kg (1,2,6)
2-Methylnaphthalene	52,000 ug/Kg (2)
Benzo(a)pyrene	4,000 ug/Kg (5)
Fluranthene	8,000 ug/Kg (5)
Polychlorinated biphenyls (PCBs)	83,000 ug/Kg (5)

EB-32 (1-3')	
5/24/2007	
Benzo(a)pyrene	5,500 ug/Kg (5)
Fluoranthene	7,400 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	29,000 ug/Kg (5)

EB-35 (1-3')	
5/25/2007	
Benzo(a)pyrene	3,600 ug/Kg (5)
Phenanthrene	2,700 ug/Kg (2)

EB-31 (1-3')	
5/24/2007	
Polychlorinated biphenyls (PCBs)	5,400 ug/Kg (5)

EB-31 (3-5')	
5/24/2007	
Benzo(a)pyrene	2,300 ug/Kg (5)
Polychlorinated biphenyls (PCBs)	32,000 ug/Kg (5)

EB-31 (7-9')	
5/24/2007	
Benzo(a)pyrene	3,000 ug/Kg (5)

EB-30 (1-3')	
5/24/2007	
sec-Butylbenzene	7,000 ug/Kg (1)
Ethylbenzene	111,000 ug/Kg (1,2,3)
n-Propylbenzene	40,000 ug/Kg (1)
1,2,4-Trimethylbenzene	140,000 ug/Kg (1,2,5,6)
1,3,5-Trimethylbenzene	30,000 ug/Kg (1,2)
Xylenes	330,000 ug/Kg (1,2,6)
Benzo(a)pyrene	8,000 ug/Kg (5)
Fluoranthene	15,600 ug/Kg (2)
2-Methylnaphthalene	12,100 ug/Kg (2)
Naphthalene	13,800 ug/Kg (2)
Phenanthrene	10,800 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	68,000 ug/Kg (5)

DUPLICATE 4 EB-30 (1-3')	
5/24/2007	
sec-Butylbenzene	10,000 ug/Kg (1)
Ethylbenzene	122,000 ug/Kg (1,2,3)
Isopropyl benzene	20,000 ug/Kg (2)
Naphthalene	30,000 ug/Kg (2)
n-Propylbenzene	47,000 ug/Kg (1)
1,2,4-Trimethylbenzene	175,000 ug/Kg (1,2,5,6)
1,3,5-Trimethylbenzene	48,000 ug/Kg (1,2)
Xylenes	332,000 ug/Kg (1,2,6)
Benzo(a)pyrene	3,600 ug/Kg (5)
Fluoranthene	9,900 ug/Kg (2)
2-Methylnaphthalene	22,500 ug/Kg (2)
Phenanthrene	10,400 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	284,000 ug/Kg (5)

EB-30 (3-5')	
5/24/2007	
Polychlorinated biphenyls (PCBs)	97,000 ug/Kg (5)

EB-38 (1-3')	
5/25/2007	
Polychlorinated biphenyls (PCBs)	89,000 ug/Kg (5)

EB-38 (3-5')	
5/25/2007	
sec-Butylbenzene	14,000 ug/Kg (1)
Ethylbenzene	71,000 ug/Kg (1,2)
Isopropyl benzene	20,000 ug/Kg (2)
n-Propylbenzene	29,000 ug/Kg (1)
Toluene	9,000 ug/Kg (2)
1,2,4-Trimethylbenzene	168,000 ug/Kg (1,2,5,6)
Xylenes	79,000 ug/Kg (1,2)
Di-n-butyl phthalate	48,000 ug/Kg (2)
Flurranthene	8,000 ug/Kg (2)
2-Methylnaphthalene	388,000 ug/Kg (1,2)
Naphthalene	246,000 ug/Kg (1,2)
Polychlorinated biphenyls (PCBs)	56,000 ug/Kg (5)

EB-38 (8-10')	
5/25/2007	
Polychlorinated biphenyls (PCBs)	20,000 ug/Kg (5)

EB-20 (1-3')	
5/23/2007	
Polychlorinated biphenyls (PCBs)	37,000 ug/Kg (5)

EB-20 (3-5')	
5/23/2007	
Polychlorinated biphenyls (PCBs)	74,000 ug/Kg (5)

EB-20 (5-7')	
5/23/2007	
Benzo(a)anthracene	21,000 ug/Kg (5)
Benzo(a)pyrene	17,000 ug/Kg (5)
Flurranthene	53,000 ug/Kg (2)
Fluorene	6,000 ug/Kg (2)
2-Methylnaphthalene	149,000 ug/Kg (1,2)
Naphthalene	126,000 ug/Kg (1,2)
Phenanthrene	44,000 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	110,000 ug/Kg (5)

EB-36 (3-5')	
5/25/2007	
Polychlorinated biphenyls (PCBs)	82,000 ug/Kg (5)

EB-37 (3-5')	
5/25/2007	
Polychlorinated biphenyls (PCBs)	14,000 ug/Kg (5)

EB-39 (1-3')	
5/25/2007	
Polychlorinated biphenyls (PCBs)	25,000 ug/Kg (5)

EB-39 (3-5')	
5/25/2007	
Benzo(a)pyrene	4,000 ug/Kg (5)
Fluranthene	7,000 ug/Kg (2)
Naphthalene	2,000 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	113,000 ug/Kg (5)

EB-40 (1-3')	
5/25/2007	
Polychlorinated biphenyls (PCBs)	9,000 ug/Kg (5)

EB-40 (3-5')	
5/25/2007	
Benzo(a)pyrene	4,800 ug/Kg (5)
Fluranthene	9,600 ug/Kg (2)
Naphthalene	1,100 ug/Kg (2)
Phenanthrene	2,700 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	67,000 ug/Kg (5)

DUPLICATE 5 EB-40 (3-5')	
5/25/2007	
Benzo(a)pyrene	5,600 ug/Kg (5)
Fluranthene	10,600 ug/Kg (2)
Naphthalene	1,300 ug/Kg (2)
Phenanthrene	2,700 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	159,000 ug/Kg (5)

EB-40 (8-10')	
5/25/2007	
Polychlorinated biphenyls (PCBs)	4,700 ug/Kg (5)

EB-11 (1-3')	
5/22/2007	
Polychlorinated biphenyls (PCBs)	7,200 ug/Kg (5)

EB-11 (8-10')	
5/22/2007	
Polychlorinated biphenyls (PCBs)	20,000 ug/Kg (5)

EB-11 (10-12')	
5/22/2007	
sec-Butylbenzene	5,200 ug/Kg (1)
Ethylbenzene	26,000 ug/Kg (1,2)
Isopropyl benzene	5,000 ug/Kg (2)
Naphthalene	77,000 ug/Kg (1,2)
n-Propylbenzene	11,000 ug/Kg (1)
1,2,4-Trimethylbenzene	60,000 ug/Kg (1,2)
1,3,5-Trimethylbenzene	14,000 ug/Kg (1,2)
Xylenes	96,300 ug/Kg (1,2)
2-Methylnaphthalene	76,000 ug/Kg (1,2)
Benzo(a)pyrene	3,800 ug/Kg (5)
Fluoranthene	10,000 ug/Kg (2)
Phenanthrene	9,000 ug/Kg (1,2)
Polychlorinated biphenyls (PCBs)	45,000 ug/Kg (5)

EB-23 (3-5')	
5/24/2007	
Benzene	800 ug/Kg (1)
sec-Butylbenzene	5,400 ug/Kg (1)
Ethylbenzene	46,900 ug/Kg (1,2)
Isopropyl benzene	8,000 ug/Kg (2)
Naphthalene	82,000 ug/Kg (1,2)
n-Propylbenzene	17,000 ug/Kg (1)
1,2,4-Trimethylbenzene	66,000 ug/Kg (1,2)
1,3,5-Trimethylbenzene	19,000 ug/Kg (1,2)
Xylenes	159,500 ug/Kg (1,2,6)
Benzo(a)pyrene	3,000 ug/Kg (5)
Fluoranthene	6,000 ug/Kg (2)
2-Methylnaphthalene	82,000 ug/Kg (1,2)
Phenanthrene	4,000 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	149,000 ug/Kg (5)

EB-23 (5-7')	
5/24/2007	
Polychlorinated biphenyls (PCBs)	119,000 ug/Kg (5)

EB-23 (7-9')	
5/24/2007	
Polychlorinated biphenyls (PCBs)	99,000 ug/Kg (5)

EB-27 (1-3')	
5/24/2007	
Benzo(a)pyrene	10,200 ug/Kg (2)
Fluoranthene	20,500 ug/Kg (2)
Phenanthrene	14,100 ug/Kg (2)

EB-26 (1-3')	
5/24/2007	
Benzo(a)pyrene	4,600 ug/Kg (2)
Fluoranthene	8,400 ug/Kg (2)
Phenanthrene	3,200 ug/Kg (2)

EB-25 (3-4')	
5/24/2007	
Benzo(a)pyrene	9,100 ug/Kg (2)
Fluoranthene	16,700 ug/Kg (2)
Phenanthrene	9,200 ug/Kg (2)

EB-24 (8-10')	
5/24/2007	
Benzo(a)pyrene	3,900 ug/Kg (2)
Fluoranthene	6,700 ug/Kg (2)
2-Methylnaphthalene	6,100 ug/Kg (2)
Phenanthrene	3,100 ug/Kg (2)

EB-22 (3-5')	
5/24/2007	
Polychlorinated biphenyls (PCBs)	94,000 ug/Kg (5)

EB-22 (6-8')	
5/24/2007	
sec-Butylbenzene	9,000 ug/Kg (1)
Ethylbenzene	230,000 ug/Kg (1,2,3,6)
Isopropyl benzene	20,000 ug/Kg (2)
Naphthalene	130,000 ug/Kg (1,2)
n-Propylbenzene	39,000 ug/Kg (1)
1,2,4-Trimethylbenzene	142,000 ug/Kg (1,2,5,6)
1,3,5-Trimethylbenzene	41,000 ug/Kg (1,2)
Xylenes	1,033,000 ug/Kg (1,2,6)
2-Methylnaphthalene	130,000 ug/Kg (1,2)
Phenanthrene	5,600 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	51,000 ug/Kg (5)

EB-22 (10-12')	
5/24/2007	
Polychlorinated biphenyls (PCBs)	7,000 ug/Kg (5)

EB-18 (3-5')	
5/23/2007	
Benzo(a)pyrene	6,000 ug/Kg (5)
Fluoranthene	13,400 ug/Kg (2)
2-Methylnaphthalene	4,700 ug/Kg (2)
Naphthalene	2,700 ug/Kg (2)
Phenanthrene	3,700 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	4,300 ug/Kg (5)

EB-10 (11-13')	
5/23/2007	
Polychlorinated biphenyls (PCBs)	104,000 ug/Kg (5)

EB-19 (4-5')	
5/23/2007	
sec-Butylbenzene	10,000 ug/Kg (1)
Ethylbenzene	38,000 ug/Kg (1,2)
Isopropyl benzene	7,000 ug/Kg (2)
Naphthalene	55,000 ug/Kg (1,2)
n-Propylbenzene	13,000 ug/Kg (1)
1,2,4-Trimethylbenzene	91,000 ug/Kg (1,2)
1,3,5-Trimethylbenzene	54,000 ug/Kg (1,2)
Xylenes	179,000 ug/Kg (1,2,6)
2-Methylnaphthalene	68,000 ug/Kg (1,2)
Benzo(a)pyrene	11,000 ug/Kg (5)
Fluranthene	39,000 ug/Kg (2)
Phenanthrene	20,000 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	203,000 ug/Kg (5)

EB-19 (5-7')	
5/23/2007	
Polychlorinated biphenyls (PCBs)	197,000 ug/Kg (5)

EB-19 (8-10')	
5/23/2007	
Polychlorinated biphenyls (PCBs)	34,000 ug/Kg (5)

EB-13 (3-5')	
5/23/2007	
Polychlorinated biphenyls (PCBs)	6,600 ug/Kg (5)

EB-13 (8-10')	
5/23/2007	
Polychlorinated biphenyls (PCBs)	13,700 ug/Kg (5)

EB-13 (13-15')	
5/23/2007	
sec-Butylbenzene	4,000 ug/Kg (1)
Ethylbenzene	53,000 ug/Kg (1,2)
n-Propylbenzene	11,000 ug/Kg (1)
Toluene	56,000 ug/Kg (1,2)
1,2,4-Trimethylbenzene	43,000 ug/Kg (1,2)
1,3,5-Trimethylbenzene	10,000 ug/Kg (1,2)
Xylenes	250,000 ug/Kg (1,2,6)
Naphthalene	1,300 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	5,000 ug/Kg (5)

DUPLICATE 3 EB-13 (13-15')	
5/23/2007	
n-Butylbenzene	11,000 ug/Kg (1)
sec-Butylbenzene	6,000 ug/Kg (1)
Ethylbenzene	61,000 ug/Kg (1,2)
n-Propylbenzene	15,000 ug/Kg (1)
Toluene	76,000 ug/Kg (1,2)
1,2,4-Trimethylbenzene	59,000 ug/Kg (1,2)
1,3,5-Trimethylbenzene	13,000 ug/Kg (1,2)
Xylenes	289,000 ug/Kg (1,2,6)
Benzo(a)pyrene	2,200 ug/Kg (5)
Naphthalene	1,500 ug/Kg (2)
Phenanthrene	2,900 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	14,000 ug/Kg (5)

EB-7 (1-3')	
5/22/2007	
Benzo(a)pyrene	2,400 ug/Kg (5)

EB-12 (8-10')	
5/22/2007	
sec-Butylbenzene	50,000 ug/Kg (1)
Ethylbenzene	590,000 ug/Kg (1,2,3,6)
Isopropyl benzene	70,000 ug/Kg (2)
Naphthalene	400,000 ug/Kg (1,2,3,4)
n-Propylbenzene	110,000 ug/Kg (1)
Toluene	400,000 ug/Kg (1,2,3,6)
1,2,4-Trimethylbenzene	760,000 ug/Kg (1,2,5,6)
1,3,5-Trimethylbenzene	280,000 ug/Kg (1,2,6)
Xylenes	2,070,000 ug/Kg (1,2,6)
2-Methylnaphthalene	280,000 ug/Kg (1,2)
Polychlorinated biphenyls (PCBs)	23,000 ug/Kg (5)

EB-12 (10-11')	
5/22/2007	
Di-n-butyl phthalate	7,200 ug/Kg (5)
2-Methylnaphthalene	7,200 ug/Kg (5)
Naphthalene	7,200 ug/Kg (5)
Polychlorinated biphenyls (PCBs)	7,200 ug/Kg (5)

EB-9 (8-10')	
5/22/2007	
n-Butylbenzene	10,000 ug/Kg (1)
sec-Butylbenzene	3,500 ug/Kg (1)
Ethylbenzene	21,500 ug/Kg (1,2)
Naphthalene	11,000 ug/Kg (2)
n-Propylbenzene	7,000 ug/Kg (1)
1,2,4-Trimethylbenzene	41,000 ug/Kg (1,2)
1,3,5-Trimethylbenzene	11,000 ug/Kg (1,2)
Xylenes	66,200 ug/Kg (1,2)
2-Methylnaphthalene	6,000 ug/Kg (2)

EB-10 (10-12')	
5/22/2007	
Polychlorinated biphenyls (PCBs)	10,400 ug/Kg (5)

DUPLICATE 2 EB-10 (10-12')	
5/22/2007	
Naphthalene	800 ug/Kg (2)
Polychlorinated biphenyls (PCBs)	50,000 ug/Kg (5)

EB-1 (3-5')	
5/21/2007	
Cadmium	14,900 ug/Kg (1)
Chromium, Total	82,800 ug/Kg (1,2)
Lead	695,000 ug/Kg (5)
Mercury, Total	394 ug/Kg (2)
Selenium	1,110 ug/Kg (2)

LEGEND

- = PROPERTY LINE
- = RATEE WELL DRILLING TEST BORING (2/1988)
- = OBRIEN MONITORING WELL (1/1990 OR 9/2004)
- = E & E SOIL SAMPLE (6/1990)
- = O'BRIEN AND GERE SOIL BORING (2/1993)
- = O'BRIEN AND GERE SOIL BORING (9/1994)
- = OBRIEN SURFACE SOIL SAMPLE (9/1994)
- = HARDING ESE SOIL BORING (6/2002)
- = AKT PEERLESS TEST PITS (10/2002)
- = AKT PEERLESS SOIL BORING (12/2004)
- = AKT PEERLESS SOIL BORING (02/2005)
- = AKT PEERLESS TEST PIT EXCAVATION (2007)
- = AKT PEERLESS GROUNDWATER MONITORING WELL (2007)
- = AKT PEERLESS SHALLOW SOIL BORING (2007)

DRAWN BY: OGO
DATE: 01/05/2017

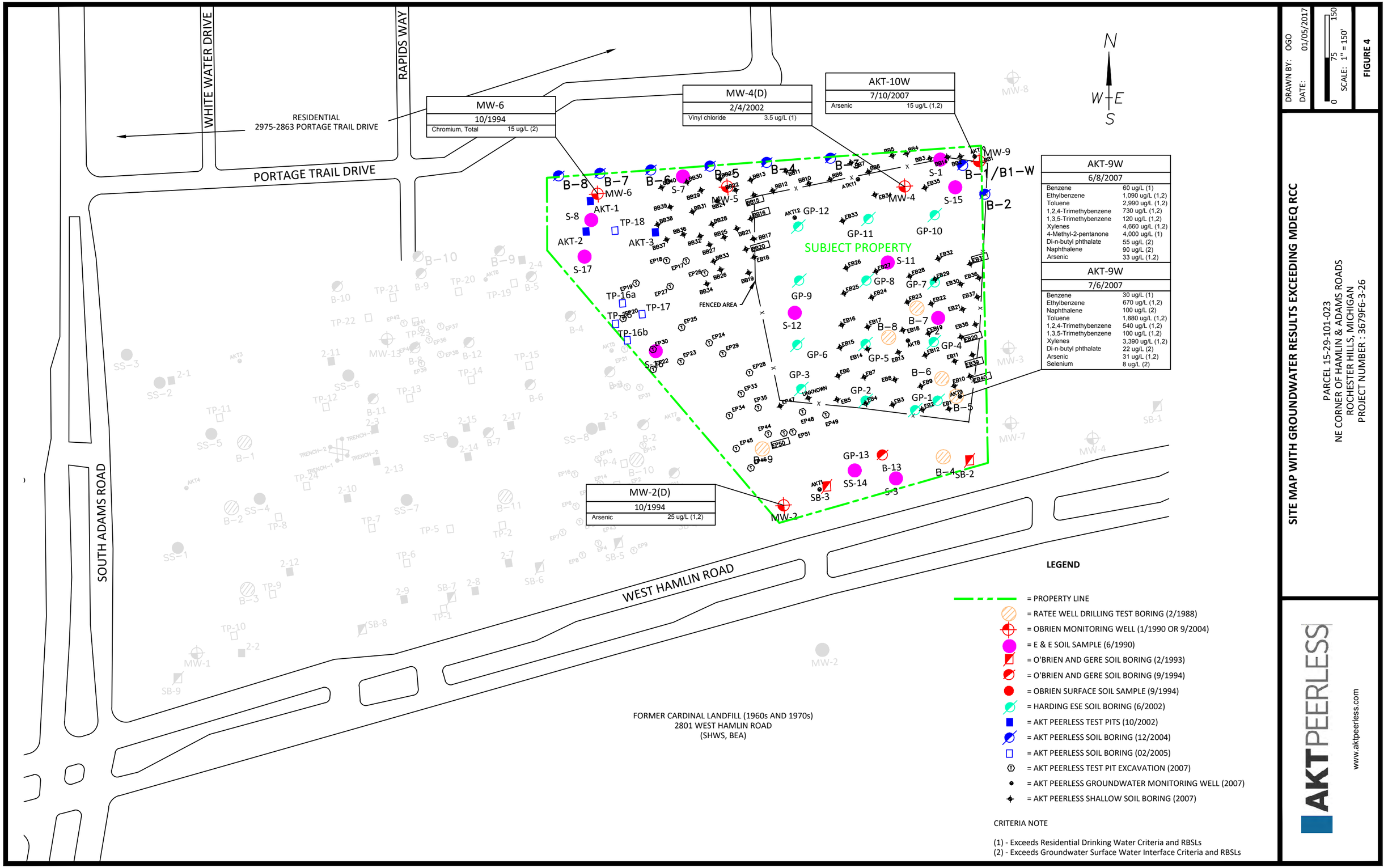
0 75 150
SCALE: 1" = 150'

FIGURE 3B

SITE MAP WITH SOIL RESULTS EXCEEDING MDEQ RCC (AKT PEERLESS' 2007 INVESTIGATION - AREA B)

PARCEL 15-29-101-023
NE CORNER OF HAMLIN & ADAMS ROADS
ROCHESTER HILLS, MICHIGAN
PROJECT NUMBER : 3679F6-3-26

AKTPEERLESS
www.aktpeerless.com



DRAWN BY: OGO
DATE: 01/05/2017

0 75 150
SCALE: 1" = 150'

FIGURE 4

SITE MAP WITH GROUNDWATER RESULTS EXCEEDING MDEQ RCC

PARCEL 15-29-101-023
NE CORNER OF HAMLIN & ADAMS ROADS
ROCHESTER HILLS, MICHIGAN
PROJECT NUMBER : 3679F6-3-26

AKTPEERLESS
www.aktpeerless.com

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

SEP 11 2008

REPLY TO THE ATTENTION OF:

L-8J

Mr. Derek Delacourt
Deputy Director, Planning and Development
The City of Rochester Hills
1000 Rochester Hills Drive
Rochester Hills, Michigan 48309

Re: Christianson Landfill Site (site)
Hamlin Adams Brownfield Redevelopment Project

Dear Mr. Delacourt:

The U.S. Environmental Protection Agency, Region 5, has reviewed information regarding the environmental history and proposed plans for the Hamlin Adams Brownfield Redevelopment Project. EPA also has discussed the project with the Michigan Department of Environmental Quality (MDEQ).

Based on our review of the information and discussions with MDEQ, EPA has determined that, under 40 CFR § 761.50(b)(3)(i)(A) of the PCB regulations, the site is presumed not to present an unreasonable risk to health or the environment. EPA made this determination based on the understanding that the PCB contamination occurred prior to 1978, and currently there is no ongoing release of PCBs to the environment. As long as there is no ongoing release of PCBs to the environment from this site, EPA will take no action on this project. MDEQ will oversee remedial action at this site.

If you have any questions regarding this decision, please do not hesitate to contact me, or your staff may contact Jean Greensley, of my staff, at 312-353-1171.

Sincerely,

Margaret M. Guerriero
Director
Land and Chemicals Division

cc: Mr. Ben Mathews, MDEQ

AKTPEERLESS
environmental services

February 20, 2008

Ms. Jean M. Greensly (LC-8J)
US Environmental Protection Agency
Toxics Section - Land and Chemicals Division
77 West Jackson Boulevard
Chicago, Illinois 60604

Subject: PCB Migration Risk at Christenson Landfill
Northeast Corner of Hamlin and Adams Roads
Rochester Hills, Michigan

Dear Ms. Greensley:

As we discussed on our conference call, it was mutually agreed that the above location was a pre-1978 unregulated landfill and thus not regulated by TSCA. However, you stated under certain circumstances when there was an imminent risk to human health the USEPA would take action. Therefore, you requested data to support that there was no such imminent risk to the community that would make this a site of interest to the USEPA.

Michigan has several sites such as these and they are typically regulated by the MDEQ. Due to the requirements of a consent judgment between the City of Rochester Hills and the developer, the USEPA's acknowledgement that they do not assert jurisdiction is required. Therefore, below please find the summary of the known data and the proposed remedy. The proposed remedy would further greatly reduce any existing risk to human health and the environment.

This is a Michigan Brownfield Redevelopment site and the parties are working closely with the MDEQ as to the appropriateness of the remedial action at the site. Ultimately, MDEQ's approval is required to ensure that the remedy sufficiently addresses potential risks to human health.

Therefore, AKT Peerless Environmental Services (AKT Peerless) is please to present a summary of the historical information collected from the Christenson Landfill site. During the 1960s, drums were illegally dumped at the site. Since 1984, several investigations and removal actions have been implemented at this site. The historical information presented in this letter is intended to evaluate the risks associated PCBs at the Christenson Landfill site.

March 24, 1986 – USEPA Letter to Michigan Department of Natural Recourses

On March 24, 1986, USEPA submitted a letter to the Michigan Department of Natural Resources (MDNR) and stated the following:

> "This letter is in response to your request for the United States Environmental Protection Agency (USEPA) to assess the Christenson Landfill problem site in Oakland County, Michigan for a possible immediate removal action. USEPA has prepared and reviewed an Assessment for the site, and does not feel that an immediate removal is warranted at this time."

USEPA retained Roy F. Weston (Weston) to conduct a Site Assessment for the site. USEPA based their opinion on this assessment. According to the Weston report,

> "The major threat to human health and the environment by the Christenson landfill is the potential for direct human contact with exposed drums and paint wastes. The site poses not apparent threat to groundwater contamination of

aquifers used by some local residents as sources of potable water. This conclusion is based on the following reasons:

- The area in question is underlain by 30 to 50 feet of clay.
- Water used by local residents is either from the Detroit Municipal Water System or from fairly deep private wells greater than 75 feet.

Weston further states, "that the site does not pose a threat to the drinking water supply of the surrounding community." **Thus, the USEPA has already concluded that no material risk is associated with this site and that it has waived its jurisdiction and passed on jurisdiction to the State of Michigan.**

August and December 1990 – Ecology and Environmental Groundwater Investigation

In 1990 Ecology and Environment conducted a groundwater investigation at the site. Ecology and Environment identified two water-bearing zones. The shallow water-bearing zone consisted interbedded sand and clay lenses. The predominant soil type in the shallow aquifer is sand. The shallow and deep-water bearing zones are separated by a clay aquitard. Monitoring wells installed at the site were screened in both water-bearing zones. Where the monitoring wells are nested, the shallow well is identified with "S" and the deeper well is identified with a "D". If neither letter is used, the well is screened in the shallow water-bearing zone.

Ecology and Environment collected groundwater samples in August 1990 and did not analyze the groundwater samples for PCBs.

November 8, 1994 – O'Brien & Gere Engineers' "Soil and Groundwater Survey"

In October 1994, the former property owner retained O'Brien & Gere Engineers to collect groundwater samples from nine monitoring wells at the site. These monitoring wells were called the following:

- MW1-S and MW1-D
- MW2-S and MW2-D
- MW5-S and MW5-D
- MW6
- MW13-S and MW-13-D

These eight of these monitoring wells were nested wells with the shallow wells (denoted "S") screened in the shallow water bearing zone and the deep wells (denoted "D") screened in the deeper water-bearing zone. **The groundwater samples collected from these monitoring wells were analyzed for PCBs and no PCBs were detected.**

August 2000 – MDEQ Groundwater Monitoring

In August 2000, the Michigan Department of Environmental Quality (MDEQ) collected groundwater samples from the monitoring wells at the site. MDEQ did not analyze the groundwater for PCBs.

January 2001 – Snell Environmental Group's "Final Construction Oversight Report"

Snell Environmental Group, Inc., was retained by the Michigan Department of Environmental Quality (MDEQ) to supervise the removal of buried drums and grossly contaminated soils. From March 3, 1999 to January 2000, Snell supervised the removal of approximately 2,220

cubic yards of crushed drums; drum contents, and grossly contaminated soil. Thus, even further reducing the risks to the environment.

October 9, 2007 – AKT Peerless Environmental Services' Additional Assessment Report

AKT Peerless completed an Additional Assessment at the Christenson Landfill site. During this assessment, AKT Peerless conducted two groundwater-sampling events in June 2007 and July 2007. Groundwater samples were collected from five monitoring wells. These wells were called the following:

- AKT-8
- AKT-9
- AKT-10
- AKT-11
- AKT-12

All five monitoring wells were located in the area of buried drums and were screened in the shallow water-bearing zone. Groundwater samples collected in June and July 2007 were analyzed for PCBs. No PCBs were detected in June or July 2007, demonstrating that the PCBs have not become mobile.

Summary

At least six groundwater-monitoring events have been conducted at the site. During three of the six groundwater-monitoring events the groundwater samples were analyzed for PCBs. No PCBs were detected in groundwater. Further, a source removal action was performed during 1999 and 2000. Based on these results, PCBs do not appear to pose a threat to migrate through groundwater.

Further, continued remedial actions are proposed for this site. These remedial actions include additional source removal and encapsulation of the remaining PCB contamination. As part of the encapsulation, a two-foot-thick clay wall keyed into native soil and covered with an FML liner and clay cap to restrict infiltration will surround the area of PCB contamination. By removing additional source material and restricting infiltration, the proposed remedial actions will further protect groundwater, thus reducing any risks with the remaining PCB contamination.

Therefore, in conclusion, this site should not be regulated by USEPA because of the following:

1. This is a pre-1978 unregulated landfill.
2. USEPA's own conclusion in 1986 was that "the major threat to human health and the environment by the Christenson landfill is the potential for direct human contact with exposed drums and paint wastes. The site poses no apparent threat to groundwater contamination of aquifers used by some local residents as sources of potable water.

   USEPA has prepared and reviewed an Assessment for the site, and does not feel that an immediate removal is warranted at this time."
3. Studies undertaken between 1990 and 2001 confirm no change in risk from 1986.
4. In 2001, MDEQ acted on their jurisdiction and removed the majority of the source material from the site.
5. Recent data, as part of an MDEQ approved investigation work plan, confirms the lack of mobility of PCBs from this site.
6. MDEQ is providing and review and oversight for the proposed remedial actions.

Thus, due to the above, the additional proposed remedial activities and the oversight of the MDEQ should assist the USEPA in its determination that no USEPA jurisdiction exists.

It has been a pleasure working with you. If you have any further questions please contact me at (248) 615-1333.

Sincerely

AKT PEERLESS ENVIRONMENTAL SERVICES

Tony R. Anthony, CP, CHMM, CPG, REPA
Principal

cc: Joe Dufficy, USEPA Brownfield Group
Derek Delacourt, City of Rochester Hills
Neil Silver, Strobl Cunningham

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
EASTERN RESPONSE UNIT
9311 GROH ROAD
GROSSE ILE, MICHIGAN 48138-1697

MAR 24 1986

REPLY TO ATTENTION OF: 5HRGI

Mr. Andrew Hogarth, Chief
Remedial Action Section GWQD
Michigan Department of Natural Resources
P.O. Box 30028
Lansing, MI 48909

RE: Christenson Landfill
Oakland County, MI

Dear Mr. Hogarth:

This letter is in response to your request for the United States Environmental Protection Agency (U.S. EPA) to assess the Christenson Landfill problem site in Oakland County, Michigan for a possible immediate removal action.

U.S. EPA has prepared and reviewed an Assessment for the site, and does not feel that an immediate removal is warranted at this time. Available analytical data do not show or suggest an immediate and significant threat to public health, welfare, or the environment. However, if you obtain further information which indicates that an immediate threat does exist, please notify U.S. EPA, Eastern Response Unit, Grosse Ile, Michigan.

Although an immediate endangerment does not appear to exist at this site, the Michigan Department of Natural Resources should continue its investigation into possible long-term remedial actions.

I have enclosed a copy of the site assessment for the Christenson Landfill site. If you have any questions regarding this matter, please call Ross Powers, the On-Scene Coordinator for this site at 313-676-6500.

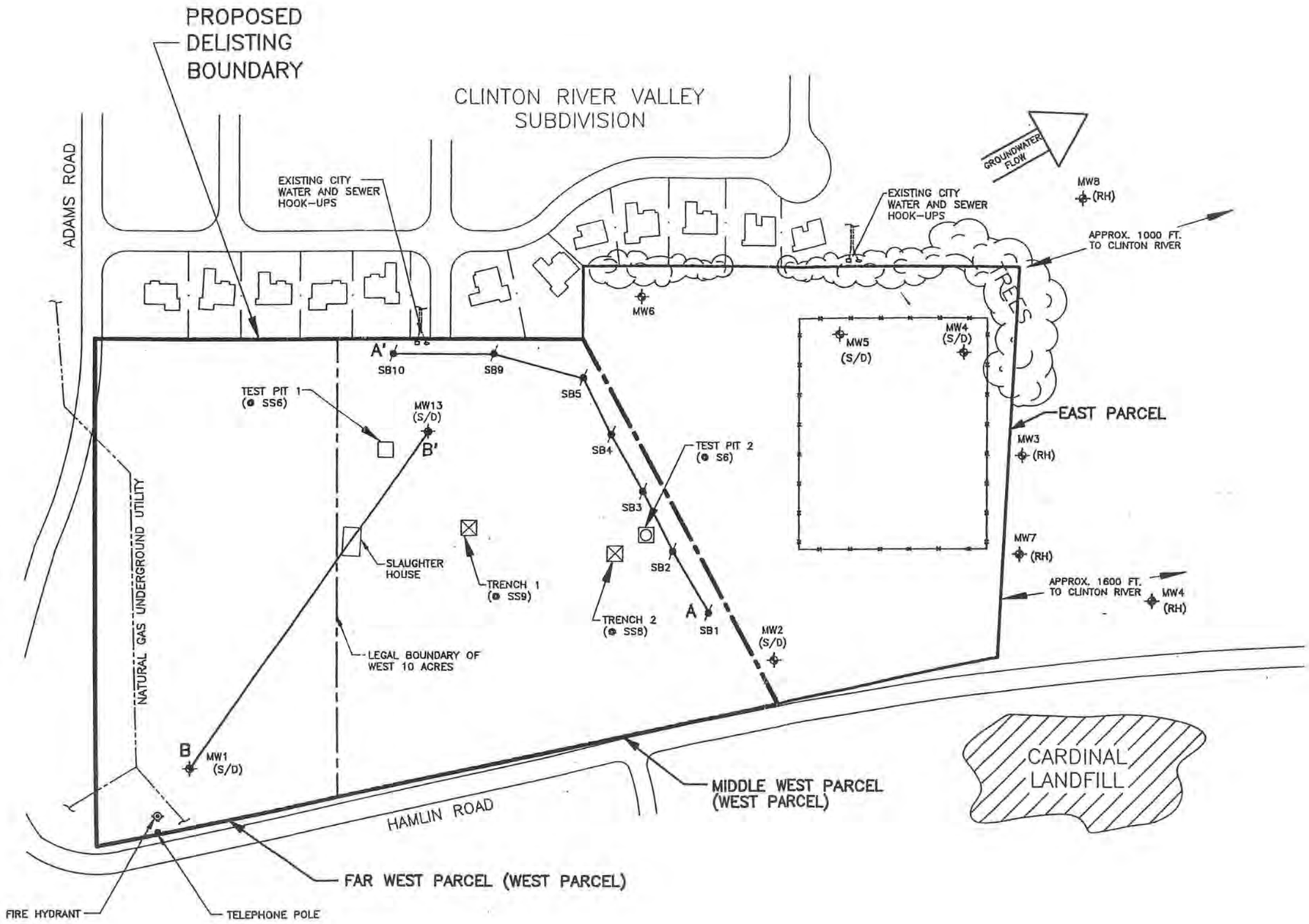
Sincerely yours,

Robert M. Buckley, P.E., Chief
Eastern Response Unit

Enclosure

cc: Oakland Co. Health Dept. w/Encl

FIGURE 9



LEGEND

- EXISTING PROPERTY LINE
- PROPOSED DELISTING BOUNDRY
- APPROXIMATE LOCATION OF 400' X 325' FENCE
- SOIL BORING (INSTALLED BY O'BRIEN & GERE 9/94)
- SOIL BORING (INSTALLED BY ECOLOGY & ENVIRONMENT FIELD INVESTIGATION TEAM 6/90)
- MONITORING WELL (INSTALLED BY PATRICK DRILLING INC. 6/90)
- MONITORING WELL (INSTALLED BY O'BRIEN & GERE 1/90)
- MONITORING WELL (INSTALLED BY O'BRIEN & GERE 9/94)
- (S/D) NESTED SHALLOW/DEEP MONITORING WELL LOCATION
- (RH) MONITORING WELL LOCATION ON CITY OF ROCHESTER HILLS PROPERTY
- TEST PIT (10' X 10' X 5')
- TRENCH (5' X 5' X 5')
- A' — A GEOLOGICAL CROSS SECTION
- B' — B GEOLOGICAL CROSS SECTION

WILLIAM JAMENS, ROMAN HALANSI & JOE BALOUS PROPERTY
@ HAMLIN & ADAMS ROAD
ROCHESTER HILLS, MICHIGAN

TEST PIT LOCATIONS AND GEOLOGICAL CROSS SECTIONS

200 0 200

SCALE

FILE NO. 5699.003-013

O'BRIEN & GERE ENGINEERS, INC.

TABLE 4
Ground Water Sample Analytical Results
Christianson Dump Site
October 1994

LOCATION			MW1-S	MW1-D	MW2-S	MW2-D	MW5-S	MW5-D	MW6	MW13-S	MW13-D	MW-DUP	EQPBLNK	Type A Criteria	Type B Criteria Health-Based Drinking Water Value
Analytical Parameter	Analytical Method	Units													
Arsenic	6020	ug/L	<1.0	<1.0	<1.0	25.0	4.2	9.3	3.0	3.6	13.0	3.9	3.4	1	0.02(C)
Barium	6020	ug/L	123	191	181	223	276	157	<100	337	331	308	<100	200	2,400(C)
Cadmium	6020	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	4.3	0.2	3.5(C)
Chromium	6020	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	15	<1.0	<1.0	<1.0	<1.0	1	120(C)
Copper	6020	ug/L	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	25	1,300(C)
Lead	6020	ug/L	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	4.0	<3.0	<3.0	<3.0	<3.0	3	4(C)
Mercury	7470	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.2	<0.2	<0.2	0.2	2.1(C)
Selenium	7740	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5	35(C)
Silver	6020	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	33(C)
Zinc	6020	ug/L	100	56.0	124	41.0	140	158	102	114	31.0	152	44	20	2,300(C)
Aroclor-1016	8080	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		
Aroclor-1221	8080	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		
Aroclor-1232	8080	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4		
Aroclor-1242	8080	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		
Aroclor-1248	8080	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		
Aroclor-1254	8080	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		
Aroclor-1260	8080	ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		
Aldrin	8080	ug/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Alpha-BHC	8080	ug/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Beta-BHC	8080	ug/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Delta-BHC	8080	ug/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Gamma-BHC	8080	ug/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Chlordane	8080	ug/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
4,4'-DDD	8080	ug/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
4,4'-DDE	8080	ug/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
4,4'-DDT	8080	ug/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
Dieldrin	8080	ug/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
Endosulfan I	8080	ug/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Endosulfan II	8080	ug/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
Endosulfan Sulfate	8080	ug/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
Endrin	8080	ug/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
Endrin Aldehyde	8080	ug/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Endrin Ketone	8080	ug/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Heptachlor	8080	ug/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Heptachlor Epoxide	8080	ug/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
4,4-Methoxychlor	8080	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Toxaphene	8080	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		

Notes:

1. Samples analyzed by Environmental Quality Laboratories, Inc. of Sterling Heights, MI.
2. Samples collected on October 3 - 5, 1994 by O'Brien & Gere Engineers, Inc.
3. "<" denotes less than the indicated detection limit of test.
4. "C" denotes background as defined in Rule 701(c), may be substituted as the cleanup criteria if higher than the Type B cleanup criteria.

JAJ8:JOEDATA3.WQ1

TABLE 4 - Continued
Ground Water Sample Analytical Results
Christianson Dump Site
October 1994

LOCATION			MW1-S	MW1-D	MW2-S	MW2-D	MW5-S	MW5-D	MW6	MW13-S	MW13-D	MW-DUP	EQPBLNK
Analytical Parameter	Analytical Method	Units											
Acenaphthene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Acenaphthylene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Anthracene	8270	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Benzoic Acid	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Benzo(a)anthracene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Benzo(b)fluoranthene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Benzo(k)fluoranthene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Benzo(g,h,i)perylene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Benzo(a)pyrene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Benzyl Alcohol	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bis(2-chloroethoxy)methane	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bis(2-chloroethyl)ether	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bis(2-chloroisopropyl)ether	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bis(2-ethylhexyl)phthalate	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Bromophenyl phenyl ether	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Butyl benzyl phthalate	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Chloroaniline	8270	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
4-Chloro-3-methylphenol	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Chloronaphthalene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Chlorophenol	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Chlorophenyl phenyl ether	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chrysene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dibenzo (a,h)anthracene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dibenzofuran	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Di-n-butylphthalate	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
3,3'-Dichlorobenzidine	8270	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
2,4-Dichlorophenol	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Diethyl phthalate	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2,4-Dimethylphenol	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dimethyl phthalate	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Notes:

1. Samples analyzed by Environmental Quality Laboratories, Inc. of Sterling Heights, MI.
2. Samples collected on October 3 - 5, 1994 by O'Brien & Gere Engineers, Inc.
3. "<" denotes less than the indicated detection limit of test.

JAJ8:JOEDATA3.WQ1

TABLE 4 - Continued
Ground Water Sample Analytical Results
Christianson Dump Site
October 1994

LOCATION			MW1-S	MW1-D	MW2-S	MW2-D	MW3-S	MW5-D	MW6	MW13-S	MW13-D	MW-DUP	EQPBLNK
Analytical Parameter	Analytical Method	Units											
4,6-Dinitro-2-methylphenol	8270	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
2,4-Dinitrophenol	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2,4-Dinitrotoluene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2,6-Dinitrotoluene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Di-n-octyl phthalate	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Fluoranthene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Fluorene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hexachlorobenzene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hexachlorobutadiene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hexachlorocyclopentadiene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Hexachloroethane	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Indeno(1,2,3-cd)pyrene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Isophorone	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Methylnaphthalene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Methylphenol	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Methylphenol	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Naphthalene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Nitroaniline	8270	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
3-Nitroaniline	8270	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
4-Nitroaniline	8270	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Nitrobenzene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Nitrophenol	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Nitrophenol	8270	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
N-Nitrosodiphenylamine	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
N-Nitrosodi-n-propylamine	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Pentachlorophenol	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Phenathrene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Phenol	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Pyrene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2,4,5-Trichlorophenol	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2,4,6-Trichlorophenol	8270	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Notes:

1. Samples analyzed by Environmental Quality Laboratories, Inc. of Sterling Heights, MI.
2. Samples collected on October 3 - 5, 1994 by O'Brien & Gere Engineers, Inc.
3. "<" denotes less than the indicated detection limit of test.

JAJ8:JOEDATA3.WQ1

TABLE 4 - Continued
Ground Water Sample Analytical Results
Christianson Dump Site
October 1994

LOCATION			MW1-S	MW1-D	MW2-S	MW2-D	MW5-S	MW5-D	MW6	MW13-S	MW13-D	MW-DUP	EQPBLNK
Analytical Parameter	Analytical Method	Units											
Bromodichloromethane	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon tetrachloride	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroethane	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Chloroethyl Vinyl Ether	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethylene	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethylene	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropylene	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropylene	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylene Chloride	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethylene	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethylene	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	8010	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzene	8020/5030	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	8020/5030	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethyl Benzene	8020/5030	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes	8020/5030	ug/L	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

Notes:

1. Samples analyzed by Environmental Quality Laboratories, Inc. of Sterling Heights, MI.
2. Samples collected on October 3 - 5, 1994 by O'Brien & Gere Engineers, Inc.
3. "<" denotes less than the indicated detection limit of test.

JAJ8:JOEDATA3.WQ1

Appendix B

Resolutions and DEQ Response Letter

have to be confirmation sampling to prove that they had done what they said. There would be all kinds of checks and balances to make the project significantly better than the previous.

Mr. Staran felt that Mr. Wackerman covered it well. He agreed that there would be a much higher level of cleanup, and there would be an additional, important agency involved. There was much more detail regarding the specifics of the cleanup under the original Consent Judgment. The current Consent Judgment would have the same level of involvement and approval level. They had to spell out some of the particulars because previously, there would have been a commercial level cleanup. What was now proposed was a residential cleanup, the highest standard, with an NFA. The applicant would be required, before they moved forward with occupying the buildings, to have that NFA letter issued by the MDEQ. That was the golden certificate that the property had been cleaned up to the highest level. The things being taken out of the proposed Consent Judgment were not a downgrade - it was quite the opposite.

Hearing no further discussion, Mr. Justin moved the following, seconded by Mr. Turnbull:

***MOTION** by Justin, seconded by Turnbull, in the matter of City File No. 17-043, the Brownfield Redevelopment Authority recommends that City Council approves the Brownfield Plan dated February 20, 2018 for Legacy of Rochester Hills, as amended Parcel Nos. 15-29-101-022 and -023 with the following seven (7) findings and subject to the following three (3) conditions:*

Findings

1. *The submitted plan meets the requirements for a Brownfield Plan under State Act 381 and the City of Rochester Hills.*
2. *The subject parcels qualify as a "facility" under the terms of Act 381.*
3. *The submitted plan qualifies for the use of tax increment financing based on the policies and goals of the Brownfield Redevelopment Authority.*
4. *If implemented, the amount, pay-back period and use of tax increment financing is reasonable for the eligible activities proposed.*
5. *The submitted Internal Rate of Return (IRR) evaluation supports*

the need for the requested incentive.

6. *The applicant has demonstrated that the proposed project requires a 5% interest capture to succeed.*
7. *The extreme circumstances associated with this site's history and the desire of the City to use this site for residential purposes have increased the cost of environmental cleanup. Therefore, the City finds that the requested interest cost is considered an eligible and appropriate activity in this case.*

Conditions

1. *A reimbursement agreement shall be negotiated between the City and the applicant prior to any TIF monies being paid out for eligible activities. The reimbursement agreement and the Brownfield Plan will dictate the total cost of eligible activities subject to payment, provided that the total cost of eligible activities subject to payment or reimbursement under the reimbursement agreement shall not exceed the estimated costs set forth in the Brownfield Plan by more than 15% without requiring an amendment to the Brownfield Plan.*
2. *That if the extent of due care activities related to the subject site is altered or revised due to a change in the proposed development plans or proposed use of the site, the applicant shall submit for an amended Brownfield Plan to the Brownfield Redevelopment Authority.*
3. *Items to be addressed in the memos from ASTI Environmental dated April 2, 2018 and February 27, 2018 as discussed by the Brownfield Redevelopment Authority.*

A motion was made by Justin, seconded by Turnbull that this matter be Recommended for Approval to the City Council Regular Meeting. The motion carried by the following vote:

Aye 4 - Stanley, Turnbull, Justin and Braun III

Excused 3 - Sera, Nachtman and Deel

Chairperson Turnbull stated for the record that the motion had passed. Ms. Roediger reiterated that City Council had set the public hearing for the April 23, 2018 meeting, and that the recommendation would be carried forth at that meeting. It was also anticipated at that time that the amended Consent Judgment would be brought forward, and potentially the Reimbursement Agreement.

Rochester Hills

Master

1000 Rochester Hills Dr
Rochester Hills, MI 48309
(248) 656-4600
Home Page:
www.rochesterhills.org

File Number: 2018-0130

File ID: 2018-0130 **Type:** Project **Status:** To Council

Version: 2 **Reference:** 17-043 **Controlling Body:** City Council Regular Meeting

File Created Date : 03/28/2018

File Name: Brownfield Plan for Legacy RH **Final Action:**

Title label: PUBLIC HEARING - Request for Approval of a Brownfield Plan for Legacy of Rochester Hills, City file No. 17-043, for the remediation of property for a proposed residential apartment development on 28 acres located at the northeast corner of Hamlin and Adams, zoned by Consent Judgment, Parcel Nos. 15-29-101-022 and -023, Goldberg Companies, Applicant

Notes: See 2018-0077

Sponsors: **Enactment Date:**

Attachments: 042318 Agenda Summary.pdf, ASTI Memo on Brownfield Plan 040918-041218.pdf, Hamlin-Adams Brownfield Plan Final - 04 09 18.pdf, Rochester IRR 040618.pdf, Applicant response TIF & Interest.pdf, ASTI Memo on 381 Work Plan 040418-041218.pdf, Hamlin Adams Act 381 Work Plan DRAFT 4 4 2018.pdf, Minutes BRA 041018.pdf, PHN 042318.pdf, Hamlin Adams Brownfield Application.pdf, Memo Roediger 4-10-18 Mtg..pdf, Brownfield Policy Final.pdf, Resolution (Draft).pdf **Enactment Number:**

Contact: PLA 656-4660 **Hearing Date:**

Drafter: **Effective Date:**

History of Legislative File

Version:	Acting Body:	Date:	Action:	Sent To:	Due Date:	Return Date:	Result:
1	Brownfield Redevelopment Authority	04/10/2018	Recommended for Approval	City Council Regular Meeting			Pass
2	City Council Regular Meeting	04/23/2018					

Text of Legislative File 2018-0130

Title
PUBLIC HEARING - Request for Approval of a Brownfield Plan for Legacy of Rochester Hills, City file No. 17-043, for the remediation of property for a proposed residential apartment development on 28 acres located at the northeast corner of Hamlin and Adams, zoned by

Consent Judgment, Parcel Nos. 15-29-101-022 and -023, Goldberg Companies, Applicant

Body

Resolved, that the Rochester Hills City Council hereby approves the Brownfield Plan for Legacy of Rochester Hills, for remediation of property for a proposed residential apartment development on 28 acres located at the northeast corner of Hamlin and Adams, zoned by Consent Judgment, Parcel Nos. 15-29-101-022 and -023, Goldberg Companies, Applicant, with the following findings and conditions.

Findings:

1. The submitted plan meets the requirements for a Brownfield Plan under State Act 381 and the City of Rochester Hills.
2. The subject parcels qualify as a "facility" under the terms of Act 381.
3. The submitted plan qualifies for the use of tax increment financing based on the policies and goals of the Brownfield Redevelopment Authority.
4. If implemented, the amount, pay-back period and use of tax increment financing is reasonable for the eligible activities proposed.
5. The submitted Internal Rate of Return (IRR) evaluation supports the need for the requested incentive.
6. The applicant has demonstrated that the proposed project requires a 5% interest capture to succeed.
7. The extreme circumstances associated with this site's history and the desire of the City to use this site for residential purposes have increased the cost of environmental cleanup. Therefore, the City finds that the requested interest cost is considered an eligible and appropriate activity in this case.

Conditions:

1. A reimbursement agreement shall be negotiated between the City and the applicant prior to any TIF monies being paid out for eligible activities. The reimbursement agreement and the Brownfield Plan will dictate the total cost of eligible activities subject to payment, provided that the total cost of eligible activities subject to payment or reimbursement under the reimbursement agreement shall not exceed the estimated costs set forth in the Brownfield Plan by more than 15% without requiring an amendment to the Brownfield Plan.
2. That if the extent of due care activities related to the subject site is altered or revised due to a change in the proposed development plans or proposed use of the site, the applicant shall submit for an amended Brownfield Plan to the Brownfield Redevelopment Authority.
3. Items to be addressed in the letters from ASTI Environmental dated April 12, 2018 as discussed by City Council.

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

RICK SNYDER
GOVERNOR

C. HEIDI GRETHER
DIRECTOR

June 14, 2018

Ms. Sara Roediger, Director
Rochester Hills Planning and Economic Development
1000 Rochester Hills Drive
Rochester Hills, Michigan 48309

Dear Ms. Roediger and the Rochester Hills Brownfield Redevelopment Authority:

SUBJECT: Act 381 Work Plan Review for Legacy Rochester Hills, northeast corner of Hamlin and Adams Roads, Rochester Hills, Oakland County
Facility: 63000015 / Project: 450925

The Michigan Department of Environmental Quality (MDEQ), Remediation and Redevelopment Division, has reviewed the work plan for the Legacy Rochester Hills project, submitted on June 6, 2018 for approval pursuant to the Brownfield Redevelopment Financing Act, 1996 Public Act 381, as amended (Act 381). The Act 381 work plan requests MDEQ approval of due care compliance and response activities.

Based on the requirements in Section 15(2) of Act 381, and representations and information in your submittal, the MDEQ **approves** the work plan activities listed below and in the attached Table 1:

- Soil Remediation Activities
- Hot Spot Removal
- Engineering Controls – Former Landfill Area
- Waterproofing Seals and Gaskets for Stormwater Piping
- Site Control and Erosion Control
- Dewatering

Based on the requirements in Section 15(2) of Act 381, and representations and information in your submittal, the MDEQ **conditionally approves** the work plan activities listed below and in the attached Table 1:

- Sub-Slab Venting System (New Construction)
- Passive Methane Venting System

Approval of the costs associated with these items will be contingent upon a review of the system components, quality assurance/quality control aspects of the system, and the system testing and performance measures by the MDEQ's Vapor Intrusion Technical and Program Support Team (VI TAPS).

In order to facilitate this review, please provide one document detailing the entirety of the vapor mitigation systems. Please refer to the attached Checklist for Reviewing the Design of a Passive Mitigation System to understand components that should be included within your

submission. This document should be sent to the MDEQ Brownfield Coordinator, Dan Gough at goughd1@michigan.gov.

The work plan also includes pre-development activities. Pre-development activities identified in Section 13b(8) of Act 381 can be performed prior to approval of the brownfield plan and do not require MDEQ approval. The pre-development activities in this work plan include:

- Site investigation required to conduct a Baseline Environmental Assessment (BEA) and to evaluate compliance with Sections 20107a and 21304c of the Natural Resources and Environmental Protection Act, 1994 PA 451 (NREPA).
- Completing a BEA.
- Preparing a plan for compliance with Sections 20107a and 21304c of the NREPA.

Section 13b(7)(b)(i) and (ii) allow for capture of taxes levied for school operating purposes to be used for the reasonable costs of developing and preparing brownfield plans, combined brownfield plans, or work plans for which tax increment revenues may be used under Section 13(4), including but not limited to, legal and consulting fees that are not in the ordinary course of acquiring and developing real estate, not to exceed $30,000 and the reasonable costs of brownfield plan or work plan implementation, including but not limited to, tracking and reporting of data and plan compliance, not to exceed $30,000.

All other MDEQ-eligible activities (due care, response activities, interest, and environmental insurance) may be reimbursed with taxes levied for school operating purposes only if undertaken *after* MDEQ approval of the work plan. If eligible activities in addition to those approved in this work plan are necessary, and/or if approved costs will be exceeded, prior written MDEQ approval is required.

The amount of tax capture is limited to *actual* expenditures with the exception of excess capture allowed for deposit into the local brownfield revolving fund in accordance with Section 8 of Act 381. The Rochester Hills Brownfield Redevelopment Authority (Authority) must track and report the actual school tax increment revenues captured from the eligible property as required by Section 16(3) of Act 381, including both pre-approved and department-approved activities.

The Brownfield Plan approved by the Authority includes reimbursement from school taxes for interest costs associated with department-specific activities as authorized by Section 13b(12)(b) of Act 381. Simple, non-compounding interest charged on department-approved activities may be reimbursed with state school taxes up to a maximum rate of five percent. Interest is approved, but the amount is not included in the approved eligible activity costs in Table 1, as the amount of interest reimbursed will depend on the actual costs incurred.

Approval and conditional approval of this work plan is only for the purpose of eligibility for tax capture and reimbursement under Act 381. This letter does not represent a MDEQ determination of exemption to liability under Part 201 of NREPA.

Actions taken pursuant to this work plan must comply with the requirements of all applicable or relevant and appropriate state and federal laws, rules, and regulations, including, but not limited to, Part 201, the Part 201 Rules, and Part 213 of NREPA, and laws relating to occupational safety and health. This approval does not preclude a person's obligation to obtain and comply with any permit or authorization required under state or federal laws.

Pursuant to Section 13b(14) of Act 381, for every year of school tax capture, fifty percent of the state education tax collected shall be remitted to the State Brownfield Redevelopment Fund.

Please provide copies of all environmental reports and findings to the MDEQ project manager, Ernest Ndukwe. Documents can be mailed to the MDEQ Southeast Michigan District Office, 27700 Donald Court, Warren, MI 48092.

Project related questions can be directed to the following:

- Ernest Ndukwe (Part 201/213) at 734-953-1521, or via e-mail at ndukwee@michigan.gov.
- Dan Gough (Act 381/Brownfield) at 517-281-8253, or via e-mail at goughd1@michigan.gov.

Sincerely,

Carrie Geyer
Supervisor
Brownfield Redevelopment Unit
Remediation and Redevelopment Division
517-284-5182

cc: Mr. Rob Garza, Michigan Economic Development Corporation
Mr. Bret Stuntz, AKT
Mr. Arthur Siegal, Jaffe
Mr. Paul Owens, MDEQ
Ms. Cheryl Wilson, MDEQ
Mr. Daniel Gough, MDEQ
Mr. Ernest Ndukwe, MDEQ
Tracking code #2018-1341

Table 1. Act 381 Predevelopment and DEQ-Approved Activities for the Legacy Rochester Hills Project

Proposed Eligible Activity	Conditional Approval**	Approved Cost
DEQ Approved Activities		
Due Care Compliance Activities (soil and groundwater management, engineering controls, etc.)	$ 1,248,000	$6,215,388
Response Activities (backfill)		$680,000
Environmental Insurance		$0
15% Contingency*		$1,226,008
TOTAL DEQ Approved Eligible Activities		*$8,121,396*
Predevelopment/Preapproved Activities		
Baseline Environmental Assessment (BEA)		$20,600
Site Investigation Activities		$120,000
Pre-demo/asbestos/lead/mold surveys		$0
Preparation of Due Care Compliance Plan		$30,000
Brownfield Plan / Work Plan Preparation and Implementation		$45,000
TOTAL Predevelopment/Preapproved Activities		*$215,600*
TOTAL DEQ & Predevelopment Activities	**$1,248,000**	**$8,336,996**
School Tax Capture Amount 55.0603%	*$687,153*	$4,590,375
Local Tax Capture Amount 44.9397%	*$560,847*	$3,746,621

**For approved costs only. Completed activities are not included in the contingency allowance.*
***Conditional approval is dependent upon written approval from the MDEQ.*

APPENDIX C.6
Checklist for Reviewing the Design of a Passive Mitigation System

The information included in this checklist may be useful for reviewing a passive mitigation system. Though it is generally understood that the actual design of the system may vary, many of the design components should be very similar in purpose. A blank is provided before each item to aid in documenting the individual components and where they can be found.

Site Name: **Site ID:**
Site Address: **County:**

1.0 GENERAL

_____ Engineer or design firm is identified and mitigation system is designed by a professional engineer with demonstrated experience designing passive mitigation systems.

_____ Product manufacturer is provided.

_____ Requirements for installation are provided and if required by the manufacturer, the certification for the product applicator.

_____ General site conditions including a conceptual site model are provided.

_____ Concentrations identified at the site are provided including sampling methodology.

_____ All utility and other penetrations are identified on a print.

_____ Surface preparation is identified and includes:

- If applied onto an existing concrete surface it shall be free of any dirt, debris, loose material, release agents, or curing compounds.
- Voids more than 1/4 inch deep and 1/4 inch wide are filled.
- If applied directly on the sub-grade, the sub-grade shall be compacted to a minimum relative compaction of 90 percent or as specified by a civil/geotechnical engineer and the surface prep shall be smooth, uniform, and free of debris and standing water.

_____ Building/Fire Codes: Document states mitigation systems shall be designed and installed to conform to applicable building and fire codes and maintain the function and operation of all existing equipment and building features including doors, windows, access panels, etc.

_____ Drains that perforate the liner must be equipped with a dranjer style drain or dripline to a trap that allows water to flow into sumps and floor drains while sealing out soil gases from the sub-floor area or alternate method is provided.

2.0 LINER DESIGN AND SPECIFICATIONS

_____ Detailed specifications of the liner are provided including transmission rates and/or diffusion coefficients for compounds of interest.

_____ Concentrations in the subsurface have been evaluated for the liner including the required thickness applied and/or overall selection of the product by the engineer or design firm.

_____ Details are provided for areas that require specialized completion including all penetrations and terminations.

_____ Horizontal venting or perforated piping has a minimum in-plane flow rate of 21 gallons per minute per foot per unit width at a hydraulic gradient of 1.0 percent when tested in accordance with the American Society for Testing and Materials D 4716. Greater flow rates may justify greater spacing.

_____ Dewatering has been considered and incorporated into the design.

_____ Horizontal venting (or perforated piping) runs are identified at a maximum rate of one per every 50 feet perpendicular to the length of the run for the expected coverage. Calculations may provide justification for different spacing.

3.0 SYSTEM MONITORS AND LABELING

_____ System labels are placed on the mitigation system and other prominent locations including the exterior venting locations.

_____ Description of signage and locations are provided.

- *Contain language indicating the mitigation vent that may contain volatile organic compounds.*
- *Figure identifying locations of all signs.*
- *Each roof exhaust point.*
- *Piping run (each individual exhaust line).*
  - *Vertical one per floor.*
  - *Horizontal one per 25 feet.*

_____ For tenants that will be occupying the structure, a notice has or will be prepared.

4.0 PIPING

_____ When crossing pipe or pipe sleeves over or under footings or grade beams, document identifies it has been evaluated by an environmental engineer and/or structural engineer for appropriate use and placement materials.

_____ Preliminary piping and routing diagrams including manifolds are provided.

_____ Preliminary horizontal vent locations are identified on a print by the professional engineer.

_____ All pipe joints and connections, both interior and exterior, are permanently sealed.

_____ All exhaust pipes are supported and secured in a permanent manner.

_____ Horizontal piping runs in the mitigation system are sloped or designed to ensure condensation drains downward into the ground beneath the slab.

_____ All vent stack piping is identified as solid, rigid pipe.

_____ Justification of number and location of vent riser locations either based on Table A.6.1 or alternate method provided.

Table A.6.1
Spacing of Perforated Horizontal Piping and Number of Vent Risers

Vent Riser Pipe Diameter (inches)	Number of Vent Risers per Building Footprint Area (Square Feet)
1 1/2	1/1,250 (min of 2 risers)
2	1/2,500 (min of 2 risers)
2 1/2	1/5,000 (min of 3 risers)
3	1/7,500 (min of 4 risers)
4	1/10,000 (min of 4 risers)

Notes:
1) Riser length shall be a maximum of 100 foot measure along solid pipe including bends.
2) Vent risers maximum spacing shall be 100 feet between each.
3) When the application of the spacing and location requirement of this table results in the fractional number of vent risers, any fraction shall be construed as one vent riser.
4) Number of required vent risers shall be determined by the selected riser pipe diameter and the rate of vent riser per building footprint area.

_____ Vertical piping runs terminate in a location that can drain naturally or that can be verified to be free of water or moisture.

_____ For structures less than 2,500 square feet vertical piping is at least:

- *Not less than three inches (75 millimeters) inside diameter (ID).*
- *Vent stack piping's ID shall be at least as large as the largest used in the manifold piping.*
- *Manifold piping's ID shall be at least as large as that used in any suction point.*
- *Manifold piping to which two or more suction points are connected shall be at least four inches (100 millimeters) ID.*
- *If smaller IDs are proposed, appropriate documentation showing design calculations has been submitted.*

OR

_____ For structures greater than 2,500 square feet piping is:

- *Identified and justified by measurements and estimated static pressure, air velocity, and rate of airflow measurements, and head loss calculations based on preliminary exhaust piping design prints.*
- *Documented using the methodologies found in "Industrial Ventilation: A Manual of Standard Practice, 23rd Edition," or its equivalent.*

5.0 PIPING COMPLETION SPECIFICATIONS

(minimums, further distance may be required by exhaust concentrations and primary wind flow direction)

_____ Pipes are completed with a rain cap or wind turbine.

_____ To reduce the risk of vent stack blockage, confirm that the discharge from vent stack pipes is:

- *Vertical and upward, outside the structure, at least ten feet (three meters) above the ground level, above the edge of the roof, and shall also meet the separation requirements below. Whenever practicable, they shall be above the highest roof of the building and above the highest ridge.*
- *Twenty feet (six meters) or more away from any window, door, or other opening into conditioned or otherwise occupiable spaces of the structure, if the discharge point is not at least three feet (one meter) above the top of such openings.*
- *Twenty feet (six meters) or more away from any opening, vent, or occupiable spaces of any building including adjacent structures. Chimney flues shall be considered openings into conditioned or otherwise occupiable space.*
- *For vent stack pipes that penetrate the roof, the point of discharge shall be at least 12 inches (0.3 meters) above the surface of the roof. For vent stack pipes attached to or penetrating the sides of buildings, the point of discharge shall be vertical and a minimum of 12 inches (0.3 meters) above the edge of the roof and in such a position that it can neither be covered with snow or other materials nor be filled with water from the roof or an overflowing gutter.*
- *When a horizontal run of vent stack pipe penetrates the gable end walls, the piping outside the structure shall be routed to a vertical position so that the discharge point meets the requirements described above.*
- *Points of discharge that are not in a direct line of sight from openings into conditioned or otherwise occupiable space because of intervening objects such as dormers, chimneys, windows around the corner, etc., shall meet the separation requirements as stated above.*

6.0 QUALITY ASSURANCE/QUALITY CONTROL INSTALLATION PLAN REQUIREMENTS IDENTIFIED IN THE DESIGN DOCUMENT

_____ Contractor identifies steps to document the effectiveness of the mitigation system.

- Coupon sampling – recommended at one sample per 500 square feet.
- Smoke testing – full coverage is necessary and must be based on the area that it can be confirmed that smoke has migrated to through visual observation.
- On-site installation oversight by the design firm.
- Documentation verifying the installation per project specification and that any areas noted for repair have been completed.
- Estimated quantities of the product to be utilized are provided.

Appendix C

NFA EGLE Response Letter

GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
WARREN DISTRICT OFFICE

EGLE

LIESL EICHLER CLARK
DIRECTOR

June 27, 2019

Mr. Jordan Goldberg, Manager LRH Development, LLC
25101 Chagrin Blvd
Beechwood, Ohio 44122

Dear Mr. Goldberg:

SUBJECT: Notice of Approval of a No Further Action Report
Portion of Christianson Dump Site, NE Corner of
Hamlin and Adams Roads (Parcel 15-29-101-022),
Rochester Hills, Oakland County, MI
Facility ID No: 63000015

The Michigan Department of Environment, Great Lakes, and Energy (EGLE), Remediation and Redevelopment Division (RRD) has reviewed the No Further Action (NFA) Report submitted by AKTPeerless (AKT) on February 8, 2019. The NFA report was submitted under Section 20114d of part 201, Environmental, Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). Based on this review, the NFA report has been approved.

EGLE has determined that the remedial action described in the NFA report satisfies the requirement of Part 201, for the Residential cleanup category as provided for in Section 20120a(1) of NREPA. Therefore, the NFA Report is approved for the facility; and this correspondence serves as the No Further Action letter as defined by Section 20101(1)(gg) of the NREPA.

As provided in Section 20126(4)(e) of the NREPA, a person with an approved NFA Report has an exemption to liability for the environmental contamination addressed in the NFA Report, but may be subject to liability for environmental conditions under the circumstances described in that subparagraph.

EGLE's approval is based upon representations and information contained in the NFA Report for the property. EGLE expresses no opinion as to other contaminants or areas beyond those identified and addressed as described in the NFA Report. EGLE makes no warranty as to the fitness of this property for any general or specific use, and prospective purchasers or users are advised to use due diligence prior to acquiring any interest in or using this property. The State reserves the right to take an action against LRH Development, LLC, if it discovers at any time, that any material information provided by LRH Development, LLC in the NFA Report was false or misleading.

All documents and data prepared, acquired, or relied upon in connection with this NFA Report must be maintained for not less than ten years after this approval pursuant to Section 20114d(7) of the NREPA, and shall be made available to EGLE upon request.

If you have additional questions regarding this matter, please contact Ernest Ndukwe, project Manager, at 586-753-3819, ndukwee@michigan.gov, or EGLE, 27700 Donald Court, Warren, Michigan, 48092; or you may contact me.

Sincerely,

Paul Owens, District Supervisor
Warren District Office
Remediation and Redevelopment Division
586-235-6990
owensp@michigan.gov

cc: Mr. Brian Westhoff, AKTPeerless
Ms. Cheryl Wilson, EGLE
Mr. Ernest Ndukwe, EGLE

Appendix D

Executed Reimbursement Agreement

BROWNFIELD REIMBURSEMENT AGREEMENT
LRH DEVELOPMENT, LLC
ROCHESTER HILLS, MICHIGAN

THIS AGREEMENT ("Agreement") is made as of the 23rd day of April, 2018, by and between the City of Rochester Hills, Michigan ("City") and LRH Development, LLC ("Developer"), of 25101 Chagrin Blvd., #300, Beachwood, OH 44122.

RECITALS

This Agreement is made under the following circumstances:

A. Developer has a signed purchase agreement to buy the property more fully described on Exhibit 1 attached hereto (the "Property"). This Agreement will take effect and be binding on the date that Developer closes its acquisition of the Property (the "Effective Date").

B. Developer proposes to remediate pre-existing contamination and construct a residential development on the Property (the "Development") and to excavate and encapsulate pre-existing contamination on a parcel of land adjoining the Property (the "Land") in accordance with the Amended Consent Judgment dated May 24, 2018, entered into by the City and Developer in Oakland County Circuit Court Case No. 04-060730-CZ (the "Amended Consent Judgment").

C. It has been determined that both the Property and the Land are each a "Facility" as defined by MCL 324.20101 *et seq*. ("Part 201").

D. There are costs and responsibilities which Developer will incur as a result of the Property and the Land each being a Facility consisting of certain environmental response activities ("Environmental Activities"):

(1) required to fulfill and comply with Developer's "due care obligation" under Part 201;

(2) pursuant to the Brownfield Plan adopted on March 6, 2018 by the City of Rochester Hills Brownfield Redevelopment Authority ("BRA") and approved by the City of Rochester Hills City Council on March 12, 2018 (the "Brownfield Plan") pursuant to the Brownfield Redevelopment Financing Act ("BRFA"), MCL 125.2651, *et seq.*, as amended, or

(3) pursuant to the Amended Consent Judgment

(these costs, eligible for reimbursement under the BRFA are, collectively, "Environmental Costs").

The BRA has incurred and will continue to incur certain costs in connection with the Brownfield Plan ("Administrative Costs"), for administrative and operating activities, and for preparing and reviewing a Work Plan pursuant to the BRFA. The Environmental Costs and the Administrative Costs are collectively referred to as "Costs." The types of Environmental Activities and the Costs are more fully described in the Brownfield Plan. A copy of the Brownfield Plan is attached as Exhibit 2. The Costs and activities identified in the Brownfield Plan are estimates; the actual Costs may vary depending on the nature and extent of unknown conditions encountered on the Property or the Land.

E. The proposed Development is expected to remove and/or control environmental risks relating to each of the Property and the Land, provide additional public access to land to residents of the City, as well as significantly increase the taxable value of, and corresponding tax revenues generated by, the Property.

F. The City has agreed to assist Developer by reimbursing the Environmental Costs through the use of tax increment revenues as provided in the Brownfield Plan.

G. By approving this Agreement, the parties intend that they will act in accordance with the Amended Consent Judgment, Brownfield Plan and Work Plan, all of which are incorporated herein by reference.

NOW, THEREFORE, in consideration of the foregoing, the parties agree as follows:

1. Tax Capture. The BRA shall capture Tax Increment Revenue, as defined in the BRFA, from the Property and the Land and use those Tax Increment Revenues as provided in this Agreement, the Amended Consent Judgment and the BRFA. The City may retain, prior to reimbursement of Developer for Eligible Costs of Eligible Activities: (a) In each fiscal year, $10,000 of tax increment revenues attributable to local taxes for reasonable and actual administrative and operating expenses of the BRA; (b) three percent (3%) of tax increment revenues shall be deposited in the local brownfield revolving fund if the BRA establishes such a fund pursuant to Section 8 of the BRFA for the purposes allowed under the BRFA; (c) fifty percent (50%) of the tax increment revenues derived from the State Education Tax, which shall be deposited in the state brownfield revolving fund. Doing so shall not extend the reimbursement period under the Brownfield Plan and Amended Consent Judgment.

2. Compliance with the Plan. Developer shall comply with the terms of the Amended Consent Judgment, Brownfield Plan and Work Plan. Developer's compliance shall include, but not be limited to, providing any and all accountings, documentation, and executing any documentation, reasonably requested by the City or the BRA to evidence compliance with, or warrant payments under, the Brownfield Plan.

2.1 Payment of Costs by BRA. The BRA shall reimburse Developer for the Eligible Costs of Eligible Activities, subject to City Staff's reasonable determination that those costs conform with the terms and conditions of this Agreement, the Brownfield Plan, and the BRFA. Such reimbursement will be solely through the use of tax increment revenues generated from the Property and the Land. As provided in the Brownfield Plan, 5% simple interest is a reimbursable eligible expense and shall accrue from the date the work specified in the Brownfield Plan is undertaken subject to the terms and limits of the Brownfield Plan. The BRA and the City

are not obligated to provide to Developer any other financial incentives, public financing, bonds, funding, loans or grants, or reimbursements from other sources. Reimbursement to Developer may occur only to the extent the Developer or other taxpayer for the Property generate tax increment revenues available for the making of reimbursements in accordance with the Brownfield Plan, Work Plan and applicable federal and state laws and regulations. From time to time, but not more frequently than monthly, Developer shall submit to the City a copy of invoices and an itemized statement of costs of Eligible Activities paid or incurred for reimbursement. The statement shall include a narrative describing the Environmental Activities performed and an explanation of how such activities qualify for reimbursement hereunder. Within sixty (60) days thereafter, the City shall review Developer's submission to determine whether such activities qualify for reimbursement and shall advise Developer in writing if any activities do not qualify. If the City does not respond to the Developer's submission within such 60 days, the submission shall be deemed approved hereunder.

As to those activities, costs or invoices not approved, the City shall provide an explanation of the reason why such activities, costs or invoices are not approved and nothing contained herein shall prevent the Developer from resubmitting such invoices, statement of costs or other supplemental documentation and/or responses to the City's rationale for disapproval.

2.2 The City shall cause Developer to be paid the amounts approved, but only to the extent tax increments relating to the Property or the Land are available. Before any payment is made to the Developer, the City shall first deduct the amounts specified in paragraph 1 hereof to be paid as provided thereunder in the specified order of priority. If sufficient tax increments are not available to pay the entire approved amount, the balance of the approved amount shall be paid from tax increments next received by the BRA relating to the Property and/or the Land.

Notwithstanding anything contained herein to the contrary, DBB Hamlin, LLC and DBB Adams, LLC, the owner of the Land, disclaim any interest in any payments hereunder.

2.3 In the event of a dispute over a disallowed cost, the BRA and Developer shall promptly meet to review the reimbursement request and discuss, in good faith, the conditions pursuant to which Developer may obtain approval of the disallowed cost. If this does not resolve the issue, either party may submit the dispute to court as provided in this Agreement.

2.4 In addition to the foregoing, the Eligible Costs shall not be paid to Developer unless:

(a) They are eligible for payment pursuant to the BRFA, the Brownfield Plan, the Work Plan and other applicable federal and state laws and regulations, as applicable;

(b) They are incurred for Eligible Activities described by the Brownfield Plan and/or Work Plan or any subsequent amendments of those plans;

(c) They are actually paid by Developer; and

(d) Developer is not in material default of Developer's obligations under the Brownfield Plan, Work Plan or the Amended Consent Judgment, which default remains uncured at the time the request for payment is made.

2.5 In accordance with the Amended Consent Judgment, in the event the Environmental Costs exceed the amount of $14,201,575, the parties shall negotiate in good faith an extension of the repayment period. Also, the repayment period shall be extended for the reasonable time necessary due to non-payment or delinquent payment of taxes by Developer or Developer's successors, grantees, tenants or assigns. However, under no circumstances shall the repayment period be extended beyond the maximum duration permissible under the BRFA.

2.6 Termination The obligations of the City and BRA pursuant to this Agreement shall terminate on the earlier to occur of: (a) the date on which the City is no longer authorized to collect taxes calculated on the Captured Taxable Value; (b) twenty four (24) years

after completion of the development on the Property; (c) the date on which there remain no outstanding unreimbursed Eligible Costs; or (d) the notification to Developer of an occurrence of an Event of Default, that, if disputed, is determined by the Oakland County Circuit Court to be an actual Default by Developer.

2.7 The City Treasurer shall, in accordance with the BRFA, transmit the tax increment revenues to the BRA within thirty (30) days after collection.

3. Representations, warranties and covenants of City. The City, for itself and on behalf of the BRA, represents, warrants and covenants to Developer and that on the Effective Date, and shall be deemed to represent, warrant and covenant on each and every day during the term of this Agreement, as follows:

3.1 The City is a duly-incorporated Michigan home-rule city, and the BRA is duly organized, validly existing and in good standing under the laws of the State of Michigan and the BRA, has all corporate power and authority to enter into this Agreement and is duly qualified and in good standing in the State of Michigan.

3.2 Neither the City nor the BRA are a party to, subject to or bound by any agreement or other obligation, or any judgment, order, writ, injunction or decree of any court or governmental authority, which could prevent or materially impair the carrying out of this Agreement. The making and performance of this Agreement, and transactions contemplated herein, by the City and BRA will not violate any provision of law or result in the breach of, or constitute a default under, any lease, indenture, bank loan, credit agreement or other material agreement or instrument to which the City or BRA are a party or by which its authority or property may be bound or affected.

3.3 The City has the authority to bind the BRA relative to the representations, warranties and covenants herein.

4. Representations, Warranties and Covenants of Developer. Developer represents, warrants and covenants to the BRA on the Effective Date, and shall be deemed to represent, warrant on each and every day during the term of this Agreement, as follows:

4.1 Prior to submitting any invoices pursuant to Section 2 hereof, Developer shall have completed the Environmental Activities outlined in the request for reimbursement. However, payments hereunder are not conditioned on completion of any specific Environmental Activities or improvements at any specific time or in any specific sequence, provided that Developer is in compliance with its obligations hereunder. The BRA shall make the payments required hereunder even if development of the Property or remedial work at the Land are not fully completed at the time that a request for reimbursement is made.

4.2 Developer shall undertake and complete all Environmental Activities at the Property and Land necessary to achieve compliance with the Brownfield Plan, Work Plan, Amended Consent Judgment, and applicable federal and state laws and regulations.

4.3 Developer is validly existing and in good standing under the laws of the State in which they are domiciled, have all corporate power and authority to enter into this Agreement and is duly qualified and in good standing in the State of Michigan.

4.4 Developer is not a party to, subject to or bound by any agreement or other obligation, or any judgment, order, writ, injunction or decree of any court or governmental authority, which could prevent or materially impair the carrying out of this Agreement. The making and performance of this Agreement, and transactions contemplated herein, by Developer will not violate any provision of law or result in the breach of, or constitute a default under, any

lease, indenture, bank loan, credit agreement or other material agreement or instrument to which Developer is a party or by which its property may be bound or affected.

4.5 To the Developer's knowledge, the Developer is not a liable party for any environmental contamination that existed on the Property or the Land as of the date of this Agreement.

5. Default by Developer. The neglect or failure by Developer to cure within a reasonable time, under the circumstances, the occurrence of any of the following events shall be considered an "Event of Default":

A. The material breach, by Developer of any representation, warranty or covenant of this Agreement.

B. The failure of Developer, to comply with this Agreement.

C. The failure of Developer to comply with the terms of the Amended Consent Judgment, the Brownfield Plan or the Work Plan.

D. The failure of Developer to make any property tax payment to the County of Oakland or to the City of Rochester Hills in full, for any portion of the Property for which it has the obligation to make such payments. However, the failure of a successor-in-interest, grantee or other third party who is not under Developer's control or direction or under common control or direction with Developer to make timely property tax payments shall not be construed to be an Event of Default by Developer.

5.1 If, for any reason during the term of this Agreement, while Developer, or any party under Developer's control or direction or under common control or direction with Developer, owns the Property, or any portion thereof, and there is a refund of property tax payments to the then-Owner of the Property, the BRA may deduct the amount of any such reimbursement attributable to Tax Increment Revenues from any amounts due and owing the Developer hereunder.

5.2 City agrees to provide Developer with reasonable notice of, and an opportunity to cure, the claimed Default, prior to or within ten (10) business days of discovery of same. Unless an emergency otherwise dictates a shorter period of time, Developer shall have no more than thirty (30) days after receiving notice as provided herein to cure any defect for which the City provides notice hereunder, unless such cure requires additional time to implement or complete, in which case Developer shall be provided a commercially reasonable amount of time to complete the cure, provided that Developer begins promptly and diligently pursues such cure. Failure by Developer to cure any Default as provided herein shall in no event bar or preclude any defense or claim to which Developer may otherwise be entitled.

6 Miscellaneous.

6.1 The BRA's and City's acceptance and review of plans and drawings submitted to the BRA in connection with the Brownfield Plan and the Work Plan shall not be construed as a grant or waiver of site plan approval or construction plan approval pursuant to City ordinances or the Amended Consent Judgment concerning those improvements depicted or described, as it is mutually understood by the parties that any such plans or drawings submitted have been for brownfield financing purposes only.

6.2 Choice of Law. This Agreement is governed by and must be construed in accordance with the law of the State of Michigan as if fully performed therein and without reference to its conflict of laws principles.

6.3 Notices. Any notices or other communications required or permitted under this Agreement shall be sufficiently given if in writing and (i) hand-delivered, including delivery by courier service, (ii) sent by overnight mail by a nationally recognized overnight mail service, or (iii) sent by certified mail, return receipt requested, post prepaid, addressed to the recipient at

the address stated below, or to such other address as the party concerned may substitute by written notice to the other:

If to City:	City of Rochester Hills 1000 Rochester Hills Dr. Rochester Hills, MI 48309 Attention: Sara Roediger, Planning and Economic Development Director
With a copy to:	John D. Staran, Esq. Hafeli Staran &Christ, P.C. 2055 Orchard Lake Road Sylvan Lake, MI 48320
If to Developer:	LRH Development, LLC 25101 Chagrin Blvd.,#300 Beachwood, OH 44122 Attention: Seth Mendelsohn
With Copies to:	Arthur H. Siegal, Esq. Jaffe Raitt Heuer & Weiss, P.C. 27777 Franklin, Suite 2500 Southfield, MI 48034

All notices forwarded by overnight mail are deemed received on the date the overnight service actually delivers the notice. All notices hand delivered shall be deemed received on the day of delivery. All notices forwarded by mail shall be deemed received on the date two (2) days (excluding Sundays and legal holidays when the U.S. mail is not delivered) immediately following date of deposit in the U.S. mail; provided, however, the return receipt indicating the date upon which the notice is received shall be prima facie evidence that such notice was received on the date of the return receipt. Addresses may be changed by giving notice of such change in the manner provided herein. Unless and until such written notice is received, the last address given shall be deemed to continue in effect for all purposes.

6.4 Entire Agreement and Amendments. This Agreement, including the Plans and Exhibits referred to herein, and the Amended Consent Judgment, contains the entire

understanding of the parties hereto with respect to the subject matter contained herein and may only be amended or terminated by a written instrument executed by all parties. There are no restrictions, promises, warranties, covenants or undertakings other than those expressly set forth or provided for herein.

6.5 Severability. Any term or provision of this Agreement that is invalid or unenforceable in any situation in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions hereof or the validity or enforceability of the offending term or provision in any other situation or in any other jurisdiction. If the final judgment of the Oakland County Circuit Court declares that any term or provision hereof is invalid or unenforceable, the court making the determination of invalidity or unenforceability shall have the power to reduce the scope, duration or area of the term or provision, to delete specific words or phrases, or to replace any invalid or unenforceable term or provision with a term or provision that is valid and enforceable and that comes closest to expressing the intention of the invalid or unenforceable term or provision, and this Agreement shall be enforceable as so modified after the expiration of the time within which the judgment may be appealed.

6.6 Construction. The language used in this Agreement shall be deemed to be the language chosen by the parties hereto to express their mutual intent, and no rule of strict construction shall be applied against any party. Any reference to any federal, state, local or foreign statute or law shall be deemed also to refer to all rules and regulations promulgated thereunder, unless the context requires otherwise.

6.7 Captions. The captions to the Sections and subsections contained in this Agreement are for reference only, do not form a substantive part of this Agreement and do not restrict or enlarge substantive portions of this Agreement.

6.8 Counterparts. This Agreement may be executed simultaneously in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

6.9 Parties in Interest/Assignment.

6.9.1 Other than provided for in this Agreement, this Agreement shall not confer any rights or remedies upon any person other than the parties hereto and their respective successors and permitted assigns.

6.9.2 This Agreement and the rights and obligations under this Agreement shall not be assigned or otherwise transferred by any party without the consent of the other parties, which shall not be unreasonably withheld. This Agreement shall be binding upon any successors or permitted assigns of the parties. Notwithstanding any assignment of the Agreement, Developer will remain obligated for the performance of the obligations attributed to Developer, provided that such assignee shall be primarily obligated for the performance of the same.

6.9.3 Developer may assign its rights and obligations without the consent of the City or the Authority provided that such assignment is made: (a) as a pledge to secure financing; (b) to an entity owned or controlled by at least fifty percent (50%) of Developer's members; or (c) to an entity controlled by the same individuals as control Developer. In the event of such an assignment, the assigning party shall provide prompt notice of such assignment to the Authority at the address provided in Section 6.3 with a written assignment document that adequately confirms and provides for the assignment and assumption of all rights and obligations under this Agreement signed by both assignor and assignee.

6.9.4 Developer may assign its rights to payment hereunder

without the consent of the City or the Authority provided that the assigning party shall provide prompt notice of such assignment to the Authority at the address provided in Section 6.3 with a written assignment document that adequately confirms and provides for the assignment and confirms that assignor remains fully liable otherwise and releases the City and the Authority for liability for future payments.

6.10 Dispute Resolution. In the event a dispute shall arise as to the parties' respective rights, duties and obligations under this Agreement, or in the event of a claim of breach of the Agreement or Event of Default by any party, such disputes shall be exclusively resolved in Oakland County Circuit Court pursuant to the Amended Consent Judgment, unless otherwise mutually agreed by the parties.

6.11 Survival. Except as otherwise provided in this Agreement, all representations, warranties, covenants and agreements of the parties contained or made pursuant to this Agreement shall survive the execution of this Agreement.

6.12 Recitals. The recitals set forth above are incorporated by reference into the Agreement as if fully set forth therein.

6.13 Site Access. During the Term of this Agreement, the BRA, its employees, agents, contractors and experts may have access to the Development during normal business hours and upon one business day's prior notice to Developer, and as provided in the Amended Consent Judgment, for the purpose of analyzing whether Developer has complied with the Brownfield Plan, the Work Plan or this Agreement provided, however, that such access shall occur in a manner so as not to unreasonably interfere with the operations of Developer.

6.14 Conflicts. If a conflict arises between the terms of or definitions in this Agreement and the BRFA, the BRFA shall prevail and control. If a conflict arises between the

terms of or definitions in this Agreement and the Brownfield Plan, this Agreement shall prevail and control. If a conflict arises between the terms of, or definitions in, this Agreement and the Amended Consent Judgment, the Amended Consent Judgment shall prevail and control. All capitalized terms in this Agreement shall have the meaning provided herein. If no definition is provided herein, the term shall be deemed to have the meaning provided in Part 201, the BRFA or the Amended Consent Judgment as applicable.

6.15 Local Ordinances. Nothing in this Agreement shall abrogate the effect of local ordinances.

6.16 Waiver. No delay or failure by either party to exercise any right under this Agreement, and no partial or single exercise of that right, shall constitute a waiver of that or any other right, unless otherwise expressly provided herein.

6.17 Interpretation. This is the entire agreement between the parties as to its subject. It shall not be amended or modified except in writing signed by the parties. It shall not be affected by any course of dealing and the waiver of any breach shall not constitute a waiver of any subsequent breach of the same or any other provision.

6.18 Headings. Headings in this Agreement are for convenience only and shall not be used to interpret or construe its provisions.

6.19 Force Majeure. Except for payment of sums due, neither party shall be liable to the other or deemed in default under this Agreement if and to the extent that such party's performance under this Agreement is prevented by reason of force majeure. The term "force majeure" means an occurrence that is beyond the control of the party so delayed and could not have been avoided by exercising reasonable diligence, which may include, for example, natural disaster or decrees of governmental bodies not the fault of the affected party(s). If either party is

delayed by force majeure, the party affected shall provide written notification to the other party immediately, but shall do everything reasonably possible to resume performance. The notification shall provide evidence of the force majeure event to the satisfaction of the other party.

6.20 Miscellaneous. This Agreement may not be amended, altered or modified unless done so in writing by the person against whom enforcement of any waiver, change, modification, or discharge is sought. This Agreement and the exhibits to this Agreement contain all of the representations and statements by the parties to one another, and express the entire understanding between parties, with respect to the Brownfield Plan and Project. All prior and contemporaneous communications between the Authority and the Developer and/or Owner concerning the Brownfield Plan and Project are merged in and replaced by this Agreement.

6.21 Termination. Upon final payment of the Costs as provided in the Brownfield Plan, this Agreement terminates and neither party shall have any obligation to the other hereunder. The City may terminate this Agreement should Developer (A) fail to fulfill in a timely and proper manner any of its obligations under Section 5 hereof; or (B) violate a representation or warranty in Section 4 hereof. Before such termination the BRA shall deliver to Developer a written notice and opportunity to cure under Paragraph 5.6 hereunder. If Developer cures or commences a cure as described in Paragraph 5.6, then this Agreement shall not be terminated for the breach. If Developer does not cure or otherwise contest, then the termination shall be effective on the 31st day after the notice is delivered. Upon the termination of this Agreement, the BRA and the City shall have no further obligation under this Agreement to make any payments to Developer in reimbursement of any Costs of Eligible Activities incurred or to be incurred by the Owner. However, any payments previously made by the BRA and/or the City to the Developer shall belong

to Developer and shall not be subject to a claim of repayment. The remedies of this Section 6.21 are the sole remedies available to the BRA and the City hereunder.

The parties have executed this Agreement as of the Effective Date.

CITY OF ROCHESTER HILLS

By:_____

Its:_____

LRH DEVELOPMENT, LLC

By:_____ Jordan Goldberg

Its: Authorized Representative

And, solely as to the disclaimer in Section 2.2 hereof

DBB Hamlin, LLC

By:_____

Its:_____

DBB Adams, LLC

By:_____

Its:_____

to Developer and shall not be subject to a claim of repayment. The remedies of this Section 6.21 are the sole remedies available to the BRA and the City hereunder.

The parties have executed this Agreement as of the Effective Date.

CITY OF ROCHESTER HILLS

By:_____

Its:_____

LRH DEVELOPMENT, LLC

By:_____ Jordan Goldberg

Its: Authorized Representative

And, solely as to the disclaimer in Section 2.2 hereof

DBB Hamlin, LLC

By:_____

Its: Member

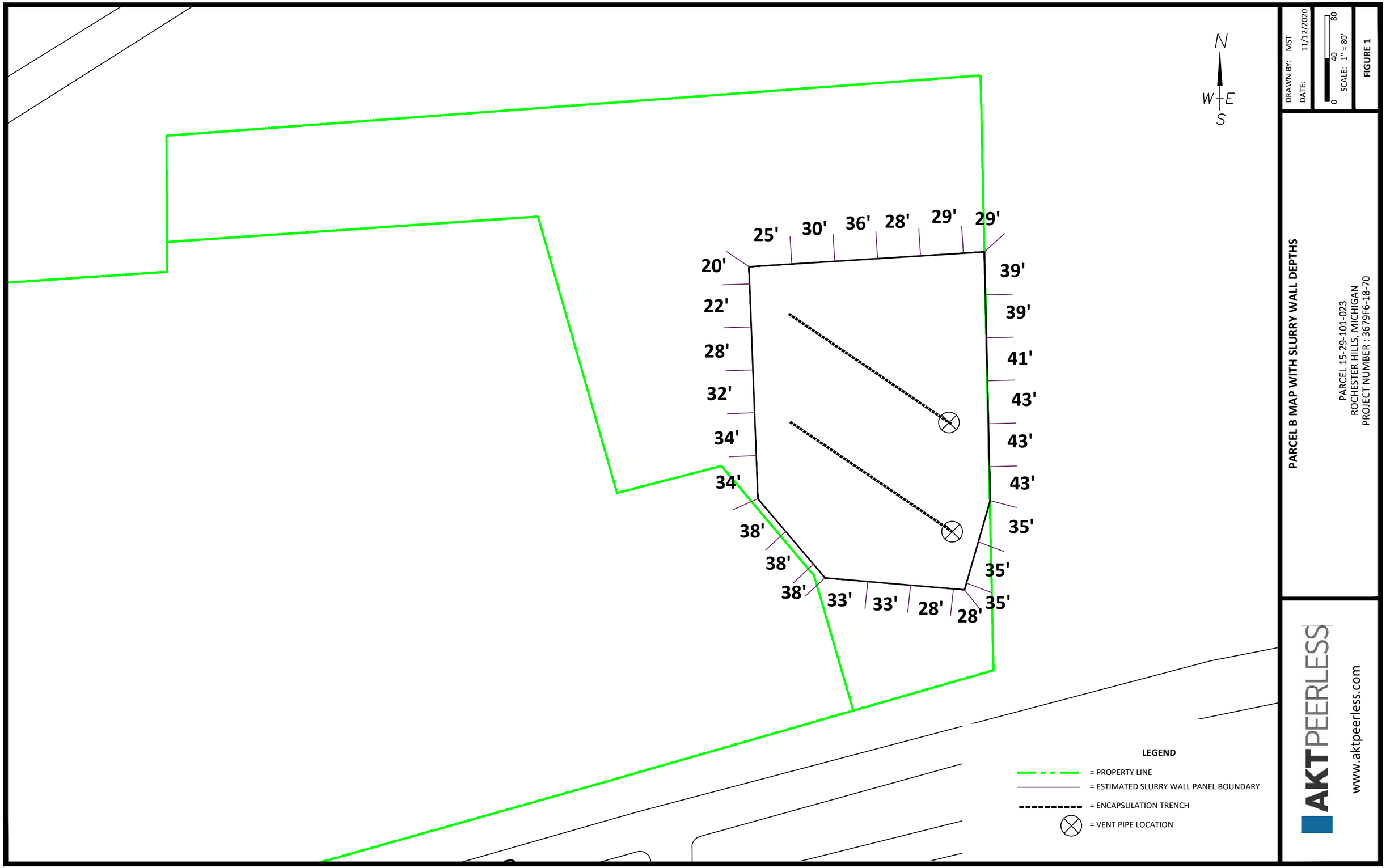
DBB Adams, LLC

By:_____

Its: Member

Appendix E

Slurry Wall Depths and Cover Vent Profile



DRAWN BY: MST
DATE: 11/12/2020

0 40 80
SCALE: 1" = 80'

FIGURE 1

PARCEL B MAP WITH SLURRY WALL DEPTHS

PARCEL 15-29-101-023
ROCHESTER HILLS, MICHIGAN
PROJECT NUMBER : 3679F6-18-70

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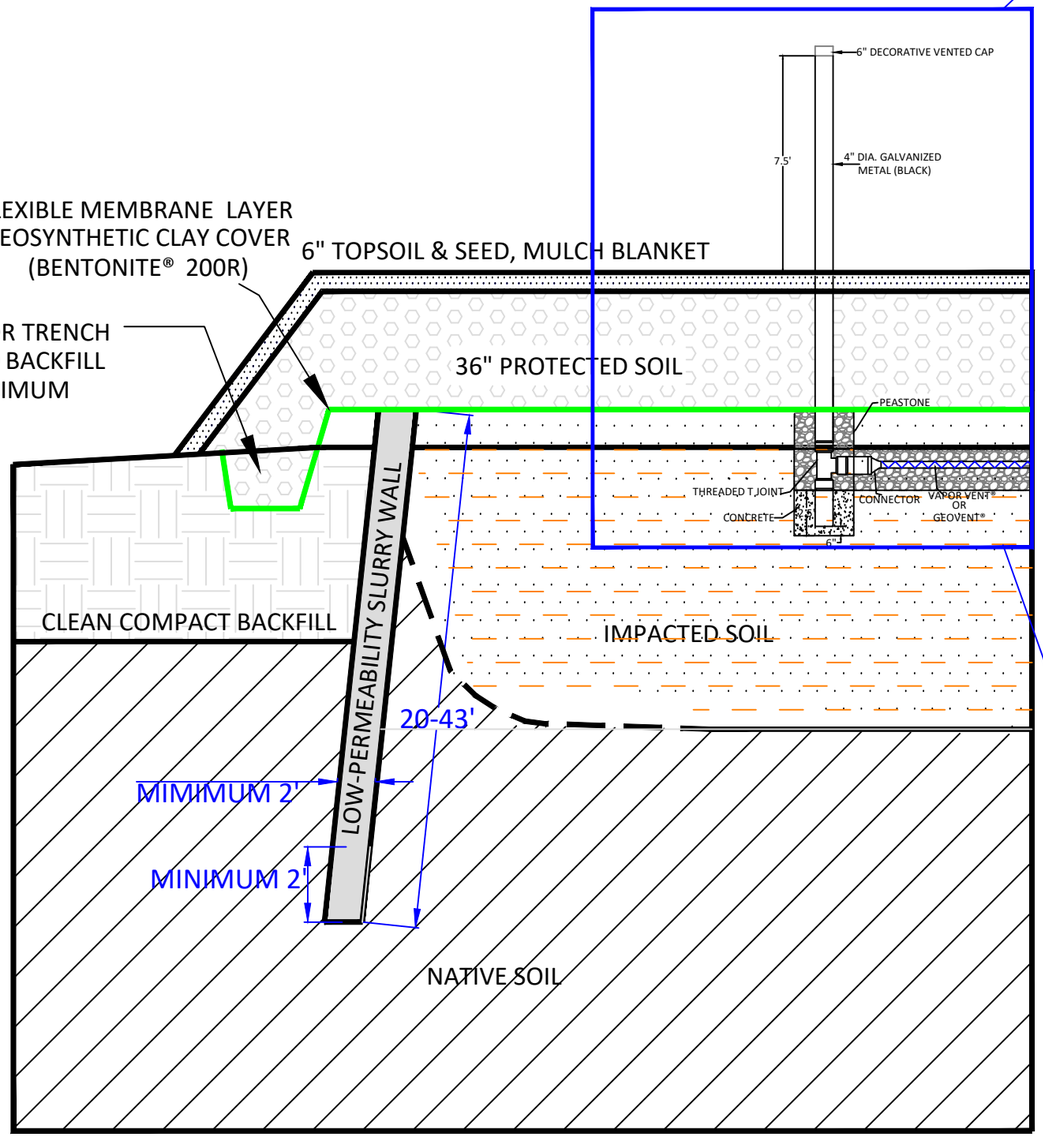
www.aktpeerless.com



DRAWN BY: MST
DATE: 11/12/2020

NOT TO SCALE

FIGURE 2

LANDFILL GAS VENT PROFILE

PARCEL 15-29-101-023
NE CORNER OF HAMLIN & ADAMS ROADS
ROCHESTER HILLS, MICHIGAN
PROJECT NUMBER: 3679F6-23-70

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www.aktpeerless.com