# WASHTENAW COUNTY
# BROWNFIELD REDEVELOPMENT AUTHORITY

# BROWNFIELD PLAN
# FOR
# *618 south main* – An Urban Apartment Community
# REDEVELOPMENT PROJECT

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## PROJECT SUMMARY

**Project Name:** *618 south main* – An Urban Apartment Community

**Project Location:** The eligible property is located at 618 South Main Street (09-09-29-415-004) at the northwest intersection of South Main Street and West Mosley Street ("Property").

**Type of Eligible Property:** Facility – Soil samples at the Property revealed several volatile organic compounds (VOCs) and polynuclear aromatic hydrocarbons (PNAs) in concentrations that exceed the Michigan Department of Environmental Quality's ("MDEQ") Generic Residential Cleanup Criteria. Therefore, the Property is an "Eligible Property" as defined by Act 381 of 1996, as amended, because it has been determined to be a "facility" as defined in Part 201 of the Natural Resources and Environmental Protection Act ("NREPA").

**Eligible Activities:** Due Care, Additional Response, Demolition, Lead and Asbestos Abatement, Site Preparation, Infrastructure Improvements, Development and Preparation of Brownfield Plan and Work Plan and MDEQ/MEGA Work Plan Review.

**Eligible Costs:** $3,708,031

**Years to Complete Repayment:** Estimated to be approximately 22 years.

**Estimated Eligible Investment:** $26.5 million

**Project Overview:** The Property contains two, single-story commercials buildings that will be demolished to make way for a new six to seven-story building containing approximately one hundred and fifty (150) to one hundred seventy (170) residential rental units (studio, one, two and duplex units) with approximately one hundred twenty-one (121) underground parking spaces. The parking level will also contain approximately eighty-nine (89) spaces for bicycle parking. The building will also contain a community room and a management office. Eligible Activities, as defined by Act 381 of 1996, as amended, will be conducted as part of the project. The overall estimated investment for the project is approximately $39 million (net of TIF interest). The Brownfield Plan includes approximately $3.7 million in eligible activities, which will be reimbursed through local and state property tax increment revenues. Construction is anticipated to begin in late 2012/early 2013 and will continue until estimated completion in the 2014. This Plan has been created for the purpose of facilitating the redevelopment of the Property and to allow for the application of tax increment financing from local and state property tax increment.

## INTRODUCTION AND PURPOSE

The Washtenaw County Board of Commissioners established the Washtenaw County Brownfield Redevelopment Authority and designated the boundaries of the Brownfield Authority by adoption of a resolution on May 19, 1999, pursuant to the Brownfield Redevelopment Financing Act, Michigan Public Act (PA) 381 of 1996, as amended (MCL) 125.2651 et seq., (the "Act"). The resolution was filed with Michigan Department of State, Office of the Great Seal, on May 27, 1999.

The purpose of this plan, to be implemented by the Washtenaw County Brownfield Redevelopment Authority (the "Authority"), is to satisfy the requirements for a Brownfield Plan (the "Plan") as specified in the Act.

The Plan project area is within the Ann Arbor Downtown Development Authority District and the Ann Arbor-Ypsilanti Smart Zone District.

The Authority proposes to implement this Plan in an effort to promote economic development and redevelopment within the County.

***618 south main* – An Urban Apartment Community**

## ELIGIBLE PROPERTY INFORMATION

The Property is located in the City of Ann Arbor, Washtenaw County, at 618 South Main Street, located at the northwest intersection of South Main Street and West Mosley Street. The Property is approximately one acre and contains two, single-story commercial buildings that were constructed more than fifty (50) years. The Property is currently zoned D2 (Downtown Interface) and will remain as such. See Exhibit A for the legal description and maps of the Property.

The Property is located in a mixed-use neighborhood in the City of Ann Arbor and is serviced by asphalt streets, City water and sewer, and is located at the southern end of the downtown. All typical urban infrastructure, public and private is provided in the vicinity of the Property.

## PROPOSED REDEVELOPMENT

The Property is the site of the former Fox Tent and Awning site (currently owned by David and Becky Fox) and will be purchased by 618 South Main, LLC ("618 South Main"). The commercial buildings will be demolished in preparation for the redevelopment. The existing buildings were constructed more than fifty (50) years ago. The proposed redevelopment includes the construction of a six to seven-story residential building containing approximately 150 to 170 units above an approximately 120 unit underground parking structure (the "Project"). The Project will consist of studio, one-bedroom, and two-bedroom units, as well as a community room and management office. The Project is also expected to have open space on the west side of the building that will contain an outdoor pool and deck, fire pits, rain garden/bio retention areas, landscaping and patio areas made of porous pavement. An aesthetically pleasing privacy wall will be constructed along the west side that will use brick and natural vines for privacy.

The building will be constructed with various green elements such as low-flow fixtures, heat recapture, high-efficiency lighting, solar panels, and incorporate the reuse of rainwater on the site. The building is expected to meet LEED Certification standards.

The overall estimated investment for this commercial project is approximately $39 million (net of TIF interest). Construction for the Project is anticipated to begin in the fall of 2012/early 2013 and will continue until completion in 2014.

This Plan has been created to facilitate the redevelopment of the Property to allow the Authority to utilize Tax Increment Financing ("TIF") to reimburse the Developer for the eligible activities identified within this Plan.

## BROWNFIELD CONDITIONS

The Property has historically been used for commercial purposes and contains elevated concentrations of VOCs and PNAs in the soil that exceed the MDEQ's Generic Residential Cleanup Criteria. Therefore, the Property is an "Eligible Property" as defined by Act 381 of 1996, as amended, because it has been determined to be a "facility" as defined in Part 201 of the Natural Resources and Environmental Protection Act ("NREPA").

**BROWNFIELD PLAN ELEMENTS**

**A. A description of costs intended to be paid for with tax increment revenues (MCLA 125.2663(1)(a))**

618 South Main is requesting that the Authority capture incremental local and school operating taxes generated through tax increment financing to reimburse the cost of certain "eligible activities" as provided in this Plan totaling $3,708,031 (which includes interest at 4% on the MEGA and MDEQ eligible activities). All costs not authorized for school tax capture are intended to be covered through local-only tax increment capture.

A detailed table of these costs is attached as Schedule 1. Additionally, the Authority will capture administrative fees and Local Site Remediation Revolving Funds from this Plan.

**B. A brief summary of the eligible activities that are proposed for the eligible property. (MCLA 125.2663(1)(b))**

"Eligible activities" are defined in the Act as meaning one or more of the following: (i) baseline environmental assessment activities; (ii) due care activities; and (iii) additional response activities. In addition, in qualified local governmental units such as the City of Ann Arbor, the Act includes the following additional "eligible activities": (A) infrastructure improvements that directly benefit eligible property; (B) demolition of structures that is not response activity under Part 201 of NREPA; (C) lead or asbestos abatement; and (D) site preparation that is not response activity under Part 201 of NREPA. Table 1 below presents estimated costs of MDEQ and Michigan Economic Growth Authority (MEGA) eligible activities which qualify for reimbursement from TIF.

Table 1

| Task | Cost Estimate |
|---|---|
| **MDEQ Eligible Activities** | |
| 1. Baseline Environmental Assessment Activities | $10,000 |
| 2. Due Care | $50,000 |
| 3. Additional Response Activities | $150,000 |
| **MEGA Eligible Activities** | |
| 4. Demolition | $175,000 |
| 5. Lead and Asbestos Abatement | $70,000 |
| 6. Infrastructure Improvements | $1,364,835 |
| 7. Site Preparation | $812,000 |
| **Sub-Total** | *$2,631,835* |
| 8. Interest at 4% on MEGA and MDEQ eligible activities | $656,421 |
| 9. Contingencies – (15%) | $394,775 |
| 10. Development and preparation of Brownfield Plan and Work Plan | $20,000 |

| Table 1 | |
|---|---|
| Task | Cost Estimate |
| **MDEQ Eligible Activities** | |
| 11. MDEQ/MEGA work plan review | $5,000 |
| TOTAL | $3,708,031 |

The eligible activities estimated in Table 1 above include the following:

1. Baseline Environmental Assessment Activities: Phase I and II Environmental Site Assessments and Baseline Environmental Assessments will be completed on behalf of future owner(s)/operator(s) to provide an exemption from liability for existing contamination.

2. Due Care: Due Care Activities will include the site investigations for characterization of soils and dewatering if water is encountered during excavation.

3. Additional Response Activities: It is expected that certain soils excavated during the construction process will be disposed of at an appropriate disposal facility.

4. Demolition: The existing buildings will require demolition. In addition, certain site improvements will be demolished in preparation of site redevelopment. Demolition activities will include proper disposal of non-reusable or non-recyclable building materials. This may include items such as the removal of existing unusable site improvements, paving, concrete, foundations, curbs, sidewalks, etc.

5. Lead and Asbestos Abatement: Lead and asbestos materials will be abated in the buildings as required.

6. Infrastructure Improvements: Infrastructure improvements will include water, storm sewer and sanitary sewer upgrades, street repair and improvements to streets, sewer disconnects, sidewalks, curbs, streetscape improvements such as benches, plants and landscaping, alternative storm water management and traffic control and erosion control associated with these activities. In addition, infrastructure improvements will include sewer, water and footing drain disconnects. Eligible Activities will include all eligible soft costs directly related to the infrastructure improvement activities which includes design and engineering fees.

7. Site Preparation: Various site preparation activities will be required including staking, geotechnical engineering, clearing and grubbing, construction access, construction facility, traffic control, erosion control, site control, excavation of unstable material and to support underground parking, special foundations, fill material, dewatering, land balancing, grading, utility relocation, soil compaction and sub-base, cut & fill

operations and temporary sheeting/shoring. Eligible Activities will include all eligible soft costs directly related to the site preparation activities which includes design, engineering and testing.

8. Interest: Interest at 4% on MEGA and MDEQ eligible activities calculated per MEGA and MDEQ Guidance.

9. Contingencies: A contingency of 15% on the eligible activities listed above (does not include the interest amount).

10. Plan Preparation and Development: Reasonable cost for development and preparation of the project brownfield plan and detailed work plan.

11. MDEQ and MEGA Work Plan review fee: Costs incurred for MDEQ and MEGA Act 381 Work Plan review.

**C. An estimate of the captured taxable value and tax increment revenues for each year of the plan from each parcel of eligible property and in the aggregate. (MCLA 125.2663(1)(c))**

An estimate of the captured taxable value and tax increment revenues by year for real property is attached as Schedule 2.

**D. The method by which the costs of the plan will be financed, including a description of any advances made or anticipated to be made for the costs of the plan from the municipality. (MCLA 125.2663(1)(d))**

The costs of the Plan for the Property will be financed by 618 South Main. Eligible costs will be reimbursed through tax increment revenues generated from the Property. Tax increment revenues will be sought from both local and state tax capture, pursuant to an Act 381 Work Plan and this document. All costs not authorized for school tax capture are intended to be covered through local-only tax increment capture. Local tax increment revenues to be captured for the payment of interest shall not exceed the current proportional share of the total interest figure included in the Plan. Based on the current capturable millage split, the local interest portion is projected to be $171,105. The Developer will be reimbursed for eligible activities pursuant to an executed development and reimbursement agreement after Brownfield Plan approval and the generation of adequate tax increment revenues. Schedule 2 provides a breakdown of the state and local tax portions of the eligible activity reimbursement.

**E. The maximum amount of the note or bonded indebtedness to be incurred, if any. (MCLA 125.2663(1)(e))**

None.

**F. The duration of the brownfield plan, which shall not exceed the lesser of (1) the period required to pay for the eligible activities from tax increment revenues plus the period of capture authorized for the local site remediation revolving fund or (2) 35 years. (MCLA 125.2663(1)(f))**

It is estimated that redevelopment of the Property will be completed in less than two years and that it will take approximately twenty-two (22) years to be reimbursed for eligible costs through tax increment revenues. In addition, once all eligible costs are reimbursed, funds will be captured for the county-wide local site remediation revolving fund. Therefore, the capture will begin in 2014 and will remain under the Plan to the extent that all eligible activities undertaken in this Plan are repaid, but in no event will the Plan exceed the maximum duration provided for in (MCLA 125.2663(1)(f)).

**G. An estimate of the impact of tax increment financing on the revenues of all taxing jurisdictions in which the eligible property is located. (MCLA 125.2663(1)(g))**

Tabular estimates of the incremental tax increases are attached as Schedule 2.

**H. A legal description of each parcel of eligible property to which the plan applies, a map showing the locations and dimensions of each eligible property, a statement of the characteristics that qualify the property as eligible property and a statement of whether personal property is included as part of the eligible property. (MCLA 125.2663(1)(h))**

1. Legal Description: See attached Exhibit A-1.

2. Location and Site maps: See Exhibit A-2.

3. Characteristics of Property: The "eligible property" was historically used as a tent and awning business, other retail operations and for prior residential uses dating back to 1916.

4. Personal Property: All new personal property is included as part of the eligible property. Any existing personal property is expressly excluded from the Plan.

5. The Property is considered Eligible Property pursuant to the Act because it is a "facility." Exhibit B summarizes the contamination.

**I. An estimate of the number of persons residing on each eligible property to which the plan applies and the number of families and individuals to be displaced, if any. (MCLA 125.2663(1)(i))**

There are no persons residing on the Property.

**J. A plan for establishing priority for the relocation of persons displaced by implementation of the plan, if applicable. (MCLA 125.2663(1)(j))**

There are no persons are residing on the Property.

**K. Provision for the costs of relocating persons displaced by implementation of the plan, and financial assistance and other reimbursement of expenses, if any. (MCLA 125.2663(1)(k))**

There are no persons are residing on the Property.

**L. A strategy for compliance with the Michigan Relocation Assistance Act, if applicable. (MCLA 125.2663(1)(l))**

There are no persons are residing on the Property.

**M. A description of the proposed use of the local site remediation revolving fund. (MCLA 125.2663(1)(m))**

The Washtenaw County Brownfield Redevelopment Authority has established a Local Site Remediation Revolving Fund (LSRRF). The LSRRF will consist of all tax increment revenues authorized to be captured and deposited in the LSRRF, as specified in Section 13(5) of Act 381, under this Plan and any other plan of the Authority. It may also include funds appropriated or otherwise made available from public or private sources. The amount of tax increment revenue authorized for capture and deposit in the LSRRF is estimated at approximately $457,742.

No funds from the Washtenaw County Local Site Remediation Revolving Fund will be used for the Project.

**N. Other material that the authority or governing body considers pertinent. (MCLA 125.2663(1)(n))**

It is anticipated that the Project will attain a LEED certification level, based upon the standards for such certification in effect as of the date of the site-plan approval. However, the Developer is currently evaluating the overall project costs to determine the feasibility of actual certification.

Administrative Fees

The amount of tax increment revenue authorized for capture and deposit for Washtenaw County Brownfield Redevelopment Authority's administrative and operating expenses is $462,864, subject to the availability of tax local tax increment and the limits provided in Act 381.

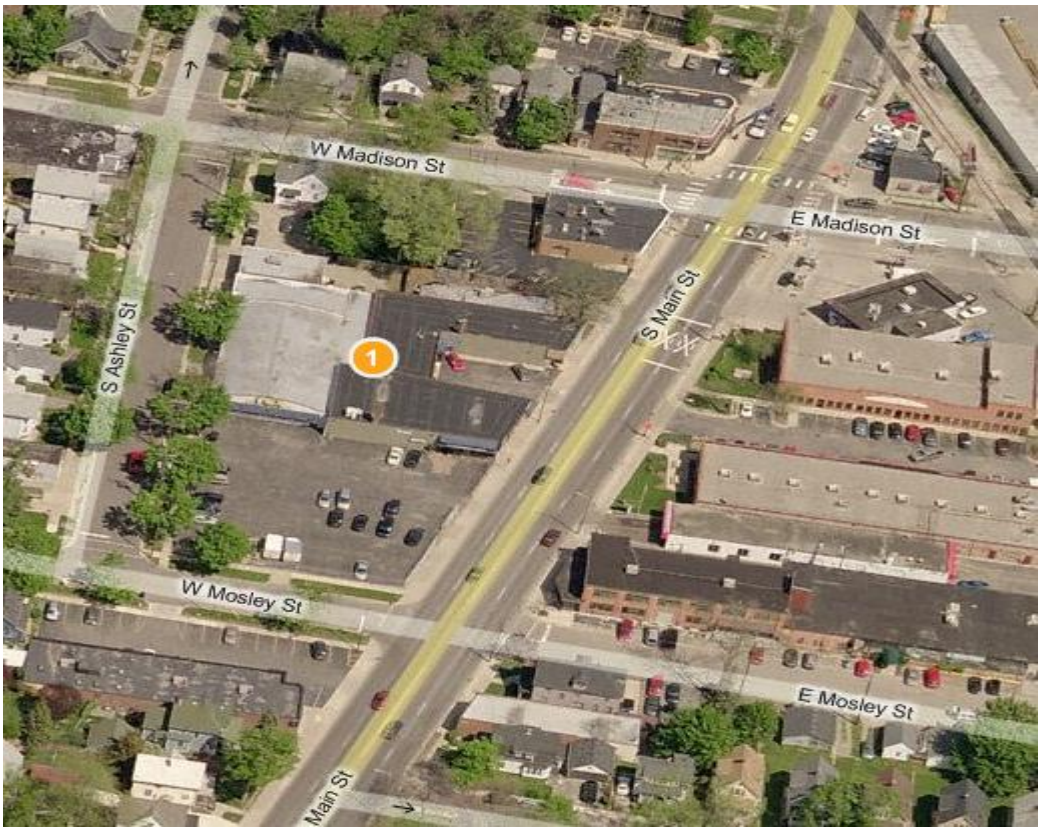
**Exhibit A-1**

Property Description

| | |
|---|---|
| Property Address: | 618 South Main Street<br>Ann Arbor, Michigan |
| Parcel ID No.: | 09-09-29-415-004 |
| Legal Description: | S 66 FT LOT 11 & ALL LOTS 14, 15, 16 & 17 B6S R2E WILLIAM S MAYNARDS SECOND ADDITION |

# Exhibit A-2

## Location and Site Map

# Exhibit B

## Confirmation of Facility Status

APPLIED
ENVIRONMENTAL, INC.
Partners in Down to Earth Solutions

# Phase II Environmental Site Assessment

## Fox Tent & Awning
## 618 S. Main Street
## Ann Arbor, MI 48104

Report #11-1721PII

Prepared for:

**Urban Group Development Company**
**225 South Ashley Street**
**Ann Arbor, MI 48104**

**August 30, 2011**

Prepared by:

**Applied Environmental, Inc.**

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## 1.0 EXECUTIVE SUMMARY

A Phase II Environmental Site Assessment (ESA) has been conducted by Applied Environmental, Inc. (AE) for the property located at 618 S. Main Street, Ann Arbor, Washtenaw County, Michigan 48104. The purpose of this investigation was to address the following recognized environmental conditions identified in the Phase I Environmental Site Assessment conducted by Applied Environmental, Inc. (report #11-1721PI).

- The subject property was historically occupied by an auto body repair and auto painting shop. The subject property address was listed as Quality Paint & Trim (617 S. Ashley) in the 1931 city directory, and was labeled Quality Paint & Trim on the 1931 Sanborn Fire Insurance Map. The potential exists for paints, thinners and other hazardous substances/petroleum products to have impacted the subject property. Former auto body repair and auto painting operations are a recognized environmental condition.

- Armen Cleaners (630 S. Ashley), an adjacent property to the west, across Ashley Street, is a State Hazardous Waste Site (SHWS) and Brownfield site. Release(s) of dry cleaning solvents at this site have resulted in soil and groundwater impact that has migrated beyond the property boundaries of Armen Cleaners. The potential exits for the subject property to have been impacted by the release(s) from this site. The adjacent Armen Cleaners site is a recognized environmental condition.

- The adjacent Clark gas station (601 S. Main) to the northeast, across South Main Street, is a Leaking Underground Storage Tank (LUST) site with an open remediation status. The potential exists for the subject property to have been impacted by the reported release from this site. The adjacent open LUST site to the east is a recognized environmental condition.

- An adjacent property to the east, across South Main Street, was historically occupied by a gas station. The adjacent property address 633 S. Main Street was listed as several different gas stations from 1931 through 1942, and was labeled "filling station" on the 1931 and 1948 Sanborn Fire Insurance Maps. Two underground storage tanks (USTs) were denoted on this adjacent property. The potential exists for the subject property to have been impacted by a historical release from this site. The adjacent property to the east, formerly developed with a gas station, is a recognized environmental condition.

A preliminary Phase II ESA investigation was conducted on April 12, 2011 that consisted of advancing seven (7) Geoprobe® borings across the subject property and two (2) hand auger borings inside the subject building. Soil and groundwater samples were collected and submitted for laboratory analysis from the Geoprobe® borings advanced outside the subject building. Perched subsurface water was encountered at approximately 4.0 to 5.0 feet below grade on the subject property. Groundwater was encountered at approximately 13 to 16.5 feet below grade. Soil samples were collected and submitted for laboratory analysis from each of the two hand auger borings (HB-1 and HB-2) advanced inside the building.

Soil and Groundwater samples were variously analyzed for volatile organic compounds (VOCs) by EPA Method 8260B, benzene, toluene, ethylbenzene and xylenes (BTEX) plus MDEQ recommended petroleum indicator parameters by EPA Method 8260B, polynuclear aromatic hydrocarbons (PNAs) by EPA Method 8270C, cadmium by EPA Method 7131, total chromium by EPA Method 7191, and lead by EPA Method 7421. Soil and groundwater sample analytical results were compared to Michigan Department Environmental Quality (MDEQ) Residential and Commercial I, Part 201 Generic Cleanup Criteria and Screening Levels. The results of the Preliminary Phase II ESA did not reveal concentrations of any compounds above applicable MDEQ Criteria. Evidence of a possible underground storage tank (UST) on the subject property; however, led to additional investigative activities.

On May 27, 2011 a ground penetrating radar (GPR) survey was conducted by Ground Penetrating Radar Technology (GPRT). The GPR survey located what was characterized as an anomaly indicative of an UST south of the subject building at a depth of approximately 4-feet. The GPR operator marked the asphalt ground cover with paint to delineate the approximate extent of the UST.

Under the guidance of Applied Environmental, Inc., Parks Installation and Excavating, Inc. (Parks) removed the fuel oil UST on June 13, 2011. The UST was taken to Milford Salvage Iron & Metal Company, Inc. in Milford, Michigan for disposal. After completing tank removal activities, soil in the resulting cavity was field screened using a photoionization detector (PID) and by observing the soil for staining and olfactory indications of impact. The most heavily impacted soil, as characterized through field screening, was selected for submittal for laboratory analysis. A total of three (3) soil samples were collected and submitted for laboratory analysis. The soil samples were field preserved using methanol according to EPA Method 5035 and packed with ice in a cooler for transport to Quantum Laboratories in Wixom, Michigan. The three soil samples were submitted for laboratory analysis for volatile organic compounds (VOCs) by EPA Method 8260B and polynuclear aromatic hydrocarbons (PNAs) by EPA Method 8270C. VOCs and PNAs are the MDEQ recommended analytical parameters for fuel oil.

Several VOCs and PNAs were reported in concentrations that exceed MDEQ Residential, Part 201 Generic Cleanup Criteria and Screening Levels.

Based on the results of these investigations, the subject property qualifies as a "facility".

## 2.0 INTRODUCTION

### 2.1 Purpose

Applied Environmental, Inc. prepared this Phase II ESA report for the subject property located at 618 S. Main Street, Ann Arbor, Washtenaw County, Michigan 48104. The Phase II ESA was conducted to address the recognized environmental conditions identified through a Phase I Environmental Site Assessment. The purpose was to identify the presence or absence of contamination. This Phase II subsurface investigation was not intended or designed to characterize the nature and extent of contamination, if encountered.

### 2.2 Special Terms & Conditions

There were no special terms or conditions for this assessment

### 2.3 Limitations & Exceptions of Assessment

There were no limitations or exceptions to this assessment.

### 2.4 Limiting Conditions & Methodology Used

A truck mounted Geoprobe® unit was used at seven (7) boring locations to bore into the subsurface. Temporary groundwater monitoring wells were installed at five (5) of these locations. A hand auger was used to advance soil borings inside the building.

Soil was field screened with a photo-ionization detector (PID), and was characterized based on visual and olfactory observations. All observations were recorded on boring logs. Boring logs are included in Appendix A and soil lithology is characterized in Section 5.1.1 of this report.

There were no limitations to this investigation.

## 3.0 BACKGROUND

### 3.1 Site Description & Features

The subject property is located at 618 S. Main Street, Ann Arbor, Washtenaw County, Michigan 48104. The subject site is located between S. Main Street and S. Ashley Street, north of W. Moseley Avenue. Please see Appendix B - Figure 1 - Site Location Map.

The subject property is 0.91 acre of land developed with an 18,224 square foot multi-tenant building (618 S. Main). The subject building is located in the northern portion of the subject property. This building is an irregularly shaped structure that has been expanded over the years. The southern portion of the subject property is an asphalt paved customer parking lot. An additional parking lot is located in the northeast portion of the subject property. The site is located in a portion of the city that is developed with commercial and residential properties.

### 3.2 Site History & Land Use

Based on review of historical records, the subject property was developed with residential homes dating back to 1916, the earliest available historical record reviewed. The western portion of the current subject building (617 S. Ashley) was built in 1930. This building was occupied by Quality Paint & Trim Shop, which, according to the 1931 Sanborn Map, used the building for auto body repair and auto painting. By 1937, this portion of the building was occupied by the Fox Tent & Awning Company, makers and renters of canvas products including tents and awnings, which has occupied the building since that time. By 1940, additions to the east side of the original structure had been erected. These portions of the building have been occupied by a variety of retail stores and professionals.

### 3.3 Adjacent Property Land Use

The subject property is bordered: on the north by Affordable Vet Service (611 S. Ashley) and Ivory Photo (606 S. Main); on the south by Moseley Street, beyond which is an unoccupied commercial building (702 S. Main) and Washtenaw Wood Wrights and Wood Wrights Kitchen & Bath (704 S. Main); on the east by South Main Street, beyond which are Main Street Market (605-627 S. Main), Main Street Auto Wash (633 S. Main), and Ann Arbor School for the Performing Arts (637 S. Main); and on the west by South Ashley Street, beyond which are residential homes and Armen Cleaners (630 S. Ashley).

## 4.0 PHASE II ACTIVITIES

### 4.1 Scope of Assessment

Boring locations for the Phase II ESA, conducted on April 12, 2011, were chosen to address recognized environmental conditions identified in the Applied Environmental, Inc. Phase I ESA (report #10-1721PI). Additional borings were advanced to evaluate conditions encountered in the field.

#### *4.1.1 Sampling Plan*

The sampling plan consisted of advancing three (3) Geoprobe® borings along the western property boundary to address the adjacent Armen Cleaners; two (2) Geoprobe® borings along the eastern property boundary to address the adjacent Clark gas station (601 S. Main) across South Main Street and the adjacent property across South Main Street that was historically occupied by a gas station; and (2) hand auger borings inside the subject building to address past use of the subject building for auto body repair and auto painting operations.

#### *4.1.2 Chemical Testing Plan*

Soil and groundwater samples were variously analyzed for VOCs, BTEX plus MDEQ recommended petroleum indicator parameters, PNAs, cadmium, total chromium, and lead. Samples collected were submitted for laboratory analysis to Quantum Laboratories, Inc. in Wixom, Michigan.

#### *4.1.3 Deviations from the Work Plan*

The day of the site reconnaissance, Applied Environmental, Inc. was informed of the presence of a fuel oil underground storage tank (UST) off the south side of the subject building, next to the boiler room, by Mr. Doug Ziesmer of Anchorage Real Estate. While conducting the Phase I ESA, the subject property owners were asked about the past use of fuel oil on the subject property and whether any tanks were in the ground. Applied Environmental was informed of a former aboveground fuel oil tank in the basement beneath Fox Tent & Awning; however, no mention was made of the fuel oil UST off the south side of the subject building. In addition, no records were reviewed that indicated the presence of a UST on the subject property.

Based on this information, two additional Geoprobe® borings were advance south and west of what is believed to be the location of the fuel oil UST. Soil extracted from these boring locations was field screened with a PID and characterized based on visual and olfactory observations. Both locations were absent any evidence of impact. Based on the results of field screening, samples were not submitted for laboratory analyses from these locations.

## 4.2 Field Explorations & Methods

### *4.2.1 Soil Borings*

A total of seven (7) Geoprobe® borings were advanced on the subject property. A Geoprobe® is a hydraulically powered, percussion-probing machine that drives a sampling tool to obtain continuous soil cores or discrete samples. Samplers can also be driven to obtain groundwater. The soil sampler is 48 inches long by 1.5-inch inner diameter with a plastic liner inside to retain the soil. The sampler and liner are pushed to the desired depth, the sampler and drive rods are removed from the hole, and then the soil and liner are extracted. The liner is taken out of the sampler and cut to observe and sample the soil contained within.

Two (2) hand auger borings were advanced inside the subject building. A hand auger is a manually powered coring device that is turned to penetrate the ground and collect soil within an approximate 10-inch long by 3-inch inner diameter bucket sampler attached to the end of the tool. Soil is then removed from the bucket sampler for observation and sampling.

The following table outlines the soil boring locations, total depths, sample intervals and analytical parameters. Boring locations are illustrated on Figure 2 in Appendix B.

| Soil Boring | Location | Total Depth (ft) | Sample Depth | Analytical Parameters |
|---|---|---|---|---|
| GP-1 | South of subject building, near fuel oil UST | 10 | No samples collected | NA |
| GP-2 | South of subject building, western portion of subject property; along Ashley Street | 20 | 3-8' (groundwater) 11' (soil) | VOCs |
| GP-3 | Off southwest corner of building; along Ashley Street | 15 | 2-7' (groundwater) 9'6" (soil) | VOCs |
| GP-4 | Southeast portion of subject property; along S. Main Street | 20 | 14-18' (groundwater) | BTEX extended and lead |
| GP-5 | Southwest corner of subject property; along Ashley Street | 20 | 17-22' (groundwater) | VOCs |
| GP-6 | Northeast portion of subject property; along S. Main Street | 20 | 13-17' (groundwater) | BTEX extended and lead |
| GP-7 | South of subject building, near fuel oil UST | 10 | No samples collected | NA |
| HB-1 | Southeast portion of Fox Tent & Awning Building | 2.5 | 2' (soil) | VOCs, PNAs, cadmium, total chromium, and lead |
| HB-2 | Northern portion of Fox Tent & Awning building; next to filled-in floor drain | 4.5 | 4' (soil) | VOCs, PNAs, cadmium, total chromium, and lead |

#### *4.2.2 Temporary Monitoring Wells*

Five temporary groundwater monitoring wells were installed in order to collect groundwater samples. Five feet long PVC risers were placed in the boring hole and a five foot long slotted PVC well screen was installed to bisect the top of the groundwater table at boring locations GP-2, GP-3, and GP-5. Teflon tubing was lowered into the well and connected to a peristaltic pump located at the top of the well to draw water out of the ground.

A sampler equipped with a stainless steel drop-out screen was used in boring locations GP-4 and GP-6 due to conditions encountered in the field. The sampler was decontaminated between sampling locations using a non-phosphate detergent followed by a clean water rinse.

### 4.3 Sampling & Chemical Analyses & Methods

Groundwater samples were collected according to low flow groundwater sampling methodology as provided in U.S. EPA Standard Operating Procedure (SOP) GW 0001 Region I Low Stress (Low Flow) SOP – July 30, 1996; Revision No. 2. 3/8-inch inner diameter Teflon tubing was lowered into the well at the approximate midpoint of the sampling zone. A Geoprobe® peristaltic pump located at the top of the well was used to draw water from the well. Water drawn from the well was directed through a flow-through-cell equipped with a Horiba Water Checker U-10 water meter. Indicator field parameters were monitored until stabilization was achieved. After achieving stabilization, tubing was disconnected from the flow-through-cell to allow for sample collection directly from the well. Well purging field logs are included in Appendix C.

Please note that groundwater samples were not collected in accordance with low flow sampling methodology from temporary monitoring wells at GP-2 and GP-3 due to the insufficient volume of water produced from these wells.

During the sampling process, all Applied Environmental field technicians wear appropriate personnel protective equipment, which includes latex gloves to prevent cross contamination to the sample.

#### *4.3.1 Soil Samples*

A total of four (4) soil samples were submitted for laboratory analysis to Quantum Laboratories, Inc. in Wixom, Michigan. Soil samples to be analyzed for VOCs were preserved on-site using methanol according to EPA Method 5035. Soil samples were variously analyzed for VOCs by EPA Method 8260B, PNAs by EPA Method 8270C, cadmium by EPA Method 7131, total chromium by EPA Method 7191, and lead by EPA Method 7421.

#### *4.3.2 Groundwater Samples*

Five (5) groundwater samples were submitted for laboratory analysis to Quantum Laboratories, Inc. in Wixom, Michigan. The groundwater samples were variously analyzed for VOCs/BTEX extended by EPA Method 8260B and lead by EPA Method 7421.

## 5.0 GROUND PENETRATING RADAR (GPR) SURVEY

A Ground Penetrating Radar (GPR) survey was conducted by Ground Penetrating Radar Technology (GPRT) on May 27, 2001 at the subject property. The GPRT operator scanned the area immediately south of the subject building in order to determine the exact location of an orphan fuel oil UST. The GPRT operator confirmed the presence of a UST located south of the subject building and estimated the tank to measure approximately 5 feet by 8 feet; approximately 1,000-gallons in volume. Please refer to Appendix D – GPR Survey Report.

## 6.0 FUEL OIL UST REMOVAL ACTIVITIES

On Monday, June 13, 2011 Applied Environmental, Inc. was on-site with Parks Installation and Excavating, Inc. to remove the fuel oil UST. Buck's Oil Company, Inc. (Buck's) was on-site to remove the contents of the fuel oil tank. A total of 675 gallons of fuel oil/water mix was vacuumed from the UST through the fill port. The asphalt groundcover was then removed using an excavator, and overburden was excavated to reveal the top of the fuel oil UST. The copper line was cut and tied-off. Due to the location of the tank, next to the subject building, the area immediately south of the UST was excavated and piled onto visqueen plastic to create a void to roll the tank into. Safe T Sorb was then poured into the tank to absorb residual product. The tank was then chained to the bucket of the excavator and "popped" from the cavity. The tank was then punctured using the teeth of the excavator bucket. The remaining product and Safe T Sorb was vacuumed into a 55-gallon drum for transport and disposal. The removed UST was measured and photographed. The UST measured 64 inches in diameter by 6 feet long, an approximately 1,000-gallon UST.

Several soil samples were collected from the UST excavation and field screened using a PID and examined for visual and olfactory evidence of impact. The area of greatest impact, based on field screening, appeared to be the west side of the excavation. Three (3) soil samples were collected from the excavation for laboratory analysis. Sampling locations are illustrated on Figure 4 in Appendix B.

Soil samples were analyzed for VOCs and PNAs. Soil samples to be analyzed for VOCs were preserved on-site using methanol according to EPA Method 5035. Samples collected were submitted for laboratory analysis to Quantum Laboratories, Inc. in Wixom, Michigan. VOCs and PNAs are the MDEQ recommended analytical parameters for fuel oil.

The resulting excavation, which measured approximately 11-feet by 13-feet by 8.5 feet deep, was backfilled with 4 cubic yards of Class II sand and 3 cubic yards of 21AA stone. The backfill material was compacted using the excavator bucket as it was placed in the excavation. A compactor was used to finish compaction of the backfill material at surface grade.

Please refer to Appendix E – Fuel Oil UST Removal Documents, for copies of the Work Order, Load Tickets, Uniform Hazardous Waste Manifest, and Lab Reports. Laboratory reports are included in Appendix F. For a summary and comparison of all lab results to MDEQ Residential, Part 201/213 Generic Cleanup Criteria and Screening Levels, please see Appendix G – Tables – Table 3.

## 7.0 EVALUATION AND PRESENTATION OF RESULTS

### 7.1 Subsurface Conditions

#### *7.1.1 Geologic Setting*

The site geology was determined from the Geoprobe® and hand auger borings advanced on-site. The borings were advanced to depths ranging from 2.5 feet to 20 feet below grade. Beneath the asphalt cover, varying proportions of sand and silt were encountered at depths ranging from approximately 10 to 15 feet below grade. Perched subsurface water was encountered in this soil horizon at depths ranging from 4.0 to 5.0 feet below grade. This was followed by sand to the maximum boring depth explored. Groundwater was encountered across the site at depths ranging from approximately 13 to 16.5 feet below grade. Please see the Boring Logs in Appendix A.

### 7.2 Analytical Data

#### *7.2.1 Soil*

The nature and distribution of chemical impacts to soil are discussed below. Boring locations are shown in Appendix B - Figures 2 and 4. Laboratory reports are included in Appendix F. For a summary and comparison of all lab results to MDEQ Residential and Commercial I, Part 201/213 Generic Cleanup Criteria and Screening Levels, please see Appendix G – Tables – Table 1.

##### *7.2.1.1 Volatile Organic Compounds (VOCs)*

Several VOCs were detected in soil sample TP-1 collected from the floor of the UST cavity. Benzene was reported at a concentration of 102 µg/kg, sec-butylbenzene at 4,780 µg/kg, ethylbenzene at 3,040 µg/kg, isopropylbenzene at 2,360 µg/kg, p-isopropyltoluene 7,590 µg/kg, naphthalene at 24,900 µg/kg, n-propylbenzene at 3,010 µg/kg, toluene at 892 µg/kg, 1,2,4-trimethylbenzene at 14,500 µg/kg, 1,3,5-trimethylbenzene at 4,590 µg/kg, xylenes at 7,650 µg/kg, and 2-methylnaphthalene at 130,000 µg/kg.

Several VOCs were detected in the soil sample TP-2 collected from the west sidewall of the UST cavity. Sec-butylbenzene was reported at a concentration of 842 µg/kg, ethylbenzene at 278 µg/kg, isopropylbenzene at 296 µg/kg, p-isopropyltoluene 1,430 µg/kg, naphthalene at 7,120 µg/kg, n-propylbenzene at 364 µg/kg, 1,2,4-trimethylbenzene at 1,910 µg/kg, 1,3,5-trimethylbenzene at 664 µg/kg, xylenes at 990 µg/kg, and 2-methylnaphthalene at 40,600 µg/kg.

Several VOCs were detected in the soil sample TP-3 collected from the west sidewall of the UST cavity. Sec-butylbenzene was reported at a concentration of 1,720 µg/kg, ethylbenzene at 658 µg/kg, isopropylbenzene at 703 µg/kg, p-isopropyltoluene 1,880 µg/kg, naphthalene at 5,020 µg/kg, n-propylbenzene at 815 µg/kg, 1,2,4-trimethylbenzene at 3,610 µg/kg, 1,3,5-trimethylbenzene at 1,160 µg/kg, xylenes at 982 µg/kg, and 2-methylnaphthalene at 18,700 µg/kg.

VOCs were not detected in any other soil sample submitted for laboratory analysis.

#### *7.2.1.2 Polynuclear Aromatic Hydrocarbons (PNAs)*

Four PNAs were detected in the soil sample collected from HB-1 at a depth of 2.0 feet. Benzo(a)anthracene was reported at a concentration of 408 µg/kg, chrysene at 382 µg/kg, fluoranthene at 381 µg/kg, and pyrene at 337 µg/kg.

Several PNAs were detected in soil sample TP-1 collected from the floor of the UST cavity. Acenaphthene was reported at a concentration of 9,750 µg/kg, acenaphthylene at 2,570 µg/kg, anthracene at 3,410 µg/kg, benzo(a)anthracene at 1,290 µg/kg, benzo(b)fluoranthene at 1,020 µg/kg, benzo(k)fluoranthene 1,320 µg/kg, benzo(g,h,i)perylene at 1,420 µg/kg, benzo(a)pyrene at 1,780 µg/kg, chrysene at 1,670 µg/kg, dibenzo(a,h)anthracene at 414 µg/kg, fluoranthene at 2,040 µg/kg, fluorene at 16,400 µg/kg, indeno(1,2,3-cd)pyrene at 1,320 µg/kg, 2-methylnaphthalene at 110,000 µg/kg, naphthalene at 18,200 µg/kg, phenanthrene at 32,000 µg/kg, and pyrene at 3,180 µg/kg.

Three PNAs were detected in soil sample TP-2 collected from the west wall of the UST cavity. 2-methylnaphthalene was reported in a concentration of 3,200 µg/kg, naphthalene at 775 µg/kg, and phenanthrene at 492 µg/kg.

Several PNAs were detected in soil sample TP-3 collected from the west wall of the UST cavity. Acenaphthene was reported at a concentration of 1,190 µg/kg, acenaphthylene at 398 µg/kg, anthracene at 545 µg/kg, benzo(a)anthracene at 1,110 µg/kg, benzo(b)fluoranthene at 664 µg/kg, benzo(k)fluoranthene 623 µg/kg, benzo(g,h,i)perylene at 432 µg/kg, benzo(a)pyrene at 715 µg/kg, chrysene at 976 µg/kg, fluoranthene at 2,050 µg/kg, fluorene at 1,900 µg/kg, indeno(1,2,3-cd)pyrene at 468 µg/kg, 2-methylnaphthalene at 9,010 µg/kg, naphthalene at 1,280 µg/kg, phenanthrene at 3,890 µg/kg, and pyrene at 1,670 µg/kg.

PNAs were not detected in any other soil sample submitted for laboratory analysis.

#### *7.2.1.3 Cadmium, Total Chromium and Lead*

Cadmium, total chromium and lead were detected in the soil sample collected from HB-1 at a depth of 2.0 feet. Cadmium was reported at a concentration of 355 µg/kg, total chromium at 5,030 µg/kg, and lead at 26,900 µg/kg.

Total chromium and lead were detected in the soil sample collected from HB-2 at a depth of 4.0 feet. Total chromium was reported at a concentration of at 4,450 µg/kg and lead at 7,920 µg/kg.

### *7.2.2 Groundwater*

The nature and distribution of chemical impacts to groundwater are discussed below. Boring locations are shown in Appendix B - Figure 2. Laboratory reports are included in Appendix F. For a summary and comparison of all lab results to MDEQ Residential and Commercial I, Part 201/213 Generic Cleanup Criteria and Screening Levels, please see Appendix G – Tables – Table – 2.

#### *7.2.2.1 Volatile Organic Compounds (VOCs)*

VOCs were not detected in any of the groundwater samples submitted for laboratory analysis.

#### *7.2.2.2 Lead*

Lead was not detected in either groundwater sample submitted for laboratory analysis.

## 8.0 DISCUSSION OF FINDINGS

A preliminary Phase II ESA investigation was conducted on April 12, 2011 that consisted of advancing seven (7) Geoprobe® borings across the subject property and two (2) hand auger borings inside the subject building. Soil and groundwater samples were collected and submitted for laboratory analysis from the Geoprobe® borings advanced outside the subject building. Perched subsurface water was encountered at approximately 4.0 to 5.0 feet below grade on the subject property. Groundwater was encountered at approximately 13 to 16.5 feet below grade. Soil samples were collected and submitted for laboratory analysis from each of the two hand auger borings (HB-1 and HB-2) advanced inside the building.

Soil and Groundwater samples were variously analyzed for volatile organic compounds (VOCs) by EPA Method 8260B, benzene, toluene, ethylbenzene and xylenes (BTEX) plus MDEQ recommended petroleum indicator parameters by EPA Method 8260B, polynuclear aromatic hydrocarbons (PNAs) by EPA Method 8270C, cadmium by EPA Method 7131, total chromium by EPA Method 7191, and lead by EPA Method 7421. Soil and groundwater sample analytical results were compared to Michigan Department of Environmental Quality (MDEQ) Residential and Commercial I, Part 201 Generic Cleanup Criteria and Screening Levels.

VOCs were not detected above laboratory method detection limits in any of the soil or groundwater samples submitted for laboratory analysis from the preliminary investigation.

Four PNAs were detected in the soil sample collected from HB-1; however, reported concentrations did not exceed any of the MDEQ Generic Cleanup Criteria and Screening Levels. PNAs were not detected above laboratory method detection limits in the other soil sample submitted for laboratory analysis.

Metals were reported in each of the soil samples submitted for laboratory analysis; however, metals are naturally occurring in soil. One reported concentration of lead exceeded the Statewide Default Background Level (SDBL) established by the MDEQ. None of the reported concentrations exceeded MDEQ Generic Cleanup Criteria and Screening Levels.

Lead was not detected above laboratory method detection limits in either groundwater sample submitted for laboratory analysis.

On May 27, 2011 a ground penetrating radar (GPR) survey was conducted by Ground Penetrating Radar Technology (GPRT). The GPR survey located what was characterized as an anomaly indicative of an UST south of the subject building at a depth of approximately 4-feet. The GPR operator marked the asphalt ground cover with paint to delineate the approximate extent of the UST.

Applied Environmental, Inc. and Parks removed the fuel oil UST on June 13, 2011. The UST was taken to Milford Salvage Iron & Metal Company, Inc. in Milford, Michigan for disposal. After completing tank removal activities soil in the resulting excavation was field screened using a photoionization detector (PID) and by observing the soil for staining and olfactory indications of impact. The most heavily impacted soil, as characterized through field screening, was selected for submittal for laboratory analysis. A total of three (3) soil samples were collected and submitted for laboratory analysis. The soil samples were field preserved using methanol according to EPA Method 5035 and packed with ice in a cooler for transport to Quantum Laboratories in Wixom, Michigan. The three soil samples were submitted for laboratory analysis for volatile organic compounds (VOCs) by EPA Method 8260B and polynuclear aromatic hydrocarbons (PNAs) by EPA Method 8270C. VOCs and PNAs are the MDEQ recommended analytical parameters for fuel oil.

The laboratory results indicate that reported concentrations of VOCs and PNAs in soil exceed one or more of the MDEQ Residential, Part 201 Generic Cleanup Criteria and Screening Levels.

## 9.0 CONCLUSIONS

Based on the results of this Phase II ESA, the subject property is considered a "facility". A facility means any area, place, or property where a hazardous substance in excess of the concentrations which satisfy the requirements of Sections 20a(1)(a) or (17) or the cleanup criteria for unrestricted residential use under Part 201 has been released, deposited, disposed of, or otherwise comes to be located.

As a purchaser of a property that has been impacted by regulated substances, there are provisions under the Natural Resources and Environmental Protection Act (NREPA) that encourages the transfer of property, by keeping liability for environmental contamination with the owner or generator, for properties purchased after June of 1995, if certain requirements are met.

The BEA is a tool that exempts a new owner from liability for existing contamination. A BEA is defined as, ***"A written document that describes the results of an all appropriate inquiry and the sampling and analysis that confirm the property is a facility. However for the purposes of a baseline environmental assessment, the all appropriate inquiry under 40 CFR 312.20(a) may be conducted within 45 days after the date of acquisition of a property and the components of an all appropriate inquiry under 40 CFR 312.20(c)(3) may be conducted or updated within 45 days after the date of acquisition of a property."***

To qualify for liability protection, the future owner or operator of a property that intends to foreclose, purchase or operate a "facility" must conduct a BEA prior to or within 45 days after the earlier of the date of purchase, occupancy, or foreclosure, and provide the BEA to the MDEQ and subsequent purchaser or transferee within 6 months after the earlier of the date of purchase, occupancy, or foreclosure.

In addition, it is recommended that a new property owner complete a Due Care Plan, which would outline the potential exposure risks that may exist on the property, and the actions required to prevent unacceptable exposure.

Although law requires a Due Care Plan, it does not require that the plan be submitted to, or approved by, the State of Michigan. However, the owner must maintain documentation of compliance with due care regulations and must be able to provide this documentation to the State if so requested.

In addition, it is recommended that soil gas sampling be conducted to evaluate potential vapor encroachment from the adjacent Armen Cleaners property.

## 10.0 REFERENCES

Applied Environmental, Inc. Phase I Environmental Site Assessment – Fox Tent & Awning Company, 618 S. Main Street and 611 S. Ashley Street, Ann Arbor, Washtenaw County, Michigan 48104. Report #10-1721PI. February 10, 2011.

## 11.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

Applied Environmental, Inc. (AE) has prepared this document to report the findings of a Phase II ESA conducted for the property located at 618 S. Main Street, Ann Arbor, Washtenaw County, Michigan 48104. The undersigned environmental professionals contributed to this investigation.

Jason Vertrees, President
Environmental Professional

Craig Willey, Project Manager
Environmental Professional

***APPENDIX A: Boring Logs***

# Boring Log GP-1

| | | | |
|---|---|---|---|
| Project: | Fox Tent & Awning | Date Start: | 4/12/2011 |
| Address: | 618 S. Main Street | Date Comp.: | 4/12/2011 |
| City: Ann Arbor | State: MI Zip: 48104 | Project Number: | 11-1721PII |

| | | | |
|---|---|---|---|
| Contractor/Driller: | Fibertec | Weather: | Ground Water Observations |
| Scientist: | Craig Wiley | Sunny | Depth: ~4' |
| Sampler type: | 2" x 5' Geoprobe Sampler | ~50° F | |
| Boring Location: | South of subject building, near fuel oil UST | Time: | 8:30 AM |

| Depth (ft) | Elev. (ft) | Sample Information | | | | Sample Description | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | PID (ppm) | I.D. | Loc. | Interval (ft) | | |
| | | | GP1-1 | 5' | 0-5 | 0 to 3" - ASPHALT | Asphalt |
| 1 | | 0 | | | | 3" to 17" - Sand, Silt, and ceramic chips, brick, cinders | Fill Material |
| | | | | | | | |
| 2 | | 0 | | | | 17" to 37" - SAND with some silt, very moist | Sand |
| | | | | | | | |
| 3 | | 0 | | | | | |
| | | | | | | | |
| 4 | | 0 | | | | 37" to 5' - SAND with some gravel, wet | |
| | | | | | | | |
| 5 | | 0 | | | | | |
| | | | GP1-2 | 5' | 5-10 | 5' to 10' - SILT and very fine SAND | Silt and Sand |
| 6 | | 0 | | | | | |
| | | | | | | | |
| 7 | | 0 | | | | | |
| | | | | | | | |
| 8 | | 0 | | | | | |
| | | | | | | | |
| 9 | | 0 | | | | | |
| | | | | | | | |
| 10 | | 0 | | | | | |
| 11 | | | | | | End of boring at 11' | |
| | | | | | | | |
| 12 | | | | | | | |
| | | | | | | | |
| 13 | | | | | | | |
| | | | | | | | |
| 14 | | | | | | | |
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| 15 | | | | | | | |
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| 16 | | | | | | | |
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| 17 | | | | | | | |
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| 18 | | | | | | | |
| | | | | | | | |
| 19 | | | | | | | |
| | | | | | | | |
| 20 | | | | | | | |

| GRANULAR SOILS | |
|---|---|
| BPF | Density |
| 0-4 | V. Loose |
| 4-10 | Loose |
| 10-30 | V. Dense |
| 30-50 | Dense |
| >50 | V. Dense |
| **COHESIVE SOILS** | |
| BPF | Density |
| <2 | V. Soft |
| 2-4 | Soft |
| 4-8 | M. Stiff |
| 8-15 | Stiff |
| 15-30 | V. Stiff |
| >30 | Hard |

NOTES:

Hand auger advanced to 5' before using Geoprobe sampler

2 inch diameter well installed; screened depth from 3-9'

No samples collected

Proportions used

Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%)
With (amount of component not included)

(734) 975-1970
2890 Carpenter Rd., Suite 300
Ann Arbor MI 48108

**APPLIED ENVIRONMENTAL INC.**

# Boring Log GP-2

| | | | |
|---|---|---|---|
| Project: | Fox Tent & Awning | Date Start: | 4/12/2011 |
| Address: | 618 S. Main Street | Date Comp.: | 4/12/2011 |
| City: Ann Arbor | State: MI Zip: 48104 | Project Number: | 11-1721PII |

| | | | |
|---|---|---|---|
| Contractor/Driller: | Fibertec | Weather: | Ground Water Observations |
| Scientist: | Craig Wiley | Sunny | Depth: ~5' |
| Sampler type: | 2" x 5' Geoprobe Sampler | ~50° F | |
| Boring Location: | South of subject building, western portion of property; along Ashley Street | Time: | 9:00 AM |

| Depth (ft) | Elev. (ft) | Sample Information | | | | Sample Description | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | PID (ppm) | I.D. | Rec. | Interval (ft) | | |
| | | | GP2-1 | 5' | 0-5 | 0 to 3" - ASPHALT | Asphalt |
| 1 | | 0 | | | | 3" to 5' - SILT and SAND, dark brown, organic materia.. large cobble | Silt and Sand |
| 2 | | 0 | | | | | |
| 3 | | 0 | | | | | |
| 4 | | 0 | | | | 5' to 4'8" - SILT and SAND, brown, trace organic material | |
| 5 | | 0 | | | | 4'8" to 5' - SAND, wet | Sand |
| | | | GP2-2 | 5'4" | 5-10 | 5' to 7'8" - Fine SAND with silt seams, moist | |
| 6 | | 0 | | | | | |
| 7 | | 0 | | | | | |
| 8 | | 0 | | | | 7'8" to 8'4" - SILT and very fine SAND | Silt and Sand |
| 9 | | | | | | | |
| 10 | | | | | | | |
| | | | GP2-3 | 5' | 10-15 | 12' to 13' - SILT, soft brown clay, brown | Silt |
| 11 | | 0 | | | | 13' to 15' - SAND | Sand |
| 12 | | 0 | | | | | |
| 13 | | 0 | | | | | |
| 14 | | 0 | | | | | |
| 15 | | 0 | | | | | |
| | | | GP2-4 | 5' | 15-20 | 15' to 20' - SAND, saturated | |
| 16 | | 0 | | | | | |
| 17 | | 0 | | | | | |
| 18 | | 0 | | | | | |
| 19 | | 0 | | | | | |
| 20 | | 0 | | | | End of boring at 20' | |

| GRANULAR SOILS | |
|---|---|
| BPF | Density |
| 0-4 | V. Loose |
| 4-10 | Loose |
| 10-30 | V. Dense |
| 30-50 | Dense |
| >50 | V. Dense |

| COHESIVE SOILS | |
|---|---|
| BPF | Density |
| <2 | V. Soft |
| 2-4 | Soft |
| 4-8 | M. Stiff |
| 8-15 | Stiff |
| 15-30 | V. Stiff |
| >30 | Hard |

NOTES:

Hand auger advanced to 5' before using Geoprobe sampler

2 inch diameter well installed; screened depth from 3-5'

An insufficient volume of water was produced from the well to conduct low flow sampling

Discrete soil sample collected at 11'

Proportions used

Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%)
With (amount of component not included)

(734) 975-1970
2890 Carpenter Rd., Suite 300
Ann Arbor MI 48108

APPLIED ENVIRONMENTAL INC.

# Boring Log GP-3

| | | | |
|---|---|---|---|
| Project: | Fox Tent & Awning | Date Start: | 4/12/2011 |
| Address: | 618 S. Main Street | Date Comp.: | 4/12/2011 |
| City: Ann Arbor | State: MI Zip: 48104 | Project Number: | 11-1721PH |

| | | | |
|---|---|---|---|
| Contractor/Driller: | Fibertec | Weather: | Ground Water Observations |
| Scientist: | Craig Willey | Sunny | Depth: ~4' |
| Sampler type: | 2" x 5' Geoprobe Sampler | ~ 55° F | |
| Boring Location: | Off southwest corner of building; along Ashley Street | Time: | |

| Depth (ft) | Elev. (ft) | Sample Information | | | | Sample Description | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | PID (ppm) | I.D. | Loc. | Interval (ft) | | |
| | | | GP3-1 | 5' | 0-5 | 0 to 3" - ASPHALT | Asphalt |
| 1 | | 0 | | | | 3" to 3' - SILT and SAND, dark brown, organic material | Silt and Sand |
| | | | | | | | |
| 2 | | 0 | | | | | |
| | | | | | | | |
| 3 | | 0 | | | | | |
| | | | | | | 3' to 4' - SILT and SAND, trace gravel, moist | |
| 4 | | 0 | | | | | |
| | | | | | | 4' to 5' - SILT and SAND, some gravel, wet | |
| 5 | | 0 | | | | | |
| | | | GP3-2 | 5' | 5-10 | 5' to 5'8" - SILT and SAND, trace gravel, wet | |
| 6 | | 0 | | | | | |
| | | | | | | 5'8" to 8'6" - SILT and SAND, wet | |
| 7 | | 0 | | | | | |
| | | | | | | | |
| 8 | | 0 | | | | | |
| | | | | | | | |
| 9 | | 0 | | | | 8'6" to 10' - SILT with some very fine sand | Silt |
| | | | | | | | |
| 10 | | 0 | | | | | |
| | | | GP3-3 | 5' | 10-15 | 10' to 15' - SAND | Sand |
| 11 | | 0 | | | | | |
| | | | | | | | |
| 12 | | 0 | | | | | |
| | | | | | | | |
| 13 | | 0 | | | | | |
| | | | | | | | |
| 14 | | | | | | | |
| | | | | | | | |
| 15 | | | | | | | |
| | | | | | | | |
| 16 | | | | | | End of boring at 15' | |
| | | | | | | | |
| 17 | | | | | | | |
| | | | | | | | |
| 18 | | | | | | | |
| | | | | | | | |
| 19 | | | | | | | |
| | | | | | | | |
| 20 | | | | | | | |

| GRANULAR SOILS | |
|---|---|
| BPF | Density |
| 0-4 | V. Loose |
| 4-10 | Loose |
| 10-30 | V. Dense |
| 30-50 | Dense |
| >50 | V. Dense |
| COHESIVE SOILS | |
| BPF | Density |
| <2 | V. Soft |
| 2-4 | Soft |
| 4-8 | M. Stiff |
| 8-15 | Stiff |
| 15-30 | V. Stiff |
| >30 | Hard |

NOTES:

Hand auger advanced to 5' before using Geoprobe sampler

2 inch diameter well installed; screened depth from 3-5'

An insufficient volume of water was produced from the well to conduct low flow sampling

Soil sample collected at 9'6"

Proportions used

Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%)
With (amount of component not included)

(734) 975-1970
2890 Carpenter Rd., Suite 300
Ann Arbor MI 48108

APPLIED ENVIRONMENTAL INC.

# Boring Log GP-4

| | | | |
|---|---|---|---|
| Project: | Fox Tent & Awning | Date Start: | 4/12/2011 |
| Address: | 618 S. Main Street | Date Comp.: | 4/12/2011 |
| City: Ann Arbor | State: MI Zip: 48104 | Project Number: | 11-1721PH |

| | | | |
|---|---|---|---|
| Contractor/Driller: | Fibertec | Weather: | Ground Water Observations |
| Scientist: | Craig Willey | Sunny | Depth: ~15' |
| Sampler type: | 2" x 5' Geoprobe Sampler | ~ 55° F | |
| Boring Location: | Southeast portion of subject property, along S. Main Street | Time: | |

| Depth (ft) | Elev. (ft) | Sample Information | | | | Sample Description | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | PID (ppm) | I.D. | Rec. | Interval (ft) | | |
| | | | GP4-1 | 5' | 0-5 | 0 to 3" - ASPHALT | Asphalt |
| 1 | | 0 | | | | 3" to 5'6" - SILT with some sand, trace gravel, organic material dark brown | Silt |
| 2 | | 0 | | | | | |
| 3 | | 0 | | | | | |
| 4 | | 0 | | | | 5'6" to 6'3" - SILT with some sand, trace gravel, brown | |
| 5 | | 0 | | | | 6'3" to 7' - SAND with little gravel, trace silt | Sand |
| | | | GP4-2 | 4'2" | 5-10 | 5' to 5'8" - SAND with little gravel, trace silt | |
| 6 | | 0 | | | | 5'8" to 8'8" - SAND with some gravel, and silt, silt seams, wet | |
| 7 | | 0 | | | | | |
| 8 | | 0 | | | | | |
| 9 | | 0 | | | | 8'8" to 9.2" - SILT and very fine SAND | Silt and Sand |
| 10 | | | | | | | |
| | | | GP4-3 | 5'2" | 10-15 | 10' to 10'8" - SILT and very fine SAND | |
| 11 | | 0 | | | | 10'8" to 12'8" - SAND | Sand |
| 12 | | 0 | | | | | |
| 13 | | 0 | | | | 12'8" to 13'2" - SAND, moist | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| | | | GP4-4 | 4' | 15-20 | 15' to 19' - SAND, saturated | |
| 16 | | 0 | | | | | |
| 17 | | 0 | | | | | |
| 18 | | 0 | | | | | |
| 19 | | 0 | | | | | |
| 20 | | | | | | End of boring at 20' | |

| GRANULAR SOILS | |
|---|---|
| BPF | Density |
| 0-4 | V. Loose |
| 4-10 | Loose |
| 10-30 | V. Dense |
| 30-50 | Dense |
| >50 | V. Dense |

| COHESIVE SOILS | |
|---|---|
| BPF | Density |
| <2 | V. Soft |
| 2-4 | Soft |
| 4-8 | M. Stiff |
| 8-15 | Stiff |
| 15-30 | V. Stiff |
| >30 | Hard |

NOTES:

Hand auger advanced to 5' before using Geoprobe sampler

Well screen installed from 5'-10' below grade however, no recoverable groundwater

Groundwater sample collected using drop out screen at depth of 14-18'

Groundwater sample collected using low flow sampling methodology

Proportions used

Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%)
With (amount of component not included)

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Ann Arbor MI 48108

APPLIED
ENVIRONMENTAL
INC.

# Boring Log
# GP-5

| | | | |
|---|---|---|---|
| Project: | Fox Tent & Awning | Date Start: | 4/12/2011 |
| Address: | 618 S. Main Street | Date Comp.: | 4/12/2011 |
| City: Ann Arbor | State: MI Zip: 48104 | Project Number: | 11-1721PH |

| | | | |
|---|---|---|---|
| Contractor/Driller: | Fibertec | Weather: | Ground Water Observations |
| Scientist: | Craig Willey | Sunny | Depth: ~16.5' |
| Sampler type: | 2" x 5' Geoprobe Sampler | ~ 55° F | |
| Boring Location: | Southwest corner of subject property along Ashley Street | Time: | |

| Depth (ft) | Elev. (ft) | Sample Information | | | | Sample Description | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | PID (ppm) | I.D. | Rec. | Interval (ft) | | |
| | | | GP5-1 | 11" | 0-5 | 0 to 3" - ASPHALT | Asphalt |
| 1 | | 0 | | | | 3" to 11" - SAND and SILT, organic material, cinders | Fill Material |
| | | | | | | | |
| 2 | | | | | | | |
| | | | | | | | |
| 3 | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| 5 | | | | | | | |
| | | 0 | GP5-2 | 4.3' | 5-10 | 5' to 7' - SAND with some gravel | Sand |
| 6 | | | | | | | |
| | | 0 | | | | | |
| 7 | | | | | | | |
| | | 0 | | | | 7' to 8' - SAND with some gravel, moist | |
| 8 | | | | | | | |
| | | 0 | | | | 8' to 9' - SAND with some gravel, wet | |
| 9 | | | | | | | |
| | | 0 | | | | 9' to 9.5' - SILT and SAND | Silt and Sand |
| 10 | | | | | | | |
| | | | GP5-3 | 5' | 10-15 | 12' to 15' - SILT and very fine SAND, moist | |
| 11 | | 0 | | | | | |
| | | | | | | | |
| 12 | | 0 | | | | | |
| | | | | | | | |
| 13 | | 0 | | | | | |
| | | | | | | | |
| 14 | | 0 | | | | | |
| | | | | | | | |
| 15 | | 0 | | | | | |
| | | 0 | GP5-4 | 2.8' | 15-20 | 15' to 16.8' - SAND | Sand |
| 16 | | | | | | | |
| | | 0 | | | | | |
| 17 | | | | | | 15'6" to 17.5" - SAND, saturated | |
| | | 0 | | | | | |
| 18 | | | | | | | |
| | | | | | | | |
| 19 | | | | | | | |
| | | - | | | | | |
| 20 | | | | | | End of boring at 20' | |

| GRANULAR SOILS | |
|---|---|
| BPF | Density |
| 0-4 | V. Loose |
| 4-10 | Loose |
| 10-30 | V. Dense |
| 30-50 | Dense |
| >50 | V. Dense |

| COHESIVE SOILS | |
|---|---|
| BPF | Density |
| <2 | V. Soft |
| 2-4 | Soft |
| 4-8 | M. Stiff |
| 8-15 | Stiff |
| 15-30 | V. Stiff |
| >30 | Hard |

NOTES:

Hand auger advanced to 5' before using Geoprobe sampler

Well screen installed from 5-13' below grade however, no recoverable groundwater

Well screen re-installed from 17-20' below grade

Groundwater sample collected using low flow sampling methodology

Rock caught in sampler reducing recovery to only 11" in this sampling interval

Proportions used
Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%)
With (amount of component not included)

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2890 Carpenter Rd., Suite 300
Ann Arbor MI 48108

APPLIED
ENVIRONMENTAL
INC.

# Boring Log GP-6

| | | | |
|---|---|---|---|
| Project: | Fox Tent & Awning | Date Start: | 4/12/2011 |
| Address: | 618 S. Main Street | Date Comp.: | 4/12/2011 |
| City: Ann Arbor | State: MI Zip: 48104 | Project Number: | 11-1721PII |

| | | | |
|---|---|---|---|
| Contractor/Driller: | Fibertec | Weather: | Ground Water Observations |
| Scientist: | Craig Willey | Sunny | Depth: ~15' |
| Sampler type: | 2" x 5' Geoprobe Sampler | ~60° F | |
| Boring Location: | Northeast portion of subject property, along S. Main | Time: | 2:23 PM |
| | Sheet | | |

| Depth (ft) | Elev. (ft) | Sample Information | | | | Sample Description | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | PID (ppm) | I.D. | Rec. | Interval (ft) | | |
| | | 0 | GP6-1 | 5'5" | 0-5 | 0 to 3" - ASPHALT | Asphalt |
| 1 | | | | | | 3" to 1'9" - Silt, sand, cinders, ceramic shards | Fill Material |
| | | 0 | | | | | |
| 2 | | | | | | 1'9" to 2'3" - SAND and SILT, organic material, dark brown | Sand and Silt |
| | | 0 | | | | | |
| 3 | | | | | | 2'3" to 3'5" - SILT and SAND with some clay, brown | Silt and Sand |
| | | 0 | | | | | |
| | | | | | | | |
| | | - | | | | | |
| 5 | | | | | | | |
| | | | GP6-2 | 4' | 5-10 | 5' to 8' - SILT with some Clay, brown, moist | Silt |
| 6 | | 0 | | | | | |
| | | | | | | | |
| 7 | | 0 | | | | | |
| | | | | | | | |
| 8 | | 0 | | | | | |
| | | | | | | 8' to 8'8" - SILT, brown | |
| 9 | | 0 | | | | 8'8" to 9' - SAND, moist | Sand |
| | | | | | | | |
| 10 | | | | | | | |
| | | | GP6-3 | 5' | 10-15 | 10' to 12'7" - SAND, moist | |
| 11 | | 0 | | | | | |
| | | | | | | | |
| 12 | | 0 | | | | | |
| | | | | | | 12'7" to 13' - SAND, saturated | |
| 13 | | 0 | | | | | |
| | | | | | | | |
| 14 | | | | | | | |
| | | | | | | | |
| 15 | | | | | | | |
| | | | GP6-4 | 2'8" | 15-20 | 15' to 17'8" - SAND, saturated | |
| 16 | | 0 | | | | | |
| | | | | | | | |
| 17 | | 0 | | | | | |
| | | | | | | | |
| 18 | | 0 | | | | | |
| | | | | | | | |
| 19 | | | | | | | |
| | | | | | | | |
| 20 | | | | | | End of boring at 20' | |

| GRANULAR SOILS | |
|---|---|
| BPF | Density |
| 0-4 | V. Loose |
| 4-10 | Loose |
| 10-30 | V. Dense |
| 30-50 | Dense |
| >50 | V. Dense |
| COHESIVE SOILS | |
| BPF | Density |
| <2 | V. Soft |
| 2-4 | Soft |
| 4-8 | M. Stiff |
| 8-15 | Stiff |
| 15-30 | V. Stiff |
| >30 | Hard |

NOTES:

Groundwater sample collected using drop out screen at depth of 13-17'

Groundwater sample collected using low flow sampling

Proportions used

Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%)
With (amount of component not included)

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Ann Arbor MI 48108

APPLIED ENVIRONMENTAL INC.

# Boring Log
# GP-7

| | | | |
|---|---|---|---|
| Project: | Fox Tent & Awning | Date Start: | 4/12/2011 |
| Address: | 618 S. Main Street | Date Comp.: | 4/12/2011 |
| City: Ann Arbor | State: MI Zip: 48104 | Project Number: | 11-1721PII |

| | | | |
|---|---|---|---|
| Contractor/Driller: | Fibertec | Weather: | Ground Water Observations |
| Scientist: | Craig Wiley | Sunny | Depth: ~4' |
| Sampler type: | 2" x 5' Geoprobe Sampler | ~60° F | |
| Boring Location: | South of subject building, near fuel oil UST | Time: | 6:00 PM |

| Depth (ft) | Elev. (ft) | Sample Information | | | | Sample Description | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | PID (ppm) | I.D. | Rec. | Interval (ft) | | |
| | | | GP7-1 | 28" | 0-5 | 0 to 3" - ASPHALT | Asphalt |
| 1 | | 0 | | | | 3" to 5" - COAL Bits | Fill Material |
| | | | | | | 5" to 8" - SAND, SILT, GRAVEL | |
| 2 | | 0 | | | | 8" to 14" - SAND and SILT, Mixed Material | |
| | | | | | | 14" to 18" - SILT with some sand, OH, dark brown | Silt |
| 3 | | 0 | | | | 18" to 28" - SAND and SILT with some gravel, wet | Sand and Silt |
| | | | | | | | |
| 4 | | 0 | | | | | |
| | | | | | | | |
| 5 | | 0 | | | | | |
| | | | GP7-2 | 5' | 5-10 | 5' to 6' - SAND with trace SILT, moist | Sand |
| 6 | | 0 | | | | 6' to 10' - SILT with some very fine sand | Silt |
| | | | | | | | |
| 7 | | 0 | | | | | |
| | | | | | | | |
| 8 | | 0 | | | | | |
| | | | | | | | |
| 9 | | 0 | | | | | |
| | | | | | | | |
| 10 | | 0 | | | | | |
| | | | | | | | |
| 11 | | | | | | End of boring at 11' | |
| | | | | | | | |
| 12 | | | | | | | |
| | | | | | | | |
| 13 | | | | | | | |
| | | | | | | | |
| 14 | | | | | | | |
| | | | | | | | |
| 15 | | | | | | | |
| | | | | | | | |
| 16 | | | | | | | |
| | | | | | | | |
| 17 | | | | | | | |
| | | | | | | | |
| 18 | | | | | | | |
| | | | | | | | |
| 19 | | | | | | | |
| | | | | | | | |
| 20 | | | | | | | |

| GRANULAR SOILS | |
|---|---|
| BPF | Density |
| 0-4 | V. Loose |
| 4-10 | Loose |
| 10-30 | V. Dense |
| 30-50 | Dense |
| >50 | V. Dense |

| COHESIVE SOILS | |
|---|---|
| BPF | Density |
| <2 | V. Soft |
| 2-4 | Soft |
| 4-8 | M. Stiff |
| 8-15 | Stiff |
| 15-30 | V. Stiff |
| >30 | Hard |

NOTES:

No samples collected

Proportions used

Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%)
With (amount of component not included)

(734) 975-1970
2890 Carpenter Rd., Suite 300
Ann Arbor MI 48108

APPLIED
ENVIRONMENTAL
INC.

# Boring Log HB-1

| | | | |
|---|---|---|---|
| Project: | Fox Tent & Awning | Date Start: | 4/12/2011 |
| Address: | 618 S. Main Street | Date Comp.: | 4/12/2011 |
| City: Ann Arbor | State: MI Zip: 48104 | Project Number: | 11-1721PH |

| | | | |
|---|---|---|---|
| Contractor/Driller: | Fibertec | Weather: | Ground Water Observations |
| Scientist: | Craig Wiley | | Depth Not encountered |
| Sampler type: | Hard Auger | | |
| Boring Location: | Southeast portion of Fox Tent & Awning building | | Time: |

| Depth (ft) | Elev. (ft) | Sample Information | | | | Sample Description | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | PID (ppm) | I.D. | Loc. | Interval (ft) | | |
| | | | HB1-1 | 2'S' | 0-4 | 0 to 8" - CONCRETE | Concrete |
| 1 | | 0 | | | | 8" to 2'6" - SILT and SAND, some gravel, dark brown | Silt and Sand |
| 2 | | 0 | | | | | |
| 3 | | | | | | End of Hand Auger boring at 2'6" | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |

| GRANULAR SOILS | |
|---|---|
| BPF | Density |
| 0-4 | V. Loose |
| 4-10 | Loose |
| 10-30 | V. Dense |
| 30-50 | Dense |
| >50 | V. Dense |

| COHESIVE SOILS | |
|---|---|
| BPF | Density |
| <2 | V. Soft |
| 2-4 | Soft |
| 4-8 | M. Stiff |
| 8-15 | Stiff |
| 15-30 | V. Stiff |
| >30 | Hard |

NOTES:

Soil sample collected at 0"

Proportions used

Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%)
With (amount of component not included)

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2890 Carpenter Rd., Suite 000
Ann Arbor MI 48108

APPLIED ENVIRONMENTAL, INC.

# Boring Log 11B-2

| | | | |
|---|---|---|---|
| Project: | Fox Tent & Awning | Date Start: | 4/12/2011 |
| Address: | 618 S. Main Street | Date Comp.: | 4/12/2011 |
| City: Ann Arbor | State: MI Zip: 48104 | Project Number: | 11-1721PH |

| | | | |
|---|---|---|---|
| Contractor/Driller: | Fibertec | Weather: | Ground Water Observations |
| Scientist: | Craig Willey | | Depth Not encountered |
| Sampler type: | Hand Auger | | |
| Boring Location: | Northern portion of Fox Tent & Awning building; next to filled-in floor drain | Time: | |

| Depth (ft) | Elev. (ft) | Sample Information | | | | Sample Description | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | PID (ppm) | I.D. | Rec. | Interval (ft) | | |
| | | | 11B2-1 | 48" | 0-5 | 0 to 4" - CONCRETE | Concrete |
| 1 | | 0 | | | | 4" to 18" - SAND and SILT; tan | Sand and Silt |
| 2 | | 0 | | | | 18" to 22" - SAND and SILT; trace gravel; brown | |
| 3 | | 0 | | | | 22" to 34" - SAND and some gravel; trace silt | Sand |
| 4 | | 0 | | | | 34" to 46" - SAND with some silt; trace gravel | |
| 5 | | | | | | End of hand auger boring at 4'6" | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |

| GRANULAR SOILS | |
|---|---|
| BPF | Density |
| 0-4 | V. Loose |
| 4-10 | Loose |
| 10-30 | V. Dense |
| 30-50 | Dense |
| >50 | V. Dense |
| **COHESIVE SOILS** | |
| BPF | Density |
| <2 | V. Soft |
| 2-4 | Soft |
| 4-8 | M. Stiff |
| 8-15 | Stiff |
| 15-30 | V. Stiff |
| >30 | Hard |

NOTES:

Soil sample collected at 48"

Proportions used

Trace (0-10%), Little (10-20%), Some (20-30%), And (35-50%)
With (amount of component not included)

(734) 975-1970
2890 Carpenter Rd., Suite 000
Ann Arbor MI 48108

APPLIED ENVIRONMENTAL INC.

***APPENDIX B: Figures***

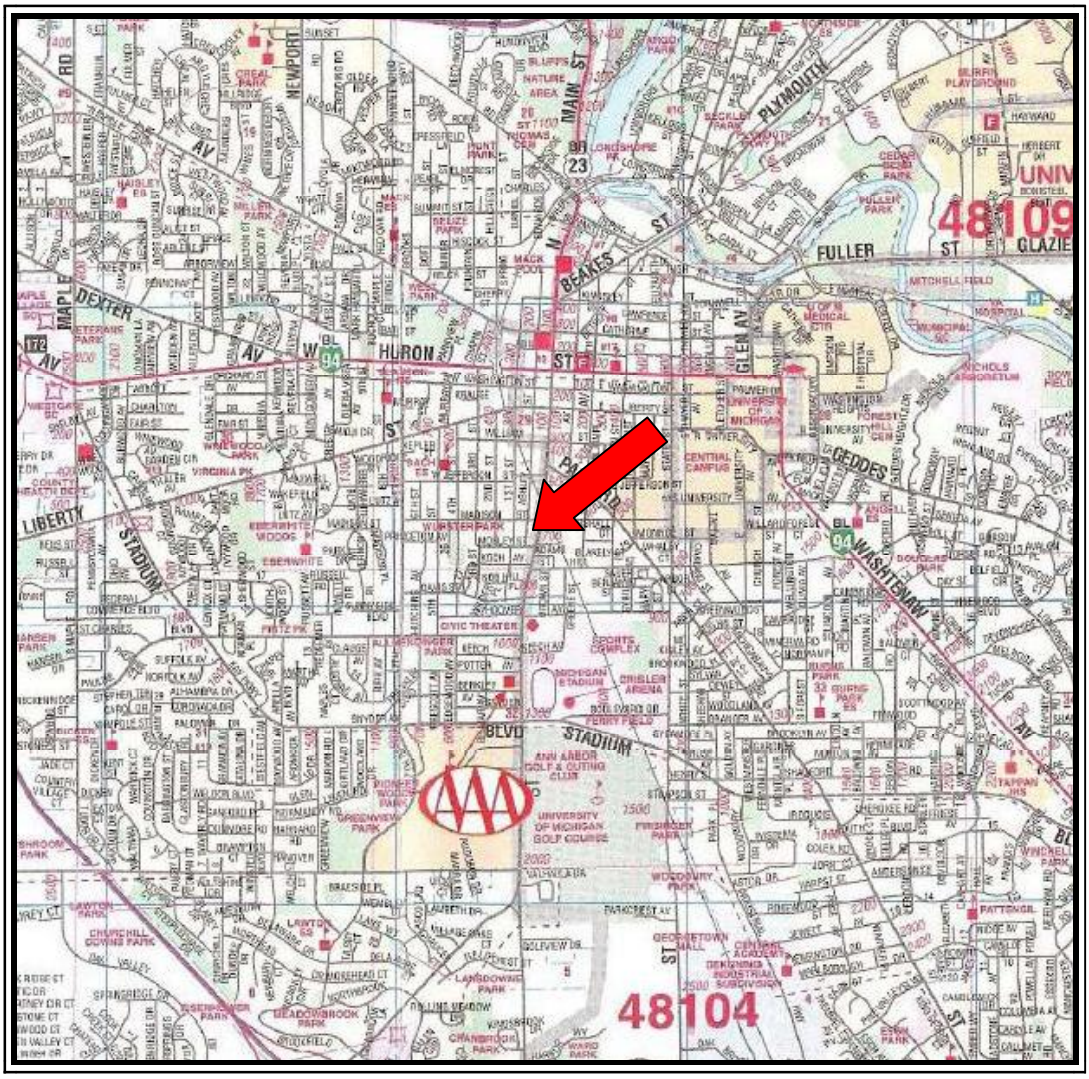



**Figure 1**
**Site Location Map**

APPLIED
ENVIRONMENTAL, INC.

2890 Carpenter Road, Ste. 100
Ann Arbor, MI 48108
(734) 975-1970

**Fox Tent & Awning**
**618 S. Main Street**
**Ann Arbor, MI 48104**

**Project #11-1721PII**

North
Scale: 1" = ~ 0.65 mile

Source:
AAA
Ann Arbor-Ypsilanti, MI
3/08-6/10

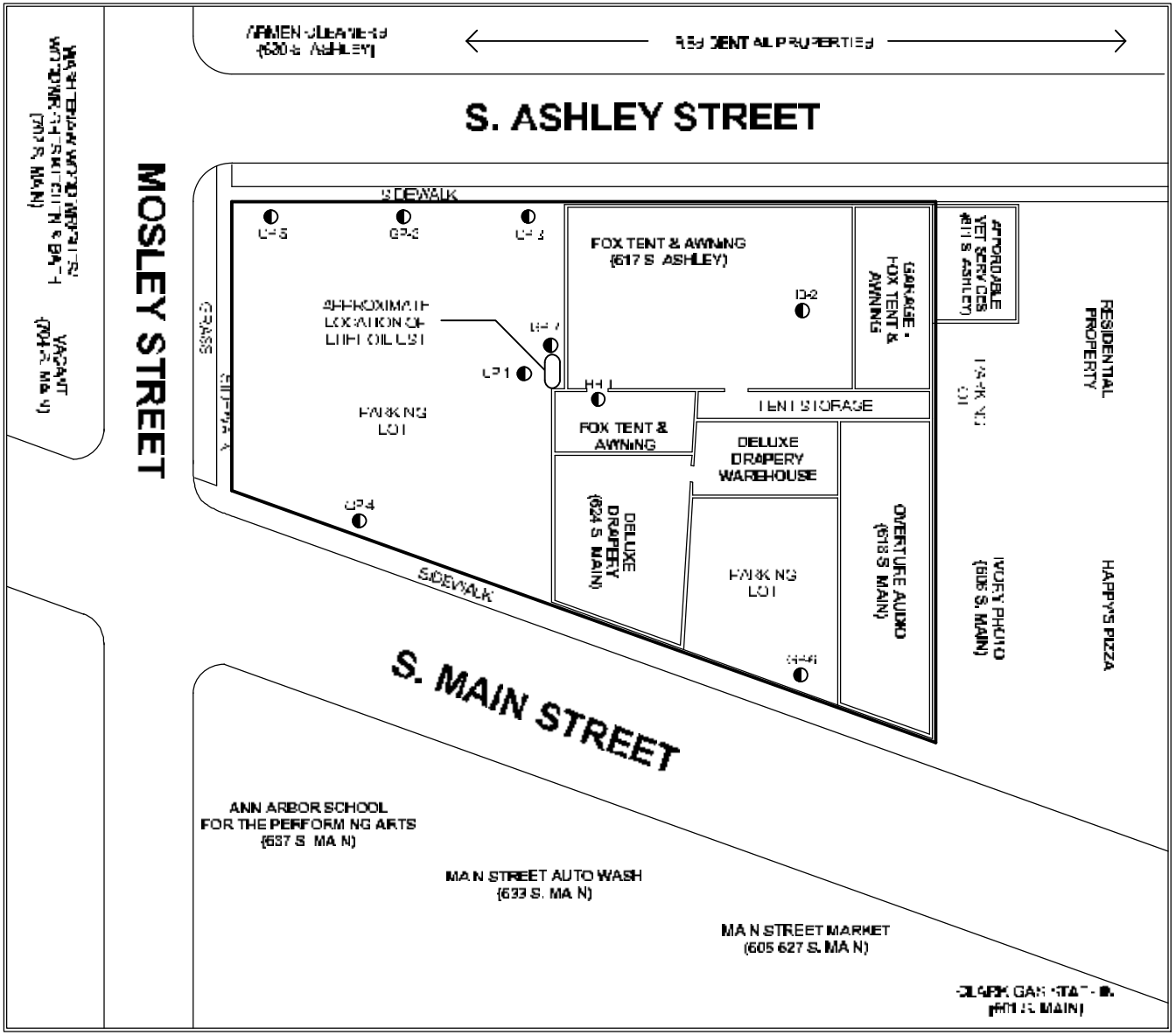



**FIGURE 2**

**BORING LOCATIONS DIAGRAM**
**4/12/2011**

FOX TENT & AWNING
618 S. MAIN STREET
ANN ARBOR, MI 48104

Applied Environmental, Inc.
3996 Carpenter Road, Suite 1006
Ann Arbor, Michigan 48108
(734) 975-1975

11 1721P BORING LOCATIONS

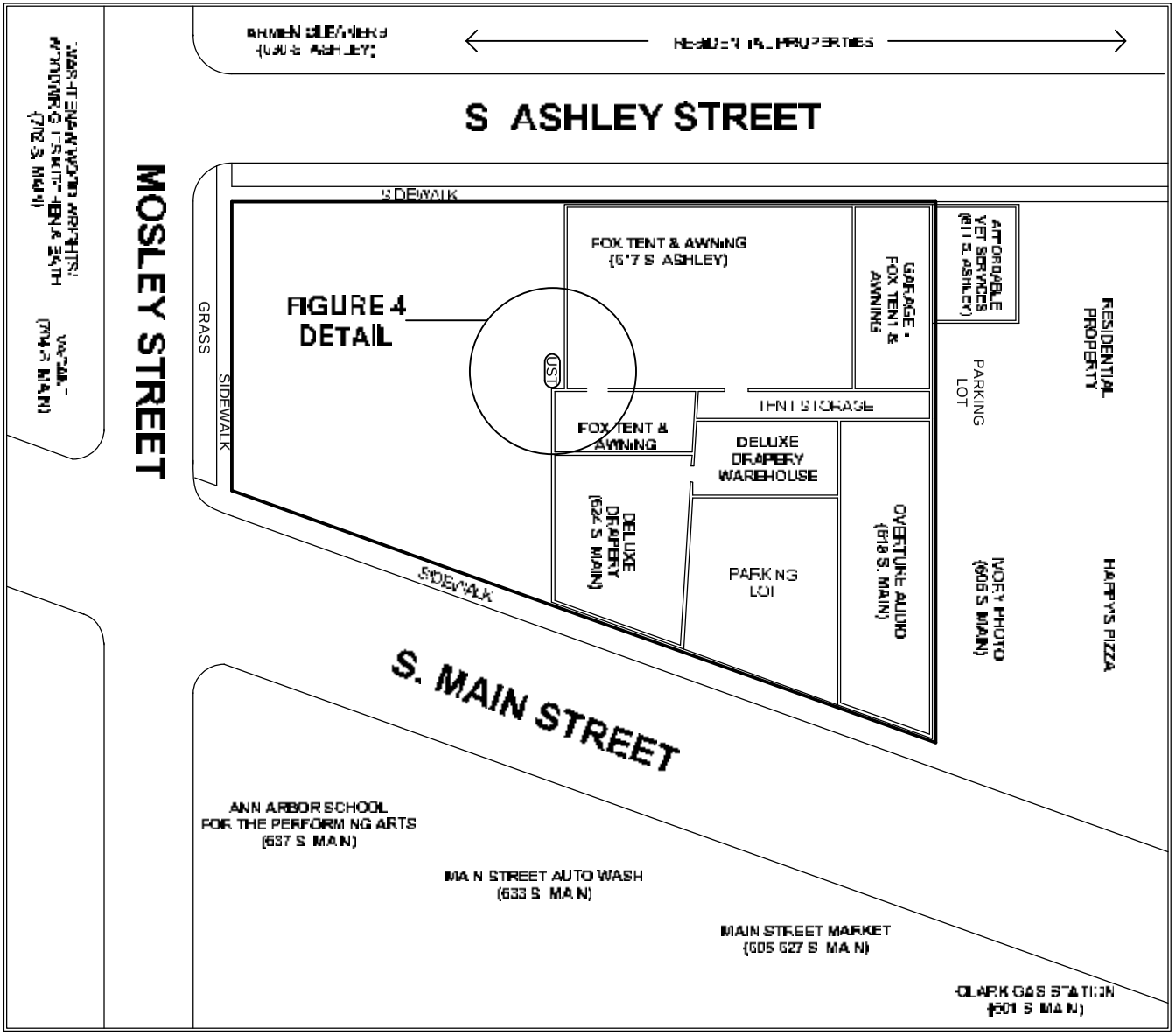


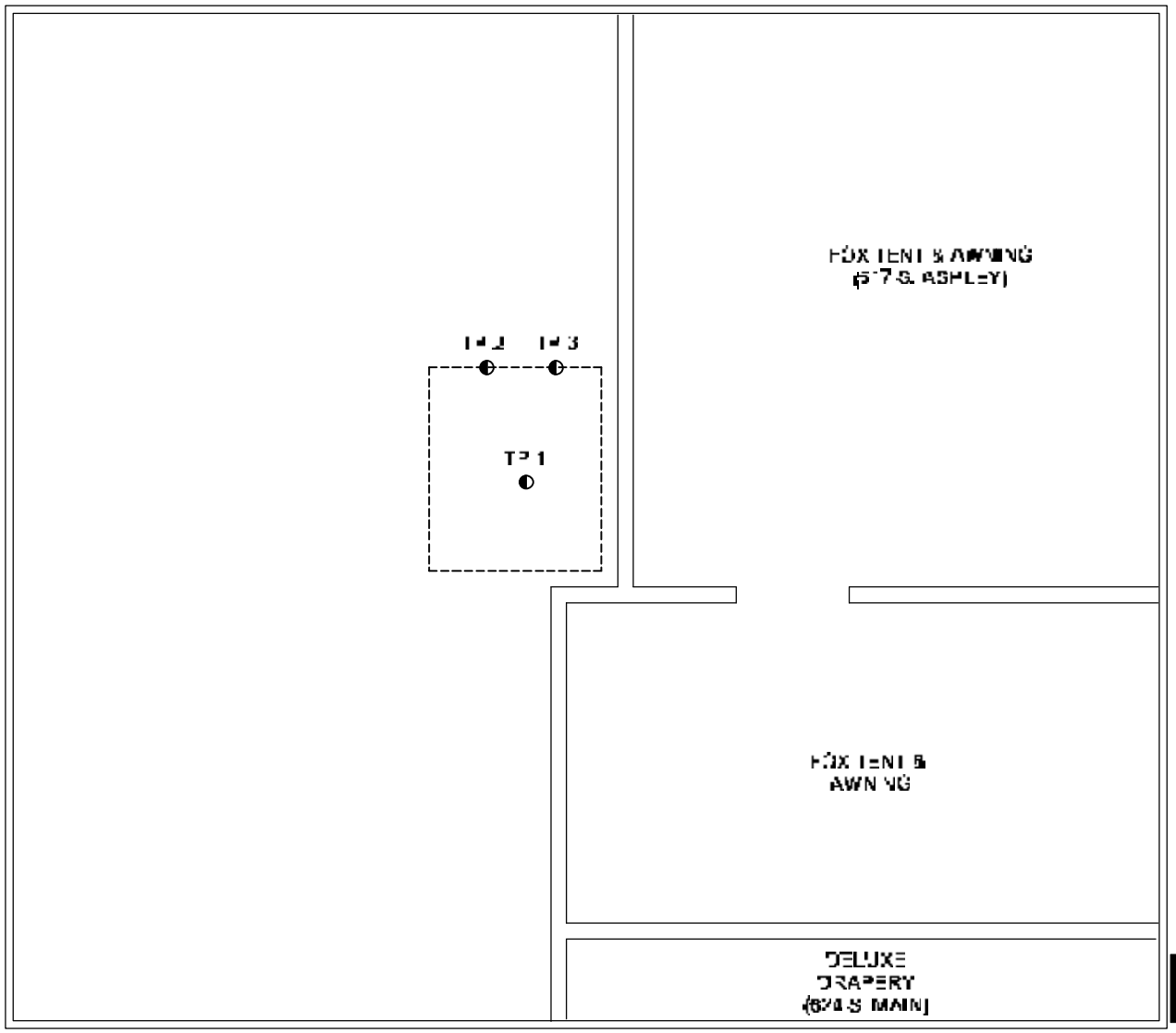

**FIGURE 3**

**TANK PULL DIAGRAM**
**8/13/2011**

FOX TENT & AWNINGS
618 S. MAIN STREET
ANN ARBOR, MI 48104

Applied Environmental, Inc.
2950 Carpenter Road, Suite 1000
Ann Arbor, Michigan 48108
(734) 975-1970

11-1721TP TANK PULL




NORTH
scale 1" = 50'

Legend

Approximate Subject Property Boundary

Sampling Location

FIGURE 4

TANK PULL DETAIL
DIAGRAM
6/13/2011

FOX TENT & AWNING
513 S. MAIN STREET
ANN ARBOR, MI 48104

Applied Environmental, Inc.
2699 Carpenter Road, Suite 300
Ann Arbor, Michigan 48108
(734) 975-1875

11 1721TP - TANK PULL DETAIL

#8201330

SCHEDULE 1

618 south main redevelopment

## Funding Sources and Costs for Redevelopment Activities

**Project Name:** 618 south main street redevelopment
**Project Address:** 618 South Main Street
**Parcel Number(s):** 09-09-29-415-004

| Item/Activity | Total Cost | Cost Breakdown by Funding Source | | | |
|---|---|---|---|---|---|
| | | Developer | DDA Grant | BRA TIF | CRP Loan |
| **Environmental Activities** | | | | | |
| Baseline Environmental Assessment Activities | $10,000 | | | $10,000 | |
| Due Care Activities (Dewatering, soil characterization) | $50,000 | | | $50,000 | |
| Additional Response Activities (soil removal) | $150,000 | | | $150,000 | |
| **Total Environmental Activities** | **$210,000** | | | **$210,000** | |
| **Site Preparation/Development (building demolition, utilities, and engineering/architectural/design services, etc) - includes associated eligible soft costs for specific activities** | | | | | |
| Demolition Activites | $175,000 | | | $175,000 | |
| Lead and Asbestos Abatement | $70,000 | | | $70,000 | |
| Infrastructure Improvements (streetscape improvements - Main and Mosley) | $123,700 | | $73,700 | $50,000 | |
| Infrastructure Improvements (streetscape improvements - Ashley) | $118,000 | | | $118,000 | |
| Infrastructure Improvements - streetscape improvement associated costs (driveway removal & curb replacement, sidewalk replacement, traffic control, erosion control, sewer and water lead abandonment, materials testing, staking) | $95,400 | | $62,200 | $33,200 | |
| Infrastructure Improvements (streetscape improvements - Main Street north to Ashley Mews) | $328,600 | | $328,600 | $0 | |
| Infrastructure Improvements (footing drain disconnects) | $399,000 | | | $399,000 | Local-only |
| Infrastructure Improvements/Site Preparation (alternative storm water management) | $698,035 | | $105,000 | $593,035 | |
| Infrastructure Improvements (utility and street repair) | $252,100 | | $80,500 | $171,600 | |
| Site Preparation (staking) | $22,500 | | | $22,500 | |
| Site Preparation (Geotech engineering) | $15,000 | | | $15,000 | |
| Site Preparation (clearing and grubbing) | $7,500 | | | $7,500 | |
| Site Preparation (temp access, const. facility, traffic control, erosion control and site control) | $76,000 | | | $76,000 | |
| Site Preparation (soils excavation/ unstable soil removal) | $16,500 | | | $16,500 | |
| Site Preparation (soil removal for underground parking) | $135,000 | | | $135,000 | |
| Site Preparation (special foundations) | $28,000 | | | $28,000 | |
| Site Preparation (fill material) | $26,500 | | | $26,500 | |
| Site Preparation (dewatering) | $35,000 | | | $35,000 | |
| Site Preparation (land balancing/grading) | $16,000 | | | $16,000 | |
| Site Preparation (utility relocation) | $6,500 | | | $6,500 | |
| Site Preparation (compaction & sub-base) | $2,800 | | | $2,800 | |
| Site Preparation (cut and fill operations) | $4,500 | | | $4,500 | |
| Site Preparation (temp sheeting/shoring) | $322,500 | | | $322,500 | |
| Site Preparation (eligible soft costs) | $97,700 | | | $97,700 | |
| **Total Non-environmental Activities** | **$3,071,835** | **$0** | **$650,000** | **$2,421,835** | **$0** |
| **Interest & Contingency** | | | | | |
| Interest (4% Calculated per MEGA&MDEQ Policy) | | | | $656,421 | |
| 15% Contingency (does not include interest) | $394,775 | | | $394,775 | |
| **Professional Services** | | | | | |
| Reasonable costs of developing and preparing brownfield plans and work plans and MEGA/MDEQ review | $25,000 | | | $25,000 | |
| **Building Construction** | | | | | |
| Building construction * | $30,858,031 | $26,500,000 | $650,000 | $3,708,031 | $3,000,000** |
| Project Ineligible Soft Costs | $9,027,570 | $9,027,570 | | | |
| **Projected Totals** | $39,885,601 | $32,527,570 | $650,000 | $3,708,031 | $3,000,000 |

*Estimated Eligible Investment

**Developer will utilize CRP Loan to bridge gap between equity and HUD Loan. Value assumes $26.5 in eligible investment and approximately 11% CRP loan

**TIF:** Tax Increment Financing

**CRP:** Community Revitalization Program

618 south main - An Urban Apartment Community

# Tax Capture by Jurisdiction - TIF

Schedule 2
Brownfield Plan Brownfield TIF Summary

**Project Name: 618 south main - An Urban Apartment Community**
**Community: Ann Arbor**

| Eligible Expenses for Reimbursement under Public Act 381 | |
|---|---|
| Contamination/Core Community Related Activities | $3,051,610 |
| Interest at 4% (calculated per MEGA/MDEQ) | $656,421 |
| Brownfield Program Administrative Fee | $462,864 |
| Local Site Remediation Revolving Fund Capture | $457,741 |
| Total Eligible Costs for TIF Reimbursement | $4,628,636 |

| | Year 1 (2012) | Year 2 (2013) | Year 3 (2014) | Year 4 (2015) | Year 5 (2016) | Year 6 (2017) |
|---|---|---|---|---|---|---|
| Existing Taxable Value (TV): | $312,137 | $312,137 | $312,137 | $312,137 | $312,137 | $312,137 |
| New Taxable Value for Non-Homestead: (1) | $312,137 | $312,137 | $9,500,000 | $9,595,000 | $9,690,950 | $9,787,860 |
| Incremental Difference (New Taxable Value - Existing): | $0 | $0 | $9,187,863 | $9,282,863 | $9,378,813 | $9,475,723 |

| Millage Category | Millage Rates (3) | | | | | | |
|---|---|---|---|---|---|---|---|
| **State Capture** | | | | | | | |
| State Education Tax (SET) | 6.00000 | $ - | $ - | $ 27,564 | $ 27,849 | $ 28,136 | $ 28,427 |
| School Operating | 18.00000 | $ - | $ - | $ 82,691 | $ 83,546 | $ 84,409 | $ 85,282 |
| **STATE TOTAL** | **24.0000** | **$ -** | **$ -** | **$ 110,254** | **$ 111,394** | **$ 112,546** | **$ 113,709** |
| **State - Accumulated Capture** | | **$ -** | **$ -** | **$ 110,254** | **$ 221,649** | **$ 334,194** | **$ 447,903** |
| **LDFA/SmartZone Capture (50% of 24 mills)** | **12.00000** | | | **$ 110,254** | **$ 111,394** | **$ 112,546** | **$ 113,709** |
| **Local Capture** | | | | | | | |
| Intermediate School District (ISD) | 3.97450 | $ - | $ - | $ 36,517 | $ 36,895 | $ 37,276 | $ 37,661 |
| Community College | 3.71760 | $ - | $ - | $ - | $ 353 | $ 710 | $ 1,070 |
| County Operating | 5.75180 | $ - | $ - | $ - | $ 546 | $ 1,098 | $ 1,656 |
| CVT | 1.00000 | $ - | $ - | $ 9,188 | $ 9,283 | $ 9,379 | $ 9,476 |
| Library | 1.55000 | $ - | $ - | $ - | $ 147 | $ 296 | $ 446 |
| City Operating | 6.16820 | $ - | $ - | $ - | $ 586 | $ 1,178 | $ 1,776 |
| Local Enhancement | 10.14820 | $ - | $ - | $ - | $ 964 | $ 1,938 | $ 2,921 |
| **LOCAL - TOTAL CAPTURE** | **32.3103** | **$ -** | **$ -** | **$ 45,705** | **$ 48,775** | **$ 51,875** | **$ 55,006** |
| **Local - Accumulated Capture** | | **$ -** | **$ -** | **$ 45,705** | **$ 94,480** | **$ 146,354** | **$ 201,360** |
| **TOTAL TAX CAPTURE (school and local)** | **56.31030** | **$ -** | **$ -** | **$ 155,959** | **$ 160,169** | **$ 164,420** | **$ 168,715** |
| **Accumulated Tax Capture** | | **$ -** | **$ -** | **$ 155,959** | **$ 316,128** | **$ 480,549** | **$ 649,263** |
| **WCBRA Administrative Fees (10% of Eligible Costs)*** | | **$ -** | **$ -** | **$ 15,596** | **$ 16,017** | **$ 16,442** | **$ 16,871** |
| **Local Site Remediation Revolving Fund Capture (see page 2)** | | | | | | | |
| **Total Tax Capture Available for Reimbursement of Core Community Activities and LSRRF** | | **$ -** | **$ -** | **$ 140,363** | **$ 144,152** | **$ 147,978** | **$ 151,843** |
| **Accumulated Tax Capture Available for Reimbursement of Core Community Activities and LSRRF** | | **$ -** | **$ -** | **$ 140,363** | **$ 284,515** | **$ 432,494** | **$ 584,337** |

**(1)** Taxable Value (TV) is increased 1% per year for inflation.

**(2)** State and Local Capture does not include any debt. All millage rates are listed without debt.

**(3)** Full rates are listed, but only 50% of the following millages (State Education Tax and School Operating) is captured by the Brownfield Redevelopment Authority through 2018 (SmartZone impact).
Brownfield only captures the remainder that the DDA does not capture which is the ISD, CVT and inflationary increment that DDA doesn't capture. The Smart Zone captures 50% of State Education and School Operating throu

618 south main - An Urban Apartment Community

Schedule 2
Brownfield Plan Brownfield TIF Summary

| Year 7 (2018) | Year 8 (2019) | Year 9 (2020) | Year 10 (2021) | Year 11 (2022) | Year 12 (2023) | Year 13 (2024) | Year 14 (2025) | Year 15 (2026) | Year 16 (2027) | Year 17 (2028) |
|---|---|---|---|---|---|---|---|---|---|---|
| **$312,137** | **$312,137** | **$312,137** | **$312,137** | **$312,137** | **$312,137** | **$312,137** | **$312,137** | **$312,137** | **$312,137** | **$312,137** |
| **$9,885,738** | **$9,984,595** | **$10,084,441** | **$10,185,286** | **$10,287,139** | **$10,390,010** | **$10,493,910** | **$10,598,849** | **$10,704,838** | **$10,811,886** | **$10,920,005** |
| **$9,573,601** | **$9,672,458** | **$9,772,304** | **$9,873,149** | **$9,975,002** | **$10,077,873** | **$10,181,773** | **$10,286,712** | **$10,392,701** | **$10,499,749** | **$10,607,868** |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| $ 28,721 | $ 58,035 | $ 58,634 | $ 59,239 | $ 59,850 | $ 60,467 | $ 61,091 | $ 61,720 | $ 62,356 | $ 29,892 | $ - |
| $ 86,162 | $ 174,104 | $ 175,901 | $ 177,717 | $ 179,550 | $ 181,402 | $ 183,272 | $ 185,161 | $ 187,069 | $ 89,676 | $ - |
| **$ 114,883** | **$ 232,139** | **$ 234,535** | **$ 236,956** | **$ 239,400** | **$ 241,869** | **$ 244,363** | **$ 246,881** | **$ 249,425** | **$ 119,568** | **$ -** |
| **$ 562,786** | **$ 794,925** | **$ 1,029,461** | **$ 1,266,416** | **$ 1,505,816** | **$ 1,747,685** | **$ 1,992,048** | **$ 2,238,929** | **$ 2,488,354** | **$ 2,607,922** | **$ 2,607,922** |
| **$ 114,883** | | | | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| $ 38,050 | $ 38,443 | $ 38,840 | $ 39,241 | $ 39,646 | $ 40,055 | $ 40,467 | $ 40,885 | $ 41,306 | $ 41,731 | $ 42,161 |
| $ 1,434 | $ 1,802 | $ 2,173 | $ 2,548 | $ 2,926 | $ 3,309 | $ 3,695 | $ 4,085 | $ 4,479 | $ 4,877 | $ 5,279 |
| $ 2,219 | $ 2,787 | $ 3,362 | $ 3,942 | $ 4,527 | $ 5,119 | $ 5,717 | $ 6,320 | $ 6,930 | $ 7,546 | $ 8,168 |
| $ 9,574 | $ 9,672 | $ 9,772 | $ 9,873 | $ 9,975 | $ 10,078 | $ 10,182 | $ 10,287 | $ 10,393 | $ 10,500 | $ 10,608 |
| $ 598 | $ 751 | $ 906 | $ 1,062 | $ 1,220 | $ 1,380 | $ 1,541 | $ 1,703 | $ 1,867 | $ 2,033 | $ 2,201 |
| $ 2,379 | $ 2,989 | $ 3,605 | $ 4,227 | $ 4,855 | $ 5,490 | $ 6,131 | $ 6,778 | $ 7,432 | $ 8,092 | $ 8,759 |
| $ 3,915 | $ 4,918 | $ 5,931 | $ 6,954 | $ 7,988 | $ 9,032 | $ 10,086 | $ 11,151 | $ 12,227 | $ 13,313 | $ 14,410 |
| **$ 58,168** | **$ 61,362** | **$ 64,589** | **$ 67,847** | **$ 71,138** | **$ 74,462** | **$ 77,819** | **$ 81,209** | **$ 84,634** | **$ 88,092** | **$ 91,586** |
| **$ 259,528** | **$ 320,891** | **$ 385,479** | **$ 453,326** | **$ 524,464** | **$ 598,925** | **$ 676,744** | **$ 757,953** | **$ 842,587** | **$ 930,679** | **$ 1,022,265** |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **$ 173,052** | **$ 293,501** | **$ 299,124** | **$ 304,802** | **$ 310,538** | **$ 316,330** | **$ 322,181** | **$ 328,090** | **$ 334,059** | **$ 207,660** | **$ 91,586** |
| **$ 822,315** | **$ 1,115,816** | **$ 1,414,940** | **$ 1,719,742** | **$ 2,030,280** | **$ 2,346,611** | **$ 2,668,792** | **$ 2,996,882** | **$ 3,330,941** | **$ 3,538,601** | **$ 3,630,187** |
| **$ 17,305** | **$ 29,350** | **$ 29,912** | **$ 30,480** | **$ 31,054** | **$ 31,633** | **$ 32,218** | **$ 32,809** | **$ 33,406** | **$ 20,766** | **$ 9,159** |
| | | | | | | | | | | |
| | | | | | | | | | | |
| **$ 155,746** | **$ 264,151** | **$ 269,211** | **$ 274,322** | **$ 279,484** | **$ 284,697** | **$ 289,963** | **$ 295,281** | **$ 300,653** | **$ 186,894** | **$ 82,427** |
| **$ 740,083** | **$ 1,004,235** | **$ 1,273,446** | **$ 1,547,768** | **$ 1,827,252** | **$ 2,111,950** | **$ 2,401,913** | **$ 2,697,194** | **$ 2,997,846** | **$ 3,184,741** | **$ 3,267,168** |

ugh 2018.

# 618 south main - An Urban Apartment Community

## Schedule 2
## Brownfield Plan Brownfield TIF Summary

| Year 18 (2029) | Year 19 (2030) | Year 20 (2031) | Year 21 (2032) | Year 22 (2033) | Year 23 (2034) | Year 24 (2035) | Year 25 (2036) | Year 26 (2037) | Year 27 (2038) | |
|---|---|---|---|---|---|---|---|---|---|---|
| **$312,137** | **$312,137** | **$312,137** | **$312,137** | **$312,137** | **$312,137** | **$312,137** | **$312,137** | **$312,137** | **$312,137** | |
| **$11,029,205** | **$11,139,497** | **$11,250,892** | **$11,363,401** | **$11,477,035** | **$11,591,805** | **$11,707,723** | **$11,824,801** | **$11,943,049** | **$12,062,479** | |
| **$10,717,068** | **$10,827,360** | **$10,938,755** | **$11,051,264** | **$11,164,898** | **$11,279,668** | **$11,395,586** | **$11,512,664** | **$11,630,912** | **$11,750,342** | Total Project Capture |
| | | | | | | | | | | |
| $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 651,980 |
| $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 1,955,941 |
| **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ 2,607,922** |
| **$ 2,607,922** | **$ 2,607,922** | **$ 2,607,922** | **$ 2,607,922** | **$ 2,607,922** | **$ 2,607,922** | **$ 2,607,922** | **$ 2,607,922** | **$ 2,607,922** | **$ 2,607,922** | |
| | | | | | | | | | | **$ 562,786** |
| $ 42,595 | $ 43,033 | $ 43,476 | $ 43,923 | $ 44,375 | $ 44,831 | $ 45,292 | $ 45,757 | $ 46,227 | $ 4,032 | $ 992,716 |
| $ 5,685 | $ 6,095 | $ 6,509 | $ 6,927 | $ 7,350 | $ 7,776 | $ 8,207 | $ 8,643 | $ 9,082 | $ 823 | $ 105,837 |
| $ 8,796 | $ 9,430 | $ 10,071 | $ 10,718 | $ 11,372 | $ 12,032 | $ 12,698 | $ 13,372 | $ 14,052 | $ 1,273 | $ 163,749 |
| $ 10,717 | $ 10,827 | $ 10,939 | $ 11,051 | $ 11,165 | $ 11,280 | $ 11,396 | $ 11,513 | $ 11,631 | $ 1,015 | $ 249,771 |
| $ 2,370 | $ 2,541 | $ 2,714 | $ 2,888 | $ 3,064 | $ 3,242 | $ 3,422 | $ 3,603 | $ 3,787 | $ 343 | $ 44,127 |
| $ 9,432 | $ 10,113 | $ 10,800 | $ 11,494 | $ 12,195 | $ 12,903 | $ 13,618 | $ 14,340 | $ 15,069 | $ 1,365 | $ 175,604 |
| $ 15,519 | $ 16,638 | $ 17,768 | $ 18,910 | $ 20,063 | $ 21,228 | $ 22,404 | $ 23,593 | $ 24,793 | $ 2,245 | $ 288,911 |
| **$ 95,114** | **$ 98,678** | **$ 102,277** | **$ 105,912** | **$ 109,584** | **$ 113,292** | **$ 117,037** | **$ 120,820** | **$ 124,641** | **$ 11,095** | **$ 2,020,714** |
| **$ 1,117,379** | **$ 1,216,057** | **$ 1,318,334** | **$ 1,424,246** | **$ 1,533,829** | **$ 1,647,121** | **$ 1,764,159** | **$ 1,884,979** | **$ 2,009,619** | **$ 2,020,714** | |
| | | | | | | | | | | |
| **$ 95,114** | **$ 98,678** | **$ 102,277** | **$ 105,912** | **$ 109,584** | **$ 113,292** | **$ 117,037** | **$ 120,820** | **$ 124,641** | **$ 11,095** | **$ 4,628,636** |
| **$ 3,725,301** | **$ 3,823,979** | **$ 3,926,255** | **$ 4,032,168** | **$ 4,141,751** | **$ 4,255,043** | **$ 4,372,080** | **$ 4,492,900** | **$ 4,617,541** | **$ 4,628,636** | |
| **$ 9,511** | **$ 9,868** | **$ 10,228** | **$ 10,591** | **$ 10,958** | **$ 11,329** | **$ 11,704** | **$ 12,082** | **$ 12,464** | **$ 1,110** | **$ 462,864** |
| | | | | | | | | | | |
| | | | | | | | | | | |
| **$ 85,603** | **$ 88,810** | **$ 92,049** | **$ 95,321** | **$ 98,625** | **$ 101,963** | **$ 105,334** | **$ 108,738** | **$ 112,177** | **$ 9,986** | **$ 4,165,772** |
| **$ 3,352,771** | **$ 3,441,581** | **$ 3,533,630** | **$ 3,628,951** | **$ 3,727,576** | **$ 3,829,539** | **$ 3,934,872** | **$ 4,043,610** | **$ 4,155,787** | **$ 4,165,772** | |

#8200644-3
6/11/2012

618 south main
Projected TIF Reimbursement Schedule

| Year | Local Increment Captured | School Increment Captured | Annual Tax Increment Captured | WCBRA Admin Fee (10%) | Cumulative Tax Increment Captured | | Amount Due Developer Local & State [2] | Amount Due Developer Local Only[3] | Interest (4%) | Payments to Developer From Local Tax Capture [1] | Payments to Developer from School Tax Capture | Amount Paid to Developer for Eligible Activities | LSRRF Capture (Local) | LSRRF Capture (State) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2012 | $ - | $ - | $ - | $ - | $ - | | $0 | | | $0 | $0 | | $0 | $0 |
| 2013 | $ - | $ - | $ - | $ - | $ - | | $2,592,760 | $458,850 | $0 | $ - | $ - | $ - | $ - | $ - |
| 2014 | $ 45,705 | $ 110,254 | $ 155,959 | $ 15,596 | $ 155,959 | | $2,592,760 | $458,850 | | $ - | $ - | $ - | $ - | $ - |
| 2015 | $ 48,775 | $ 111,394 | $ 160,169 | $ 16,017 | $ 316,128 | | $2,592,760 | $458,850 | $103,710 | $ 30,109 | $ 110,254 | $ 140,363 | $ - | $ - |
| 2016 | $ 51,875 | $ 112,546 | $ 164,420 | $ 16,442 | $ 480,549 | | $2,556,107 | $458,850 | $102,244 | $ 32,758 | $ 111,394 | $ 144,152 | $ - | $ - |
| 2017 | $ 55,006 | $ 113,709 | $ 168,715 | $ 16,871 | $ 649,263 | | $2,514,200 | $458,850 | $100,568 | $ 35,433 | $ 112,546 | $ 147,978 | $ - | $ - |
| 2018 | $ 58,168 | $ 114,883 | $ 173,052 | $ 17,305 | $ 822,315 | | $2,466,789 | $458,850 | $98,672 | $ 38,134 | $ 113,709 | $ 151,843 | $ - | $ - |
| 2019 | $ 61,362 | $ 232,139 | $ 293,501 | $ 29,350 | $ 1,115,816 | | $2,413,618 | $458,850 | $96,545 | $ 40,863 | $ 114,883 | $ 155,746 | $ - | $ - |
| 2020 | $ 64,589 | $ 234,535 | $ 299,124 | $ 29,912 | $ 1,414,940 | | $2,354,416 | $458,850 | $94,177 | $ 32,012 | $ 232,139 | $ 264,151 | $ - | $ - |
| 2021 | $ 67,847 | $ 236,956 | $ 304,802 | $ 30,480 | $ 1,719,742 | | $2,184,441 | $458,850 | $60,505 | $ 34,676 | $ 234,535 | $ 269,211 | $ - | $ - |
| 2022 | $ 71,138 | $ 239,400 | $ 310,538 | $ 31,054 | $ 2,030,280 | | $1,975,735 | $458,850 | $0 | $ 37,367 | $ 236,956 | $ 274,322 | $ - | $ - |
| 2023 | $ 74,462 | $ 241,869 | $ 316,330 | $ 31,633 | $ 2,346,611 | | $1,701,413 | $458,850 | $0 | $ 40,084 | $ 239,400 | $ 279,484 | $ - | $ - |
| 2024 | $ 77,819 | $ 244,363 | $ 322,181 | $ 32,218 | $ 2,668,792 | | $1,421,929 | $458,850 | $0 | $ 42,828 | $ 241,869 | $ 284,697 | $ - | $ - |
| 2025 | $ 81,209 | $ 246,881 | $ 328,090 | $ 32,809 | $ 2,996,882 | | $1,137,232 | $458,850 | $0 | $ 45,600 | $ 244,363 | $ 289,963 | $ - | $ - |
| 2026 | $ 84,634 | $ 249,425 | $ 334,059 | $ 33,406 | $ 3,330,941 | | $847,269 | $458,850 | $0 | $ 48,400 | $ 246,881 | $ 295,281 | $ - | $ - |
| 2027 | $ 88,092 | $ 119,568 | $ 207,660 | $ 20,766 | $ 3,538,601 | | $551,987 | $458,850 | $0 | $ 51,228 | $ 178,492 | $ 229,720 | $ - | $ 70,932 |
| 2028 | $ 91,586 | $ - | $ 91,586 | $ 9,159 | $ 3,630,187 | | $322,267 | $458,850 | $0 | $ 67,326 | $ - | $ 67,326 | $ - | $ 119,568 |
| 2029 | $ 95,114 | $ - | $ 95,114 | $ 9,511 | $ 3,725,301 | | $254,941 | $458,850 | $0 | $ 82,427 | $ - | $ 82,427 | $ - | $ - |
| 2030 | $ 98,678 | $ - | $ 98,678 | $ 9,868 | $ 3,823,979 | | $172,514 | $458,850 | $0 | $ 85,603 | $ - | $ 85,603 | $ - | $ - |
| 2031 | $ 102,277 | $ - | $ 102,277 | $ 10,228 | $ 3,926,255 | | $86,911 | $458,850 | $0 | $ 88,810 | $ - | $ 88,810 | $ - | $ - |
| 2032 | $ 105,912 | $ - | $ 105,912 | $ 10,591 | $ 4,032,168 | | $0 | $456,951 | $0 | $ 92,049 | $ - | $ 92,049 | $ - | $ - |
| 2033 | $ 109,584 | $ - | $ 109,584 | $ 10,958 | $ 4,141,751 | | $0 | $364,902 | $0 | $ 95,321 | $ - | $ 95,321 | $ - | $ - |
| 2034 | $ 113,292 | $ - | $ 113,292 | $ 11,329 | $ 4,255,043 | | $0 | $269,581 | $0 | $ 98,625 | $ - | $ 98,625 | $ - | $ - |
| 2035 | $ 117,037 | $ - | $ 117,037 | $ 11,704 | $ 4,372,080 | | $0 | $170,956 | $0 | $ 101,963 | $ - | $ 101,963 | $ - | $ - |
| 2036 | $ 120,820 | $ - | $ 120,820 | $ 12,082 | $ 4,492,900 | | $0 | $68,993 | $0 | $ 68,993 | $ - | $ 68,993 | $ 36,341 | $ - |
| 2037 | $ 124,641 | $ - | $ 124,641 | $ 12,464 | $ 4,617,541 | | $0 | $0 | $0 | $ - | $ - | $ - | $ 108,738 | $ - |
| 2038 | $ 11,095 | $ - | $ 11,095 | $ 1,110 | $ 4,628,636 | | $0 | $0 | $0 | $ - | $ - | $ - | $ 112,177 | $ - |
| 2039 | | $ - | $ - | $ - | $ 4,617,541 | | $0 | $0 | $0 | $ - | $ - | $ - | $ 9,986 | $ - |
| | | | | **$ 462,864** | | | | | **$656,421** | **$1,290,610** | **$2,417,421** | **$ 3,708,031** | **$267,241** | **$190,500** |
| | | | | | | | | | | **35%** | **65%** | | | |

[1] Reduced by 10% of total capture for administrative fees.

[2] Assumes $3,051,610 of principal eligible activities incurred in 2013 plus 4% interest on MEGA and MDEQ eligible activities calculated per MEGA & MDEQ Guidelines.

[3] Principal payments only on local-only portion