



AGENDA
CHARTER TOWNSHIP OF MERIDIAN
BROWNFIELD REDEVELOPMENT AUTHORITY
May 28, 2020 8AM

1. CALL MEETING TO ORDER
2. APPROVAL OF AGENDA
3. APPROVAL OF MINUTES FROM FEBRUARY 20, 2020
4. PUBLIC REMARKS
5. NEW BUSINESS
 - A. 1619 Haslett Road brownfield plan
6. OLD BUSINESS
7. PUBLIC REMARKS
8. ADJOURNMENT

NEXT MEETING: June 18, 2020 at 8AM

Individuals with disabilities requiring auxiliary aids or services should contact:
Principal Planner Peter Menser, 5151 Marsh Road, Okemos, MI 48864 or 517.853.4576 - Ten Day Notice is Required.
Meeting Location: Zoom web conference application

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CHARTER TOWNSHIP OF MERIDIAN
BROWNFIELD REDEVELOPMENT AUTHORITY
REGULAR MEETING MINUTES

DRAFT

February 20, 2020

5151 Marsh Road, Okemos, MI 48864-1198

517-853-4560, Town Hall Room, 8:00 A.M.

PRESENT: Township Manager Frank Walsh, Vice-Chair Jeff Theuer, Jade Sims, Ned Jackson, Dave Premoe
ABSENT: John Matuszak, Joyce Van Coevering
STAFF: Treasurer Phil Deschaine, Director of Community Planning and Development Mark Kieselbach, Principal Planner Peter Menser
OTHER: Township Attorney Matt Kuschel

1. **Call meeting to order**

Vice-Chair Theuer called the regular meeting to order at 8:00 a.m.

2. **Approval of Agenda**

Director Sims moved to approve the agenda as written.

Supported by Director Jackson.

VOICE VOTE: Motion carried unanimously.

3. **Approval of Minutes**

Director Jackson moved to approve the meeting minutes of December 19, 2019 as written with the exception of the typo on page 2.

Supported by Director Sims.

VOICE VOTE: Motion carried unanimously.

4. **Public Remarks** – None

5. **New Business**

A. Introduction of new BRA member

Principal Planner Menser introduced Dave Premoe to the group as the new Planning Commission appointee to the BRA. Dave has been serving on the Planning Commission for two years. He is a long-time Okemos resident and has experience as a construction manager.

B. Election of Officers

The nominating committee of Manager Walsh, Director Sims, and Director Van Coevering submitted their proposed slate of officers which included Jeff Theuer as Chair and Ned Jackson as Vice-Chair.

Director Theuer moved to accept the nominations and approve the election of officers.

Supported by Manager Walsh.

VOICE VOTE: Motion carried unanimously.

6. **Old Business**

A. 2360 Jolly Road brownfield plan reimbursement agreement

Township Attorney Matt Kuschel provided a summary of the reimbursement agreement. The BRA Board discussed keeping the tax appeal language in the reimbursement agreement for future projects but agreed to remove it from this document.

Manager Walsh moved to approve the reimbursement agreement.

Supported by Director Sims.

VOICE VOTE: Motion carried unanimously.

B. New bank account resolution

Treasurer Deschaine explained the effort to establish a new bank account for the BRA. He noted two reps from the BRA are needed to be on the account and suggested the Chair and Vice-Chair. The BRA Board agreed the Chair, Vice-Chair, Manager Walsh, and Treasurer Deschaine could all be on the account.

8. **Public Remarks**

Manager Walsh provided an update on projects and initiatives underway in the Township which included the following: Township has hired of Ken Lane as the new Economic Development Director, the Meridian Police earned state accreditation, construction has begun on the Marketplace on the Green, a Board retreat to discuss goals for the year has been scheduled, local road projects are scheduled for the summer, Anna's House restaurant will locate within the former Pizza Hut property on Gran River Avenue, a new Menard's is proposed at the former drive-in movie theater site on Saginaw Highway, a new police K-9 unit has been hired, a solar project is being considered by MSU for property in the Township on Hagadorn Road, the US Census is underway, and there were issues related to absentee ballot voting in the Township.

Principal Planner Menser announced the forthcoming submittal of a brownfield plan for the Marathon gas station in Haslett.

Treasurer Deschaine noted BRA reports due to the State for filing purposes would be completed by Mary Ann Groop in his office.

Treasurer Deschaine also announced an issue with the Elevation brownfield plan, stating an amendment to the plan is not necessary but that administrative adjustments may be required. The Treasurer's Office will be working with the Township Attorney to resolve and it will be on the BRA's next agenda for further explanation.

9. **Adjournment**

The meeting was adjourned at 8:48 a.m.

Respectfully Submitted,

Peter Menser
Principal Planner

To: Peter Menser, Principal Planner – Meridian Township
Meridian Township Brownfield Redevelopment Authority

From: Dave Van Haaren - Triterra

Date: May 14, 2020

Subject: Review of Draft Brownfield Plan for Haslett Marathon

In preparation for your BRA meeting, the following is a review of the Draft Brownfield Plan titled “Haslett Marathon, 1619 Haslett Road, Haslett, Meridian Charter Township, Michigan” (the “Plan”), dated March 3, 2020.

On May 8, 2020, township staff received the complete application (i.e. application fee) for the draft Plan.

General Description of the Project:

The Plan is for the Haslett Marathon site located at 1619 Haslett Road (Tax ID #33-02-02-10-430-009). The project includes the demolition of the existing gasoline service station and convenience store and construction of a new gasoline service station and retail space.

The current pump locations and existing 1,674 square foot building will be demolished and replaced with a new 6,622 square foot building and four (4) gasoline/diesel dispenser islands located beneath a new canopy. The existing underground storage tank (UST) system will remain and a new approximately 6,000-gallon diesel fuel UST will be installed at the site. The proposed building will include a mix of retail, restaurant and automotive service uses with 4,343 square feet dedicated for the retail/restaurant space and an automobile service center consisting of 2,279 square feet and three (3) service bays.

The redevelopment project proposes 20 parking spaces on site, bike parking and an outdoor seating area adjacent to the convenience store. The building location will be moved to sit on the corner of Haslett and Marsh with the intent to allow for a more downtown, urban feel. The project is also intended to improve walkability, traffic flow and the retention and addition of jobs in Meridian Township.

Total capital investment of approximately \$1,000,000 and the project is estimated to retain 7 local full-time equivalent (FTE) jobs and create 5 local FTE jobs. Construction is scheduled to begin upon consideration of the Brownfield Plan by the Township Board.

The Plan is requesting reimbursement to the Developer of \$304,483 (including a 15% contingency of \$33,264) and an estimated capture of \$17,672 to the MTBRA for administration and \$17,672 to the MTBRA for deposits into the Local Brownfield Revolving Fund. Eligible Activities included in the Plan total \$339,826. There is no interest proposed in the Plan.

The Plan includes an estimated total reimbursement/capture period of 27 years beginning in 2021.

No state school capture is assumed to reimburse eligible activity costs in this Plan. The eligible activities identified in the Plan are as local-only tax capture costs by the Authority.

Basis for Eligibility of subject Property as defined by Act 381:

The Property is considered “Eligible Property,” as defined by Act 381, Section 2 because the Property is currently utilized for a commercial purpose and it has been deemed a “property” as defined in Part 213 of Michigan’s Natural Resources and Environmental Protection Act (NREPA), P.A. 451 of 1994, as amended.

Required Items under Section 13 of Act 381:

All items required under Section 13(2) of Act 381 are included in the Draft Brownfield Plan except for the following:

- The base taxable value of the Eligible Property identified in and subject to this Plan is \$179,721 which is reported as based on 2019 tax year taxable values. Triterra recommends the base taxable value be based on the current 2020 taxable value for the Property which is \$183,135.
- The Project Summary of the Plan indicates \$16,108 in estimated deposits into the Local Brownfield Revolving Fund (LBRF) while the remainder of the Plan and supporting tax increment reimbursement estimates (Tables 1 and 3) indicate \$17,672 in estimated deposits into the LBRF.
- Section II.B. of the Plan provides a summary of the environmental investigations conducted at the Property in 2010 and August 2017, however, Triterra recommends this section of the Plan include a description of investigation activities conducted in March 2017. Additionally, the current Plan provides analytical comparison tables for the year 2010 only. Triterra recommends the inclusion of soil, groundwater and soil gas analytical tables for 2010 and 2017 in comparison to current Risk Based Screening Levels (RBSLs), Csat (as referenced in Section II.B.) and site-specific volatilization to indoor air criteria (SSVIAC), if available.
- Section II.E. of the Plan indicates the estimated amount of tax increment revenue capture that will be used to reimburse the Developer and Brownfield Redevelopment Authority is \$336,700, however, the remainder of the Plan and supporting tax increment reimbursement estimates (Tables 1 and 3) indicate \$339,826 in estimated total tax increment revenue capture.

Eligible Activities as defined by Act 381:

References to eligible activity costs are “estimates” and the total amount for reimbursement will cap the Developer eligible activity costs at \$304,483 so long as there are available funds. If the actual costs of eligible activities are lower than the estimates identified in the Plan, reimbursement to the Developer will be lower or if the Taxable Value is higher than estimated, the Developer reimbursement may be sooner.

Financial Impact:

Financial impact to Taxing Jurisdictions is provided in Section II.H. of the Plan.

The initial taxable value used is \$179,721 and the estimated future taxable value at completion is \$469,343. This estimated future taxable values is a reasonable assumption; however, the BRA may choose to get an opinion from the Township Assessor if the Developer has not already done so. Changes in this assumption will result in a longer or shorter estimated reimbursement period.

The Plan assumes an annual appreciation of 1% in total taxable value. This is a reasonable assumption; however, the BRA may choose to get an opinion from the Township Assessor if the Developer has not already done so. Changes in this assumption will result in a longer or shorter estimated reimbursement period.

Recommended Modifications to the Plan:

The following modifications to the Plan are recommended:

- edits to Section II.D and Table 2 regarding the base taxable value of the Eligible Property as noted above,
- edits to the Project Summary, Section II.B and Section II.E. as noted above,
- edits to the estimated financial impact to the taxing jurisdictions, tax increment revenue estimates, etc. as a result of using the current taxable value for the Property as the base taxable value,
- add reference to Appendix E in the table of contents,
- update to Section II.A. regarding demolition commencement date (currently indicates Spring 2020),
- remove reference to “Act 381 Work Plan” in Section II.C.5 and Table 1, and
- replace reference to “City Council” with “Township Board” in Section II.K.

MERIDIAN TOWNSHIP BROWNFIELD REDEVELOPMENT AUTHORITY

HASLETT MARATHON
1619 HASLETT ROAD,
HASLETT, MERIDIAN CHARTER TOWNSHIP, MICHIGAN

BROWNFIELD PLAN

March 3, 2020
Revised May 22, 2020

Approved by Meridian Township BRA:
Approved by Meridian Charter Township Board of Trustees:

Prepared on Behalf of:

CBG Holdings, LLC
Robert Saroki
3650 Stallion Way, Commerce, MI
248-396-5667

Prepared By:

PM Environmental, Inc.
Jessica DeBone
3340 Ranger Road, Lansing, MI
616-328-5297
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- Appendix C Site Plans
- Appendix D Soil Boring/Soil Gas/Monitoring Well Location Maps with Analytical Results and
 2010 Through 2017 Sample Location Map with Composite Contaminant Extents
- Appendix E Documentation of Eligibility

TABLES

- Table 1: Estimated Eligible Activities Costs
- Table 2: Tax Increment Revenue Capture Estimates
- Table 3: Tax Increment Reimbursement Estimates

PROJECT SUMMARY

Project Name: 1619 Haslett Road – Marathon Redevelopment

Project Location: The eligible Property consists of one (1) parcel of land, with an address and tax identification number of 1619 Haslett Road (33-02-02-10-430-009), at the southeast corner of Haslett Road and Marsh Road in Haslett, Meridian Charter Township, Ingham County, Michigan.

Type of Eligible Property: The property is determined to be a “property” as described in Part 213 of the Michigan Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended.

Eligible Activities: Pre-Approved Activities, Department Specific Activities, Demolition, and Preparation and Implementation of a Brownfield Plan.

Estimated Developer Reimbursable Costs: \$304,483 (includes eligible activities and 15% contingency)

Local Brownfield Revolving Fund Estimated Capture: \$17,502

Years to Complete Reimbursement : 27 years from start of capture

Estimated Capital Investment: \$1 million

Estimated Jobs Retained: 7

Estimated Jobs Created: 5

Project Overview: The redevelopment plan for the project includes the demolition of the existing gasoline service station and convenience store on the Property and construction of a new gasoline service station and retail space. The new gasoline dispensing station will include a 6,622 square foot building with 4,343 square feet dedicated for convenience store retail and restaurant usage and 2,279 square feet for an automobile service center. The project will revamp the site for improved walkability, traffic flow and the retention and addition of jobs in Meridian Township.

I. INTRODUCTION AND PURPOSE

In order to promote the revitalization of environmentally distressed, historic, functionally obsolete and blighted areas within the boundaries of Meridian Charter Township (“the Township”), the Township has established the Meridian Charter Township Brownfield Redevelopment Authority (MTBRA) the “Authority” pursuant to the Brownfield Redevelopment Financing Act, Michigan Public Act 381 of 1996, as amended (“Act 381”).

The purpose of this Brownfield Plan (the “Plan”) is to promote the redevelopment of and investment in the eligible “Brownfield” Property within the Township and to facilitate financing of eligible activities at the Brownfield Property. Inclusion of Brownfield Property within any Plan in the Township will facilitate financing of eligible activities at eligible properties and will provide tax incentives to eligible taxpayers willing to invest in revitalization of eligible sites, commonly referred to as “Brownfields.” By facilitating redevelopment of the Brownfield Property, this Plan is intended to promote economic growth for the benefit of the residents of the Township and all taxing units located within and benefited by the Authority.

The identification or designation of a developer or proposed use for the Brownfield Property that is subject to this Plan shall not be integral to the effectiveness or validity of this Plan. This Plan is intended to apply to the eligible property identified in this Plan and, to identify and authorize the eligible activities to be funded. Any change in the proposed developer or proposed use of the eligible property shall not necessitate an amendment to this Plan, affect the application of this Plan to the eligible property, or impair the rights available to the Authority under this Plan.

This Plan is intended to be a living document, which may be modified or amended in accordance with and as necessary to achieve the purposes of Act 381. The applicable sections of Act 381 are noted throughout the Plan for reference purposes.

This Brownfield Plan contains information required by Section 13(2) of Act 381, as amended

II. GENERAL PROVISIONS

A. Description of the Eligible Property (Section 13 (2)(h)) and Project

The Eligible Property consists of one (1) legal parcel totaling approximately 0.89 acres with a street address of 1619 Haslett Road, Meridian Charter Township, Ingham County, Michigan. The parcel and all tangible personal property located thereon will comprise the eligible property and is referred to herein as the “Property.”

The Property is situated to the south of Haslett Road and to the east of Marsh Road, parcel information is outlined below.

Property Address	Former Parcel ID	Approximate Acreage	Eligibility
1619 Haslett Road	30-02-02-10-430-009	0.886 acres	“property”

CBG Holdings, LLC, or any affiliate, or such other developer as approved by the Authority, are collectively the project developer (“Developer”).

The parcel is currently zoned C-2: Commercial and is commercially developed with a 1,674 square foot building used as a service garage and convenience store.

In 1959, the Property was first developed and used as a gasoline dispensing station, which was located on the northwest portion of the Property. The original gasoline dispensing station was demolished in 1972 for the construction of the gasoline service station that currently occupies the Property. The Property has been occupied by the current gasoline service station from at least 1972 to the present. The Property is a closed leaking underground storage tank (LUST) site with one release reported (confirmed release number C-0206-95). The release was granted a Tier I Closure with deed restrictions by the Department of Environment, Great Lakes and Energy (EGLE) in December 2013. A Baseline Environmental Assessment (BEA) was completed by the developer prior to taking ownership and the developer has maintained the appropriate tank tightness testing and records since.

The Property's legal description is included in Appendix A. Property location maps are included in Appendix B.

The redevelopment will involve the raze and rebuild of the gasoline service station on the Property. The current pump locations and existing 1,674 square foot building will be demolished for the new construction of a 6,622 square foot building and four (4) gasoline/diesel dispenser islands located beneath a new canopy, which will be connected to the existing underground storage tank (UST) system. A new approximately 6,000-gallon diesel fuel UST will also be installed to better serve patrons. The proposed building will include a mix of retail, restaurant and automotive service uses with 4,343 square feet dedicated for the retail/restaurant space and an automobile service center consisting of 2,279 square feet and three (3) service bays. The plan proposes 20 parking spaces on site, bike parking and an outdoor seating area adjacent to the convenience store. To better serve the community, the building location will be moved to sit on the corner of Haslett and Marsh to allow for a more downtown, urban feel. This new placement on the parcel will appeal to and improve the intersection's walkability.

The project will revamp the site for the replacement of driveways to improve traffic flow through the addition of green space and an updated convenience store and modernized automobile service center. The project will allow for expanded business hours of operation, job retention and creation, and an increase to the local tax base following brownfield reimbursement.

The total anticipated investment for the project is approximately \$1 Million; retaining an existing 7 jobs, creating approximately 5 new jobs and 15 temporary construction jobs. Demolition is anticipated to begin in the summer of 2020. Due Care and construction activities are scheduled to continue over a 6-month period.

Site plans and renderings are included in Appendix C.

B. Basis of Eligibility (Section 13 (2)(h) and Section 2(o))

The Property is considered "Eligible Property" as defined by Act 381, Section 2 because: (a) it was previously utilized or is currently utilized for a commercial purpose; and, (c) the parcel comprising the Property has been determined to be a "property" as described in Part 213 of P.A. 451 of the Michigan NREPA, as amended.

There has been one confirmed gasoline release on the Property from a leaking UST (LUST), which was discovered on February 22, 1995 (C-0206-95). Between 2010 and 2013, Inland Seas

completed site characterization to determine LUST closure. In August 2013, it was determined that no evidence of a new release was identified, and a LUST Closure Report was filed.

Analytical results from subsurface investigations identified concentrations of various volatile organic compounds (“VOCs”) which remain in the soil and groundwater above Part 213 Residential and Nonresidential Soil Volatilization to Indoor Air Inhalation (“SVII”), Drinking Water Protection (“DWP”), Groundwater Surface Water Interface Protection (“GSIP”) Risk Based Screening Levels (“RBSLs”).

A BEA and Documentation of Due Care Compliance (DDCC) was completed on behalf of the current owner and applicant to obtain liability protection from the state of Michigan within 45 days of purchase of the Property. The scope of work consisted of the advancement of four soil borings (SB-10 through SB-13), the installation of four temporary in-boring soil gas sampling points (SG-10 through SG-13), and the collection of four soil gas samples for laboratory analysis.

In March, 2017 PM Environmental, Inc. (PM) completed a scope of work at the Property to assess the vapor intrusion pathway at the southeast portion of the parcel. This assessment took place prior to the redesign of the development, with the building at the northwest corner of the parcel. Concentrations of various VOCs were detected in the soil gas samples collected from the subject property above laboratory method detection limits (MDLs), but below the most restrictive Residential vapor intrusion screening levels (VISLs).

Due to the change in design, in August, 2017, PM completed a scope of work at the Property to characterize soils in the area of the proposed new subject building to determine if a vapor intrusion concern is present. PM’s scope of work consisted of the advancing nine soil borings (SB-14 through SB-22), installing three soil gas sample points (SG-17, SG-18, and SG-20), and collecting nine soil samples and three soil gas samples. The soil samples were submitted for laboratory analysis of VOCs, polynuclear aromatic hydrocarbons (PNAs), and lead. The soil gas samples were submitted for laboratory analysis of VOCs.

Concentrations of various VOCs were detected in the soil samples analyzed from soil borings SB-14, SB-21, and SB-22 above the DWP and GSIP RBSLs, and/or the vapor intrusion screening levels. Concentrations of VOCs were also detected in the soil gas sample analyzed from soil boring SB/SG-20 above the VISLs. Based on the analytical results, a vapor intrusion concern exists within the footprint of the proposed subject building.

For reference, Soil Boring/Soil Gas/Monitoring Well Location Maps with Analytical Results and 2010 Through 2017 Sample Location Map with Composite Contaminant Extents figures are included in Appendix D.

Based upon documented exceedances of the Part 213 Residential and Nonresidential DW/DWP and GSI/GSIP RBSLs and the Csat screening levels, and the Closed LUST status, the subject property would be classified as a “property”, as defined by Part 213 of P.A. 451 of the Michigan NREPA, as amended.

Additional documentation and description of the property’s “property” status is provided in Appendix E.

C. Summary of Eligible Activities and Description of Costs (Sec. 13 (2)(a-b))

Tax Increment Financing revenues will be used to reimburse the costs of “eligible activities” (as defined by Section 2 of Act 381) as permitted under the Brownfield Redevelopment Financing Act that include: Pre-Approved Activities, Department Specific Activities, Demolition, and Preparation and Implementation of a Brownfield Plan. A complete itemization of these activities and associated expenses is included in Table 1.

The following eligible activities and budgeted costs are intended as part of the development of the property and are to be financed solely by the developer. All activities are intended to be “Eligible Activities” under the Brownfield Redevelopment Financing Act. The Authority is not responsible for any cost of eligible activities and will incur no debt.

1. Pre-Approved Activities include a Phase I Environmental Site Assessment (ESA), Phase II ESA, BEA, DDCC, and Asbestos Containing Materials Survey as part of the pre-purchase due diligence and due care planning conducted on the Property at a total cost of \$19,460.
2. Department Specific Activities include the design and installation of a vapor barrier system and post installation activities including smoke testing and indoor air sampling to ensure the system’s effectiveness and compliance with Due Care.

EGLE required assessment activities will be conducted during the removal of existing product lines, which includes onsite labor, oversight, sampling, lab and reporting fees.

Contaminated soil transport and disposal to a Type II Landfill will be required for soil removal associated with building footings (462 tons), installation of utilities and cut/grading (578 tons), new product piping (198 tons), dispenser islands (41 cubic yards) and installation of a diesel UST (454 tons). A total of 1,733 tons of soil is estimated to be transported and disposed of at a Type II Landfill in association with these activities. A total of 50 tons of soil is estimated to require potential disposal as hazardous soil associated with elevated lead soil concentrations that were identified in samples collected beneath the existing building footprint, where the new dispenser islands will be located.

Development activities require the excavation of/handling of groundwater present within excavated areas of the property; therefore, the developer is required to properly to handle and dispose of contaminated media encountered/generated in association with the proposed redevelopment. This is necessary to ensure successful completion of project. Approximately 5,000 gallons of contaminated groundwater is anticipated to be disposed of during development activities.

Oversight/sampling/reporting by an environmental professional and completion of a post development DDCC is required to ensure compliance both during and after development takes place.

Department Specific Activities are estimated at a total of \$158,759.

3. Demolition Activities includes a pre-demolition survey, building demolition, foundation removal, fill/compaction/rough grading to balance site where building and site improvements were located, removal of parking lots, removal of curbs and gutters,

removal of sidewalks and fees related to demolition engineering and design at an estimated of \$63,000.

4. Preparation and implementation of the Brownfield Plan and associated activities (e.g. meetings with BRA, review by Township Attorney etc.) at a cost of approximately \$30,000.
5. A 15% contingency of \$33,264 is established to address unanticipated environmental and/or other conditions that may be discovered through the implementation of site activities. This excludes the cost of Baseline Environmental Assessment Activities and preparation of the Brownfield Plan.

All activities are intended to be “Eligible Activities” under the Brownfield Redevelopment Financing Act. The total estimated cost of Eligible Activities subject to reimbursement from tax increment revenues is \$271,219 with a potential \$33,264 contingency, resulting in a total cost of \$304,483. Therefore, the total cost for reimbursement to the applicant is a not-to-exceed amount of \$304,483 (including contingency), unless the Plan is amended and approved by the BRA and Township Board.

D. Estimate of Captured Taxable Value and Tax Increment Revenues (Sec. 13 (2)(c))

Incremental taxes on real property included in the redevelopment project will be captured under this Plan to reimburse eligible activity expenses. The base taxable value of the Property shall be determined by the use of the 2020 tax year tax values, which is \$183,135. Tax increment revenue capture will begin when tax increment is generated by redevelopment of the Property, which is expected to begin in 2021 or when full redevelopment is completed whichever occurs first. The estimated taxable value of the completed development is \$469,343. An annual increase in taxable value of 1% has been used for calculation of future tax increments in this Plan. Table 2 details the estimate of captured tax increment revenues for each year of the Plan from the eligible property.

The MTBRA has established a Local Brownfield Revolving Fund (LBRF). Capture for the LBRF is included in this plan on an annual basis of 5% of the total estimated tax increment revenue, currently estimated at \$17,502 over the length of the Plan. The funds deposited into the LBRF as part of this Plan will be used in accordance with the requirements of Act 381, as amended.

Prior to reimbursement of tax increment revenue to the Developer, payment of Brownfield Redevelopment Authority Administrative fees will occur first.

E. Method of Brownfield Plan Financing and Description of Advances by the Municipality (Sec. 13 (2)(d))

Eligible activities will be financed by CBG Holdings, LLC. The Developer will be reimbursed for eligible costs as described in Section C and outlined in Table 1. Costs for Eligible Activities funded by CBG Holdings, LLC will be repaid under the Michigan Brownfield Redevelopment Financing Program (Michigan Public Act 381, as amended) with incremental taxes generated by future development of the property. The estimated amount of tax increment revenue capture that will be used to reimburse the Developer and Brownfield Redevelopment Authority is \$339,487. This includes Developer reimbursement, Local Brownfield Revolving Funds and Brownfield Redevelopment Authority Administrative fees.

No advances will be made by the MTBRA for this project. All reimbursements authorized under this Plan shall be governed by the Reimbursement Agreement.

F. Maximum Amount of Note or Bonded Indebtedness (Sec. 13 (2)(e))

No note or bonded indebtedness will be incurred by any local unit of government for this project.

G. Duration of Brownfield Plan (Sec. 13 (2)(f))

In no event shall the duration of the Plan, exceed 35 years following the date of the resolution approving the Plan, nor shall the duration of the tax capture exceed the lesser of the period authorized under subsection (4) and (5) of Section 13 of Act 381 or 30 years. Further, in no event shall the beginning date of the capture of tax increment revenues be later than five years after the date of the resolution approving the Plan. The Property will become part of this Plan on the date this Plan is approved by the Township.

H. Estimated Impact of Tax Increment Financing on Revenues of Taxing Jurisdictions (Sec. 13 (2)(g))

Taxes will continue to be generated to taxing jurisdictions on local captured millages at the base taxable value of \$183,135 throughout the duration of this Plan totaling approximately \$233,577 or \$8,651 annually.

Non-capturable local millages and state millages will have an immediate increase in tax revenue following redevelopment of approximately \$99,712 and \$228,502 respectively, throughout the duration of this Plan.

A summary of the impact to taxing jurisdictions for the life of the Plan is summarized below, the amount captured is the sum of developer eligible activity and interest reimbursement, administrative fees and the state brownfield revolving fund.

Millage	Rate	Developer Reimbursement	Administrative Fees	Local Brownfield Revolving Fund
Haslett Bldg/Sit	1.9994	\$16,558	\$952	\$952
Meridian Oper.	4.1670	\$34,510	\$1,984	\$1,984
Rec/Srs/Hum Serv.	0.3316	\$1,231	\$71	\$71
Meridian Bikepath	0.3316	\$2,746	\$158	\$158
Meridian Fire	0.6353	\$5,261	\$302	\$302
Meridian Parks	0.6612	\$5,476	\$315	\$315
Meridian Police	0.6030	\$4,994	\$287	\$287
Land Preserve	0.3273	\$2,711	\$156	\$156
Police and Fire	1.4804	\$12,260	\$705	\$705
CATA/Regular	3.0070	\$24,903	\$1,431	\$1,431
Cadl-Library	1.5300	\$12,919	\$743	\$743
Ingham County	11.3400	\$93,914	\$5,398	\$5,398
Ingham Intermediate	5.9987	\$49,679	\$2,856	\$2,856
Airport Auth.	0.6990	\$5,789	\$333	\$333

Lansing Comm. College	3.8072	\$31,530	\$1,812	\$1,812
Subtotal	36.7658	\$304,483	\$17,502	\$17,502

See Table 2 for a complete breakdown of available tax increment revenue and Table 3 for the estimated annual reimbursement.

I. Legal Description, Property Map, Statement of Qualifying Characteristics and Personal Property (Sec. 13 (2)(h))

The legal description of the Property included in this Plan is attached in Appendix A.

Property location maps are included in Appendix B.

Documentation of characteristics that qualify the property as eligible property is provided in Appendix D and E.

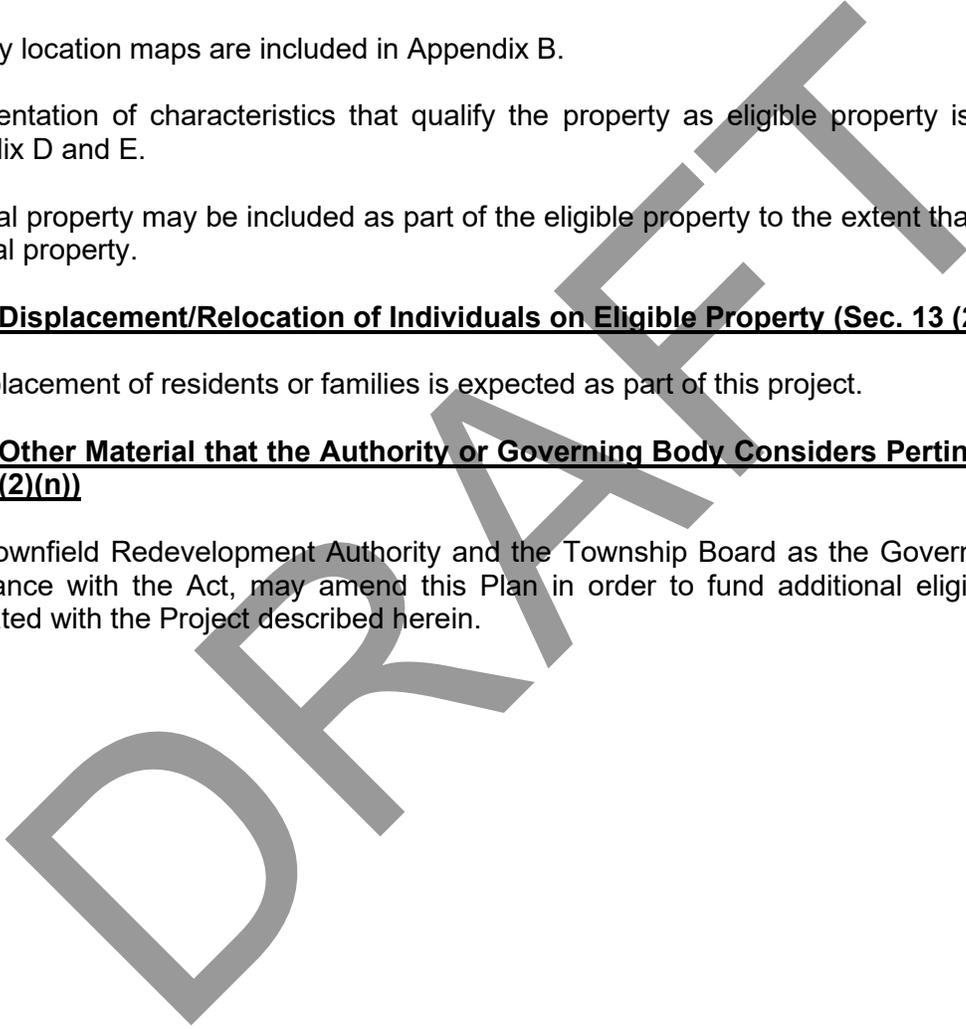
Personal property may be included as part of the eligible property to the extent that it is taxable personal property.

J. Displacement/Relocation of Individuals on Eligible Property (Sec. 13 (2)(i-l))

No displacement of residents or families is expected as part of this project.

K. Other Material that the Authority or Governing Body Considers Pertinent (Sec. 13 (2)(n))

The Brownfield Redevelopment Authority and the Township Board as the Governing Body, in accordance with the Act, may amend this Plan in order to fund additional eligible activities associated with the Project described herein.



Appendix A

DRAFT

1619 Haslett Road, Meridian Township, Ingham County

Parcel ID 33-02-02-10-430-009

Legal Description:

LOTS 1 THRU 4 OF ENNIS SUB EXC- BEG @ NW COR LOT 1 ENNIS SUB -E ALONG N LOT LN 25 FT -SW'LY TO A PT ON W LOT LN 50 FT S OF NW COR SD LOT -N ALONG W LOT LN 50 FT TO POB, ALSO THAT PART OF W 1/2 OF VACATED EDSON ST LYING S OF HASLETT RD & ADJACENT TO LOTS 3 & 4 ENNIS SUB SEC 10

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Appendix B

DRAFT

Image/Sketch for Parcel: 33-02-02-10-430-009



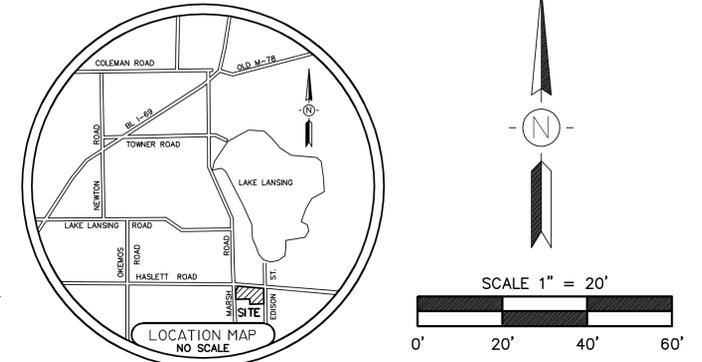
****Disclaimer:** BS&A Software provides AccessMyGov.com as a way for municipalities to display information online and is not responsible for the content or accuracy of the data herein. This data is provided for reference only and WITHOUT WARRANTY of any kind, expressed or inferred. Please contact your local municipality if you believe there are errors in the data.

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Appendix C

CONSTRUCTION PLANS FOR: 1619 Haslett Road MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN

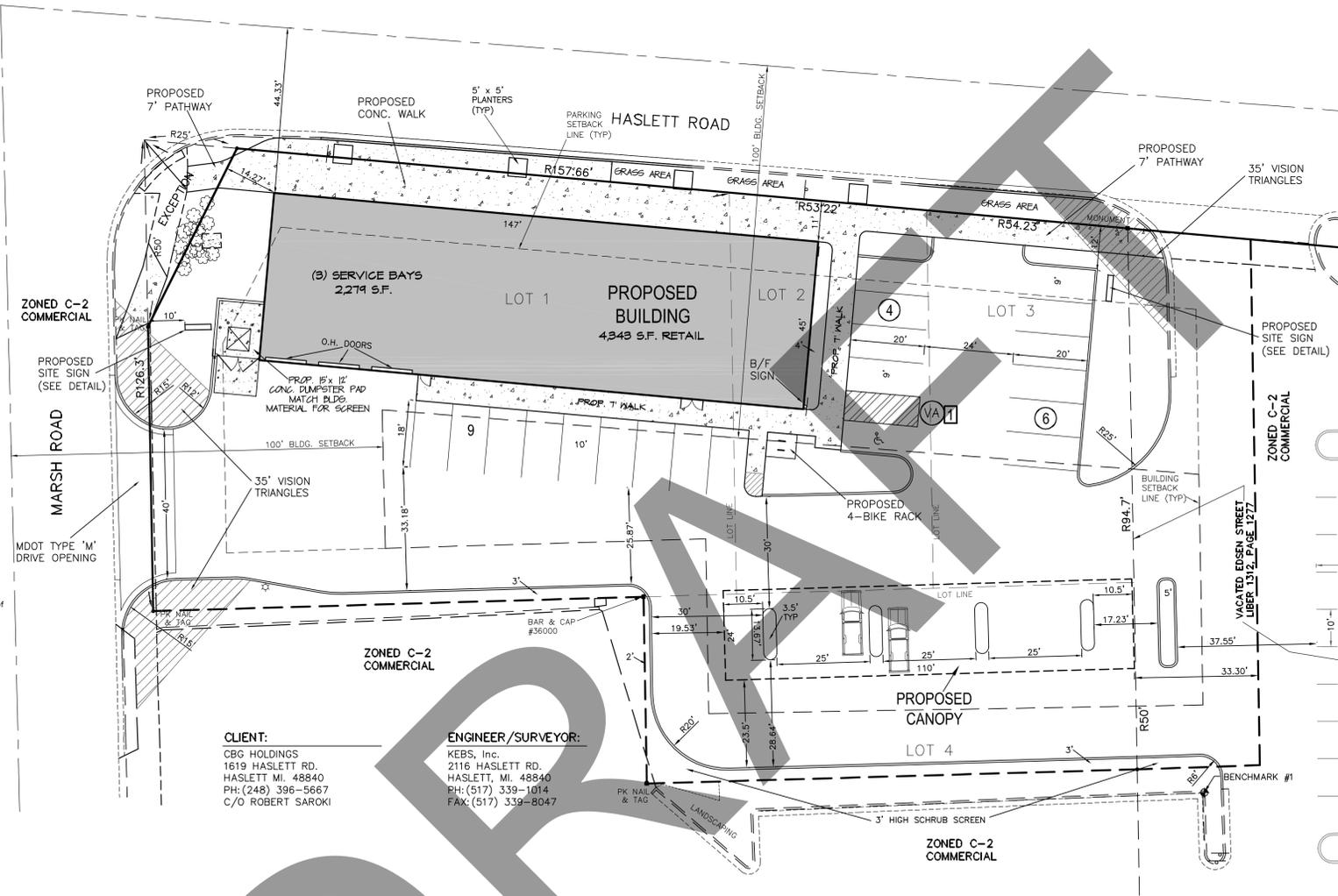


- STANDARD CONSTRUCTION NOTES**
- The Contractor shall notify the Charter Township of Meridian, Department of Public Works, Office of Engineering, ph# 517-853-4440, a minimum of 72 hours prior to the start of construction of public utilities or of construction within the public right-of-way.
 - All construction shall conform to the current standards and specifications of the Charter Township of Meridian which are included as part of these plans in effect at the time of construction.
 - After the completion of construction of public utilities or construction within public right-of-way, the contractor must request a final inspection. Any punchlist items resulting from the final inspection must be resolved prior to final release and acceptance.
 - The existing utilities indicated on the plans are in accordance with available information. It shall be the contractor's obligation to verify the exact location of all existing utilities, which might affect this job.
 - The contractor shall notify "MISS DIG" 1-800-482-7171 at least 72 hours prior to the start of construction.
 - The contractor shall be aware of incineration caused by the obnoxious property owners and the general public. Where the contractor does not remedy undue inconveniences, the Meridian Charter Township, upon four hours notice, reserves the right to perform the work and deduct the cost therefore from the money due the contractor.
 - A Registered Land Surveyor provided by the contractor at the contractor's expense shall replace all property irons and monuments disturbed or destroyed by the contractor's operations.
 - Contractor shall provide Owner and Township Engineer a copy of written permission to use private property for storage of equipment and materials or for his construction operations.
 - Trench backfill under existing or proposed roadways, driveways, and parking areas, shall be sand or gravel, placed in 12" layers (maximum) and consolidated to 85% of maximum density as measured by modified proctor unless otherwise noted.
 - Trees and shrubs are to be protected during construction and bared where necessary.
 - Existing fences shall be removed and restored to their original condition or better where in conflict with construction.
 - Driveways, culverts, ditches, drain tile, tile fields, drainage structures, etc., that are disturbed by the contractor's operations shall be immediately restored.
 - All established lawn areas disturbed by the contractor's operations shall be reseeded with matching sod. All other areas shall be seeded and mulched. Seeding and mulching shall be done in accordance with the General Specifications.
 - All ditch slopes shall have established vegetation and be protected from erosion.
 - All utility poles in close proximity to construction shall be supported in a manner satisfactory to the utility owner.
 - Prior to acceptance of the public utility, one complete set of acceptable sealed as-built mylers, minimum 3 miles thick, and one diskette (AutoCAD format) of the site plans shall be submitted to the Office of Engineering.
 - Onsite parking and sanitary facilities shall be provided for construction workers. The facilities shall be constructed (with minimal impact to the surrounding area) to the satisfaction of the Township.

- PATHWAY / SIDEWALK NOTES**
- Sidewalk - 5' (minimum) wide concrete 4" thick, 6" thick through single family residential driveways, 7" thick through multi-family residential and commercial driveways on 3" compacted sand backfill. To maintain continuity, all 4" wide concrete sidewalks shall be replaced with new 4" wide concrete sidewalk when appropriate.
 - Pathways - (adjacent to roadways) - 7' (minimum) (8' when next to a wall or other object) wide concrete, 4" thick, 6" thick through residential driveways on 3" compacted sand backfill.
 - Pathways - (off-road) - 8' (minimum) wide concrete, 6" thick concrete on 3" compacted sand backfill or 8" (minimum) wide asphalt 3" thick (Bituminous Mixture 1500T/L) on 6" of 21AA crushed limestone (minimum 9' wide).
 - Sidewalks and pathways shall generally be placed 1 (one) foot from the ultimate right-of-way as identified on the "Street and Highway Plan". Contact the Department of Planning and Community Development for a current copy of the plan.
 - A boardwalk may be required to be installed instead of a standard concrete sidewalk/pathway if regulations do not allow their installation.
 - Pathways and sidewalks shall be constructed so as to promote proper positive surface drainage. Where ever possible the sidewalk/pathway shall be constructed 0.5" higher than the curb.
 - Retaining walls shall only be installed where all other efforts (slope grading, assessments, tree relocation, etc.) to mitigate the need for such wall have been evaluated for cost effectiveness and dismissed.
 - Guardrails and handrails shall be installed where the slopes adjacent to the pathway/sidewalk will be considered when implementing this requirement.
 - Pathways or sidewalks that do not connect to an existing pathway/sidewalk shall provide a gradual transition to existing ground. A path end sign shall be posted at all pathway/sidewalk termini.
 - Maximum slope of sidewalk is 5%. Cross slope is 2%.
 - All existing bituminous and concrete to be removed shall be sawcut.
 - Expansion joint to be placed at 100' intervals.
 - All lumber to be pressure treated (Damoose 33 or equal) to 0.4 retention.

- SANITARY SEWER NOTES**
- All sewers to be placed in Class "B" bedding or better.
 - Wyes, risers, and house leads are to be placed at location shown on the plans or as directed by the Engineer. All wyes are incidental.
 - Each wye or house lead shall have a plug of the same type of joint as the house lead.
 - House leads shall be a minimum of 9 ft. deep at the property line. Individual site topography may require a deviation of this minimum.
 - Downspouts or other conduits carrying storm or ground water shall not be connected to the sanitary sewer.
 - Whenever existing manholes or sewer pipe are to be tapped, holes are to be drilled at 4-inch center to center spacing around the periphery of the proposed opening to create a plane of weakness joint (or core saw the diameter) - a 12 inch thick collar is to encase the new pipe and opening.
 - All sanitary sewer manholes shall be provided with watertight covers.
 - All manhole covers shall bear the legend "Meridian Sanitary Sewer" with tree logo.
 - All public sanitary sewer main lines shall be SDR 26, or ABS Truss Pipe. Clay pipe may be installed in locations approved by the Township Engineer.
 - The PVC (SDR-26) pipe material shall conform to ASTM D2241, with bell and spigot joints in accordance with ASTM F 477.
 - Pipe installation shall be in accordance with ASTM D 2321. All pipe shall be marked to provide ASTM designation, SDR number, manufacturer's name, and pipe diameter.
 - The contractor shall test the flexible pipe main for deflection by pulling a mandrel through the sewer after all backfill has been placed and compacted over the pipe. The maximum allowable deflection shall not exceed 5% of the pipe's inside diameter. The outside diameter of the test mandrel shall be equal to the inside diameter of the pipe less 5%. The initial test shall be performed at least 30 days after pipe installation. A second test shall be performed after 10 months of pipe installation or just before line intended use.
 - Inspection and testing of the sanitary system shall also include video inspection by CCTV method of sanitary main, air testing of sanitary main, and vacuum testing of sanitary manholes. All inspections and testing shall be performed in the presence of Township inspectors.

- WATER MAIN NOTES**
- Hydrant elevations and gate well top elevations shall be set to existing ground elevations unless otherwise directed by the Township Engineer.
 - All water mains shall be constructed with 5 feet of cover below finish grade, unless otherwise indicated on the plans.
 - Connection to the existing water main shall not be made until after the successful completion of pressure and bacteriological tests. Pressure testing shall be performed in accordance with AWWA standard C-600. Disinfection and bacteriological testing shall be in accordance with the AWWA Standard C-651. Before the mains are chlorinated, they shall be thoroughly flushed. All mains shall be chlorinated for a period of twenty-four (24) hours. Chlorine shall be added in sufficient quantity to give a 50-ppm residual of free chlorine after a twenty-four (24) hour period. After completion of the chlorine procedure, the main shall be flushed. Then water samples shall be taken from the main for bacteriological tests. If the tests should result in unsafe conditions, the chlorinating shall be repeated by the contractor. Two consecutive passing samples at least 24 hours apart must be obtained before the main can be connected to the existing water system.
 - All valves shall be counter-clock wise open.
 - All fire hydrants shall be EJW 5-IR (code 54915) Traffic Type with breakaway flange or approved equal.
 - There shall be a 1 inch corporation stops installed on both sides of in-line gate valves that are 12" diameter and larger.
 - Two brass wedges shall be installed at each joint on ductile iron pipe.
 - Polyethylene encasement of pipes will be required in areas with corrosive soils including swamp, marshes, alkaline soils, cedar beds, landfill areas or any other potentially corrosive location. The encasement thickness shall be 8 mil minimum and installed in accordance with ANSI/AWWA C105/A21.5.
 - For existing lines: service taps, shut off valves, and service line extensions to the property shall be made by Township Department of Public Works personnel for connections 2" and smaller.
 - Where water mains must dip to pass under a storm sewer or sanitary sewer, the sections which are deeper than normal shall be kept to a minimum length by the use of 45, 22 1/2 or 11 1/4 degree bends properly restrained.
 - Hydrants shall be painted OSHA red.
 - All manhole covers shall bear the legend "Meridian Water" with tree logo, where available.
 - All pipes, piping fittings, plumbing fittings, and fixtures that are used for potable water must comply with the new lead-free requirement and must bear the mark NSF/ANSI Standard 61, Annex G or NSF 617c.



CLIENT:
CBG HOLDINGS
1619 HASLETT RD.
HASLETT MI, 48840
PH: (248) 396-5667
C/O ROBERT SAROKI

ENGINEER/SURVEYOR:
KEBS, Inc.
2116 HASLETT RD.
HASLETT, MI, 48840
PH: (517) 339-1014
FAX: (517) 339-8047

EXISTING SITE ZONING C-2 COMMERCIAL

TOTAL PROPERTY AREA 0.92 ACRES

PARKING DATA:
RETAIL LESS THAN 25,000 S.F.
5/1000 GFA MIN
5.5/1000 GFA MAX.
4343/1000 X 5 = 21.71 OR 22 MIN.
4343/1000 X 5.5 = 23.89 OR 24 MAX.

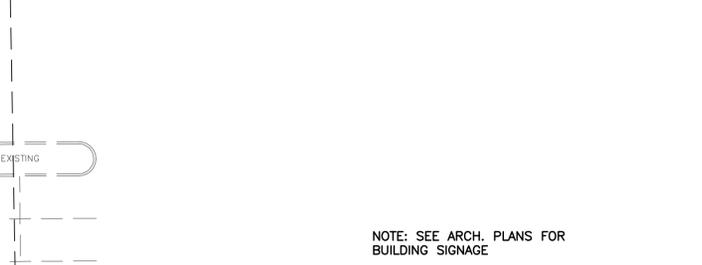
AUTOMOBILE SERVICE
1/BAY PLUS 1/EMPLOYEE
3 BAYS = 3 SPACES
4 EMPLOYEES = 4 SPACES

TOTAL PARKING REQUIRED = 29-31 SPACES
TOTAL PARKING PROPOSED = 20 SPACES

BIKE PARKING REQ'D. 1/10 VEHICLE SPACES
REQUIRED 29/10 = 2.9 = 3 BIKE SPACES = 2 LOOPS

- EX. LEGEND**
- | | | | | | |
|-----------|-----------------------------|---|------------------------------|---|--------------------------|
| — — — — — | EXT. CONTOURS | ● | = SET 1/2" BAR WITH CAP | ⊙ | = SANITARY MANHOLE |
| — SAN — | EXT. WATER MAIN | ● | = FOUND IRON AS NOTED | ⊙ | = DRAINAGE MANHOLE |
| — ST — | EXT. SANITARY SEWER | — | = DISTANCE NOT TO SCALE | ⊙ | = ELECTRIC MANHOLE |
| — ST — | EXT. STORM SEWER | — | = FENCE | ⊙ | = TELEPHONE MANHOLE |
| — | EXT. ELEVATIONS | — | = ASPHALT | ⊙ | = CATCHBASIN |
| — | PROPOSED WATER MAIN | — | = CONCRETE | ⊙ | = SANITARY CLEANOUT |
| — | PROPOSED SANITARY SEWER | — | = GRAVEL | ⊙ | = FIRE HYDRANT |
| — | PROPOSED STORM SEWER | — | = EXISTING SPOT ELEVATION | ⊙ | = VALVE |
| — | PROPOSED MANHOLE (NEW) | — | = EXISTING CONTOUR ELEVATION | ⊙ | = UTILITY POLE |
| — | PROPOSED C.B. MANHOLE (EX.) | — | = UNDERGROUND TELEPHONE | ⊙ | = LIGHT POLE |
| — | UTILITY EASEMENT | — | = UNDERGROUND TELEVISION | ⊙ | = TRAFFIC LIGHT |
| — | CENTER LINE OF ROAD | — | = UNDERGROUND ELECTRIC | ⊙ | = QUI WIRE |
| — | ROAD RIGHT OF WAY | — | = OVERHEAD WIRES | ⊙ | = UTILITY PEDESTAL |
| — | PROPERTY LINE | — | = DECIDUOUS TREE | ⊙ | = TRANSFORMER |
| — | FIRE HYDRANT | — | = CONIFEROUS TREE | ⊙ | = ELECTRIC METER |
| — | WATER VALVE | — | = BUSH/SHRUB | ⊙ | = GAS METER |
| — | THRUST BLOCK | — | | ⊙ | = WATER METER |
| — | PROPOSED TOP OF CURB ELEV. | — | | ⊙ | = MONITOR WELL |
| | | — | | ⊙ | = SIGN |
| | | — | | ⊙ | = POST |
| | | — | | ⊙ | = FILL PORT (TO REMAIN) |
| | | — | | ⊙ | = FUEL VAULT (TO REMAIN) |
- EX. TREE LEGEND:**
A = APPLE
CA = CRAB APPLE
L = LOCUST
- NOTE: WATER SHALL HAVE 10" HORIZONTAL SEPARATION & 18" VERTICAL SEPARATION FROM ALL SEWERS.**

LEGAL DESCRIPTION:
AS PROVIDED IN TAX DESCRIPTION FOR PARCEL 33-02-02-10-430-009 PER MERIDIAN TOWNSHIP ASSESSING RECORDS:
LOTS 1 THRU 4 OF ENNIS SUB EXC- BEG @ NW COR LOT 1 ENNIS SUB -E ALONG N LOT LN 25 FT -SW'LY TO A PT ON W LOT LN 50 FT S OF NW COR SD LOT -N ALONG W LOT LN 50 FT TO POB, ALSO THAT PART OF W 1/2 OF VACATED EDSON ST LYING S OF HASLETT RD & ADJACENT TO LOTS 3 & 4 ENNIS SUB



NOTE: SEE ARCH. PLANS FOR BUILDING SIGNAGE

TOTAL SIGN AREA 36 S.F./SIDE
TOTAL SIGN AREA ALLOWED 25 S.F./SIDE + 12 S.F./SIDE FOR DIGITAL DISPLAY AREA = 37 S.F.

TOTAL IMPERVIOUS AREA
35,093 S.F./39,888 S.F. x 100 = 87.98%
TOTAL PERVIOUS AREA
4,795 S.F./39,888 S.F. x 100 = 12.02%

- STORM SEWER**
- All storm sewer construction shall comply with the requirements of the Ingham County Drain Commissioner and the Ingham County Road Commission and shall be subject to their inspection and approval.
 - All storm sewer 8" and smaller shall be PVC SDR 35, or vitrified clay C-700 ES.
 - All storm sewer pipe 10" and larger shall be 78 Class III reinforced concrete pipe.
 - All storm sewer joints shall be wrapped with Maraf Geotextile 140N or equal. No joint mastic shall be used. Fabric shall be 18" wide, overlapped by not less than 6" and held in place by duct taping the overlap and/or equal holding material, until backfilled. O-ring rubbers on PVC pipe shall be removed and wrapped as indicated above.
 - All pipe to be laid with the aid of laser equipment.
 - All storm sewer manholes and catch basins shall be in accordance with the Ingham County Drain Commissioner and the Ingham County Road Commission Standards with Neenah R-1784 or E.J.L.W. 1080-B covers for manholes. E.J.L.W. 7045 or Neenah R-3031-B for Standard curb inlets, E.J.L.W. 7065 or Neenah R-3034-B for rolled curb inlets, E.J.L.W. 6508 or Neenah R-4340-A for Beehive Grate or castings as indicated on the plans.
 - All catch basins and yard drains shall have a three foot deep sump.
 - All storm leads shall be 4" Polyvinylchloride (PVC) tubing, installed at a minimum slope of 1%.
 - All 7 foot dia storm manhole, as approved by Ingham County Drain Commission, may be constructed with concrete radial block provided that precast bases and precast reducer loss are used. Construction with MDOT standard plan I-1E, sheets 1 to 4 and all applicable MDOT specifications. All 4 foot and 5 foot diameter storm manholes shall be precast in accordance with ASTM C-478 and applicable MDOT standards and specifications.

- BENCHMARKS:**
BENCHMARK #1 ELEVATION: 857.37
PK NAIL IN THE TOP OF THE CURB AT CORNER OF PARKING 18' EAST & 6' SOUTH OF THE SOUTHWEST CORNER OF THE SITE.
BENCHMARK #2 ELEVATION: 857.10
PK NAIL IN THE SOUTHWEST SIDE OF A LIGHT POLE, AT THE NORTHWEST CORNER OF EDSON STREET & HASLETT ROAD (78' NORTH OF THE NORTHEAST CORNER OF THE SITE).
- LEGEND**
- | | | | | | |
|-----------|-----------------------------|---|------------------------------|---|--------------------------|
| — — — — — | EXT. CONTOURS | ● | = SET 1/2" BAR WITH CAP | ⊙ | = SANITARY MANHOLE |
| — SAN — | EXT. WATER MAIN | ● | = FOUND IRON AS NOTED | ⊙ | = DRAINAGE MANHOLE |
| — ST — | EXT. SANITARY SEWER | — | = DISTANCE NOT TO SCALE | ⊙ | = ELECTRIC MANHOLE |
| — ST — | EXT. STORM SEWER | — | = FENCE | ⊙ | = TELEPHONE MANHOLE |
| — | EXT. ELEVATIONS | — | = ASPHALT | ⊙ | = CATCHBASIN |
| — | PROPOSED WATER MAIN | — | = CONCRETE | ⊙ | = SANITARY CLEANOUT |
| — | PROPOSED SANITARY SEWER | — | = GRAVEL | ⊙ | = FIRE HYDRANT |
| — | PROPOSED STORM SEWER | — | = EXISTING SPOT ELEVATION | ⊙ | = VALVE |
| — | PROPOSED MANHOLE (NEW) | — | = EXISTING CONTOUR ELEVATION | ⊙ | = UTILITY POLE |
| — | PROPOSED C.B. MANHOLE (EX.) | — | = UNDERGROUND TELEPHONE | ⊙ | = LIGHT POLE |
| — | UTILITY EASEMENT | — | = UNDERGROUND TELEVISION | ⊙ | = TRAFFIC LIGHT |
| — | CENTER LINE OF ROAD | — | = UNDERGROUND ELECTRIC | ⊙ | = QUI WIRE |
| — | ROAD RIGHT OF WAY | — | = OVERHEAD WIRES | ⊙ | = UTILITY PEDESTAL |
| — | PROPERTY LINE | — | = DECIDUOUS TREE | ⊙ | = TRANSFORMER |
| — | FIRE HYDRANT | — | = CONIFEROUS TREE | ⊙ | = ELECTRIC METER |
| — | WATER VALVE | — | = BUSH/SHRUB | ⊙ | = GAS METER |
| — | THRUST BLOCK | — | | ⊙ | = WATER METER |
| — | PROPOSED TOP OF CURB ELEV. | — | | ⊙ | = MONITOR WELL |
| | | — | | ⊙ | = SIGN |
| | | — | | ⊙ | = POST |
| | | — | | ⊙ | = FILL PORT (TO REMAIN) |
| | | — | | ⊙ | = FUEL VAULT (TO REMAIN) |
- EX. TREE LEGEND:**
A = APPLE
CA = CRAB APPLE
L = LOCUST

REVISIONS		E-89652 SURVEY#89652.LOT.TOP	
8-1-17	SUBMITTAL	KEBS, INC. KYES ENGINEERING BRYAN LAND SURVEYS 2116 HASLETT ROAD, HASLETT, MI 48840 PH. 517-339-1014 FAX. 517-339-8047 Marshall Office Ph. 269-781-9800 1619 Haslett Road DIMENSION PLAN	
8-28-17	STREET		
10-16-17	ICDC		
1-22-18			
3-14-19	CLIENT CHANGES		
SCALE: 1" = 20'	DATE: 9-23-15	DESIGNER: JWK	APPROVED BY: JWK
		PROJECT MGR: JWK	SHEET 1 OF 9
		AUTHORIZED BY: CBG HOLDINGS	JOB #: 89652

- SHEET INDEX**
- DIMENSION PLAN
 - UTILITY PLAN
 - STORM, GRADING PLAN
 - SESC PLAN
 - LANDSCAPE PLAN
 - PERVIOUS/IMPERVIOUS PLAN
 - EXISTING PLAN
 - DEMOLITION PLAN
 - SESC/DETAIL SHEET

ATTACHMENTS:
MERIDIAN TWP. SANITARY DETAILS
MERIDIAN TWP. WATER DETAILS
MERIDIAN TWP. PATHWAY DETAILS

- 0 DENOTES PROPOSED NUMBER OF 10' x 18' PARKING SPACES
1 DENOTES NUMBER OF B/F SPACES
VA DENOTES VAN ACCESS B/F SPACES
0 DENOTES PROPOSED NUMBER OF 9' x 20' PARKING SPACES









Sign Area

Sign Area

Sign Area Sign Area Sign Area



Sign Area

Sign Area

Sign Area

Sign Area

Sign Area



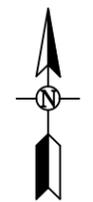
Appendix D

DRAFT

1630 HASLETT ROAD
HASLETT COMMERCE
CENTER

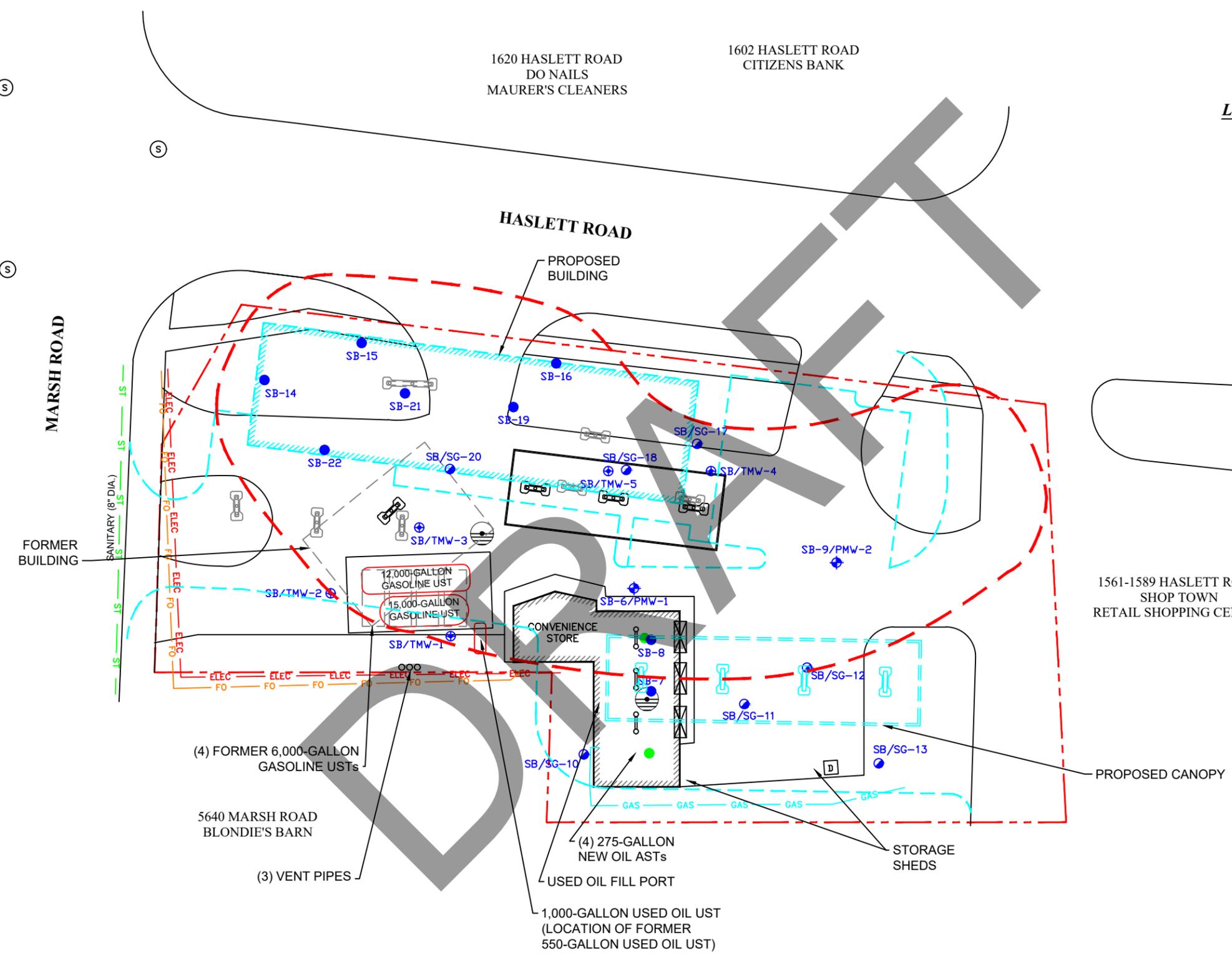
1620 HASLETT ROAD
DO NAILS
MAURER'S CLEANERS

1602 HASLETT ROAD
CITIZENS BANK



LEGEND:

- SUBJECT PROPERTY
- FORMER/HISTORICAL SITE FEATURES
- ELEC
- GAS
- ST
- FO
- PROPOSED SITE FEATURES
- FLOOR DRAIN
- BAYDOOR
- DUMPSTER
- CATCH BASIN
- ABOVE GROUND HOIST
- PUMP ISLAND
- FORMER PUMP ISLAND
- PROPOSED PUMP ISLAND
- UST
- AST
- SOIL BORING / TEMPORARY MONITORING WELL
- SOIL BORING / MONITORING WELL
- SOIL BORING / SOIL GAS
- APPROXIMATE EXTENT OF SOIL, GROUNDWATER, AND SOIL GAS CONCENTRATIONS EXCEEDING THE PART 213 RISK-BASED SCREENING LEVELS AND SCREENING LEVELS PROTECTIVE OF VAPOR INTRUSION (COMPOSITE)



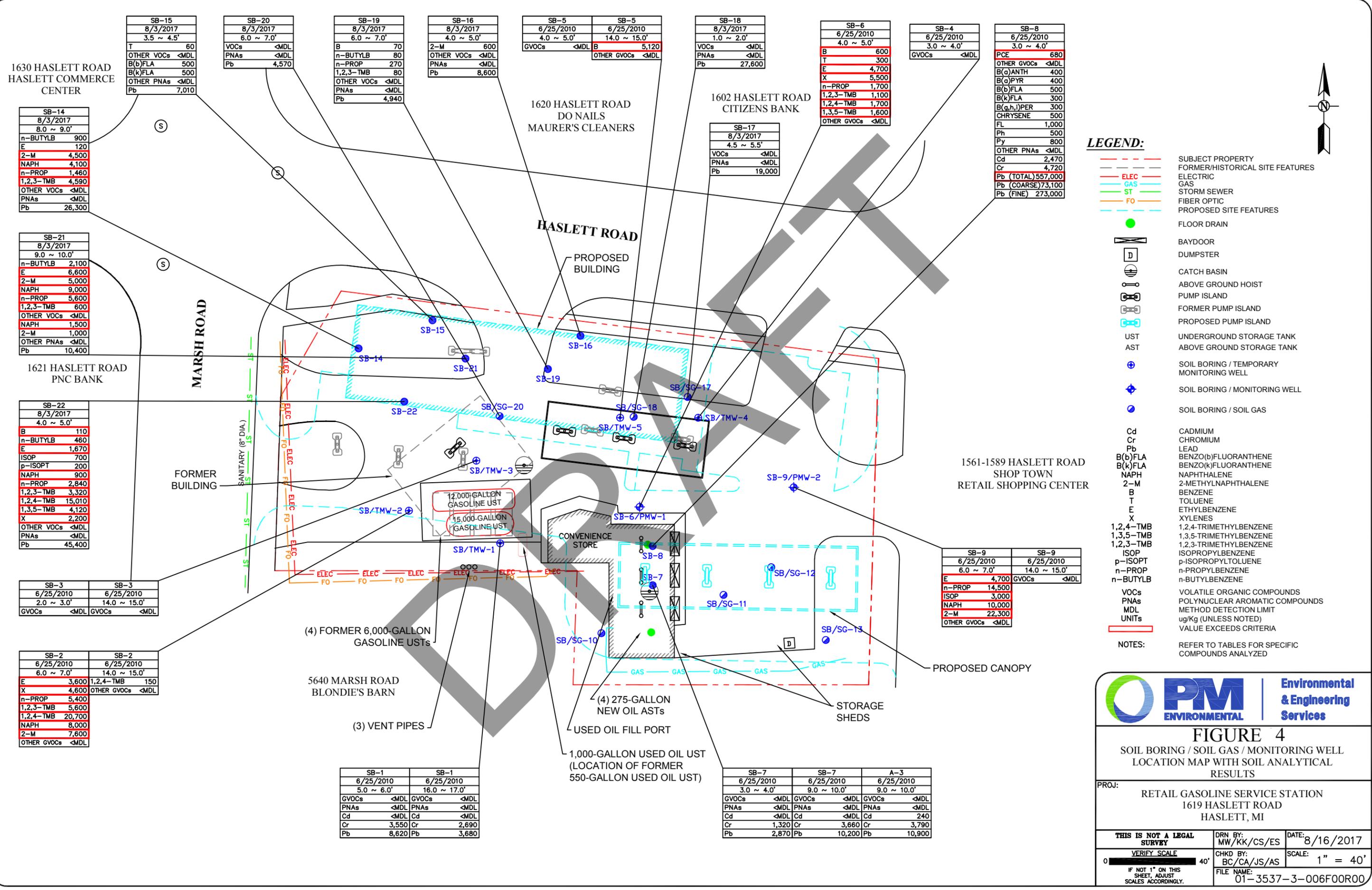
1561-1589 HASLETT ROAD
SHOP TOWN
RETAIL SHOPPING CENTER



FIGURE 3
2010 THROUGH 2017 SAMPLE LOCATION MAP
WITH COMPOSITE CONTAMINANT EXTENTS

PROJ: RETAIL GASOLINE SERVICE STATION
1619 HASLETT ROAD
HASLETT, MI

THIS IS NOT A LEGAL SURVEY	DRN BY: MW/KK/CS/ES/CS	DATE: 5/19/2020
VERIFY SCALE	CHKD BY: BC/CA/JS/AS/AP	SCALE: 1" = 40'
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	FILE NAME: 01-3537-3-006F00R00	



LEGEND:

- SUBJECT PROPERTY
- FORMER/HISTORICAL SITE FEATURES
- ELEC ELECTRIC
- GAS GAS
- ST STORM SEWER
- FO FIBER OPTIC
- PROPOSED SITE FEATURES
- FLOOR DRAIN
- BAYDOOR
- DUMPSTER
- CATCH BASIN
- ABOVE GROUND HOIST
- PUMP ISLAND
- FORMER PUMP ISLAND
- PROPOSED PUMP ISLAND
- UST UNDERGROUND STORAGE TANK
- AST ABOVE GROUND STORAGE TANK
- SOIL BORING / TEMPORARY MONITORING WELL
- SOIL BORING / MONITORING WELL
- SOIL BORING / SOIL GAS
- Cd CADMIUM
- Cr CHROMIUM
- Pb LEAD
- B(b)FLA BENZO(b)FLUORANTHENE
- B(k)FLA BENZO(k)FLUORANTHENE
- NAPH NAPHTHALENE
- 2-M 2-METHYLNAPHTHALENE
- B BENZENE
- T TOLUENE
- E ETHYLBENZENE
- X XYLENES
- 1,2,4-TMB 1,2,4-TRIMETHYLBENZENE
- 1,3,5-TMB 1,3,5-TRIMETHYLBENZENE
- 1,2,3-TMB 1,2,3-TRIMETHYLBENZENE
- ISOP ISOPROPYLBENZENE
- p-ISOPT p-ISOPROPYLTOLUENE
- n-PROP n-PROPYLBENZENE
- n-BUTYLB n-BUTYLBENZENE
- VOCs VOLATILE ORGANIC COMPOUNDS
- PNAAs POLYNUCLEAR AROMATIC COMPOUNDS
- MDL METHOD DETECTION LIMIT
- UNITS ug/Kg (UNLESS NOTED)
- VALUE EXCEEDS CRITERIA

NOTES: REFER TO TABLES FOR SPECIFIC COMPOUNDS ANALYZED



FIGURE 4
SOIL BORING / SOIL GAS / MONITORING WELL
LOCATION MAP WITH SOIL ANALYTICAL
RESULTS

PROJ: RETAIL GASOLINE SERVICE STATION
1619 HASLETT ROAD
HASLETT, MI

THIS IS NOT A LEGAL SURVEY	DRN BY: MW/KK/CS/ES	DATE: 8/16/2017
VERIFY SCALE	CHKD BY: BC/CA/JS/AS	SCALE: 1" = 40'
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.		
FILE NAME: 01-3537-3-006F00R00		

SB-15 8/3/2017 3.5 ~ 4.5' T 60 OTHER VOCs <MDL B(b)FLA 500 B(k)FLA 500 OTHER PNAAs <MDL Pb 7,010	SB-20 8/3/2017 6.0 ~ 7.0' VOCs <MDL PNAAs <MDL Pb 4,570	SB-19 8/3/2017 6.0 ~ 7.0' B 70 n-BUTYLB 80 n-PROP 270 1,2,3-TMB 80 OTHER VOCs <MDL PNAAs <MDL Pb 4,940	SB-16 8/3/2017 4.0 ~ 5.0' 2-M 600 OTHER VOCs <MDL PNAAs <MDL Pb 8,600	SB-5 6/25/2010 4.0 ~ 5.0' GVOCs <MDL	SB-5 6/25/2010 14.0 ~ 15.0' B 5,120 OTHER GVOCs <MDL	SB-18 8/3/2017 1.0 ~ 2.0' VOCs <MDL PNAAs <MDL Pb 27,600	SB-6 6/25/2010 4.0 ~ 5.0' B 600 T 300 E 4,700 X 5,500 n-PROP 1,700 1,2,3-TMB 1,100 1,2,4-TMB 1,700 1,3,5-TMB 1,600 OTHER GVOCs <MDL	SB-4 6/25/2010 3.0 ~ 4.0' GVOCs <MDL	SB-8 6/25/2010 3.0 ~ 4.0' PCE 680 OTHER GVOCs <MDL B(a)ANTH 400 B(a)PYR 400 B(b)FLA 500 B(k)FLA 300 B(g,h,i)PER 300 CHRYSENE 500 FL 1,000 Ph 500 Py 800 OTHER PNAAs <MDL Cd 2,470 Cr 4,270 Pb (TOTAL) 557,000 Pb (COARSE) 73,100 Pb (FINE) 273,000		
SB-14 8/3/2017 8.0 ~ 9.0' n-BUTYLB 900 E 120 2-M 4,500 NAPH 4,100 n-PROP 1,460 1,2,3-TMB 4,590 OTHER VOCs <MDL PNAAs <MDL Pb 26,300	SB-21 8/3/2017 9.0 ~ 10.0' n-BUTYLB 2,100 E 6,600 2-M 5,000 NAPH 9,000 n-PROP 5,600 1,2,3-TMB 600 OTHER VOCs <MDL NAPH 1,500 2-M 1,000 OTHER PNAAs <MDL Pb 10,400	SB-22 8/3/2017 4.0 ~ 5.0' B 110 n-BUTYLB 460 E 1,670 ISOP 700 p-ISOPT 200 NAPH 900 n-PROP 2,840 1,2,3-TMB 3,320 1,2,4-TMB 15,010 1,3,5-TMB 4,120 X 2,200 OTHER VOCs <MDL PNAAs <MDL Pb 45,400	SB-3 6/25/2010 2.0 ~ 3.0' GVOCs <MDL	SB-3 6/25/2010 14.0 ~ 15.0' GVOCs <MDL	SB-2 6/25/2010 6.0 ~ 7.0' E 3,600 X 4,600 n-PROP 5,400 1,2,3-TMB 5,600 1,2,4-TMB 20,700 NAPH 8,000 2-M 7,600 OTHER GVOCs <MDL	SB-2 6/25/2010 14.0 ~ 15.0' 1,2,4-TMB 150 OTHER GVOCs <MDL	SB-1 6/25/2010 5.0 ~ 6.0' GVOCs <MDL PNAAs <MDL Cd <MDL Cr 3,550 Pb 8,620	SB-1 6/25/2010 16.0 ~ 17.0' GVOCs <MDL PNAAs <MDL Cd <MDL Cr 2,690 Pb 3,680	SB-7 6/25/2010 3.0 ~ 4.0' GVOCs <MDL PNAAs <MDL Cd <MDL Cr 1,320 Pb 2,870	SB-7 6/25/2010 9.0 ~ 10.0' GVOCs <MDL PNAAs <MDL Cd <MDL Cr 3,660 Pb 10,200	A-3 6/25/2010 9.0 ~ 10.0' GVOCs <MDL PNAAs <MDL Cd 240 Cr 3,790 Pb 10,900

1630 HASLETT ROAD
HASLETT COMMERCE
CENTER

1620 HASLETT ROAD
DO NAILS
MAURER'S CLEANERS

1602 HASLETT ROAD
CITIZENS BANK

1621 HASLETT ROAD
PNC BANK

1561-1589 HASLETT ROAD
SHOP TOWN
RETAIL SHOPPING CENTER

FORMER
BUILDING

(4) FORMER 6,000-GALLON
GASOLINE USTs

5640 MARSH ROAD
BLONDIE'S BARN

(3) VENT PIPES

(4) 275-GALLON
NEW OIL ASTs

1,000-GALLON USED OIL UST
(LOCATION OF FORMER
550-GALLON USED OIL UST)

USED OIL FILL PORT

PROPOSED CANOPY

STORAGE
SHEDS

CONVENIENCE
STORE

12,000-GALLON
GASOLINE UST
15,000-GALLON
GASOLINE UST

HASLETT ROAD

MARSH ROAD

SANITARY (8" DIA.)

TMW-5	
6/25/2010	
UNITS	ug/L
B	120
E	1,600
X	640
n-PROP	290
1,2,3-TMB	340
1,2,4-TMB	430
NAPH	1,000
2-M	200
OTHER GVOCS	<MDL

TMW-3	
6/25/2010	
UNITS	ug/L
B	60
E	1,670
X	730
n-PROP	480
1,2,3-TMB	450
1,2,4-TMB	460
1,3,5-TMB	270
NAPH	2,100
2-M	400
OTHER GVOCS	<MDL

TMW-4	
6/25/2010	
UNITS	ug/L
B	111
T	5
E	10
X	12
n-PROP	231
ISOP	80
OTHER GVOCS	<MDL

PMW-1	
6/25/2010	
UNITS	ug/L
B	41
E	54
X	46
n-PROP	232
ISOP	60
1,2,3-TMB	14
NAPH	170
2-M	120
OTHER GVOCS	<MDL

PMW-2	
6/25/2010	
UNITS	ug/L
B	62
E	110
X	22
n-PROP	263
ISOP	70
NAPH	70
2-M	80
OTHER GVOCS	<MDL

TMW-2		A-4	
6/25/2010		6/25/2010	
UNITS	ug/L	UNITS	ug/L
E	400	E	640
X	400	X	700
n-PROP	200	n-PROP	410
1,2,3-TMB	400	1,2,3-TMB	730
1,2,4-TMB	1,300	1,2,4-TMB	2,800
1,3,5-TMB	200	NAPH	1,100
NAPH	500	2-M	400
2-M	200	OTHER GVOCS	<MDL
OTHER GVOCS	<MDL	OTHER PNAAs	<MDL
Cd	<MDL	Cd	<MDL
Cr	240	Cr	11
Pb	11	Pb	4

TMW-1	
6/25/2010	
UNITS	ug/L
MTBE	8
OTHER GVOCS	<MDL
PNAAs	<MDL
Cr	15

LEGEND:

- SUBJECT PROPERTY
- FORMER/HISTORICAL SITE FEATURES
- ELEC ELECTRIC
- GAS GAS
- ST STORM SEWER
- FO FIBER OPTIC
- PROPOSED SITE FEATURES
- FLOOR DRAIN
- D DUMPSTER
- C CATCH BASIN
- A ABOVE GROUND HOIST
- P PUMP ISLAND
- F FORMER PUMP ISLAND
- P PROPOSED PUMP ISLAND
- U UST UNDERGROUND STORAGE TANK
- A AST ABOVE GROUND STORAGE TANK
- ⊕ SOIL BORING / TEMPORARY MONITORING WELL
- ⊕ SOIL BORING / MONITORING WELL
- ⊙ SOIL BORING / SOIL GAS
- Cd CADMIUM
- Cr CHROMIUM
- Pb LEAD
- NAPH NAPHTHALENE
- B BENZENE
- T TOLUENE
- E ETHYLBENZENE
- X XYLENES
- 1,2,4-TMB 1,2,4-TRIMETHYLBENZENE
- 1,3,5-TMB 1,3,5-TRIMETHYLBENZENE
- 1,2,3-TMB 1,2,3-TRIMETHYLBENZENE
- ISOP ISOPROPYLBENZENE
- n-PROP n-PROPYLBENZENE
- VOCs VOLATILE ORGANIC COMPOUNDS
- PNAAs POLYNUCLEAR AROMATIC COMPOUNDS
- MDL METHOD DETECTION LIMIT
- UNITS ug/Kg (UNLESS NOTED)
- VALUE EXCEEDS CRITERIA
- NOTES: REFER TO TABLES FOR SPECIFIC COMPOUNDS ANALYZED

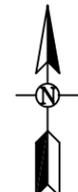


FIGURE 5
SOIL BORING / SOIL GAS / MONITORING WELL
LOCATION MAP WITH GROUNDWATER
ANALYTICAL RESULTS

PROJ: RETAIL GASOLINE SERVICE STATION
1619 HASLETT ROAD
HASLETT, MI

THIS IS NOT A LEGAL SURVEY	DRN BY: MW/KK/CS/ES	DATE: 8/16/2017
VERIFY SCALE	CHKD BY: BC/CA/JS/AS	SCALE: 1" = 40'
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	FILE NAME: 01-3537-3-006F00R00	

1630 HASLETT ROAD
HASLETT COMMERCE
CENTER

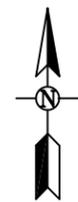
1620 HASLETT ROAD
DO NAILS
MAURER'S CLEANERS

1602 HASLETT ROAD
CITIZENS BANK

1621 HASLETT ROAD
PNC BANK

1561-1589 HASLETT ROAD
SHOP TOWN
RETAIL SHOPPING CENTER

5640 MARSH ROAD
BLONDIE'S BARN



LEGEND:

- SUBJECT PROPERTY
- FORMER/HISTORICAL SITE FEATURES
- ELEC ELECTRIC
- GAS GAS
- ST STORM SEWER
- FO FIBER OPTIC
- PROPOSED SITE FEATURES
- FLOOR DRAIN
- BAYDOOR
- DUMPSTER
- CATCH BASIN
- ABOVE GROUND HOIST
- PUMP ISLAND
- FORMER PUMP ISLAND
- PROPOSED PUMP ISLAND
- UST UNDERGROUND STORAGE TANK
- AST ABOVE GROUND STORAGE TANK
- SOIL BORING / TEMPORARY MONITORING WELL
- SOIL BORING / MONITORING WELL
- SOIL BORING / SOIL GAS
- B BENZENE
- T TOLUENE
- E ETHYLBENZENE
- 2,2,4-TMP 2,2,4-TRIMETHYLPENTANE
- ISOP ALCOHOL ISOPROPYL ALCOHOL
- VOCs VOLATILE ORGANIC COMPOUNDS
- MDL METHOD DETECTION LIMIT
- UNITS ug/m³ (UNLESS NOTED)

NOTES: REFER TO TABLES FOR SPECIFIC COMPOUNDS ANALYZED

MARSH ROAD

SANITARY (8" DIA.)

HASLETT ROAD

SG-20
8/4/2017
4.50'
CYCLOHEXANE 79,000
HEPTANE 78,000
HEXANE 367,000
2,2,4-TMP 813,000
OTHER VOCs <MDL

SG-18
8/4/2017
1.50'
ACETONE 71
CYCLOHEXANE 10
2,2,4-TMP 2,320
T 11
OTHER VOCs <MDL

SG-17
8/4/2017
4.50'
2,2,4-TMP 9,860
OTHER VOCs <MDL

SG-12
3/16/2017
4.5 - 5.5'
ACETONE 290
B 16
CYCLOHEXANE 24
HEPTANE 37
HEXANE 85
PROPYLENE 315
2,2,4-TMP 598
T 30
OTHER VOCs <MDL

SG-11
3/16/2017
4.5 - 5.5'
2,2,4-TMP 125,000
OTHER VOCs <MDL

SG-13
3/16/2017
5.0 - 6.0'
ACETONE 2,540
B 22
CYCLOHEXANE 31
E 8.7
HEPTANE 49
HEXANE 99
ISOP ALCOHOL 860
PROPYLENE 205
2,2,4-TMP 23
T 140
OTHER VOCs <MDL

SG-10
3/16/2017
4.5 - 5.5'
ACETONE 330
B 9.6
CYCLOHEXANE 14
HEPTANE 20
HEXANE 56
ISOP ALCOHOL 340
PROPYLENE 150
2,2,4-TMP 56
T 64
OTHER VOCs <MDL

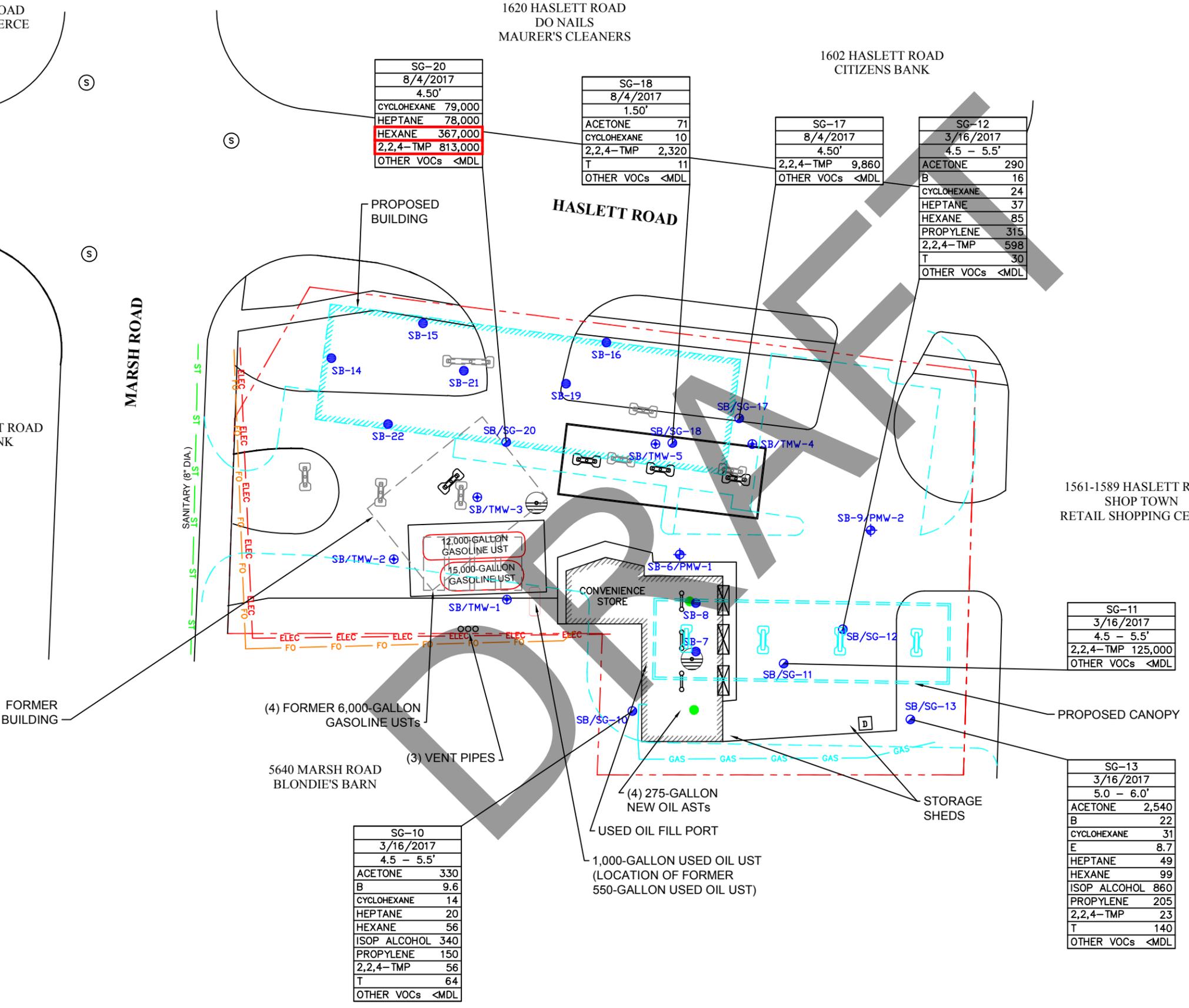


FIGURE 6
SOIL BORING / SOIL GAS / MONITORING WELL
LOCATION MAP WITH SOIL GAS
ANALYTICAL RESULTS

PROJ: RETAIL GASOLINE SERVICE STATION
1619 HASLETT ROAD
HASLETT, MI

THIS IS NOT A LEGAL SURVEY	DRN BY: MW/KK/CS/ES	DATE: 8/16/2017
VERIFY SCALE	CHKD BY: BC/CA/JS/AS	SCALE: 1" = 40'
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Appendix E



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BASELINE ENVIRONMENTAL ASSESSMENT

1619 Haslett Road | Haslett, Michigan
PM Project Number 01-3537-3

Prepared for:

CBG Holdings, LLC
3650 Stallion Way
Commerce, Michigan 48382

Prepared by:

PM Environmental, Inc.
4080 West 11 Mile Road
Berkley, Michigan 48072

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Suite 301
Grand Rapids, MI 49504
f: 877.884.6775
t: 616.285.8857

March 16, 2015

District Supervisor
Michigan Department of Environmental Quality
Lansing District Office - Constitution Hall, 1 South
525 West Allegan
P.O. Box 30242
Lansing, Michigan 48909-7742

**RE: Baseline Environmental Assessment for the Gasoline Dispensing Station
Located at 1619 Haslett Road, Haslett, Michigan
Parcel ID Number: 33-02-02-10-430-009
PM Environmental, Inc. Project No. 01-3537-3**

Dear District Supervisor:

Enclosed is a copy of the above-referenced document prepared in accordance with Section 21323a(1)(b)(i) of Part 213, of the Natural Resources and Environmental Protection Act (NREPA), P.A. 451 of 1994, as amended.

If you have any questions regarding the information in this report, please contact us at 248.336.9988.

Sincerely,
PM ENVIRONMENTAL, INC.

Ryan Feeny
Staff Scientist

Jennifer Ritchie, CPG
Regional Manager

Enclosure

March 16, 2015

Mr. Robert Saroki
CBG Holdings, LLC
3650 Stallion Way
Commerce, Michigan 48382

**RE: Baseline Environmental Assessment for the Gasoline Dispensing Station
Located at 1619 Haslett Road, Haslett, Michigan
Parcel ID Number: 33-02-02-10-430-009
PM Environmental, Inc. Project No. 01-3537-3**

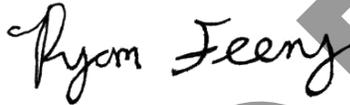
Mr. Saroki:

Enclosed is a copy of the above-referenced document prepared in accordance with Section 21323a(1)(b)(i) of Part 213, of the Natural Resources and Environmental Protection Act (NREPA), P.A. 451 of 1994, as amended.

THIS BASELINE ENVIRONMENTAL ASSESSMENT WAS PERFORMED FOR THE EXCLUSIVE USE OF CBG HOLDINGS, LLC AND MICHIGAN BUSINESS CONNECTION, EACH OF WHOM MAY RELY ON THE REPORT'S CONTENTS.

If you have any questions regarding the information in this report, please contact our office at 248.336.9988.

PM ENVIRONMENTAL, INC.



Ryan Feeny
Staff Scientist



Jennifer Ritchie, CPG
Regional Manager

Enclosure

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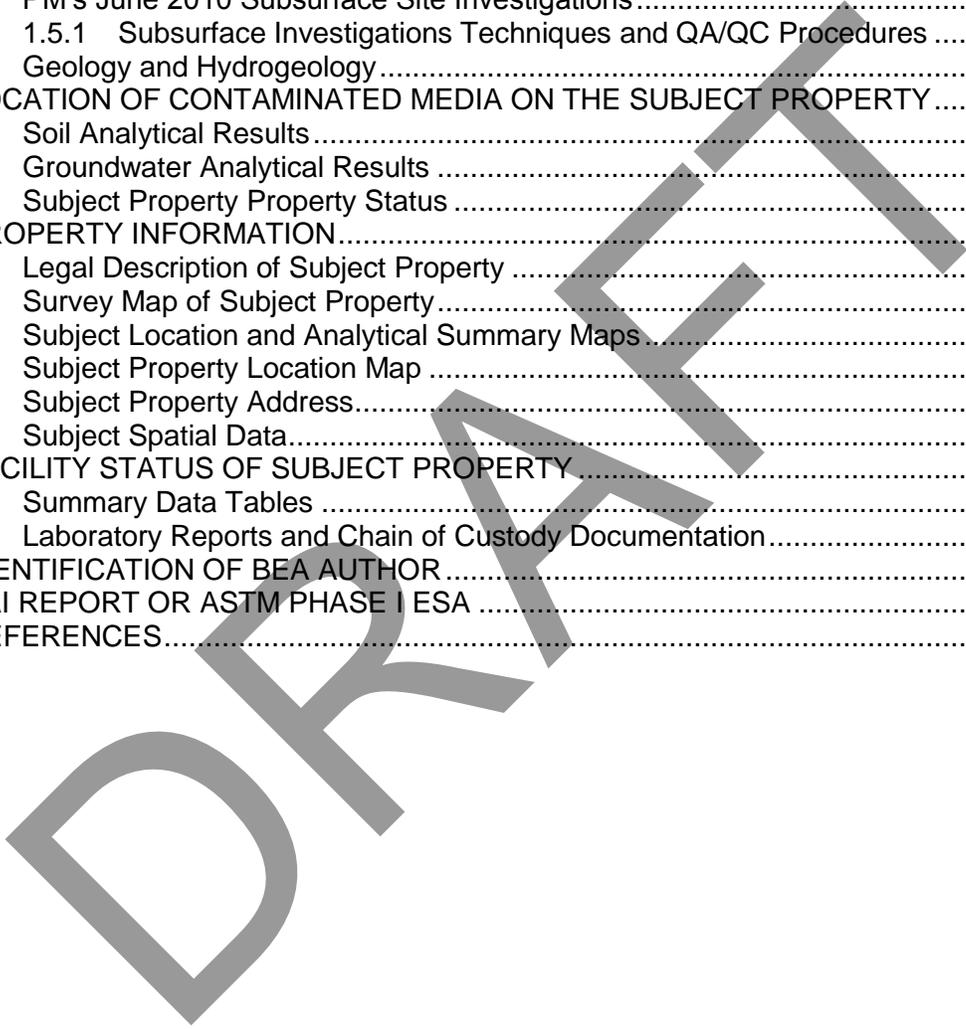
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APPENDICES

- Appendix A: Phase I ESA, March 13, 2015, PM
Appendix B: 2013 LUST Closure Figures and Tables, August 2013, Inland Seas
Appendix C: Soil Boring Logs
Appendix D: Laboratory Analytical Report
Appendix E: Assessing Information
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1.0 INTRODUCTION AND DISCUSSION

PM has completed a Baseline Environmental Assessment (BEA) for the gasoline dispensing station (Parcel ID number: 33-02-02-10-430-009) located at 1619 Haslett Road, Haslett, Ingham County, Michigan 48840 (hereafter referred to as the “subject property”).

The subject property consists of one parcel containing approximately 0.89 acres and is located at the southeast corner of Haslett Road and Marsh Road in Haslett, Michigan (Figure 1). The subject property is developed with a one-story commercial building containing approximately 1,674 square feet and is used for retail gasoline sales, a convenience store, and a service garage (Figure 2). The current underground storage tank (UST) system consists of one 15,000-gallon gasoline UST, one 12,000-gallon gasoline UST, and one 1,000-gallon used oil UST located in a single basin west of the subject building. Four fuel dispensers are located in the central portion of the subject property. Concrete and asphalt paved areas are present throughout the subject property.

Standard and other historical sources were able to document that the property was vacant land from at least 1938 until 1955. The first developed use of the subject property occurred in 1959, with a historic gasoline dispensing station, which was located on the western portion of the property. According to historical sources, automotive service operations were not conducted within this former building. This building was demolished in 1972, prior to the construction of the current gasoline service station. The subject property has operated as a gasoline service station from at least 1972 until the present.

1.1 Owner/Operator Information

CBG Holdings, LLC intends to purchase the subject property before April 15, 2015.

1.2 Intended Use of the Subject Property

CBG Holdings will operate the subject property as a gasoline service station utilizing the current UST system, convenience store and service garage.

1.3 Summary of All Appropriate Inquiry Phase I Environmental Assessment

PM prepared a Phase I Environmental Site Assessment (ESA), dated March 13, 2015, in conformance with the scope and limitations of ASTM Practice E 1527-05 (i.e., the ‘ASTM Standard’). A copy of the March 2015 Phase I ESA, including photographs of the subject property, is included in Appendix A.

The following onsite recognized environmental conditions (RECs) were identified in PM's March 2015 Phase I ESA:

- The subject property is a closed LUST site with one release reported in 1995 that was granted a Tier I Restricted Nonresidential LUST Closure in 2013. Review of previous subsurface investigations documents that residual soil and groundwater impact is present at the subject property above the applicable Part 213 RBSLs, indicating the potential presence of residual non-aqueous phase liquid (NAPL). Based upon these analytical results, the subject property is classified as a “property” as defined by Part 213 of P.A. 451 of the Michigan Natural Resources Environmental Protection Act (NREPA), as amended.

No adjoining and/or nearby RECs were identified.

1.3.1 Phase I ESA Exceptions or Deletions

During the completion of the March 2015 Phase I ESA, there were no exceptions or deletions from the Federal All Appropriate Inquiry Rule under 40 CFR 312, or the ASTM Standard. To the best of PM's knowledge, no special terms or conditions applied to the preparation of the Phase I ESA.

1.3.2 Phase I ESA Data Gaps

PM did not identify any significant data gaps during the completion of the March 2015 Phase I ESA.

1.4 Summary of Previous Site Investigations

PM reviewed the following previous environmental reports for the subject property. Pertinent figures and tables from the following reports are included within Appendix C of PM's March 2015 Phase I ESA (Appendix A).

- Initial Abatement Report (IAR), March 1995, Superior Environmental Corporation (Superior);
- Final Assessment Report (FAR), September 1996, Superior;
- Audit of Corrective Actions, May 2005, Michigan Department of Natural Resources and Environment (MDNRE)
- Status Update, May 2006, Inland Seas Engineering, Inc. (Inland Seas);
- Status Update, December 2006, Inland Seas;
- Performance Monitoring Report, March 2007, Inland Seas;
- Performance Monitoring Report, May 2009, Inland Seas;
- Phase I ESA, July 2010, PM;
- BEA, August 2010, PM;
- LUST Closure Report, August 2013, Inland Seas; and
- Phase I ESA, March 2015, PM.

The subject property is a closed LUST site with one release reported (confirmed release number C-0206-95). The release was granted a Tier I Closure with deed restrictions by the MDEQ in December 2013.

During the IAR investigation, four 6,000-gallon gasoline USTs and one 550-gallon used oil UST were removed from a single basin west of the subject property building. No free product was encountered on the subject property.

Approximately 916 tons of impacted soil was removed from the UST basin and dispenser area in 1995, which were properly disposed off-site. Verification of soil remediation (VSR) samples collected from the excavation were submitted for laboratory analysis of benzene, toluene, ethylbenzene, and xylenes (collectively referred to as BTEX), methyl-tert-butyl-ether (MTBE), and lead. Samples from the area of the former used oil UST were also submitted for analysis of polynuclear aromatic hydrocarbons (PNAs), polychlorinated biphenyls (PCBs), cadmium, and chromium. Concentrations of BTEX were identified above MDEQ Part 213 Residential and Nonresidential Drinking Water Protection (DWP) and/or Groundwater Surface Water Interface

Protection (GSIP) Risk Based Screening Levels (RBSLs) in several floor and sidewall samples within the former UST basin, and in two samples collected from the eastern portion of the dispenser area. In addition, a concentration of benzene was identified in a sample from the south wall of the excavation above the MDEQ Part 213 Residential Soil Volatilization to Indoor Air Inhalation (SVII) RBSLs.

An Audit of Corrective Actions was conducted by the Michigan Department of Natural Resources and Environment (MDNRE) in May 2005, due to petroleum sludge and a sheen observed within a sump on the north adjoining property. Based on the lack of delineation of the extent of contamination from the subject property to the north, the MDNRE requested additional investigation to determine if contamination had migrated onto the north adjoining property from the subject property.

Additional soil sampling completed in 2005, identified concentrations of gasoline volatile organic compounds (VOCs) above the MDEQ Part 213 Residential and Nonresidential DWP and/or GSIP RBSLs throughout the northern portion of the property and in the area of the former UST basin. A soil sample from soil boring location GP-6, which was advanced northeast of the subject building, also identified a concentration of 1,2,4-trimethylbenzene (1,2,4-TMB) above the Soil Saturation Concentration (C_{sat}) Screening Levels, which indicates the potential for free-phase hydrocarbons to be present.

Groundwater sampling data from April 2009, documents concentrations of several gasoline VOCs above the MDEQ Part 213 Residential and Nonresidential Drinking Water (DW) and/or Groundwater Surface Water Interface (GSI) RBSLs on the northern portion of the property. The horizontal extent of groundwater contamination appears to have been delineated in all directions. However, contamination associated with the subject property has migrated to the adjoining Haslett Road right-of-way (ROW) to the north and east.

At the time of the July 2010 Phase I ESA, the subject property was occupied by the current gasoline dispensing station. RECs were identified associated with the elevated levels of TMB in the previous site investigations, the automotive service operations on the subject property from 1972 to 2010, and the likely use of former underground hoist in the service area of the building.

PM subsequently completed a subsurface investigation and BEA to assess the RECs identified in the Phase I ESA. Nine soil borings were advanced in the area of the current and former UST basins and dispensers, in the area of the elevated TMB impact previously identified at GP-6, and in the service area.

Between 2010 and 2013 Inland Seas completed additional site characterization including advancing soil borings for vertical and horizontal extent of impact, installing monitoring wells, completing groundwater monitoring events, soil gas sampling, and storm sewer monitoring to investigate the GSI pathway. Review of the August 2013 LUST Closure report indicates that C_{sat} soils have degraded and are no longer present, that soil and groundwater impact has been horizontally and vertically defined, that soil vapor concentrations are below the applicable Nonresidential Vapor Intrusion Screening Levels, and that the GSI pathway is not relevant for the subject property. Furthermore, a Restrictive Covenant was filed the subject property which restricts the subject property to Nonresidential use, prohibits the installation and/or use of potable water wells and stipulates that a vapor investigation must be completed prior to the construction of any new structures. A Tier I Restricted Nonresidential Closure was granted in December 2013.

Figures and Tables from Inland Seas August 2013 LUST Closure Report are included in Appendix B.

No evidence of a new release was identified during PM's 2010 subsurface investigation or Inland Seas additional investigations between 2010 and 2013. PM's soil and groundwater analytical results are summarized on Figures 3 and 4, Tables 1 and 2, and in Section 2.0 below.

1.5 PM's June 2010 Subsurface Site Investigations

On June 25, 2010, PM completed a scope of work consisting of the advancement of nine soil borings (SB-1 through SB-9), the installation of five temporary monitoring wells (TMW-1 through TMW-5), the installation of two permanent monitoring wells (PMW-1 and PMW-2), and the collection of soil and groundwater samples for laboratory analysis of VOCs, polynuclear aromatic compounds (PNAs), cadmium, chromium and lead, or some combination thereof.

Specifically, the 2010 Phase II ESA activities were conducted in the following areas of the subject property:

Description of Soil Boring and Monitoring Well Locations

Location (Total Depth)	Sample Depth	Analysis	Objectives	Sample Selection (Justification)
SB/TMW-1 (20.0)	Soil: 5.0-6.0 and 16.0-17.0	VOCs, PNAs, cadmium, chromium and lead	Assess the current and former UST basins	Soil: Due to the lack of visual and olfactory evidence of impact, samples were collected at the sand/clay interface and beneath the UST basin. Groundwater: Sampled.
	Groundwater: 4.0-9.0			
SB/TMW-2 (25.0)	Soil: 6.0-7.0 and 14.0-15.0	Gasoline VOCs	Assess the current and former UST basins	Soil: Samples were collected at the highest observed PID reading (77.1 ppm) and at the approximate depth of the UST basin (14.6 ppm). Groundwater: Sampled.
	Groundwater: 5.0-10.0	Gasoline VOCs, cadmium, chromium and lead		
SB/TMW-3 (20.0)	Soil: 2.0-3.0 and 14.0-15.0	Gasoline VOCs	Assess the current and former UST basins, fuel dispenser and product piping	Soil: Samples were collected at the highest observed PID reading (184 ppm) and at the approximate depth of the UST basin (10.1 ppm). Groundwater: Sampled.
	Groundwater: 6.0-11.0			
SB/TMW-4 (15.0)	Soil: 3.0-4.0	Gasoline VOCs	Assess the current and former fuel dispensers and product piping	Soil: A sample was collected at the highest observed PID reading (29.3 ppm). Groundwater: Sampled.
	Groundwater: 6.0-11.0			
SB/TMW-5 (15.0)	Soil: 4.0-5.0 and 14.0-15.0	Gasoline VOCs	Assess the current and former fuel	Soil: Samples were collected at the sand/clay interface (118

Location (Total Depth)	Sample Depth	Analysis	Objectives	Sample Selection (Justification)
	Groundwater: 6.5-11.5		dispensers and product piping	ppm) and at the end of the boring (4.9 ppm). Groundwater: Sampled.
SB-6/PMW-1 (15.0)	Soil: 4.0-5.0	Gasoline VOCs	Assess the current and former fuel dispensers and product piping	Soil: A sample was collected at the highest PID reading (735 ppm) above the saturated zone. Groundwater: Sampled.
	Groundwater: 5.0-10.0			
SB-7 (10.0)	Soil: 3.0-4.0 and 9.0-10.0	VOCs, PNAs, cadmium, chromium and lead	Assess the service operations and potential former hoists	Soil: Due to the lack of visual and olfactory evidence of impact, samples were collected at the approximate floor drain and potential former hoist depths. Groundwater: Not encountered.
SB-8 (10.0)	Soil: 3.0-4.0	VOCs, PNAs, cadmium, chromium and lead	Assess the service operations and potential former hoists	Soil: Due to the lack of visual and olfactory evidence of impact, a sample was collected at the sand/clay interface. Groundwater: Not encountered.
SB-9/PMW-2 (15.0)	Soil: 6.0-7.0 and 14.0-15.0	Gasoline VOCs	Assess previous area of impact identified at GP-6	Soil: Samples were collected at the highest observed PID reading (1,996 ppm) and at the end of the boring (1.3 ppm). Groundwater: Sampled.
	Groundwater: 5.0-10.0			

PID = photoionization detector
ppm = parts per million

1.5.1 Subsurface Investigations Techniques and QA/QC Procedures

The soil borings were advanced to the desired depth using a hand auger equipped with a stainless steel bucket and/or a model 6610DT Geoprobe® drill rig. Soil sampling was performed for soil classification, verification of subsurface geologic conditions, and for investigating the potential and/or extent of soil and groundwater contamination at the subject property. Soil samples were generally collected on a continuous basis using a stainless steel bucket or 5-foot long macro-core sampler.

During drilling operations, the drilling equipment was cleaned to minimize the possibility of cross contamination. These procedures included cleaning equipment with a phosphate free solution (i.e., Alconox®) and rinsing with distilled water after each sample collection. Drilling and sampling equipment was also cleaned in this manner prior to initiating field activities.

Soils collected from discrete sample intervals were screened using a PID to determine if VOCs were present. Soil from specific depths was placed in plastic bags, sealed, and allowed to volatilize. The headspace within each bag was then monitored with the PID. The PID is able to detect trace levels of organic compounds in the air space within the plastic bag. The PID utilizes a 10.2 electron volts (eV) lamp. Soil samples were collected from the soil borings based upon the highest PID reading, visual/olfactory evidence, a change in geology, surficial soil, and/or directly above the saturated soil. PM's June 2010 soil boring logs are included in Appendix C, which consist of site specific geology, sample depths, and monitoring well installation details.

Soil samples for VOC analysis were preserved with methanol, in accordance with USEPA method 5035, and then placed in appropriately labeled containers with Teflon lined lids and/or sanitized glass jars, placed in an ice packed cooler, and transported under chain of custody procedures for laboratory analysis within applicable holding times.

Temporary monitoring wells were installed at SB/TMW-1 through SB/TMW-5 and permanent monitoring wells were installed at SB-6/PMW-1 and SB-9/PMW-2 for groundwater sample collection. At these locations, a new well assembly, consisting of a 5-foot 0.010-inch slot, schedule 40, poly-vinyl chloride (PVC) screen and PVC casing were lowered into the boreholes to intersect the water table. After the screens for the wells were set to the desired depth, an artificial sand pack or natural sands were allowed to collapse around the well screen. The groundwater samples were collected with care taken to avoid the potential for cross contamination between the samples and to prevent loss of volatiles to the atmosphere. The groundwater samples for laboratory analyses were transferred directly from the low-flow pump discharge line into appropriately labeled sample containers with Teflon lined lids, placed in an ice packed cooler, and transported under chain of custody procedures for laboratory analysis within applicable holding times. Purge water was maintained separate and returned to the wells.

Quality Assurance/Quality Control (QA/QC) samples were collected in general accordance with MDEQ Operational Memorandum Number 2 as follows:

- A-1 – Trip Blank (methanol) for soils
- A-2 – Trip Blank (distilled water) for groundwater
- A-3 – Co-Located Soil Sample (SB-7 9.0-10.0')
- A-4 – Co-Located Groundwater Sample (TMW-2)
- A-5 – Hand Auger Equipment Blank
- A-6 – Macro Core Equipment Blank

The QA/QC samples were submitted for laboratory analysis of VOCs, PNAs, and metals. In general, the results of the QA/QC samples were similar in concentration indicating analysis reproducibility and that no cross contamination occurred.

Fifteen soil samples, seven groundwater samples and corresponding QA/QC samples were submitted to Merit Laboratories, Inc., in East Lansing, Michigan for chemical analysis. Figure 3 and Tables 1 and 2 summarize the soil analytical results; Figure 4 and Table 3 summarize the groundwater analytical results. A copy of the laboratory analytical report is included as Appendix D.

Upon completion of the investigation, the soil borings were abandoned by placing the soil cuttings back into the borehole, filling the void with bentonite chips, hydrating the chips, resurfacing and returning the area to its pre-drilling condition.

1.6 Geology and Hydrogeology

Based on review of the soil boring logs, the soil stratigraphy observed by PM in June 2010 generally consists of up to 9.0 feet of sand, underlain by clay to a depth of at least 25.0 feet bgs, the maximum depth explored.

Groundwater was encountered in soil borings SB/TMW-1 through SB/TMW-5, and SB-9/PMW-1 and SB-6/PMW-2 at depths between 6.0 and 8.0 feet bgs. Based on the saturated thickness less than 3.0 feet and the discontinuous nature, groundwater at the subject property is not representative of an "aquifer" as defined in MDEQ Peer Review Draft Operational Memorandum Number 4, Attachment 10 "Groundwater in an Aquifer," dated February 2007.

As part of Inland Seas 2013 LUST Closure report, a Restrictive Covenant was filed for the subject property which restricts the subject property to Nonresidential use, prohibits the installation and/or use of potable water wells and stipulates that a vapor investigation must be completed prior to the construction of any new structures.

PM's June 2010 soil boring logs are included in Appendix C, which consist of site specific geology, PID readings, sample depths, and monitoring well installation details.

2.0 LOCATION OF CONTAMINATED MEDIA ON THE SUBJECT PROPERTY

The analytical results for soil and groundwater samples collected by PM in 2010 were compared with the MDEQ RBSLs as presented in the Cleanup Criteria Requirements for Response Activity (R299.1 – R299.5), December 30, 2013 in accordance with Section 21323a(1)(b)(i) using the applicable RBSLs. The soil analytical results are summarized in Tables 1 and 2 (including CAS #) and on Figure 3. The groundwater analytical results are summarized in Table 3 (including CAS #) and on Figure 4. Appendix D contains the complete laboratory analytical report. Figures and Tables from Inland Seas August 2013 LUST Closure Report are included in Appendix B.

2.1 Soil Analytical Results

PM's 2010 Soil Analytical Results:

A concentration of the VOC specie benzene was detected in the soil sample collected from SB-5 (14.0-15.0 feet bgs) above the Part 213 Residential and Nonresidential DWP, GSIP, and Residential SVII RBSLs. Various concentrations of VOCs were also detected in SB-2 (6.0-7.0 feet bgs), SB-6 (4.0-5.0 feet bgs), and SB-9 (6.0-7.0 feet bgs) above the Part 213 Residential and Nonresidential DWP and GSIP RBSLs. A concentration of the VOC specie tetrachloroethene was detected in the soil sample collected from SB-8 (3.0-4.0 feet bgs) above the Part 213 Residential and Nonresidential DWP RBSLs. A concentration of the VOC specie 1,2,4-TMB was detected in the soil sample collected from SB-2 (14.0-15.0 feet bgs) above the laboratory method detection limits (MDLs), but below the most restrictive Part 213 Residential RBSLs. No other concentrations of VOCs were detected in the remaining soil samples collected from the subject property.

Various concentrations of PNAs were detected in the soil sample collected from SB-8 (3.0-4.0 feet bgs) above the laboratory MDLs, but below the most restrictive Part 213 Residential RBSLs. No other concentrations of PNAs were detected in the remaining soil samples collected from the subject property above the laboratory MDLs.

Initially, a concentration of total lead was detected in the soil sample collected from SB-8 (3.0-4.0 feet bgs) above the Part 213 Residential Soil Direct Contact (SDC) RBSLs, but below the Part 213 Nonresidential RBSLs. Based on the elevated concentrations within this sample, PM requested an additional analysis of total, fine and coarse lead. Results of the additional analysis indicated that concentrations of total lead (105,000 ug/Kg), fine lead (73,100 ug/Kg) and coarse lead (273,000 ug/Kg) were all below the Part 213 Residential SDC RBSLs. Various

concentrations of lead were also detected in the selected soil samples collected from the subject property above the laboratory MDLs, but below the Michigan Statewide Default Background Levels (SDBLs). No concentrations of cadmium or chromium were detected in the selected soil samples collected from the subject property above the laboratory MDLs and/or Michigan SDBLs.

Inland Seas 2010 Soil Analytical Results:

Concentrations of various gasoline VOCs were detected in the soil sample collected from GP-6A (Repeat of GP-6) above the Part 213 Residential and Nonresidential DWP and GSIP RBSLs. The concentrations of 1,2,4-TMB have degraded and are no longer present on the property above the previously identified Csat screening levels as indicated in the GP-6 sample collected in 2005. No other concentrations of gasoline VOCs were detected in the remaining soil samples collected by Inland Seas in 2010 (GP-101 through GP-106) above the laboratory MDLs.

2.2 Groundwater Analytical Results

PM's 2010 Groundwater Analytical Results:

Concentrations of various VOCs were detected in the groundwater samples collected from TMW-2 through TMW-5, PMW-1, and PMW-2 above the Part 213 Residential and Nonresidential Drinking Water (DW) and Groundwater Surface Water Interface (GSI) RBSLs. A concentration of the VOC specie methyl-tert-butyl-ether (MTBE) was detected in the groundwater sample collected from TMW-1 above the laboratory MDLs, but below the most restrictive Part 213 Residential RBSLs.

No concentrations of PNAs were detected in the groundwater sample collected from TMW-1 above the laboratory MDLs.

A concentration of chromium was detected in the groundwater sample collected from TMW-2 above the Part 213 Residential and Nonresidential DW and GSI RBSLs. Concentrations of chromium in TMW-1 and lead in TMW-2 were detected above the laboratory MDLs, but below the most restrictive Part 213 Residential RBSLs. No concentrations of cadmium were detected in the groundwater sample collected from TMW-2 above the laboratory MDLs.

Inland Seas 2013 Groundwater Analytical Results:

Concentrations of various gasoline VOCs were detected in the groundwater samples collected from MW-1 through MW-5, PMW-A and PMW-B above the Part 213 Residential and Nonresidential DW and GSI RBSLs. A concentration of the gasoline VOC specie 1,2,4-TMB was detected in the groundwater sample collected from MW-8 above the Part 213 GSI RBSLs. No other concentrations of gasoline VOCs were detected in the remaining groundwater samples collected by Inland Seas in 2013 (MW-6, MW-9 through MW-13, and PMW-15) above the laboratory MDLs.

2.3 Subject Property Property Status

Based upon review of the previous subsurface investigations, the subsurface investigation completed by PM in June 2010, and the subsurface investigation completed by Inland Sea in 2013, no evidence of a new release was identified. Based upon the documented exceedances of the Part 213 Residential and Nonresidential DW/DWP and GSI/GSIP RBSLs and the Closed

LUST status, the subject property would be classified as a “property”, as defined by Part 213 of P.A. 451 of the Michigan Natural Resources Environmental Protection Act (NREPA), as amended.

3.0 PROPERTY INFORMATION

3.1 Legal Description of Subject Property

Refer to Appendix E for assessing information which includes a legal description.

3.2 Survey Map of Subject Property

A map of the subject property which depicts the property/parcel boundaries is included as Figure 2.

3.3 Subject Location and Analytical Summary Maps

PM Figures 3 and 4 provide scaled maps of the site features and soil boring/ monitoring well locations with analytical results. Figures from Inland Seas August 2013 LUST Closure Report are included in Appendix B.

3.4 Subject Property Location Map

Figure 1 provides a scaled area map depicting the subject property location in relation to the surrounding area. Figure 2 provides a scaled map of the subject property with site features.

3.5 Subject Property Address

As indicated in Section 1.0, the subject property (Parcel ID number: 33-02-02-10-430-009) is located at 1619 Haslett Road, Haslett, Ingham County, Michigan 48840 (Figure 1).

3.6 Subject Spatial Data

As depicted in Figure 1, the subject property is located at 1619 Haslett Road, Haslett, Ingham County, Michigan 48840 in the northeast quarter quarter of the southeast quarter of section 10, township 4 north, range 1 west.

According to the MDEQ Groundwater Mapping Project Website, the center of the subject property is located at latitude 42.747 north and a longitude of -84.408 west.

4.0 FACILITY STATUS OF SUBJECT PROPERTY

As indicated in Section 2.3 based upon documented exceedances of the Part 213 Residential and Nonresidential DW/DWP and GSI/GSIP RBSLs and the Csat screening levels, and the Closed LUST status, the subject property would be classified as a “property”, as defined by Part 213 of P.A. 451 of the Michigan Natural Resources Environmental Protection Act (NREPA), as amended.

No evidence of a new release was identified during the June 2010 subsurface investigation.

4.1 Summary Data Tables

The analytical results for the soil and groundwater samples were compared with the MDEQ RBSLs as presented in the Cleanup Criteria Requirements for Response Activity (R299.1 – R299.5), December 30, 2013 in accordance with Section 21323a(1)(b)(i) using the applicable RBSLs. PM's soil analytical results are summarized in Tables 1 and 2, and the groundwater analytical results are summarized in Table 3. CAS numbers associated with each target analyte identified above the laboratory MDLs are also presented in the included tables.

Tables from Inland Seas August 2013 LUST Closure Report are included in Appendix B.

4.2 Laboratory Reports and Chain of Custody Documentation

Soil and groundwater samples collected by PM were submitted under chain of custody procedures and within applicable holding times. Refer to Appendix D for the laboratory analytical report and associated chain of custody documentation.

5.0 IDENTIFICATION OF BEA AUTHOR

This BEA was conducted on March 13, 2015, by Mr. Ryan Feeny, Staff Scientist, and reviewed by Ms. Jennifer Ritchie, CPG, Regional Manager, PM Environmental, Inc., which is prior to or within 45 days of property ownership or occupancy. Qualification statements are provided as Appendix F.

I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312 and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquires in conformance with the standards and practices set forth in 40 CFR Part 312.



Jennifer Ritchie, CPG
Regional Manager

6.0 AAI REPORT OR ASTM PHASE I ESA

As indicated in Section 1.3, PM performed a Phase I ESA of the subject property, March 13, 2015, in conformance with the scope and limitations of ASTM Practice E 1527-05 for the subject property located at 1619 Haslett Road, Haslett, Ingham County, Michigan 48840. The scope of the Phase I ESA included consideration of hazardous substances as defined in Section 20101(1)(4) of P.A 451 of 1994, as amended, and constituted the performance of an All Appropriate Inquiry in conformance with the standards and practices set forth in 40 CFR Part 312.

A copy of the March 2015 Phase I ESA is included in Appendix A.

7.0 REFERENCES

- Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM, ASTM Designation E 1527-05, Published November 2005.
- Cleanup Criteria Requirements for Response Activity (R299.1 – R299.5), December 30, 2013
- MDEQ Operational Memorandum No. 4 “Site Characterization and Remediation Verification – Attachment 10, Peer Review Draft Groundwater Not in an Aquifer,” February 2007;
- MDEQ Operational Memorandum No. 2 “Sampling and Analysis,” October 22, 2004, Revised July 5, 2007;
- MDEQ Baseline Environmental Assessment Submittal Form (EQP 4025), dated October 2014;
- Initial Abatement Report, March 1995, Superior Environmental Corporation (Superior); .
- Final Assessment Report (FAR), September 1996, Superior;
- Audit of Corrective Actions, May 2005, Michigan Department of Natural Resources and Environment (MDNRE)
- Status Update, May 2006, Inland Seas Engineering, Inc. (Inland Seas);
- Status Update, December 2006, Inland Seas;
- Performance Monitoring Report, March 2007, Inland Seas;
- Performance Monitoring Report, May 2009, Inland Seas;
- Phase I ESA, July 2010, PM;
- BEA, August 2010, PM;
- LUST Closure Report, June 2013, Inland Seas; and
- Phase I ESA, March 2015, PM.

1630 HASLETT ROAD
HASLETT COMMERCE
CENTER

1620 HASLETT ROAD
DO NAILS
MAURER'S CLEANERS

1602 HASLETT ROAD
VACANT BANK BRANCH

HASLETT ROAD

MARSH ROAD

SANITARY (8" DIA.)

1621 HASLETT ROAD
PNC BANK

FORMER
BUILDING

(4) FORMER 6,000-GALLON
GASOLINE USTs

(3) VENT PIPES

5640 MARSH ROAD
BLONDIE'S BARN

1601 HASLETT ROAD
HABITAT FOR HUMANITY
RE-STORE

12,000-GALLON
GASOLINE UST

15,000-GALLON
GASOLINE UST

CONVENIENCE
STORE

(4) 275-GALLON NEW OIL ASTs

1,000-GALLON USED OIL UST
(LOCATION OF FORMER
550-GALLON USED OIL UST)

USED OIL FILL PORT

STORAGE
SHEDS

1561-1589 HASLETT ROAD
SHOP TOWN
RETAIL SHOPPING CENTER

LEGEND:

- SUBJECT PROPERTY
- FORMER/HISTORICAL SITE FEATURES
- FLOOR DRAIN
-  BAYDOOR
-  DUMPSTER
-  ABOVE GROUND HOIST
-  PUMP ISLAND
-  FORMER PUMP ISLAND
-  UST
-  AST

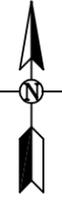


FIGURE 2
GENERALIZED DIAGRAM OF THE SUBJECT
PROPERTY AND ADJOINING PROPERTIES

PROJ: RETAIL GASOLINE SERVICE STATION
1619 HASLETT ROAD
HASLETT, MI

THIS IS NOT A LEGAL SURVEY	DRN BY: MW/KK/MW/CS	DATE: 3/12/2015
VERIFY SCALE	CHKD BY: CA/RS/JS	SCALE: 1" = 40'
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.		FILE NAME: 01-3537-3F02R00

1630 HASLETT ROAD
HASLETT COMMERCE
CENTER

1621 HASLETT ROAD
PNC BANK

1620 HASLETT ROAD
DO NAILS
MAURER'S CLEANERS

1602 HASLETT ROAD
CITIZENS BANK

1561-1589 HASLETT ROAD
SHOP TOWN
RETAIL SHOPPING CENTER

FORMER
BUILDING

(4) FORMER 6,000-GALLON
GASOLINE USTs

5640 MARSH ROAD
BLONDIE'S BARN

(3) VENT PIPES

(4) 275-GALLON
NEW OIL ASTs

USED OIL FILL PORT
1,000-GALLON USED OIL UST
(LOCATION OF FORMER
550-GALLON USED OIL UST)

STORAGE
SHEDS

HASLETT ROAD

MARSH ROAD

SB-2		SB-2	
6/25/2010		6/25/2010	
6.0 ~ 7.0'		14.0 ~ 15.0'	
E	3,600	1,2,4-TMB	150
X	4,600	OTHER GVOCs	<MDL
n-PROP	5,400		
1,2,3-TMB	5,600		
1,2,4-TMB	20,700		
NAPH	8,000		
2-M	7,600		
OTHER GVOCs	<MDL		

SB-1		SB-1	
6/25/2010		6/25/2010	
5.0 ~ 6.0'		16.0 ~ 17.0'	
GVOCs	<MDL	GVOCs	<MDL
PNAAs	<MDL	PNAAs	<MDL
Cd	<MDL	Cd	<MDL
Cr	3,550	Cr	2,690
Pb	8,620	Pb	3,680

SB-3		SB-3	
6/25/2010		6/25/2010	
2.0 ~ 3.0'		14.0 ~ 15.0'	
GVOCs	<MDL	GVOCs	<MDL

SB-5		SB-5	
6/25/2010		6/25/2010	
4.0 ~ 5.0'		14.0 ~ 15.0'	
GVOCs	<MDL	B	5,120
		OTHER GVOCs	<MDL

SB-6	
6/25/2010	
4.0 ~ 5.0'	
B	600
T	300
E	4,700
X	5,500
n-PROP	1,700
1,2,3-TMB	1,100
1,2,4-TMB	1,700
1,3,5-TMB	1,600
OTHER GVOCs	<MDL

SB-4	
6/25/2010	
3.0 ~ 4.0'	
GVOCs	<MDL

SB-8	
6/25/2010	
3.0 ~ 4.0'	
PCE	680
OTHER GVOCs	<MDL
B(a)ANTH	400
B(a)PYR	400
B(b)FLA	500
B(k)FLA	300
B(g,h,i)PER	300
CHRYSENE	500
FL	1,000
Ph	500
Py	800
OTHER PNAAs	<MDL
Cd	2,470
Cr	4,720
Pb (TOTAL)	557,000
Pb (COARSE)	73,100
Pb (FINE)	273,000

SB-9		SB-9	
6/25/2010		6/25/2010	
6.0 ~ 7.0'		14.0 ~ 15.0'	
E	4,700	GVOCs	<MDL
n-PROP	14,500		
ISOP	3,000		
NAPH	10,000		
2-M	22,300		
OTHER GVOCs	<MDL		

SB-7		SB-7		A-3	
6/25/2010		6/25/2010		6/25/2010	
3.0 ~ 4.0'		9.0 ~ 10.0'		9.0 ~ 10.0'	
GVOCs	<MDL	GVOCs	<MDL	GVOCs	<MDL
PNAAs	<MDL	PNAAs	<MDL	PNAAs	<MDL
Cd	<MDL	Cd	<MDL	Cd	240
Cr	1,320	Cr	3,660	Cr	3,790
Pb	2,870	Pb	10,200	Pb	10,900

LEGEND:

- SUBJECT PROPERTY
 - FORMER/HISTORICAL SITE FEATURES
 - ELEC ELECTRIC
 - W WATER
 - GAS GAS
 - SAN SANITARY SEWER
 - ST STORM SEWER
 - FO FIBER OPTIC
 - PL PRODUCT LINE
 - FLOOR DRAIN
 - BAYDOOR
 - DUMPSTER
 - ABOVE GROUND HOIST
 - PUMP ISLAND
 - FORMER PUMP ISLAND
 - UST UNDERGROUND STORAGE TANK
 - AST ABOVE GROUND STORAGE TANK
 - SOIL BORING / TEMPORARY MONITORING WELL
 - SOIL BORING / MONITORING WELL
 - Cd CADMIUM
 - Cr CHROMIUM
 - Pb LEAD
 - NAPH NAPHTHALENE
 - B BENZENE
 - T TOLUENE
 - E ETHYLBENZENE
 - X XYLENES
 - 1,2,4-TMB 1,2,4-TRIMETHYLBENZENE
 - 1,3,5-TMB 1,3,5-TRIMETHYLBENZENE
 - 1,2,3-TMB 1,2,3-TRIMETHYLBENZENE
 - ISOP ISOPROPYLBENZENE
 - n-PROP n-PROPYLBENZENE
 - VOCs VOLATILE ORGANIC COMPOUNDS
 - PNAAs POLYNUCLEAR AROMATIC COMPOUNDS
 - MDL METHOD DETECTION LIMIT
 - UNITS ug/Kg (UNLESS NOTED)
 - VALUE EXCEEDS APPLICABLE CRITERIA
- NOTES: REFER TO TABLES FOR SPECIFIC COMPOUNDS ANALYZED

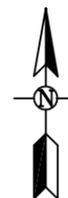


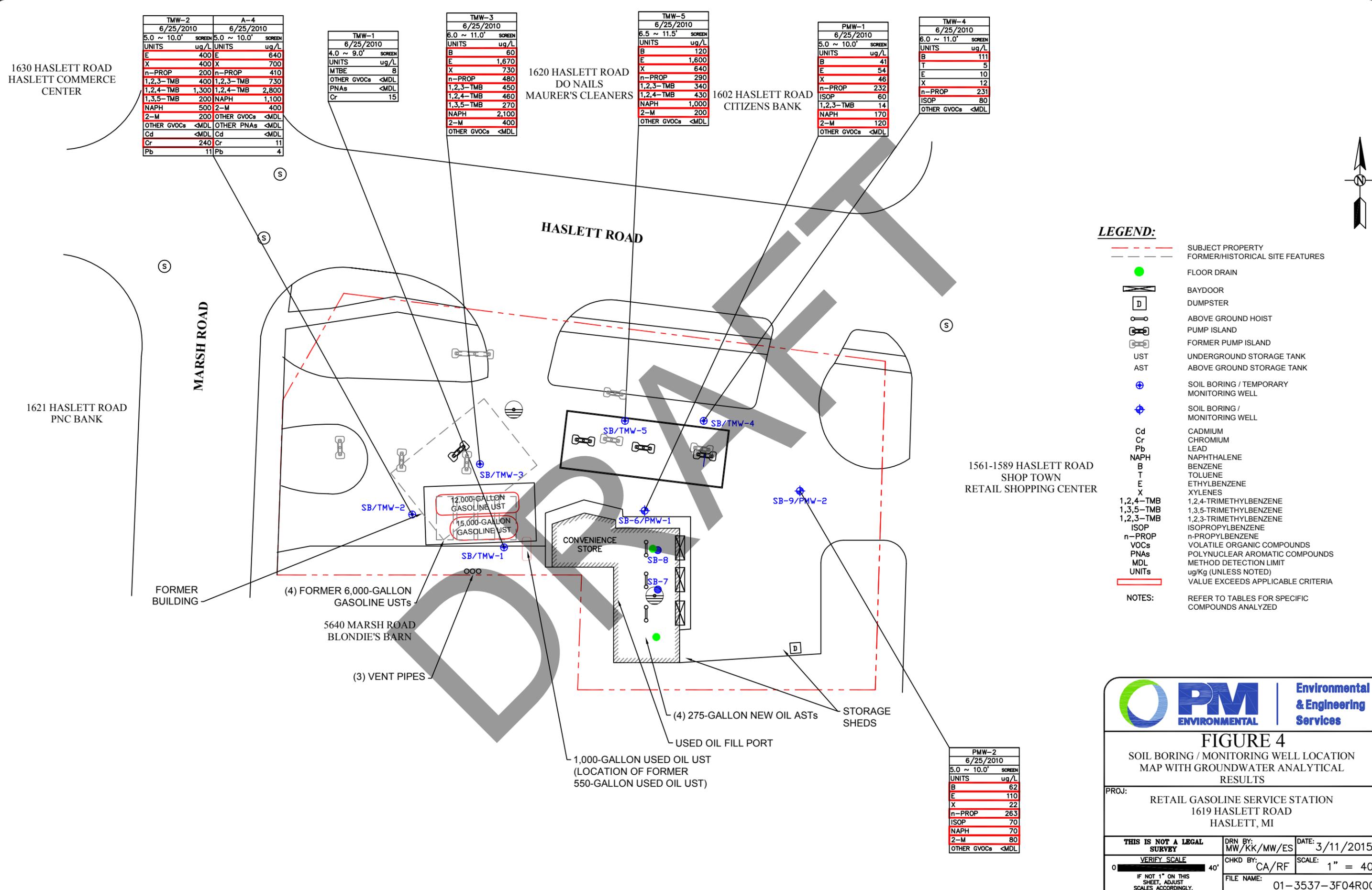
FIGURE 3
SOIL BORING / MONITORING WELL LOCATION
MAP WITH SOIL ANALYTICAL RESULTS

PROJ: RETAIL GASOLINE SERVICE STATION
1619 HASLETT ROAD
HASLETT, MI

THIS IS NOT A LEGAL SURVEY
VERIFY SCALE
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRN BY: MW/KK/MW/ES
CHKD BY: CA/RF
FILE NAME: 01-3537-3F03R00

DATE: 3/11/2015
SCALE: 1" = 40'



TMW-2 6/25/2010		A-4 6/25/2010	
UNITS	ug/L	UNITS	ug/L
5.0 ~ 10.0'	SCREEN	5.0 ~ 10.0'	SCREEN
E	400	E	640
X	400	X	700
n-PROP	200	n-PROP	410
1,2,3-TMB	400	1,2,3-TMB	730
1,2,4-TMB	1,300	1,2,4-TMB	2,800
1,3,5-TMB	200	NAPH	1,100
NAPH	500	2-M	400
2-M	200	OTHER GVOCs	<MDL
OTHER GVOCs	<MDL	OTHER PNAs	<MDL
Cd	<MDL	Cd	<MDL
Cr	240	Cr	11
Pb	11	Pb	4

TMW-1 6/25/2010	
UNITS	ug/L
4.0 ~ 9.0'	SCREEN
E	8
MTBE	8
OTHER GVOCs	<MDL
PNAs	<MDL
Cr	15

TMW-3 6/25/2010	
UNITS	ug/L
6.0 ~ 11.0'	SCREEN
B	60
E	1,670
X	730
n-PROP	480
1,2,3-TMB	450
1,2,4-TMB	460
1,3,5-TMB	270
NAPH	2,100
2-M	400
OTHER GVOCs	<MDL

TMW-5 6/25/2010	
UNITS	ug/L
6.5 ~ 11.5'	SCREEN
B	120
E	1,600
X	640
n-PROP	290
1,2,3-TMB	340
1,2,4-TMB	430
NAPH	1,000
2-M	200
OTHER GVOCs	<MDL

PMW-1 6/25/2010	
UNITS	ug/L
5.0 ~ 10.0'	SCREEN
B	41
E	54
X	46
n-PROP	232
ISOP	60
1,2,3-TMB	14
NAPH	170
2-M	120
OTHER GVOCs	<MDL

TMW-4 6/25/2010	
UNITS	ug/L
6.0 ~ 11.0'	SCREEN
B	111
T	5
E	10
X	12
n-PROP	231
ISOP	80
OTHER GVOCs	<MDL

PMW-2 6/25/2010	
UNITS	ug/L
5.0 ~ 10.0'	SCREEN
B	62
E	110
X	22
n-PROP	263
ISOP	70
NAPH	70
2-M	80
OTHER GVOCs	<MDL

LEGEND:

- SUBJECT PROPERTY
- FORMER/HISTORICAL SITE FEATURES
- FLOOR DRAIN
- BAYDOOR
- DUMPSTER
- ABOVE GROUND HOIST
- PUMP ISLAND
- FORMER PUMP ISLAND
- UST
- AST
- SOIL BORING / TEMPORARY MONITORING WELL
- SOIL BORING / MONITORING WELL
- Cd CADMIUM
- Cr CHROMIUM
- Pb LEAD
- NAPH NAPHTHALENE
- B BENZENE
- T TOLUENE
- E ETHYLBENZENE
- X XYLENES
- 1,2,4-TMB 1,2,4-TRIMETHYLBENZENE
- 1,3,5-TMB 1,3,5-TRIMETHYLBENZENE
- 1,2,3-TMB 1,2,3-TRIMETHYLBENZENE
- ISOP ISOPROPYLBENZENE
- n-PROP n-PROPYLBENZENE
- VOCs VOLATILE ORGANIC COMPOUNDS
- PNAs POLYNUCLEAR AROMATIC COMPOUNDS
- MDL METHOD DETECTION LIMIT
- UNITS ug/Kg (UNLESS NOTED)
- VALUE EXCEEDS APPLICABLE CRITERIA

NOTES: REFER TO TABLES FOR SPECIFIC COMPOUNDS ANALYZED

Environmental & Engineering Services

FIGURE 4

SOIL BORING / MONITORING WELL LOCATION MAP WITH GROUNDWATER ANALYTICAL RESULTS

PROJ: RETAIL GASOLINE SERVICE STATION
1619 HASLETT ROAD
HASLETT, MI

THIS IS NOT A LEGAL SURVEY	DRN BY: MW/KK/MW/ES	DATE: 3/11/2015
VERIFY SCALE	CHKD BY: CA/RF	SCALE: 1" = 40'
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.		
FILE NAME: 01-3537-3F04R00		

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS: VOCs
1619 HASLETT ROAD, HASLETT, MICHIGAN
PM PROJECT #01-3537-3

Volatile Organic Compounds (VOCs) (µg/Kg)			Benzene	Toluene	Ethylbenzene	Xylenes	n-Propylbenzene	Isopropyl benzene	Naphthalene	2-Methylnaphthalene	1,2,3-Trimethylbenzene*	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Tetrachloroethene	Other Gasoline VOCs	Other VOCs
Chemical Abstract Service Number (CAS#)			71432	108883	100414	1330207	103651	98828	91203	91576	526738	95636	108678	127184	Various	Various
Sample ID	Sample Date	Sample Depth (feet bgs)	VOCs													
SB-1	06/25/2010	5.0-6.0	<80	<200	<80	<280	<200	<400	<500	<500	<200	<200	<200	<70	NA	ND
SB-1	06/25/2010	16.0-17.0	<60	<100	<60	<160	<100	<300	<400	<400	<100	<100	<100	<70	NA	ND
SB-2	06/25/2010	6.0-7.0	<300	<300	3,600	4,600	5,400	<1,000	8,000	7,600	5,600	20,700	<300	<70	ND	NA
SB-2	06/25/2010	14.0-15.0	<70	<70	<70	<170	<70	<300	<300	<100	<70	150	<70	<70	ND	NA
SB-3	06/25/2010	2.0-3.0	<60	<60	<60	<160	<60	<300	<300	<100	<60	<60	<60	<70	ND	NA
SB-3	06/25/2010	14.0-15.0	<70	<70	<70	<170	<70	<300	<300	<100	<70	<70	<70	<70	ND	NA
SB-4	06/25/2010	3.0-4.0	<60	<60	<60	<160	<60	<300	<300	<100	<60	<60	<60	<70	ND	NA
SB-5	06/25/2010	4.0-5.0	<60	<60	<60	<160	<60	<300	<300	<100	<60	<60	<60	<70	ND	NA
SB-5	06/25/2010	14.0-15.0	5,120	<70	<70	<170	<70	<300	<300	<100	<70	<70	<70	<70	ND	NA
SB-6	06/25/2010	4.0-5.0	600	300	4,700	5,500	1,700	<800	<800	<300	1,100	1,700	1,600	<70	ND	NA
SB-7	06/25/2010	3.0-4.0	<60	<100	<60	<160	<100	<300	<400	<400	<100	<100	<100	<70	NA	ND
SB-7 A-3 (Duplicate)	06/25/2010	9.0-10.0	<80	<200	<80	<280	<200	<400	<500	<500	<200	<200	<200	<70	NA	ND
SB-8	06/25/2010	3.0-4.0	<70	<100	<70	<170	<100	<400	<500	<500	<100	<100	<100	680	NA	ND
SB-9	06/25/2010	6.0-7.0	<400	<400	4,700	<1,100	14,500	3,000	10,000	22,300	<400	<400	<400	<70	ND	NA
SB-9	06/25/2010	14.0-15.0	<60	<60	<60	<160	<60	<300	<300	<100	<60	<60	<60	<70	ND	NA

Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50)
Generic Soil Cleanup Criteria and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, December 30, 2013
MDEQ Guidance Document For The Vapor Intrusion Pathway, Policy and Procedure Number: 09-017, Appendix D Vapor Intrusion Screening Values, May 2013

Residential (µg/Kg)

Drinking Water Protection (Res DWP)	100	16,000	1,500	5,600	91,000	1,600	35,000	57,000	1,800	2,100	1,800	100	Various	Various
Groundwater Surface Water Interface Protection (GSIP)	4,000 (X)	5,400	360	820	3,200	ID	730	4,200	570	570	1,100	1,200 (X)	Various	Various
Soil Volatilization to Indoor Air Inhalation (Res SVII)	1,600	3.3E+05 (C)	87,000	6.3E+06 (C)	4.0E+05 (C)	ID	2.50E+05	2.70E+06	2.6E+06 (C)	4.3E+06 (C)	2.6E+06 (C)	11,000	Various	Various
Ambient Air Infinite Source Volatile Soil Inhalation (Res VSI)	13,000	2.80E+06	7.20E+05	4.60E+07	1.70E+06	ID	3.00E+05	1.50E+06	1.60E+07	2.10E+07	1.60E+07	1.70E+05	Various	Various
Ambient Air Finite VSI for 5 Meter Source Thickness	34,000	5.10E+06	1.00E+06	6.10E+07	1.70E+06	ID	3.00E+05	1.50E+06	3.80E+08	5.00E+08	3.80E+08	4.80E+05	Various	Various
Ambient Air Finite VSI for 2 Meter Source Thickness	79,000	1.20E+07	2.20E+06	1.30E+08	2.80E+06	ID	3.00E+05	1.50E+06	3.80E+08	5.00E+08	3.80E+08	1.1E+06	Various	Various
Ambient Air Particulate Soil Inhalation (Res PSI)	3.80E+08	2.70E+10	1.00E+10	2.90E+11	5.80E+09	1.30E+09	2.00E+08	6.70E+08	8.20E+10	8.20E+10	8.20E+10	2.7E+09	Various	Various
Direct Contact (Res DC)	1.80E+05	5.0E+07 (C)	2.2E+07 (C)	4.1E+08 (C)	2.5E+07 (C)	2.50E+06	1.60E+07	8.10E+06	3.2E+07 (C)	3.2E+07 (C)	3.2E+07 (C)	2.0E+05 (C)	Various	Various

Nonresidential (µg/Kg)

Drinking Water Protection (Nonres DWP)	100	16,000	1,500	5,600	2.60E+05	4,600	1.00E+05	1.70E+05	1,800	2,100	1,800	100	Various	Various
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)	8,400	6.1E+05 (C)	4.6E+05 (C)	1.2E+07 (C)	7.3E+05 (C)	ID	4.70E+05	4.90E+06	4.8E+06 (C)	8.0E+06 (C)	4.8E+06 (C)	21,000	Various	Various
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)	45,000	3.30E+06	2.40E+06	5.40E+07	2.00E+06	ID	3.50E+05	1.80E+06	1.90E+07	2.50E+07	1.90E+07	2.10E+05	Various	Various
Ambient Air Finite VSI for 5 Meter Source Thickness	99,000	3.60E+07	3.10E+06	6.50E+07	2.00E+06	ID	3.50E+05	1.80E+06	4.60E+08	6.00E+08	4.60E+08	4.90E+05	Various	Various
Ambient Air Finite VSI for 2 Meter Source Thickness	2.30E+05	3.60E+07	6.50E+06	1.30E+08	3.00E+06	ID	3.50E+05	1.80E+06	4.60E+08	6.00E+08	4.60E+08	1.1E+06	Various	Various
Ambient Air Particulate Soil Inhalation (Nonres PSI)	4.70E+08	1.20E+10	1.30E+10	1.30E+11	2.60E+09	5.90E+08	8.80E+07	2.90E+08	3.60E+10	3.60E+10	3.60E+10	1.2E+09	Various	Various
Direct Contact (Nonres DC)	8.40E+05 (C)	1.6E+08 (C)	7.1E+07 (C)	1.0E+09 (C)	8.0E+07 (C)	8.00E+06	5.20E+07	2.60E+07	1.0E+08 (C)	1.0E+08 (C)	1.0E+08 (C)	9.3E+05 (C)	Various	Various

Screening Levels (µg/Kg)

Soil Saturation Concentration Screening Levels (Csat)	4.00E+05	2.50E+05	1.40E+05	1.50E+05	1.00E+07	3.90E+05	NA	NA	94,000	1.10E+05	94,000	88,000	Various	Various
Residential Vapor Intrusion Soil Screening Levels (S_{VI-res})	50	10,000	200	290	140	250	440	7,500	3,200	2,200	1,700	52	Various	Various
Nonresidential Vapor Intrusion Soil Screening Levels (S_{VI-nr})	84.5	1.69E+05	4,000	4,900	2,400	300	8,900	1.26E+05	53,000	37,000	28,000	1,000	Various	Various

- Applicable Criterion/RBSL Exceeded
- BOLD** Value Exceeds Applicable Criterion/RBSL
- bgs Below Ground Surface (feet)
- ID Insufficient Data
- NA Not Applicable
- ND Non-detected at levels above laboratory method detection limit (MDL)
- NL Not Listed
- NLL Not Likely to Leach
- NLV Not Likely to Volatilize
- * 1,2,3-Trimethylbenzene RBSLs based on the more restrictive of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene.

**TABLE 2
SUMMARY OF SOIL ANALYTICAL RESULTS: PNAs, CADMIUM, CHROMIUM AND LEAD
1619 HASLETT ROAD, HASLETT, MICHIGAN
PM PROJECT #01-3537-3**

Polynuclear Aromatic Compounds, Cadmium, Chromium and Lead (µg/Kg)			Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Fluoranthene	Phenanthrene	Pyrene	Other PNAs	Cadmium	Chromium	Lead		
															Total ¹	Coarse Fraction	Fine Fraction
Chemical Abstract Service Number (CAS#)			56553	50328	205992	207089	191242	218019	206440	85018	129000	Various	7440439	16065831	7439921		
Sample ID	Sample Date	Sample Depth (feet bgs)	PNAs										Metals				
SB-1	06/25/2010	5.0-6.0	<300	<300	<300	<300	<300	<300	<300	<300	<300	ND	<200	3,550	8,620	NA	NA
SB-1	06/25/2010	16.0-17.0	<300	<300	<300	<300	<300	<300	<300	<300	<300	ND	<200	2,690	3,680	NA	NA
SB-7	06/25/2010	3.0-4.0	<300	<300	<300	<300	<300	<300	<300	<300	<300	ND	<200	1,320	2,870	NA	NA
SB-7	06/25/2010	9.0-10.0	<300	<300	<300	<300	<300	<300	<300	<300	<300	ND	<200	3,660	10,200	NA	NA
A-3 (Duplicate)			<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	ND	240	3,790	10,900	NA
SB-8	06/25/2010	3.0-4.0	400	400	500	300	300	500	1,000	500	800	ND	2,470	4,720	557,000	73,100	273,000
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50) Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, December 30, 2013 MDEQ Guidance Document For The Vapor Intrusion Pathway, Policy and Procedure Number: 09-017, Appendix D Vapor Intrusion Screening Values, May 2013																	
Residential (µg/Kg)																	
Statewide Default Background Levels	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,200	18,000	21,000	NA	NA
Drinking Water Protection (Res DWP)	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.30E+05	56,000	4.80E+05	4.80E+05	6,000	30,000	7.00E+05	7.00E+05	7.00E+05	
Groundwater Surface Water Interface Protection (GSIP)	NLL	NLL	NLL	NLL	NLL	NLL	NLL	5,500	2,100	ID	ID	3.1E+3 (G,X)	2.5E+9 (G,X)	2.3E+6 (G,X)			
Soil Volatilization to Indoor Air Inhalation (Res SVII)	NLV	NLV	ID	NLV	NLV	ID	1.0E+9 (D)	2.8E+06	1.0E+9 (D)	1.0E+9 (D)	NLV	NLV	NLV	NLV	NLV		
Ambient Air Infinite Source Volatile Soil Inhalation (Res VSI)	NLV	NLV	ID	NLV	NLV	ID	7.40E+08	1.60E+05	6.5E+08	6.5E+08	NLV	NLV	NLV	NLV	NLV		
Ambient Air Finite VSI for 5 Meter Source Thickness	NLV	NLV	ID	NLV	NLV	ID	7.4E+08	1.60E+05	6.5E+08	6.5E+08	NLV	NLV	NLV	NLV	NLV		
Ambient Air Finite VSI for 2 Meter Source Thickness	NLV	NLV	ID	NLV	NLV	ID	7.4E+08	1.60E+05	6.5E+08	6.5E+08	NLV	NLV	NLV	NLV	NLV		
Ambient Air Particulate Soil Inhalation (Res PSI)	ID	1.5E+06	ID	ID	8.0E+08	ID	9.3E+09	6.7E+06	6.7E+09	6.7E+09	1.70E+06	2.60E+05	NA	NA	1.0E+08		
Direct Contact (Res DC)	20,000	2,000	20,000	2.00E+05	2.5E+06	2.0E+06	4.6E+07	1.6E+06	2.9E+07	2.9E+07	5.50E+05	2.50E+06	4.00E+05	4.00E+05	4.00E+05		
Nonresidential (µg/Kg)																	
Drinking Water Protection (Nonres DWP)	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.30E+05	1.60E+05	4.80E+05	4.80E+05	6,000	30,000	7.00E+05	7.00E+05	7.00E+05	
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)	NLV	NLV	ID	NLV	NLV	ID	1.0E+9 (D)	5.1E+06	1.0E+9 (D)	1.0E+9 (D)	NLV	NLV	NLV	NLV	NLV		
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)	NLV	NLV	ID	NLV	NLV	ID	8.9E+08	1.90E+05	7.8E+08	7.8E+08	NLV	NLV	NLV	NLV	NLV		
Ambient Air Finite VSI for 5 Meter Source Thickness	NLV	NLV	ID	NLV	NLV	ID	8.8E+08	1.90E+05	7.8E+08	7.8E+08	NLV	NLV	NLV	NLV	NLV		
Ambient Air Finite VSI for 2 Meter Source Thickness	NLV	NLV	ID	NLV	NLV	ID	8.8E+08	1.90E+05	7.8E+08	7.8E+08	NLV	NLV	NLV	NLV	NLV		
Ambient Air Particulate Soil Inhalation (Nonres PSI)	ID	1.9E+06	ID	ID	3.5E+08	ID	4.1E+09	2.9E+06	2.9E+09	2.9E+09	2.2E+06	2.40E+05	NA	NA	4.4E+07		
Direct Contact (Nonres DC)	80,000	8,000	80,000	8.00E+05	7.0E+06	8.0E+06	1.3E+08	5.2E+06	8.4E+07	8.4E+07	2.1E+06	9.2E+06	9.00E+05 (DD)	9.00E+05 (DD)	9.00E+05 (DD)		
Screening Levels (µg/Kg)																	
Soil Saturation Concentration Screening Levels (Csat)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Residential Vapor Intrusion Soil Screening Levels (S_{VI-res})	NL	NL	NL	NL	NL	NL	NL	5,100	6.47E+07	6.47E+07	NL	NL	NL	NL	NL		
Nonresidential Vapor Intrusion Soil Screening Levels (S_{VI-nr})	NL	NL	NL	NL	NL	NL	NL	86,000	1.09E+09	1.09E+09	NL	NL	NL	NL	NL		

 Applicable Criterion/RBSL Exceeded
BOLD Value Exceeds Applicable Criterion/RBSL
 bgs Below Ground Surface (feet)
 ID Insufficient Data
 NA Not Applicable
 ND Non-detected at levels above laboratory method detection limit (MDL)
 NL Not Listed
 NLL Not Likely to Leach
 NLV Not Likely to Volatilize
 1 Maximum of analyzed or calculated total lead value.

{G} Metal GSIP Criteria for Surface Water Not Protected for Drinking Water Use based on 122 mg/L CaCO₃ Hardness: Station ID 330137, Lake Lansing, Haslett, MI.

**TABLE 3
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS:
VOCs, PNAs, CADMIUM, CHROMIUM AND LEAD
1619 HASLETT ROAD, HASLETT, MICHIGAN
PM PROJECT #01-3537-3**

Volatile Organic Compounds (VOCs), Cadmium, Chromium and Lead (µg/L)				Benzene	Toluene	Ethylbenzene	Xylenes	Methyl-tert-butyl ether (MTBE)	n-Propylbenzene	Isopropyl benzene	1,2,3-Trimethylbenzene ⁵	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Naphthalene	2-Methylnaphthalene	Other Gasoline VOCs	Other VOCs	PNAs	Cadmium	Chromium	Lead
Chemical Abstract Service Number (CAS#)				71432	108883	100414	1330207	1634044	103651	98828	526738	95636	108678	91203	91576	Various	Various	Various	7440439	16065831	7439921
Sample ID	Sample Date	Screen Depth (feet bgs)	Depth to Groundwater (feet bgs)	VOCs														PNAs	Metals		
TMW-1	6/25/2010	4.0-9.0	6.0	<1	<1	<1	<3	8	<1	<5	<1	<1	<1	<5	<5	NA	ND	ND	NA	15	NA
TMW-2	6/25/2010	5.0-10.0	7.0	<100	<100	400	400	<500	200	<500	400	1,300	200	500	200	ND	NA	NA	<0.5	240	11
A-4 (Colocated)	6/25/2010	5.0-10.0	7.0	<50	<50	640	700	<300	410	<300	730	2,800	<50	1,100	400	ND	NA	NA	<0.5	11	4
TMW-3	6/25/2010	6.0-11.0	8.0	60	<50	1,670	730	<300	480	<300	450	460	270	2,100	400	ND	NA	NA	NA	NA	NA
TMW-4	6/25/2010	6.0-11.0	7.1	111	5	10	12	<30	231	80	<5	<5	<5	<30	<10	ND	NA	NA	NA	NA	NA
TMW-5	6/25/2010	6.5-11.5	7.3	120	<50	1,600	640	<300	290	<300	340	430	<50	1,000	200	ND	NA	NA	NA	NA	NA
PMW-1	6/25/2010	5.0-10.0	8.0	41	<5	54	46	<30	232	60	14	<5	<5	170	120	ND	NA	NA	NA	NA	NA
PMW-2	6/25/2010	5.0-10.0	8.0	62	<5	110	22	<30	263	70	<5	<5	<5	70	80	ND	NA	NA	NA	NA	NA
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50)																					
Generic Groundwater Cleanup Criteria Table 1: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, December 30, 2013																					
MDEQ Guidance Document For The Vapor Intrusion Pathway, Policy and Procedure Number: 09-017, Appendix D Vapor Intrusion Screening Values, May 2013																					
Residential/Nonresidential (µg/L)																					
Residential Drinking Water (Res DW)	5.0 (A)	790 (E)	74 (E)	280 (E)	40 (E)	80	800	63 (E)	63 (E)	72 (E)	520	260	Various	Various	Various	5.0 (A)	100 (A)	4.0 (L)			
Residential Health Based Drinking Water Values	NL	1,000 (E)	700 (E)	10,000 (E)	240 (E)	NL	NL	NL	1,000 (E)	1,000 (E)	NL	NL	Various	Various	Various	NL	NL	NL			
Nonresidential Drinking Water (Nonres DW)	5.0 (A)	790 (E)	74 (E)	280 (E)	40 (E)	230	2,300	63 (E)	63 (E)	72 (E)	1,500	750	Various	Various	Various	5.0 (A)	100 (A)	4.0 (L)			
Nonresidential Health Based Drinking Water Values	NL	1,000 (E)	700 (E)	10,000 (E)	690 (E)	NL	NL	NL	2,900 (E)	2,900 (E)	NL	NL	Various	Various	Various	NL	NL	NL			
Groundwater Surface Water Interface (GSI)	200 (X)	270	18	41	7,100 (X)	ID	ID	17	17	45	11	19	Various	Various	Various	2.6 (G,X)	87 (G,X)	13 (G,X)			
Residential Groundwater Volatilization to Indoor Air Inhalation (Res GVII) ²	5,600	5.3E+5 (S)	1.10E+05	1.9E+5 (S)	4.7E+7 (S)	ID	56,000 (S)	56,000 (S)	56,000 (S)	61,000 (S)	31,000 (S)	25,000 (S)	Various	Various	Various	NLV	NLV	NLV			
Nonresidential Groundwater Volatilization to Indoor Air Inhalation (Nonres GVII) ²	35,000	5.3E+5 (S)	1.7E+5 (S)	1.9E+5 (S)	4.7E+7 (S)	ID	56,000 (S)	56,000 (S)	56,000 (S)	61,000 (S)	31,000 (S)	25,000 (S)	Various	Various	Various	NLV	NLV	NLV			
Screening Levels (µg/L)																					
Residential Groundwater Vapor Intrusion Screening Levels (GW_{VI-res})³	27	36,000	700	10,000	2.50E+05	92	10	2,400	1,700	1,200	240	940	Various	Various	Various	NL	NL	NL			
Nonresidential Groundwater Vapor Intrusion Screening Levels (GW_{VI-nr})³	140	1.50E+05	2,600	10,000	1.00E+06	390	53	10,000	7,300	5,100	1,200	3,900	Various	Various	Various	NL	NL	NL			
Residential Vapor Intrusion Shallow Groundwater Screening Levels (GW_{VI-sump-res})⁴	5.0	1,000	700	10,000	250	1.0	5.0	5.0	1.7	1.2	5.0	5.0	Various	Various	Various	NL	NL	NL			
Nonresidential Vapor Intrusion Shallow Groundwater Screening Levels (GW_{VI-sump-nr})⁴	5.0	1,000	700	10,000	1,000	1.0	5.0	10	7.3	5.1	5.0	5.0	Various	Various	Various	NL	NL	NL			
Water Solubility	1.75E+06	5.26E+05	1.69E+05	1.86E+05	4.68E+07	NA	56,000	NL	56,000	61,000	31,000	25,000	Various	Various	Various	NA	NA	NA			
Flammability and Explosivity Screening Level	68,000	61,000	43,000	70,000	ID	ID	29,000	NL	56,000 (S)	ID	NA	ID	Various	Various	Various	ID	ID	ID			
DRAFT Acute Vapor Intrusion Screening Levels for Groundwater (µg/L)																					
IRASL Groundwater (AGW_{VI})	11,000	2.59E+05	NL	1.54E+05	5.70E+05	NL	NL	NL	NL	NL	NL	NL	Various	Various	Various	NL	NL	NL			
IRASL Groundwater In Contact With Structure (AGW_{VI-sump})	11	260	NL	150	570	NL	NL	NL	NL	NL	NL	NL	Various	Various	Various	NL	NL	NL			

- Applicable Criteria/RBSL Exceeded
- BOLD** Value Exceeds Applicable Criteria
- bgs Below Ground Surface (feet)
- ID Insufficient Data
- NA Not Applicable
- ND Not detected at levels above the laboratory Method Detection Limit (MDL) or Minimum Quantitative Level (MQL)
- NL Not Listed
- NLL Not Likely to Leach
- NLV Not Likely to Volatilize
- ¹ Rule 323.1057 of Part 4 Water Quality Standards
- ² Tier 1 GVII Criteria based on 3 meter (or greater) groundwater depth
- ³ (2013 Vapor Intrusion Guidance) Screening Levels based on depth to groundwater less than 1.5 meters and not in contact with building foundation
- ⁴ (2013 Vapor Intrusion Guidance) Screening levels based on groundwater in contact with the building foundation or within a sump
- ⁵ 1,2,3-Trimethylbenzene RBSLs based on the more restrictive of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene.

DRAFT

Tables

Table 1: Eligible Activities Cost Estimates

Item/Activity	Total Request
Pre-Approved Activities	
Phase I ESA	\$ 2,200
Phase II ESA	\$ 13,260
Phase II ESA/BEA/DDCC	\$ 2,800
Hazardous Materials Survey	\$ 1,200
Pre-Approved Activities Sub-Total	\$ 19,460
Department Specific Activities	
Vapor Barrier Design and Installation	\$ 46,354
Vapor Barrier Smoke Testing and Indoor Air Sampling	\$ 8,500
Required Sampling during Removal of Product Lines	\$ 10,500
Contaminated Soil Transport and Disposal (non-haz)	\$ 60,655
Contaminated Soil Transport and Disposal (haz)	\$ 7,500
Groundwater Management	\$ 9,500
Post Development DDCC	\$ 5,250
Oversight, Sampling and Reporting by Environmental Professional	\$ 10,500
Department Specific Activities Sub-Total	\$ 158,759
Demolition	
Building and Site Demolition Activities	\$ 63,000
Demolition Sub-Total	\$ 63,000
Brownfield Plan	
Brownfield Plan Preparation	\$ 15,000
Brownfield Plan Implementation	\$ 15,000
Brownfield Plan Sub-Total	\$ 30,000
Eligible Activities Sub-Total	\$ 271,219
15% Contingency*	\$ 33,264
Developer Eligible Reimbursement Total	\$ 304,483
Administrative Fee	\$ 17,502
Local Brownfield Revolving Fund (LBRF)	\$ 17,502
Total	\$ 339,487

*15% Contingency excludes preparation of Brownfield Plan/381 Work Plan and Pre-Approved Activities

**Table 2:
Tax Increment Revenue Capture Estimates
1619 Haslett Road, Haslett, MI**

Estimated Taxable Value (TV) Increase Rate: 1% per year

Plan Year	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Calendar Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
Base Taxable Value	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	
Estimated New TV	\$	\$ 469,343	\$ 474,036	\$ 478,776	\$ 483,564	\$ 488,400	\$ 493,284	\$ 498,217	\$ 503,199	\$ 508,231	\$ 513,313	\$ 518,446	\$ 523,631	\$ 528,867	\$ 534,156	\$ 539,497	\$ 544,892	\$ 550,341	
Incremental Difference (New TV - Base TV)	\$	\$ 286,208	\$ 290,901	\$ 295,641	\$ 300,429	\$ 305,265	\$ 310,149	\$ 315,082	\$ 320,064	\$ 325,096	\$ 330,178	\$ 335,311	\$ 340,496	\$ 345,732	\$ 351,021	\$ 356,362	\$ 361,757	\$ 367,206	
School Tax Revenue (Not-Captured)																			
State Ed. Tax	6.0000	\$ 1,099	\$ 1,717	\$ 1,745	\$ 1,774	\$ 1,803	\$ 1,832	\$ 1,861	\$ 1,890	\$ 1,920	\$ 1,951	\$ 1,981	\$ 2,012	\$ 2,043	\$ 2,074	\$ 2,106	\$ 2,138	\$ 2,171	\$ 2,203
Haslett Non-Home	18.0000	\$ 3,296	\$ 5,152	\$ 5,236	\$ 5,322	\$ 5,408	\$ 5,495	\$ 5,583	\$ 5,671	\$ 5,761	\$ 5,852	\$ 5,943	\$ 6,036	\$ 6,129	\$ 6,223	\$ 6,318	\$ 6,415	\$ 6,512	\$ 6,610
School Total	24.0000	\$ 4,395	\$ 6,869	\$ 6,982	\$ 7,095	\$ 7,210	\$ 7,326	\$ 7,444	\$ 7,562	\$ 7,682	\$ 7,802	\$ 7,924	\$ 8,047	\$ 8,172	\$ 8,298	\$ 8,424	\$ 8,553	\$ 8,682	\$ 8,813
Local Tax Revenue (Capturable)																			
Haslett Bldg/Sit	1.9994	\$ 366	\$ 572	\$ 582	\$ 591	\$ 601	\$ 610	\$ 620	\$ 630	\$ 640	\$ 650	\$ 660	\$ 670	\$ 681	\$ 691	\$ 702	\$ 713	\$ 723	\$ 734
Meridian Oper.	4.1670	\$ 763	\$ 1,193	\$ 1,212	\$ 1,232	\$ 1,252	\$ 1,272	\$ 1,292	\$ 1,313	\$ 1,334	\$ 1,355	\$ 1,376	\$ 1,397	\$ 1,419	\$ 1,441	\$ 1,463	\$ 1,485	\$ 1,507	\$ 1,530
Rec/Srs/Hum Serv	0.1487	\$ 27	\$ 43	\$ 43	\$ 44	\$ 45	\$ 45	\$ 46	\$ 47	\$ 48	\$ 48	\$ 49	\$ 50	\$ 51	\$ 51	\$ 52	\$ 53	\$ 54	\$ 55
Meridian Bikepath	0.3316	\$ 61	\$ 95	\$ 96	\$ 98	\$ 100	\$ 101	\$ 103	\$ 104	\$ 106	\$ 108	\$ 109	\$ 111	\$ 113	\$ 115	\$ 116	\$ 118	\$ 120	\$ 122
Meridian Fire	0.6353	\$ 116	\$ 182	\$ 185	\$ 188	\$ 191	\$ 194	\$ 197	\$ 200	\$ 203	\$ 207	\$ 210	\$ 213	\$ 216	\$ 220	\$ 223	\$ 226	\$ 230	\$ 233
Meridian Parks	0.6612	\$ 121	\$ 189	\$ 192	\$ 195	\$ 199	\$ 202	\$ 205	\$ 208	\$ 212	\$ 215	\$ 218	\$ 222	\$ 225	\$ 229	\$ 232	\$ 236	\$ 239	\$ 243
Meridian Police	0.6030	\$ 110	\$ 173	\$ 175	\$ 178	\$ 181	\$ 184	\$ 187	\$ 190	\$ 193	\$ 196	\$ 199	\$ 202	\$ 205	\$ 208	\$ 212	\$ 215	\$ 218	\$ 221
Land Preserve	0.3273	\$ 60	\$ 94	\$ 95	\$ 97	\$ 98	\$ 100	\$ 102	\$ 103	\$ 105	\$ 106	\$ 108	\$ 110	\$ 111	\$ 113	\$ 115	\$ 117	\$ 118	\$ 120
Police and Fire	1.4804	\$ 271	\$ 424	\$ 431	\$ 438	\$ 445	\$ 452	\$ 459	\$ 466	\$ 474	\$ 481	\$ 489	\$ 496	\$ 504	\$ 512	\$ 520	\$ 528	\$ 536	\$ 544
CATA/Regular	3.0070	\$ 551	\$ 861	\$ 875	\$ 889	\$ 903	\$ 918	\$ 933	\$ 947	\$ 962	\$ 978	\$ 993	\$ 1,008	\$ 1,024	\$ 1,040	\$ 1,056	\$ 1,072	\$ 1,088	\$ 1,104
Cadl-Library	1.5600	\$ 286	\$ 446	\$ 454	\$ 461	\$ 469	\$ 476	\$ 484	\$ 492	\$ 499	\$ 507	\$ 515	\$ 523	\$ 531	\$ 539	\$ 548	\$ 556	\$ 564	\$ 573
Ingham County	11.3400	\$ 2,077	\$ 3,246	\$ 3,299	\$ 3,353	\$ 3,407	\$ 3,462	\$ 3,517	\$ 3,573	\$ 3,630	\$ 3,687	\$ 3,744	\$ 3,802	\$ 3,861	\$ 3,921	\$ 3,981	\$ 4,041	\$ 4,102	\$ 4,164
Ingham Intermed.	5.9987	\$ 1,099	\$ 1,717	\$ 1,745	\$ 1,773	\$ 1,802	\$ 1,831	\$ 1,860	\$ 1,890	\$ 1,920	\$ 1,950	\$ 1,981	\$ 2,011	\$ 2,043	\$ 2,074	\$ 2,106	\$ 2,138	\$ 2,170	\$ 2,203
Airport Auth.	0.6990	\$ 128	\$ 200	\$ 203	\$ 207	\$ 210	\$ 213	\$ 217	\$ 220	\$ 224	\$ 227	\$ 231	\$ 234	\$ 238	\$ 242	\$ 245	\$ 249	\$ 253	\$ 257
Lansing Comm. Coll.	3.8072	\$ 697	\$ 1,090	\$ 1,108	\$ 1,126	\$ 1,144	\$ 1,162	\$ 1,181	\$ 1,200	\$ 1,219	\$ 1,238	\$ 1,257	\$ 1,277	\$ 1,296	\$ 1,316	\$ 1,336	\$ 1,357	\$ 1,377	\$ 1,398
Local Total	36.7658	\$ 6,733	\$ 10,523	\$ 10,695	\$ 10,869	\$ 11,046	\$ 11,223	\$ 11,403	\$ 11,584	\$ 11,767	\$ 11,952	\$ 12,139	\$ 12,328	\$ 12,519	\$ 12,711	\$ 12,906	\$ 13,102	\$ 13,300	\$ 13,501
Local Tax Revenue (Non-Capturable)																			
Haslett Debt	8.3300	\$ 1,526	\$ 2,384	\$ 2,423	\$ 2,463	\$ 2,503	\$ 2,543	\$ 2,584	\$ 2,625	\$ 2,666	\$ 2,708	\$ 2,750	\$ 2,793	\$ 2,836	\$ 2,880	\$ 2,924	\$ 2,968	\$ 3,013	\$ 3,059
Road Improv. Debt	1.9429	\$ 356	\$ 556	\$ 565	\$ 574	\$ 584	\$ 593	\$ 603	\$ 612	\$ 622	\$ 632	\$ 642	\$ 651	\$ 662	\$ 672	\$ 682	\$ 692	\$ 703	\$ 713
Firestation Debt	0.2000	\$ 37	\$ 57	\$ 58	\$ 59	\$ 60	\$ 61	\$ 62	\$ 63	\$ 64	\$ 65	\$ 66	\$ 67	\$ 68	\$ 69	\$ 70	\$ 71	\$ 72	\$ 73
Total Non-Capturable Taxes	10.4729	\$ 1,918	\$ 2,997	\$ 3,047	\$ 3,096	\$ 3,146	\$ 3,197	\$ 3,248	\$ 3,300	\$ 3,352	\$ 3,405	\$ 3,458	\$ 3,512	\$ 3,566	\$ 3,621	\$ 3,676	\$ 3,732	\$ 3,789	\$ 3,846
Total Capturable Millages	36.7658																		
Total Millages	47.2387																		
Total Tax Increment Revenue (TIR) Available for Capture		\$ 10,523	\$ 10,695	\$ 10,869	\$ 11,046	\$ 11,223	\$ 11,403	\$ 11,584	\$ 11,767	\$ 11,952	\$ 12,139	\$ 12,328	\$ 12,519	\$ 12,711	\$ 12,906	\$ 13,102	\$ 13,300	\$ 13,501	
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
Base Taxes	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651
New Taxes	\$ 20,389	\$ 20,723	\$ 21,061	\$ 21,402	\$ 21,747	\$ 22,095	\$ 22,446	\$ 22,801	\$ 23,159	\$ 23,521	\$ 23,887	\$ 24,256	\$ 24,630	\$ 25,006	\$ 25,387	\$ 25,771	\$ 26,159	\$ 26,549	\$ 26,941
Total Estimated Tax Bill	\$ 29,040	\$ 29,374	\$ 29,712	\$ 30,053	\$ 30,398	\$ 30,746	\$ 31,097	\$ 31,452	\$ 31,810	\$ 32,173	\$ 32,538	\$ 32,908	\$ 33,281	\$ 33,657	\$ 34,038	\$ 34,422	\$ 34,810	\$ 35,200	\$ 35,592
Total Estimated Reimbursement	\$ 9,470	\$ 9,626	\$ 9,783	\$ 9,941	\$ 10,101	\$ 10,263	\$ 10,426	\$ 10,591	\$ 10,757	\$ 10,925	\$ 11,095	\$ 11,267	\$ 11,440	\$ 11,615	\$ 11,792	\$ 11,970	\$ 12,151	\$ 12,333	\$ 12,517

**Table 2:
Tax Increment Revenue Capture Estimates
1619 Haslett Road, Haslett, MI**

Estimated Taxable Value (TV) Increase Rate:

Plan Year	18	19	20	21	22	23	24	25	26	27	TOTAL	
Calendar Year	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047		
Base Taxable Value	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	\$ 183,135	
Estimated New TV	\$ 555,845	\$ 561,403	\$ 567,017	\$ 572,687	\$ 578,414	\$ 584,198	\$ 590,040	\$ 595,941	\$ 601,900	\$ 607,919		
Incremental Difference (New TV - Base TV)	\$ 372,710	\$ 378,268	\$ 383,882	\$ 389,552	\$ 395,279	\$ 401,063	\$ 406,905	\$ 412,806	\$ 418,765	\$ 424,784		
School Tax Revenue (Not-Captured)												
State Ed. Tax	6.0000	\$ 2,236	\$ 2,270	\$ 2,303	\$ 2,337	\$ 2,372	\$ 2,406	\$ 2,441	\$ 2,477	\$ 2,513	\$ 2,549	\$ 57,125
Haslett Non-Home	18.0000	\$ 6,709	\$ 6,809	\$ 6,910	\$ 7,012	\$ 7,115	\$ 7,219	\$ 7,324	\$ 7,431	\$ 7,538	\$ 7,646	\$ 171,376
School Total	24.0000	\$ 8,945	\$ 9,078	\$ 9,213	\$ 9,349	\$ 9,487	\$ 9,626	\$ 9,766	\$ 9,907	\$ 10,050	\$ 10,195	\$ 228,502
Local Tax Revenue (Capturable)												
Haslett Bldg/Sit	1.9994	\$ 745	\$ 756	\$ 768	\$ 779	\$ 790	\$ 802	\$ 814	\$ 825	\$ 837	\$ 849	\$ 19,036
Meridian Oper.	4.1670	\$ 1,553	\$ 1,576	\$ 1,600	\$ 1,623	\$ 1,647	\$ 1,671	\$ 1,696	\$ 1,720	\$ 1,745	\$ 1,770	\$ 39,674
Rec/Srs/Hum Serv	0.1487	\$ 55	\$ 56	\$ 57	\$ 58	\$ 59	\$ 60	\$ 61	\$ 61	\$ 62	\$ 63	\$ 1,416
Meridian Bikepath	0.3316	\$ 124	\$ 125	\$ 127	\$ 129	\$ 131	\$ 133	\$ 135	\$ 137	\$ 139	\$ 141	\$ 3,157
Meridian Fire	0.6353	\$ 237	\$ 240	\$ 244	\$ 247	\$ 251	\$ 255	\$ 259	\$ 262	\$ 266	\$ 270	\$ 6,049
Meridian Parks	0.6612	\$ 246	\$ 250	\$ 254	\$ 258	\$ 261	\$ 265	\$ 269	\$ 273	\$ 277	\$ 281	\$ 6,295
Meridian Police	0.6030	\$ 225	\$ 228	\$ 231	\$ 235	\$ 238	\$ 242	\$ 245	\$ 249	\$ 253	\$ 256	\$ 5,741
Land Preserve	0.3273	\$ 122	\$ 124	\$ 126	\$ 128	\$ 129	\$ 131	\$ 133	\$ 135	\$ 137	\$ 139	\$ 3,116
Police and Fire	1.4804	\$ 552	\$ 560	\$ 568	\$ 577	\$ 585	\$ 594	\$ 602	\$ 611	\$ 620	\$ 629	\$ 14,095
CATA/Regular	3.0070	\$ 1,121	\$ 1,137	\$ 1,154	\$ 1,171	\$ 1,189	\$ 1,206	\$ 1,224	\$ 1,241	\$ 1,259	\$ 1,277	\$ 28,629
Cadl-Library	1.5600	\$ 581	\$ 590	\$ 599	\$ 608	\$ 617	\$ 626	\$ 635	\$ 644	\$ 653	\$ 663	\$ 14,853
Ingham County	11.3400	\$ 4,227	\$ 4,290	\$ 4,353	\$ 4,418	\$ 4,482	\$ 4,548	\$ 4,614	\$ 4,681	\$ 4,749	\$ 4,817	\$ 107,967
Ingham Intermed.	5.9987	\$ 2,236	\$ 2,269	\$ 2,303	\$ 2,337	\$ 2,371	\$ 2,406	\$ 2,441	\$ 2,476	\$ 2,512	\$ 2,548	\$ 57,113
Airport Auth.	0.6990	\$ 261	\$ 264	\$ 268	\$ 272	\$ 276	\$ 280	\$ 284	\$ 289	\$ 293	\$ 297	\$ 6,655
Lansing Comm. Coll.	3.8072	\$ 1,419	\$ 1,440	\$ 1,462	\$ 1,483	\$ 1,505	\$ 1,527	\$ 1,549	\$ 1,572	\$ 1,594	\$ 1,617	\$ 36,248
Local Total	36.7658	\$ 13,703	\$ 13,907	\$ 14,114	\$ 14,322	\$ 14,533	\$ 14,745	\$ 14,960	\$ 15,177	\$ 15,396	\$ 15,618	\$ 350,044
Local Tax Revenue (Non-Capturable)												
Haslett Debt	8.3300	\$ 3,105	\$ 3,151	\$ 3,198	\$ 3,245	\$ 3,293	\$ 3,341	\$ 3,390	\$ 3,439	\$ 3,488	\$ 3,538	\$ 79,309
Road Improv. Debt	1.9429	\$ 724	\$ 735	\$ 746	\$ 757	\$ 768	\$ 779	\$ 791	\$ 802	\$ 814	\$ 825	\$ 18,498
Firestation Debt	0.2000	\$ 75	\$ 76	\$ 77	\$ 78	\$ 79	\$ 80	\$ 81	\$ 83	\$ 84	\$ 85	\$ 1,904
Total Non-Capturable Taxes	10.4729	\$ 3,903	\$ 3,962	\$ 4,020	\$ 4,080	\$ 4,140	\$ 4,200	\$ 4,261	\$ 4,323	\$ 4,386	\$ 4,449	\$ 99,712
Total Capturable Millages	36.7658											
Total Millages	47.2387											
Total Tax Increment Revenue (TIR) Available for Capture	\$ 13,703	\$ 13,907	\$ 14,114	\$ 14,322	\$ 14,533	\$ 14,745	\$ 14,960	\$ 15,177	\$ 15,396	\$ 15,618		
	18	19	20	21	22	23	24	25	26	27		
	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	\$ 8,651	
	\$ 26,551	\$ 26,947	\$ 27,347	\$ 27,751	\$ 28,159	\$ 28,571	\$ 28,987	\$ 29,408	\$ 29,832	\$ 30,261		
Total Esti	\$ 35,202	\$ 35,598	\$ 35,998	\$ 36,402	\$ 36,810	\$ 37,222	\$ 37,638	\$ 38,059	\$ 38,483	\$ 38,912		
Total Estimated R	\$ 12,333	\$ 12,517	\$ 12,702	\$ 12,890	\$ 13,079	\$ 13,271	\$ 13,464	\$ 13,659	\$ 13,857	\$ 14,056		

**Table 3:
Tax Increment Reimbursement Estimates
1619 Haslett Road, Haslett, MI**

Developer Maximum Reimbursement	Total Proportionality	School & Local Taxes	Local-Only Taxes	Total
State	50.81%	\$ -	\$ -	\$ -
Local	77.83%	\$ -	\$ 304,483	\$ 304,483

Estimated Total Years of Plan: 27
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Estimated Capture	
Administrative Fees	\$ 17,502
State Revolving Fund	\$ -
LBRF	\$ 17,502

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	
Total Local Incremental Revenue	\$ 10,523	\$ 10,695	\$ 10,869	\$ 11,046	\$ 11,223	\$ 11,403	\$ 11,584	\$ 11,767	\$ 11,952	\$ 12,139	\$ 12,328	\$ 12,519	\$ 12,711	\$ 12,906	\$ 13,102	
Local Admin Fee*	\$ 526	\$ 535	\$ 543	\$ 552	\$ 561	\$ 570	\$ 579	\$ 588	\$ 598	\$ 607	\$ 616	\$ 626	\$ 636	\$ 645	\$ 655	
LBRF Annual Capture*	\$ 526	\$ 535	\$ 543	\$ 552	\$ 561	\$ 570	\$ 579	\$ 588	\$ 598	\$ 607	\$ 616	\$ 626	\$ 636	\$ 645	\$ 655	
Local TIR Available for Reimbursement	\$ 9,470	\$ 9,626	\$ 9,783	\$ 9,941	\$ 10,101	\$ 10,263	\$ 10,426	\$ 10,591	\$ 10,757	\$ 10,925	\$ 11,095	\$ 11,267	\$ 11,440	\$ 11,615	\$ 11,792	
<u>Local Only Eligible Activities</u>	\$ 304,483															
Local Tax Reimbursement	\$ 9,470	\$ 9,626	\$ 9,783	\$ 9,941	\$ 10,101	\$ 10,263	\$ 10,426	\$ 10,591	\$ 10,757	\$ 10,925	\$ 11,095	\$ 11,267	\$ 11,440	\$ 11,615	\$ 11,792	
Cumulative Local Tax Reimbursement	\$ 9,470	\$ 19,096	\$ 28,879	\$ 38,820	\$ 48,921	\$ 59,183	\$ 69,609	\$ 80,200	\$ 90,957	\$ 101,882	\$ 112,977	\$ 124,244	\$ 135,684	\$ 147,299	\$ 159,091	
Total Annual Developer Reimbursement	\$ 304,483	\$ 295,012	\$ 285,387	\$ 275,604	\$ 265,663	\$ 255,562	\$ 245,300	\$ 234,874	\$ 224,283	\$ 213,526	\$ 202,601	\$ 191,506	\$ 180,239	\$ 168,799	\$ 157,184	\$ 145,392

Footnotes:
* 5% of total local incremental revenue

**Table 3:
Tax Increment Reimbursement Estimates
1619 Haslett Road, Haslett, MI**

	16	17	18	19	20	21	22	23	24	25	26	27	TOTAL
	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	
Total Local Incremental Revenue	\$ 13,300	\$ 13,501	\$ 13,703	\$ 13,907	\$ 14,114	\$ 14,322	\$ 14,533	\$ 14,745	\$ 14,960	\$ 15,177	\$ 15,396	\$ 15,618	\$ 350,044
Local Admin Fee*	\$ 665	\$ 675	\$ 685	\$ 695	\$ 706	\$ 716	\$ 727	\$ 737	\$ 748	\$ 759	\$ 770	\$ 781	\$ 17,502
LBRF Annual Capture*	\$ 665	\$ 675	\$ 685	\$ 695	\$ 706	\$ 716	\$ 727	\$ 737	\$ 748	\$ 759	\$ 770	\$ 781	\$ 17,502
Local TIR Available for Reimbursement	\$ 11,970	\$ 12,151	\$ 12,333	\$ 12,517	\$ 12,702	\$ 12,890	\$ 13,079	\$ 13,271	\$ 13,464	\$ 13,659	\$ 13,857	\$ 14,056	\$ 315,040
Local Only Eligible Activities													
Local Tax Reimbursement	\$ 11,970	\$ 12,151	\$ 12,333	\$ 12,517	\$ 12,702	\$ 12,890	\$ 13,079	\$ 13,271	\$ 13,464	\$ 13,659	\$ 13,857	\$ 3,499	\$ 304,483
Cumulative Local Tax Reimbursement	\$ 171,061	\$ 183,212	\$ 195,544	\$ 208,061	\$ 220,763	\$ 233,653	\$ 246,733	\$ 260,004	\$ 273,468	\$ 287,127	\$ 300,984	\$ 304,483	
Total Annual Developer Reimbursement	\$ 133,422	\$ 121,271	\$ 108,939	\$ 96,422	\$ 83,720	\$ 70,830	\$ 57,750	\$ 44,479	\$ 31,015	\$ 17,356	\$ 3,499	\$ -	

Footnotes:
* 5% of total local incremental revenue

