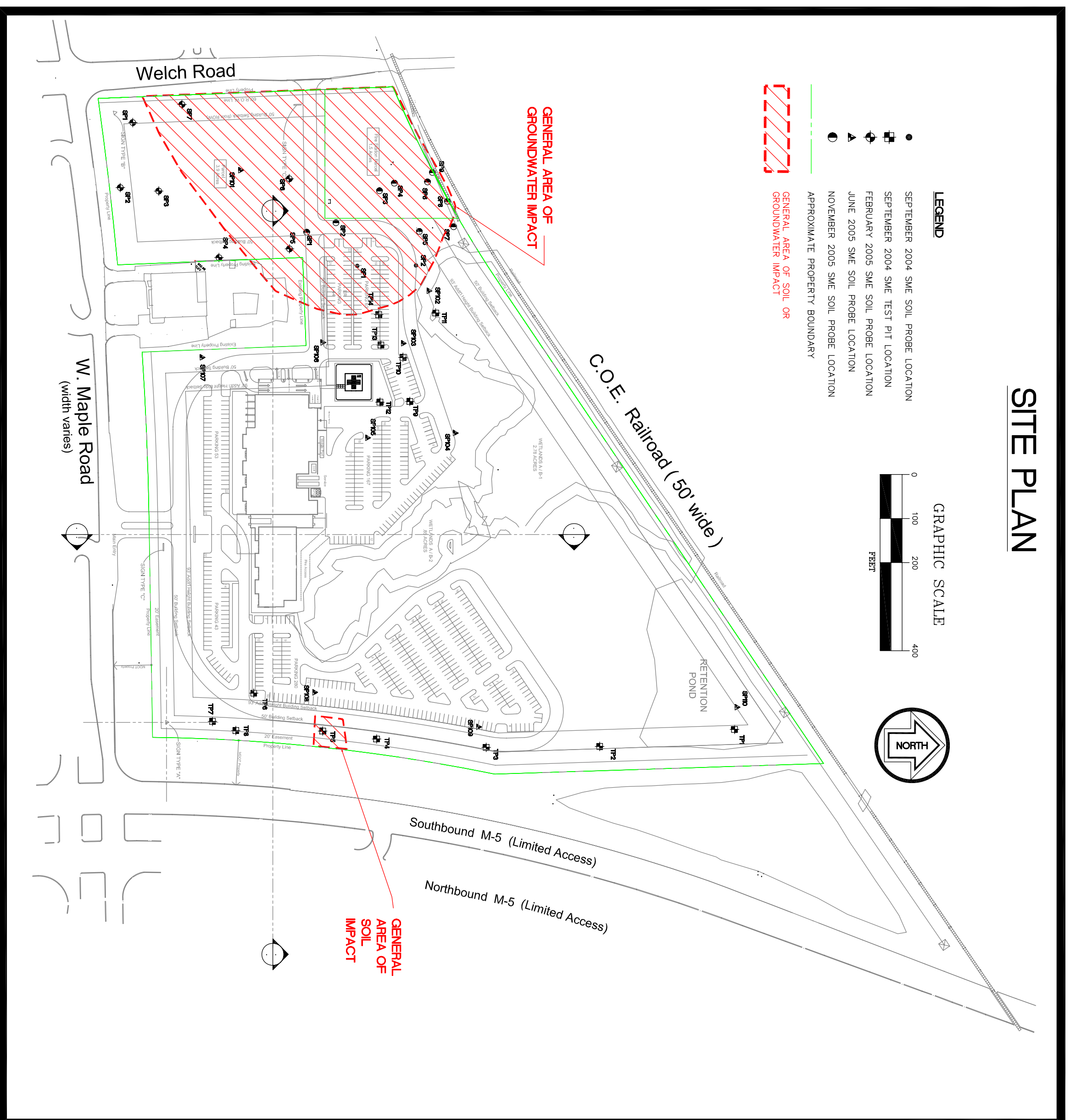


SITE PLAN



1.0 INTRODUCTION

SME has prepared this Due Care Plan for Construction to assist the Owner in exercising due care obligations at the proposed Beaumont Hospital site located at the northeast corner of Welch Road and Maple Road, Commerce Township, Michigan (the Property). Due care issues addressed by this plan include assessing potential human exposure issues and excavation activities; and delineating precautions; and implementing general earthwork precautions and work practices.

This plan provides information and guidance for the Owner and its contractors during future subsurface activities in areas where soil and groundwater may contain regulated constituents at concentrations greater than Part 201 generic residential clean-up criteria established by the Michigan Department of Environment, Energy, and Natural Resources (MDEQ). A "facility" as defined by the Environmental Protection Act, Act 451 of 1994, as amended, Part 201, Environmental Remediation. When a site is considered a "facility," due care responsibilities apply to owners and/or operators of the "site," regardless of the land use.

The Owner and its contractors should use this plan as an overview of environmental conditions and risks associated with the proposed development. The guidance provided in this plan should help to reduce the spread of contaminants on and off the site, as well as aid in reducing exposure of workers who may come in contact with the impacted soil and groundwater. **This Due Care Plan does not serve as a comprehensive health and safety plan for the site or Section 201/Q Compliance Analysis. SME does not warrant that the information and guidance provided in this plan is sufficient to ensure that the site should review this information and prepare a site specific health and safety plan.**

1.1. Project Background

SME has completed environmental and geotechnical assessments of the Property including Phase I Environmental Site Assessments (ESAs), Phase II ESAs, Baseline Environmental Assessments (BEAs), and a preliminary geotechnical evaluation. Please refer to the reports for specific information of the Property.

SME's Phase I ESAs identified several recognized environmental conditions (RECs) for the presence of 15-3000 ppm of petroleum hydrocarbons (PHCs) in soil and groundwater. Phase II ESAs consisting of soil and groundwater sampling at the Property. The Phase II ESA identified several volatile organic compounds (VOCs) in groundwater within the west portion of the Property. This drawing indicates the general area of impacted groundwater. In soil, several contaminants were identified in the west portion of the Property (1080 Welch Rd site) and along the east edge of the Property. Specifically, the following constituents were detected in soil and/or groundwater at the Property above MDEQ generic residential cleanup criteria:

- Arsenic (CAS # 7440382)
- Chromium VI (CAS # 18540299)
- Lead (CAS # 7439921)
- Naphthalene (CAS # 91203)
- Phenanthrene (CAS # 85018)
- Benzene (CAS # 71432) (CAS # 156592)
- Toluene (CAS # 79061)
- 1,2,4-trimethylbenzene (CAS # 95636)
- Vinyl chloride (CAS # 75014)

Please refer to the environmental and geotechnical reports for specific information.

ISSUED BY: CM	APPROVED BY: JL	REVISIONS
DATE: 08-23-06	PROJ. NO.: SE 52533	
DWG. NO.: S52000, S52533	DWG.	

2.2. Pathways and Applicable Criteria for Future Commercial Use

SME also compared detected concentrations at the Property to Part 201 Residential/Commercial I Criteria based on the future hospital use of the Property. Since buildings and pavement will primarily cover the Property, and city water service will be connected to the proposed development, SME determined that the most likely pathway for exposure to VOCs and other contaminants of the Property with the exception of indoor air inhalation of volatile compounds and direct contact with impacted soil.

Regarding the volatilization to indoor inhalation pathway, no exposure concerns were identified for the hospital volatilization to indoor air inhalation criteria. The Phase II ESAs identified above Part 201 residential/commercial I volatilization to indoor air inhalation criteria.

It should also be noted that although demerol contact with soil may be a relevant pathway, demerol contact with soil is not anticipated to be a complete pathway since the Property will be covered with buildings, pavement, and/or landscaping.

Please refer to Section 8 of this plan for due care responsibilities associated with future operations and use (e.g. utilities repair/installation, building additions, landscaping, etc.).

3.0 GENERAL PRECAUTIONS DURING CONSTRUCTION AND SUBSURFACE ACTIVITIES

3.1. Site Control

Access to subsurface work areas should be limited to persons who have been instructed on the provisions of this Due Care Plan. Following are recommendations for controlling access on the Property.

- All contractors and subsurface workers at the site shall be familiar with the location of existing contaminated soil and groundwater and the recommendations of this plan.
- The site manager should inform workers and contractors that may come into contact with exposure or excoriation of soil and groundwater at the Property.
- Emergency contact information shall be posted, including fire, rescue, and emergency medical care facility information at the Property.

3.2. General Work Practices

As previously discussed, other contaminants are present in soil and groundwater at the site above Part 201 Generic Residential Cleanup Criteria, indicating the Property meets the definition as a "facility". Therefore, general precautions should be taken to avoid excavation (i.e. spread) of existing soil conditions (e.g. relocating fill material). The following general work practices are recommended to reduce potential exposure and spread of contaminants on and off the Property during subsurface work activities:

- Subsurface workers shall wear appropriate gloves to reduce unnecessary dermal contact with impacted soil and groundwater.
- Perform excavation work with mechanical equipment, where practical, at areas of known impact.
- No workers shall be present in deep excavations where volatile contamination is present, or in the event unusual subsurface conditions are present, unless evaluated by an environmental professional.
- Because the Property is indicated to be a "facility," as defined by the MDEQ, reasonable efforts should be made to reduce dust conditions and tracking fill off-site.
- If groundwater or storm water is encountered during subsurface work, no water shall be pumped into storm drains, surface water bodies, sewers, or off-site without appropriate testing and permitting. See Section 4.1 for dewatering recommendations.
- In the event groundwater is encountered in utility trenches, SME shall be contacted to assess whether engineering controls are necessary to prevent migration of impacted groundwater off-site via utility trenches.
- Reasonable efforts shall be made to design and/or direct new utility lines, at depths that may encounter groundwater, from the groundwater plume area.
- Soil/fill material exhibiting evidence of impact (staining, odors, silt, etc.) shall be segregated and covered with plastic. The suspect material shall be either reused in the same location, disposed at a licensed landfill, or evaluated by an environmental professional for other possible reuse options. (See Section 4.2)

4.0 SPECIAL ENVIRONMENTAL PRECAUTIONS FOR IMPACTED AREAS

4.1. Precautions for Impacted Groundwater – Dewatering

An existing groundwater plume containing VOCs (e.g. benzene, trichloroethene, etc) was identified in the west portion of the development. This figure depicts the approximate boundary of the plume. The impacted groundwater in this area of the site was encountered at depths ranging from 11 to 18 feet below grade.

In the event subsurface work or dewatering is required within or near this groundwater plume, special precautions shall be taken to prevent potential exposure and excoriation of the existing groundwater contamination. An environmental professional shall review the proposed remediation work and dewatering activities, evaluate the potential for excoriation, and provide recommendations. The following recommendations may apply:

4.1.1. Dewatering Impacted Groundwater

If dewatering is required within the known groundwater plume area (i.e. pumping impacted groundwater):

1. Find a location within the vicinity of the proposed dewatering location that contains similar contaminants and concentration levels. Impacted groundwater can be dewatered/pumped to another location if the contaminant levels are similar.
2. Once a location is determined, excavate a dewatering pit to the groundwater table.
3. The pumped groundwater may then be dewatering into the excavated dewatering pit.

- Note, if a dewatering pit is not feasible, the groundwater will need to be contained and disposed at a licensed disposal facility.

4.1.2. Dewatering in the Vicinity of Impacted Groundwater

If significant or ongoing dewatering is required at a location where groundwater contaminants have not been detected, but the proposed dewatering is in the vicinity of a location that may affect the groundwater plume, temporary monitoring wells may be required to monitor and document possible changes with existing groundwater contamination. This determination will depend on the location of the proposed dewatering, groundwater elevation and unit, and the volume and rate of the proposed dewatering. If it is determined that the proposed dewatering may affect the groundwater flow direction or condition of the plume the following is recommended:

1. Install at least three temporary groundwater monitoring wells between the plume and the dewatering location.

2. Sample the groundwater wells prior to dewatering to establish a baseline for future sampling.
3. Sample the wells and submit the samples for rush analytical testing of VOCs. The wells should be sampled at the end of each dewatering day.
4. Interpret the analytical results and discontinue dewatering if the results indicate a change in the groundwater plume.

4.2. Precautions for Impacted Soil

Impacted soil was identified in the west portion of the Property at 1080 Welch Rd site and along the east edge of the Property. The following are recommendations to the unrestricted access of the Property, other locations of impacted soil may be encountered:

No known contaminated soil or shall be graded, excavated, or relocated at the site without an evaluation by an environmental professional. Impacted soil may be re-used on site depending on the results of the evaluation. If the soil is to be re-used on-site, the material should be evaluated by an environmental professional and/or tested for off-site disposal options.

No contaminated soil or soil exhibiting evidence of impact (i.e. unusual fill material, staining, odors, etc.) shall be graded or hauled to another location at the site.

- In the event impacted soil is encountered, the following is recommended:
 - Segregate, stockpile, and cover the impacted material with plastic.
 - Contact an environmental professional to assess and sample the material for relocation or disposal evaluation.

5.0 NOTIFICATIONS

The Owner shall provide a copy of this Due Care Plan to all subsurface workers that may come into contact with the impacted soil or groundwater, including contractors performing subsurface utility repair or installation.

Before beginning work, the Contractor shall have a plan to address the handling of the soil and groundwater at the Property. For example, if impacted soil cannot be reused on-site, landfill approval and landfill testing may need to be arranged. This process could take up to two weeks.

The Contractor shall notify the Owner and/or SME if unusual environmental conditions (i.e. staining, odors, abandoned containers, USTs, etc.), other than those identified by this plan, are encountered within the proposed building footprint. In this case, sampling may be recommended to evaluate volatilization to indoor air concerns.

An Off-site Migration of Contamination Notice does not appear to be required at this time since the existing data does not definitively conclude whether impact is migrating onto the Property, or site from the Property, an Off-site Migration of Contamination Notice will be required.

6.0 RECORD KEEPING

The following information must be recorded for impacted soil that is moved or disposed off-site, as well as any impacted groundwater that is disposed:

- The date(s) that impacted soil and/or groundwater were moved.
 - The location(s) from which impacted soil and groundwater were moved.
 - The location(s) to which impacted soil and/or groundwater were placed.
 - The volume of impacted soil and groundwater moved.
- If impacted soil or groundwater is moved off-site, Part 201 requires MDEQ notification. In this case, the above information should be disclosed to the MDEQ.

7.0 ADDITIONAL RECOMMENDATIONS

Utility Trenches

Subsurface work is encouraged in utility trenches. SME shall be contacted to assess whether engineering controls are necessary to prevent migration of impacted groundwater off-site via utility trenches. If engineering controls are necessary, SME recommends backfilling and compacting silty clay in the utility trench at the property boundary. SME recommends a 2 to 3 foot long engineering control (clay plug) along the trench.

Posting New Impacted Fill

Part 201 requires that the identified impacted area, if impacted soil from this area needs to be removed with engineered fill, refer to SME's geotechnical report for recommendations. Any undercuts of unstable fill material should be evaluated for potential disposal issues. Backfilling and undercutting shall be done in accordance with the project documents and shall be observed by the Project Geotechnical Engineer.

Other Recommendations

In addition to Due Care requirements, contractors shall follow all applicable OSHA guidelines.

8.0 FUTURE COMMERCIAL USE

A copy of the Due Care Plan shall be provided to on-site personnel that may be responsible for maintenance of the grounds, including subcontractors performing subsurface work. The maintenance personnel or contractor performing subsurface work shall be familiar with the environmental findings and due care recommendations in this plan.

SME also recommends the placement of tossal and vegetation in landscaped areas to reduce the potential for impacted soil. Although no fill concentrations were above Part 201 commercial/industrial criteria for direct contact, reasonable efforts shall be made to maintain landscaped areas and prevent exposed fill material at the Property.

9.0 GENERAL COMMENTS

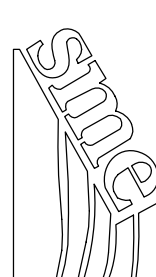
Any other operations or activities, including new construction, requiring subsurface work should be of a minimum follow the plan outlined above. This plan is based on the existing site conditions and the data obtained from soil probe locations. Please refer to the Baseline Environmental Assessment (BEA) report and geotechnical reports for additional information.

Due to historical operations, and the nature and variability of the fill, this plan should be added to, or modified, as needed depending upon conditions encountered during future subsurface activities. This plan may not be used for purposes other than the proposed project without written authorization of SME.

This plan is not designed to be a construction specification and sound construction practices should be used. Furthermore, this Due Care Plan is not a comprehensive health and safety plan. It is a Section 7a Compliance Analysis. Site conditions may be encountered which have not been addressed by this plan and the contractor shall at all times take steps to prevent excoriation of existing contamination, and to mitigate exposure to impacted soil and/or groundwater.

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PROPOSED MEDICAL FACILITY
COMMERCE TOWNSHIP, MICHIGAN

SHEET NAME

DUE CARE SHEET